



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

June 18, 2019

Mr. Greg Dangler
RMR Aggregates, Inc.
4601 DTC Blvd. Suite 130
Denver, CO 80237

RE: Mid-Continent LST, Permit No. M-1982-121, Reclamation Costs Update and Notice of Surety Increase (SI-3)

Dear Mr. Dangler:

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).

Per the MOU with the BLM, additional financial warranties may be held to meet the requirements (sufficiency) of both agencies. The BLM has additional indirect cost requirements (see BLM's June 4, 2019 letter attached). On behalf of the BLM, DRMS is issuing one Notice of Surety Increase (SI-3) for the cumulative amount, rather than requiring BLM to issue a separate bond increase.

The cumulative agency estimate to reclaim the above referenced site is \$366,179. This is an increase of \$144,098 over the \$222,081 currently held by the Division. This estimate is based on conditions observed during the April 10, 2019 inspection. ***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 **Monday, August 19, 2019**. Please review the enclosed figures as soon as possible and contact our office if any calculation errors are noted.

Please make arrangements with Gabriel Benvenuti 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 Gabriel Benvenuti.

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 303-866-3567 Ext. 8183 or via email at amy.yeldell@state.co.us



Sincerely,

A handwritten signature in blue ink that reads "Amy Yeldell". The signature is written in a cursive, flowing style.

Amy Yeldell
Environmental Protection Specialist

Ec:
Robert Wagner, RMR Aggregates, Inc.
Travis Marshall, Senior EPS, Grand Junction DRMS
Jessica Lopez Pearce, Colorado River Valley Field Office, BLM

COST SUMMARY WORK

Task description: Post inspection updated 4-10-19, SI-3

Site: Mid-Continent LST

Permit Action: 2019-04

Permit/Job#: M1982121

PROJECT IDENTIFICATION

Task #: ACY

State: Colorado

Abbreviation: None

Date: 5/1/2019

County: Garfield

Filename: M121-ACY

User: ACY

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
01a	Demo/removal of onsite facilities and structures	DEMOLISH	1	80.00	\$146,280
02a	Place loose material against highwall/grade benches	EXCAVATE	1	39.04	\$5,706
02b	Placement of topsoil on benches	EXCAVATE	1	6.24	\$913
03a	Placement of backfill against process bench highwall	LOADER	3	36.83	\$15,043
03b	Finish grading of process bench highwall	DOZER	2	24.98	\$10,415
03c	Transport topsoil to processing bench	LOADER	3	6.30	\$2,577
03d	Distribute topsoil over processing bench	DOZER	2	2.31	\$964
04b	Grade and distribute backfill to 2H:1V Slope	DOZER	2	33.59	\$14,008
04c	Transport of topsoil	LOADER	3	1.40	\$574
04d	Spread topsoil over mill pad area	DOZER	2	2.74	\$1,141
05a	Rip upper and lower access roads	RIPPER	2	1.52	\$688
06a	Reveg disturbed areas	REVEGE	1	20.00	\$35,448
07a	Initial Mobilization	MOBILIZE	1	2.53	\$7,899
07b	Secondary Mobilization	MOBILIZE	1	0.26	\$32
<u>SUBTOTALS:</u>				257.74	\$241,688

INDIRECT COSTS- DRMS**OVERHEAD AND PROFIT:**

Liability insurance:	2.02	Total =	\$4,882
Performance bond:	1.05	Total =	\$2,538
Job superintendent:	128.87	Total =	\$9,414
Profit:	10.00	Total =	\$24,169
		TOTAL O & P =	\$41,003
		CONTRACT AMOUNT (direct + O & P) =	\$282,691

LEGAL - ENGINEERING - PROJECT MANAGEMENT: (added to contract amount)

Financial warranty processing (legal/related costs):	\$500	Total =	\$500
Engineering work and/or contract/bid preparation:	7.22	Total =	\$20,410
Reclamation management and/or administration:	5.30		\$14,983
CONTINGENCY (direct cost):	3.00	Total =	\$7,251

TOTAL INDIRECT COST-DRMS = \$84,146

TOTAL BOND AMOUNT-DRMS (direct + indirect) = \$325,834

INDIRECT COSTS- BLM Additional Requirements to DRMS**OVERHEAD AND PROFIT:**

Performance bond:	0.45	Total =	\$1,088
		DRMS TOTAL O & P =	\$41,003
		BLM TOTAL O & P =	\$1,088
		CONTRACT AMOUNT (direct + O & P) =	\$283,779

LEGAL - ENGINEERING - PROJECT MANAGEMENT: (added to contract amount)

Reclamation management and/or administration:	4.7		\$13,286
BLM Indirect Cost of Rec Mgmt (\$28,269):	21.6%		\$6,106
CONTINGENCY(direct cost):	7.00	Total =	\$19,865

TOTAL INDIRECT COST-BLM = \$40,345

TOTAL INDIRECT COST-DRMS = \$84,146

TOTAL BOND AMOUNT-BLM (direct + indirect) = \$366,179

TOTAL BOND AMOUNT-DRMS (direct + indirect) = \$325,834

TOTAL BOND AMOUNT-BLM (direct + indirect) = \$366,179

DEMOLITION WORK

Task description: Demo/removal of onsite facilities and structures

Site: Mid-Continent LST

Permit Action: 2019-04

Permit/Job#: M1982121

PROJECT IDENTIFICATION

Task #: 01A

State: Colorado

Abbreviation: None

Date: 5/1/2019

County: Garfield

Filename: M121-01a

User: ACY

Agency or organization name: DRMS

UNIT COSTS

Location adjustment: 95.50 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Mill Building	30'H x 50'W x 125'L	Plant (3S) demo./off-site disposal in approved landfill - Max. 15 mile haul	187,500.00	CF	\$0.63	\$117,187.50
Mill slab	50' x 125' x 10"	Pavement, concrete, demolition only, 7 in. to 24 in. thick - Reinforced	192.00	CY	\$122.50	\$23,520.00
Mill Slab-Hauling	192 CY	Loading and 2 mile haul, no salvage - Machine loading	192.00	CY	\$17.20	\$3,302.40
Mill Slab-Hauling Additional Mileage	192 CY, 6 Mi	Hauling only, per mile, 12-18 CY truck - 30 mph average speed	64.00	MI	\$7.04	\$450.56
Mill Slab-Disposal Fee	192 CY	Dump fees - Building construction materials.	192.00	CY	\$11.10	\$2,131.20
Silo (2x)	30' H x 10' D each	Loading and 2 mile haul, no salvage - Machine loading	175.00	CY	\$17.20	\$3,010.00
Silo-Hauling Additional Mileage	175 CY, 6 Mi	Hauling only, per mile, 12-18 CY truck - 30 mph average speed	59.00	MI	\$7.04	\$415.36
Silo-Disposal Fee	175 CY	Dump fees - Building construction materials.	175.00	CY	\$11.10	\$1,942.50
Scale	30' L x 12' W	Loading and 2 mile haul, no salvage - Machine loading	27.00	CY	\$17.20	\$464.40
Scale-Hauling Additional Mileage	27 CY, 6 Mi	Hauling only, per mile, 12-18 CY truck - 30 mph average speed	12.00	MI	\$7.04	\$84.48
Scale-Disposal Fee	27 CY	Dump fees - Building construction materials.	27.00	CY	\$11.10	\$299.70
Conveyor	40' L x 24" W	Conveyor, demolition, off-site disposal in approved landfill, 15 mile haul	640.00	CF	\$0.57	\$364.80

Job Hours: 80.00

Subtotal
(unadjusted): \$153,172.90

Total Cost
(adjusted for location): \$146,280.12

HYDRAULIC EXCAVATOR WORK

Task description: Place loose material against highwall/grade benches

Site: Mid-Continent LST

Permit Action: 2019-04

Permit/Job#: M1982121

PROJECT IDENTIFICATION

Task #: 02A

State: Colorado

Abbreviation: None

Date: 5/10/2019

County: Garfield

Filename: M121-02a

User: ACY

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat 336D L 10'-6" Stick

Horsepower: 268

Attachment 1: ROPS Cab

Weight (MT): 29.30

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	<u>\$50.81</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$57.53</u>	<u>100</u>
Operator Cost/Hour:	<u>\$37.79</u>	<u>NA</u>
Total Unit Cost/Hour:	<u>\$146.13</u>	
Total Fleet Cost/Hour:	<u>\$146.13</u>	

MATERIAL QUANTITIES

Initial volume: 4,444

CCY

Swell factor: 1.000

Loose volume: 4,444

LCY

Source of estimated volume: See attached calculation

Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

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

Basic Job Condition Description: SEVERE

Secondary Job Condition within Basic Description: SEVERE

Cycle Time Value: 0.445 minutes

Load Bucket Capacity

Bucket Size Class: Medium

Rated Capacity: 2.26

LCY (heaped)

Bucket Fill Factor: 0.450

Rock - Poorly blasted (40% - 50%) 0.450

Adjusted Capacity: 1.02

LCY

Job Condition Correction Factors

Site Altitude: 6800 feet

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

Unadjusted Hourly Unit Production: 137.12 LCY/Hour

Adjusted Hourly Unit Production: 113.81 LCY/Hour

Adjusted Hourly Fleet Production: 113.81 LCY/Hour

JOB TIME AND COST

Fleet size: 1

Excavator

Total job time:

39.05

Hours

Unit cost: \$1.284

/LCY

Total job cost:

\$5,706

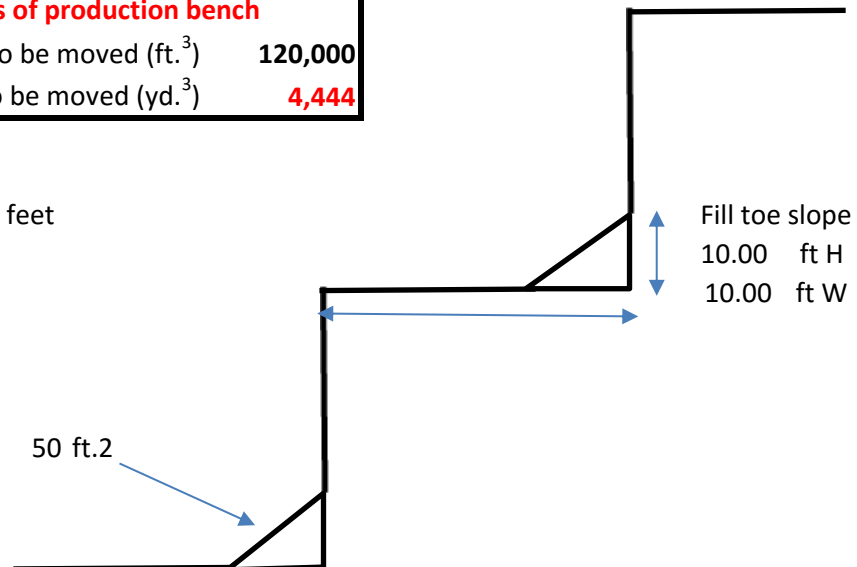
Highwall reduction - backfill

Width of the bench (ft.)	10.00
Length of Highwall (lft.)	800.00
- - - - Initial Slope	0.01 H:1V
— Desired Slope	1.00 H:1V
Volume of material to be moved (ft. ³)	40,000
Volume of material to be moved (yd. ³)	1,481

Total for 2 fill areas of production bench

Volume of material to be moved (ft. ³)	120,000
Volume of material to be moved (yd. ³)	4,444

All dimensions measured in feet
Drawing not to scale



HYDRAULIC EXCAVATOR WORK

Task description: Placement of topsoil on benches

Site: Mid-Continent LST

Permit Action: 2019-04

Permit/Job#: M1982121

PROJECT IDENTIFICATION

Task #: 02B

State: Colorado

Abbreviation: None

Date: 5/10/2019

County: Garfield

Filename: M121-02b

User: ACY

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat 336D L 10'-6" Stick

Horsepower: 268

Attachment 1: ROPS Cab

Weight (MT): 29.30

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	<u>\$50.81</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$57.53</u>	<u>100</u>
Operator Cost/Hour:	<u>\$37.79</u>	<u>NA</u>
Total Unit Cost/Hour:	<u>\$146.13</u>	
Total Fleet Cost/Hour:	<u>\$146.13</u>	

MATERIAL QUANTITIES

Initial volume: 1,333

CCY

Swell factor: 1.215

Loose volume: 1,620

LCY

Source of estimated volume: Approx. 6" on 2 benches (1.65 ac)

Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

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

Basic Job Condition Description: SEVERE

Secondary Job Condition within Basic Description: SEVERE

Cycle Time Value: 0.445 minutes

Load Bucket Capacity

Bucket Size Class: Medium

Rated Capacity: 2.26 LCY (heaped)

Bucket Fill Factor: 1.025 Rock - Earth Mixture (100%-105%) 1.025

Adjusted Capacity: 2.32 LCY

Job Condition Correction Factors

Site Altitude: 6800 feet

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

Unadjusted Hourly Unit Production: 312.34 LCY/Hour

Adjusted Hourly Unit Production: 259.24 LCY/Hour

Adjusted Hourly Fleet Production: 259.24 LCY/Hour

JOB TIME AND COST

Fleet size: 1 Excavator Total job time: 6.25 Hours

Unit cost: \$0.564 /LCY Total job cost: \$913

WHEEL LOADER – LOAD AND CARRY WORKTask description: Placement of backfill against process bench highwallSite: Mid-Continent LST Permit Action: 2019-04 Permit/Job#: M1982121**PROJECT IDENTIFICATION**

Task #: 03A State: Colorado Abbreviation: None
 Date: 5/10/2019 County: Garfield Filename: M121-03a
 User: ACY

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

Basic Machine: CAT 972H Horsepower: 287
 Attachment 1: ROPS Cab Shift Basis: 1 per day
 Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$44.67	NA
Operating Cost/Hour:	\$50.58	100
Operator Cost/Hour:	\$40.90	NA
Total Unit Cost/Hour:	\$136.15	
Total Fleet Cost/Hour:	\$408.45	

MATERIAL QUANTITIES

Initial volume: 27,778 CCY Swell factor: 1.345
 Loose volume: 37,361 LCY

Source of estimated volume: Previously accepted values TR-4
 Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTIONLoader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.525 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Bank or broken material 0.04	0.040	(Cat HB)
Stockpile:	Dumped by truck 0.02	0.020	(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:		-0.020	minutes
Adjusted Basic Cycle Time:		0.505	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:	100	0.00	5.00	5.00	0.0922	(Cat HB)
Return Route:	100	0.00	5.00	5.00	0.0832	(Cat HB)

Total Travel Time: 0.1754 minutes
 Total Cycle Time: **0.6804** minutes

Load Bucket Capacity

Rated Capacity: 5.60 LCY (heaped)
 Bucket Fill Factor: 0.825 Blasted rock - avg. blasted (75 - 90%) 0.825
 Adjusted Capacity: **4.62** LCY

Job Condition Correction Factors

Site Altitude: 6800 feet

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

Unadjusted Hourly Unit Production: 407.40 LCY/Hour
 Adjusted Hourly Unit Production: 338.14 LCY/Hour
 Adjusted Hourly Fleet Production: **1,014.42** LCY/Hour

JOB TIME AND COST

Fleet size: 3 Loader(s) Total job time: **36.83** Hours
 Unit cost: \$0.403 /LCY Total job cost: **\$15,043**

BULLDOZER WORKTask description: **Finish grading of process bench highwall**Site: **Mid-Continent LST**Permit Action: 2019-04Permit/Job#: M1982121**PROJECT IDENTIFICATION**Task #: 03BState: ColoradoAbbreviation: NoneDate: 5/10/2019County: GarfieldFilename: M121-03bUser: ACYAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D8T - 8SUHorsepower: 310Blade Type: Semi-UniversalAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$93.62	NA
Operating Cost/Hour:	\$73.35	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.52	NA

Total unit Cost/Hour: \$208.49Total Fleet Cost/Hour: **\$416.99****MATERIAL QUANTITIES**Initial Volume: 10,000Swell factor: 1.000Loose volume: **10,000 LCY**Source of estimated volume: Approx 1/3 of previously transported materialSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 100 feetUnadjusted hourly production: 852.6 LCY/hrMaterials consistency description: Rock, well ripped or blasted 0.8Average push gradient: 15 %Average site altitude: 6,800 feetMaterial weight: 2,600 lbs/LCYWeight description: Limestone - Broken**Job Condition Correction Factor**

		<u>Source</u>
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:	0.666	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.885	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.2348

Adjusted unit production: 200.19 LCY/hr

Adjusted fleet production: **400.38** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)

Unit cost: \$1.041/LCY

Total job time: **24.98** Hours

Total job cost: **\$10,415**

WHEEL LOADER – LOAD AND CARRY WORKTask description: Transport topsoil to processing benchSite: Mid-Continent LSTPermit Action: 2019-04Permit/Job#: M1982121**PROJECT IDENTIFICATION**Task #: 03CState: ColoradoAbbreviation: NoneDate: 5/10/2019County: GarfieldFilename: M121-03cUser: ACYAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: CAT 972HAttachment 1: ROPS CabHorsepower: 287Shift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		Utilization %
Ownership Cost/Hour:	\$44.67	NA
Operating Cost/Hour:	\$50.58	100
Operator Cost/Hour:	\$40.90	NA
Total Unit Cost/Hour:	\$136.15	
Total Fleet Cost/Hour:	\$408.45	

MATERIAL QUANTITIESInitial volume: 2,218

CCY

Swell factor: 1.215Loose volume: 2,695

LCY

Source of estimated volume: (150' W x 800' L) 2.75 ac. @ 6" ThickSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Loader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.525 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 1/8" to 3/4" diameter -0.02	-0.020	(Cat HB)
Stockpile:	Dumped by truck 0.02	0.020	(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 Basic Cycle Time:		0.445	minutes

Rolling Resistance – Road ConditionsHaul: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0Return: 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:	500	0.00	5.00	5.00	0.4611	(Cat HB)
Return Route:	500	0.00	5.00	5.00	0.4160	(Cat HB)

Total Travel Time: 0.8771 minutes
 Total Cycle Time: 1.3221 minutes

Load Bucket Capacity

Rated Capacity: 5.60 LCY (heaped)
 Bucket Fill Factor: 0.675 Rock - Well blasted (60% - 75%) 0.675
 Adjusted Capacity: 3.78 LCY

Job Condition Correction Factors

Site Altitude: 6800 feet

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

Unadjusted Hourly Unit Production: 171.55 LCY/Hour
 Adjusted Hourly Unit Production: 142.38 LCY/Hour
 Adjusted Hourly Fleet Production: 427.15 LCY/Hour

JOB TIME AND COST

Fleet size: 3 Loader(s) Total job time: 6.31 Hours
 Unit cost: \$0.956 /LCY Total job cost: \$2,577

BULLDOZER WORKTask description: **Distribute topsoil over processing bench**Site: **Mid-Continent LST** Permit Action: **2019-04** Permit/Job#: **M1982121****PROJECT IDENTIFICATION**

Task #: **03D** State: **Colorado** Abbreviation: **None**
 Date: **5/10/2019** County: **Garfield** Filename: **M121-03d**
 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:	\$93.62	NA
Operating Cost/Hour:	\$73.35	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.52	NA

Total unit Cost/Hour: **\$208.49**
 Total Fleet Cost/Hour: **\$416.99**

MATERIAL QUANTITIES

Initial Volume: **2,695**
 Swell factor: **1.000**
 Loose volume: **2,695 LCY**

Source of estimated volume: **Transported volume of 03c**
 Source of estimated swell factor: **Cat Handbook**

HOURLY PRODUCTION

Average push distance: **50 feet**
 Unadjusted hourly production: **1,400.0 LCY/hr**

Materials consistency description: **Loose stockpile 1.2**

Average push gradient: **0 %**
 Average site altitude: **6,800 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:	1.200	(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: 0.4165

Adjusted unit production: 583.10 LCY/hr

Adjusted fleet production: **1166.2 LCY/hr**

JOB TIME AND COST

Fleet size: 2 Dozer(s)

Unit cost: \$0.358/LCY

Total job time: **2.31** Hours

Total job cost: **\$964**

BULLDOZER WORKTask description: **Grade and distribute backfill to 2H:1V Slope**Site: **Mid-Continent LST** Permit Action: 2019-04 Permit/Job#: M1982121**PROJECT IDENTIFICATION**

Task #: 04B State: Colorado Abbreviation: None
 Date: 5/10/2019 County: Garfield Filename: M121-04b
 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>\$93.62</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$73.35</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>\$41.52</u>	<u>NA</u>

Total unit Cost/Hour: \$208.49
 Total Fleet Cost/Hour: **\$416.99**

MATERIAL QUANTITIES

Initial Volume: 10,000
 Swell factor: 1.345
 Loose volume: **13,450 LCY**

Source of estimated volume: Staff Estimates
 Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

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

Materials consistency description: Rock, well ripped or blasted 0.8

Average push gradient: 15 %
 Average site altitude: 6,800 feet

Material weight: 2,600 lbs/LCYWeight description: Limestone - Broken**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	<u>0.750</u>	<u>(AVG.)</u>
Material consistency:	<u>0.800</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:	0.666	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.885	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.2348

Adjusted unit production: 200.19 LCY/hr

Adjusted fleet production: **400.38** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)

Unit cost: \$1.041/LCY

Total job time: **33.59** Hours

Total job cost: **\$14,008**

WHEEL LOADER – LOAD AND CARRY WORKTask description: Transport of topsoilSite: Mid-Continent LSTPermit Action: 2019-04Permit/Job#: M1982121**PROJECT IDENTIFICATION**Task #: 04CState: ColoradoAbbreviation: NoneDate: 5/10/2019County: GarfieldFilename: M121-04cUser: ACYAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: CAT 972HAttachment 1: ROPS CabHorsepower: 287Shift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		Utilization %
Ownership Cost/Hour:	\$44.67	NA
Operating Cost/Hour:	\$50.58	100
Operator Cost/Hour:	\$40.90	NA
Total Unit Cost/Hour:	\$136.15	
Total Fleet Cost/Hour:	\$408.45	

MATERIAL QUANTITIESInitial volume: 1,600

CCY

Swell factor: 1.215Loose volume: 1,944

LCY

Source of estimated volume: 2 ac. @ 6" DeepSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Loader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.525 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material 1/8" to 3/4" diameter -0.02	-0.020	(Cat HB)
Stockpile:	Dumped by truck 0.02	0.020	(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 Basic Cycle Time:		0.445	minutes

Rolling Resistance – Road ConditionsHaul: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0Return: 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:	100	0.00	5.00	5.00	0.0922	(Cat HB)
Return Route:	100	0.00	5.00	5.00	0.0832	(Cat HB)

Total Travel Time: 0.1754 minutes
 Total Cycle Time: **0.6204** minutes

Load Bucket Capacity

Rated Capacity:	<u>5.60</u>	LCY (heaped)
Bucket Fill Factor:	<u>1.025</u>	Rock - Earth Mixture (100%-105%) 1.025
Adjusted Capacity:	<u>5.74</u>	LCY

Job Condition Correction FactorsSite Altitude: 6800 feet

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

Unadjusted Hourly Unit Production:	<u>555.11</u>	LCY/Hour
Adjusted Hourly Unit Production:	<u>460.74</u>	LCY/Hour
Adjusted Hourly Fleet Production:	<u>1,382.23</u>	LCY/Hour

JOB TIME AND COST

Fleet size:	<u>3</u>	Loader(s)	Total job time:	<u>1.41</u>	Hours
Unit cost:	<u>\$0.296</u>	/LCY	Total job cost:	<u>\$574</u>	

BULLDOZER WORKTask description: Spread topsoil over mill pad areaSite: Mid-Continent LSTPermit Action: 2019-04Permit/Job#: M1982121**PROJECT IDENTIFICATION**Task #: 04DState: ColoradoAbbreviation: NoneDate: 5/10/2019County: GarfieldFilename: M121-04dUser: ACYAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D8T - 8SUHorsepower: 310Blade Type: Semi-UniversalAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$93.62	NA
Operating Cost/Hour:	\$73.35	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.52	NA

Total unit Cost/Hour: \$208.49Total Fleet Cost/Hour: **\$416.99****MATERIAL QUANTITIES**Initial Volume: 1,944Swell factor: 1.000Loose volume: **1,944** LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 100 feetUnadjusted hourly production: 852.6 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: 0 %Average site altitude: 6,800 feetMaterial weight: 3,300 lbs/LCYWeight description: Decomposed rock - 75% Rock, 25% Earth**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(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:	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: 0.4165

Adjusted unit production: 355.11 LCY/hr

Adjusted fleet production: **710.22** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)

Unit cost: \$0.587/LCY

Total job time: **2.74** Hours

Total job cost: **\$1,141**

BULLDOZER RIPPING WORK

Task description: Rip upper and lower access roads

Site: Mid-Continent LST Permit Action: 2019-04 Permit/Job#: M1982121

PROJECT IDENTIFICATION

Task #: 05A State: Colorado Abbreviation: None
Date: 5/10/2019 County: Garfield Filename: M121-05a
User: ACY

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D8T - 8SU Horsepower: 310
Ripper Attachment: 3-Shank Ripper Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	<u>\$93.62</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$73.35</u>	<u>100</u>
Ripper Ownership Cost/Hour:	<u>\$8.93</u>	<u>NA</u>
Ripper Operating Cost/Hour:	<u>\$7.78</u>	<u>100</u>
Operator Cost/Hour:	<u>\$41.52</u>	<u>NA</u>
Total Unit Cost/Hour:	<u>\$225.20</u>	
Total Fleet Cost/Hour:	<u>\$450.40</u>	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 2.00 acres Rip Depth (ft): 2.00 Volume: 6,453 BCY or CCY

Source of estimated quantity: Field Estimates

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	<u>2.56</u>	<u>feet/pass</u>
Average Ripping Width:	<u>7.08</u>	<u>feet/pass</u>
Average Ripping Length:	<u>250.00</u>	<u>feet/pass</u>
Average Dozer Speed:	<u>88.00</u>	<u>feet/minute</u>
Average Maneuver Time:	<u>0.25</u>	<u>minutes/pass</u>
Production per unit area:	<u>0.789</u>	<u>acres/hour</u>

Job Condition Correction Factors

Unadjusted Hourly Unit Production:	<u>0.789</u>	<u>Acres/hr</u>
Site Altitude:	<u>6,800</u>	<u>feet</u>
Altitude Adj:	<u>1.00</u>	<u>(CAT HB)</u>
Job Efficiency:	<u>0.83</u>	<u>(1 shift/day)</u>
Net Correction:	<u>0.83</u>	<u>multiplier</u>

Adjusted Hourly Unit Production: 0.65 Acres/hr
Adjusted Hourly Fleet Production: 1.31 Acres/hr

JOB TIME AND COST

Fleet size: 2 Grader(s) Total job time: 1.53 Hours

Unit cost: \$343.985 Per acre Total job cost: \$688

REVEGETATION WORKTask description: Reveg disturbed areasSite: Mid-Continent LSTPermit Action: 2019-04Permit/Job#: M1982121**PROJECT IDENTIFICATION**Task #: 06AState: ColoradoAbbreviation: NoneDate: 5/10/2019County: GarfieldFilename: M121-06aUser: ACYAgency or organization name: DRMS**FERTILIZING****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
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
Indian Ricegrass - Native	10.00	32.37	\$70.00
Mountain Brome - Bromar	10.00	16.07	\$44.50
Kentucky Bluegrass - Lato	10.00	493.57	\$29.40
Milk Vetch, Cicer - Lutana	10.00	33.29	\$84.00
Thurber's Fescue	10.00	103.31	\$629.00
Western Wheatgrass - Native	10.00	25.25	\$71.70
Totals Seed Mix	60.00	703.86	\$928.60

Application

Description	Cost /Acre
Hydro seeding (MEANS 32 92 19.14 0200)	\$919.12
Total Seed Application Cost/Acre	\$919.12

MULCHING and MISCELLANEOUS**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - 2,4D @ 1.0 pt/ac	1.00	ACRE	\$2.81	\$2.81
Hydromulch tackifier, >15 ac. {Materials Only}	1.00	ACRE	\$496.58	\$496.58
Total Mulch Materials Cost/Acre				\$499.39

Application

Description	Cost /Acre
Hydromulching (MEANS 32 92 19.13 1100)	\$629.20
Weed spray, truck, non-aquatic areas, ann. [DMG]	\$23.91
Total Mulch Application Cost/Acre	\$653.11

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
Fir, Douglas	44	Tubling, 3 cu. in. container (MEANS)	\$1.17	\$2.40	\$51.48
Oak, Gambel's	50	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.18	\$0.00	\$109.00
Serviceberry	50	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.18	\$0.00	\$109.00
Totals Nursery Stock Cost / Acre					\$269.48

JOB TIME AND COST

No. of Acres: 8.4 Cost /Acre: \$3,375.99
 Estimated Failure Rate: 25% Cost /Acre*: \$3,375.99
 *Selected Replanting Work Items: TILLING,SEEDING,NURSERY,MULC
HING

Initial Job Cost: \$28,358.32
 Reseeding Job Cost: \$7,089.58
 Total Job Cost: \$35,448
 Job Hours: 20.00

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Initial Mobilization**Site: **Mid-Continent LST**Permit Action: **2019-04**Permit/Job#: **M1982121****PROJECT IDENTIFICATION**Task #: **07A**State: **Colorado**Abbreviation: **None**Date: **5/10/2019**County: **Garfield**Filename: **M121-07a**User: **ACY**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:	\$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 336D L 10'-6" Stick	32.23	\$50.81	\$117.55	1	\$168.36	\$117.55	\$250.00
CAT 972H	28.00	\$44.67	\$117.55	3	\$486.66	\$352.65	\$500.00
Cat D8T - 8SU	53.08	\$102.55	\$125.45	2	\$456.00	\$250.90	\$500.00
Broderon IC-200-2F, 45', 13.6MT	8.68	\$15.37	\$88.67	1	\$104.04	\$88.67	\$250.00
Grove RT650E, 105', 45.4 MT	28.74	\$49.93	\$117.55	1	\$167.48	\$117.55	\$250.00
CAT 973D	29.07	\$60.01	\$117.55	1	\$177.56	\$117.55	\$250.00

Subtotals: **\$1,560.10** **\$1,044.87** **\$2,000.00****ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Hydroseeder with Tractor	\$73.49	1	\$73.49	\$73.49
Light Duty Pickup, 4x4, 1 T. Crew	\$47.19	1	\$47.19	\$47.19
Generic 12-18 cy, 6x4	\$97.40	2	\$194.80	\$194.80

Subtotals: **\$315.48** **\$315.48**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>GLENWOOD SPRINGS</u>	
Total one-way travel distance:	<u>2.00</u>	miles
Average Travel Speed:	<u>15.00</u>	mph
Total Non-Roadable Mob/Demob Cost *	<u>\$7,814.86</u>	
'* two round trips with haul rig:		
Total Roadable Mob/Demob Cost **	<u>\$84.13</u>	
** one round trip, no haul rig:		

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>0.13</u>	<u>0.13</u>
Return Time (Hours):	<u>0.13</u>	<u>0.13</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>1.27</u>	<u>0.27</u>

JOB TIME AND COST

Total job time:	<u>2.53</u>	Hours
Total job cost:	<u>\$7,899</u>	

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Secondary Mobilization**Site: **Mid-Continent LST**Permit Action: **2019-04**Permit/Job#: **M1982121****PROJECT IDENTIFICATION**Task #: **07B**State: **Colorado**Abbreviation: **None**Date: **5/10/2019**County: **Garfield**Filename: **M121-07b**User: **ACY**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:	\$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
Subtotals:					\$0.00	\$0.00	\$0.00

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Hydroseeder with Tractor	\$73.49	1	\$73.49	\$73.49
Light Duty Pickup, 4x4, 1 T. Crew	\$47.19	1	\$47.19	\$47.19
Subtotals:			\$120.68	\$120.68

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>GLENWOOD SPRINGS</u>	
Total one-way travel distance:	<u>2.00</u>	miles
Average Travel Speed:	<u>15.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$0.00</u>
'* two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$32.18</u>
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>0.13</u>	<u>0.13</u>
Return Time (Hours):	<u>0.13</u>	<u>0.13</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>1.27</u>	<u>0.27</u>

JOB TIME AND COST

Total job time: 0.27 Hours

Total job cost: \$32



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

1313 Sherman Street, Room 215
Denver, CO 80203

June 17, 2019

RE: Mid-Continent LST, Permit No. M-1982-121, SI-3 Reclamation Cost Estimate

Dear Mr. Dangler:

This reclamation cost update was in response to the site inspection conducted on April 10, 2019. It is Division policy to periodically update its costs to ensure that the Financial Warranty adequately reflects the actual current cost of fulfilling the requirements of the approved reclamation plan.

Below is a table summarizing input values that have been updated. This table does not account for price changes resulting from inflation or other RS Means cost changes. Bond calculations are based on a combination of field observations and worst case scenario based on the approved reclamation permit.

DRMS Requirements

Task	Form Used	Change	Justification
02a	Excavator	+	Updated highwall length 600 to 800 LF, 2 benches instead of 3.
02b	Excavator	-	Changed material from topsoil to Earth/Rock Mixture (more representative).
03a	Loader		No Changes
03b	Dozer		No Changes
03c	Loader	+	Updated processing bench dimensions 150' W x 800' L is 2.75ac. Changed material from topsoil to Earth/Rock Mixture (more representative).
03d	Dozer	+	Updated transported LCY volumes from 03c
04a	Loader	-	Removed need to transport backfill material
04b	Dozer	-	Minor grading of existing highwall



04c	Loader	+	Changed material from topsoil to Earth/Rock Mixture (more representative).
04d	Dozer	+	Updated material type and LCY transported volume
05a	Ripper		No Changes
07a	Mob	+	Additional equipment to dismantle, load and haul structures
07b	Mob		No Changes
06a	Reveg	+	Updated acreages, larger processing bench 8 ac to 8.4 ac
TR-5	Borehole	-	Removed-Tasks completed
Indirect		+	3% Contingency added to help meet BLM requirements

Additional BLM Requirements

Task	Form Used	Change	Justification
01a	Demo	+	Per BLM on-site disposal of metal structures is not authorized on Federal Lands. Mill building, Silos, Scale, Convey and associated concrete slabs have been changed from on-site disposal in excavated pit to off-site disposal in approved landfill. Haul distance is approx. 8 miles to South Canyon Garfield County Landfill. Additional mileage and disposal fees have been included where CIRCES item is not inclusive.
	Demo	+	Additional Job Hours added for dismantling, loading and hauling of materials.
06a	Reveg	+	Per BLM added Fir planting requirement. 1 tree per 1000 sq ft (8.4 ac of reveg= 365,904 sq ft / 1000 sq ft = 365.9 trees / 8.4 ac = 43.56 trees per ac)
Indirect		+	10% Contingency required, DRMS holds 3%, add 7% per BLM
			10% Contractor Profit, DRMS requires 10% amount sufficient
			1.5% Contractor Liability, DRMS requires 2.02% amount sufficient
		+	10% Contract Administration (engineering bid-prep), DRMS requires 5.3%, add 4.7%

	+	21.6% BLM Contract Administration, not required by DRMS, add 21.6% of reclamation management and/or administration cost for BLM
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Please feel free to contact me with any further questions. 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
Department of Natural Resources
Division of Reclamation, Mining and Safety
Phone: (970) 254-8511
Fax: (970) 241-1516

Ec:
Travis Marshall, Senior EPS, Grand Junction DRMS
Jessica Lopez Pearce, BLM



United States Department of the Interior
BUREAU OF LAND MANAGEMENT
COLORADO RIVER VALLEY FIELD OFFICE
2300 River Frontage Road
Silt, CO 81652
www.blm.gov



June 4, 2019

In Reply Refer To:
COC-074205 (CON040)

Amy Yeldell
Colorado Division of Reclamation, Mining and Safety
101 S. 3rd Street, Suite 301
Grand Junction, CO 81501

Dear Ms. Yeldell,

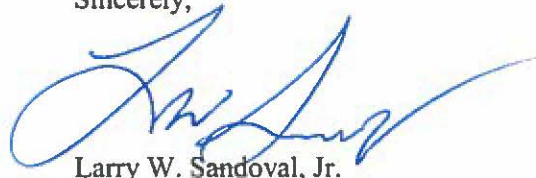
An administrative error was discovered with BLM's previous reclamation cost estimate indirect cost requirements after our May 23, 2019 letter to you. Please refer to the corrected indirect cost requirements below:

1. Per the BLM Solid Minerals Handbook H-3809-1, the following indirect costs are required in the reclamation cost estimate:
 - a. Engineering, design, and construction plan: 8% of estimated reclamation operation and maintenance costs
 - i. DRMS has documented 7.22% of the direct plus overhead and profit costs. While the agencies' percentage rates are different, the costs upon which the rates are calculated are different and the difference are minor. This is acceptable.
 - b. **Contingency:** 10% of estimated reclamation operation and maintenance costs
 - i. DRMS has documented 3% of direct costs. **This figure must be increased to 10%.**
 - c. Contractor Profit: 10% of estimated reclamation operation and maintenance costs
 - i. DRMS has documented 10% of direct costs. This is acceptable.
 - d. Liability Insurance: 1.5% of the total labor costs
 - i. DRMS has documented 2.02% of total costs. This is acceptable.
 - e. **Performance and Payment Bond:** 1.5% of the estimated contract cost
 - i. DRMS has documented 1.05% for a performance bond. **This indirect rate must be increased to 1.5% of the estimated contract cost.**
 - f. **BLM Contract Administration:** 10% of the estimated reclamation operation and maintenance costs
 - i. DRMS has documented 5.3% for reclamation management and/or administration. **This indirect rate must be increased to 10%.**
 - g. **BLM Indirect Cost:** 21.6% of the BLM contract administration costs
 - i. DRMS does not have this documented in the reclamation cost estimate. **Please include this indirect cost as 21.6% of the reclamation management and/or administration costs.**

The addition of spruce or fir seedlings at a rate of ten (10) seedlings per 1,000 square feet of reclaimed bench remains a BLM requirement of the reclamation cost estimate.

If you have any questions or concerns, please contact Jessica Lopez Pearce, Geologist, at (970) 876-9018 or jlopezpearce@blm.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Larry W. Sandoval, Jr.", with a large, stylized initial "L" and a long, sweeping horizontal stroke extending to the right.

Larry W. Sandoval, Jr.
Field Manager