

STATE OF COLORADO

DIVISION OF RECLAMATION, MINING AND SAFETY

Department of Natural Resources

1313 Sherman St., Room 215

Denver, Colorado 80203

Phone: (303) 866-3567

FAX: (303) 832-8106



John W. Hickenlooper
Governor

Mike King
Executive Director

Loretta E. Piñeda
Director

April 9, 2014

Andrea Holley
H & H Stone
P.O. Box 246
Dove Creek, CO 81324

Re: H & H Quarry #2, Permit No. M-1998-080, Financial Warranty Increase, Revision No. SI-1

Dear Holley:

On April 9, 2014 the Division of Reclamation, Mining and Safety increased the current Financial Warranty for this permit to \$18,206.33, in accordance with Rule 4.2.1 of the Rules and Regulations. This is an increase of \$11,859.33.

The Division ordered amendment of the current Financial Warranty, or submittal of a new Financial Warranty reflecting the increase, within 60 days from the date of this letter. If you wish to submit a different type of Financial Warranty, please contact me such that I may send you the applicable form.

If you have any questions, please contact me at (970) 259-5861.

Sincerely,

Kate A. Pickford
Environmental Protection Specialist

COST SUMMARY WORK

Task description: _____

Site: H & H Quarry #2

Permit Action: 2014 Inspection
A

Permit/Job#: M1998080

PROJECT IDENTIFICATION

Task #: 00A

State: Colorado

Abbreviation: None

Date: 3/18/2014

County: Dolores

Filename: M080-00A

User: KAP

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
01A	Push material from upper level	DOZER	1	1.14	\$293.04
02A	Push material from lower level	DOZER	1	20.46	\$5,275.66
03A	Push material from lower level to base of highwall	DOZER	1	7.53	\$1,943.01
04A	Rip Pit Floor	RIPPER	1	3.63	\$967.00
05A	Replace topsoil on disturbed area	DOZER	1	4.53	\$1,167.52
06A	Revegetation	REVEGE	1	5.00	\$3,419.96
07A	Mobilize	MOBILIZE	1	3.28	\$1,023.44
08A	Pull back stockpiled sandstone rubble from edge	EXCAVATE	1	13.56	\$1,107.00
<u>SUBTOTALS:</u>				59.13	\$15,196.63

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 0.00%

Total = \$0.00

Performance bond: 0.00%

Total = \$0.00

Job superintendent: 22.78 hrs

Total = \$1,490.04

Profit: 10.00%

Total = \$1,519.66

TOTAL O & P = \$3,009.70

CONTRACT AMOUNT (direct + O & P) = \$18,206.33

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: 0.00%

\$0.00

CONTINGENCY: 0.00

Total = \$0.00

TOTAL INDIRECT COST = \$3,009.70

TOTAL BOND AMOUNT (direct + indirect) = \$18,206.33

BULLDOZER WORKTask description: Push material from upper levelSite: H & H Quarry #2Permit Action: 2014 Inspection APermit/Job#: M1998080**PROJECT IDENTIFICATION**Task #: 01AState: ColoradoAbbreviation: NoneDate: 3/18/2014County: DoloresFilename: M080-01AUser: KAPAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D9T - 9SUHorsepower: 405Blade Type: Semi-UniversalAttachment: 3-shank ripperShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$78.33	NA
Operating Cost/Hour:	\$142.13	100
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$37.41	NA

Total unit Cost/Hour: \$257.87Total Fleet Cost/Hour: \$257.87**MATERIAL QUANTITIES**Initial Volume: 711Swell factor: 1.667Loose volume: 1,185 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feetUnadjusted hourly production: 2,110.5 LCY/hrMaterials consistency description: Rock, well ripped or blasted 0.8Average push gradient: 0 %Average site altitude: 6,800 feetMaterial weight: 2,550 lbs/LCYWeight description: Sandstone**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	0.800	(CAT HB)
Dozing method:	1.100	(50% SL)

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:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4941

Adjusted unit production: 1,042.80 LCY/hr

Adjusted fleet production: 1042.8 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
 Unit cost: \$0.247/LCY

Total job time: 1.14 Hours
 Total job cost: \$293.04

BULLDOZER WORKTask description: Push material from lower levelSite: H & H Quarry #2Permit Action: 2014 Inspection APermit/Job#: M1998080PROJECT IDENTIFICATIONTask #: 02AState: ColoradoAbbreviation: NoneDate: 3/18/2014County: DoloresFilename: M080-02AUser: KAPAgency or organization name: DRMSHOURLY EQUIPMENT COSTBasic Machine: Cat D9T - 9SUHorsepower: 405Blade Type: Semi-UniversalAttachment: 3-shank ripperShift Basis: 1 per dayData Source: (CRG)Cost Breakdown:

		<u>Utilization %</u>
Ownership Cost/Hour:	\$78.33	NA
Operating Cost/Hour:	\$142.13	100
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$37.41	NA

Total unit Cost/Hour: \$257.87Total Fleet Cost/Hour: \$257.87MATERIAL QUANTITIESInitial Volume: 6,304Swell factor: 1.667Loose volume: 10,507 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat HandbookHOURLY PRODUCTIONAverage push distance: 70 feetUnadjusted hourly production: 1,633.5 LCY/hrMaterials consistency description: Rock, avg. ripped or blasted 0.7Average push gradient: 0 %Average site altitude: 6,800 feetMaterial weight: 2,550 lbs/LCYWeight description: SandstoneJob Condition Correction Factor

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	0.700	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3144

Adjusted unit production: 513.57 LCY/hr

Adjusted fleet production: 513.57 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
 Unit cost: \$0.502/LCY

Total job time: 20.46 Hours
 Total job cost: \$5,275.66

BULLDOZER WORKTask description: Push material from lower level to base of highwallSite: H & H Quarry #2Permit Action: 2014 Inspection APermit/Job#: M1998080**PROJECT IDENTIFICATION**Task #: 03AState: ColoradoAbbreviation: NoneDate: 3/18/2014County: DoloresFilename: M080-03AUser: KAPAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D9T - 9SUHorsepower: 405Blade Type: Semi-UniversalAttachment: 3-shank ripperShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$78.33</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$142.13</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: \$257.87Total Fleet Cost/Hour: \$257.87**MATERIAL QUANTITIES**Initial Volume: 1,767Swell factor: 1.667Loose volume: 2,945 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 100 feetUnadjusted hourly production: 1,243.2 LCY/hrMaterials consistency description: Rock, avg. ripped or blasted 0.7Average push gradient: 0 %Average site altitude: 6,800 feetMaterial weight: 2,550 lbs/LCYWeight description: Sandstone**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	<u>0.750</u>	<u>(AVG.)</u>
Material consistency:	<u>0.700</u>	<u>(CAT HB)</u>
Dozing method:	<u>1.000</u>	<u>(GEN.)</u>

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3144

Adjusted unit production: 390.86 LCY/hr

Adjusted fleet production: 390.86 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.660/LCY

Total job time: 7.53 Hours

Total job cost: \$1,943.01

BULLDOZER RIPPING WORK

Task description: Rip Pit Floor

Site: H & H Quarry #2 Permit Action: 2014 Inspection A Permit/Job#: M1998080

PROJECT IDENTIFICATION

Task #: 04A State: Colorado Abbreviation: None
Date: 3/18/2014 County: Dolores Filename: M080-04A
User: KAP

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D9T - 9SU Horsepower: 405
Ripper Attachment: 3-Shank Ripper Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	<u>\$78.33</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$142.13</u>	<u>100</u>
Ripper Operating Cost/Hour:	<u>\$7.96</u>	<u>100</u>
Operator Cost/Hour:	<u>\$37.41</u>	<u>NA</u>
Total Unit Cost/Hour:	<u>\$265.84</u>	
Total Fleet Cost/Hour:	<u>\$265.84</u>	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 2.30 acres Rip Depth (ft): 2.00 Volume: 7,421 BCY or CCY

Source of estimated quantity: 3 ac. pit area minus backfilled highwall

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	<u>2.63</u>	<u>mph</u>
Average Ripping Width:	<u>7.67</u>	<u>degrees</u>
Average Ripping Length:	<u>100.00</u>	<u>feet</u>
Average Dozer Speed:	<u>88.00</u>	<u>feet</u>
Average Maneuver Time:	<u>0.25</u>	<u>feet</u>
Production per unit area:	<u>0.762</u>	<u>acres/hour</u>

Job Condition Correction Factors

Unadjusted Hourly Unit Production:	<u>0.762</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: 0.63 Acres/hr
Adjusted Hourly Fleet Production: 0.63 Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 3.64 Hours

Unit cost: \$420.301 Per acre Total job cost: \$967.00

BULLDOZER WORKTask description: Replace topsoil on disturbed areaSite: H & H Quarry #2Permit Action: 2014 Inspection APermit/Job#: M1998080PROJECT IDENTIFICATIONTask #: 05A
Date: 3/18/2014
User: KAPState: Colorado
County: DoloresAbbreviation: None
Filename: M080-05AAgency or organization name: DRMSHOURLY EQUIPMENT COSTBasic Machine: Cat D9T - 9SU
Horsepower: 405
Blade Type: Semi-Universal
Attachment: 3-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)Cost Breakdown:

		<u>Utilization %</u>
Ownership Cost/Hour:	\$78.33	NA
Operating Cost/Hour:	\$142.13	100
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$37.41	NA
Total unit Cost/Hour:	\$257.87	
Total Fleet Cost/Hour:	\$257.87	

MATERIAL QUANTITIESInitial Volume: 3,090
Swell factor: 1.125
Loose volume: 3,476 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat HandbookHOURLY PRODUCTIONAverage push distance: 100 feet
Unadjusted hourly production: 1,243.2 LCY/hrMaterials consistency description: Consolidated stockpile 1.0Average push gradient: 0 %
Average site altitude: 6,800 feetMaterial weight: 2,550 lbs/LCYWeight description: Earth - Dry packedJob Condition Correction Factor

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.100	(50% SL)

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:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.6176

Adjusted unit production: 767.80 LCY/hr

Adjusted fleet production: 767.8 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
 Unit cost: \$0.336/LCY

Total job time: 4.53 Hours
 Total job cost: \$1,167.52

REVEGETATION WORKTask description: RevegetationSite: H & H Quarry #2Permit Action: 2014 Inspection APermit/Job#: M1998080**PROJECT IDENTIFICATION**Task #: 06AState: ColoradoAbbreviation: NoneDate: 3/18/2014County: DoloresFilename: M080-06AUser: KAPAgency 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
Chisel plowing {DMG}	\$88.58
Total Tilling Cost/Acre	\$88.58

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Paloma	4.00	12.95	\$34.84
Sand Dropseed	1.00	119.38	\$6.98
Sainfoin - Eski	1.00	0.44	\$2.51
Totals Seed Mix	6.00	132.76	\$44.33

Application

Description	Cost /Acre
Drill seeding (DRMS Cost Data)	\$88.20

Total Seed Application Cost/Acre	\$88.20
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MULCHING and MISCELLANEOUS**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$265.00	\$530.00
Total Mulch Materials Cost/Acre				\$530.00

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$65.89
Total Mulch Application Cost/Acre	\$65.89

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: 3.22 Cost /Acre: \$817.00
 Estimated Failure Rate: 30% Cost /Acre*: \$817.00
 *Selected Replanting Work Items: TILLING,SEEDING,MULCHING

Initial Job Cost: \$2,630.74
 Reseeding Job Cost: \$789.22
 Total Job Cost: \$3,419.96
 Job Hours: 5.00

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: MobilizeSite: H & H Quarry #2Permit Action: 2014 Inspection APermit/Job#: M1998080**PROJECT IDENTIFICATION**Task #: 07AState: ColoradoAbbreviation: NoneDate: 3/18/2014County: DoloresFilename: M080-07AUser: KAPAgency 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 D9T - 9SU	66.13	\$78.33	\$125.45	1	\$203.78	\$125.45	\$0.00
Drill/Broadcast Seeder with Tractor	25.00	\$39.59	\$88.67	1	\$128.26	\$88.67	\$0.00

Subtotals: **\$332.04** **\$214.12** **\$0.00****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.	\$15.34	1	\$15.34	\$15.34

Subtotals: **\$15.34** **\$15.34**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	DOVE CREEK	
Total one-way travel distance:	8.00	miles
Average Travel Speed:	25.00	mph

Total Non-Roadable Mob/Demob Cost *	\$1,013.62
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	\$9.82
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.32	0.32
Return Time (Hours):	0.32	0.32
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	1.64	0.64

JOB TIME AND COST

Total job time:	3.28	Hours
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Total job cost:	\$1,023.44
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HYDRAULIC EXCAVATOR WORK

Task description: Pull back stockpiled sandstone rubble from edge

Site: H & H Quarry #2

Permit Action: 2014 Inspection A

Permit/Job#: M1998080

PROJECT IDENTIFICATION

Task #: 08A

State: Colorado

Abbreviation: None

Date: 3/21/2014

County: Dolores

Filename: M080-08A

User: KAP

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat 312D 9'-2" Stick

Attachment 1: ROPS Cab

Horsepower: 90

Weight (MT): 13.48

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$19.33	NA
Operating Cost/Hour:	\$28.32	100
Operator Cost/Hour:	\$33.94	NA
Total Unit Cost/Hour:	\$81.60	
Total Fleet Cost/Hour:	\$81.60	

MATERIAL QUANTITIES

Initial volume: 1,109

CCY

Swell factor: 1.335

Loose volume: 1,481

LCY

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

Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

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

Basic Job Condition Description: AVERAGE

Secondary Job Condition within Basic Description: AVERAGE

Cycle Time Value: 0.256 minutes

Load Bucket Capacity

Bucket Size Class: Medium

Rated Capacity: 0.68 LCY (heaped)

Bucket Fill Factor: 0.825 Blasted rock - avg. blasted (75 - 90%) 0.825

Adjusted Capacity: 0.56 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: 131.48 LCY/Hour

Adjusted Hourly Unit Production: 109.13 LCY/Hour

Adjusted Hourly Fleet Production: 109.13 LCY/Hour

JOB TIME AND COST

Fleet size: 1 Excavator Total job time: 13.57 Hours

Unit cost: \$0.748 /LCY Total job cost: \$1,107.00