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

November 29, 2011

Darryl Steele Moffat Limestone Company P.O. Box 205 Maybell, CO 81640

RE: Juniper Quarry, File No. M-1982-141, Reclamation Costs Update and Notice of Surety Increase SI-1

Dear Mr. Steele:

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). *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, January 30, 2012. Please review the enclosed figures as soon as possible and contact our office if any calculation errors are noted.

Staff calculations estimate the cost to reclaim the above referenced site to be <u>\$314,460.00</u>. This is an increase of <u>\$219,184.00</u> over the <u>\$95,276.00</u> currently held by the Division. This estimate is based on conditions observed during the November 18, 2011 inspection.

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, have questions or concerns, please don't hesitate to contact me at the DRMS Grand Junction Field Office at 101 South 3rd Street, Suite 301, Grand Junction, CO, 81501, Phone: (970) 243-6299, Fax: (970) 241-1516.

STATE OF COLORADO

Sincerely,

Dustin Czapla Environmental Protection Specialist Division of Reclamation, Mining and Safety

Cc: Jennifer Maiolo, BLM

Enc: Financial Warranty Cost Estimate

COST SUMMARY

Task des	Task description: Fina		rranty Re	view		
Site: Junipe	r Quarry	Perm	it Action:	2011 Midterm Review	Permit/Job#:	M1982141
PROJE	<u>CT IDENTIF</u>	FICATION				
Task #:	000	State:	Colorad	0	Abbreviation:	None
Date:	11/29/201	1 County:	Moffat		Filename:	M141-000
	DMC					

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Flee t Size	Task Hours	Cost
AM1 A	Area				
01a	Highwall reduction (transport backfill material to HW)	LOADER	2	82.70	\$23,279.00
02a	Highwall reduction (grade HW)	DOZER	1	57.76	\$11,546.26
03a	Removal of mining equipment and debris	DEMOLISH	1	8.00	\$1,186.39
04a	Rip process area and access road	RIPPER	1	6.32	\$1,349.00
05a	Distribute topsoil throughout disturbed area	LOADER	1	14.96	\$2,106.00
06a	Spread topsoil	DOZER	1	6.05	\$1,208.53
07a	Revegetate disturbed area	REVEGE	1	20.00	\$19,837.95
CN1 A	Area				
08a	Remove mining equipment and debris	DEMOLISH	1	10.00	\$12,893.29
09a	Slope reduction (transport backfill materials to slopes)	LOADER	2	344.90	\$97,076.00
10a	Slope reduction (grade slopes)	DOZER	2	110.62	\$44,221.27
11a	Rip pit floor, process area and roads	RIPPER	2	3.89	\$1,660.00
12a	Distribute topsoil throughout disturbed area	LOADER	2	15.37	\$4,328.00
13a	Spread topsoil	DOZER	2	3.78	\$1,510.67
14a	Revegetate disturbed area	REVEGE	1	40.00	\$24,691.69
15a	Mobilize reclamation crew and equipment	MOBILIZE	1	4.66	\$6,027.39
		<u>SUBTO</u>	TALS:	729.01	\$252,921.44

Task # 000

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	\$5,109.01
Performance bond:	1.05	Total =	\$2,655.68
Job superintendent:	97.89	Total =	\$5,804.88
Profit:	10.00	Total =	\$25,292.14
		TOTAL O & P =	\$38,861.71
		CONTRACT AMOUNT (direct + O & P) =	\$291,783.15

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	-	\$14,589.16
CONTINGENCY:	3.00	Total =	\$7,587.64
	TOTAL INDI	RECT COST =	\$61,538.51
TOTAL DOND AND		(<u>1</u> , <u>1</u> , <u>1</u> , <u>1</u>)	MO14 460

TOTAL BOND AMOUNT (direct + indirect) = \$314,460

WHEEL LOADER - LOAD AND CARRY WORK

Juniper Quarry			l to HW)	
······································	Permit Action:	2011 Midterm Review	Permit/Job#:	M1982141
PROJECT IDENTIFIC	ATION			
Task #: 01A	State: Colorado)	Abbreviation:	None
Date: 11/29/2011	County: Moffat		Filename:	M141-01a
User: DMC				
Agency or organiza	ation name: DRMS	÷		
HOURLY EQUIPMEN	<u>F COST</u>			
Basic Machine: CA	AT 972H	Horsepo	ower:	287
Attachment 1: RO	OPS Cab	Shift E	Basis: 1 p	er day
		Data So	ource: (C	CRG)
Cost Breakdown:				
		Utilization %		
Ownership Cost/Hou		NA		
Operating Cost/Hou		100		
Operator Cost/Hou		NA		
Total Unit Cost/Hou	ur: \$140.73			
Total Fleet Cost/Ho	our: \$281.46			
να Α ΤΕΊ Ο ΓΑΤ ΟΓΙΑΝΤΤΤ	TEC			
MATERIAL QUANTIT Initial volume:17,7 Loose volume:		Swell factor: _1.	695	
Initial volume:17,7 Loose volume:	78 CCY 30,132 LCY		695	
Initial volume:17,7 Loose volume: Source of e	78 CCY 30,132 LCY	ion observations	695	
Initial volume:17,7 Loose volume: Source of e	78CCY30,132LCYestimated volume:Inspectionnated swell factor:Cat Har	ion observations	695	
Initial volume:17,7 Loose volume: Source of e Source of estim	78CCY30,132LCYestimated volume:Inspectionnated swell factor:Cat Har	ion observations idbook	0.525	minutes
Initial volume:17,7 Loose volume: Source of e Source of estim	78 CCY 30,132 LCY estimated volume: Inspection nated swell factor: Cat Har ON Unadjusted Basic Cycle Time	ion observations idbook e (load, dump, maneuver):	0.525 Factor (min.)	Source
Initial volume:17,7 Loose volume: Source of e Source of estim HOURLY PRODUCTIO Loader Cycle Time: Cycle Time Factors Material:	78 CCY 30,132 LCY estimated volume: Inspectinated swell factor: cat Har DN Unadjusted Basic Cycle Tim Bank or broken material 0	ion observations idbook e (load, dump, maneuver):	0.525 Factor (min.) 0.040	Source (Cat HB)
Initial volume:17,7 Loose volume: Source of e Source of estim HOURLY PRODUCTIO Loader Cycle Time: Cycle Time Factors Material: Stockpile:	78 CCY 30,132 LCY estimated volume: Inspecti nated swell factor: Cat Har ON Unadjusted Basic Cycle Tim Bank or broken material 0 Conveyor or dozer piled 1	ion observations idbook e (load, dump, maneuver): .04 0 ft. high and up 0.00	0.525 Factor (min.) 0.040 0.000	Source (Cat HB) (Cat HB)
Initial volume: 17,7 Loose volume: Source of e Source of estim HOURLY PRODUCTIC Loader Cycle Time: Cycle Time Factors Material: Stockpile: Truck Ownership:	78 CCY 30,132 LCY estimated volume: Inspection nated swell factor: Cat Har ON Unadjusted Basic Cycle Time Bank or broken material 0 Conveyor or dozer piled 1 No adjustment - factor not No	ion observations idbook e (load, dump, maneuver): .04 0 ft. high and up 0.00	0.525 Factor (min.) 0.040 0.000 0.000	Source (Cat HB) (Cat HB) (Cat HB)
Initial volume:17,7 Loose volume: Source of e Source of estim HOURLY PRODUCTIO Loader Cycle Time: Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	78 CCY 30,132 LCY estimated volume: Inspection nated swell factor: Cat Har ON Unadjusted Basic Cycle Time Bank or broken material 0 Conveyor or dozer piled 1 No adjustment - factor not Constant operation -0.04	ion observations idbook e (load, dump, maneuver): .04 0 ft. high and up 0.00	0.525 Factor (min.) 0.040 0.000 0.000 -0.040	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)
Initial volume: 17,7 Loose volume: Source of e Source of estim HOURLY PRODUCTIC Loader Cycle Time: Cycle Time Factors Material: Stockpile: Truck Ownership:	78 CCY 30,132 LCY estimated volume: Inspecting nated swell factor: Cat Har ON Unadjusted Basic Cycle Time Bank or broken material 0 Conveyor or dozer piled 1 No adjustment - factor not Constant operation -0.04 Nominal target 0.00 Notational target 0.00	e (load, dump, maneuver): 0.04 0 ft. high and up 0.00 t applicable 0.00	0.525 Factor (min.) 0.040 0.000 0.000 -0.040 0.000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)
Initial volume:17,7 Loose volume: Source of e Source of estim HOURLY PRODUCTIO Loader Cycle Time: Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	78 CCY 30,132 LCY estimated volume: Inspecting nated swell factor: Cat Har ON Unadjusted Basic Cycle Time Bank or broken material 0 Conveyor or dozer piled 1 No adjustment - factor not Constant operation -0.04 Nominal target 0.00 Net C	ion observations idbook e (load, dump, maneuver): 0.04 0 ft. high and up 0.00 t applicable 0.00 ycle Time Adjustment:	0.525 Factor (min.) 0.040 0.000 -0.040 0.000 0.000 0.000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes
Initial volume: 17,7 Loose volume: Source of e Source of estim HOURLY PRODUCTIO Loader Cycle Time: Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	78 CCY 30,132 LCY estimated volume: Inspecting nated swell factor: Cat Har DN Unadjusted Basic Cycle Time Bank or broken material 0 Conveyor or dozer piled 1 No adjustment - factor not Constant operation -0.04 Nominal target 0.00 Net C	e (load, dump, maneuver): 0.04 0 ft. high and up 0.00 t applicable 0.00	0.525 Factor (min.) 0.040 0.000 0.000 -0.040 0.000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)
Initial volume:17,7 Loose volume: Source of e Source of estim HOURLY PRODUCTIO Loader Cycle Time: Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	78 CCY 30,132 LCY estimated volume: Inspecting nated swell factor: Cat Har DN Unadjusted Basic Cycle Time Bank or broken material 0 Conveyor or dozer piled 1 No adjustment - factor not Constant operation -0.04 Nominal target 0.00 Net C	ion observations idbook e (load, dump, maneuver): 0.04 0 ft. high and up 0.00 t applicable 0.00 ycle Time Adjustment:	0.525 Factor (min.) 0.040 0.000 -0.040 0.000 0.000 0.000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes
Initial volume: Loose volume: Source of e Source of estim HOURLY PRODUCTIC Loader Cycle Time: Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Rolling Resistance – Road C Haul:	78 CCY 30,132 LCY estimated volume: Inspecting nated swell factor: Cat Har DN Unadjusted Basic Cycle Time Bank or broken material 0 Conveyor or dozer piled 1 No adjustment - factor not Constant operation -0.04 Nominal target 0.00 Net C	e (load, dump, maneuver): 0.04 0 ft. high and up 0.00 t applicable 0.00 ycle Time Adjustment: sted Basic Cycle Time:	0.525 Factor (min.) 0.040 0.000 0.000 -0.040 0.000 0.525 tion 4.0	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes

Haul and Return Time

	Length (feet)	Grade Res.	Rolling Res. (%)	Total Res. (%)	Travel Time (minutes)	Source
Haul Route:	500	0.00	4.00	4.00	0.4244	(Cat HB)
Return Route:	500	0.00	4.00	4.00	0.3902	(Cat HB)

			Total Travel Ti Total Cycle Ti		minutes minutes
Load Bucket Capacity					
Rated Capacity	/: 5.60	LCY (hea	iped)		
Bucket Fill Facto	r: 0.875	Blasted ro	ock - well blasted	(80 - 95%) 0.875	
Adjusted Capacity	/: 4.90	LCY			
Job Condition Correction Site Altitude: <u>6600</u> feet	<u>i Factors</u>				
		Source			
Altitude Adj:	1.00	(CAT HE	i)		
Job Efficiency:	0.83	(1 shift/da	y)		
Net Correction:	0.83	multiplier			
Una	adjusted Hourly Unit	t Production:	219.47	LCY/Hour	
A	djusted Hourly Unit	t Production:	182.16	LCY/Hour	
А	djusted Hourly Fleet	t Production:	364.32	LCY/Hour	
JOB TIME AND CO	<u>ST</u>				
Fleet size:	2 Loader(s))	Total job time:	82.71	Hours
Unit cost:\$0.	773 /LCY		Total job cost:	\$23,279.00	

Highwall reduction - backfill

Highwall Height (ft.)	40.00	
Length of Highwall (lft.)	300.00	
– – – – Initial Slope	0.00	H:1V
Desired Slope	2.00	H:1V
Volume of material to be moved (ft. ³)	480,000	
Volume of material to be moved (yd. ³)	17,778	



BULLDOZER WORK

Task description:	AM1 Highwall reduction (g	rade HW)		
: Juniper Quarry	Permit Action:	2011 Midterm Review	Permit/Job#:	M1982141
PROJECT IDENTIF	ICATION			
Task #: 02A	State: Colorado		Abbreviation:	None
Date: 11/29/2011	County: Moffat		Filename:	M141-02a
User: DMC			-	
Agency or organ	nization name: DRMS			
HOURLY EQUIPME	NT COST			
Basic Machine: Cat	D8T - 8U			
Horsepower: 310				
	versal			
Attachment: NA				
the second se	er day			
Data Source: (CF				
Cost Breakdown:		I		
a		Utilization %		
Ownership Cost/Hour:	\$58.56	NA		
Operating Cost/Hour:	\$102.84	100		
Ripper op. Cost/Hour:	\$0.00	0		
Operator Cost/Hour:	\$38.49	NA		
Total unit Cost/Hour:	¢100.80			
Total Fleet Cost/Hour:	\$199.89 \$199.89			
Total Tieet Costitiour.	\$177.07			
MATERIAL QUANT	ITIES			
L.'				
Initial Volume: 8,88				
Swell factor: 1.69				
Loose volume: 15,0	66 LCY			
Source of estimated volum	me: Approx. 1/2 of mater	ial placed at HW by loader	•	
Source of estimated swell				
HOURLY PRODUCT	TION			
Average push distance:	80 feet			
TT 11 . 11 1	1 1 1 0 0 1 01 10			
Unadjusted hourly produce	ction: 1,110.8 LCY/hr			
Unadjusted hourly produce Materials consistency des	, <u> </u>	or blasted 0.8		
Materials consistency des	cription: Rock, well ripped	or blasted 0.8		
Materials consistency des Average push gradient:	Cription: Rock, well ripped	or blasted 0.8		
Materials consistency des	cription: Rock, well ripped	or blasted 0.8		
Materials consistency des Average push gradient:	Cription: Rock, well ripped	or blasted 0.8		
Materials consistency des Average push gradient: Average site altitude:	Cription: Rock, well ripped of 15 % 6,600 feet	or blasted 0.8		
Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description:	Cription: Rock, well ripped of 15 % 6,600 feet 2,600 lbs/LCY Limestone - Broken			
Materials consistency des Average push gradient: Average site altitude: Material weight:	Cription: Rock, well ripped of 15 % 6,600 feet 2,600 lbs/LCY Limestone - Broken Factor	or blasted 0.8 <u>Source</u> (AVG.)		
Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction	Cription: Rock, well ripped of the second secon	Source		

Visibili	ty: 1.000	(AVG.)
Job efficient	cy: 0.830	(1 SHIFT/DAY)
Spoil pi	le: 0.800	(FND-RF)
Push gradie	nt: 0.666	(CAT HB)
Altitud	le: 1.000	(CAT HB)
Material Weig	ht: 0.885	(CAT HB)
Blade typ	be: 1.000	(PAT)
Net correction	on: 0.2348	
Adjusted unit production:	260.82 LCY/hr	
Adjusted fleet production:	260.82 LCY/hr	

Fleet size:	1 Dozer(s)
Unit cost:	\$0.766/LCY

Total job time:	57.76 Hours
Total job cost:	\$11,546.26

DEMOLITION WORK

	Task description	n: AM1 R	emoval of mining eq	uipment and debris			
Site:	Juniper Quar	ry	Permit Action:	2011 Midterm Revie	w Pern	nit/Job#:	M1982141
<u>PROJE</u>	CT IDENTIF	ICATION					
Task #: Date: User:	11/29/2011 DMC	St Cour or organization name			Abbreviation Filenam		ne 41-03a
UNIT CO	<u>OSTS</u>				Location a	ljustmer	nt: 91.30 %
	Structure or Item DescriptionDimensionsDemolition Menu SelectionQuantityUnitUnit CostTotal Cost						
Debris pi	ile	20'W x 20'L x 10'H	Loading and 5 mile salvage allowed - S frame structures		CY	\$8.78	\$1,299.44

				Total Cost	
		Subtotal		(adjusted for	
Job Hours:	8.00	(unadjusted):	\$1,299.44	location):	\$1,186.39

BULLDOZER RIPPING WORK

	Task description	1: AM1 R	ip process area and a	ccess road				
Site	: Juniper Qua	rry	Permit Action:	2011 Midterm Re	eview Permit/Job#:	M1982141		
	PROJECT ID	DENTIFICATION	I					
	Task #: 04	1A	State: Colorado		Abbreviation:	None		
	Date: 11	1/29/2011	County: Moffat		Filename:	M141-04a		
	User: D	МС						
	Agenc	y or organization na	me: DRMS					
	HOURLY EQ	UIPMENT COS	<u>Γ</u>					
	Basic	Machine: Cat D8	3 T - 8U	H	Horsepower:	310		
	Ripper A	ttachment: 3-Shar	ık Ripper			er day		
				Ι	Data Source: (0	CRG)		
	Cost Breakdown	<u>n:</u>						
					tilization %			
		Ownership Cost/			NA			
		Operating Cost/			100			
	Rip	oper Operating Cost/		49	100			
		Operator Cost/			NA			
		Total Unit Cost/						
		Total Fleet Cost/	Hour: \$21	3.10				
	MATERIAL	QUANTITIES	Sele	ected estimating me	ethod: Area			
	Alternate Metho	ods:						
Seismic:	NA		Bank Volume:	NA	BCY	NA		
Area:	4	acres	Rip Depth (ft):	2.00	Volume: 13,552	BCY or CCY		
		Source of estimat	ed quantity: Previo	us estimate (GRM	7/13/2005)			
					,,,10,2000)			
	HOURLY PR	<u>KODUCTION</u>						
	Seismic:							
		Sei	smic Velocity:	NA	feet/second			
	Area:							
		Average R	Lipping Depth:	2.56	mph			
		Average R	ipping Width:	7.08	degrees			
			pping Length:	300.00	feet			
			Dozer Speed:	88.00	feet			
		•	aneuver Time:	0.25	feet			
		Production	per unit area:	0.800	acres/hour			
	Job Condition Correction Factors							
	U	nadjusted Hourly Un	nit Production:	0.800	Acres/hr			
			Site Altitude:	6,600	feet			
			Altitude Adj:	1.00	(CAT HB)			
		J	ob Efficiency:	0.83	(1 shift/day)			
		Ν	let Correction:	0.83	multiplier			
		Adjusted Ho	urly Unit Production:	0.66	Acres/hr			
			urly Fleet Production:	0.66	Acres/hr			
	JOB TIME A	ND COST						
	Fleet size:		Ripper(s)	Total job time:	6.33	Hours		
	Unit cost:		Per acre	Total job cost:	\$1,349.00			
	Onit COSt.	ψυμιτιυ Ι	01 4010	i otal job cost.	φ1 ₃ 547.00			

WHEEL LOADER - LOAD AND CARRY WORK

Juniper Quarry	Permit Action:	2011 Midterm Review	Permit/Job#:	M1982141
PROJECT IDENTIFICA	ATION			
Task #: 05A	State: Colorado)	Abbreviation:	None
Date: $\frac{0011}{11/29/2011}$	County: Moffat		Filename:	M141-05a
User: DMC				
Agency or organiza	tion name: DRMS			
HOURLY EQUIPMENT	<u>COST</u>			
Basic Machine: CA	AT 972H	Horsep	ower:	287
Attachment 1: RO	DPS Cab	Shift I		er day
		Data So		CRG)
Coat Decaledore				
Cost Breakdown:		Utilization %		
Ownership Cost/Hou	r: \$36.70	NA		
Operating Cost/Hou		100		
Operator Cost/Hou		NA		
Total Unit Cost/Hou				
Total Fleet Cost/Hor	ur: \$140.73	-		
MATERIAL QUANTIT	<u>IES</u>			
Initial volume: 4,840	CCY	Swell factor: 1.	000	
Loose volume:	4,840 LCY			
		listurbance (2011 Annual R	eport) x 3"	
Source of estim	ated swell factor: Cat Har	ndbook		
HOURLY PRODUCTIO	<u>DN</u>			
Loader Cycle Time:	Unadjusted Basic Cycle Tim	e (load, dump, maneuver):	0.525	minutes
Cycle Time Factors			Factor (min.)	Source
	Material up to 1/8" diame	ter 0.02	0.020	(Cat HB)
Material:	1	0 ft high or loss 0 01	0.010	(Cat HB)
Material: Stockpile:	Conveyor or dozer piled 1	o n. mgn or less 0.01		
	No adjustment - factor no		0.000	(Cat HB)
Stockpile: Truck Ownership: Operation:	No adjustment - factor no Constant operation -0.04		0.000 -0.040	(Cat HB) (Cat HB)
Stockpile: Truck Ownership:	No adjustment - factor no Constant operation -0.04 Nominal target 0.00	t applicable 0.00	0.000 -0.040 0.000	
Stockpile: Truck Ownership: Operation:	No adjustment - factor no Constant operation -0.04 Nominal target 0.00 Net C		0.000 -0.040	(Cat HB)

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:	200	0.00	4.00	4.00	0.1697	(Cat HB)
Return Route:	200	0.00	4.00	4.00	0.1561	(Cat HB)

Total Travel Time:	0.3258	minutes
Total Cycle Time:	0.8408	minutes

Load Bucket Capacity

Rated Capacity:	5.60	LCY (heaped)
Bucket Fill Factor:	0.975	Loose material - uniform aggregates to 1/8" (95-100%) 0.975
Adjusted Capacity:	5.46	LCY

<u>Job Condition Correction Factors</u> Site Altitude: <u>6600</u> feet

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

Unadjusted Hourly Unit Production:	389.61	LCY/Hour
Adjusted Hourly Unit Production:	323.38	LCY/Hour
Adjusted Hourly Fleet Production:	323.38	LCY/Hour

Fleet size:	1	Loader(s)	Total job time:	14.97	Hours
Unit cost:	\$0.435	_ /LCY	Total job cost:	\$2,106.00	

BULLDOZER WORK

Task description:	AM1 Spread topsoil			
: Juniper Quarry	Permit Action:	2011 Midterm Review	Permit/Job#:	M1982141
PROJECT IDENTIF	ICATION			
Task #: 06A	State: Colorado		Abbreviation:	None
Date: 11/29/2011			Filename:	M141-06a
User: DMC				
Agency or orga	nization name: DRMS			
HOURLY EQUIPMI	ENT COST			
Basic Machine: Ca	t D8T - 8U			
Horsepower: 310				
	iversal			
Attachment: NA				
and the second s				
	per day			
Data Source: (Cl	RG)			
Cost Breakdown:				
		Utilization %		
Ownership Cost/Hour:	\$58.56	NA		
Operating Cost/Hour:	\$102.84	100		
Ripper op. Cost/Hour:	\$0.00	0		
Operator Cost/Hour:	\$38.49	NA		
-		TAX		
Total unit Cost/Hour:	\$199.89			
Total Fleet Cost/Hour:	\$199.89			
MATERIAL QUANT	<u>CITIES</u>			
Initial Volume: 4,84	10			
Swell factor: 1.00				
	10 LCY			
LUUSE VOlume. 4,04	JULC I			
Source of estimated volu	ime: Task 05a			
Source of estimated swel	ll factor: Cat Handbook			
HOURLY PRODUC	TION			
Average push distance:	100 feet			
Unadjusted hourly produ	action: 931.6 LCY/hr			
Materials consistency de	scription: Loose stockpile 1.2	2		
A store on the state of the sta	0.9/			
Average push gradient:	0 % 6 600 feet			
Average site altitude:	6,600 feet			
Material weight:	1,600 lbs/LCY			
Weight description:	Top Soil			
Job Condition Correction	n Factor_	Source		
Operator		(AVG.)		
Material consist		(CAT HB)		
Dozing me		(GEN.)		

Visibili	ty: 1.000	(AVG.)
Job efficience	cy: 0.830	(1 SHIFT/DAY)
Spoil pi	le: 0.800	(FND-RF)
Push gradie	nt: 1.000	(CAT HB)
Altitud	le: 1.000	(CAT HB)
Material Weig	ht: 1.438	(CAT HB)
Blade typ	be: 1.000	(PAT)
Net correction	on: 0.8593	
Adjusted unit production:	800.52 LCY/hr	
Adjusted fleet production:	800.52 LCY/hr	

Fleet size:	1 Dozer(s)
Unit cost:	\$0.250/LCY

Total job time:	6.05 Hours	
Total job cost:	\$1,208.53	_

REVEGETATION WORK

ite: Juniper	Quarry	Pe	rmit Action:	2011 Midterm Review	Permit/Job#:	M1982141
PROJEC	T IDENTIFI	CATION				
Task #: Date: User:	07A 11/29/2011 DMC	State: County:	Colorado Moffat		Abbreviation: Filename:	None M141-07a
А	gency or organ	ization name:D	RMS			

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
8-24-24, 10-15-15, 10-20-20	250.00	pound	\$0.30	\$75.00
	То	tal Fertilizer	Materials Cost/Acre	\$75.00

Application

Description		Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)		\$50.09
	Total Fertilizer Application Cost/Acre	\$50.09

TILLING

Description		Cost /Acre
Chisel plowing {DMG}		\$86.71
	Total Tilling Cost/Acre	\$86.71

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Nespar	6.00	19.42	\$41.58
Thickspike Wheatgrass - Critana	5.50	19.44	\$27.83
Western Wheatgrass - Arriba	8.00	20.20	\$28.80
Needle and Thread	7.50	19.80	\$345.00
Flax, Lewis Blue	1.00	6.63	\$16.17
Winter Fat	1.00	2.55	\$32.00
Bluebunch Wheatgrass - Goldar	4.00	12.86	\$21.52
Totals Seed Mix	33.00	100.91	\$512.90

Application

Description	Cost /Acre
Drill seeding {DMG}	\$90.11

Total Seed Application Cost/Acre \$90.11

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - 2,4D @ 2.0 pt/ac	20.00	ACRE	\$2.40	\$48.00
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$164.00	\$328.00
		Total Mulch	Materials Cost/Acre	\$376.00

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$65.89
Weed spray, truck, non-aquatic area, nox. [DMG]		\$60.19
	Total Mulch Application Cost/Acre	\$126.08

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
Totals Nursery Stock Cost / Acre				\$0.00	

	No. of Acres:	12	Cost /Acre:	\$1,316.89	
Estimat	ed Failure Rate:	25%	Cost /Acre*:	\$1,316.89	
*Selected Replanti	ng Work Items:	FERTILIZING, T MULCHING	ILLING, SEEDING,		
Initial Job Cost:	\$15,802.68				
Reseeding Job Cost:	\$3,950.67				
Total Job Cost:	\$19,753.35				
Job Hours:	20.00				

DEMOLITION WORK

Т	ask description:	CN1 Remo	ve mining equip	ment and debris		
Site:	Juniper Quarry		Permit Action:	2011 Midterm Review	Permit/J	ob#:M1982141
PROJEC	T IDENTIFICATION	N				
Task #:	08A	State:	Colorado	Ab	breviation:	None
Date:	11/29/2011	County:	Moffat		Filename:	M141-08a
User:	DMC				-	
	Agency or organizat	ion name:	DRMS			

UNIT COSTS

Location adjustment: 91.30 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Remove 10,000 gallon fuel tank	10,000 gal.	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	1.00	EA	\$950.00	\$950.00
Remove miscelaneous refuse/debris	150 cyd.	Loading and 5 mile haul, salvage allowed - Steel frame structures	150.00	CY	\$8.78	\$1,317.00
Remove empty fuel tanks	3 observed on site	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	3.00	EA	\$710.00	\$2,130.00
Remove steel sheds (2)	150 CY	Loading and 5 mile haul, salvage allowed - Steel frame structures	150.00	CY	\$8.78	\$1,317.00
Remove hazardous material containers	approx. 10	Hazardous waste removal - Drum solids/liquids, per drum, (7+ drum job)	10.00	DRUM	\$315.79	\$3,157.90
Clean up contaminated soils	approx. 20	Dispose of contaminated soil at approved landfill - Average	20.00	CY	\$262.50	\$5,250.00

				Total Cost	
		Subtotal		(adjusted for	
Job Hours:	10.00	(unadjusted):	\$14,121.90	location):	\$12,893.29

WHEEL LOADER - LOAD AND CARRY WORK

Juniper Quarry	Permit Action	: 2011 Midterm Review	Permit/Job#:	M1982141
PROJECT IDENTIFICA	ATION			
Task #: 09A	State: Colorado	D	Abbreviation:	None
Date: 11/29/2011	County: Moffat		Filename:	M141-09a
User: DMC			-	
Agency or organiza	tion name: DRMS			
HOURLY EQUIPMENT	COST			
Basic Machine: CA	AT 972H	Horsep	ower:	287
	DPS Cab	Shift I		er day
		Data Sc	A	CRG)
Coat Decalada				
Cost Breakdown:		Utilization %		
Ownership Cost/Hou	r: \$36.70	NA		
Operating Cost/Hou		100		
Operator Cost/Hou		NA		
Total Unit Cost/Hou				
Total Fleet Cost/Hou		-		
		-		
MATERIAL QUANTIT	IES			
Initial volume: 70,83	CCY	Swall factor: 1	695	
Loose volume:	120,055 LCY	Swell factor: <u>1</u> .	640	
	120,033			
Source of es		observations		
Source of es	stimated volume: Onsite of ated swell factor: Cat Har			
Source of estimations	ated swell factor: Cat Har			
Source of es	ated swell factor: Cat Har			
Source of estimation Source of estimation Source of estimation Source of estimation Source of Source	ated swell factor: Cat Har	ndbook	0.525	minutes
Source of estimation Source of estimation Source of estimation Source of estimation Source of Source	ated swell factor: Cat Har	ndbook		
Source of es Source of estima HOURLY PRODUCTIO Loader Cycle Time:	ated swell factor: Cat Har	ndbook e (load, dump, maneuver):	0.525 Factor (min.) 0.040	Source
Source of es Source of estima HOURLY PRODUCTIO Loader Cycle Time: Cycle Time Factors Material: Stockpile:	ated swell factor: Cat Har DN Jnadjusted Basic Cycle Tim Bank or broken material 0 Conveyor or dozer piled 1	ndbook le (load, dump, maneuver): 0.04 10 ft. high and up 0.00	Factor (min.)	
Source of es Source of estima HOURLY PRODUCTIO Loader Cycle Time: Cycle Time Factors Material: Stockpile: Truck Ownership:	ated swell factor: Cat Har DN Jnadjusted Basic Cycle Tim Bank or broken material 0 Conveyor or dozer piled 1 No adjustment - factor no	ndbook le (load, dump, maneuver): 0.04 10 ft. high and up 0.00	Factor (min.) 0.040	Source (Cat HB)
Source of est Source of estimation HOURLY PRODUCTIO Loader Cycle Time: Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Anted swell factor: Cat Har Cat Har Cat Har Cat Har Cat Har Cat Har DN Jnadjusted Basic Cycle Tim Bank or broken material 0 Conveyor or dozer piled 1 No adjustment - factor nor Constant operation -0.04	ndbook le (load, dump, maneuver): 0.04 10 ft. high and up 0.00	Factor (min.) 0.040 0.000 0.000 -0.040	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)
Source of es Source of estima HOURLY PRODUCTIO Loader Cycle Time: Cycle Time Factors Material: Stockpile: Truck Ownership:	Ated swell factor: Cat Har CAL Har CAL Har CAL Har CAL Har CAL Har CAL Har CAL Har CAL Har DA DA DA DA DA DA DA DA DA DA	ndbook le (load, dump, maneuver): 0.04 10 ft. high and up 0.00 t applicable 0.00	Factor (min.) 0.040 0.000 0.000 -0.040 0.000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)
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Haul: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:	1.4021	minutes

Load Bucket Capacity

Rated Capacity:	5.60	LCY (heaped)	
Bucket Fill Factor:	0.875	Blasted rock - well blasted	(80 - 95%) 0.875
Adjusted Capacity:	4.90	LCY	

Job Condition Correction Factors Site Altitude: <u>6600</u> feet

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

Unadjusted Hourly Unit Production:	209.69	LCY/Hour
Adjusted Hourly Unit Production:	174.04	LCY/Hour
Adjusted Hourly Fleet Production:	348.08	LCY/Hour

Fleet size:	2	Loader(s)	Total job time:	344.90	Hours
Unit cost:	\$0.809	/LCY	Total job cost:	\$97,076.00	

Highwall reduction - backfill





Highwall reduction - backfill

Highwall Height (ft.)	25.00	
Length of Highwall (Ift.)	500.00	
– – – – Initial Slope	0.00	H:1V
Desired Slope	2.00	H:1V
Volume of material to be moved (ft. ³)	312,500	
Volume of material to be moved (yd. ³)	11,574	



BULLDOZER WORK

Task description:	CN1 Slope reduc	tion (grade	slopes)		
Juniper Quarry	Perr	nit Action:	2011 Midterm Review	Permit/Job#:	M1982141
PROJECT IDENTIF	ICATION				
Task #: 10A	State:	Colorado		Abbreviation:	None
Date: $\frac{10A}{11/29/2011}$		Moffat		Filename:	M141-10a
	County.	wonat		Fliename.	IVI141-10a
User: DMC					
Agency or orga	nization name:	MS			
HOURLY EQUIPMI	ENT COST				
Basic Machine: Ca	t D8T - 8U				
Horsepower: 310	0				
•	iversal				
Attachment: NA					
	er day				
	RG)				
	X U)				
Cost Breakdown:			F		
o	* • • • •		Utilization %		
Ownership Cost/Hour:	\$58.56		NA		
Operating Cost/Hour:	\$102.84		100		
Ripper op. Cost/Hour:	\$0.00		0		
Operator Cost/Hour:	\$38.49		NA		
T (1) () (T	#100.00		*****	57	
Total unit Cost/Hour:	\$199.89				
Total Fleet Cost/Hour:	\$399.77				
MATERIAL QUANT	<u>TTTIES</u>				
Initial Volume: 35,4	116				
Swell factor: 1.69					
	027 LCY				
Source of estimated volu	me: Approx. 1	1/2 of mater	ial placed at slopes by load	er	
Source of estimated swel	Il factor: Cat Hand	book			
HOURLY PRODUC	TION				
Average push distance:	75 feet				
Unadjusted hourly produ	iction: 1,155.6 LC	Y/hr	<u></u>		
			11 . 100		
Materials consistency de	scription: Rock, v	well ripped of	or blasted 0.8		
Average push gradient:	15 %				
Average site altitude:	6,600 feet				
Material maintain	2 600 lba/I CV				
Material weight:	2,600 lbs/LCY			-	
Weight description:	Limestone - Broke	n			
Job Condition Correction	n Factor		Source		
Operator		750	(AVG.)		
Material consist		800	(CAT HB)		
Dozing me		000	(GEN.)		
	. 1.	000	(UEN.)		

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)
Blade type:	1.000	
Net correction:	0.2348	

JOB TIME AND COST

Fleet size:	2 Dozer(s)
Unit cost:	\$0.737/LCY

Adjusted fleet production: 542.66 LCY/hr

Total job time:	110.62 Hours
Total job cost:	\$44,221.27

BULLDOZER RIPPING WORK

									•
Site: Junipe	r Quarry		Permi	t Action:	2011 Midterm I	Review	Permit/Job#:	M198214	1
PROJE	CT IDENTI	<u>IFICATIO</u>	<u>DN</u>						
Task #	#: 11A	•	State:	Colorado			Abbreviation:	None	
Date		11		Moffat			Filename:	M141-11a	
User	r: DMC								
	Agency or org	ganization n	name: DRM	IS					
HOURI	LY EQUIPM	<u>AENT CO</u>	ST						
	Basic Machi	ine: Cat I	D8T - 8U			Horsepov	wer:	310	
Rij	pper Attachme	ent: 3-Sh	ank Ripper			Shift Ba	A	er day	
						Data Sou	rce: (C	CRG)	
Cost Brea	<u>akdown:</u>								
						Utilization	n %		
		mership Cos		\$65.		NA			
		perating Cos		\$102	and the second se	100			
		perating Cos Operator Cos		\$6.4 \$38.		100 NA			
		otal Unit Cos		\$213					
		tal Fleet Cos	-	\$426					
			sorrour.						
	RIAL QUAN	VIIIES		Sele	cted estimating	method:	Area		
Alternate	Methods:								
smic: NA Area: 5		acres rce of estim	Rip De	Volume: pth (ft): Onsite o	NA 2.00 observations/Mi	BCY Volume			BCY or CO
smic: <u>NA</u> Area: <u>5</u>		rce of estim <u>CTION</u>	Rip De ated quantity:	opth (ft):	2.00 observations/Mi	Volume	e: 16,133 eclamation maps		BCY or C
smic: <u>NA</u> Area: <u>5</u> <u>HOURI</u> <u>Seismic:</u>	Sou	rce of estim <u>CTION</u>	Rip De	opth (ft):	2.00	Volume	e: 16,133		BCY or C
smic: <u>NA</u> Area: <u>5</u> <u>HOURI</u>	Sou	rce of estim <u>CTION</u> Se	Rip De ated quantity: eismic Veloci	pth (ft): Onsite of	2.00 observations/Mi NA	Volume	e: 16,133 eclamation maps et/second		BCY or C
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smic: <u>NA</u> Area: <u>5</u> <u>HOURI</u> <u>Seismic:</u>	Sou	rce of estim <u>CTION</u> So Average Average	Rip De ated quantity: eismic Velocit Ripping Dep Ripping Wid	ty:th: h:th:th:th: h:th:th:th: h:th:th: h:th:th:th: h:th:th:th: h:th:th:th:th: h:th:th: h:th: h:th: h:th: h:th: h:th: h:th: h:t	2.00 observations/Mi NA	Volume ning and re fee	e: 16,133 eclamation maps et/second ph egrees		BCY or C
smic: <u>NA</u> Area: <u>5</u> <u>HOURI</u> <u>Seismic:</u>	Sou	rce of estim <u>CTION</u> So Average Average Average	Rip De ated quantity: eismic Velocit Ripping Dep	cpth (ft):	2.00 observations/Mi NA 2.56 7.08	Volume ning and re fee	e: 16,133 eclamation maps et/second ph grees et		BCY or C
smic: <u>NA</u> Area: <u>5</u> <u>HOURI</u> <u>Seismic:</u>	Sou	rce of estim <u>CTION</u> So Average Average I Average I Average I	Rip De ated quantity: eismic Velocit e Ripping Dep e Ripping Wid Ripping Leng ge Dozer Spee Maneuver Tim	cpth (ft):	2.00 observations/Mi NA 2.56 7.08 200.00 88.00 0.25	Volume ning and re fee de fee fee fee	e: 16,133 eclamation maps et/second ph egrees et et et		BCY or C
smic: <u>NA</u> Area: <u>5</u> <u>HOURI</u> <u>Seismic:</u> <u>Area:</u>	Sour	rce of estim <u>CTION</u> So Average Average Average Average Average Average Average Average Average	Rip De ated quantity: eismic Velocit e Ripping Dep e Ripping Wid Ripping Leng ge Dozer Spec	cpth (ft):	2.00 observations/Mi NA 2.56 7.08 200.00 88.00	Volume ning and re fee de fee fee fee	e: 16,133 eclamation maps et/second ph egrees et et		BCY or C
smic: <u>NA</u> Area: <u>5</u> <u>HOURI</u> <u>Seismic:</u> <u>Area:</u>	Sour Source Sour	rce of estim <u>CTION</u> So Average Average I Average I Productivition Factors	Rip De ated quantity: eismic Velocit Ripping Dep Ripping Wid Ripping Leng ge Dozer Spec Maneuver Tim ion per unit are	cpth (ft):	2.00 observations/Mi NA 2.56 7.08 200.00 88.00 0.25 0.773	Volume ning and re fee mp de fee fee act	e: 16,133 eclamation maps et/second ph egrees et et et res/hour		BCY or C
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smic: <u>NA</u> Area: <u>5</u> <u>HOURI</u> <u>Seismic:</u> <u>Area:</u>	Sour Source Sour	rce of estim <u>CTION</u> So Average Average I Average I Productivition Factors	Rip De ated quantity: eismic Velocit e Ripping Dep Ripping Uid Ripping Leng ge Dozer Spee Maneuver Tim ion per unit are Unit Productic Site Altitud	cpth (ft):	2.00 observations/Mi NA 2.56 7.08 200.00 88.00 0.25 0.773 0.773 6,600	Volume ning and re fee fee fee fee fee fee fee fee fee	e: 16,133 eclamation maps et/second ph egrees et et et res/hour cres/hr et		BCY or C
smic: <u>NA</u> Area: <u>5</u> <u>HOURI</u> <u>Seismic:</u> <u>Area:</u>	Sour Source Sour	rce of estim <u>CTION</u> So Average Average I Average I Productivition Factors	Rip De ated quantity: eismic Velocit e Ripping Dep Ripping Udd Ripping Leng ge Dozer Spea Maneuver Tim ion per unit are Unit Productio Site Altitude A	cpth (ft):	2.00 pbservations/Mi NA 2.56 7.08 200.00 88.00 0.25 0.773 0.773 6,600 1.00	Volume ning and re fee fee fee fee fee fee fee fee fee f	e: 16,133 eclamation maps et/second ph egrees et et et res/hour cres/hr et EAT HB)		BCY or C
smic: <u>NA</u> Area: <u>5</u> <u>HOURI</u> <u>Seismic:</u> <u>Area:</u>	Sour Source Sour	rce of estim <u>CTION</u> So Average Average I Average I Productivition Factors	Rip De nated quantity: eismic Velocit e Ripping Dep e Ripping Udd Ripping Leng ge Dozer Spec Maneuver Tim ion per unit arc Unit Production Site Altitude Altitude Au Job Efficience	cpth (ft):	2.00 bbservations/Mi NA 2.56 7.08 200.00 88.00 0.25 0.773 0.773 6,600 1.00 0.83	Volume ning and re fee fee fee fee fee fee fee (C (C (1	e: 16,133 eclamation maps et/second ph grees et et et res/hour cres/hr et 2AT HB) shift/day)		BCY or C
smic: <u>NA</u> Area: <u>5</u> <u>HOURI</u> <u>Seismic:</u> <u>Area:</u>	Sour Source Sour	rce of estim <u>CTION</u> So Average Average Average Average Productive ion Factors ted Hourly N	Rip De nated quantity: eismic Velocit e Ripping Dep Ripping Udd Ripping Leng ge Dozer Spee Maneuver Tim ion per unit are Unit Production Site Altitude Altitude Au Job Efficience Net Correction	cpth (ft):	2.00 bbservations/Mi NA 2.56 7.08 200.00 88.00 0.25 0.773 0.773 6,600 1.00 0.83 0.83	Volume ning and re fee fee fee fee fee fee fee fee fee f	e: 16,133 eclamation maps et/second ph egrees et et et res/hour cres/hr et EAT HB) shift/day) ultiplier		BCY or C
smic: <u>NA</u> Area: <u>5</u> <u>HOURI</u> <u>Seismic:</u> <u>Area:</u>	Sour Source Sour	rce of estim <u>CTION</u> So Average Average Average I Average I Productive ion Factors ted Hourly I Adjusted H	Rip De nated quantity: eismic Velocit e Ripping Dep e Ripping Udd Ripping Leng ge Dozer Spec Maneuver Tim ion per unit are Unit Production Site Altitude Altitude Au Job Efficience Net Correction	cpth (ft):	2.00 bbservations/Mi NA 2.56 7.08 200.00 88.00 0.25 0.773 0.773 6,600 1.00 0.83 0.83 0.83 0.64	Volume ning and re fee fee fee fee fee fee fee fee fee f	e: 16,133 eclamation maps et/second ph grees et et et res/hour cres/hr et CAT HB) shift/day) ultiplier /hr		BCY or C
smic: <u>NA</u> Area: <u>5</u> <u>HOURI</u> <u>Seismic:</u> <u>Area:</u> <u>Job Cond</u>	Sour LY PRODUC	rce of estim <u>CTION</u> So Average Average Average Average Droductive ion Factors ted Hourly N Adjusted H Adjusted H	Rip De nated quantity: eismic Velocit e Ripping Dep Ripping Udd Ripping Leng ge Dozer Spee Maneuver Tim ion per unit are Unit Production Site Altitude Altitude Au Job Efficience	cpth (ft):	2.00 bbservations/Mi NA 2.56 7.08 200.00 88.00 0.25 0.773 0.773 6,600 1.00 0.83 0.83	Volume ning and re fee fee fee fee fee fee fee fee fee f	e: 16,133 eclamation maps et/second ph grees et et et res/hour cres/hr et CAT HB) shift/day) ultiplier /hr		BCY or C
smic: <u>NA</u> Area: <u>5</u> <u>HOURI</u> <u>Seismic:</u> <u>Area:</u> <u>Job Cond</u> <u>JOB TI</u>	Sour <u>EYPRODU</u> <u>lition Correcti</u> Unadjust <u>ME AND C</u>	rce of estim <u>CTION</u> So Average Average I Average I Productivit ion Factors ted Hourly I Adjusted H Adjusted H COST	Rip De nated quantity: eismic Velocit e Ripping Dep Ripping Leng ge Dozer Spec Maneuver Tim ion per unit arc Unit Productic Site Altitude Altitude A Job Efficience Net Correctic Hourly Unit Pr Jourly Fleet Pr	cpth (ft):	2.00 bbservations/Mi 2.56 7.08 200.00 88.00 0.25 0.773 6,600 1.00 0.83 0.83 0.83 0.64 1.28	Volume ning and re fee fee fee fee fee fee fee fee fee f	e: 16,133 eclamation maps et/second ph egrees et et et res/hour cres/hr et EAT HB) shift/day) ultiplier /hr /hr		
smic: <u>NA</u> Area: <u>5</u> <u>HOURI</u> <u>Seismic:</u> <u>Area:</u> <u>Job Cond</u>	Sour <u>EYPRODU</u> <u>lition Correcti</u> Unadjust <u>ME AND C</u>	rce of estim <u>CTION</u> So Average Average Average Average Droductive ion Factors ted Hourly N Adjusted H Adjusted H	Rip De nated quantity: eismic Velocit e Ripping Dep e Ripping Udd Ripping Leng ge Dozer Spec Maneuver Tim ion per unit are Unit Production Site Altitude Altitude Au Job Efficience Net Correction	cpth (ft):	2.00 bbservations/Mi NA 2.56 7.08 200.00 88.00 0.25 0.773 0.773 6,600 1.00 0.83 0.83 0.83 0.64	Volume ning and re fee fee fee fee fee fee fee fee fee f	e: 16,133 eclamation maps et/second ph grees et et et res/hour cres/hr et CAT HB) shift/day) ultiplier /hr		BCY or CO

WHEEL LOADER - LOAD AND CARRY WORK

Juniper Quarry	Permit Action:	2011 Midterm Review	Permit/Job#:	M1982141
PROJECT IDENTIFICA	ATION			
Task #: 12A	State: Colorado		Abbreviation:	None
Date: 11/29/2011	County: Moffat		Filename:	M141-12a
User: DMC				
Agency or organiza	tion name: DRMS			
HOURLY EQUIPMENT	<u>r cost</u>			
Basic Machine: CA	AT 972H	Horsep	ower:	287
Attachment 1: RC	DPS Cab	Shift I		er day
		Data Sc		CRG)
Coat Prostedor-				
Cost Breakdown:	1	Utilization %		
Ownership Cost/Hou	r: \$36.70	NA		
Operating Cost/Hou		100		
Operator Cost/Hou		NA		
Operator Cost nou		INA		
Total Unit Cost/Hou	\$1/0.73			
Total Unit Cost/Hou	r: \$140.73			
Total Unit Cost/Hou Total Fleet Cost/Hou				
	ur: \$281.46			
Total Fleet Cost/Hou MATERIAL QUANTIT	ur: \$281.46	Swall factor: 1	000	
Total Fleet Cost/Hou MATERIAL QUANTIT Initial volume:6,050	ur: \$281.46 IES D CCY	Swell factor:1.	000	
Total Fleet Cost/Hou MATERIAL QUANTIT	ur: \$281.46	Swell factor:1.	000	
Total Fleet Cost/Hou MATERIAL QUANTIT Initial volume:6,050 Loose volume:	ur: \$281.46 IES 0 CCY 6,050 LCY	Swell factor: <u>1</u> . nnual report (15 ac. x 3")	000	
Total Fleet Cost/Hou <u>MATERIAL QUANTIT</u> Initial volume: Loose volume: Source of es	ur: \$281.46 IES 0 CCY 6,050 LCY	nnual report (15 ac. x 3")	000	
Total Fleet Cost/Hou <u>MATERIAL QUANTIT</u> Initial volume: Loose volume: Source of es	ur: \$281.46 IES CCY 6,050 LCY stimated volume: 2011 And	nnual report (15 ac. x 3")	000	
Total Fleet Cost/Hou <u>MATERIAL QUANTIT</u> Initial volume: Loose volume: Source of es	ur: \$281.46 IES 0 CCY 6,050 LCY stimated volume: 2011 Au ated swell factor: Cat Har	nnual report (15 ac. x 3")	000	
Total Fleet Cost/Hou MATERIAL QUANTIT Initial volume: 6,050 Loose volume: Source of es Source of estimate HOURLY PRODUCTIO	ur: \$281.46 IES 6,050 CCY LCY stimated volume: 2011 Au ated swell factor: Cat Har ON	nnual report (15 ac. x 3") Idbook		minutes
Total Fleet Cost/Hou MATERIAL QUANTIT Initial volume: Loose volume: Source of estimate HOURLY PRODUCTIO Loader Cycle Time:	ur: \$281.46 IES 0 CCY 6,050 LCY stimated volume: 2011 Au ated swell factor: Cat Har	nnual report (15 ac. x 3") Idbook	0.525	,
Total Fleet Cost/Hou MATERIAL QUANTIT Initial volume:6,050 Loose volume: Source of estimate HOURLY PRODUCTIO Loader Cycle Time: Cycle Time Factors	ur: \$281.46 IES 0 CCY 6,050 LCY stimated volume: 2011 And ated swell factor: Cat Hart DN Jnadjusted Basic Cycle Time	nnual report (15 ac. x 3") Idbook e (load, dump, maneuver):	0.525 Factor (min.)	minutes Source
Total Fleet Cost/Hou MATERIAL QUANTIT Initial volume: 6,050 Loose volume: Source of estimated Source of estimated HOURLY PRODUCTION Loader Cycle Time: Correst Material:	ur: \$281.46 IES 0 CCY 6,050 LCY stimated volume: 2011 Au ated swell factor: Cat Han 0N Jnadjusted Basic Cycle Time Material up to 1/8" diameter	nnual report (15 ac. x 3") adbook e (load, dump, maneuver):	0.525 Factor (min.) 0.020	Source (Cat HB)
Total Fleet Cost/Hou MATERIAL QUANTIT Initial volume: 6,050 Loose volume: 5 Source of estimate HOURLY PRODUCTIO Loader Cycle Time: 1 Cycle Time Factors Material: Stockpile:	ur: \$281.46 IES 0 CCY 6,050 LCY stimated volume: 2011 And ated swell factor: Cat Hand 0N Jnadjusted Basic Cycle Time Material up to 1/8" diameter Conveyor or dozer piled 1	nnual report (15 ac. x 3") adbook e (load, dump, maneuver): er 0.02 0 ft. high and up 0.00	0.525 Factor (min.) 0.020 0.000	Source (Cat HB) (Cat HB)
Total Fleet Cost/Hou MATERIAL QUANTIT Initial volume: 6,050 Loose volume: 5 Source of estimate HOURLY PRODUCTIO Loader Cycle Time: U Cycle Time Factors Material: Stockpile: Truck Ownership:	ur: \$281.46 IES 0 CCY 6,050 LCY stimated volume: 2011 And ated swell factor: Cat Hand 0N Jnadjusted Basic Cycle Time Material up to 1/8" diamet Conveyor or dozer piled 1 No adjustment - factor not	nnual report (15 ac. x 3") adbook e (load, dump, maneuver): er 0.02 0 ft. high and up 0.00	0.525 Factor (min.) 0.020 0.000 0.000	Source (Cat HB) (Cat HB) (Cat HB)
Total Fleet Cost/Hou MATERIAL QUANTIT Initial volume: Source of estimate Source of estimate HOURLY PRODUCTIC Loader Cycle Time: Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	ur: \$281.46 IES 0 CCY 6,050 LCY stimated volume: 2011 And ated swell factor: Cat Hand 0N Jnadjusted Basic Cycle Time Material up to 1/8" diamet Conveyor or dozer piled 1 No adjustment - factor not Constant operation -0.04	nnual report (15 ac. x 3") adbook e (load, dump, maneuver): er 0.02 0 ft. high and up 0.00	0.525 Factor (min.) 0.020 0.000 0.000 -0.040	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)
Total Fleet Cost/Hou MATERIAL QUANTIT Initial volume: 6,050 Loose volume: 5 Source of estimate HOURLY PRODUCTIO Loader Cycle Time: U Cycle Time Factors Material: Stockpile: Truck Ownership:	ur: \$281.46 IES 0 CCY 6,050 LCY stimated volume: 2011 And ated swell factor: Cat Hand 0N Jnadjusted Basic Cycle Time Material up to 1/8" diameter Conveyor or dozer piled 1 No adjustment - factor not Constant operation -0.04 Nominal target 0.00	nnual report (15 ac. x 3") adbook e (load, dump, maneuver): er 0.02 0 ft. high and up 0.00	0.525 Factor (min.) 0.020 0.000 0.000	Source (Cat HB) (Cat HB) (Cat HB)

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

2	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:	1.3821	minutes

Load Bucket Capacity

Rated Capacity:	5.60	LCY (heaped)
Bucket Fill Factor:	0.975	Loose material - uniform aggregates to 1/8" (95-100%) 0.975
Adjusted Capacity:	5.46	LCY

<u>Job Condition Correction Factors</u> Site Altitude: <u>6600</u> feet

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

Unadjusted Hourly Unit Production:	237.03	LCY/Hour
Adjusted Hourly Unit Production:	196.74	LCY/Hour
Adjusted Hourly Fleet Production:	393.48	LCY/Hour

Fleet size:	2	Loader(s)	Total job time:	15.38	Hours
Unit cost:	\$0.715	/LCY	Total job cost:	\$4,328.00	

BULLDOZER WORK

Task description:	CITE DISTINUTE TOPSON THE	ughout disturbed area		
Juniper Quarry	Permit Action:	2011 Midterm Review	Permit/Job#:	M1982141
PROJECT IDENTIF	ICATION			
Task #: 13A	State: Colorado		Abbreviation:	None
Date: 11/29/2011	County: Moffat		Filename:	M141-13a
User: DMC				· · · · · · · · · · · · · · · · · · ·
Agency or orga	nization name: DRMS			
HOURLY EQUIPMI	ENT COST			
Basic Machine: Ca	t D8T - 8U			
Horsepower: 310)			
	iversal			
Attachment: NA				
Shift Basis: 1 p	er day			
	RG)			
Cost Breakdown:				
COSt DICARGOWII		Utilization %		
Ownership Cost/Hour:	\$58.56	NA		
Operating Cost/Hour:	\$102.84	100		
Ripper op. Cost/Hour:	\$0.00	0		
Operator Cost/Hour:	\$38.49	NA		
-		INA		
Total unit Cost/Hour:	\$199.89			
Total Elect Coot/II-				
Total Fleet Cost/Hour:	\$399.77			
MATERIAL QUANT	<u>TITIES</u>			
MATERIAL QUANT	FITIES 50			
MATERIAL QUANT Initial Volume: 6,05 Swell factor: 1.00	F ITIES 50 90			
MATERIAL QUANT Initial Volume: 6,05 Swell factor: 1.00	FITIES 50			
MATERIAL QUANT Initial Volume: 6,05 Swell factor: 1.00	FITIES 50 50 50 LCY me: Task 12a			
MATERIAL QUANT Initial Volume: 6,05 Swell factor: 1.00 Loose volume: 6,05 Source of estimated volu 6,05 Source of estimated volu 50 Source of estimated swell 50	FITIES 50 50 LCY me: Task 12a 1 factor: Cat Handbook			
MATERIAL QUANT Initial Volume: 6,05 Swell factor: 1.00 Loose volume: 6,05 Source of estimated volu 6,05 Source of estimated volu 500 Source of estimated swel 605 HOURLY PRODUCC 605 Average push distance: 605	TITIES 50 50 50 LCY me: Task 12a 1 factor: Cat Handbook TION 100 feet			
MATERIAL QUANT Initial Volume: 6,05 Swell factor: 1.00 Loose volume: 6,05 Source of estimated volu 6,05 Source of estimated volu 50 Source of estimated swel 6,05 HOURLY PRODUCC Average push distance: Unadjusted hourly produce 6,05	TITIES 50 50 50 50 50 50 50 50 50 50 50 50 50 Cat 1 factor: Cat Handbook 100 feet ction: 931.6 LCY/hr			
MATERIAL QUANT Initial Volume: 6,05 Swell factor: 1.00 Loose volume: 6,05 Source of estimated volu 6,05 Source of estimated volu 500 Source of estimated swel 6,05 HOURLY PRODUCC 6,05 Average push distance: 6,05	TITIES 50 50 50 50 50 50 50 50 50 50 50 50 50 Cat 1 factor: Cat Handbook 100 feet ction: 931.6 LCY/hr	2		
MATERIAL QUANT Initial Volume: 6,05 Swell factor: 1.00 Loose volume: 6,05 Source of estimated volu 6,05 Source of estimated volu 50 Source of estimated swel 6,05 HOURLY PRODUCC Average push distance: Unadjusted hourly produce 6,05	TITIES 50 50 50 50 50 50 50 50 50 50 50 50 50 Cat 1 factor: Cat Handbook 100 feet ction: 931.6 LCY/hr	2		
MATERIAL QUANT Initial Volume: 6,05 Swell factor: 1.00 Loose volume: 6,05 Source of estimated volu 6,05 Source of estimated volu 500 Source of estimated swel 100 HOURLY PRODUCC Average push distance: Unadjusted hourly produ Materials consistency det	TITIES 50 50 50 LCY me: Task 12a 1 factor: Cat Handbook TION ction: 100 feet 931.6 LCY/hr scription: Loose stockpile 1.	2		
MATERIAL QUANT Initial Volume: 6,05 Swell factor: 1.00 Loose volume: 6,05 Source of estimated volu 6,05 Source of estimated volu 6,05 Source of estimated volu 500 Source of estimated swel 400 HOURLY PRODUCT Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: 100	CITIES 50 50 50 50 50 50 50 50 50 50 50 50 50 CY me: Task 12a 1 factor: Cat Handbook TION ction: 931.6 LCY/hr scription: Loose stockpile 1. 0 %	2		
MATERIAL QUANT Initial Volume: 6,05 Swell factor: 1.00 Loose volume: 6,05 Source of estimated volu 6,05 Source of estimated volu 6,05 Source of estimated volu 6,05 Materials consistency de Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude:	CITIES 50 50 50 50 50 50 50 50 50 50 50 50 50 10 11 100	2		
MATERIAL QUANT Initial Volume: 6,05 Swell factor: 1.00 Loose volume: 6,05 Source of estimated volu 6,05 Source of estimated volu 50 Source of estimated swell 100 HOURLY PRODUCC Average push distance: Unadjusted hourly produce Materials consistency de Average push gradient: Average site altitude: Material weight: Material weight:	CITIES 50 50 50 50 50 50 50 50 50 50 50 50 50 10 11 11 100	2 2 		
MATERIAL QUANTInitial Volume:6,05Swell factor:1.00Loose volume:6,05Source of estimated voluSource of estimated voluSource of estimated swellHOURLY PRODUCCAverage push distance:Unadjusted hourly produMaterials consistency deAverage push gradient:Average site altitude:Material weight:Weight description:	CITIES 50 50 50 50 50 50 50 50 50 50 50 50 50 10 11 12 11 100 11 100 <			
MATERIAL QUANT Initial Volume: 6,05 Swell factor: 1.00 Loose volume: 6,05 Source of estimated volu 6,05 Materials consistency 6,05 Average push distance: 0 Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction 10	CITIES 50 50 50 50 50 50 50 50 50 50 50 50 50 10 11 12 11 100	Source		

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:	1.438	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.8593	
Adjusted unit production:	800.52 LCY/hr	
Adjusted fleet production:	1601.04 LCY/hr	

Fleet size:	2 Dozer(s)
Unit cost:	\$0.250/LCY

Total job time:	3.78 Hours	
Total job cost:	\$1,510.67	

REVEGETATION WORK

ite: Juniper	Quarry	Per	mit Action:	2011 Midterm Review	Permit/Job#:	M1982141
PROJEC	T IDENTIFI	CATION				
Task #: Date: User:	11/29/2011	State: County:	Colorado Moffat		Abbreviation: Filename:	None M141-14a
A	gency or organi	zation name: DF	RMS			

Units / Description Units / Acre Cost / Unit Cost / Acre 8-24-24, 10-15-15, 10-20-20 250.00 pound \$0.30 \$75.00 Total Fertilizer Materials Cost/Acre \$75.00

Application

Description		Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)		\$50.09
	Total Fertilizer Application Cost/Acre	\$50.09

TILLING

Description		Cost /Acre
Chisel plowing {DMG}		\$86.71
	Total Tilling Cost/Acre	\$86.71

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Nespar	6.00	19.42	\$41.58
Thickspike Wheatgrass - Critana	5.50	19.44	\$27.83
Western Wheatgrass - Arriba	8.00	20.20	\$28.80
Needle and Thread	7.50	19.80	\$345.00
Flax, Lewis Blue	1.00	6.63	\$16.17
Winter Fat	1.00	2.55	\$32.00
Bluebunch Wheatgrass - Goldar	4.00	12.86	\$21.52
Totals Seed Mix	33.00	100.91	\$512.90

Application

Description	Cost /Acre
Drill seeding {DMG}	\$90.11

Total Seed	Application	Cost/Acre	\$90.11
i otal becu	Application	CUSUACIE	\$7 0.11

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - 2,4D @ 2.0 pt/ac	20.00	ACRE	\$2.40	\$48.00
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$164.00	\$328.00
	Total Mulch Materials Cost/Acre			

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$65.89
Weed spray, truck, non-aquatic area, nox. [DMG]		\$60.19
	Total Mulch Application Cost/Acre	\$126.08

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
		Tot	tals Nursery Stoc	ek Cost / Acre	\$0.00

	No. of Acres:	15	Cost /Acre:	\$1,316.89
Estimate	ed Failure Rate:	25%	Cost /Acre*:	\$1,316.89
*Selected Replanting Work Items:		FERTILIZING, T	ILLING, SEEDING,	
		MULCHING		
Initial Job Cost:	\$19,753.35			
Reseeding Job Cost:	\$4,938.34			
Total Job Cost:	\$24,691.69			
Job Hours:	40.00			

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description:	Mo	bilize reclamation	crev	v and equi	pment				
Juniper Quarry		Permit A	ction	n: 2011 N	Aidterm Re	eview Per	mit/Job#:M1	9821	41
PROJECT IDEN	TIFICAT	ION							
Task #: 15A		State: Co	lorad	0		Abbre	viation: Nor	16	
	0/2011		offat	.0				41-15	а
User: DMC			/1141						
	r organization	name: DRMS							
0	Ų								
EQUIPMENT T	RANSPOR	T RIG COST							
						Shift bas			
						Cost Data Sour	ce: CRG I	Data	
Truck	Tractor Desc	rintion GENE	RIC	ON-HIGH	WAYTR	UCK TRACTO	R 6X4 DIESE	EL PC	WFRFD
THOR	1140101 2030		auc			(2ND HALF, 2			WEIGED,
Truck	Trailer Desc	ription: GENE	RICI	FOLDING		ECK, DROP D	,	ENT	TRAILER
11001	1141101 2000		iue.	OLDING		, 50T, AND 100			IIG HEEK
					(201	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-)		
Cost Breakdown:									
Available Rig Cap	acities	0-25 Tons	26	-50 Tons	51	+ Tons			
Ownership Cost/Hour:		\$16.63	\$18.37			22.33			
Operating		\$44.38	\$46.13			50.07			
	Cost/Hour:	\$27.66				27.66			
	Cost/Hour:	\$0.00				25.39			
Total Unit		\$88.67		\$117.55		125.45			
NON ROADAB	,								
Machine	Weight/	Owner ship		ul Rig	Fleet	Haul Trip	Return Trip		DOT Permit
Description	Unit	Cost/hr/ unit	Co	st/hr/unit	Size	Cost/hr/	Cost/hr/ fleet		Cost/ fleet
	(TONS)					fleet			
Cat D8T - 8U	53.70	\$65.28		25.45	2	\$381.46	\$250.90		500.00
CAT 972H	28.00	\$36.70		7.55	2	\$308.50	\$235.10		500.00
Drill/Broadcast Seeder with Tractor	25.00	\$39.59	286	3.67	1	\$128.26	\$88.67	3	\$250.00
				c c	Subtotals:	\$818.22	\$574.67	¢	1,250.00
				L.	Subtotals.	J010.22	\$374.07	Q	1,230.00
ROADABLE E)UIPMENT	<u>Γ:</u>							
Machine Description)n	Total Cost/hr/ u	mit	Fleet Siz	e	Haul Trip	Return Tri		
machine Descriptio	J11		41111			Cost/hr/ fleet	Cost/hr/ fle		
Light Duty Diskup 4	vA 1 T Crow	\$25.30		1		\$25.30	\$25.30		
Light Duty Pickup, 4x4, 1 T. Crew \$25.30		1		ψ <i>∠</i> J.JU	J 460.00				

Subtotals: \$25.30 \$25.30

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	CRAIG	
Total one-way travel distance:	30.00	miles
Average Travel Speed:	45.00	mph
Total Non-Roadable Mob/Demob Cost * '* two round trips with haul rig:	\$5,993.63	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	\$33.73	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.67	0.67
Return Time (Hours):	0.67	0.67
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	2.33	1.33

JOB TIME AND COST

Total job time: 4.67 Hours

Total job cost: _____\$6,027.36