August 30, 2018

Russell Larsen Northwest Aggregates, Inc. 556 Struthers Ave Grand Junction, CO 81501



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

1313 Sherman Street, Room 215 Denver, CO 80203

RE: Wand Pit, Permit No. M-2010-007, Reclamation Costs Update and Notice of Surety Increase (SI-2)

Dear Mr. Larsen:

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

Division calculations estimate the cost to reclaim the above referenced site to be <u>\$126,986.36</u> rounded up to <u>\$126,990.00</u>. This is an increase of <u>\$15,162.00</u> over the <u>\$111,828.00</u> currently held by the Division. This estimate is based on conditions observed during the July 10, 2018 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, October 29, 2018**. Please review the enclosed figures as soon as possible and contact our office if any calculation errors are noted.

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

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

Sincerely,

Amy Geldell

Amy Yeldell Environmental Protection Specialist

Ec: Wally Erickson, Senior EPS, Grand Junction DRMS Jon Muller, Kilgore Companies LLC Enc: Financial Warranty Cost Estimate



COST SUMMARY WORK

Task description:		Updated post inspection 7-10-2018						
Site:	Wand Pit	t	Pe	rmit Action:	2018-07	Permit/Job	#: <u>M2010007</u>	
PI	ROJECT	<u>IDENTIFI(</u>	CATION					
	Task #:	_	State:	Colorado		Abbreviation:	None	
	Date:	8/30/2018 ACY	County:	Moffat		Filename:	M007-ACY	
	User:	ACI						

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
Reclamation of phase 1 pond (110) area south of access road		1	4	ľ	
01a	Dewater 110 Pit	PUMPING	1	95.94	\$8,009.00
02a	Transport backfill to slopes in 110 area	LOADER	2	34.29	\$9,338.00
03a	Shape slopes to 3:1 in 110 pit area	DOZER	2	8.61	\$3,592.00
04a	Transport topsoil to 110 area	LOADER	2	6.22	\$1,695.00
05a	Spread topsoil in 110 area	DOZER	2	1.26	\$524.00
06a	Reveg 110 area	REVEGE	1	5.00	\$3,813.00
Reclam	ation of phase 1 & 2 area north of access road		- U	ľ	
07a	Dewater Phase 1/2 Pit	PUMPING	1	249.82	\$20,855.00
08a	Transport backfill to slopes in Phase 1/2	LOADER	2	88.95	\$24,221.00
09a	Shape slopes to 3:1 in Phase 1/2	DOZER	2	18.09	\$7,543.00
10a	Transport topsoil to Phase 1/2	LOADER	2	15.37	\$4,187.00
11a	Spread topsoil in Phase 1/2	DOZER	2	2.51	\$1,049.00
12a	Reveg Phase 1/2	REVEGE	1	10.00	\$7,627.00
13a	Initial Mobilization	MOBILIZE	1	2.57	\$6,109.00
14a	Secondary Mobilization	MOBILIZE	1	2.57	\$1,516.00
		<u>SUBT(</u>	DTALS:	541.2	\$100,078

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	\$2,021.58
Performance bond:	1.05	Total =	\$1,050.82
Job superintendent:	100.00	Total =	\$7,305.00
Profit:	10.00	Total =	\$10,007.80
		TOTAL O & P =	\$20,385.20
		CONTRACT AMOUNT (direct + O & P) = $($	\$120,463.20

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		\$6,023.16
CONTINGENCY:	0.00	Total =	\$0.00

TOTAL INDIRECT COST = \$26,908.36

TOTAL BOND AMOUNT (direct + indirect) =\$126,986.36TOTAL BOND AMOUNT (Rounded) =\$126,990.00

PUMPING WORK

Task description:	Dewater 110 Pit			
e: Wand Pit	Permit Action:	2018-07	Permit/Job#:	M2010007
PROJECT IDENTIF	ICATION			
Task #: 01A Date: 8/30/2018 User: ACY	State: Colorado County: Moffat)		None M007-01a
Agency or organ	nization name: DRMS			
HOURLY EQUIPME	NT COST			
	Description		Quantity	
Make and Model:	Centrifugal pump - 200M, 10	in.	2	
Attachment 1:	Suction hose - 6 in. diam., 25		2	
Attachment 2:	Discharge hose - 6 in. D., 25	ft.	2	
Labor Unit 1:	Pump operator		1	
Horsepower:	70			
	er day			
	1.95 5 Tons)			
	5 TOHS)			
Cost Breakdown:		Utilization %		
Ownership Cost/H	Hour: \$20.60	NA		
Operating Cost/H		100		
Operator Cost/H		NA		
Total Unit Cost/H	Hour: \$83.48			
Total Fleet Cost/	Hour: \$83.48			
PUMPING QUANTI				
Initial Pond Volu			Conversion factor:	325850.5800
Final Pond Volu		gallons		
Total Pond Inflow Sur	Area: 20,000	Sq. ft.	Unit inflow rate in gph/sq. ft.:	0.3516
Total Pond Inflow Vol		5q. n.	gpii/ sq. n	0.3310
per H		gallons		
Source of	of estimated volume: Approx	. 9 ac pond 15' depth		
PUMPING TIME				
	imum Pump Capacity:	200,000	gph/pump	
	timated Suction Head:	10	feet	
	nated Discharge Head:	5	feet	
	Total Head:	15	feet	
	CPB Pump Capacity:	201,000	gph/pump	
	Site Altitude:	6,200	feet	
	ted Pumping Capacity:	402,000	_ gph	
	ljusted Pumping Time:	<u>109.43</u> 769,494	_ hours _ gallons	
	ljusted Pumping Time:	111.34	_ ganons Hours	
	de Adjustment Factor:	0.9400	(3% rule)	
	Imp Efficiency Factor:	0.9167	(55 min./hr.)	
Total Ad	justed Pumping Time:	95.94	hours	
JOB TIME AND COS	<u>ST</u>	Total job tin	ne: 95.94	Hours
		Total job co	ost: \$8,009	

WHEEL LOADER - LOAD AND CARRY WORK

Wand Pit	Pern	nit Action:	2018-07]	Permit/Job#:	M2010007
PROJECT IDENTI	FICATION					
Task #: 02A	State:	Colorado		Ab	previation:	None
Date: 8/30/2018	County:	Moffat			Filename:	M007-02a
User: ACY						
Agency or orga	anization name: DR	MS				
HOURLY EQUIPM	ENT COST					
Basic Machine:	CAT 972H			Horsepower:	,	287
Attachment 1:	ROPS Cab			Shift Basis:	1 p	er day
				Data Source:	(0	CRG)
Cost Dussledown						
Cost Breakdown:		1	Utilization %			
Ownership Cost	/Hour: \$44.6	7	NA			
Operating Cost			100			
Operator Cost			NA			
Total Unit Cost						
Total Fleet Cost	t/Hour: \$272.	30				
I ottal I leet Cob						
MATERIAL QUAN						
	TITIES		Swell fact	or: 1.125		
		_ CCY LCY	Swell fact	or: <u>1.125</u>		
Initial volume: Loose volume:	TITIES 14,815 16,667	CCY LCY				
Initial volume: Loose volume: Source	TITIES 14,815 16,667 of estimated volume:	CCY LCY Previous	ly accepted values			
Initial volume: Loose volume: Source	TITIES 14,815 16,667	CCY LCY	ly accepted values			
Initial volume: Loose volume: Source Source of e	TITIES 14,815 16,667 of estimated volume: estimated swell factor:	CCY LCY Previous	ly accepted values			
Initial volume: Loose volume: Source Source of e HOURLY PRODUC	TITIES 14,815 16,667 of estimated volume: estimated swell factor:	CCY LCY Previous	ly accepted values			
Initial volume: Loose volume: Source Source of e	TITIES 14,815 16,667 of estimated volume: estimated swell factor:	CCY LCY Previous Cat Hand	ly accepted values lbook		0.525	minutes
Initial volume: Loose volume: Source Source of e <u>HOURLY PRODUC</u> Loader Cycle Time:	TITIES 14,815 16,667 of estimated volume: estimated swell factor: CTION Unadjusted Basic (CCY LCY Previous Cat Hand	ly accepted values lbook	euver):	0.525 or (min.)	minutes Source
Initial volume: Loose volume: Source Source of e HOURLY PRODUC	TITIES 14,815 16,667 of estimated volume: estimated swell factor: CTION Unadjusted Basic G tors	CCY LCY Previous Cat Hanc	ly accepted values lbook	euver): Factor		
Initial volume: Loose volume: Source Source of e <u>HOURLY PRODUC</u> Loader Cycle Time: Cycle Time Fact	TITIES 14,815 16,667 of estimated volume: estimated swell factor: CTION Unadjusted Basic G tors ial: Mixed material	CY CCY Previous Cat Hanc Cycle Time	ly accepted values lbook	euver): Factor	or (min.)	Source
Initial volume: Loose volume: Source Source of e HOURLY PRODUC Loader Cycle Time: Cycle Time Fact Mater	TITIES 14,815 16,667 of estimated volume: estimated swell factor: CTION Unadjusted Basic C tors ial: Mixed material ile: Conveyor or do	Cycle Time	ly accepted values lbook (load, dump, man) ft. high and up 0.	euver): Facto 00	or (min.) 0.020	Source (Cat HB)
Initial volume: Loose volume: Source Source of e <u>HOURLY PRODUC</u> Loader Cycle Time: Cycle Time Fact Mater Stockp	TITIES 14,815 16,667 of estimated volume: estimated swell factor: CTION Unadjusted Basic O tors ial: Mixed material ile: Conveyor or do nip: No adjustment - on: Constant operat	Cycle Time	ly accepted values lbook (load, dump, man) ft. high and up 0.	euver): Facto 00 0	or (min.) 0.020 0.000	Source (Cat HB) (Cat HB)
Initial volume: Loose volume: Source Source of e <u>HOURLY PRODUC</u> Loader Cycle Time: Cycle Time Fact Mater Stockp Truck Ownersh	TITIES 14,815 16,667 of estimated volume: estimated swell factor: CTION Unadjusted Basic O tors ial: Mixed material ile: Conveyor or do nip: No adjustment - ion: Constant operat	Cycle Time	ly accepted values lbook (load, dump, man) ft. high and up 0.	euver): Facto 00 0 00 0	or (min.) 0.020 0.000 0.000	Source (Cat HB) (Cat HB) (Cat HB)
Initial volume: Loose volume: Source Source of e HOURLY PRODUC Loader Cycle Time: Cycle Time Fact Mater Stockp Truck Ownersh Operati	TITIES 14,815 16,667 of estimated volume: estimated swell factor: CTION Unadjusted Basic O tors ial: Mixed material ile: Conveyor or do nip: No adjustment - on: Constant operat	Cycle Time	ly accepted values lbook (load, dump, man ft. high and up 0. applicable 0.00 cle Time Adjustm	euver): Factor 00 00 00 00 00 00 00 00 00 00 00 00 00	br (min.) 0.020 0.000 0.000 0.040 0.000 0.020	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)
Initial volume: Loose volume: Source Source of e HOURLY PRODUC Loader Cycle Time: Cycle Time Fact Mater Stockp Truck Ownersh Operati	TITIES 14,815 16,667 of estimated volume: estimated swell factor: CTION Unadjusted Basic O tors ial: Mixed material ile: Conveyor or do nip: No adjustment - on: Constant operat	Cycle Time	ly accepted values lbook (load, dump, man ft. high and up 0. applicable 0.00	euver): Factor 00 00 00 00 00 00 00 00 00 00 00 00 00	br (min.) 0.020 0.000 0.000 0.040 0.000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)
Initial volume: Loose volume: Source Source of e HOURLY PRODUC Loader Cycle Time: Cycle Time Fact Mater Stockp Truck Ownersh Operati Dump Targ	TITIES 14,815 16,667 of estimated volume: estimated swell factor: CTION Unadjusted Basic O tors tial: Mixed material ile: Conveyor or do nip: No adjustment - tion: Constant operat get: Nominal target of	Cycle Time	ly accepted values lbook (load, dump, man ft. high and up 0. applicable 0.00 cle Time Adjustm	euver): Factor 00 00 00 00 00 00 00 00 00 00 00 00 00	br (min.) 0.020 0.000 0.000 0.040 0.000 0.020	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes
Initial volume: Loose volume: Source of e BOURLY PRODUC Loader Cycle Time: Cycle Time Fact Mater Stockp Truck Ownersh Operati Dump Targ Rolling Resistance – Ro	TITIES 14,815 16,667 of estimated volume: estimated swell factor: CTION Unadjusted Basic O tors ial: Mixed material ile: Conveyor or do nip: No adjustment ion: Constant operat get: Nominal target o ead Conditions	Cycle Time 0.02 zer piled 10 factor not a ion -0.04 0.00 Net Cy Adjust	ly accepted values lbook (load, dump, man) ft. high and up 0. applicable 0.00 cle Time Adjustm ed Basic Cycle Ti	euver): Facto 00 00 00 00 00 00 00 00 00 00 00 00 00	br (min.) 0.020 0.000 0.000 0.040 0.000 0.020 0.505	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes
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Length	Grade Res.	Rolling	Total Res.	Travel Time	Source
(feet)	(%)	Res. (%)	(%)	(minutes)	Source
350	0.00	5.00	5.00	0.3228	(Cat HB)
350	0.00	5.00	5.00	0.2912	(Cat HB)
	(feet) 350	(feet) (%) 350 0.00	(feet) (%) Res. (%) 350 0.00 5.00	(feet) (%) Res. (%) (%) 350 0.00 5.00 5.00	(feet) (%) Res. (%) (%) (minutes) 350 0.00 5.00 5.00 0.3228

Total Travel Time:	0.6140	minutes
Total Cycle Time:	1.1190	minutes

Load Bucket Capacity

Rated Capacity:	5.60	LCY (heaped)
Bucket Fill Factor:	0.975	Loose material - mixed moist aggregates (95-100%) 0.975
Adjusted Capacity:	5.46	_ LCY

Job Condition Correction Factors Site Altitude: <u>6200</u> feet

	Source
1.00	(CAT HB)
0.83	(1 shift/day)
0.83	multiplier
	0.83

Unadjusted Hourly Unit Production:	292.77	LCY/Hour
Adjusted Hourly Unit Production:	243.00	LCY/Hour
Adjusted Hourly Fleet Production:	486.00	LCY/Hour

Fleet size:	2	Loader(s)	Total job time:	34.29	Hours
Unit cost:	\$0.560	/LCY	Total job cost:	\$9,338	

BULLDOZER WORK

	Shape	slopes to 3:1 in 110 pi	it al ta		
Wand Pit		Permit Action:	2018-07	Permit/Job#:	M2010007
PROJECT IDEN	TIFICATIC	<u>N</u>			
Task #: 03A		State: Colorado		Abbreviation:	None
Date: 8/30/2	018	County: Moffat		Filename:	M007-03a
User: ACY		·		-	
Agency or	organization r	ame: DRMS			
HOURLY EQUI	PMENT CO	<u>ST</u>			
Basic Machine:	Cat D8T - 8	SU			
Horsepower:	310				
Blade Type:	Semi-Univer	sal			
Attachment: Shift Basis:	NA 1 non door				
Data Source:	1 per day (CRG)				
	(CKU)				
Cost Breakdown:					
		400 10	Utilization %		
Ownership Cost/H Operating Cost/H		\$93.62 \$73.35	NA 100		
Ripper own. Cost/H		<u>\$73.35</u> \$0.00	NA		
Ripper op. Cost/H		\$0.00	0		
Operator Cost/H	-	\$41.52	NA		
Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL OI	ur: \$416.9				
	ur: \$416.9				
Total Fleet Cost/Hou MATERIAL QU Initial Volume:	ır: \$416.9 ANTITIES 7,408				
Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor:	ar: \$416.9 ANTITIES 7,408 1.125				
Total Fleet Cost/Hou MATERIAL QU Initial Volume:	ır: \$416.9 ANTITIES 7,408				
Total Fleet Cost/Hou MATERIAL QU. Initial Volume: Swell factor: Loose volume: Source of estimated	ar: \$416.9 ANTITIES 7,408 1.125 8,334 LCY volume:	9 Half of transported vo	blume from task 02A		
Total Fleet Cost/Hot MATERIAL QU Initial Volume: Swell factor: Loose volume:	ar: \$416.9 ANTITIES 7,408 1.125 8,334 LCY volume:	9	blume from task 02A		
Total Fleet Cost/Hot MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated	ar: \$416.9 ANTITIES 7,408 1.125 8,334 LCY volume: swell factor:	9 Half of transported vo	blume from task 02A		
Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD	III: \$416.9 ANTITIES 7,408 1.125 8,334 LCY volume: swell factor: UCTION 1	9 Half of transported vo Cat Handbook	blume from task 02A		
Total Fleet Cost/Hot MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated	JIT: \$416.9 ANTITIES 7,408 1.125 8,334 LCY volume: swell factor: PUCTION ce:	9 Half of transported vo	blume from task 02A		
Total Fleet Cost/Hot MATERIAL QU. Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distan	ar: \$416.9 ANTITIES 7,408 1.125 8,334 LCY volume: swell factor: UCTION ce: roduction:	9 Half of transported vo Cat Handbook			
Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distan Unadjusted hourly p Materials consistence Average push gradie	ar: \$416.9 ANTITIES 7,408 1.125 8,334 LCY volume: swell factor: volume: swell factor: UCTION	9 Half of transported vo Cat Handbook 50 feet 1,400.0 LCY/hr Loose stockpile 1.2			
Total Fleet Cost/Hou MATERIAL QU. Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distan Unadjusted hourly p Materials consistence	ar: \$416.9 ANTITIES 7,408 1.125 8,334 LCY volume: swell factor: volume: swell factor: UCTION	9 Half of transported vo Cat Handbook 50 feet 1,400.0 LCY/hr Loose stockpile 1.2			
Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distan Unadjusted hourly p Materials consistence Average push gradie	ar: \$416.9 ANTITIES 7,408 1.125 8,334 LCY volume: swell factor: volume: swell factor: UCTION	9 Half of transported vo Cat Handbook 50 feet 1,400.0 LCY/hr Loose stockpile 1.2			
Total Fleet Cost/Hot MATERIAL QU. Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distan Unadjusted hourly p Materials consistence Average push gradie Average site altitude	ar: \$416.9 ANTITIES 7,408 1.125 8,334 LCY volume: swell factor: UCTION ce:	9 Half of transported vo Cat Handbook 50 feet 1,400.0 LCY/hr Loose stockpile 1.2			
Total Fleet Cost/Hor MATERIAL QU. Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distan Unadjusted hourly p Materials consistence Average push gradie Average site altitude Material weight: Weight description: Job Condition Corree	ar: \$416.9 ANTITIES 7,408 1.125 8,334 LCY volume: swell factor: volume: swell factor: volume:	9 Half of transported vo Cat Handbook 50 feet 1,400.0 LCY/hr Loose stockpile 1.2 Feet bs/LCY posed rock - 25% Rock	., 75% Earth <u>Source</u>		
Total Fleet Cost/Hor MATERIAL QU. Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distan Unadjusted hourly p Materials consistence Average push gradie Average site altitude Material weight: Weight description: Job Condition Correc Open	Ir: \$416.9 ANTITIES 7,408 1.125 8,334 LCY volume: swell factor: UCTION	9 Half of transported vo Cat Handbook 50 feet 1,400.0 LCY/hr Loose stockpile 1.2 Feet bs/LCY posed rock - 25% Rock 0.750	2		
Total Fleet Cost/Hor MATERIAL QU. Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distan Unadjusted hourly p Materials consistence Average site altitude Material weight: Weight description: Job Condition Correc Open Material co	arr: \$416.9 ANTITIES 7,408 1.125 8,334 LCY volume: swell factor: VUCTION	9 Half of transported vo Cat Handbook 50 feet 1,400.0 LCY/hr Loose stockpile 1.2 čeet bs/LCY posed rock - 25% Rock 0.750 1.200	., 75% Earth 		
Total Fleet Cost/Hou MATERIAL QU. Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated MOURLY PROD Average push distan Unadjusted hourly p Materials consistence Average push gradie Average site altitude Material weight: Weight description: Job Condition Corree Open Material co Dozim	Ir: \$416.9 ANTITIES 7,408 1.125 8,334 LCY volume: swell factor: UCTION	9 Half of transported vo Cat Handbook 50 feet 1,400.0 LCY/hr Loose stockpile 1.2 Feet bs/LCY posed rock - 25% Rock 0.750	2		

Job efficienc	y: 0.830	(1 SHIFT/DAY)
Spoil pil	le: 0.800	(FND-RF)
Push gradier	nt: 0.666	(CAT HB)
Altitud	le: 1.000	(CAT HB)
Material Weigh	nt: 0.868	(CAT HB)
Blade typ	e: 1.000	(PAT)
Net correctio		
Adjusted unit production:	483.70 LCY/hr	
Adjusted fleet production:	967.4 LCY/hr	

Fleet size:	2 Dozer(s)
Unit cost:	\$0.431/LCY

Total job time:	8.61 Hours
Total job cost:	\$3,592

WHEEL LOADER - LOAD AND CARRY WORK

Task description:	Transport topso	il to 110 are	a			
: Wand Pit	Per	mit Action:	2018-07		Permit/Job#:	M2010007
PROJECT IDENTIF	FICATION					
Task #: 04A	State:	Colorado			Abbreviation:	None
Date: $\frac{04A}{8/30/2018}$		Moffat			Filename:	M007-04a
User: ACY	county:					112007 014
Agency or orga	anization name: D	RMS				
HOURLY EQUIPMI	ENT COST					
Basic Machine:	CAT 972H			Horsepov	wer:	287
Attachment 1:	ROPS Cab			Shift Ba		ber day
				Data Sou	^	CRG)
Cost Breakdown:						
COSt Dicardown.			Utilization ⁶	%		
Ownership Cost/	Hour: \$44.	67	NA			
Operating Cost/			100			
Operator Cost/	Hour: \$40.	90	NA			
Total Unit Cost/	Hour: \$136	.15				
Total Fleet Cost	/Hour: \$272	2.30				
	φ <u>2</u> 11					
MATERIAL QUAN	TITIES					
	3,025	CCY	Swell	factor: <u>1.00</u>)0	
Loose volume:	3,025	LCY				
Source	of estimated volume:	Approx.	2.5 ac @ 9" d	epth		
Source of e	stimated swell factor:	Cat Han	dbook	•		
HOURLY PRODUC	TION					
Loader Cycle Time:	Unadjusted Basic	Cuelo Timo	(load dumn	manauwar).	0.525	minutes
	-		(load, duilip, l			
Cycle Time Fact				I	Factor (min.)	Source
Mater				0.00	0.020	(Cat HB)
Stockpi					0.000	(Cat HB)
Truck Ownersh	· ·		applicable 0.0	0	0.000	(Cat HB)
Operation	1				-0.040	(Cat HB)
Dump Targ	get: Nominal targe		1. TP' A 1'		0.000	(Cat HB)
		•	cle Time Adju		-0.020	minutes
		Adjus	ted Basic Cycl	e 11me:	0.505	minutes
Rolling Resistance – Roa	ad Conditions					
Haul	: Rutted dirt, little	maintanana	a no water ?"	tira nonatratio	on 5.0	
Return						
		mannenance	, 110 water, 2	are penetration	JII J.U	
Haul and Return Time						
	Length Grad	e Res.	Rolling	Total Res.	Travel Time	_
			Res. (%)	(%)	(minutes)	Source

Haul Route:

Return Route:

350

350

0.00

0.00

5.00

5.00

5.00

5.00

(Cat HB) (Cat HB)

0.3228

0.2912

Total Travel Time:	0.6140	minutes
Total Cycle Time:	1.1190	minutes

Load Bucket Capacity

Rated Capacity:	5.60	LCY (heaped)
Bucket Fill Factor:	0.975	Loose material - mixed moist aggregates (95-100%) 0.975
Adjusted Capacity:	5.46	LCY

Job Condition Correction Factors Site Altitude: <u>6200</u> feet

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

Unadjusted Hourly Unit Production:	292.77	LCY/Hour
Adjusted Hourly Unit Production:	243.00	LCY/Hour
Adjusted Hourly Fleet Production:	486.00	LCY/Hour

Fleet size:	2	Loader(s)	Total job time:	6.22	Hours
Unit cost:	\$0.560	/LCY	Total job cost:	\$1,695	

Page 1 of 2

BULLDOZER WORK

Task description:	Spread topsoil ir	1 110 area			
Wand Pit	Per	mit Action:	2018-07	Permit/Job#:	M2010007
PROJECT IDENTIF	FICATION				
Task #: 05A	State:	Colorado		Abbreviation:	None
Date: $\frac{8/30}{2018}$		Moffat		Filename:	M007-05a
User: ACY	county:				112007 000
		DMC			
Agency or orga	inization name: Di	RMS			
HOURLY EQUIPM	<u>ENT COST</u>				
Basic Machine: Ca	ut D8T - 8SU				
Horsepower: 31	0				
Blade Type: Se	mi-Universal				
Attachment: NA	4				
Shift Basis: 1 p	per day				
Data Source: (C	RG)				
Cost Breakdown:					
<u></u>			Utilization %		
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		
\mathbf{K}		\$41.52	NA		
		941.32			
Operator Cost/Hour:		\$+ 1.32	INA		
Operator Cost/Hour: Total unit Cost/Hour:	\$208.49	ψ41.32			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour:	\$416.99	φ+1.32			
Operator Cost/Hour: Total unit Cost/Hour:	\$416.99 <u>FITIES</u> 25	φ +1. 52			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: <u>3,02</u> Swell factor: <u>1.00</u>	\$416.99 <u>FITIES</u> 25	φ+1.52			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,02 Swell factor: 1.00 Loose volume: 3,02 Source of estimated volu	\$416.99 FITIES 25 25 25 LCY Ime:Approx. 2	 2.5 ac @ 9"			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,02 Swell factor: 1.00 Loose volume: 3,02	\$416.99 FITIES 25 25 25 LCY Ime:Approx. 2	 2.5 ac @ 9"			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,02 Swell factor: 1.00 Loose volume: 3,02 Source of estimated volu Source of estimated swell	\$416.99 FITIES 25 20 25 LCY ume: Approx.1 Il factor: Cat Hand	 2.5 ac @ 9"			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,02 Swell factor: 1.00 Loose volume: 3,02 Source of estimated volu Source of estimated swell HOURLY PRODUC	\$416.99 FITIES 25 20 25 LCY ume: Approx. ? 11 factor: Cat Hand TION	 2.5 ac @ 9"			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,02 Swell factor: 1.00 Loose volume: 3,02 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUCC Average push distance:	\$416.99 IITIES 25 20 25 LCY ume: Approx. ? Il factor: Cat Hand TION 50 feet	 2.5 ac @ 9" Ibook			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,02 Swell factor: 1.00 Loose volume: 3,02 Source of estimated volu Source of estimated swell HOURLY PRODUC	\$416.99 <u>FITIES</u> 25 25 25 25 LCY Ime: <u>Approx.</u> Il factor: <u>Cat Hand</u> <u>TION</u> <u>50 feet</u>	 2.5 ac @ 9" Ibook			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,02 Swell factor: 1.00 Loose volume: 3,02 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUCC Average push distance:	\$416.99 FITIES 25 200 25 LCY ume: Approx. 7 Il factor: Cat Hand TION action: 50 feet 1,400.0 LC	 2.5 ac @ 9" Ibook			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,02 Swell factor: 1.00 Loose volume: 3,02 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUCC Average push distance: Unadjusted hourly produ	\$416.99 FITIES 25 20 25 LCY ume: Approx. 2 11 factor: Cat Hand TION action: 50 feet action: 1,400.0 LC escription: Loose	2.5 ac @ 9" lbook			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,02 Swell factor: 1.00 Loose volume: 3,02 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient:	\$416.99 FITIES 25 20 25 LCY ume: Approx. 2 11 factor: Cat Hand TION inction: 50 feet inction: 1,400.0 LC escription: Loose 0 %	2.5 ac @ 9" lbook			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,02 Swell factor: 1.00 Loose volume: 3,02 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUCC Average push distance: Unadjusted hourly produ	\$416.99 FITIES 25 20 25 LCY ume: Approx. 2 11 factor: Cat Hand TION action: 50 feet action: 1,400.0 LC escription: Loose	2.5 ac @ 9" lbook			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,02 Swell factor: 1.00 Loose volume: 3,02 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient:	\$416.99 FITIES 25 20 25 LCY ume: Approx. 2 11 factor: Cat Hand TION inction: 50 feet inction: 1,400.0 LC escription: Loose 0 %	2.5 ac @ 9" lbook			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,02 Swell factor: 1.00 Loose volume: 3,02 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude:	\$416.99 FITIES 25 20 25 LCY ume: Approx. 7 21 factor: Cat Hand TION action: 1,400.0 LC escription: Loose 0 % 6,200 feet	2.5 ac @ 9" lbook			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,02 Swell factor: 1.00 Loose volume: 3,02 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description:	\$416.99 FITIES 25 20 25 LCY ume: Approx. 7 21 factor: Cat Hand TION action: 1,400.0 LC escription: Loose 0 % 6,200 feet 1,600 lbs/LCY Top Soil	2.5 ac @ 9" lbook			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,02 Swell factor: 1.00 Loose volume: 3,02 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight:	\$416.99 FITIES 25 20 25 LCY ume: Approx. ? 11 factor: Cat Hand TION action: 50 feet action: 1,400.0 LC escription: Loose 0 % 6,200 feet 1,600 lbs/LCY Top Soil n Factor 1	2.5 ac @ 9" lbook			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,02 Swell factor: 1.00 Loose volume: 3,02 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Iob Condition Correction	\$416.99 FITIES 25 20 25 LCY ume: Approx. ? 11 factor: Cat Hand TION action: 50 feet action: 1,400.0 LC escription: Loose 0 % 6,200 feet 1,600 lbs/LCY Top Soil n Factor 0 Skill: 0				
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,02 Swell factor: 1.00 Loose volume: 3,02 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Iob Condition Correction Operator Material consist Dozing ma	\$416.99 FITIES 25 20 25 LCY ume: Approx.7 21 factor: Cat Hand TION action: 50 feet action: $1,400.0$ LC escription: Loose 0 % 6,200 feet 1,600 lbs/LCY Top Soil m Factor Skill: 0 tency: 1 ethod: 1				

Job efficienc	y: 0.830	(1 SHIFT/DAY)
Spoil pil	le: 0.800	(FND-RF)
Push gradier	nt: 1.000	(CAT HB)
Altitud	le: 1.000	(CAT HB)
Material Weigh	nt: 1.438	(CAT HB)
Blade typ	e: 1.000	(PAT)
Net correctio		
Adjusted unit production:	1,203.02 LCY/hr	
Adjusted fleet production:	2406.04 LCY/hr	

Fleet size:	2 Dozer(s)
Unit cost:	\$0.173/LCY

Total job time:	1.26 Hours
Total job cost:	\$524

REVEGETATION WORK

Task descri	ption:	Reveg 110 area			
ite: Wand P	it	Permit Action:	2018-07	Permit/Job	o#:M2010007
PROJECT	IDENTIFIC	CATION			
Task #: Date:	06A 8/30/2018	State: <u>Colorado</u> County: Moffat		Abbreviation: Filename:	None M007-06a
User:	ACY	CountyNonat			W1007-00a

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
Orchardgrass - Paiute	0.30	3.72	\$1.11
Smooth Brome - Lincoln	1.60	5.33	\$6.98
Intermediate Wheatgrass - Oahe	2.50	5.34	\$9.83
Pubescent Wheatgrass - Luna	2.25	4.65	\$9.38
Sainfoin - Remont	2.50	1.09	\$8.10
Totals Seed Mix	9.15	20.12	\$35.40

Application

Description		Cost /Acre
Drill Seeding (DRMS Survey Cost)		\$232.00
	Total Seed Application Cost/Acre	\$232.00

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - 2,4D @ 1.0 pt/ac	1.00	ACRE	\$2.81	\$2.81
Herbicide - Glyphosate (Journey)@ 1.0 pt/ac	1.00	ACRE	\$4.26	\$4.26
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$288.00	\$576.00
Total Mulch Materials Cost/Acre				\$583.07

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$68.78
Power mulcher (MEANS 32 91 13.16 0350)		\$92.78
Weed spray, truck, aquatic area, nox. [DMG]		\$70.14
	Total Mulch Application Cost/Acre	\$231.70

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
Cottonwood,	5	Tubling, 10 cu. in. container	\$1.98	\$2.40	\$9.90
Narrowleaf		{(MEANS)			
Willow, Sandbar	5	Tubling, 10 cu. in. container	\$4.38	\$2.40	\$21.90
		{(MEANS)			
Totals Nursery Stock Cost / Acre					\$31.80

	No. of Acres:	2.5	Cost /Acre:	\$1,220.26
Estimated Failure Rate:		25%	Cost /Acre*:	\$1,220.26
*Selected Replanti	ng Work Items:	TILLING,SEEDIN	IG,NURSERY,MULC	
		HING		
Initial Job Cost:	\$3,050.65			
Reseeding Job Cost:	\$762.66			
Total Job Cost:	\$3,813			
Job Hours:	5.00			

PUMPING WORK

Task description:	Dewater Phase				
Wand Pit	P	ermit Action:	2018-07	Permit/Job	#: <u>M2010007</u>
PROJECT IDENTIE	TICATION				
Task #: 07A	State	e: Colorado)	Abbreviation:	None
Date: 8/30/2018	County		-	Filename:	
User: ACY					
Agency or orga	nization name	DRMS			
HOURLY EQUIPM		DIGNIS			
<u>HOURLI LQUI MI</u>	Description			Quantit	V
Make and Model:	Centrifugal pum	np - 200M, 10	in.	2	<u> </u>
Attachment 1:	Suction hose - 6			2	
Attachment 2:	Discharge hose	- 6 in. D., 25	ft.	2	
Labor Unit 1:	Pump operator			1	
Horsepower:	70				
	per day				
Weight:	1.95				
	(S Tons)				
Cost Breakdown:			Utilization %		
Ownership Cost/	Hour: \$2	0.60	NA		
Operating Cost/		5.08	100		
Operator Cost	Hour: \$2	7.80	NA		
Total Unit Cost/	Hour: \$8	3.48			
Total Fleet Cost	/Hour: \$	83.48			
		55.40			
PUMPING QUANTI		45.00		Commission for the	225950 5900
Initial Pond Vo Final Pond Vo		45.00 18,450.10	gallons	Conversion factor	:: 325850.5800
Total Pond Inflow Su	/	10,450.10	ganons	Unit inflow rate in	n
		2,000	Sq. ft.	gph/sq. ft.	
Total Pond Inflow Vo	olume	,			
per	Hour: 14	,767.20	gallons		
Source	of estimated volum	ne: Approx	. 9 ac pond 15' depth	L	
PUMPING TIME					
Ma	ximum Pump Capa	city:	200,000	gph/pump	
E	stimated Suction H	lead:	10	feet	
Esti	mated Discharge H		5	feet	
	Total H		15	feet	
	CPB Pump Capa	· ·	201,000 6,200	gph/pump	
	Site Altit		0,200	feet	
Adiu	sted Pumping Capa	city:	402,000	gph	
	djusted Pumping T		279.65	hours	
Inflow	during Initial Pump	ping:	4,129,616	gallons	
	djusted Pumping T		289.92	Hours	
	ude Adjustment Fa		0.9400	(3% rule)	
	Pump Efficiency Fa djusted Pumping T		0.9167 249.82	(55 min./hr.) hours	
		·····	279.02	110015	
JOB TIME AND CO	<u>81</u>		Total job	time: 249.82	2 Hours
Unit cost: \$0.0	00179 /Gallon		Total job	cost: \$20,85	5

WHEEL LOADER - LOAD AND CARRY WORK

Wand Pit		Permit Action:	2018-07	F	ermit/Job#:	M2010007
		I climit Action.	2010-07	1		1012010007
PROJECT IDENTIF	ICATION					
Task #: 08A	S	State: Colorado		Abb	reviation:	None
Date: 8/30/2018		unty: Moffat			Filename:	M007-08a
User: ACY		•				
Agency or organ	nization name:	DRMS				
HOURLY EQUIPME	ENT COST					
Basic Machine:	CAT 972H		F	Horsepower:		287
Attachment 1:	ROPS Cab		1	Shift Basis:	-	er day
	11012 040		Ι	Data Source:		CRG)
Cast Drasladarum						
Cost Breakdown:			Utilization %			
Ownership Cost/H	Hour:	\$44.67	NA			
Operating Cost/I		\$50.58	100	-		
Operator Cost/I		\$40.90	NA	-		
Total Unit Cost/H		\$136.15				
Total Fleet Cost/	/Hour:	\$272.30				
MATERIAL QUANT	<u> TITIES</u>					
Initial volume: 3	1,111	CCY	Swell factor	r: 1.125		
Loose volume:	35,000	LCY				
		1 . D '	sly accepted values			
Source o	of estimated vo	olume. Previous				
	of estimated vo stimated swell					
	of estimated vo stimated swell					
	stimated swell					
Source of es	stimated swell : TION	factor: Cat Han	dbook	uver):	0 525	minutes
Source of es HOURLY PRODUCT Loader Cycle Time:	stimated swell i TION Unadjusted	factor: Cat Han			0.525	minutes
Source of es HOURLY PRODUCT Loader Cycle Time: Cycle Time Facto	stimated swell : <u> TION</u> Unadjusted prs	factor: Cat Han Basic Cycle Time	dbook	Facto	or (min.)	Source
Source of est HOURLY PRODUCT Loader Cycle Time: Cycle Time Facto Materia	stimated swell : TION Unadjusted ors al: Mixed m	factor: Cat Han Basic Cycle Time naterial 0.02	dbook	Facto 0	or (min.) .020	Source (Cat HB)
Source of est HOURLY PRODUCT Loader Cycle Time: Cycle Time Facto Materia Stockpil	stimated swell : TION Unadjusted ors al: Mixed m le: Conveyo	factor: Cat Han Basic Cycle Time naterial 0.02 or or dozer piled 10	dbook (load, dump, maner) ft. high and up 0.0	Facto 0 0 0	or (min.) .020 .000	Source (Cat HB) (Cat HB)
Source of est HOURLY PRODUCT Loader Cycle Time: Cycle Time Facto Materia Stockpil Truck Ownershi	stimated swell : TION Unadjusted ors al: Mixed m le: Conveyc ip: No adjus	factor: Cat Han Basic Cycle Time naterial 0.02 or or dozer piled 10 stment - factor not	dbook (load, dump, maner) ft. high and up 0.0	Facto 0 0 0 0	or (min.) .020 .000 .000	Source (Cat HB) (Cat HB) (Cat HB)
Source of est HOURLY PRODUCT Loader Cycle Time: Cycle Time Facto Materia Stockpil Truck Ownershi Operatio	stimated swell s TION Unadjusted ors al: Mixed m le: Conveyc ip: No adjus on: Constant	factor: Cat Han Basic Cycle Time naterial 0.02 or or dozer piled 10 timent - factor not operation -0.04	dbook (load, dump, maner) ft. high and up 0.0	Factor 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	or (min.) .020 .000 .000 .000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)
Source of est HOURLY PRODUCT Loader Cycle Time: Cycle Time Facto Materia Stockpil Truck Ownershi	stimated swell s TION Unadjusted ors al: Mixed m le: Conveyc ip: No adjus on: Constant	factor: Cat Han Basic Cycle Time Daterial 0.02 or or dozer piled 10 stment - factor not coperation -0.04 target 0.00	dbook (load, dump, maner) ft. high and up 0.00 applicable 0.00	Factor 0 0 0 0 0 -C 0	or (min.) .020 .000 .000 .040 .000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)
Source of est HOURLY PRODUCT Loader Cycle Time: Cycle Time Facto Materia Stockpil Truck Ownershi Operatio	stimated swell s TION Unadjusted ors al: Mixed m le: Conveyc ip: No adjus on: Constant	factor: Cat Han Basic Cycle Time aterial 0.02 or or dozer piled 10 timent - factor not operation -0.04 target 0.00 Net Cy	dbook (load, dump, maner) ft. high and up 0.00 applicable 0.00 rcle Time Adjustmen	Factor 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	or (min.) .020 .000 .000 .040 .000 .020	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes
Source of est HOURLY PRODUCT Loader Cycle Time: Cycle Time Facto Materia Stockpil Truck Ownershi Operatio Dump Targe	stimated swell s TION Unadjusted ors al: Mixed m le: Conveyc ip: No adjus on: Constant et: Nominal	factor: Cat Han Basic Cycle Time aterial 0.02 or or dozer piled 10 timent - factor not operation -0.04 target 0.00 Net Cy	dbook (load, dump, maner) ft. high and up 0.00 applicable 0.00	Factor 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	or (min.) .020 .000 .000 .040 .000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)
Source of est HOURLY PRODUCT Loader Cycle Time: Cycle Time Facto Materia Stockpil Truck Ownershi Operatio Dump Targe Rolling Resistance – Roa	timated swell in the system of	factor: Cat Han Basic Cycle Time naterial 0.02 or or dozer piled 10 timent - factor not operation -0.04 target 0.00 Net Cy Adjus	dbook (load, dump, maner) ft. high and up 0.00 applicable 0.00 rcle Time Adjustmented Basic Cycle Tim	Factor 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	or (min.) .020 .000 .000 .040 .000 .020 .505	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes
Source of est HOURLY PRODUCT Loader Cycle Time: Cycle Time Facto Materia Stockpil Truck Ownershi Operatio Dump Targe Rolling Resistance – Roa Haul:	timated swell : TION Unadjusted ors al: Mixed m le: Conveyc ip: No adjus on: Constant et: Nominal ad Conditions 	factor: Cat Han Basic Cycle Time haterial 0.02 or or dozer piled 10 stment - factor not operation -0.04 target 0.00 Net Cy Adjus	dbook (load, dump, maner) ft. high and up 0.00 applicable 0.00 rcle Time Adjustmen ted Basic Cycle Tim e, no water, 2" tire p	Factor 0 0	or (min.) .020 .000 .000 .040 .000 .020 .505	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes
Source of est HOURLY PRODUCT Loader Cycle Time: Cycle Time Facto Materia Stockpil Truck Ownershi Operatio Dump Targe Rolling Resistance – Roa	timated swell : TION Unadjusted ors al: Mixed m le: Conveyc ip: No adjus on: Constant et: Nominal ad Conditions 	factor: Cat Han Basic Cycle Time haterial 0.02 or or dozer piled 10 stment - factor not operation -0.04 target 0.00 Net Cy Adjus	dbook (load, dump, maner) ft. high and up 0.00 applicable 0.00 rcle Time Adjustmented Basic Cycle Tim	Factor 0 0	or (min.) .020 .000 .000 .040 .000 .020 .505	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes

	Length	Ofaue Res.	Konnig	Total Res.	Traver Time	Source
	(feet)	(%)	Res. (%)	(%)	(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)
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 - mixed moist aggregates (95-100%) 0.975
Adjusted Capacity:	5.46	_ LCY

Job Condition Correction Factors Site Altitude: <u>6200</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:	88.95	Hours
Unit cost:	\$0.692	/LCY	Total job cost:	\$24,221	

BULLDOZER WORK

Task description:	Shape slopes to 2	3:1 in Phase 1	1/2		
: Wand Pit	Per	mit Action:	2018-07	Permit/Job#:	M2010007
PROJECT IDENTI	FICATION				
Task #: 09A Date: 8/30/2018 User: ACY	State: County:	Colorado Moffat		Abbreviation: Filename:	None M007-09a
Agency or org	anization name: D	RMS			
HOURLY EQUIPM	ENT COST				
	at D8T - 8SU		_		
1	10 emi-Universal				
Attachment: N					
	per day				
	CRG)				
Cost Breakdown:		1			
Ormership Or (U		\$02.52	<u>Utilization %</u>		
Ownership Cost/Hours		\$93.62 \$73.35	NA 100		
Operating Cost/Hour: Ripper own. Cost/Hour:		\$73.35	100 NA		
Ripper op. Cost/Hour:		\$0.00	<u> </u>		
		\$41.52	NA		
			NΔ		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour:	\$208.49 \$416.99	Ψ 1 .32			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN	\$208.49 \$416.99 TITIES	ψτ1.52			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 15,	\$208.49 \$416.99 TITIES 556	ψτ1.52			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 15, Swell factor: 1.1	\$208.49 \$416.99 TITIES 556 25	ψτ1.52			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 15, Swell factor: 1.1	\$208.49 \$416.99 TITIES 556				
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 15, Swell factor: 1.1	\$208.49 \$416.99 TITIES 556 25 501 LCY		ume from task 08A		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 15, Swell factor: 1.1 Loose volume: 17,	\$208.49 \$416.99 TITIES ,556 25 ,501 LCY ume: Half of th	ransported vol			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 15, Swell factor: 1.1 Loose volume: 17, Source of estimated vol Source of estimated swel	\$208.49 \$416.99 TITIES 556 25 501 LCY ume: Half of the cat Hance	ransported vol			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 15, Swell factor: 1.1 Loose volume: 17, Source of estimated vol	\$208.49 \$416.99 TITIES 556 25 501 LCY ume: Half of the cat Hance	ransported vol			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 15, Swell factor: 1.1 Loose volume: 17, Source of estimated vol Source of estimated swel	\$208.49 \$416.99 TITIES 556 25 501 LCY ume: Half of the cat Hance	ransported vol			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 15, Swell factor: 1.1 Loose volume: 17, Source of estimated vol Source of estimated sweet HOURLY PRODUCE	\$208.49 \$416.99 TITIES 556 25 501 LCY ume: Half of the Cat Hance CTION 50 feet	ransported vol			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 15, Swell factor: 1.1 Loose volume: 17, Source of estimated vol Source of estimated swell HOURLY PRODUC Average push distance:	\$208.49 \$416.99 TITIES 5556 25 501 LCY ume: Half of the Cat Hand CTION uction: 50 feet 1,400.0 LC	ransported vol			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 15. Swell factor: 1.1 Loose volume: 17. Source of estimated vol Source of estimated sweet HOURLY PRODUC Average push distance: Unadjusted hourly prod	\$208.49 \$416.99 TITIES 5556 25 501 LCY ume: Half of the Cat Hand CTION uction: 50 feet 1,400.0 LC	ransported vol lbook			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 15. Swell factor: 1.1 Loose volume: 17. Source of estimated vol Source of estimated sweet HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency de Average push gradient:	\$208.49 \$416.99 TITIES 556 25 501 LCY ume: Half of tr ell factor: Cat Hance CTION uction: 50 feet 1,400.0 LC escription: Loose 15 %	ransported vol lbook			
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Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 15. Swell factor: 1.1 Loose volume: 17. Source of estimated vol Source of estimated sweet HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency de Average site altitude: Material weight: Weight description:	\$208.49 \$416.99 TITIES 556 25 501 LCY ume: Half of the ell factor: Cat Hance CTION uction: 1,400.0 LC escription: Loose 15 % 6,200 feet 2,650 lbs/LCY Decomposed rock	ransported vol lbook Y/hr stockpile 1.2	ume_from task 08A		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 11. Loose volume: 17. Source of estimated vol Source of estimated vol Source of estimated sweet HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency de Average site altitude: Material weight: Weight description: Job Condition Correction	\$208.49 \$416.99 TITIES 556 25 501 LCY ume: Half of the ell factor: Cat Hance CTION uction: 50 feet 1,400.0 LCC escription: Loose 15 % 6,200 feet 2,650 lbs/LCY Decomposed rock on Factor	ransported vol lbook	ume from task 08A		
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Job efficience	ey: 0.830	(1 SHIFT/DAY)
Spoil pi	le: 0.800	(FND-RF)
Push gradier	nt: 0.666	(CAT HB)
Altitud	le: 1.000	(CAT HB)
Material Weight	nt: 0.868	(CAT HB)
Blade typ	be: 1.000	(PAT)
Net correction	on: 0.3455	
Adjusted unit production:	483.70 LCY/hr	
Adjusted fleet production:	967.4 LCY/hr	

Fleet size:	2 Dozer(s)
Unit cost:	\$0.431/LCY

Total job time:	18.09 Hours
Total job cost:	\$7,543

WHEEL LOADER - LOAD AND CARRY WORK

Task description:	Transpo	rt topsoil to Pha	se 1/2			
Wand Pit		Permit Action	on: 2018-07		Permit/Job#	: M2010007
PROJECT IDENT	TIFICATION					
Task #: 10A		State: Colora	ado		Abbreviation:	None
Date: 8/30/20	18 0	County: Moffa			Filename:	M007-10a
User: ACY						
Agency or o	rganization nam	e: DRMS				
HOURLY EQUIP	MENT COST	-				
Basic Machine	: CAT 972H			Horse	power:	287
Attachment 1			-			per day
			_			CRG)
Cost Breakdown:						
Cost Dicurdo will			Utilizatio	on %		
Ownership Co	ost/Hour:	\$44.67	NA			
Operating Co		\$50.58	100			
Operator Co	ost/Hour:	\$40.90	NA			
Total Unit Co	ost/Hour:	\$136.15				
Total Fleet C	ost/Hour:	\$272.30				
	6,050 ce of estimated f estimated swe	volume: Appr	ox. 5 ac @ 9" d Handbook	lepth		
HOURLY PRODU						
Loader Cycle Time:		ed Basic Cycle T	ime (load, dum	p, maneuver):		minutes
Cycle Time F		10.02			Factor (min.)	Source
		material 0.02	d 10 ft bigh on	d up 0.00	0.020	(Cat HB)
Truck Owne		yor or dozer pile ustment - factor			0.000	(Cat HB) (Cat HB)
		int operation -0.0	11		-0.040	(Cat HB)
Dump T		al target 0.00	•		0.000	(Cat HB)
Dump 1			Cycle Time A	diustment:	-0.020	minutes
			ljusted Basic C		0.505	minutes
			-			-
Rolling Resistance – I		_				
		irt, little maintena				
Retu	urn: Rutted d	irt, little maintena	ance, no water,	2" tire penetr	ation 5.0	
Haul and Return Time	<u>e</u>					
	Length	Grade Res.	Rolling	Total Res.	Travel Time	
	(feet)	(%)	Res. (%)	(%)	(minutes)	Source
Haul Route:	500	0.00	5.00	5.00	0.4611	(Cat HB)

5.00

0.00

Return Route:

500

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 - mixed moist aggregates (95-100%) 0.975
Adjusted Capacity:	5.46	_ LCY

Job Condition Correction Factors Site Altitude: <u>6200</u> feet

	Source
1.00	(CAT HB)
0.83	(1 shift/day)
0.83	multiplier
	0.83

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:	\$0.692	/LCY	Total job cost:	\$4,187	

BULLDOZER WORK

Task description:	Spread topsoil	in Phase 1/2			
Wand Pit	P	ermit Action:	2018-07	Permit/Job#:	M2010007
PROJECT IDENTI	FICATION				
Task #: 11A	State	: Colorado		Abbreviation:	None
Date: 8/30/2013 User: ACY				Filename:	M007-11a
Agency or org	ganization name:	DRMS			
HOURLY EQUIPM	<u>IENT COST</u>				
	Cat D8T - 8SU				
1 <u> </u>	310				
•1	Semi-Universal				
	NA per day				
	per day CRG)				
<u> </u>					
Cost Breakdown:			**.**		
		¢02.52	<u>Utilization %</u>		
Ownership Cost/Hour		\$93.62 \$73.35	NA 100		
Operating Cost/Hour Ripper own. Cost/Hour		\$73.35 \$0.00	NA		
Ripper own. Cost/Hour Ripper op. Cost/Hour		\$0.00	0 NA		
Operator Cost/Hour		\$41.52	NA		
Operator Cost/Hour		ψ+1.52	NA		
Total unit Cost/Hour:	\$208.49				
Total unit Cost/Hour: Total Fleet Cost/Hour:	\$208.49 \$416.99				
Total Fleet Cost/Hour:	\$416.99				
Total Fleet Cost/Hour: MATERIAL QUAN	\$416.99 NTITIES				
Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume:6,0	\$416.99 NTITIES 050				
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume:6,(Swell factor:1.0	\$416.99 NTITIES 050 000				
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume:6,(Swell factor:1.0	\$416.99 NTITIES 050				
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 6,0 Swell factor: 1.0 Loose volume: 6,0 Source of estimated vol	\$416.99 NTITIES 050 000 050 LCY lume:Approx				
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 6,0 Swell factor: 1.0 Loose volume: 6,0	\$416.99 NTITIES 050 000 050 LCY lume:Approx	<u>. 5 ac @ 9"</u> ndbook			
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 6,0 Swell factor: 1.0 Loose volume: 6,0 Source of estimated vol Source of estimated sw	\$416.99 NTITIES 050 000 050 LCY lume: <u>Approv</u> rell factor: Cat Ha				
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 6,0 Swell factor: 1.0 Loose volume: 6,0 Source of estimated vol	\$416.99 NTITIES 050 000 050 LCY lume: <u>Approv</u> rell factor: Cat Ha				
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Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume:6,(Swell factor:1.(Loose volume:6, Source of estimated vol Source of estimated vol Source of estimated sw HOURLY PRODU(Average push distance: Unadjusted hourly proc	\$416.99 NTITIES 050 000 050 LCY lume: Approx vell factor: Cat Ha CTION : 50 feet duction: 1,400.0 L description: Loos	ndbook .CY/hr			
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 6,0 Swell factor: 1.0 Loose volume: 6,0 Source of estimated vol Source of estimated vol Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly proc Materials consistency d Average push gradient:	\$416.99 NTITIES 050 000 050 LCY lume: Approx vell factor: Cat Ha CTION : 50 feet duction: 1,400.0 L description: Loos	ndbook .CY/hr			
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume:	\$416.99 NTITIES 050 000 050 LCY lume: Approx vell factor: Cat Ha CTION : 50 feet duction: 1,400.0 L description: Loos : 0 %	ndbook .CY/hr			
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Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume:	\$416.99 NTITIES 050 000 050 LCY lume: Approx vell factor: Cat Ha CTION : 50 feet duction: 1,400.0 L description: Loos : 0 % 6,200 feet 1,600 lbs/LCY Top Soil on Factor or Skill:	ndbook .CY/hr e stockpile 1.2	Source (AVG.)		
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume:	\$416.99 NTITIES 050 000 050 LCY lume: Approx rell factor: Cat Ha CTION : 50 feet duction: 1,400.0 L description: Loos : 0 % 6,200 feet 1,600 lbs/LCY Top Soil on Factor or Skill: istency:	ndbook .CY/hr æ stockpile 1.2 0.750 1.200	Source (AVG.) (CAT HB)		
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume:	\$416.99 NTITIES 050 000 050 LCY lume: Approx rell factor: Cat Ha CTION : 50 feet duction: 1,400.0 L description: Loos : 0 % 6,200 feet 1,600 lbs/LCY Top Soil on Factor or Skill: istency:	ndbook .CY/hr e stockpile 1.2	Source (AVG.)		

cy: 0.830	(1 SHIFT/DAY)
le: 0.800	(FND-RF)
nt: 1.000	(CAT HB)
le: 1.000	(CAT HB)
ht: 1.438	(CAT HB)
be: 1.000	(PAT)
on: 0.8593	
1,203.02 LCY/hr	
2406.04 LCY/hr	
	le: 0.800 nt: 1.000 le: 1.000 ht: 1.438 pe: 1.000 ph: 0.8593 1,203.02 LCY/hr

Fleet size:	2 Dozer(s)
Unit cost:	\$0.173/LCY

Total job time:	2.51 Hours
Total job cost:	\$1,049

REVEGETATION WORK

Task descri	ption:	Reveg Phase 1/2			
e: Wand Pi	t	Permit Action:	2018-07	Permit/Job	#: <u>M2010007</u>
	<u>IDENTIFI(</u>				
Task #:	12A	State: Colorado		Abbreviation:	None
Date:	8/30/2018	County: Moffat		Filename:	M007-12a
User:	ACY				

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
Orchardgrass - Paiute	0.30	3.72	\$1.11
Smooth Brome - Lincoln	1.60	5.33	\$6.98
Intermediate Wheatgrass - Oahe	2.50	5.34	\$9.83
Pubescent Wheatgrass - Luna	2.25	4.65	\$9.38
Sainfoin - Remont	2.50	1.09	\$8.10
Totals Seed Mix	9.15	20.12	\$35.40

Application

Description		Cost /Acre
Drill Seeding (DRMS Survey Cost)		\$232.00
	Total Seed Application Cost/Acre	\$232.00

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - 2,4D @ 1.0 pt/ac	1.00	ACRE	\$2.81	\$2.81
Herbicide - Glyphosate (Journey)@ 1.0 pt/ac	1.00	ACRE	\$4.26	\$4.26
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$288.00	\$576.00
Total Mulch Materials Cost/Acre				\$583.07

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$68.78
Power mulcher (MEANS 32 91 13.16 0350)		\$92.78
Weed spray, truck, aquatic area, nox. [DMG]		\$70.14
	Total Mulch Application Cost/Acre	\$231.70

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
Cottonwood,	5	Tubling, 10 cu. in. container	\$1.98	\$2.40	\$9.90
Narrowleaf		{(MEANS)			
Willow, Sandbar	5	Tubling, 10 cu. in. container	\$4.38	\$2.40	\$21.90
		{(MEANS)			
Totals Nursery Stock Cost / Acre					\$31.80

	No. of Acres:	5	Cost /Acre:	\$1,220.26	
Estimate	ed Failure Rate:	25%	Cost /Acre*:	\$1,220.26	
*Selected Replanti	ng Work Items:	TILLING,SEEDIN	G,NURSERY,MULC		
		HING			
Initial Job Cost:	\$6,101.30				
Reseeding Job Cost:	\$1,525.33				
Total Job Cost:	\$7,627				
Job Hours:	10.00				

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Shift basis:1 per day 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:26-50 Tons51+ TonsOwnership Cost/Hour:\$16.63\$18.37Operating Cost/Hour:\$16.63\$18.37Operator Cost/Hour:\$27.66\$27.66Helper Cost/Hour:\$0.00\$25.39Total Unit Cost/Hour:\$88.67\$117.55\$125.45			Permit	Action: 2018-	07		Permit/Job#: <u>M</u>	2010007	
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$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Task #: 13A		State: Co	lorado		Abbre	eviation: None		
User: $\overline{\text{ACY}}$ Agency or organization name:DRMSEQUIPMENT TRANSPORT RIG COSTShift basis:1 per day Cost Data Source:COR 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 Capacities0-25 Tons26-50 Tons51+ TonsOwnership Cost/Hour:\$16.63\$18.37\$22.33Operating Cost/Hour:\$16.63\$18.37\$22.33Operating Cost/Hour:\$30.00\$25.39\$25.39Total Unit Cost/Hour:\$88.67\$117.55\$125.45NON ROADABLE EQUIPMENT:MachineWeight/ Unit (TONS)Owner ship Cost/hr/unitHaul Rig SizeFleet Cost/hr/uniReturn Trip Cost/hr/ Rotthr/ ReetDOT Permit Cost/fleet ReetMachine DescriptionWeight/ Unit (TONS)S88.671\$98.97\$88.67\$250.00Colsfired apunp -1.95\$10.30\$88.671\$98.97\$88.67\$250.00Cat D3T - 88U47.71\$93.62\$117.552\$324.44\$235.10\$500.00Cat D3T - 88U47.71\$93.62\$117.552\$324.44\$235.10\$500.00C		2018							
EQUIPMENT TRANSPORT RIG COSTShift basis: $1 \text{ per day} Cost Data Source: \overline{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 Capacities0-25 Tons26-50 Tons51+ TonsOwnership Cost/Hour:$16.63$18.37$22.33Operating Cost/Hour:$16.63$18.37$22.33Operating Cost/Hour:$16.63$18.37$22.33Operating Cost/Hour:$16.63$18.37$22.33Operating Cost/Hour:$16.63$18.37$22.33Operating Cost/Hour:$44.38$46.13$50.07Operating Cost/Hour:$80.00$25.39$25.39Total Unit Cost/Hour:$88.67$117.55$125.45NON ROADABLE EQUIPMENT:MachineWeight/Owner shipHaul RigCost/hr/unitFleetHaul TripCost/hr/Cost/fleetContrifugal pump -1.95$10.30$88.671$98.97$88.67$250.00CAT 972H28.00$44.67$117.552$422.34$235.10$500.00Cat D8T -8SU47.71$93.62$117.552$422.34$235.10$500.00Cat D8T -8SU47.71$93.62$117.552$422.34<$								100	
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How He (2ND HALF, 2006) 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 <th col<="" th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></th>	<th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>								
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 \$125.45 NON ROADABLE EQUIPMENT: Machine Weight/ Unit Cost/hr/ unit Cost/hr/ unit Cost/hr/unit Haul Rig Cost/hr/unit Size Fleet Cost/hr/ fleet Haul Trip Cost/hr/ fleet DOT Permit Cost/hr/ fleet Centrifugal pump - 200M, 10 in. 1.95 \$10.30 \$88.67 1 \$98.97 \$88.67 \$25.00 CAT 972H 28.00 \$44.67 \$117.55 2 \$324.44 \$235.10 \$500.00 Cat BT - 8SU 47.71 \$93.62 \$117.55 2 \$422.34 \$235.10 \$500.00 Dril/Broadcast Seeder with Tractor 515.54 \$88.67 1 \$104.21 \$88.67 \$250.00	Truck	Fractor Desc	ription: GENE	RIC ON-HIGHV				L POWERED,	
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: Cost/hr/ unit Cost/hr/ cost/hr/ unit Cost/hr/ Cost/hr/ fleet DOT Permit Cost/fleet Description Unit (TONS) Owner ship Cost/hr/ unit t Size Cost/hr/ Cost/hr/ fleet DOT Permit Cost/fleet Centrifugal pump - 1.95 \$10.30 \$88.67 1 \$98.97 \$88.67 \$250.00 CAT 972H 28.00 \$44.67 \$117.55 2 \$422.34 \$235.10 \$500.00 Cat D8T - 8SU 47.71 \$93.62 \$117.55 2 \$422.34 \$235.10 \$500.00 Seeder with									
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 \$1125.45 NON ROADABLE EQUIPMENT: Owner ship Cost/hr/ unit (TONS) Haul Rig Cost/hr/ unit t Fleet Cost/hr/nni Return Trip Cost/hr/ fleet DOT Permit Cost/hr/ fleet Centrifugal pump - 1.95 \$10.30 \$88.67 1 \$98.97 \$88.67 \$250.00 CAT 972H 28.00 \$44.67 \$117.55 2 \$324.44 \$235.10 \$500.00 Cat D8T - 8SU 47.71 \$93.62 \$117.55 2 \$324.44 \$235.10 \$500.00 Dril/Broadcast 25.00 \$15.54 \$88.67 1 \$104.21 \$88.67 \$250.00	Truck	Trailer Desc	ription: Gl				-	IPMENT	
Available Rig Capacities0-25 Tons26-50 Tons51+ TonsOwnership Cost/Hour:\$16.63\$18.37\$22.33Operating Cost/Hour:\$44.38\$46.13\$50.07Operator Cost/Hour:\$27.66\$27.66\$27.66Helper Cost/Hour:\$0.00\$25.39\$25.39Total Unit Cost/Hour:\$88.67\$117.55\$125.45NON ROADABLE EQUIPMENT:Machine DescriptionWeight/ Unit (TONS)Owner ship Cost/hr/ unitHaul Rig Cost/hr/unit tFleet SizeHaul Trip Cost/hr/ fleetReturn Trip Cost/hr/ fleetDOT Permit Cost/hr/ fleetCentrifugal pump - 200M, 10 in.1.95\$10.30\$88.671\$98.97\$88.67\$250.00CAT 972H28.00\$44.67\$117.552\$324.44\$235.10\$500.00Cat D8T - 8SU47.71\$93.62\$117.552\$422.34\$235.10\$500.00Dril/Broadcast Seeder with Tractor25.00\$15.54\$88.671\$104.21\$88.67\$250.00Power Mulcher6.00\$8.33\$88.671\$97.00\$88.67\$250.00				Т	'RAILER	(25T, 50T, Al	ND 100T)		
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 Weight/ Unit (TONS) Owner ship Cost/hr/ unit Haul Rig Cost/hr/unit t Fleet Size Haul Trip Cost/hr/ fleet Return Trip Cost/hr/ fleet DOT Permit Cost/fleet Centrifugal pump - 200M, 10 in. 1.95 \$10.30 \$88.67 1 \$98.97 \$88.67 \$250.00 Cat D8T - 8SU 47.71 \$93.62 \$117.55 2 \$324.44 \$235.10 \$500.00 Cat D8T - 8SU 47.71 \$93.62 \$117.55 2 \$422.34 \$235.10 \$500.00 Dill/Broadcast Seeder with 25.00 \$15.54 \$88.67 1 \$104.21 \$88.67 \$250.00	To at Day als do source								
Ownership Cost/Hour:\$16.63\$18.37\$22.33Operating Cost/Hour:\$44.38\$46.13\$50.07Operator Cost/Hour:\$27.66\$27.66Helper Cost/Hour:\$0.00\$25.39Total Unit Cost/Hour:\$88.67\$117.55NON ROADABLE EQUIPMENT:MachineWeight/ Unit (TONS)Owner ship Cost/hr/ unitHaul Rig Cost/hr/unitFleet SizeHaul Trip Cost/hr/ fleetReturn Trip Cost/hr/ fleetDOT Permit Cost/hr/ fleetCentrifugal pump - 200M, 10 in.1.95\$10.30\$88.671\$98.97\$88.67\$25.00Cat D8T - 8SU47.71\$93.62\$117.552\$324.44\$235.10\$500.00Cat D8T - 8SU47.71\$93.62\$117.552\$422.34\$235.10\$500.00Dil/Broadcast Seeder with Tractor\$15.54\$88.671\$104.21\$88.67\$250.00Power Mulcher6.00\$8.33\$88.671\$97.00\$88.67\$250.00	<u>Jost Breakdown:</u>								
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$			0-25 Tons	26-50 Tons	51-	+ Tons			
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Ownership (Cost/Hour:	\$16.63	\$18.37	\$2	22.33			
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$			\$44.38	\$46.13	\$	50.07			
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$			\$27.66	\$27.66	\$2	77.66			
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	1					27.00			
Machine Description Weight/ Unit (TONS) Owner ship Cost/hr/ unit Haul Rig Cost/hr/unit Fleet Cost/hr/unit Haul Trip Cost/hr/ fleet Return Trip Cost/hr/ fleet DOT Permit Cost/fleet Centrifugal pump - 200M, 10 in. 1.95 \$10.30 \$88.67 1 \$98.97 \$88.67 \$250.00 CAT 972H 28.00 \$44.67 \$117.55 2 \$324.44 \$235.10 \$500.00 Cat D8T - 8SU 47.71 \$93.62 \$117.55 2 \$422.34 \$235.10 \$500.00 Drill/Broadcast Seeder with Tractor 25.00 \$15.54 \$88.67 1 \$104.21 \$88.67 \$250.00 Power Mulcher 6.00 \$8.33 \$88.67 1 \$97.00 \$88.67 \$250.00	Helper (Cost/Hour:	\$0.00	\$25.39	\$2				
Internation Internation <thinternation< th=""> <thinternation< th=""></thinternation<></thinternation<>						25.39			
Description Unit (TONS) Cost/hr/ unit (TONS) Cost/hr/ unit t Size Cost/hr/ fleet Cost/hr/ fleet Cost/hr/ fleet Cost/fleet Centrifugal pump - 200M, 10 in. 1.95 \$10.30 \$88.67 1 \$98.97 \$88.67 \$250.00 CAT 972H 28.00 \$44.67 \$117.55 2 \$324.44 \$235.10 \$500.00 Cat D8T - 8SU 47.71 \$93.62 \$117.55 2 \$422.34 \$235.10 \$500.00 Drill/Broadcast Seeder with Tractor 25.00 \$15.54 \$88.67 1 \$104.21 \$88.67 \$250.00 Power Mulcher 6.00 \$8.33 \$88.67 1 \$97.00 \$88.67 \$250.00	Total Unit (Cost/Hour:	\$88.67			25.39			
Centrifugal pump - 200M, 10 in. 1.95 \$10.30 \$88.67 1 \$98.97 \$88.67 \$250.00 CAT 972H 28.00 \$44.67 \$117.55 2 \$324.44 \$235.10 \$500.00 Cat D8T - 8SU 47.71 \$93.62 \$117.55 2 \$422.34 \$235.10 \$500.00 Drill/Broadcast 25.00 \$15.54 \$88.67 1 \$104.21 \$88.67 \$250.00 Seeder with Tractor 7 \$133 \$88.67 1 \$104.21 \$88.67 \$250.00 Power Mulcher 6.00 \$8.33 \$88.67 1 \$97.00 \$88.67 \$250.00	Total Unit (Cost/Hour: E EQUIPN	\$88.67	\$117.55	\$1	25.39 25.45	Return Trip		
200M, 10 in. CAT 972H 28.00 \$44.67 \$117.55 2 \$324.44 \$235.10 \$500.00 Cat 972H 28.00 \$44.67 \$117.55 2 \$422.34 \$235.10 \$500.00 Cat D8T - 8SU 47.71 \$93.62 \$117.55 2 \$422.34 \$235.10 \$500.00 Drill/Broadcast 25.00 \$15.54 \$88.67 1 \$104.21 \$88.67 \$250.00 Seeder with Tractor - - - - - \$250.00 Power Mulcher 6.00 \$8.33 \$88.67 1 \$97.00 \$88.67 \$250.00	Total Unit (NON ROADABL Machine	Cost/Hour: E EQUIPN Weight/	\$88.67 MENT: Owner ship	\$117.55 Haul Rig	Fleet	25.39 25.45 Haul Trip	Return Trip Cost/hr/ fleet		
CAT 972H 28.00 \$44.67 \$117.55 2 \$324.44 \$235.10 \$500.00 Cat D8T - 8SU 47.71 \$93.62 \$117.55 2 \$422.34 \$235.10 \$500.00 Drill/Broadcast 25.00 \$15.54 \$88.67 1 \$104.21 \$88.67 \$250.00 Seeder with Tractor 7 88.33 \$88.67 1 \$97.00 \$88.67 \$250.00	Total Unit (NON ROADABL Machine	Cost/Hour: E EQUIPN Weight/ Unit	\$88.67 MENT: Owner ship	\$117.55 Haul Rig Cost/hr/uni	Fleet	25.39 25.45 Haul Trip Cost/hr/	Return Trip Cost/hr/ fleet		
Cat D8T - 8SU 47.71 \$93.62 \$117.55 2 \$422.34 \$235.10 \$500.00 Drill/Broadcast Seeder with Tractor 25.00 \$15.54 \$88.67 1 \$104.21 \$88.67 \$250.00 Power Mulcher 6.00 \$8.33 \$88.67 1 \$97.00 \$88.67 \$250.00	Total Unit (NON ROADABL Machine Description	Cost/Hour: E EQUIPN Weight/ Unit (TONS)	\$88.67 MENT: Owner ship Cost/hr/ unit	\$117.55 Haul Rig Cost/hr/uni t	\$1 Fleet Size	25.39 25.45 Haul Trip Cost/hr/ fleet	Cost/hr/ fleet	Cost/ fleet	
Drill/Broadcast Seeder with Tractor 25.00 \$15.54 \$88.67 1 \$104.21 \$88.67 \$250.00 Power Mulcher 6.00 \$8.33 \$88.67 1 \$97.00 \$88.67 \$250.00	Total Unit C NON ROADABL Machine Description Centrifugal pump - 200M, 10 in.	Cost/Hour: E EQUIPN Weight/ Unit (TONS) 1.95	\$88.67 MENT: Owner ship Cost/hr/ unit \$10.30	\$117.55 Haul Rig Cost/hr/uni t	Fleet Size	25.39 25.45 Haul Trip Cost/hr/ fleet \$98.97	Cost/hr/ fleet \$88.67	Cost/ fleet \$250.00	
Seeder with Tractor Image: Constraint of the second s	Total Unit C NON ROADABL Machine Description Centrifugal pump - 200M, 10 in.	Cost/Hour: E EQUIPN Weight/ Unit (TONS) 1.95	\$88.67 MENT: Owner ship Cost/hr/ unit \$10.30 \$44.67	\$117.55 Haul Rig Cost/hr/uni t \$88.67 \$117.55	Fleet Size	25.39 25.45 Haul Trip Cost/hr/ fleet \$98.97 \$324.44	Cost/hr/ fleet \$88.67 \$235.10	Cost/ fleet \$250.00	
Tractor Figure 1 Figure 2	Total Unit C NON ROADABL Machine Description Centrifugal pump - 200M, 10 in. CAT 972H Cat D8T - 8SU	Cost/Hour: E EQUIPN Weight/ Unit (TONS) 1.95 28.00	\$88.67 MENT: Owner ship Cost/hr/ unit \$10.30 \$44.67	\$117.55 Haul Rig Cost/hr/uni t \$88.67 \$117.55	Fleet Size	25.39 25.45 Haul Trip Cost/hr/ fleet \$98.97 \$324.44 \$422.34	Cost/hr/ fleet \$88.67 \$235.10	Cost/ fleet \$250.00 \$500.00	
Power Mulcher 6.00 \$8.33 \$88.67 1 \$97.00 \$88.67 \$250.00	Total Unit C Total Unit C NON ROADABL Machine Description Centrifugal pump - 200M, 10 in. CAT 972H Cat D8T - 8SU Drill/Broadcast	Cost/Hour: E EQUIPN Weight/ Unit (TONS) 1.95 28.00 47.71	\$88.67 MENT: Owner ship Cost/hr/ unit \$10.30 \$44.67 \$93.62	\$117.55 Haul Rig Cost/hr/uni t \$88.67 \$117.55 \$117.55	Fleet Size	25.39 25.45 Haul Trip Cost/hr/ fleet \$98.97 \$324.44 \$422.34	Cost/hr/ fleet \$88.67 \$235.10 \$235.10	Cost/ fleet \$250.00 \$500.00 \$500.00	
	Total Unit C Total Unit C NON ROADABL Machine Description Centrifugal pump - 200M, 10 in. CAT 972H Cat D8T - 8SU Drill/Broadcast Seeder with	Cost/Hour: E EQUIPN Weight/ Unit (TONS) 1.95 28.00 47.71	\$88.67 MENT: Owner ship Cost/hr/ unit \$10.30 \$44.67 \$93.62	\$117.55 Haul Rig Cost/hr/uni t \$88.67 \$117.55 \$117.55	Fleet Size	25.39 25.45 Haul Trip Cost/hr/ fleet \$98.97 \$324.44 \$422.34	Cost/hr/ fleet \$88.67 \$235.10 \$235.10	Cost/ fleet \$250.00 \$500.00 \$500.00	
(Bowie LD-90)	Total Unit C Total Unit C NON ROADABL Machine Description Centrifugal pump - 200M, 10 in. CAT 972H Cat D8T - 8SU Drill/Broadcast Seeder with Tractor	Cost/Hour: E EQUIPN Weight/ Unit (TONS) 1.95 28.00 47.71 25.00	\$88.67 MENT: Owner ship Cost/hr/ unit \$10.30 \$44.67 \$93.62 \$15.54	\$117.55 Haul Rig Cost/hr/uni t \$88.67 \$117.55 \$117.55 \$88.67	Fleet Size	25.39 25.45 Haul Trip Cost/hr/ fleet \$98.97 \$324.44 \$422.34 \$104.21	Cost/hr/ fleet \$88.67 \$235.10 \$235.10 \$88.67	Cost/ fleet \$250.00 \$500.00 \$500.00 \$250.00	
	Total Unit C Total Unit C NON ROADABL Machine Description Centrifugal pump - 200M, 10 in. CAT 972H Cat D8T - 8SU Drill/Broadcast Seeder with Tractor Power Mulcher	Cost/Hour: E EQUIPN Weight/ Unit (TONS) 1.95 28.00 47.71 25.00	\$88.67 MENT: Owner ship Cost/hr/ unit \$10.30 \$44.67 \$93.62 \$15.54	\$117.55 Haul Rig Cost/hr/uni t \$88.67 \$117.55 \$117.55 \$88.67	Fleet Size	25.39 25.45 Haul Trip Cost/hr/ fleet \$98.97 \$324.44 \$422.34 \$104.21	Cost/hr/ fleet \$88.67 \$235.10 \$235.10 \$88.67	Cost/ fleet \$250.00 \$500.00 \$500.00 \$250.00	

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 1 T. Crew	\$19.39	1	\$19.39	\$19.39
		Subtotals:	\$19.39	\$19.39

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region: Total one-way travel distance: Average Travel Speed:	CRAIG, CO 5.00 35.00	miles
Total Non-Roadable Mob/Demob Cost *	\$6,103.40	_ `
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	\$5.54	

Transportation Cycle Time:

Haul Time (Hours): Return Time (Hours): Loading Time (Hours): Unloading Time (Hours):	Non- Roadable Equipment 0.14 0.14 0.50 0.50	Roadable Equipment 0.14 0.14 NA NA
Subtotals:	1.29	0.29

JOB TIME AND COST

Total job time: 2.57 Hours

Total job cost: **\$6,109**

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description:	Sec	ondary Mobilizat	tion				
te: Wand Pit		Permit Action: 2018		-07	1	Permit/Job#: <u>M</u>	2010007
PROJECT IDE	NTIFICATI	ON					
Task #: 144	A	State: Co	olorado		Abbre	eviation: None	
Date: 8/3 User: AC	0/2018 CY	County: M	offat		Fi	lename: M007	7-14a
Agency	or organizatior	n name: DRMS					
EQUIPMENT 1	FRANSPOR	<u>T RIG COST</u>					
				C	Shift ba Cost Data Sour		
Trucl	k Tractor Desc	ription: GENE	RIC ON-HIGH		CK TRACTO (2ND HALF,	OR, 6X4, DIESEI 2006)	L POWERED,
Truc	k Trailer Desc	ription: G				ROP DECK EQU	IPMENT
			r	TRAILER	(25T, 50T, AN	ND 100T)	
Cost Breakdown:							
Available Rig C	apacities	0-25 Tons	26-50 Tons	51+	Tons		
	Cost/Hour:	\$16.63	\$18.37	\$2	2.33		
Operating	g Cost/Hour:	\$44.38	\$46.13	\$5	0.07		
Operator	r Cost/Hour:	\$27.66	\$27.66	\$2	7.66		
Helper Cost/Hour:		\$0.00	\$25.39	\$2	5.39		
Total Unit Cost/Hour:		\$88.67	\$117.55	\$12	25.45		
NON ROADAB	LE EQUIPN	MENT:					
Machine	Weight/	Owner ship	Haul Rig	Fleet	Haul Trip	Return Trip	DOT Permit
Description	Unit (TONS)	Cost/hr/ unit	Cost/hr/uni t	Size	Cost/hr/ fleet	Cost/hr/ fleet	Cost/ fleet
Drill/Broadcast Seeder with Tractor	25.00	\$15.54	\$88.67	1	\$104.21	\$88.67	\$250.00
Power Mulcher (Bowie LD-90)	6.00	\$8.33	\$88.67	1	\$97.00	\$88.67	\$250.00

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 1 T. Crew	\$19.39	1	\$19.39	\$19.39
		Subtotals:	\$19.39	\$19.39

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region: Total one-way travel distance: Average Travel Speed:	CRAIG, CO 5.00 35.00	miles mph
Total Non-Roadable Mob/Demob Cost *	\$1,510.58	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	\$5.54	

Transportation Cycle Time:

	Non- Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.14	0.14
Return Time (Hours):	0.14	0.14
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	1.29	0.29

JOB TIME AND COST

Total job time: 2.57 Hours

Total job cost: ______\$1,516_____