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



September 12, 2012

P.J. Nichols Northwest Aggregates, Inc. 2930 E. US Hwy 40, Suite 4 Craig, CO 81625 John W. Hickenlooper Governor

Mike King Executive Director

Loretta Piñeda Director

RE: Wand Pit, Permit No. M-2010-007, Conversion Approval, Revision No. CN-1

Dear Mr. Nichols:

On September 12, 2012 the Division of Reclamation, Mining and Safety (Division) approved the Conversion application submitted on April 12, 2012, addressing the following:

Conversion of 110c to 112c permit, and addition of 97.05 acres to the permit area.

The terms of the CN-1 approved by the Division are hereby incorporated into Permit No. M-2010-007. All other conditions and requirements of the permit remain in full force and effect.

The estimated liability amount of \$111,828.00 exceeds the \$23,800.00 Financial Warranty currently held for this site. If you have not already done so, please submit additional bond in the amount of \$88,028.00. The revision will not be final until the bond is approved by the Division.

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 contact me at the DRMS Grand Junction Field Office.

Sincerely,

Dustin Czapia Environmental Protection Specialist Department of Natural Resources Division of Reclamation, Mining and Safety 101 South 3rd, Suite 301 Grand Junction, CO 81501 Phone: (970) 243-6299 Fax: (970) 241-1516

Enclosure: *DRMS Bond Calculation Worksheets* Cc: Steve Baker, 3B Enterprises, LLC

COST SUMMARY WORK

Task description:		CN1 FW Estimate							
Site: W	Vand Pit			Perm	nit Action:	CN1]	Permit/Job#:	M2010007
PR	OJECT	IDENTIF	ICATION						
	00101								
		000		State:	Colorado		Ab	breviation:	None
	Fask #:			State: ounty:	Colorado Moffat		Ab	breviation: Filename:	None M007-000

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
RECLA	MATION OF PHASE 1 POND (110) AREA SOUTH	OF ACCESS ROA	AD		
01a	Dewater pit	PUMPING	1	95.94	\$7,213.00
02a	Transport backfill material from stockpiles to slopes	LOADER	2	34.29	\$9,652.00
03a	Shape slopes to 3H:1V	DOZER	1	14.82	\$2,963.28
04a	Transport topsoil from stockpiles to disturbed areas	LOADER	2	6.22	\$1,752.00
05a	Spread topsoil	DOZER	1	2.16	\$432.49
06a	Revegetate disturbed areas	REVEGE	1	5.00	\$2,399.75
RECLA	MATION OF PHASE 1 & 2 LAKE AREA NORTH O	F ACCESS ROAL	D		
07a	Dewater pit	PUMPING	1	249.82	\$18,782.00
08a	Transport backfill material from stockpiles to slopes	LOADER	2	88.95	\$25,036.00
09a	Shape slopes to 3H:1V	DOZER	1	31.13	\$6,222.79
10a	Transport topsoil from stockpiles to disturbed areas	LOADER	2	12.44	\$3,504.00
11a	Spread topsoil	DOZER	1	4.33	\$864.99
12a	Revegetate disturbed areas	REVEGE	1	5.00	\$4,799.50
13a	Mobilize reclamation crew and equipment	MOBILIZE	1	2.57	\$3,815.36
		<u>SUBTO</u>	TALS:	552.67	\$87,437.16

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	\$1,766.23
Performance bond:	1.05	Total =	\$918.09
Job superintendent:	128.80	Total =	\$7,637.84
Profit:	10.00	Total =	\$8,743.72
		TOTAL O & P =	\$19,065.88
		CONTRACT AMOUNT (direct + O & P) =	\$106,503.04

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	0.00	Total =	0.00
Engineering work and/or contract/bid preparation:	0.00	Total =	\$0.00
Reclamation management and/or administration:	5.00	-	\$5,325.15
CONTINGENCY:	0.00	Total =	\$0.00

TOTAL INDIRECT COST = \$24,391.03

TOTAL BOND AMOUNT (direct + indirect) = \$111,828.00

PUMPING WORK

Task description:	Dewater 110 Pit			
ite: Wand Pit	Permit Action	:: CN1	Permit/Job#:	M2010007
PROJECT IDENTIF	<u>TICATION</u>			
Task #: 01A	State: Colorad	0	Abbreviation:	None
Date: 9/5/2012	County: Moffat		Filename:	M007-01a
User: DMC			-	
Agency or orga	nization name: DRMS			
HOURLY EQUIPM	ENT COST			
	Description		Quantity	
Make and Model:	Centrifugal pump - 200M, 10		2	
Attachment 1:	Suction pipe - 10 in. diam., 2		2	
Attachment 2:	Discharge pipe - 10 in. D., 25	5 ft.	2	
Labor Unit 1:	Pump operator		1	
Horsepower:	70			
	per day 1.95			
Weight:(U	S Tons)			
Cost Breakdown:	,			
		Utilization %		
Ownership Cost/		NA		
Operating Cost/		100		
Operator Cost/		NA		
Total Unit Cost/	Hour: \$75.18	_		
Total Fleet Cost	/Hour: \$75.18			
PUMPING QUANTI	TIES			
Initial Pond Vol	ume: 135.00		Conversion factor:	325850.5800
Final Pond Vol		gallons		
Total Pond Inflow Su		_	Unit inflow rate in	
	Area: 20,000	Sq. ft.	gph/sq. ft.:	0.3516
Total Pond Inflow Vo	Hour: 7,032.00	gallons		
-				
Source	of estimated volume: Approx	(9 ac. pond, 15' depth		
PUMPING TIME				
	ximum Pump Capacity:	200,000	gph/pump	
	stimated Suction Head:	10	feet	
Esti	mated Discharge Head:	5	feet	
	Total Head:	15	feet	
	CPB Pump Capacity: Site Altitude:	201,000	gph/pump feet	
	Sile Allilude.	6,200	leet	
Adius	sted Pumping Capacity:	402,000	gph	
	djusted Pumping Time:	109.43	hours	
	during Initial Pumping:	769,494	gallons	
Net Una	djusted Pumping Time:	111.34	Hours	
	ude Adjustment Factor:	0.9400	(3% rule)	
	ump Efficiency Factor:	0.9167	(55 min./hr.)	
lotal A	djusted Pumping Time:	95.94	hours	
JOB TIME AND CO	<u>ST</u>	T a 1 1 1 a		
		Total job time	e: <u>95.94</u>	Hours
Unit cost:\$0.00	00161 /Gallon	Total job cos	t: \$7,213.00	

WHEEL LOADER - LOAD AND CARRY WORK

Wand Pit	Permit Action	CN1 *	Pe	ermit/Job#:	M2010007
PROJECT IDENTIFIC	ATION				
Task #: 02A	State: Colorado)	Abbi	reviation:	None
Date: 9/5/2012	County: Moffat			Filename:	M007-02a
User: DMC					
Agency or organiz	ation name: DRMS				
HOURLY EQUIPMEN	T COST				
Basic Machine: C	AT 972H		Horsepower:		287
	OPS Cab		Shift Basis:		er day
			Data Source:		CRG)
Cost Ducol-Jarray					
Cost Breakdown:		Utilization %			
Ownership Cost/Ho	ur: \$36.70	NA			
Operating Cost/Ho		100			
Operator Cost/Ho		NA	-		
Total Unit Cost/Ho					
Total Fleet Cost/Uc	\$281 AG				
Total Fleet Cost/Ho	our: \$281.46	-			
		-			
MATERIAL QUANTII	<u>CIES</u>	-			
MATERIAL QUANTIT Initial volume:14,8	<u>CIES</u> 815 CCY	Swell facto	or: <u>1.125</u>		
MATERIAL QUANTII	<u>CIES</u>	Swell facto	or: <u>1.125</u>		
MATERIAL QUANTIT Initial volume: 14,8 Loose volume:	CIES 315 CCY 16,667 LCY				
MATERIAL QUANTIT Initial volume:14,8 Loose volume: Source of 6	CIES 315 CCY 16,667 LCY	n of Reclamation, M		y	
MATERIAL QUANTIT Initial volume:14,8 Loose volume: Source of 6	CIES 315 CCY 16,667 LCY estimated volume: Divisio	n of Reclamation, M		y	
MATERIAL QUANTIT Initial volume:14,8 Loose volume: Source of 6	CCY 15 CCY 16,667 LCY estimated volume: Divisio nated swell factor: Cat Har	n of Reclamation, M		y	
MATERIAL QUANTIT Initial volume: 14,8 Loose volume: Source of a Source of estin	CCY 15 CCY 16,667 LCY estimated volume: Divisio nated swell factor: Cat Har	n of Reclamation, M ndbook	lining & Safet	y	minutes
MATERIAL QUANTIT Initial volume:14,8 Loose volume: Source of estin HOURLY PRODUCTIO	CIES 315 CCY 16,667 LCY estimated volume: Divisio nated swell factor: Cat Har ON ON	n of Reclamation, M ndbook	fining & Safet	0.525	
MATERIAL QUANTIT Initial volume:14,8 Loose volume: Source of estin HOURLY PRODUCTIO Loader Cycle Time: Cycle Time Factors	CCY 315 CCY 16,667 LCY estimated volume: Divisio nated swell factor: Cat Har ON Unadjusted Basic Cycle Tim	n of Reclamation, M ndbook	fining & Safety euver): Factor	0.525 r (min.)	Source
MATERIAL QUANTIT Initial volume:14,8 Loose volume: Source of estin HOURLY PRODUCTIO	CIES 315 CCY 16,667 LCY estimated volume: Divisio nated swell factor: Cat Har ON ON	n of Reclamation, M ndbook e (load, dump, mane	fining & Safety euver): Factor	0.525	Source (Cat HB)
MATERIAL QUANTIT Initial volume:14,8 Loose volume: Source of estin HOURLY PRODUCTION Loader Cycle Time: Cycle Time Factors Material:	CCY 315 CCY 16,667 LCY estimated volume: Divisio nated swell factor: Cat Har ON Unadjusted Basic Cycle Tim Mixed material 0.02	n of Reclamation, M ndbook e (load, dump, mane 0 ft. high and up 0.0	fining & Safety euver): Factor 0.0 00 0.0	0.525 r (min.) 020	Source (Cat HB) (Cat HB)
MATERIAL QUANTIT Initial volume: 14,8 Loose volume: Source of a Source of estin HOURLY PRODUCTIO Loader Cycle Time: Cycle Time Factors Material: Stockpile:	CCY 315 CCY 16,667 LCY estimated volume: Divisio nated swell factor: Cat Har ON Unadjusted Basic Cycle Tim Mixed material 0.02 Conveyor or dozer piled 1	n of Reclamation, M ndbook e (load, dump, mane 0 ft. high and up 0.0	Factor 0. 0. 0.	0.525 r (min.) 020 000	Source (Cat HB)
MATERIAL QUANTIT Initial volume: 14,8 Loose volume: Source of a Source of estin HOURLY PRODUCTIO Loader Cycle Time: Cycle Time Factors Material: Stockpile: Truck Ownership:	CIES 315 CCY 16,667 LCY estimated volume: Divisio nated swell factor: Cat Har ON Unadjusted Basic Cycle Tim Mixed material 0.02 Conveyor or dozer piled 1 No adjustment - factor no	n of Reclamation, M ndbook e (load, dump, mane 0 ft. high and up 0.0	fining & Safety euver): Factor 0. 00 0. 0. -0.	0.525 r (min.) 020 000 000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)
MATERIAL QUANTIT Initial volume: 14,8 Loose volume: Source of a Source of estin HOURLY PRODUCTIC Loader Cycle Time: Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	CCY 315 CCY 16,667 LCY estimated volume: Divisio nated swell factor: Cat Har ON Unadjusted Basic Cycle Tim Mixed material 0.02 Conveyor or dozer piled 1 No adjustment - factor no Constant operation -0.04 Nominal target 0.00 No	n of Reclamation, M ndbook e (load, dump, mane 0 ft. high and up 0.0	fining & Safety euver): Factor 0. 00 0. 0. 0. 0. 0. 0. 0.	0.525 r (min.) 020 000 000 000 040	Source (Cat HB) (Cat HB) (Cat HB)
MATERIAL QUANTIT Initial volume: 14,8 Loose volume: Source of a Source of estin HOURLY PRODUCTIC Loader Cycle Time: Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	CCY 16,667 LCY estimated volume: Divisio nated swell factor: Cat Har ON Unadjusted Basic Cycle Tim Mixed material 0.02 Conveyor or dozer piled 1 No adjustment - factor no Constant operation -0.04 Nominal target 0.00 Net C	n of Reclamation, M ndbook e (load, dump, mane 0 ft. high and up 0.0 t applicable 0.00	fining & Safety euver): Factor 0. 00 0.1 -0. 0.1 ent: -0.	0.525 r (min.) 020 000 000 040 000	(Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)
MATERIAL QUANTIT Initial volume: Loose volume: Source of estin HOURLY PRODUCTION Loader Cycle Time: Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	CCY 315 CCY 16,667 LCY estimated volume: Divisio nated swell factor: Cat Har ON Unadjusted Basic Cycle Tim Mixed material 0.02 Conveyor or dozer piled 1 No adjustment - factor no Constant operation -0.04 Nominal target 0.00 Net C	n of Reclamation, M ndbook e (load, dump, mand 0 ft. high and up 0.0 t applicable 0.00 ycle Time Adjustme	fining & Safety euver): Factor 0. 00 0.1 -0. 0.1 ent: -0.	0.525 r (min.) 020 000 000 040 000 020	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes
MATERIAL QUANTIT Initial volume: 14,8 Loose volume: Source of a Source of estin HOURLY PRODUCTION Loader Cycle Time: Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Rolling Resistance – Road O	CIES 315 CCY 16,667 LCY estimated volume: Divisio nated swell factor: Cat Har ON Cat Har Unadjusted Basic Cycle Tim Mixed material 0.02 Conveyor or dozer piled 1 No adjustment - factor no Constant operation -0.04 Nominal target 0.00 Net C Adju Conditions	n of Reclamation, M ndbook e (load, dump, mand 0 ft. high and up 0.0 t applicable 0.00 ycle Time Adjustme sted Basic Cycle Tim	Factor 0. 0. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.525 r (min.) 020 000 000 040 000 020 505	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes
MATERIAL QUANTIT Initial volume: Loose volume: Source of estin HOURLY PRODUCTION Loader Cycle Time: Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	CCY 315 CCY 16,667 LCY estimated volume: Divisio nated swell factor: Cat Har ON Unadjusted Basic Cycle Tim Mixed material 0.02 Conveyor or dozer piled 1 No adjustment - factor no Constant operation -0.04 Nominal target 0.00 Net C	n of Reclamation, M ndbook e (load, dump, mand 0 ft. high and up 0.0 t applicable 0.00 ycle Time Adjustmo sted Basic Cycle Tin ce, no water, 2" tire	fining & Safety euver): Factor 0. 0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 0.1 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 0.1	0.525 r (min.) 020 000 000 040 000 020 505	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes

	Length (feet)	Grade Res. (%)	Rolling Res. (%)	Total Res. (%)	Travel Time (minutes)	Source
Haul Route:	350	0.00	5.00	5.00	0.3228	(Cat HB)
Return Route:	350	0.00	5.00	5.00	0.2912	(Cat HB)

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
Altitude Adj:	1.00	(CAT HB)
Job Efficiency:	0.83	(1 shift/day)
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:	34.29	Hours
Unit cost:	\$0.579	/LCY	Total job cost:	\$9,652.00	

Highwall reduction - backfill

Highwall Height (ft.)	20.00	
Length of Highwall (Ift.)	2000.00	
– – – – Initial Slope	2.00	H:1V
Desired Slope	3.00	H:1V
Volume of material to be moved (ft. ³)	400,000	-
Volume of material to be moved (yd. ³)	14,815	



Page 1 of 2

BULLDOZER WORK

Task description:	Shape slopes to 3H:1V in	110 pit area		
Wand Pit	Permit Action	n:	Permit/Job#:	M2010007
PROJECT IDENTIE	FICATION			
Task #: 03A	State: Colorad	lo	Abbreviation:	None
Date: 9/5/2012	County: Moffat		Filename:	M007-03a
User: DMC				
A gapou or org	anization name: DRMS			
Agency of orga	anization name: DRMS			
HOURLY EQUIPM	ENT COST			
Basic Machine: Ca	at D8T - 8U			
Horsepower: 31	0			
Blade Type: Un	niversal			
Attachment: NA	4			
	per day			
Data Source: (C	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		
Total unit Cost/Hour:	\$199.89			
Total Fleet Cost/Hour:	\$199.89			
MATERIAL QUAN	FITIES			
Initial Volume: 7,4 Swell factor: 1.1				
	33 LCY			
Loose volume: 6,5 .	55 LC 1			
Source of estimated volu	ume: .5(14,815 cyd)			
Source of estimated swe	ll factor: Cat Handbook			
HOURLY PRODUC	TION			
Average push distance:	50 feet			
Unadjusted hourly produ	action: 1,627.0 LCY/hr			
Materials consistency de	escription: Loose stockpile	1.2		
Average push gradient:	15 %			
Average site altitude:	6,200 feet			
U				
Material weight:	2,650 lbs/LCY			
Weight description:	Decomposed rock - 25% Ro	ock, 75% Earth		
Job Condition Correction		Source		
Operator		(AVG.)		
Material consis		(CAT HB)		
Dozing m	ethod: 1.000	(GEN.)		

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	0.666	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:	562.13 LCY/hr
Adjusted fleet production:	562.13 LCY/hr

Fleet size:	1 Dozer(s)	
Unit cost:	\$0.356/LCY	

Total job time:	14.82 Hours
Total job cost:	\$2,963.28

WHEEL LOADER - LOAD AND CARRY WORK

Wand Pit		Permit Action	CN1		Permit/Job#:	M2010007
DDO DECT IDENT						
PROJECT IDENT	IFICATION					
Task #: 04A		State: Colorado)		Abbreviation:	None
Date: <u>9/5/201</u> User: DMC	20	County: Moffat			Filename:	M007-04a
Agency or o	rganization nan	ne: DRMS				
HOURLY EQUIP	MENT COST	<u>r</u>				
Basic Machine	: CAT 972H	I		Horsepov	wer:	287
Attachment 1	: ROPS Cab)		Shift Ba		er day
				Data Sou		CRG)
0 (D 1 - 1						
Cost Breakdown:			Utilizatior	0/		
Ownership Co	st/Hour	\$36.70	NA	170		
Operating Co		\$65.54	100			
Operator Co		\$38.49	NA			
Total Unit Co		\$140.73				
Total Fleet C	ost/Hour:	\$281.46				
Total Tiect C		\$201.40	_			
MATERIAL QUA	NTITIES					
MATERIAL QUA Initial volume:	NTITIES 3,025	CCY	Swel	l factor: 1.00	00	
			Swel	l factor:	00	
Initial volume: Loose volume:	3,025 3,025	5 LCY			00	
Initial volume: Loose volume: Sour	3,025 3,025 ce of estimated	5 LCY volume: Estimat	e approx 2.5 a	l factor: <u>1.00</u> nc. @ 9" depth	00	
Initial volume: Loose volume: Sour	3,025 3,025	5 LCY volume: Estimat	e approx 2.5 a		00	
Initial volume: Loose volume: Sour Source o	3,025 3,025 ce of estimated f estimated swe	5 LCY volume: Estimat	e approx 2.5 a		00	
Initial volume: Loose volume: Sour Source o	3,025 3,025 ce of estimated f estimated swe	5 LCY volume: Estimat	e approx 2.5 a		00	
Initial volume: Loose volume: Sour Source o	3,025 3,025 ce of estimated f estimated swe JCTION	5 LCY volume: Estimat	e approx 2.5 a adbook	ac. @ 9" depth	0.525	minutes
Initial volume: Loose volume: Sour Source o HOURLY PRODU	3,025 3,025 ce of estimated f estimated swe J <u>CTION</u> Unadjust	5 LCY volume: Estimat ell factor: Cat Har	e approx 2.5 a adbook	nc. @ 9" depth	0.525	
Initial volume: Loose volume: Source o HOURLY PRODU Loader Cycle Time: Cycle Time Fa	3,025 3,025 ce of estimated f estimated swe J <u>CTION</u> Unadjust actors	5 LCY volume: Estimat ell factor: Cat Han ed Basic Cycle Tim	e approx 2.5 a adbook	nc. @ 9" depth	0.525 Factor (min.)	Source
Initial volume: Loose volume: Source o HOURLY PRODU Loader Cycle Time: Cycle Time Fa Mat	3,025 3,025 ce of estimated f estimated swe JCTION Unadjust actors terial: Mixed	5 LCY volume: Estimat ell factor: Cat Han ed Basic Cycle Tim I material 0.02	e approx 2.5 a adbook e (load, dump	ac. @ 9" depth , maneuver):	0.525 Factor (min.) 0.020	Source (Cat HB)
Initial volume: Loose volume: Source o HOURLY PRODU Loader Cycle Time: Cycle Time Fa Mat	3,025 3,025 ce of estimated f estimated swe JCTION Unadjust actors terial: Mixed kpile: Conve	5 LCY volume: Estimat ell factor: Cat Han ed Basic Cycle Tim	e approx 2.5 andbook e (load, dump 0 ft. high and	nc. @ 9" depth , maneuver): up 0.00	0.525 Factor (min.)	Source (Cat HB) (Cat HB)
Initial volume: Loose volume: Source o HOURLY PRODU Loader Cycle Time: Cycle Time Fa Ma Stoc Truck Owne	3,025 3,025 ce of estimated f estimated swe <u>JCTION</u> Unadjust actors terial: Mixed kpile: Conve rship: No ad	5 LCY volume: Estimated and factor: Cat Har ed Basic Cycle Timed material 0.02 and cycle 1	e approx 2.5 andbook e (load, dump 0 ft. high and	nc. @ 9" depth , maneuver): up 0.00	0.525 Factor (min.) 0.020 0.000	Source (Cat HB) (Cat HB) (Cat HB)
Initial volume: Loose volume: Source o HOURLY PRODU Loader Cycle Time: Cycle Time Fa Ma Stoc Truck Owne	3,025 3,025 3,025 ce of estimated f estimated swe JCTION Unadjust actors terial: Mixeo kpile: Conve rship: No ad ation: Const	5 LCY volume: Estimat ell factor: Cat Han ed Basic Cycle Tim material 0.02 eyor or dozer piled 1 justment - factor no	e approx 2.5 andbook e (load, dump 0 ft. high and	nc. @ 9" depth , maneuver): up 0.00	0.525 Factor (min.) 0.020 0.000 0.000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)
Initial volume: Loose volume: Source o HOURLY PRODU Loader Cycle Time: Cycle Time Fa Mai Stoc Truck Owne Oper	3,025 3,025 3,025 ce of estimated f estimated swe JCTION Unadjust actors terial: Mixeo kpile: Conve rship: No ad ation: Const	5 LCY volume: Estimate ell factor: Cat Har ed Basic Cycle Time ant ant operation -0.04 mal target 0.00	e approx 2.5 andbook e (load, dump 0 ft. high and	nc. @ 9" depth , maneuver):	0.525 Factor (min.) 0.020 0.000 0.000 -0.040	Source (Cat HB) (Cat HB) (Cat HB)
Initial volume: Loose volume: Source o HOURLY PRODU Loader Cycle Time: Cycle Time Fa Mai Stoc Truck Owne Oper	3,025 3,025 3,025 ce of estimated f estimated swe JCTION Unadjust actors terial: Mixeo kpile: Conve rship: No ad ation: Const	5 LCY volume: Estimat ell factor: Cat Han ed Basic Cycle Tim d material 0.02 eyor or dozer piled 1 justment - factor no ant operation -0.04 nal target 0.00 Net C	e approx 2.5 andbook e (load, dump 0 ft. high and t applicable 0.	ac. @ 9" depth , maneuver):	0.525 Factor (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 o HOURLY PRODU Loader Cycle Time: Cycle Time Fa Ma: Stoc Truck Owne Oper Dump T	3,025 3,025 3,025 ce of estimated f estimated swee JCTION Unadjust actors terial: Mixec kpile: Conve rship: No ad ation: Consta arget: Nomin	5 LCY volume: Estimat cat Han ed Basic Cycle Tim d material 0.02 eyor or dozer piled 1 justment - factor no ant operation -0.04 mal target 0.00 Net C Adju	e approx 2.5 a adbook e (load, dump 0 ft. high and t applicable 0. ycle Time Ad	ac. @ 9" depth , maneuver):	0.525 Factor (min.) 0.020 0.000 0.000 -0.040 0.000 -0.020	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes
Initial volume: Loose volume: Source o HOURLY PRODU Loader Cycle Time: Cycle Time Fa Mai Stoc Truck Owne Oper	3,025 3,	5 LCY volume: Estimat ell factor: Cat Han ed Basic Cycle Tim I material 0.02 eyor or dozer piled 1 justment - factor no ant operation -0.04 nal target 0.00 Net C Adju	e approx 2.5 andbook e (load, dump 0 ft. high and t applicable 0. ycle Time Ad sted Basic Cyd	ac. @ 9" depth	0.525 Factor (min.) 0.020 0.000 -0.040 0.000 -0.020 0.505	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes
Initial volume: Loose volume: Source o HOURLY PRODU Loader Cycle Time: Cycle Time Fa Ma Stoc Truck Owne Oper Dump T Rolling Resistance – I Ha	3,025 3,	5 LCY volume: Estimat ell factor: Cat Har ed Basic Cycle Tim d material 0.02 eyor or dozer piled 1 justment - factor no ant operation -0.04 nal target 0.00 Net C Adju	e approx 2.5 andbook e (load, dump 0 ft. high and t applicable 0. ycle Time Ad sted Basic Cyc ce, no water, 2	ac. @ 9" depth ac. @	0.525 Factor (min.) 0.020 0.000 -0.040 0.000 -0.020 0.505 on 5.0	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes
Initial volume: Loose volume: Source o HOURLY PRODU Loader Cycle Time: Cycle Time Fa Ma Stoc Truck Owne Oper Dump T	3,025 3,	5 LCY volume: Estimat ell factor: Cat Han ed Basic Cycle Tim I material 0.02 eyor or dozer piled 1 justment - factor no ant operation -0.04 nal target 0.00 Net C Adju	e approx 2.5 andbook e (load, dump 0 ft. high and t applicable 0. ycle Time Ad sted Basic Cyc ce, no water, 2	ac. @ 9" depth ac. @	0.525 Factor (min.) 0.020 0.000 -0.040 0.000 -0.020 0.505 on 5.0	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes
Initial volume: Loose volume: Source o HOURLY PRODU Loader Cycle Time: Cycle Time Fa Ma Stoc Truck Owne Oper Dump T Rolling Resistance – I Ha	3,025 3,	5 LCY volume: Estimat ell factor: Cat Har ed Basic Cycle Tim d material 0.02 eyor or dozer piled 1 justment - factor no ant operation -0.04 nal target 0.00 Net C Adju	e approx 2.5 andbook e (load, dump 0 ft. high and t applicable 0. ycle Time Ad sted Basic Cyc ce, no water, 2	ac. @ 9" depth ac. @	0.525 Factor (min.) 0.020 0.000 -0.040 0.000 -0.020 0.505 on 5.0	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes
Initial volume: Loose volume: Source o HOURLY PRODU Loader Cycle Time: Cycle Time Fa Ma Stoc Truck Owne Oper Dump T Rolling Resistance – I Ha Retu	3,025 3,025 3,025 Ce of estimated f estimated swee JCTION Unadjust actors terial: Mixed kpile: Conver- rship: No ad ation: Consti- arget: Nomin Road Condition aul: Rutted do rn: Rutted do 2	5 LCY volume: Estimat ell factor: Cat Han ed Basic Cycle Tim ant anterial 0.02 eyor or dozer piled 1 justment - factor no ant operation -0.04 mal target 0.00 Net C Adju uss lirt, little maintenance	e approx 2.5 andbook e (load, dump 0 ft. high and t applicable 0. ycle Time Ad sted Basic Cyc ce, no water, 2 ce, no water, 2	ac. @ 9" depth	0.525 Factor (min.) 0.020 0.000 -0.040 0.000 -0.020 0.505 on 5.0 on 5.0	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes
Initial volume: Loose volume: Source o HOURLY PRODU Loader Cycle Time: Cycle Time Fa Ma Stoc Truck Owne Oper Dump T Rolling Resistance – I Ha Retu	3,025 3,	5 LCY volume: Estimat ell factor: Cat Har ed Basic Cycle Tim d material 0.02 eyor or dozer piled 1 justment - factor no ant operation -0.04 nal target 0.00 Net C Adju	e approx 2.5 andbook e (load, dump 0 ft. high and t applicable 0. ycle Time Ad sted Basic Cyc ce, no water, 2	ac. @ 9" depth ac. @	0.525 Factor (min.) 0.020 0.000 -0.040 0.000 -0.020 0.505 on 5.0	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes

Return Route:

350

0.00

5.00

5.00

(Cat HB)

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

<u>Job Condition Correction Factors</u> 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:	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: _	\$0.579	/LCY	Total job cost:	\$1,752.00	

Page 1 of 2

BULLDOZER WORK

Site: Wand Pit Permit Action: CN1 Permit/Job#: PROJECT IDENTIFICATION Task #: 05A State: Colorado Abbreviation: Date: 9/5/2012 State: Colorado Abbreviation: Filename: User: DMC Moffat Filename: Image: DRMS HOUBLY FOURPMENT COST County: DRMS	M2010007 None M007-05a
Task #: 05A State: Colorado Abbreviation: Date: 9/5/2012 County: Moffat Filename: User: DMC Agency or organization name: DRMS	
Date: 9/5/2012 County: Moffat Filename: User: DMC Agency or organization name: DRMS	
Date: 9/5/2012 County: Moffat Filename: User: DMC Agency or organization name: DRMS	
User: DMC Agency or organization name: DRMS	11007 004
HOUDI V FOUDMENT COST	
HOURLY EQUIPMENT COST	
Basic Machine: Cat D8T - 8U	
Horsepower: 310	
Blade Type: Universal	
Attachment: NA	
Shift Basis: 1 per day	
Data Source: (CRG)	
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	
Total unit Cost/Hour:\$199.89Total Fleet Cost/Hour:\$199.89	
MATERIAL QUANTITIES	
Initial Volume: 3,025	
Swell factor: 1.000	
Loose volume: 3,025 LCY	
Loose volume	
Source of estimated volume: Estimate approx. 2.5 ac. @ 9" depth	
Source of estimated swell factor: Cat Handbook	
HOURLY PRODUCTION	
Average push distance: 50 feet Unadjusted hourly production: 1,627.0 LCY/hr	
Unadjusted hourly production: 1,627.0 LCY/hr	
Materials consistency description: Loose stockpile 1.2	
Average push gradient: 0 %	
Average site altitude: 6,200 feet	
Material weight: 1,600 lbs/LCY	
Weight description: Top Soil	
Job Condition Correction Factor Source	
Operator Skill: 0.750 (AVG.)	
Material consistency: 1.200 (CAT HB)	
Dozing method: 1.000 (GEN.)	

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.8593

Adjusted unit production:	1,398.08 LCY/hr	
Adjusted fleet production:	1398.08 LCY/hr	

Fleet size:	1 Dozer(s)	
Unit cost:	\$0.143/LCY	_

Total job time:	2.16 Hours	
Total job cost:	\$432.49	

REVEGETATION WORK

Task descri	ption:	Revegetate distur	bed areas in 110	area		
Wand P	t	Permit Action: CN1 Permit/Job#:		: M2010007		
PROJEC'	F IDENTIF	ICATION				
Task #:	06A	State:	Colorado		Abbreviation:	None
Date:	9/5/2012	County:	Moffat		Filename:	M007-06a
User:	DMC	<u> </u>				
A	gency or orga	nization name: DR	MS			
	ZING		Units /			
FERTILI Materials Descripti			Units / Acre	Unit	Cost / Unit	Cost /Acre
Materials				Unit	Cost / Unit \$	Cost /Acre \$
Materials			Acre			
Materials	on		Acre		\$	\$
Materials Descripti	on		Acre		\$	\$
Materials Descripti Applicatio	on		Acre		\$	\$ \$0.00

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$92.35
Weed control spraying (MEANS 31 31 16.13 3100)	\$145.20
Total Tilling Cost/Ac	ere \$237.55

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Orchardgrass - Paiute	0.30	3.72	\$0.63
Smooth Brome - Lincoln	1.60	5.33	\$2.08
Intermediate Wheatgrass - Oahe	2.50	5.34	\$5.35
Pubescent Wheatgrass - Luna	2.25	4.65	\$4.93
Sainfoin - Remont	2.50	1.09	\$6.88
Totals Seed Mix	9.15	20.12	\$19.87

Application

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

Total Seed Application Cost/Acre	\$90.1

11

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$164.00	\$328.00
		Total Mulch	Materials Cost/Acre	\$328.00

Application

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

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
Cottonwood, Narrowleaf	5	Tubling, 10 cu. in. container {(MEANS)	\$1.45	\$2.40	\$7.25
Willow, Sandbar	5	Tubling, 10 cu. in. container {(MEANS)	\$3.85	\$2.40	\$19.25
		Tota	ls Nursery Stoc	k Cost / Acre	\$26.50

	No. of Acres:	2.5	Cost /Acre:	\$767.92
Estimat	ed Failure Rate:	25%	Cost /Acre*:	\$767.92
*Selected Replanti	ng Work Items:	TILLING, SEEDING, NU MULCHING	RSERY,	
Initial Job Cost:	\$1,919.80			
Reseeding Job Cost:	\$479.95			
Total Job Cost:	\$2,399.75			
Job Hours:	5.00			

PUMPING	WORK
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Task description:	Dewate	er Phase 1/2 Pit no	rth of access roa	d		
te: Wand Pit		Permit Action	n: CN1		Permit/Job#:	M2010007
PROJECT IDENTIF	ICATIO	N				
Task #: 07A Date: 9/5/2012 User: DMC		State: Colorad County: Moffat			Abbreviation: Filename:	None M007-07a
Agency or organ	nization na	me: DRMS				
HOURLY EQUIPME						
HOURT EVEN ME	Descript	_			Quantity	
Make and Model:		gal pump - 200M, 1	0 in		2	
Attachment 1:		pipe - 10 in. diam., 1			2	
Attachment 2:		ge pipe - 10 in. D., 2			2	· · · · · ·
Labor Unit 1:	Pump of				1	
Weight:	70 per day 1.95 S Tons)					
Cost Breakdown:						
		#21 00	Utilization	%		
Ownership Cost/I Operating Cost/I		\$21.08 \$34.68	NA 100			
Operating Cost/I Operator Cost/I		\$19.42	NA			
Total Unit Cost/I		\$75.18	hA			
Total Fleet Cost/		\$75.18				
PUMPING QUANTI		245.00		~		
Initial Pond Vol Final Pond Vol		345.00 112,418,450.10		Ce	onversion factor:	325850.5800
Total Pond Inflow Su		112,418,450.10	gallons	TT	nit inflow rate in	
	Area:	42,000	Sq. ft.	0	gph/sq. ft.:	0.3516
Total Pond Inflow Vo	lume				gpil/sq. n	0.5510
per H	Hour:	14,767.20	gallons			
Source of	of estimate	d volume: Appro	ox 9 ac. pond, 15	' depth		
PUMPING TIME						
Max	ximum Pur	np Capacity:	200,000	gi	oh/pump	
E	stimated S	uction Head:	10		et	
Estin	mated Disc	charge Head:	5	fe	et	
		Total Head:	15		et	
		np Capacity:	201,000		ph/pump	
	e e	Site Altitude:	6,200	fe	eet	
A dina	ted Dume:	ng Capacity:	402,000	~	oh	
		mping Time:	279.65		ph ours	
		ial Pumping:	4,129,616		allons	
		mping Time:	289.92		ours	
		ment Factor:	0.9400		3% rule)	
		ency Factor:	0.9167	and the second se	55 min./hr.)	
		mping Time:	249.82		ours	
JOB TIME AND CO	<u>ST</u>		То	al job time:	249.82	Hours
Unit cost: \$0.00	00161	/Gallon	To	tal job cost:	\$18,782.0	0

WHEEL LOADER - LOAD AND CARRY WORK

User: DMC Agency or organization name: DRMS HOURLY EQUIPMENT COST Basic Machine: CAT 972H Attachment 1: ROPS Cab Cost Breakdown: Division of Reclamation, Mining & Safety Cost Breakdown: Cost Breakdown: Cost Breakdown: Cost Breakdown: Division of Reclamation, Mining & Safety Cost Breakdown: Division of Reclamation, Mining & Safety Cost Breakdown: Co	Wand Pit	Permi	it Action:	CN1	Permit/Job#:	M2010007
Date: 9/5/2012 County: Moffat Filename: M007-4 User: DMC Agency or organization name: DRMS HOURLY EQUIPMENT COST Basic Machine: CAT 972H Horsepower: 287 Attachment 1: ROPS Cab Shift Basis: 1 per day Data Source: (CRG) Cost Breakdown: Utilization % Ownership Cost/Hour: \$36.70 NA Operator Cost/Hour: \$38.49 NA Total Unit Cost/Hour: \$3140.73 Total Fleet Cost/Hour: \$281.46 MATERIAL QUANTITIES Initial volume: 31,111 CCY Source of estimated volume: Division of Reclamation, Mining & Safety Source of estimated swell factor: Cat Handbook HOURLY PRODUCTION Loader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.525 min Cycle Time Factors Material 0.02 0.020 (Cat 1 Stockpile: Conveyor or dozer piled 10 ft. high and up 0.00 0.000 (Cat 1 Truck Ownership: No adjustment - factor napilicable 0.00 0.000	PROJECT IDENTI	FICATION				
User: DMC Agency or organization name: DRMS HOURLY EQUIPMENT COST Basic Machine: CAT 972H Attachment 1: ROPS Cab Attachment 1: ROPS Cab Cost Breakdown: Cost Breakdown: Cost Breakdown: Ownership Cost/Hour: \$36.70 Operator Cost/Hour: \$36.70 Operator Cost/Hour: \$38.49 NA Total Utilization % Ooperator Cost/Hour: \$38.49 NA Total Unit Cost/Hour: \$38.49 NA Total Fleet Cost/Hour: \$281.46 MATERIAL QUANTITIES Initial volume: 31,111 CCY Source of estimated volume: Division of Reclamation, Mining & Safety Source of estimated volume: Division of Reclamation, Mining & Safety Source of estimated swell factor: Cat Handbook HOURLY PRODUCTION Loader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.525 min Cycle Time Factors Material: Mixed material 0.02 Output of thigh and up 0.00 Output of thigh and up	Task #: 08A	State:	Colorado		Abbreviation:	None
Agency or organization name: DRMS HOURLY EQUIPMENT COST Basic Machine: CAT 972H Attachment 1: ROPS Cab Shift Basis: 1 per day Data Source: (CRG) Cost Breakdown: Utilization % Ownership Cost/Hour: \$36.70 NA Operator Cost/Hour: \$36.54 100 Operator Cost/Hour: \$38.49 NA Total Unit Cost/Hour: \$281.46 MATERIAL QUANTITIES Initial volume: 31,111 Loose volume: 35,000 LCY Source of estimated volume: Division of Reclamation, Mining & Safety Source of estimated swell factor: Cat Handbook HOURLY PRODUCTION Loader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.525 min Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.525 min Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.525 min Cycle Time: Unadjustent - factor not applicable 0.00 0.000 (Cat 1 Totak Ownership: No adjustent - factor not applicable 0.00 0.0000		County:	Moffat		Filename:	M007-08a
HOURLY EQUIPMENT COST Basic Machine: CAT 972H Horsepower: 287 Attachment 1: ROPS Cab Shift Basis: 1 per day Data Source: (CRG) Cost Breakdown: Utilization % Ownership Cost/Hour: \$36.70 NA Operating Cost/Hour: \$36.70 NA Operator Cost/Hour: \$38.49 NA Total Unit Cost/Hour: \$140.73 Total Unit Cost/Hour: \$281.46 MATERIAL QUANTITIES Initial volume: 35,000 LCY Source of estimated volume: Source of estimated volume: Division of Reclamation, Mining & Safety Source of estimated swell factor: Cat Handbook HOURLY PRODUCTION Loader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.525 min Cycle Time Factors Factor (min.) Source Source Cat Handbook Loader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.525 min Cycle Time Factors Factor (min.) Source Material: Mixed material						
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Attachment 1: ROPS Cab Shift Basis: 1 per day Data Source: (CRG) Cost Breakdown: Utilization % Ownership Cost/Hour: \$36.70 NA Operating Cost/Hour: \$36.74 100 Operator Cost/Hour: \$36.74 100 Operator Cost/Hour: \$38.49 NA Total Unit Cost/Hour: \$140.73 Total Fleet Cost/Hour: \$281.46 MATERIAL QUANTITIES Initial volume: 31,111 CCY Source of estimated volume: Division of Reclamation, Mining & Safety Source of estimated swell factor: Cat Handbook HOURLY PRODUCTION Loader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.525 min Cycle Time Factors Factor (min.) Source (Cat I Mixed material 0.02 0.020 (Cat I I Stockpile: Conveyor or dozer piled 10 ft. high and up 0.00 0.000 (Cat I Operation: Constant operation -0.04 -0.040 Truck Ownership: Na dijustment - factor na applicable 0.00 0.000 (Cat I Operation: Costant operation -0.04 -0.040	HOURLY EQUIPM	ENT COST				
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Cost Breakdown: Utilization % Ownership Cost/Hour: \$36.70 NA Operating Cost/Hour: \$65.54 100 Operator Cost/Hour: \$38.49 NA Total Unit Cost/Hour: \$140.73	Attachment 1:	ROPS Cab			-	er day
Utilization % Ownership Cost/Hour: \$36.70 NA Operating Cost/Hour: \$65.54 100 Operator Cost/Hour: \$38.49 NA Total Unit Cost/Hour: \$140.73 Total Fleet Cost/Hour: \$281.46 MATERIAL QUANTITIES Initial volume: 31,111 CCY Source of estimated volume: Division of Reclamation, Mining & Safety Source of estimated volume: Division of Reclamation, Mining & Safety Source of estimated swell factor: Cat Handbook HOURLY PRODUCTION Loader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.525 min Cycle Time Factors Factor (min.) Source (Cat Handbook) Source (Cat Handbook) HOURLY PRODUCTION Loader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.525 min Cycle Time Factors Factor (min.) Source Source 0.020 (Cat Handbook) Loader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.525 min Cycle Time Factors Factor (min.) Source Cat Handbook 0.020 (Cat Handbook) Cat				Data S	Source: ((CRG)
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Total Unit Cost/Hour: \$140.73 Total Fleet Cost/Hour: \$281.46 MATERIAL QUANTITIES Initial volume: 31,111 Loose volume: 35,000 LCY Source of estimated volume: Division of Reclamation, Mining & Safety Source of estimated swell factor: Cat Handbook HOURLY PRODUCTION Loader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.525 min Cycle Time Factors Factor (min.) Source of cat I factor: Source of cat I factor: Cat I factor (min.) Loader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.525 min Cycle Time Factors Factor (min.) Source (cat I factor) Source (cat I factor) Material: Mixed material 0.02 0.020 (Cat I factor) Stockpile: Conveyor or dozer piled 10 ft. high and up 0.00 0.000 (Cat I for the factor) Truck Ownership: No adjustment - factor not applicable 0.00 0.000 (Cat I for the factor) Operation: Constant operation -0.04 -0.040 (Cat I for the factor) Output Target 0.00 0.000 (Cat						
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MATERIAL QUANTITIES Initial volume: 31,111 CCY Swell factor: 1.125 Loose volume: 35,000 LCY Swell factor: 1.125 Source of estimated volume: Division of Reclamation, Mining & Safety Cat Handbook Source of estimated swell factor: Cat Handbook Cat Handbook HOURLY PRODUCTION Loader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.525 min Cycle Time Factors Vixed material 0.02 0.020 (Cat I Stockpile: Conveyor or dozer piled 10 ft. high and up 0.00 0.000 (Cat I) Truck Ownership: No adjustment - factor not applicable 0.00 0.000 (Cat I) Operation: Constant operation -0.04 -0.040 (Cat I)	Total Onit Cost		, 			
Initial volume: 31,111 CCY Swell factor: 1.125 Loose volume: 35,000 LCY Division of Reclamation, Mining & Safety Source of estimated volume: Division of Reclamation, Mining & Safety Cat Handbook HOURLY PRODUCTION Cat Handbook Endetscore Loader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.525 min Cycle Time Factors Factor (min.) Source (Cat Handbook) Source (Cat Handbook) Material: Mixed material 0.02 0.020 (Cat Handbook) Material: Mixed material 0.02 0.020 (Cat Handbook) Truck Ownership: No adjustment - factor not applicable 0.00 0.000 (Cat Handbook) Operation: Conveyor or dozer piled 10 ft. high and up 0.00 0.000 (Cat Handbook) Operation: Constant operation -0.04 -0.040 (Cat Handbook)	Total Fleet Cos	t/Hour: \$281.4	6			
Loose volume: 35,000 LCY Source of estimated volume: Division of Reclamation, Mining & Safety Source of estimated swell factor: Cat Handbook HOURLY PRODUCTION Cat Handbook Loader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.525 Cycle Time Factors Factor (min.) Source (Cat Handbook) Material: Mixed material 0.02 0.020 (Cat Handbook) Material: Mixed material 0.02 0.020 (Cat Handbook) Truck Ownership: No adjustment - factor not applicable 0.00 0.0000 (Cat Handbook) Operation: Constant operation -0.04 -0.040 (Cat Handbook)	MATERIAL QUAN	TITIES				
Loose volume:35,000LCYSource of estimated volume: Source of estimated swell factor:Division of Reclamation, Mining & SafetyCat HandbookHOURLY PRODUCTIONLoader Cycle Time: Cycle Time FactorsUnadjusted Basic Cycle Time (load, dump, maneuver):0.525Cycle Time FactorsFactor (min.)Source of Cycle Time (load, dump, maneuver):Material: Stockpile:Mixed material 0.020.020Material: 	Initial volume:	31,111	CCY	Swell factor:	.125	
Source of estimated swell factor: Cat Handbook HOURLY PRODUCTION Loader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.525 min Cycle Time Factors Factor (min.) Source of (Cat Handbook) Material: Mixed material 0.02 0.020 (Cat Handbook) Stockpile: Conveyor or dozer piled 10 ft. high and up 0.00 0.000 (Cat Handbook) Truck Ownership: No adjustment - factor not applicable 0.00 0.000 (Cat Handbook) Operation: Constant operation -0.04 -0.040 (Cat Handbook) Dump Target: Nominal target 0.00 0.000 (Cat Handbook)	Loose volume:	35,000	LCY			
Source of estimated swell factor: Cat Handbook HOURLY PRODUCTION Loader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.525 min Cycle Time Factors Factor (min.) Source of (Cat Handbook) Material: Mixed material 0.02 0.020 (Cat Handbook) Stockpile: Conveyor or dozer piled 10 ft. high and up 0.00 0.000 (Cat Handbook) Truck Ownership: No adjustment - factor not applicable 0.00 0.000 (Cat Handbook) Operation: Constant operation -0.04 -0.040 (Cat Handbook) Dump Target: Nominal target 0.00 0.000 (Cat Handbook)	Source	of estimated volume:	Division	of Reclamation Mining	& Safety	
Loader Cycle Time:Unadjusted Basic Cycle Time (load, dump, maneuver):0.525minCycle Time FactorsFactor (min.)SourMaterial:Mixed material 0.020.020(Cat IStockpile:Conveyor or dozer piled 10 ft. high and up 0.000.000(Cat ITruck Ownership:No adjustment - factor not applicable 0.000.000(Cat IOperation:Constant operation -0.04-0.040(Cat IDump Target:Nominal target 0.000.000(Cat I		_			a burery	
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Material:Mixed material 0.020.020(Cat IStockpile:Conveyor or dozer piled 10 ft. high and up 0.000.000(Cat ITruck Ownership:No adjustment - factor not applicable 0.000.000(Cat IOperation:Constant operation -0.04-0.040(Cat IDump Target:Nominal target 0.000.000(Cat I	Loader Cycle Time:	Unadjusted Basic C	ycle Time	(load, dump, maneuver):	0.525	minutes
Material:Mixed material 0.020.020(Cat IStockpile:Conveyor or dozer piled 10 ft. high and up 0.000.000(Cat ITruck Ownership:No adjustment - factor not applicable 0.000.000(Cat IOperation:Constant operation -0.04-0.040(Cat IDump Target:Nominal target 0.000.000(Cat I	Cycle Time Fact	ors			Factor (min.)	Source
Stockpile:Conveyor or dozer piled 10 ft. high and up 0.000.000(Cat ITruck Ownership:No adjustment - factor not applicable 0.000.000(Cat IOperation:Constant operation -0.04-0.040(Cat IDump Target:Nominal target 0.000.000(Cat I			.02			(Cat HB)
Operation:Constant operation -0.04-0.040(Cat IDump Target:Nominal target 0.000.000(Cat I	<u> </u>				0.000	(Cat HB)
Dump Target: Nominal target 0.00 0.000 (Cat I		A		applicable 0.00		(Cat HB)
	A					(Cat HB)
INCLAVER LINE AUDINDED -0.070 minis	Dump Tar	get: Nominal target 0.		le Time Adjustment:		(Cat HB)
Adjusted Basic Cycle Time: 0.505 minu			-	-		minutes

Rolling Resistance - Road Conditions

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:	1.3821	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:	88.95	Hours
Unit cost:	\$0.715	/LCY	Total job cost:	\$25,036.00	

Highwall reduction - backfill

Highwall Height (ft.)	20.00	
Length of Highwall (Ift.)	4200.00	
🗕 🛶 🛶 🚽 Initial Slope	2.00	H:1V
Desired Slope	3.00	H:1V
Volume of material to be moved (ft. ³)	840,000	
Volume of material to be moved (yd. ³)	31,111	



BULLDOZER WORK

Task description:	Shape slopes	to 3H:1V in Phas	e 1/2 area north of ac	cess road	
Wand Pit		Permit Action:	ZN1	Permit/Job#:	M2010007
PROJECT IDENTI	FICATION				
Task #: 09A	Stat	e: Colorado		Abbreviation:	None
Date: 9/5/2012	Count	y: Moffat		Filename:	M007-09a
User: DMC				-	
Agency or org	anization name:	DRMS	2121)		
HOURLY EQUIPM	ENT COST				
Basic Machine: C	at D8T - 8U				
	10	10411124 w. 54630			
	niversal				
Attachment: N					
	per day				
	CRG)				
Cost Breakdown:					
<u>COSt Dicardown</u> .			Utilization %		
Ownership Cost/Hours	: \$58	.56	NA		
Operating Cost/Hours			100		
Ripper op. Cost/Hour:			0		
Operator Cost/Hour:			NA		
-			1111		
Total unit Cost/Hour:	\$199.89				
Total Fleet Cost/Hour:	\$199.89				
MATERIAL QUAN	TITIES				
	,556				
Swell factor: 1.1					
Loose volume: 17	,500 LCY				
Source of estimated vol	ume: 5(31	111 cyd)			
Source of estimated swe		andbook			
HOURLY PRODUC	<u>CTION</u>				
Average push distance:	50 feet				
Unadjusted hourly prod	uction: 1,627.0	LCY/hr			
Materials consistency d	escription: Loc	ose stockpile 1.2			
Average push gradient:	15 %				
Average site altitude:	6,200 feet				
terene one annual.					
Material weight:	2,650 lbs/LCY				
Weight description:	Decomposed r	ock - 25% Rock, 7	5% Earth		
Job Condition Correction	on Factor		Source		
Operato		0.750	(AVG.)		
Material consi		1.200	(CAT HB)		
Dozing n	nethod:	1.000	(GEN.)		

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	0.666	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3455

.3455

Adjusted unit production:	562.13 LCY/hr
Adjusted fleet production:	562.13 LCY/hr

Fleet size:	1 Dozer(s)	
Unit cost:	\$0.356/LCY	

Total job time:	31.13 Hours
Total job cost:	\$6,222.79

WHEEL LOADER - LOAD AND CARRY WORK

	Permit Action:	CN1	Permit/Job#	: M2010007
PROJECT IDENTIFICA	TION			
Task #: 10A	State: Colorado		Abbreviation:	None
Date: 9/5/2012	County: Moffat		Filename:	M007-10a
User: DMC			i nename.	1007-104
Agency or organization	tion name: DRMS			
HOURLY EQUIPMENT	COST			
Basic Machine: CA	АТ 972Н	Horsep	ower:	287
Attachment 1: RO	OPS Cab	Shift I		per day
		Data Sc		(CRG)
Cost Breakdown:				
JOST DICAKUUWII:	ĩ	Utilization %		
Ownership Cost/Hour	r: \$36.70	NA		
Operating Cost/Hour		100		
Operator Cost/Hour		NA		
Total Unit Cost/Hour		1411		
Total Fleet Cost/Hou	ır: \$281.46			
Initial volume: 6,050 Loose volume:		Swell factor: <u>1</u> .	000	
Source of es	stimated volume: Estimate	e approx 5 ac. @ 9" depth		
Source of estima	ated swell factor: Cat Hand			
HOURLY PRODUCTIO	N			
	—		0.525	minutes
Loader Cycle Time: U	Inadjusted Basic Cycle Time	e (load, dump, maneuver):	0.525	1111110000
	Inadjusted Basic Cycle Time	e (load, dump, maneuver):		
Cycle Time Factors		e (load, dump, maneuver):	Factor (min.)	Source
Cycle Time Factors Material:	Mixed material 0.02		Factor (min.) 0.020	Source (Cat HB)
Cycle Time Factors Material: Stockpile:	Mixed material 0.02 Conveyor or dozer piled 10	0 ft. high and up 0.00	Factor (min.) 0.020 0.000	Source (Cat HB) (Cat HB)
Cycle Time Factors Material: Stockpile: Truck Ownership:	Mixed material 0.02 Conveyor or dozer piled 10 No adjustment - factor not	0 ft. high and up 0.00	Factor (min.) 0.020 0.000 0.000	Source (Cat HB) (Cat HB) (Cat HB)
Cycle Time Factors Material: Stockpile:	Mixed material 0.02 Conveyor or dozer piled 10	0 ft. high and up 0.00	Factor (min.) 0.020 0.000 0.000 -0.040	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)
Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Mixed material 0.02 Conveyor or dozer piled 10 No adjustment - factor not Constant operation -0.04 Nominal target 0.00	0 ft. high and up 0.00	Factor (min.) 0.020 0.000 0.000	Source (Cat HB) (Cat HB) (Cat HB)
Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Mixed material 0.02 Conveyor or dozer piled 10 No adjustment - factor not Constant operation -0.04 Nominal target 0.00 Net Cy	0 ft. high and up 0.00 applicable 0.00	Factor (min.) 0.020 0.000 0.000 -0.040 0.000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)
Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Mixed material 0.02 Conveyor or dozer piled 10 No adjustment - factor not Constant operation -0.04 Nominal target 0.00 Net Cy Adjust	0 ft. high and up 0.00 applicable 0.00	Factor (min.) 0.020 0.000 -0.040 0.000 -0.020	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:	350	0.00	5.00	5.00	0.3228	(Cat HB)
Return Route:	350	0.00	5.00	5.00	0.2912	(Cat HB)

		-	otal Travel Time Fotal Cycle Time		minutes minutes
Load Bucket Capacity					
Rated Capacity:	5.60	LCY (heaped)		
Bucket Fill Factor:	0.975	Loose materia	al - mixed moist	aggregates (95-100	%) 0.975
Adjusted Capacity:	5.46	LCY			
<u>Job Condition Correction F</u> Site Altitude: <u>6200</u> feet	actors				
		Source			
Altitude Adj:	1.00	(CAT HB)			
Job Efficiency:	0.83	(1 shift/day)			
Net Correction:	0.83	multiplier			
Unadj	usted Hourly Uni	it Production:	292.77	LCY/Hour	
	usted Hourly Uni		243.00	LCY/Hour	
Adji	usted Hourly Flee	et Production:	486.00	LCY/Hour	

Fleet size:	2	Loader(s)	Total job time:	12.45	Hours
Unit cost:	\$0.579	/LCY	Total job cost:	\$3,504.00	

Page 1 of 2

BULLDOZER WORK

Task description:	Spread to	opsoil in Phase 1/2 :	area north of access road		
Wand Pit		Permit Action:	CN1	Permit/Job#:	M2010007
PROJECT IDENT	IFICATION				
Task #: 11A		State: Colorado		Abbreviation:	None
Date: 9/5/2012	2 C	ounty: Moffat		Filename:	M007-11a
User: DMC		•		1	
Agency or or	ganization nam	e: DRMS			
HOURLY EQUIP	MENT COST				
Basic Machine:	Cat D8T - 8U				
Horsepower:	310				
Blade Type:	Universal				
Attachment:	NA				
	1 per day				
Data Source:	(CRG)				
Cost Breakdown:			0		
			Utilization %		
Ownership Cost/Hou		\$58.56	NA		
Operating Cost/Hou		\$102.84	100		
Ripper op. Cost/Hou		\$0.00	0		
Operator Cost/Hou	ır:	\$38.49	NA		
Total unit Cost/Hour:	\$199.89				
Total Fleet Cost/Hour:					
MATERIAL QUA	NTITIES				
Initial Volume: 6	,050				
	.000				
	,050 LCY				
Source of estimated vo Source of estimated sy		Estimate approx. 5 ac Cat Handbook	c. @ 9" depth		
Source of estimated st					
HOURLY PRODU	CTION				
Average push distance	e: 50	feet			
Unadjusted hourly pro		27.0 LCY/hr			
Materials consistency	description:	Loose stockpile 1.2	2		
Average push gradien	t: 0%				
Average site altitude:	6,200 feet				
Average site attitude:	0,200 1001				
Material weight:	1,600 lbs/	LCY			
Weight description:	Top Soil				
Job Condition Correct			Source		
	tor Skill:	0.750	(AVG.)		
Material con		1.200	(CAT HB)		
Dozing	method:	1.000	(GEN.)		

Visibility:		
visionity.	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)

Adjusted unit production:	1,398.08 LCY/hr	
Adjusted fleet production:	1398.08 LCY/hr	

Fleet size:	1 Dozer(s)
Unit cost:	\$0.143/LCY

Total job time:	4.33 Hours	
Total job cost:	\$864.99	

Page 1 of 2

REVEGETATION WORK

Task description:	Revegetate disturbed a				
Wand Pit	Permit Action: Permit/Job#:			M2010007	
PROJECT IDENTI	FICATION				
Task #: 12A		orado		Abbreviation:	None
Date: <u>9/5/2012</u> User: DMC	County: Mof	fat		Filename:	M007-12a
Agency or org	anization name: DRMS				
ERTILIZING					
/Iaterials					
		Units /			Cont / A sure
Description		Acre	Unit	Cost / Unit	Cost /Acre
				\$	\$
		To	tal Fertilizer	Materials Cost/Acre	\$0.00
12 42					
Application	1977 - 2				
Description					Cost /Acre
					\$
		Total	Fertilizer A	pplication Cost/Acre	\$0.00
<u>FILLING</u>					
,	1.1.4 10.00				
Description					Cost /Acre
Disc harrowing, 6" de	eep (MEANS 32 91 13.23 610	20)			\$92.35

Weed control spraying (MEANS 31 31 16.13 3100)	Total Tilling Cost/Acre	\$145.20 \$237.55
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100) Weed control spraying (MEANS 31 31 16.13 3100)		\$92.35 \$145.20

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Orchardgrass - Paiute	0.30	3.72	\$0.63
Smooth Brome - Lincoln	1.60	5.33	\$2.08
Intermediate Wheatgrass - Oahe	2.50	5.34	\$5.35
Pubescent Wheatgrass - Luna	2.25	4.65	\$4.93
Sainfoin - Remont	2.50	1.09	\$6.88
Totals Seed Mix	9.15	20.12	\$19.87

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
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$164.00	\$328.00
		Total Mulch	Materials Cost/Acre	\$328.00

Application

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

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
Cottonwood, Narrowleaf	5	Tubling, 10 cu. in. container {(MEANS)	\$1.45	\$2.40	\$7.25
Willow, Sandbar	5	Tubling, 10 cu. in. container {(MEANS)	\$3.85	\$2.40	\$19.25
	\$26.50				

	No. of Acres:	5	Cost /Acre:	\$767.92
Estimate	ed Failure Rate:	25%	Cost /Acre*:	\$767.92
*Selected Replanti	ng Work Items:	TILLING, SEEDING MULCHING	G, NURSERY,	
Initial Job Cost:	\$3,839.60			
Reseeding Job Cost:	\$959.90			
Total Job Cost:	\$4,799.50			
Job Hours:	5.00			

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description:	Mo	bilize reclamation	n crew and equi	pment				
e: Wand Pit		Permit A	Action: CN1		Pe	rmit/Job#:	M201	0007
PROJECT IDE	NTIFICAT	ION						
Task #: 13A		State: Co	olorado		Abbr	eviation:	None	
Date: 9/5/2	2012	County: M	offat			ilename:	M007-	13a
User: DMC	2							
Agency of	r organizatior	n name: DRMS						
EQUIPMENT 1	RANSPOR	T RIG COST						
					Shift ba	sis:	l per day	
					Cost Data Sou	rce: C	CRG Data	L
Truck	Tractor Desc	ription: GEN	ERIC ON-HIGH	WAY TR	UCK TRACTO)R 6X4 T	DESEL I	OWERED
21.001					(2ND HALF,		ILOLL I	OWLICED,
Truck	Trailer Desc	ription: GENE	RIC FOLDING			/	JIPMEN	T TRAILER
		1			, 50T, AND 10			
				<u> </u>	, ,	/		
Cost Breakdown:								
Available Rig Ca	acities	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	\$1	125.45			
NON ROADAB	LE EQUIP	<u>MENT:</u>						
Machine	Weight/	Owner ship	Haul Rig	Fleet	Haul Trip	Return	<u>Frin</u>	DOT Permi
Description	Unit	Cost/hr/ unit	Cost/hr/unit	Size	Cost/hr/	Cost/hr/		Cost/ fleet
Doorphon	(TONS)			5120	fleet			
CAT 972H	28.00	\$36.70	\$117.55	2	\$308.50	\$235.10		\$250.00
Cat D8T - 8U	53.70	\$65.28	\$125.45	1	\$190.73	\$125.45		\$250.00
Drill/Broadcast	25.00	\$39.59	\$88.67	1	\$128.26	\$88.67		\$250.00
Seeder with Tractor								1200100
Centrifugal pump -	1.95	\$7.66	\$88.67	1	\$96.33	\$88.67		\$250.00

Subtotals: \$723.82 \$537.89 \$1,000.00

ROADABLE EQUIPMENT:

200M, 10 in.

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	\$25.30	1	\$25.30	\$25.30
		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:	5.00	miles
Average Travel Speed:	35.00	mph
Total Non-Roadable Mob/Demob Cost *	\$3,808.13	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	\$7.23	

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: _____\$3,815.36