# COST SUMMARY WORK

Lorencit	encito Canyon Mine Permit Action: MT5 Permi				ob#: <u>C1996084</u>		
PROIFCT	IDENTIFICA	FION					
KUJECI	IDENTIFICA.	HUN					
Task #:	000	State:	Colorado	Abbreviation:	None		
			Colorado Las Animas	Abbreviation: Filename:	None C084-000		

Agency or organization name: DRMS

### TASK LIST (DIRECT COSTS)

	Form		Fleet	Task	Cost	
Task	Description	Used	Size	Hours	Cost	
001	Grade Borrow Area 3	GRADER	1	1.72	\$265	
002	Replace Topsoil from Stockpile BA#1 to Fill 7a	TRUCK1	1	4.84	\$6,914	
003	Replace Topsoil from Stockpile SSP#2 to Fill 9a	TRUCK1	1	7.31	\$10,455	
004	Replace Topsoil from Stockpile SSP#3 to Fill 8	TRUCK1	1	13.00	\$18,596	
005	Replace Topsoil from Stockpile SSP#2 to N-1	TRUCK1	1	8.17	\$11,689	
006	Replace Topsoil from Stockpile BA#2 to C-1	TRUCK1	1	12.76	\$18,247	
007	Replace Topsoil from Stockpile BA#1 to C-2	TRUCK1	1	7.86	\$11,289	
008	Replace Topsoil from Stockpile BA#2 to S-2	TRUCK1	1	3.07	\$4,287	
009	Replace Topsoil from Stockpile BA#3 to S-4	TRUCK1	1	3.33	\$5,561	
010	Replace Topsoil from Stockpile BA#32to W-2	TRUCK1	1	10.58	\$17,668	
011	Replace Topsoil from Stockpile BA#3 to W-3	TRUCK1	1	2.98	\$4,241	
012	Replace Topsoil from Stockpile BA#3 to W-5	TRUCK1	] 1	10.74	\$17,969	
013	Replace Topsoil from SA Stockpile to Service	DOZER	2	0.23	\$135	
	Area					
014	Replace Live-Handled Topsoil to W-1	DOZER	2	4.33	\$2,449	
015	Replace Topsoil from Upslope to W-1	DOZER	2	3.60	\$2,033	
016	Replace Live-Handled Topsoil to W-1	DOZER	2	1.72	\$974	
017	ReplaceTopsoil from Upslope Area to W-4	DOZER	2	1.92	\$1,082	
018	Replace Live-Handled Topsoil to W-6	DOZER	2	1.54	\$872	
019	Replace Topsoil from Upslope Area to W-6	DOZER	2	0.86	\$485	
020	Replace Topsoil from Stockpile BA#3 to W-6	TRUCK1	1	1.11	\$1,859	
021	Replace Live-Handled Topsoil to N-2	DOZER	2	11.55	\$6,734	
022	Replace Topsoil from Upslope Area to N-2	DOZER	2	12.84	\$7,253	
023	Replace Live-Handled Topsoil to S-3	DOZER	2	0.98	\$554	
024	Replace Topsoil from Upslope to S-3	DOZER	2	0.53	\$298	
025	Replace Topsoil from Stockpile BA#3 to S-3	TRUCK1	1	0.67	\$1,126	
026	Replace Topsoil from Stockpile SSP#2 to N-1	DOZER	2	4.16	\$2,427	
027	Replace Live-Handled Topsoil to E-2	DOZER	2	0.57	\$324	
028	Replace Topsoil from Upslope Area to E-2	DOZER	2	0.82	\$466	
029	Replace Live-Handled Topsoil to E-3	DOZER	2	1.65	\$932	
030	Replace Topsoil from Stockpile BA#3 to E-3	TRUCK1	1	1.27	\$2,112	
031	Replace Topsoil from Upslope Area to BA#1	DOZER	2	1.81	\$1,053	
032	Replace Topsoil from Upslope Area to BA#2	DOZER	2	1.73	\$976	
033	Replace Topsoil from Upslope Area to BA#3	DOZER	2	3.23	\$1,827	
034	Remove Topsoil from Knob Above Cut	DOZER	2	15.04	\$8,499	
040	Plug and Seal Drill Hole and Monitoring Wells	BOREHOLE	1	27.00	\$31,551	
050	Broadcast Seeding Mine Site	REVEGE	1	126.00	\$184,516	
051	Hydroseeding Steep Slopes at Mine Site	REVEGE	1	16.00	\$59,204	
052	Fertilize Mine Site During Year 2	REVEGE	1	84.00	\$10,177	

053	Fertilize Mine Site During Year 3	REVEGE	1	84.00	\$10,177
054	Broadcast Seed Borrow Area 3	REVEGE	1	4.05	\$5,931
055	Direct Shrub Seeding	REVEGE	] 1	9.00	\$762
060	Clean Sediment Ponds at Mine Site	TRUCK1	] 1	122.42	\$76,567
061	Site Maintenance	SITEMAINT ENANCE	1	40.00	\$112,926
070	Mobilize/Demobilize for Initial Reclamation	MOBILIZE	1	4.28	\$20,319
071	Mobilize/Demobilize Equipment for Pond Cleaning	MOBILIZE	1	4.28	\$3,038
072	Mobilize/Demobilize Equipment for Site Maintenance	MOBILIZE	1	4.28	\$27,538
		<u>SUBTO</u>	TALS:	683.83	\$714,357

### **INDIRECT COSTS**

#### OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	\$14,430
Performance bond:	1.05	Total =	\$7,501
Job superintendent:	341.91	Total =	\$23,725
Profit:	10.00	Total =	\$71,436
		TOTAL O & P =	\$117,092
		CONTRACT AMOUNT (direct + O & P) = $($	\$831,449

#### LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): Engineering work and/or contract/bid preparation: Reclamation management and/or administration:	\$0 4.25 5.00	Total = Total =	\$0 \$35,337 \$41,572
CONTINGENCY:	0.00	Total =	\$0
	TOTAL IN	DIRECT COST =	\$194,001
TOTAL BO	ND AMOUNT (di	rect + indirect) =	\$908,358

#### MOTOR GRADER WORK

Task description:	Gra	de Borrow A	rea 3				
: Lorencito Canyo	n Mine	Per	mit Action:	MT5	]	Permit/Joł	o#: <u>C1996084</u>
PROJECT IDENT	IFICATI	<u>ON</u>					
Task #: 001		State:	Colorado		Abbre	viation:	None
Date: $\frac{001}{2/12/2}$	020	County:	Las Anima	IS		lename:	M1996084
User: DC1			Lus I minu			-	
		55					
Agency or o	rganization	name: DR	MS				
HOURLY EQUIP	MENT CO	<u>DST</u>					
Basic Mac	hine: CA	AT 14M			Horsepower:	2	259
Ripper Attachi	nent: M	ılti-Shank Rip	per		Shift Basis:	1 p	er day
			-		Data Source:	(0	CRG)
Cost Breakdown:					_		
COSt DIEdKuowii.				1	Utilization %		
O'	wnership Co	ost/Hour:		\$64.10	NA		
	perating Co			\$56.17	100		
	wnership Co			\$4.44	NA		
	perating Co			\$0.00	0		
	Operator C			\$28.52	NA		
	otal Unit C			\$153.22			
То	otal Fleet C	ost/Hour:	\$153	5.22			
MATERIAL QUA			2.50				
Total A	rea to be gr	aded or ripped	: 2.70				acres
So	urce of esti	mated acreage	: Table 2	2.05.4-1f			
HOURLY PRODU	ICTION						
<u>HOUKLI I KODU</u>				1.50			
		ge Grader Spe		1.50	mph	1) 15	
		cted Applicati			grading (0-2.5 mp	h) - 1.5	
		ted Blade Ang		<u> </u>	degrees feet		
Wie		ve Blade Leng overlap per pa		2.00	feet		
		g width per pa		10.10	feet		
		Unit Producti		1.8364	acres/hou	ır	
-							
Job Condition Correct	tion Factors			Si	ite Altitude: 7100	feet	
		I	Source				
Altitude Ad	•	.00	(CAT HB				
Job Efficienc		).85	(1 sh/d, mo)	d.)			
Net Correction	n:0.	8500	multiplier				
	Adjusted	Hourly Unit P	roduction	1.5609	acres/Hour		
		Hourly Fleet P		1.5609	acres/Hour		
				1.0007			
JOB TIME AND (	COST						
Fleet size:	1	Grader(s)		Total job time:	1.73		Hours
TT .	Φ <u>Ω</u> Ω 1 5			<b>T</b> (1) 1	<b>** -</b>		
Unit cost:	\$98.16	per acre		Total job cost:	\$265		

Task description:	Replace	Topsoil from	Stockpile BA#1 to	o Fill 7a			
Site: Lorencito Canyo	on Mine	Permit A	ction: MT5		Permit/Job	#: <u>C1996084</u>	
PROJECT IDEN	<b><u><b>FIFICATION</b></u></b>						
Task #: 002		State: Colo	rado	Abb	Abbreviation: None		
Date: 2/12/2	2020	County: Las A	Animas		Filename:	C1994084	
User: DC1							
Agency or	organization nan	ne: DRMS					
HOURLY EQUIF	MENT COST	-		Shift ba	sis: <u>1 per day</u>	<u>v</u>	
			Equipment Descr	iption			
Ti	ruck Loader Tear		t 773F				
			AT 990H high lift				
Suppo	ort Equipment -L		t D9T - 9SU				
Road Ma	intenance – Moto		t D9T - 9SU AT 14M				
Road Ma			ater Tanker, 5,000	Gal			
			,.,.,.,.				
Cost Breakdown:	Truck/Loa	der Team		Equipment	Mair	ntenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck	ĸ
%Utilization-machine:	100	95	50	100		25 2	25
Ownership cost/hour:	\$105.90	\$141.85	\$121.49	\$121.49	\$64.	10 \$27.4	0
Operating cost/hour:	\$93.41	\$128.36	\$52.92	\$105.84	\$14.	.04 \$10.0	)0
%Utilization-riper:	NA	0	50	0	Ν	NA N.	A
Ripper own. cost/hour:	NA	\$0.00	\$13.94	\$13.94	\$0.	.00 \$0.0	00
Ripper op. cost/hour:	NA	\$0.00	\$4.48	\$0.00	\$0.	.00 \$0.0	)0
Operator cost/hour:	\$33.29	\$40.65	\$41.24	\$41.24	\$28.	.52 \$21.0	)9
Unit Subtotals:	\$232.60	\$310.86	\$220.13	\$268.57	\$106.	.66 \$58.4	9
Number of Units:	2	1	1	1		1	1
Group Subtotals:	Work:	\$776.06	Support:	\$488.70	Mai	nt: \$165.15	

Total work team cost/hour: <u>\$1,429.91</u>

3,440	CCY	Swell factor:	1.125	
3,870	LCY			
e of estimated volume:	Table 2.05	.4-1f		
estimated swell factor:	Cat Handb	ook		
Material Purchase Cost:				
Total Cost:	\$0.00			
	3,870 e of estimated volume: estimated swell factor: Material Purchase Cost:	3,870LCY3,870LCYce of estimated volume: estimated swell factor:Table 2.05Cat HandbCat HandbMaterial Purchase Cost:\$0.00	3,870LCYa setimated volume:Table 2.05.4-1fc estimated swell factor:Cat HandbookMaterial Purchase Cost:\$0.00	3,870     LCY       a,870     CY       be of estimated volume:     Table 2.05.4-1f       cestimated swell factor:     Cat Handbook       Material Purchase Cost:     \$0.00

Truck Capacity:								
Truck Payload (weight) Bas								
Material weight:	2,550		Pounds/	LCY				
Description:	Earth - Dry pa	acked	<b>D</b> 1					
Rated Payload:	122,520		Pounds					
Payload Capacity:	48.05		LCY					
Truck Bed (volume) Basis:								
Struck Volume:	35.00	LCY						
Heaped Volume:	46.50	LCY						
Average Volume:	40.75	LCY						
Adjusted Volume:	46.50	LCY						
Final	Truck Volume	Based on Nurr	ber of L	oader Passes:	39.3	8	LCY	
Loading Tool Capacity								
			•	Buck	et Size Class	s: <u>N</u> A	4	
Rated Capacity:	11.250	LCY (he		1.2	<b>5</b> 000() 0.5	75		
Bucket Fill Factor: Adjusted Capacity:	0.875 9.844	Loose m	aterial -	1" and over (8	5 - 90%) 0.8	15		
Aujusted Capacity.	2.044							
Job Condition Corrections	: <u> </u>		Site	Altitude (ft.):	<u>7100</u> feet			
	Truck	Loade		Source				
Altitude Adj:	1.000	1.000		(CAT HE				
Job Efficiency:	0.830	0.830	)	(CAT HE	5)			
Net Correction:	0.830	0.830	)					
Loading Tool Cycle Times	<u>.</u> 1	Number of Loa	ading To	ol Passes Requ			4	passes
Excavators and Front Shove	els:				Truck:			
Machine Cycle Time v Selected Value	vs. Job Condition within this Basic	U	IA IA					
Track Loaders -	- Material Descr	iption:						
Cycle Time Elements (min.)		·						
Load: NA	M	laneuver: N	IA		Dump:	0.100		
Wheel and Trac	ck Loaders - Una	adjusted Basic	Loader	•	· •	0.0	500 <sup>1</sup>	ninutes
	1			n	naneuver):			
Cycle Time Factors		. 10.02			Factor (n		Source	
Material:			0 6 1:-1	1	0.020		(Cat HE	3)
Stockpile:	0.01	dozer piled 1	0 π. nign	or less	0.010		(Cat HE	3)
Truck Ownership:		nership of tru	cks and l	oaders -	-0.040	)	(Cat HE	3)
Operation:		eration -0.04			-0.040	)	(Cat HE	3)
Dump Target:					0.000		(Cat HE	
		•		Adjustment:	-0.050		minute	
				Cycle Time:	0.550		minute	
		Net L	.oad Tim	e per Truck:	1.750		minute	S

Truck Exchange Time:	0.70	Minutes	Adjusted for site altitude:	0.700	Minutes
Truck Load Time:	1.750	Minutes	Adjusted for site altitude:	1.750	Minutes
Truck Maneuver and Dump Time:	1.10	Minutes	Adjusted for site altitude:	1.100	Minutes

Truck Travel (Haul & Return) Time: penetration 5.0

I	Haul Route	:							
Γ	Seg #	Haul Distan	ce	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
		(Ft)			(%)	(%)	(fpm)	Time	
-	1	1200.00		-8.00	5.00	-3.00	3512	(min)	
L	1	1200.00		-8.00	5.00	-3.00	3512	0.402	
						Haul Time:	0.402	minutes	
I	Return Rou	ite:							
	Seg #	Haul Distan	ce	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
		(Ft)			(%)	(%)	(fpm)	Time (min)	
	1	1200.00		8.00	5.00	13.00	1362	0.925	
						Return Time:	0.925	5 minutes	5
					Total Tru	ck Cycle Time:	4.877	minutes	5
L	oading Too	lunit							
L	Produ		4.29	LCY/Hour		Adjusted for jo	ob efficiency:	800.36	LCY/Hour
Truck	Unit Produ	ction				5 5	•		
		48	4.42	LCY/Hour		Adjusted for jo	ob efficiency:	402.07	LCY/Hour
Optima	l No. of Tr	ucks:	2	Truck(s)		Selected Numb	er of Trucks:	2	Truck(s)
				Adjusted	hourly truck	team productio	n: 804.	13 LCY/H	Iour
				Adjusted single	truck/loader	team productio	n: 800.	36 LCY/H	Iour
			Ac	ljusted multiple	truck/loader	team productio	n: <b>800.</b>	36 LCY/H	Iour
<u>.</u>	JOB TIM	E AND CO	<u>ST</u>						
	Fleet	size:	1	Team(s)	Т	otal job time:	4.84	Hou	rs
	Unit o	cost: \$1	.787	/LCY	Г	Total job cost:	\$6,91	4	

Task description:	Replace	e Topsoil fr	om S	tockpile SSP#2 t	o Fill 9a					
Site: Lorencito Cany	on Mine	Perm	it Act	tion: MT5		Permit/Jol	b#: _	C1996084		
PROJECT IDEN	TIFICATION									
Task #: 003		State:	Colora	ado	Abl	Abbreviation: None				
	2020	County:	Las A	nimas		Filename:	C19	994084		
User: DC1										
Agency or	organization nan	ne: DRM	IS							
HOURLY EQUIPMENT COST Shift basis: <u>1 per day</u>										
			]	Equipment Descr	iption					
Т	ruck Loader Tear	m -Truck:		773F						
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		-Loader:		T 990H high lift						
Supp	ort Equipment -L			D9T - 9SU						
Poad M	aintenance – Moto	mp Area:		D9T - 9SU T 14M						
Koau Mi		ter Truck:		ter Tanker, 5,000	Gal					
		tor fruck.	,, a	ier runner, 2,000	Oui.					
Cost Breakdown:	Truck/Loa	der Team		Support	Equipment	Mai	intena	ance Equipment		
	Truck	Loader		Load Area	Dump Area	Motor Grader		Water Truck		
%Utilization-machine:	100		95	50	100		25	25		
Ownership cost/hour:	\$105.90	\$14	1.85	\$121.49	\$121.49	\$64	.10	\$27.40		
Operating cost/hour:	\$93.41	\$12	8.36	\$52.92	\$105.84	\$14	1.04	\$10.00		
%Utilization-riper:	NA		0	50	0	]	NA	NA		
Ripper own. cost/hour:	NA	\$	0.00	\$13.94	\$13.94	\$0	0.00	\$0.00		
Ripper op. cost/hour:	NA	\$	0.00	\$4.48	\$0.00	\$0	0.00	\$0.00		
Operator cost/hour:	\$33.29	\$4	0.65	\$41.24	\$41.24	\$28	3.52	\$21.09		
Unit Subtotals:	\$232.60	\$31	0.86	\$220.13	\$268.57	\$106	5.66	\$58.49		
Number of Units:	2		1	1	1		1	1		
Group Subtotals:	Work:	\$776.06		Support:	\$488.70	Ma	int:	\$165.15		

Total work team cost/hour: <u>\$1,429.91</u>

Initial volume:	4,950	CCY	Swell factor:	1.125	
Loose volume:	5,569	LCY			
Sourc	e of estimated volume:	Table 2.05	.4-1f		
Source of	estimated swell factor:	Cat Handb	ook		
Ν	Material Purchase Cost:	\$0.00			
	Total Cost:	\$0.00			

Truck Capacity:						
Truck Payload (weight) Bas			D 17	au		
Material weight:	2,550		Pounds/L	CY		
Description: Rated Payload:	Earth - Dry pa 122,520		Pounds			
Payload Capacity:	48.05		LCY			
r ayıdad Capacıty.	48.05					
Truck Bed (volume) Basis:						
Struck Volume:	35.00	LCY				
Heaped Volume:		LCY				
Average Volume:		LCY				
Adjusted Volume:	46.50	LCY				
Final	Truck Volume I	Based on Numb	ber of Loa	ader Passes:	39.38	LCY
Loading Tool Capacity						
	11.050		1)	Buck	et Size Class:	NA
Rated Capacity: Bucket Fill Factor:	11.250	LCY (hea		2 1	5 000() 0 975	
Adjusted Capacity:	0.875 9.844	Loose ma	iterial - 1	and over (8	5 - 90%) 0.875	
Aujusted Capacity.	7.044					
Job Condition Corrections	<u>;</u>		Site A	Altitude (ft.):	7100 feet	
	Truck	Loader	•	Source		
Altitude Adj:	1.000	1.000		(CAT HB		
Job Efficiency:	0.830	0.830		(CAT HB	)	
Net Correction:	0.830	0.830				
Loading Tool Cycle Time	<u>.</u> N	umber of Load	ding Tool	Passes Requ		4 passes
Excavators and Front Shove	els:				Truck:	
Machine Cycle Time Selected Value	vs. Job Condition within this Basic					
Track Loaders -	- Material Descri	ption:				
Cycle Time Elements (min.)		·				
Load: NA	M	aneuver: NA	A		Dump: 0.10	0
Wheel and Trac	ck Loaders - Una	djusted Basic I	Loader C		· •	0.600 minutes
Cycle Time Factors				11	naneuver): Factor (min.)	Source
Material:		ial 0.02			0.020	(Cat HB)
Stockpile		dozer piled 10	) ft. high o	or less	0.010	(Cat HB)
Truck Ownership:		nership of truc	ks and lo	aders -	-0.040	(Cat HB)
Operation:		ration -0.04			-0.040	(Cat HB)
Dump Target:	-				0.000	(Cat HB)
<b>_</b>		•		djustment:	-0.050	minutes
				ycle Time:	0.550	minutes
		Net Lo	oad Time	per Truck:	1.750	minutes

Truck Exchange Time:	0.70	Minutes	Adjusted for site altitude:	0.700	Minutes
Truck Load Time:	1.750	Minutes	Adjusted for site altitude:	1.750	Minutes
Truck Maneuver and Dump Time:	1.10	Minutes	Adjusted for site altitude:	1.100	Minutes

Truck Travel (Haul & Return) Time: penetration 5.0

I	Haul Route	:							
	Seg #	Haul Dis	stance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
		(Ft)			(%)	(%)	(fpm)	Time	
-	1	700.00		11.00	5.00	16.00	526	(min) 1.345	
L	1	700.00		11.00	5.00	1 1	520	1.545	
						Haul Time:	1.345	minutes	
I	Return Rou			1					
	Seg #	Haul Dis	stance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
		(Ft)			(%)	(%)	(fpm)	Time (min)	
	1	700.00		-11.00	5.00	-6.00	3512	0.254	
						Return Time:	0.254	minutes	5
					Total Tru	ck Cycle Time:			3
Le	oading Too	1 unit							
	Produ		964.29	LCY/Hour		Adjusted for jo	ob efficiency:	800.36	LCY/Hour
Truck	Unit Produ		, o <u>-</u> ,			110/08/00 101 )			_ 201/11001
			458.83	LCY/Hour		Adjusted for jo	ob efficiency:	380.83	LCY/Hour
	1.1.1.677							2	<b>T</b> 1()
Optima	l No. of Tr	ucks:	2	Truck(s)		Selected Numb	er of Trucks:	2	Truck(s)
				Adjusted	hourly truck	team productio	n: 761.	65 LCY/H	Hour
						team productio		65 LCY/H	Hour
			A	djusted multiple	truck/loader	team productio	n: <b>761.</b>	65 LCY/H	Hour
<u>e</u>	JOB TIM	E AND	COST						
	Fleet	size:	1	Team(s)	Т	otal job time:	7.31	Hou	rs
	Unit o	cost:	\$1.877	/LCY	Т	otal job cost:	\$10,4	55	

Task description:	Replace	Topsoil from	Stockpile SSP#3 (	to Fill 8				
Site: Lorencito Cany	on Mine	Permit Ac	ction: MT5		Permit/Job#	: <u>C1996084</u>		
PROJECT IDEN	<b>TIFICATION</b>							
Task #: 004		State: Colo	rado	Abb	previation: N	None		
Date: 2/12/2	2020	County: Las A	Animas		Filename: C1994084			
User: DC1								
Agency or	organization nan	ne: DRMS						
HOURLY EQUI	PMENT COST	-		Shift ba	sis: <u>1 per day</u>			
			Equipment Descr	iption				
T	ruck Loader Tear		t 773F					
-Loader: CAT 990H high lift								
Support Equipment -Load Area: Cat D9T - 9SU -Dump Area: Cat D9T - 9SU								
Road Ma	uintenance – Moto		T 14M					
Roud Me			ater Tanker, 5,000	Gal.				
	T. 1/1.	1	C	En innert	Maint	<b>.</b>		
<u>Cost Breakdown</u> :	Truck/Loa Truck	Loader	Load Area	Equipment Dump Area	Motor	enance Equipment Water Truck		
	TTUCK	Loader	Load Afea	Dump Area	Grader	water muck		
%Utilization-machine:	100	95	50	100	2	5 25		
Ownership cost/hour:	\$105.90	\$141.85	\$121.49	\$121.49	\$64.1	0 \$27.40		
Operating cost/hour:	\$93.41	\$128.36	\$52.92	\$105.84	\$14.0	4 \$10.00		
%Utilization-riper:	NA	0	50	0	NA	A NA		
Ripper own. cost/hour:	NA	\$0.00	\$13.94	\$13.94	\$0.0	0 \$0.00		
Ripper op. cost/hour:	NA	\$0.00	\$4.48	\$0.00	\$0.0	0 \$0.00		
Operator cost/hour:	\$33.29	\$40.65	\$41.24	\$41.24	\$28.5	2 \$21.09		
Unit Subtotals:	\$232.60	\$310.86	\$220.13	\$268.57	\$106.6	6 \$58.49		
Number of Units:	2	1	1	1		1 1		
Group Subtotals:	Work:	\$776.06	Support:	\$488.70	Maint	: \$165.15		

Total work team cost/hour: <u>\$1,429.91</u>

Initial volume:	8,820		CCY	Swell factor:	1.125	
Loose volume:		9,923	LCY			
Source	e of estin	nated volume:	Table 2.05.4	-1f		
Source of	estimated	l swell factor:	Cat Handboo	ok		
Ν	Material P	urchase Cost:	\$0.00			
		Total Cost:	\$0.00			

Truck Capacity:							
Truck Payload (weight) Bas							
Material weight:	2,550		Pounds/LCY				
Description: Rated Payload:	Earth - Dry pa 122,520		Pounds				_
Payload Capacity:	48.05		.CY				
Tayload Capacity.	-0.05	I					
Truck Bed (volume) Basis:							
Struck Volume:		LCY					
Heaped Volume:		LCY					
Average Volume:		LCY					
Adjusted Volume:	46.50	LCY					
Final	Truck Volume I	Based on Numb	er of Loader Pass	ses:	39.38	LCY	
Loading Tool Capacity							
	11.050	LOV/1		Bucket Size	Class: N.	А	
Rated Capacity: Bucket Fill Factor:	11.250	LCY (heap			() 0.975		
Adjusted Capacity:	0.875 9.844	Loose mat	erial - 1" and ove	er (85 - 90%	%) 0.875		_
Aujusted Capacity.	2.044						
Job Condition Correction	<u>s:</u>		Site Altitude (	(ft.): <u>7100</u> f	eet		
	Truck	Loader		irce			
Altitude Adj:	1.000	1.000		ΓHB)			
Job Efficiency:	0.830	0.830	(CA'I	Г HB)			
Net Correction:	0.830	0.830					
Loading Tool Cycle Time	<u>:</u> N	lumber of Load	ing Tool Passes I	-		4	passes
Excavators and Front Shov	els:			Ir	uck:		
Machine Cycle Time Selected Value	vs. Job Conditior within this Basic						
Track Loaders -	- Material Descri	ption:					
Cycle Time Elements (min.	):	·					
Load: NA	M	aneuver: NA	<b>\</b>	Dui	mp: 0.100		
Wheel and Tra-	ck Loaders - Una	djusted Basic L	loader Cycle Tim	e (load, du maneuv	- · · · · · · · · · · · · · · · · · · ·	600 mi	nutes
Cycle Time Factors					tor (min.)	Source	
Material					0.020	(Cat HB)	
Stockpile	Conveyor or 0.01	dozer piled 10	ft. high or less		0.010	(Cat HB)	
Truck Ownership	Common ow 0.04	nership of truch	ks and loaders -		-0.040	(Cat HB)	
Operation					-0.040	(Cat HB)	
Dump Target	Nominal targ				0.000	(Cat HB)	
		•	e Time Adjustmer		-0.050	minutes	
			Loader Cycle Tim		0.550	minutes	
		Net Lo	ad Time per Truc	:к:	1.750	minutes	

Truck Exchange Time:	0.70	Minutes	Adjusted for site altitude:	0.700	Minutes
Truck Load Time:	1.750	Minutes	Adjusted for site altitude:	1.750	Minutes
Truck Maneuver and Dump Time:	1.10	Minutes	Adjusted for site altitude:	1.100	Minutes

Truck Travel (Haul & Return) Time: penetration 5.0

	Haul Route	e:							
	Seg #	Haul I	Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
		(Ft)			(%)	(%)	(fpm)	Time	
	1	400.00	)	19.00	5.00	24.00	338	(min) 1.187	
	1	400.00	)	19.00	5.00	24.00	330	1.10/	
						Haul Time:	1.187	minutes	
	Return Rou	ite:							
	Seg #		Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
		(Ft)			(%)	(%)	(fpm)	Time (min)	
	1	400.00	)	-19.00	5.00	-14.00	1377	0.403	
						Return Time:	0.403	minutes	
					Total Tru	ck Cycle Time:	5.140	minutes	
L	oading Too	ol unit							
	0	uction	964.29	LCY/Hour		Adjusted for jo	ob efficiency:	800.36	LCY/Hour
Truck	Unit Produ	uction							
		-	459.63	LCY/Hour		Adjusted for jo	ob efficiency:	381.49	LCY/Hour
Optima	al No. of Tı	rucks:	2	Truck(s)		Selected Numb	er of Trucks:	2	Truck(s)
				Adjusted	hourly truck	team productio	n: 762.	99 LCY/H	lour
				Adjusted single	truck/loader	team productio	n: 762.	99 LCY/H	lour
			A	djusted multiple	e truck/loader	team productio	n: <b>762.</b>	99 LCY/H	lour
:	JOB TIM	IE ANI	) COST						
	Fleet	size:	1	Team(s)	Т	otal job time:	13.0	0 Hour	rs
	Unit	cost:	\$1.874	/LCY	Т	Total job cost:	\$18,5	96	

Task description:	Replace	Topsoil from S	tockpile SSP#2 t	o N-1						
Site: Lorencito Cany	on Mine	Permit Act	ion: <u>MT5</u>		Permit/Job	#: <u>C199608</u>	34			
PROJECT IDEN	<b>TIFICATION</b>									
Task #: 005		State: Colora	ado	Abb	previation:	n: None				
Date: 2/12/	2020	County: Las A	nimas		Filename: C1996084					
User: DC1	User: DC1									
Agency or organization name: DRMS										
HOURLY EQUI	PMENT COST	-		Shift ba	sis: <u>1 per day</u>	<u>/</u>				
			Equipment Descr	iption						
Т	ruck Loader Tear		773F							
			T 990H high lift							
Support Equipment -Load Area: Cat D9T - 9SU										
Pood Ma	-Du aintenance –Moto	1	D9T - 9SU Г 14M							
Koau Ma			ter Tanker, 5,000	Gal						
	, , , , , , , , , , , , , , , , , , ,		ier runner, 5,000	Out						
Cost Breakdown:	Truck/Loa	der Team	Support	Equipment	Main	tenance Equi	pment			
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water	ſruck			
%Utilization-machine:	100	95	50	100		25	25			
Ownership cost/hour:	\$105.90	\$141.85	\$121.49	\$121.49	\$64.	10 \$	527.40			
Operating cost/hour:	\$93.41	\$128.36	\$52.92	\$105.84	\$14.	04 \$	510.00			
%Utilization-riper:	NA	0	50	0	N	IA	NA			
Ripper own. cost/hour:	NA	\$0.00	\$13.94	\$13.94	\$0.	00	\$0.00			
Ripper op. cost/hour:	NA	\$0.00	\$4.48	\$0.00	\$0.	00	\$0.00			
Operator cost/hour:	\$33.29	\$40.65	\$41.24	\$41.24	\$28.	52 \$	521.09			
Unit Subtotals:	\$232.60	\$310.86	\$220.13	\$268.57	\$106.	66 \$	558.49			
Number of Units:	2	1	1	1		1	1			
Group Subtotals:	Work:	\$776.06	Support:	\$488.70	Mai	nt: \$165.15	5			

Total work team cost/hour: <u>\$1,429.91</u>

Initial volume:	5,060	CCY	Swell factor:	1.125	
Loose volume:	5,693	LCY			
Sourc	e of estimated volume:	Table 2.0	5.4-1f		
Source of	estimated swell factor:	Cat Hand	book		
Ν	Aaterial Purchase Cost:	\$0.00			
	Total Cost:	\$0.00			

Truck Capacity:							
Truck Payload (weight) Bas			<b>D</b> 1				
Material weight:	2,550		Pounds/	LCY			
Description:	Earth - Dry pa		Pounds				
Rated Payload:	122,520		LCY				
Payload Capacity:	48.05		LUY				
Truck Bed (volume) Basis:							
Struck Volume:	35.00	LCY					
Heaped Volume:	46.50	LCY					
Average Volume:	40.75	LCY					
Adjusted Volume:	46.50	LCY					
Final	Truck Volume I	Based on Num	ber of Lo	oader Passes:	39.38		СҮ
Loading Tool Capacity					~ ~		
		1		Buck	et Size Class:	NA	
Rated Capacity:	11.250	LCY (hea		••••••	<b>5</b> 000() 0.05	-	
Bucket Fill Factor:	0.875		aterial - I	" and over (8	5 - 90%) 0.87	5	
Adjusted Capacity:	9.844	LCY					
Job Condition Corrections	<u>:</u>		Site	Altitude (ft.):	<u>7100</u> feet		
	Truck	Loader		Source			
Altitude Adj:	1.000	1.000		(CAT HB			
Job Efficiency:	0.830	0.830		(CAT HB	5)		
Net Correction:	0.830	0.830					
Loading Tool Cycle Time:	<u> </u>	lumber of Loa	ding Too	ol Passes Requ		4	passes
Excavators and Front Shove	els:				Truck:		
Machine Cycle Time v Selected Value	vs. Job Condition within this Basic						
Track Loaders -	- Material Descri	ption:					
Cycle Time Elements (min.)	:						
Load: NA	M	aneuver: N	A		Dump:	0.100	
Wheel and Trac	ck Loaders - Una	djusted Basic	Loader (	•	· •	0.600	minutes
Cycle Time Factors	Í			11	naneuver): Factor (min	n) S	ource
Material:		ial 0 02			0.020		at HB)
Stockpile:		dozer piled 10	) ft. high	or less	0.010		at HB)
Truck Ownership:		nership of true	cks and l	oaders -	-0.040	(C	at HB)
Operation:		ration -0.04			-0.040	(C	at HB)
Dump Target:	-				0.000		at HB)
			le Time A	Adjustment:	-0.050		inutes
				Cycle Time:	0.550	m	inutes
		Net L	oad Time	e per Truck:	1.750	m	inutes

Truck Exchange Time:	0.70	Minutes	Adjusted for site altitude:	0.700	Minutes
Truck Load Time:	1.750	Minutes	Adjusted for site altitude:	1.750	Minutes
Truck Maneuver and Dump Time:	1.10	Minutes	Adjusted for site altitude:	1.100	Minutes

Truck Travel (Haul & Return) Time: penetration 5.0

I	Haul Route	:							
	Seg #	Haul Dis	stance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
		(Ft)			(%)	(%)	(fpm)	Time	
_	1	600.00		17.00	5.00	22.00	359	(min) 1.676	
L						Haul Time:	1.676	minutes	
F	Return Rou	ite:							
	Seg #	Haul Dis	stance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
		(Ft)			(%)	(%)	(fpm)	Time (min)	
	1	600.00		-17.00	5.00	-12.00	1920	0.406	
						Return Time:	0.406	minutes	5
					Total Tru	ck Cycle Time:	5.632	minutes	1
Lo	ading Too	l unit							
	Produ		964.29	LCY/Hour		Adjusted for jo	ob efficiency:	800.36	LCY/Hour
Truck	Unit Produ	ction							
			419.48	LCY/Hour		Adjusted for jo	ob efficiency:	348.17	LCY/Hour
Optima	l No. of Tr	ucks:	2	Truck(s)		Selected Numb	er of Trucks:	2	Truck(s)
				Adjusted	hourly truck	team productio	on: 696.	33 LCY/H	Iour
				Adjusted single	e truck/loader	team productio	on: 696.	33 LCY/H	Iour
			A	djusted multiple	e truck/loader	team productio	on: <b>696.</b>	33 LCY/H	Iour
و	IOB TIM	E AND C	<u>_051</u>						
	Fleet s	size:	1	Team(s)	Т	otal job time:	8.17	Hou	rs
	Unit c	cost:	\$2.053	/LCY	Т	otal job cost:	\$11,6	89	

Task description:	Replace	Topsoil from S	tockpile BA#2 to	o C-1								
Site: Lorencito Cany	on Mine	Permit Act	ion: <u>MT5</u>		Permit/Job	#: <u>C1996084</u>						
PROJECT IDEN	PROJECT IDENTIFICATION											
Task #: 006		State: Colora	ado	Abł	previation:	None						
	/2020 C	County: Las A	nimas		Filename:	C1996084						
User: DC1												
Agency or organization name: DRMS												
HOURLY EQUIPMENT COST Shift basis: <u>1 per day</u>												
			Equipment Descr	iption								
Т	ruck Loader Tear		773F									
-Loader: CAT 990H high lift												
Support Equipment -Load Area: Cat D9T - 9SU												
Poad M	-Du aintenance –Moto		D9T - 9SU Г 14M									
Kodu Ivia			ter Tanker, 5,000	Gal								
	, , , , , , , , , , , , , , , , , , ,		ier runner, 5,000	Oui								
Cost Breakdown:	Truck/Loa	der Team	Support	Equipment	Main	tenance Equipment	t					
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck						
%Utilization-machine:	100	95	50	100		25 25	5					
Ownership cost/hour:	\$105.90	\$141.85	\$121.49	\$121.49	\$64.	10 \$27.40	)					
Operating cost/hour:	\$93.41	\$128.36	\$52.92	\$105.84	\$14.0	04 \$10.00	)					
%Utilization-riper:	NA	0	50	0	N	IA NA						
Ripper own. cost/hour:	NA	\$0.00	\$13.94	\$13.94	\$0.0	00 \$0.00	)					
Ripper op. cost/hour:	NA	\$0.00	\$4.48	\$0.00	\$0.0	00 \$0.00	)					
Operator cost/hour:	\$33.29	\$40.65	\$41.24	\$41.24	\$28.5	52 \$21.09	)					
Unit Subtotals:	\$232.60	\$310.86	\$220.13	\$268.57	\$106.0	56 \$58.49	)					
Number of Units:	2	1	1	1		1 1						
Group Subtotals:	Work:	\$776.06	Support:	\$488.70	Mair	nt: \$165.15						

Total work team cost/hour: <u>\$1,429.91</u>

7,750	CCY	Swell factor:	1.125	
8,719	LCY			
e of estimated volume	Table 2.0	5.4-1f		
estimated swell factor:	Cat Hand	book		
Material Purchase Cost	\$0.00			
Total Cost	\$0.00			
	8,719 ce of estimated volume: estimated swell factor: Material Purchase Cost:	8,719LCYce of estimated volume:Table 2.0ce stimated swell factor:Cat HandMaterial Purchase Cost:\$0.00	8,719LCYce of estimated volume: estimated swell factor:Table 2.05.4-1f Cat HandbookMaterial Purchase Cost:\$0.00	8,719LCYce of estimated volume:Table 2.05.4-1fce stimated swell factor:Cat HandbookMaterial Purchase Cost:\$0.00

Truck Capacity:								
Truck Payload (weight) Bas								
Material weight:	2,550	<u> </u>	Pounds/	LCY				
Description:	Earth - Dry p	acked	Pounds					
Rated Payload: Payload Capacity:	<u>122,520</u> 48.05		LCY					
Payload Capacity:	48.03		LUI					
Truck Bed (volume) Basis:								
Struck Volume:	35.00	LCY						
Heaped Volume:	46.50	LCY						
Average Volume:	40.75	LCY						
Adjusted Volume:	46.50	LCY						
Final	Truck Volume	Based on Nun	nber of L	oader Passes:	39.	38	LCY	
Loading Tool Capacity					~ ~			
		1	-	Buck	et Size Clas	ss: <u>N</u>	A	
Rated Capacity:	11.250	LCY (he		1.1. (0	5 000() 0	075		
Bucket Fill Factor: Adjusted Capacity:	0.875 <b>9.844</b>	Loose m	aterial -	1" and over (8	5 - 90%) 0.	8/5		
Aujusted Capacity.	7,044							
Job Condition Corrections	<u>::</u>		Site	Altitude (ft.):	<u>7100</u> feet			
	Truck	Loade		Source				
Altitude Adj:	1.000	1.000		(CAT HB				
Job Efficiency:	0.830	0.830	)	(CAT HB	5)			
Net Correction:	0.830	0.830	)					
Loading Tool Cycle Times	<u>.</u>	Number of Lo	ading To	ol Passes Requ			4	passes
Excavators and Front Shove	els:				Truck:			
Machine Cycle Time Selected Value	vs. Job Condition within this Basi	U	VA VA					
Track Loaders -	- Material Descr	iption:						
Cycle Time Elements (min.)	:	·						
Load: NA	N	laneuver: <u>N</u>	NA		Dump:	0.100		
Wheel and Trac	ck Loaders - Una	adjusted Basic	c Loader	•	oad, dump, naneuver):	0.	600	minutes
Cycle Time Factors					Factor (1	min.)	Source	e
Material:		rial 0.02			0.02		(Cat H	
Stockpile:	Conveyor or 0.01	dozer piled 1	0 ft. high	or less	0.01	0	(Cat HI	
Truck Ownership:		nership of tru	icks and I	loaders -	-0.04	0	(Cat HI	B)
Operation:		eration -0.04			-0.04	0	(Cat HI	B)
Dump Target:	Nominal tar				0.00		(Cat HI	
		•		Adjustment:	-0.05		minute	
				Cycle Time:	0.55		minute	
		Net I	Load Tim	e per Truck:	1.75	U	minute	S S

Truck Exchange Time:	0.70	Minutes	Adjusted for site altitude:	0.700	Minutes
Truck Load Time:	1.750	Minutes	Adjusted for site altitude:	1.750	Minutes
Truck Maneuver and Dump Time:	1.10	Minutes	Adjusted for site altitude:	1.100	Minutes

Truck Travel (Haul & Return) Time: penetration 5.0

Haul J	Route:								
Seg	#	Haul Distar	nce	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
		(Ft)			(%)	(%)	(fpm)	Time	
1		1200.00		8.00	5.00	13.00	678	(min) 1.798	_
1		1200.00		8.00	5.00	15.00	078	1.790	
						Haul Time:	1.798	minu	tes
	n Rout			1				1	7
Seg	#	Haul Distar	nce	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
		(Ft)			(%)	(%)	(fpm)	Time (min)	
1		1200.00		-8.00	5.00	-3.00	3569	0.392	_
						1			
					<b>T</b> : ( 1 <b>T</b> :	Return Time:			
					Total Tru	ick Cycle Time:	5.740	min	utes
Loading	g Tool	unit							
]	Produc	tion 9	64.29	LCY/Hour		Adjusted for jo	ob efficiency:	800.36	LCY/Hour
Truck Unit l	Produc								
		4	11.59	LCY/Hour		Adjusted for jo	ob efficiency:	341.62	LCY/Hour
	6 77		2	<b>T</b> 1()				2	<b>T</b> 1()
Optimal No.	of Iru	CKS:	2	Truck(s)		Selected Numb	er of Trucks:	2	Truck(s)
				Adjusted	hourly truck	team productio	n: 683.	23 LC	Y/Hour
				Adjusted single	truck/loader	team productio	n: 683.	.23 LC	Y/Hour
			A	djusted multiple	truck/loader	team productio	n: <b>683.</b>	.23 LC	Y/Hour
JOB	TIM	E AND CO	<u>ST</u>						
H	Fleet si	ze:	1	Team(s)	Т	otal job time:	12.7	6 H	Iours
ŗ	Unit co	ost: \$2	2.093	/LCY	Т	Fotal job cost:	\$18,24	47	

Task description:   Replace Topsoil from Stockpile BA#1 to C-2													
Site: Lorencito Cany	on Mine	Permit Act	ion: <u>MT5</u>		Permit/Job#	#: <u>C1996084</u>							
PROJECT IDEN	PROJECT IDENTIFICATION												
Task #: 007		State: Colora	ado	Abb	previation:	None							
Date: 2/12/	2020	County: Las A	nimas		Filename:	C1996084							
User: DC1													
Agency or organization name: DRMS													
HOURLY EQUIPMENT COST Shift basis: <u>1 per day</u>													
			Equipment Descr	iption									
Т	ruck Loader Tea		773F										
-Loader: CAT 990H high lift													
Support Equipment -Load Area: Cat D9T - 9SU -Dump Area: Cat D9T - 9SU													
Road Mr	-Du aintenance –Moto		<u>D91 - 980</u> Г 14М										
Koau Wia			ter Tanker, 5,000	Gal									
				<u> </u>									
Cost Breakdown:	Truck/Loa	der Team	Support	Equipment	Main	tenance Equipment							
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck	]						
%Utilization-machine:	100	100	50	100	2	25 25							
Ownership cost/hour:	\$105.90	\$141.85	\$121.49	\$121.49	\$64.1	10 \$27.40							
Operating cost/hour:	\$93.41	\$135.12	\$52.92	\$105.84	\$14.0	94 \$10.00							
%Utilization-riper:	NA	0	50	0	Ν	IA NA							
Ripper own. cost/hour:	NA	\$0.00	\$13.94	\$13.94	\$0.0	\$0.00							
Ripper op. cost/hour:	NA	\$0.00	\$4.48	\$0.00	\$0.0	00.00							
Operator cost/hour:	\$33.29	\$40.65	\$41.24	\$41.24	\$28.5	52 \$21.09							
Unit Subtotals:	\$232.60	\$317.62	\$220.13	\$268.57	\$106.0	56 \$58.49	1						
Number of Units:	2	1	1	1		1 1	1						
Group Subtotals:	Work:	\$782.82	Support:	\$488.70	Mair	nt: \$165.15	1						

Total work team cost/hour: <u>\$1,436.67</u>

Initial volume:	5,590		CCY	Swell factor:	1.125	
Loose volume:		6,289	LCY			
Source	e of estir	nated volume:	Table 2.05.4	4-1f		
Source of	estimate	d swell factor:	Cat Handbo	ook		
1	Material H	Purchase Cost:	\$0.00			
		Total Cost:	\$0.00			

Truck Capacity:								
Truck Payload (weight) Bas								
Material weight:	2,550		Pounds/	LCY				
Description:	Earth - Dry pa	acked	<b>D</b> 1					
Rated Payload:	122,520		Pounds					
Payload Capacity:	48.05		LCY					
Truck Bed (volume) Basis:								
Struck Volume:	35.00	LCY						
Heaped Volume:	46.50	LCY						
Average Volume:	40.75	LCY						
Adjusted Volume:	46.50	LCY						
Final	Truck Volume	Based on Nurr	ber of L	oader Passes:	39.3	8	LCY	
Loading Tool Capacity								
			•	Buck	et Size Class	s: <u>N</u> A	4	
Rated Capacity:	11.250	LCY (he		1.2	<b>5</b> 000() 0.5	75		
Bucket Fill Factor: Adjusted Capacity:	0.875 9.844	Loose m	aterial -	1" and over (8	5 - 90%) 0.8	15		
Aujusted Capacity.	2.044							
Job Condition Corrections	: <u> </u>		Site	Altitude (ft.):	<u>7100</u> feet			
	Truck	Loade		Source				
Altitude Adj:	1.000	1.000		(CAT HE				
Job Efficiency:	0.830	0.830	)	(CAT HE	5)			
Net Correction:	0.830	0.830	)					
Loading Tool Cycle Times	<u>.</u> 1	Number of Loa	ading To	ol Passes Requ			4	passes
Excavators and Front Shove	els:				Truck:			
Machine Cycle Time v Selected Value	vs. Job Condition within this Basic	U	IA IA					
Track Loaders -	- Material Descr	iption:						
Cycle Time Elements (min.)		·						
Load: NA	M	laneuver: N	IA		Dump:	0.100		
Wheel and Trac	ck Loaders - Una	adjusted Basic	Loader	•	· •	0.0	500 <sup>1</sup>	ninutes
	1			n	naneuver):			
Cycle Time Factors		. 10.02			Factor (n		Source	
Material:			0 6 1:-1	1	0.020		(Cat HE	3)
Stockpile:	0.01	dozer piled 1	0 π. nign	or less	0.010		(Cat HE	3)
Truck Ownership:		nership of tru	cks and l	oaders -	-0.040	)	(Cat HE	3)
Operation:		eration -0.04			-0.040	)	(Cat HE	3)
Dump Target:					0.000		(Cat HE	
		•		Adjustment:	-0.050		minute	
				Cycle Time:	0.550		minute	
		Net L	.oad Tim	e per Truck:	1.750		minute	S

Truck Exchange Time:	0.70	Minutes	Adjusted for site altitude:	0.700	Minutes
Truck Load Time:	1.750	Minutes	Adjusted for site altitude:	1.750	Minutes
Truck Maneuver and Dump Time:	1.10	Minutes	Adjusted for site altitude:	1.100	Minutes

Truck Travel (Haul & Return) Time: penetration 5.0

H	Haul Route	:							
l l	Seg #	Haul Dis	stance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
	-	(Ft)			(%)	(%)	(fpm)	Time (min)	
	1	1000.00		-8.00	5.00	-3.00	3512	0.343	
Ŧ						Haul Time:	0.343	minutes	S
t T	Return Rou			$\mathbf{C} = 1 \cdot (0/1)$	D . 11 D	Tatal Data	X7.1	Travel	
	Seg #	Haul Dis	stance	Grade (%)	Roll. Res	Total Res	Velocity	Time	
		(Ft)			(%)	(%)	(fpm)	(min)	
	1	1000.00		8.00	5.00	13.00	1362	0.778	
						Return Time:	0.778	s minute	es
					Total Tru	ck Cycle Time:	4.671	l minute	es
Lo	oading Too	l unit							
	Produ		964.29	LCY/Hour		Adjusted for jo	ob efficiency:	800.36	LCY/Hour
Truck	Unit Produ	iction							
			505.78	LCY/Hour		Adjusted for jo	ob efficiency:	419.80	LCY/Hour
Optima	l No. of Tr	ucks:	2	Truck(s)		Selected Numb	er of Trucks:	2	Truck(s)
				Adjusted	hourly truck	team productio	n: 839.	.60 LCY	/Hour
				Adjusted single	truck/loader	team productio	n: 800.	.36 LCY/	/Hour
			A	djusted multiple	truck/loader	team productio	n: <b>800.</b>	.36 LCY	/Hour
J	JOB TIM	IE AND O	<u>COST</u>						
	Fleet	size:	1	Team(s)	Т	otal job time:	7.86	б Но	urs
	Unit o	cost:	\$1.795	/LCY	Г	Total job cost:	\$11,2	89	

Task description:Replace Topsoil from Stockpile BA#2 to S-2											
Site: Lorencito Car	nyon Mine	Permit Act	tion: MT5		Permit/Job#:	C1996084					
PROJECT IDENTIFICATION											
Task #:   008   State:   Colorado   Abbreviation:   None											
		County: Las Animas Filename: C1996084									
User: DC1											
Agency or organization name: DRMS											
HOURLY EQUIPMENT COST Shift basis: <u>1 per day</u>											
Equipment Description											
	Truck Loader Tear		773F								
			T 990H high lift								
Sup	port Equipment -L		D9T - 9SU								
Poad	-Du Maintenance –Moto		D9T - 9SU T 14M								
Road			ter Tanker, 5,000	Gal							
				Cull							
Cost Breakdown	Truck/Loa	der Team	Support	Equipment	Mainte	nance Equipment					
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck					
%Utilization-machine	: 100	70	50	100	25	5 25					
Ownership cost/hour	: \$105.90	\$141.85	\$121.49	\$121.49	\$64.10	\$27.40					
Operating cost/hour	\$93.41	\$94.58	\$52.92	\$105.84	\$14.04	\$10.00					
%Utilization-riper	: NA	0	50	0	NA	NA					
Ripper own cost/hour		\$0.00	\$13.94	\$13.94	\$0.00	\$0.00					
Ripper op. cost/hour	: NA	\$0.00	\$4.48	\$0.00	\$0.00	\$0.00					
Operator cost/hour	: \$33.29	\$40.65	\$41.24	\$41.24	\$28.52	\$21.09					
Unit Subtotals	\$232.60	\$277.08	\$220.13	\$268.57	\$106.66	5 \$58.49					
Number of Units	: 2	1	1	1	1	1					
Group Subtotals	: Work:	\$742.28	Support:	\$488.70	Maint	\$165.15					

Total work team cost/hour: \$1,396.13

Initial volume:	970	CCY	Swell factor:	1.125	
Loose volume:	1,091	LCY			
Sourc	e of estimated volume:	Table 2.05.4	4-1f		
Source of	estimated swell factor:	Cat Handbo	ok		
Ν	Aaterial Purchase Cost:	\$0.00			
	Total Cost:	\$0.00			

Truck Capacity:								
Truck Payload (weight) Bas			_					
Material weight:	2,550		Pounds/	LCY				
Description:	Earth - Dry pa	acked	D 1.					-
Rated Payload:	122,520		Pounds					
Payload Capacity:	48.05		LCY					
Truck Bed (volume) Basis:								
Struck Volume:	35.00	LCY						
Heaped Volume:	46.50	LCY						
Average Volume:	40.75	LCY						
Adjusted Volume:	46.50	LCY						
Final	Truck Volume	Based on Nur	nber of L	oader Passes:	39.3	8	LCY	
Loading Tool Capacity								
		1		Buck	et Size Class	NA		
Rated Capacity:	11.250	LCY (he		1.1. (0	<b>.</b>			
Bucket Fill Factor:	0.875		aterial -	1" and over (8	5 - 90%) 0.8	75		
Adjusted Capacity:	9.844	LCY						
Job Condition Corrections	: <u> </u>		Site	Altitude (ft.):	<u>7100</u> feet			
	Truck	Loade		Source				
Altitude Adj:	1.000	1.000		(CAT HB				
Job Efficiency:	0.830	0.830	)	(CAT HB	5)			
Net Correction:	0.830	0.830	)					
Loading Tool Cycle Time	<u>.</u> 1	Number of Loa	ading To	ol Passes Requ			4	passes
Excavators and Front Shove	els:				Truck:			
Machine Cycle Time Selected Value	vs. Job Condition within this Basic	· · ·	JA JA					
Track Loaders -	- Material Descr	iption:						
Cycle Time Elements (min.)	:							
Load: NA	M	laneuver: N	NA		Dump:	0.100		
Wheel and Trac	ck Loaders - Una	adjusted Basic	c Loader	•	· • • •	0.6	00 mi	nutes
	ĺ			n	naneuver):	<u> </u>		
Cycle Time Factors Material:		Fiel 0.02			Factor (mi 0.020	n.)	Source (Cat HB)	
Stockpile:		dozer piled 1	0 ft high	orless			(Cal HD)	
Stockpile.	0.01	dozer pried r	0 n. ingi	01 1055	0.010		(Cat HB)	
Truck Ownership:		nership of tru	icks and l	loaders -	-0.040		(Cat HB)	
Operation		eration -0.04			-0.040		(Cat HB)	
Dump Target:					0.000		(Cat HB)	
		•		Adjustment:	-0.050		minutes	
				Cycle Time:	0.550		minutes	
		Net L	Load Tim	e per Truck:	1.750		minutes	

Truck Exchange Time:	0.70	Minutes	Adjusted for site altitude:	0.700	Minutes
Truck Load Time:	1.750	Minutes	Adjusted for site altitude:	1.750	Minutes
Truck Maneuver and Dump Time:	1.10	Minutes	Adjusted for site altitude:	1.100	Minutes

Truck Travel (Haul & Return) Time: penetration 5.0

	Haul Route	:								
	Seg #	Haul Di	stance	Grade (%)	Roll. Res	Total Res	Velocity	Travel		
		(Ft)			(%)	(%)	(fpm)	Time		
	1	8100.00	1	0.00	5.00	5.00	1741	(min) 4.837		
l	1	8100.00		0.00	5.00	5.00	1/41	4.037		
						Haul Time:	4.837	mi	nutes	
	Return Rou					1 1				
	Seg #	Haul Di	stance	Grade (%)	Roll. Res	Total Res	Velocity	Travel		
		(Ft)			(%)	(%)	(fpm)	Time (min)		
	1	8100.00		0.00	5.00	5.00	3405	2.648		
						Return Time:	2.648	s m	inutes	
					Total Tru	ck Cycle Time:	11.03	5 m	inutes	
L	oading Too	ol unit								
_	Produ		964.29	LCY/Hour		Adjusted for jo	ob efficiency:	800.	36	LCY/Hour
Truck	Unit Produ	iction					-			
			214.09	LCY/Hour		Adjusted for jo	ob efficiency:	177.	70	LCY/Hour
Optima	al No. of Tr	ucks:	5	Truck(s)		Selected Numb	er of Trucks:	2		Truck(s)
				Adjusted	hourly truck	team productio	n: 355.	39 I	LCY/Ho	ur
				Adjusted single	truck/loader	team productio	n: 355.	39 I	LCY/Ho	ur
			A	djusted multiple	truck/loader	team productio	n: 355.	<b>39</b> I	LCY/Ho	ur
:	JOB TIM	E AND	<u>COST</u>							
	Fleet	size:	1	Team(s)	Т	otal job time:	3.07	1	Hours	
	Unit o	cost:	\$3.928	/LCY	Т	otal job cost: _	\$4,28	37		

Task description:Replace Topsoil from Stockpile BA#3 to S-4											
Site:       Lorencito Canyon Mine       Permit Action:       MT5       Permit/Job#:       C1996084											
PROJECT IDENTIFICATION											
Task #:   009   State:   Colorado   Abbreviation:   None											
Date: 2/12/	2020	County: Las Animas Filename: C1996084									
User: DC1											
Agency or organization name: DRMS											
HOURLY EQUIPMENT COST Shift basis: <u>1 per day</u>											
Equipment Description											
Т	ruck Loader Tea		773F								
			T 990H high lift								
Suppo	ort Equipment -L		D9T - 9SU D9T - 9SU				_				
Road Ma	aintenance – Moto		T 14M								
Roud IVI			ter Tanker, 5,000	Gal.							
	T 1.4						-				
Cost Breakdown:	Truck/Loa		Load Area	Equipment	Mair Motor	tenance Ec	r Truck				
	Truck	Loader	Load Area	Dump Area	Grader	vv ate	TITUCK				
%Utilization-machine:	100	100	50	100		25	25				
Ownership cost/hour:	\$105.90	\$141.85	\$121.49	\$121.49	\$64.	.10	\$27.40				
Operating cost/hour:	\$93.41	\$135.12	\$52.92	\$105.84	\$14.	.04	\$10.00				
%Utilization-riper:	NA	0	50	0	Ν	NA	NA				
Ripper own. cost/hour:	NA	\$0.00	\$13.94	\$13.94	\$0.	.00	\$0.00				
Ripper op. cost/hour:	NA	\$0.00	\$4.48	\$0.00	\$0.	.00	\$0.00				
Operator cost/hour:	\$33.29	\$40.65	\$41.24	\$41.24	\$28.	.52	\$21.09				
Unit Subtotals:	\$232.60	\$317.62	\$220.13	\$268.57	\$106.	.66	\$58.49				
Number of Units:	3	1	1	1		1	1				
Group Subtotals:	Work:	\$1,015.42	Support:	\$488.70	Mai	nt: \$165	.15				

Total work team cost/hour: <u>\$1,669.27</u>

2,370	CCY	Swell factor:	1.125	
2,666	LCY			
e of estimated volume:	Table 2.05.4	1f		
estimated swell factor:	Cat Handboo	ok		
Iaterial Purchase Cost:	\$0.00			
Total Cost:	\$0.00			
	2,666 e of estimated volume: estimated swell factor: faterial Purchase Cost:	2,666LCYe of estimated volume: estimated swell factor: Material Purchase Cost:Table 2.05.4 Cat Handbox \$0.00	2,666LCYe of estimated volume: estimated swell factor: Material Purchase Cost:Table 2.05.4-1f Cat Handbook \$0.00	2,666     LCY       e of estimated volume:     Table 2.05.4-1f       estimated swell factor:     Cat Handbook       Material Purchase Cost:     \$0.00

Truck Capacity:								
Truck Payload (weight) Bas			_					
Material weight: 2,550			Pounds	LCY				
Description:	Earth - Dry p	acked	D 1.					
Rated Payload:	122,520		Pounds					
Payload Capacity:	48.05		LCY					
Truck Bed (volume) Basis:								
Struck Volume:	35.00	LCY						
Heaped Volume:	46.50	LCY						
Average Volume:	40.75	LCY						
Adjusted Volume:	46.50	LCY						
Final	Truck Volume	Based on Nun	nber of L	oader Passes:	39.	38	LCY	
Loading Tool Capacity								
Rated Capacity:	11.250	I CV (bc	(hered)	Buck	et Size Clas	s: <u>N</u>	A	
Bucket Fill Factor:	0.875	LCY (he		1" and over (8	5 - 90%) 0	875		
Adjusted Capacity:	9.844	LCY	lateriar		5 907090.	015		
Job Condition Correction	<u>s:</u>		Site	Altitude (ft.):	<u>7100</u> feet			
	Truck	Loade		Source				
Altitude Adj: Job Efficiency:	<u>1.000</u> 0.830	1.000		(CAT HB (CAT HB				
				(CAT III)	)			
Net Correction:	0.830	0.830	)					
Loading Tool Cycle Time	_	Number of Lo	ading To	ol Passes Requ	ired to Fill Truck:		4	passes
Excavators and Front Shov	els:				1100111			
Machine Cycle Time Selected Value	vs. Job Condition within this Basi	· · ·	JA JA					
Track Loaders	– Material Descr	iption:						
Cycle Time Elements (min.	):							
Load: NA	N	Ianeuver: N	NA		Dump:	0.100		
Wheel and Tra	ck Loaders - Una	adjusted Basic	c Loader	•	-	0.	600	minutes
Cycle Time Factors	-			n	naneuver): Factor (r	min )	Sourc	9
Material		rial 0 02			0.020		(Cat H	
Stockpile	: Conveyor or	dozer piled 1	0 ft. high	or less	0.01		(Cat H	
Truck Ownership		vnership of tru	icks and	loaders -	-0.04	0	(Cat H	 B)
Operation	0.04	eration -0.04			-0.04	0	(Cat H	
Dump Target					0.04		(Cat H	
			cle Time	Adjustment:	-0.05		minute	
		•		Cycle Time:	0.05		minute	
				e per Truck:	1.75		minute	
				• <u>-</u>			-	

Truck Exchange Time:	0.70	Minutes	Adjusted for site altitude:	0.700	Minutes
Truck Load Time:	1.750	Minutes	Adjusted for site altitude:	1.750	Minutes
Truck Maneuver and Dump Time:	1.10	Minutes	Adjusted for site altitude:	1.100	Minutes

Truck Travel (Haul & Return) Time: penetration 5.0

]	Haul Route	:							
	Seg #	Haul Dist	ance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
		(Ft)			(%)	(%)	(fpm)	Time (min)	
-	1	2200.00		5.00	5.00	10.00	773	2.874	-
L	1	2200.00		5.00	2.00	1 1		1	
						Haul Time:	2.874	minut	es
ļ	Return Rou			~				<b>T</b> 1	1
	Seg #	Haul Dist	ance	Grade (%)	Roll. Res	Total Res	Velocity	Travel Time	
		(Ft)			(%)	(%)	(fpm)	(min)	
-	1	2200.00		-5.00	5.00	0.00	3569	0.761	
						Return Time:	0.761	l minu	ites
					Total Tru	ck Cycle Time:			
T.		1							
L	oading Too Produ		964.29	LCY/Hour		Adjusted for jo	b efficiency:	800.36	LCY/Hour
Truck	Unit Produ		704.27			Aujusted for je	bb efficiency.	000.50	
Truck	enner roue	Cuon	328.81	LCY/Hour		Adjusted for jo	ob efficiency:	272.91	LCY/Hour
						5 5	2		
Optima	l No. of Tr	ucks:	3	Truck(s)		Selected Numb	er of Trucks:	3	Truck(s)
				Adjusted	hourly truck	team productio	n: 818.	.74 LC	Y/Hour
				Adjusted single	e truck/loader	team productio	n: 800.	.36 LC	Y/Hour
						team productio		.36 LC	Y/Hour
5	JOB TIM	IE AND C	OST						
	Fleet	size:	1	Team(s)	Т	otal job time:	3.33	9 H	lours
	Unit o	cost:	\$2.086	/LCY	Т	Total job cost:	\$5,56	51	
	0.110		+=.000				<i>40,00</i>		

## TRUCK/LOADER TEAM WORK

Task description:	Replace	Topsoil from S	tockpile BA#32t	o W-2			
Site: Lorencito Cany	on Mine	Permit Act	ion: <u>MT5</u>		Permit/Job	#: <u>C1996084</u>	
PROJECT IDEN	<b>TIFICATION</b>						
Task #: 010		State: Colora	ado	Abł	Abbreviation: None		
Date: 2/12/	2020	County: Las A	nimas		Filename:	C1996084	
User: DC1							
Agency or	organization nan	ne: DRMS					
HOURLY EQUI	PMENT COST	-		Shift ba	sis: <u>1 per day</u>	<u>.</u>	
		]	Equipment Descr	iption			
Т	ruck Loader Tea		773F				
-Loader: CAT 990H high lift Support Equipment -Load Area: Cat D9T - 9SU							
Suppo							
Road Ma	aintenance – Moto	1	D9T - 9SU T 14M				
Road Ma			ter Tanker, 5,000	Gal.			
			, , , , , , , , , , , , , , , , , , , ,				
Cost Breakdown:	Truck/Loa	der Team	Support	Equipment	Main	tenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck	
%Utilization-machine:	100	100	50	100	/	25 25	
Ownership cost/hour:	\$105.90	\$141.85	\$121.49	\$121.49	\$64.	10 \$27.40	
Operating cost/hour:	\$93.41	\$135.12	\$52.92	\$105.84	\$14.0	04 \$10.00	
%Utilization-riper:	NA	0	50	0	N	IA NA	
Ripper own. cost/hour:	NA	\$0.00	\$13.94	\$13.94	\$0.0	00 \$0.00	
Ripper op. cost/hour:	NA	\$0.00	\$4.48	\$0.00	\$0.0	00 \$0.00	
Operator cost/hour:	\$33.29	\$40.65	\$41.24	\$41.24	\$28.5	52 \$21.09	
Unit Subtotals:	\$232.60	\$317.62	\$220.13	\$268.57	\$106.0	66 \$58.49	
Number of Units:	3	1	1	1		1 1	
Group Subtotals:	Work:	\$1,015.42	Support:	\$488.70	Mair	nt: \$165.15	

Total work team cost/hour: <u>\$1,669.27</u>

### **MATERIAL QUANTITIES**

Initial volume:	7,530	CCY	Swell factor:	1.125	
Loose volume:	8,471	LCY			
Source	e of estimated volum	e: Table 2.0	)5.4-1f		
Source of	estimated swell facto	or: Cat Hand	lbook		
I	Material Purchase Co	st: \$0.00			
	Total Co	st: \$0.00			

# **HOURLY PRODUCTION**

Truck Capacity:								
Truck Payload (weight) Bas								
Material weight:	2,550		Pounds/	LCY				
Description:	Earth - Dry pa	acked	<b>D</b> 1					
Rated Payload:	122,520		Pounds					
Payload Capacity:	48.05		LCY					
Truck Bed (volume) Basis:								
Struck Volume:	35.00	LCY						
Heaped Volume:	46.50	LCY						
Average Volume:	40.75	LCY						
Adjusted Volume:	46.50	LCY						
Final	Truck Volume	Based on Nurr	ber of L	oader Passes:	39.3	8	LCY	
Loading Tool Capacity								
			•	Buck	et Size Class	s: <u>N</u> A	4	
Rated Capacity:	11.250	LCY (he		1.2	<b>5</b> 000() 0.5	75		
Bucket Fill Factor: Adjusted Capacity:	0.875 9.844	Loose m	aterial -	1" and over (8	5 - 90%) 0.8	15		
Aujusted Capacity.	2.044							
Job Condition Corrections	: <u> </u>		Site	Altitude (ft.):	<u>7100</u> feet			
	Truck	Loade		Source				
Altitude Adj:	1.000	1.000		(CAT HE				
Job Efficiency:	0.830	0.830	)	(CAT HE	5)			
Net Correction:	0.830	0.830	)					
Loading Tool Cycle Times	<u>.</u> 1	Number of Loa	ading To	ol Passes Requ			4	passes
Excavators and Front Shove	els:				Truck:			
Machine Cycle Time v Selected Value	vs. Job Condition within this Basic	U	IA IA					
Track Loaders -	- Material Descr	iption:						
Cycle Time Elements (min.)		·						
Load: NA	M	laneuver: N	IA		Dump:	0.100		
Wheel and Trac	ck Loaders - Una	adjusted Basic	Loader	•	· •	0.0	500 <sup>1</sup>	ninutes
	1			n	naneuver):			
Cycle Time Factors		. 10.02			Factor (n		Source	
Material:			0 6 1:-1	1	0.020		(Cat HE	3)
Stockpile:	0.01	dozer piled 1	0 π. nign	or less	0.010		(Cat HE	3)
Truck Ownership:		nership of tru	cks and l	oaders -	-0.040	)	(Cat HE	3)
Operation:		eration -0.04			-0.040	)	(Cat HE	3)
Dump Target:					0.000		(Cat HE	
		•		Adjustment:	-0.050		minute	
				Cycle Time:	0.550		minute	
		Net L	.oad Tim	e per Truck:	1.750		minute	S

#### Truck Cycle Time:

Truck Exchange Time:	0.70	Minutes	Adjusted for site altitude:	0.700	Minutes
Truck Load Time:	1.750	Minutes	Adjusted for site altitude:	1.750	Minutes
Truck Maneuver and Dump Time:	1.10	Minutes	Adjusted for site altitude:	1.100	Minutes

Truck Travel (Haul & Return) Time: penetration 5.0

Road Condition: Rutted dirt, little maintenance, no water, 2" tire

Ha	aul Route	:							
5	Seg #	Haul Dis	tance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
	-	(Ft)			(%)	(%)	(fpm)	Time	
1	1	2200.00		7.00	5.00	12.00	721	(min) 3.082	
	1	2200.00		7.00	3.00	12.00	/21	5.082	
						Haul Time:	3.082	minutes	
	eturn Rou								
5	Seg #	Haul Dis	tance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
		(Ft)			(%)	(%)	(fpm)	Time (min)	
1	1	2200.00		-7.00	5.00	-2.00	3569	0.657	
				11		Return Time:	0 (57	minute	-
					Total Tru	ck Cycle Time:			
					Total IIu	ek Cycle Thile.	1.20)		5
Loa	ding Too								
	Produ		964.29	LCY/Hour		Adjusted for jo	ob efficiency:	800.36	LCY/Hour
Truck U	nit Produ	ction	224.12				1 66 1	2 (0, 0)	
			324.12	LCY/Hour		Adjusted for jo	ob efficiency:	269.02	LCY/Hour
Optimal 1	No. of Tr	ucks:	3	Truck(s)		Selected Numb	er of Trucks:	3	Truck(s)
				Adjusted	hourly truck	team productio	n: 807.	06 LCY/	Hour
					•	team productio			
						team productio			
				J		1			
<u>J(</u>	OB TIM	E AND (	COST						
	Fleet s	size:	1	Team(s)	Т	otal job time:	10.5	8 Hou	ırs
	Unit c	cost:	\$2.086	/LCY	Т	Total job cost:	\$17,6	68	

## TRUCK/LOADER TEAM WORK

Task description:	Replace	Topsoil from S	tockpile BA#3 to	o W-3		
Site: Lorencito Cany	on Mine	Permit Act	ion: <u>MT5</u>		Permit/Job	#: <u>C1996084</u>
PROJECT IDEN	TIFICATION					
Task #: 011		State: Colora	ado	Abb	previation:	None
Date: 2/12/	2020	County: Las A	nimas		Filename:	C1996084
User: DC1						
Agency or	organization nan	ne: DRMS				
HOURLY EQUII	PMENT COST			Shift ba	sis: <u>1 per day</u>	
		]	Equipment Descr	iption		
Т	ruck Loader Tear		773F			
-Loader: CAT 990H high lift						
Support Equipment -Load Area: Cat D9T - 9SU						
Road Mr	-Du aintenance –Moto	1	D9T - 9SU Г 14M			
Koau Wia			ter Tanker, 5,000	Gal		
				<u> </u>		
Cost Breakdown:	Truck/Loa	der Team	Support	Equipment	Main	tenance Equipment
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	90	50	100	<i>.</i>	25 25
Ownership cost/hour:	\$105.90	\$141.85	\$121.49	\$121.49	\$64.	10 \$27.40
Operating cost/hour:	\$93.41	\$121.60	\$52.92	\$105.84	\$14.0	04 \$10.00
%Utilization-riper:	NA	0	50	0	N	A NA
Ripper own. cost/hour:	NA	\$0.00	\$13.94	\$13.94	\$0.0	00 \$0.00
Ripper op. cost/hour:	NA	\$0.00	\$4.48	\$0.00	\$0.0	00 \$0.00
Operator cost/hour:	\$33.29	\$40.65	\$41.24	\$41.24	\$28.5	52 \$21.09
Unit Subtotals:	\$232.60	\$304.10	\$220.13	\$268.57	\$106.0	56 \$58.49
Number of Units:	2	1	1	1		1 1
Group Subtotals:	Work:	\$769.30	Support:	\$488.70	Mair	nt: \$165.15

Total work team cost/hour: <u>\$1,423.15</u>

### **MATERIAL QUANTITIES**

Initial volume:	1,830	CCY	Swell factor:	1.125	
Loose volume:	2,059	LCY			
Sourc	e of estimated volume:	Table 2.05	.4-1f		
Source of	estimated swell factor:	Cat Handb	ook		
Ν	Aaterial Purchase Cost:	\$0.00			
	Total Cost:	\$0.00			

# **HOURLY PRODUCTION**

Truck Capacity: Truck Payload (weight) Bas	sie:				
Material weight:	2,550	Pound	ls/LCY		
Description:	Earth - Dry p				
Rated Payload:	122,520	Pound	ls		
Payload Capacity:	48.05	LCY			
Truck Bed (volume) Basis:					
Struck Volume:	35.00	LCY			
Heaped Volume:	46.50	LCY			
Average Volume:	40.75	LCY			
Adjusted Volume:	46.50	LCY			
Fina	I Truck Volume	Based on Number of	Loader Passes:	39.38	LCY
Loading Tool Capacity					
		1	Buck	et Size Class: <u>N</u>	A
Rated Capacity:	11.250	LCY (heaped)	1 1 /~		
Bucket Fill Factor:	0.875		- 1" and over (8	5 - 90%) 0.875	
Adjusted Capacity:	9.844	LCY			
Job Condition Correction	<u>s:</u>	Si	te Altitude (ft.):	7100 feet	
	Truck	Loader	Source		
Altitude Adj:	1.000	1.000	(CAT HB	)	
Job Efficiency:	0.830	0.830	(CAT HB	)	
Net Correction:	0.830	0.830			
Loading Tool Cycle Time	<u></u> 1	Number of Loading T	ool Passes Requ		4 passes
Excavators and Front Show	vels:			Truck:	
Machine Cycle Time Selected Value	vs. Job Condition within this Basi				
Track Loaders	– Material Descr	iption:			
Cycle Time Elements (min.	):				
Load: NA	N	laneuver: NA		Dump: 0.100	)
Wheel and Tra	ck Loaders - Una	adjusted Basic Loade	•	ad, dump, aneuver): 0.	.600 minutes
Cycle Time Factor				Factor (min.)	Source
Material				0.020	(Cat HB)
Stockpile	0.01	dozer piled 10 ft. hig	-	0.010	(Cat HB)
Truck Ownership	Common ow 0.04	nership of trucks and	d loaders -	-0.040	(Cat HB)
Operation	: Constant ope	eration -0.04		-0.040	(Cat HB)
Dump Target	: Nominal tar			0.000	(Cat HB)
		Net Cycle Tim	•	-0.050	minutes
		Adjusted Loade		0.550	minutes
		Net Load Ti	me per Truck:	1.750	minutes

#### Truck Cycle Time:

Truck Exchange Time:	0.70	Minutes	Adjusted for site altitude:	0.700	Minutes
Truck Load Time:	1.750	Minutes	Adjusted for site altitude:	1.750	Minutes
Truck Maneuver and Dump Time:	1.10	Minutes	Adjusted for site altitude:	1.100	Minutes

Truck Travel (Haul & Return) Time: penetration 5.0

Road Condition: Rutted dirt, little maintenance, no water, 2" tire

	Haul Route	:								
	Seg #	Haul Di	istance	Grade (%)	Roll. Res	Total Res	Velocity	Travel		
		(Ft)			(%)	(%)	(fpm)	Time		
	1	1500.00	)	3.00	5.00	8.00	1023	(min) 1.523		
	1	1500.00	)	5.00	5.00	8.00	1023	1.525		
						Haul Time:	1.523	mir	nutes	
	Return Rou			1						
	Seg #	Haul Di	istance	Grade (%)	Roll. Res	Total Res	Velocity	Travel		
		(Ft)			(%)	(%)	(fpm)	Time (min)		
	1	1500.00	)	-3.00	5.00	2.00	3569	0.604		
						Return Time:	0.604	m	inutes	
					Total Tru	ck Cycle Time:			inutes	
т	a a dia a Ta a	1				·				
L	oading Too Produ		964.29	LCY/Hour		Adjusted for jo	h efficiency:	800.3		//Hour
Truck	Unit Produ		704.27			Aujusted for je	bb efficiency.			/ I IOuI
Truck	enit i fout	etion	416.15	LCY/Hour		Adjusted for jo	b efficiency:	345.4	LCY	//Hour
Optima	al No. of Tr	ucks:	2	Truck(s)		Selected Numb	er of Trucks:	2	Truc	k(s)
				Adjusted	hourly truck	team productio	n: 690.	81 L	CY/Hour	
				Adjusted single	truck/loader	team productio	n: 690.	81 L	CY/Hour	
			A	djusted multiple	e truck/loader	team productio	n: <b>690.</b>	81 L	CY/Hour	
:	JOB TIM	E AND	COST							
	Fleet	size:	1	Team(s)	Т	otal job time:	2.98		Hours	
	Unit o	cost:	\$2.060	/LCY	Т	Total job cost:	\$4,24	1		

## TRUCK/LOADER TEAM WORK

Task description:	Replace	e Topsoil from S	tockpile BA#3 to	• W-5			
Site: Lorencito Cany	on Mine	Permit Act	tion: <u>MT5</u>		Permit/Job	#: <u>C1996084</u>	
PROJECT IDEN	TIFICATION						
Task #: 012		State: Colora	ado	Abb	Abbreviation: None		
Date: 2/12/	2020	County: Las A	nimas		Filename: C1996084		
User: DC1							
Agency or	organization nan	ne: DRMS					
HOURLY EQUI	PMENT COST	<u>.</u>		Shift ba	sis: <u>1 per day</u>	<u>r</u>	
			Equipment Descr	iption			
Т	ruck Loader Tear		773F				
			T 990H high lift				
Support Equipment -Load Area: Cat D9T - 9SU -Dump Area: Cat D9T - 9SU							
Road Ma	aintenance – Moto		T 14M				
roud m			ter Tanker, 5,000	Gal.			
Cost Breakdown:	Truck/Loa	dor Toom	Support	Equipment	Moin	itenance Equipm	ont
Cost Dreakuown:	Truck	Loader	Load Area	Dump Area	Motor	Water True	ck
	Truck		Loud Theu	Dumprieu	Grader		
%Utilization-machine:	100	100	50	100		25	25
Ownership cost/hour:	\$105.90	\$141.85	\$121.49	\$121.49	\$64.	10 \$27	.40
Operating cost/hour:	\$93.41	\$135.12	\$52.92	\$105.84	\$14.	04 \$10	.00
%Utilization-riper:	NA	0	50	0	N	JA N	NA
Ripper own. cost/hour:	NA	\$0.00	\$13.94	\$13.94	\$0.	00 \$0	.00
Ripper op. cost/hour:	NA	\$0.00	\$4.48	\$0.00	\$0.	00 \$0	.00
Operator cost/hour:	\$33.29	\$40.65	\$41.24	\$41.24	\$28.	52 \$21	.09
Unit Subtotals:	\$232.60	\$317.62	\$220.13	\$268.57	\$106.	66 \$58	.49
Number of Units:	3	1	1	1		1	1
Group Subtotals:	Work:	\$1,015.42	Support:	\$488.70	Mai	nt: \$165.15	

Total work team cost/hour: <u>\$1,669.27</u>

### **MATERIAL QUANTITIES**

Initial volume:	7,640	CCY	Swell factor:	1.125	
Loose volume:	8,595	LCY			
Sourc	e of estimated volume:	Table 2.05	.4-1f		
Source of	estimated swell factor:	Cat Handb	ook		
Ν	Auterial Purchase Cost:	\$0.00			
	Total Cost:	\$0.00			

# **HOURLY PRODUCTION**

Truck Capacity:							
Truck Payload (weight) Bas							
Material weight:	2,550		Pounds/LCY				
Description: Rated Payload:	Earth - Dry pa 122,520		Pounds				_
Payload Capacity:	48.05		.CY				
r ayload Capacity.	-0.05	I					
Truck Bed (volume) Basis:							
Struck Volume:		LCY					
Heaped Volume:		LCY					
Average Volume:		LCY					
Adjusted Volume:	46.50	LCY					
Final	Truck Volume I	Based on Numb	er of Loader Pass	ses:	39.38	LCY	
Loading Tool Capacity							
	11.050	LOV/1		Bucket Size	Class: N.	А	
Rated Capacity: Bucket Fill Factor:	11.250	LCY (heap			() 0.975		
Adjusted Capacity:	0.875 9.844	Loose mat	erial - 1" and ove	er (85 - 90%	%) 0.875		_
Aujusted Capacity.	2.044						
Job Condition Correction	<u>s:</u>		Site Altitude (	(ft.): <u>7100</u> f	eet		
	Truck	Loader		irce			
Altitude Adj:	1.000	1.000		ΓHB)			
Job Efficiency:	0.830	0.830	(CA'I	Г HB)			
Net Correction:	0.830	0.830					
Loading Tool Cycle Time	<u>:</u> N	lumber of Load	ing Tool Passes I	-		4	passes
Excavators and Front Shov	els:			Ir	uck:		
Machine Cycle Time Selected Value	vs. Job Conditior within this Basic						
Track Loaders -	- Material Descri	ption:					
Cycle Time Elements (min.	):	·					
Load: NA	M	aneuver: NA	<b>\</b>	Dui	mp: 0.100		
Wheel and Tra-	ck Loaders - Una	djusted Basic L	loader Cycle Tim	e (load, du maneuv	- · · · · · · · · · · · · · · · · · · ·	600 mi	nutes
Cycle Time Factors					tor (min.)	Source	
Material					0.020	(Cat HB)	
Stockpile	Conveyor or 0.01	dozer piled 10	ft. high or less		0.010	(Cat HB)	
Truck Ownership	Common ow 0.04	nership of truch	ks and loaders -		-0.040	(Cat HB)	
Operation					-0.040	(Cat HB)	
Dump Target	Nominal targ				0.000	(Cat HB)	
		•	e Time Adjustmer		-0.050	minutes	
			Loader Cycle Tim		0.550	minutes	
		Net Lo	ad Time per Truc	:к:	1.750	minutes	

#### Truck Cycle Time:

Truck Exchange Time:	0.70	Minutes	Adjusted for site altitude:	0.700	Minutes
Truck Load Time:	1.750	Minutes	Adjusted for site altitude:	1.750	Minutes
Truck Maneuver and Dump Time:	1.10	Minutes	Adjusted for site altitude:	1.100	Minutes

Truck Travel (Haul & Return) Time: penetration 5.0

Road Condition: Rutted dirt, little maintenance, no water, 2" tire

Haul	Route:								
Se	g #	Haul Distanc	e	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
		(Ft)			(%)	(%)	(fpm)	Time	
1		2700.00		4.00	5.00	9.00	977	(min) 2.823	
1		2700.00		4.00	5.00		211	2.823	
						Haul Time:	2.823	minute	S
	rn Rout			1		1			
Se	g #	Haul Distanc	e	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
		(Ft)			(%)	(%)	(fpm)	Time (min)	
1		2700.00		-4.00	5.00	1.00	3569	0.919	
						Return Time:	0.919	minut	<b>e</b> c
					Total Tru	ick Cycle Time:			
					100001110				•••
Loadi	ng Tool		4.00				1 60 1	000.04	
True als I Inch	Produc		4.29	LCY/Hour		Adjusted for jo	ob efficiency:	800.36	LCY/Hour
Truck Unit	t Produc		3.99	LCY/Hour		Adjusted for jo	h efficiency:	268.91	LCY/Hour
		52	5.99			Aujusted for je	bb efficiency.	200.91	
Optimal No	o. of Tru	cks:	3	Truck(s)		Selected Numb	er of Trucks:	3	Truck(s)
				Adjusted	hourly truck	team productio	n: 806.	72 LCY	/Hour
				Adjusted single	truck/loader	team productio	n: 800.	36 LCY	/Hour
						team productio		36 LCY	/Hour
JOI	B TIMI	E AND COS	T						
	Fleet si	ze:	l	Team(s)	Т	otal job time:	10.74	<b>4</b> Ho	ours
	Unit co	ost: \$2.	086	/LCY	7	Total job cost:	\$17,92	26	

## TRUCK/LOADER TEAM WORK

Task description:	Replace	Topsoil from S	tockpile BA#3 to	• W-5				
Site:       Lorencito Canyon Mine       Permit Action:       MT5       Permit/Job#:       C1996084								
PROJECT IDEN	<b>TIFICATION</b>							
Task #: 012		State: Colora	ado	Abb	previation:	None		
Date: 2/12/2	2020	County: Las A	nimas		Filename:	C1996084		
User: DC1								
Agency or	organization nan	ne: DRMS						
HOURLY EQUIF	PMENT COST	-		Shift ba	sis: <u>1 per day</u>	<u>.</u>		
		]	Equipment Descr	iption				
Ti	ruck Loader Tear		773F	-				
			T 990H high lift					
Suppo	Support Equipment -Load Area: Cat D9T - 9SU							
Pood Ma	-Du Dintenance –Moto	1	D9T - 9SU Г 14M					
Koau Ivia			ter Tanker, 5,000	Gal				
	· · · u	ter fruck. Wu	ter Tunker, 5,000	Oui.				
Cost Breakdown:	Truck/Loa	der Team	Support	Equipment	Main	tenance Equipment		
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck		
%Utilization-machine:	100	100	50	100		25 25		
Ownership cost/hour:	\$105.90	\$141.85	\$121.49	\$121.49	\$64.	10 \$27.40		
Operating cost/hour:	\$93.41	\$135.12	\$52.92	\$105.84	\$14.0	04 \$10.00		
%Utilization-riper:	NA	0	50	0	N	IA NA		
Ripper own. cost/hour:	NA	\$0.00	\$13.94	\$13.94	\$0.0	00 \$0.00		
Ripper op. cost/hour:	NA	\$0.00	\$4.48	\$0.00	\$0.0	00 \$0.00		
Operator cost/hour:	\$33.29	\$40.65	\$41.24	\$41.24	\$28.5	52 \$21.09		
Unit Subtotals:	\$232.60	\$317.62	\$220.13	\$268.57	\$106.0	66 \$58.49		
Number of Units:	3	1	1	1		1 1		
Group Subtotals:	Work:	\$1,015.42	Support:	\$488.70	Mair	nt: \$165.15		

Total work team cost/hour: <u>\$1,669.27</u>

### **MATERIAL QUANTITIES**

7,640	CCY	Swell factor:	1.125	
8,595	LCY			
e of estimated volume:	Table 2.05	.4-1f		
estimated swell factor:	Cat Handb	ook		
Material Purchase Cost:				
Total Cost:	\$0.00			
	8,595 e of estimated volume: estimated swell factor: Material Purchase Cost:	8,595LCYe of estimated volume:Table 2.05estimated swell factor:Cat HandbMaterial Purchase Cost:\$0.00	8,595LCYe of estimated volume:Table 2.05.4-1festimated swell factor:Cat HandbookMaterial Purchase Cost:\$0.00	8,595     LCY       re of estimated volume:     Table 2.05.4-1f       restimated swell factor:     Cat Handbook       Material Purchase Cost:     \$0.00

# **HOURLY PRODUCTION**

Truck Capacity:								
Truck Payload (weight) Bas			<b>D</b> 1					
Material weight:	2,550		Pounds/	LCY				
Description:	Earth - Dry pa	acked	Pounds					
Rated Payload:	122,520		LCY					
Payload Capacity:	48.05		LUY					
Truck Bed (volume) Basis:								
Struck Volume:	35.00	LCY						
Heaped Volume:	46.50	LCY						
Average Volume:	40.75	LCY						
Adjusted Volume:	46.50	LCY						
Final	Truck Volume I	Based on Nun	nber of L	oader Passes:	39.	38	LCY	
Loading Tool Capacity					~ ~			
				Buck	et Size Clas	s: <u>N</u>	A	
Rated Capacity:	11.250	LCY (he		1 1 1 (6	5 000() 0	275		
Bucket Fill Factor:	0.875		naterial -	1" and over (8	5 - 90%) 0.	875		
Adjusted Capacity:	9.844	LCY						
Job Condition Corrections	<u>s:</u>		Site	Altitude (ft.):	<u>7100</u> feet			
	Truck	Loade		Source				
Altitude Adj:	1.000	1.000		(CAT HE				
Job Efficiency:	0.830	0.830	)	(CAT HE	)			
Net Correction:	0.830	0.830	)					
Loading Tool Cycle Time	<u>.</u> N	Number of Lo	ading To	ol Passes Requ			4	passes
Excavators and Front Shov	els:				Truck:			
Machine Cycle Time Selected Value	vs. Job Condition within this Basic		JA JA					
Track Loaders -	- Material Descri	iption:						
Cycle Time Elements (min.)	):							
Load: NA	M	aneuver: N	NA		Dump:	0.100		
Wheel and Trac	ck Loaders - Una	djusted Basic	c Loader	•	· •	0.	600	minutes
				r	naneuver):			
Cycle Time Factors					Factor (r		Sourc	
Material			<u> </u>	-	0.020	)	(Cat H	B)
Stockpile	Conveyor or 0.01	dozer piled 1	0 ft. high	or less	0.010	)	(Cat H	B)
Truck Ownership:	Common ow 0.04	nership of tru	icks and I	loaders -	-0.04	0	(Cat H	B)
Operation					-0.04		(Cat H	B)
Dump Target:	Nominal targ				0.00		(Cat H	
		•		Adjustment:	-0.05		minute	
				Cycle Time:	0.55		minute	
		Net I	Load Tim	e per Truck:	1.75	)	minute	ès

#### Truck Cycle Time:

Truck Exchange Time:	0.70	Minutes	Adjusted for site altitude:	0.700	Minutes
Truck Load Time:	1.750	Minutes	Adjusted for site altitude:	1.750	Minutes
Truck Maneuver and Dump Time:	1.10	Minutes	Adjusted for site altitude:	1.100	Minutes

Truck Travel (Haul & Return) Time: penetration 5.0

Road Condition: <u>Rutted dirt, little maintenance, no water, 2" tire</u>

Haul Rou	ite:							
Seg #	Haul I	Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
	(Ft)			(%)	(%)	(fpm)	Time	
1	2700.0	20	4.00	5.00	9.00	977	(min) 2.823	
1	2700.0	50	4.00	5.00	9.00	211	2.825	
					Haul Time:	2.823	minutes	
Return R			1		1 1			
Seg #		Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
	(Ft)			(%)	(%)	(fpm)	Time (min)	
1	2700.0	00	-4.00	5.00	1.00	3569	0.919	
					Return Time:	0.919	minutes	2
				Total Tru	ck Cycle Time:			
				10001110				, ,
Loading To		0.64.00				1 66 1	000.26	
Pro Truck Unit Pro	duction _	964.29	LCY/Hour		Adjusted for jo	ob efficiency:	800.36	LCY/Hour
Truck Unit Pro	uuction	323.99	LCY/Hour		Adjusted for jo	b efficiency:	268.91	LCY/Hour
	-	525.77			rujusted for je	bb efficiency.	200.91	
Optimal No. of	Frucks:	3	Truck(s)		Selected Numb	er of Trucks:	3	Truck(s)
			Adjusted	hourly truck	team productio	n: 806.	72 LCY/H	Hour
			Adjusted single	truck/loader	team productio	n: 800.	36 LCY/H	Hour
		A	djusted multiple	truck/loader	team productio	n: <b>800.</b>	36 LCY/H	Hour
JOB TI	ME ANI	O COST						
Flee	t size:	1	Team(s)	Т	otal job time:	10.74	4 Hou	rs
Uni	t cost:	\$2.086	/LCY	Г	Total job cost:	\$17,92	26	

				ea	
Lorencito Canyon N	<b>Aine</b> Pe	ermit Action:	MT5	Permit/Jo	b#: <u>C1996084</u>
PROJECT IDENTIF	ICATION				
Task #:     013       Date:     2/12/2020       User:     DC1	State: County:	Colorado Las Animas		Abbreviation: Filename:	None C1996084
Agency or orga	nization name: DF	RMS			
HOURLY EQUIPME	ENT COST				
	at D9T - 9SU				
Horsepower: 40					
	emi-Universal				
	shank ripper				
	per day CRG)				
Cost Breakdown:			TT4:1:		
Ownership Cost/II-		\$121.40	Utilization %		
Ownership Cost/Hour: Operating Cost/Hour:		\$121.49 \$105.84	<u>NA</u> 100		
Ripper own.		\$105.84	NA		
Cost/Hour: Ripper op. Cost/Hour:		\$13.94	100		
Operator Cost/Hour:		\$41.24	NA		
Total Fleet Cost/Hour:	\$582.92				
MATERIAL QUANI	<u>TITIES</u>				
MATERIAL QUANT Initial Volume:210	TITIES				
MATERIAL QUANT Initial Volume: 210 Swell factor: 1.1	TITIES				
MATERIAL QUANT Initial Volume: 210 Swell factor: 1.1	<b>FITIES</b> ) 25 5 LCY				
MATERIAL QUANT         Initial Volume:       210         Swell factor:       1.1         Loose volume:       236	FITIES       0       25       5 LCY       lume:     Table 2.0				
MATERIAL QUANT         Initial Volume:       210         Swell factor:       1.11         Loose volume:       236         Source of estimated vol       Source of estimated sw         factor:       1	TITIES       25       5 LCY       lume:     Table 2.0       rell     Cat Hand				
Initial Volume:       210         Swell factor:       1.1         Loose volume:       236         Source of estimated vol       Source of estimated sw         factor:       HOURLY PRODUCT	TITIES 25 25 5 LCY lume: Table 2.0 Cat Hand TION				
MATERIAL QUANT         Initial Volume:       210         Swell factor:       1.11         Loose volume:       236         Source of estimated vol       Source of estimated sw         factor:       1	TITIES 25 25 5 LCY lume: Table 2.0 Cat Hand TION	lbook			
MATERIAL QUANT         Initial Volume:       210         Swell factor:       1.1         Loose volume:       230         Source of estimated vol       Source of estimated sw         Source of estimated sw       factor:         HOURLY PRODUC'       Average push distance:         Unadjusted hourly       Notes and the second stance	TITIES         25         5 LCY         lume:       Table 2.0         cat Hand         TION         Tion         75 feet         1,514.3 LC	lbook	   le 1.0		
Initial Volume:       210         Swell factor:       1.11         Loose volume:       236         Source of estimated vol       Source of estimated sw         Source of estimated sw       factor:         HOURLY PRODUCT       Average push distance:         Unadjusted hourly       production:         Materials consistency       description:         Average push       gradient:	TITIES           0           25           5 LCY           lume:         Table 2.0           cat Hand           Cat Hand           TION           TION           Consol           0 %	lbook 'Y/hr	   le 1.0		
MATERIAL QUANT         Initial Volume:       210         Swell factor:       1.11         Loose volume:       236         Source of estimated vol       Source of estimated sw         Source of estimated sw       factor:         HOURLY PRODUCY       Average push distance:         Unadjusted hourly       production:         Materials consistency       description:         Average push       Average push	TITIES 25 5 LCY lume: Table 2.0 Cat Hand TION TION TION Consol	lbook 'Y/hr	   le 1.0		
MATERIAL QUANT         Initial Volume:       210         Swell factor:       1.11         Loose volume:       236         Source of estimated vol       Source of estimated sw         Source of estimated sw       factor:         HOURLY PRODUCY       Average push distance:         Unadjusted hourly       production:         Materials consistency       description:         Average push       gradient:	TITIES           0           25           5 LCY           lume:         Table 2.0           cat Hand           Cat Hand           TION           TION           Consol           0 %	lbook 'Y/hr	   le 1.0		

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.600	(FND-SF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:	510.17 LCY/hr
Adjusted fleet production:	1020.34 LCY/hr

Fleet size:	2 Dozer(s)	
Unit cost:	\$0.571/LCY	-

Total job time:	<b>0.23</b> Hours
Total job cost:	\$135

Task description:	Rep	lace Live-Ha	andled Topso	il to W-1		
E Lorencito Canyon N	Aine	Pe	rmit Action:	MT5	Permit/Jo	b#: <u>C1996084</u>
PROJECT IDENTIF	<u>ICATI</u>	<u>DN</u>				
Task #:     014       Date:     2/12/2020       User:     DC1		State: County:	Colorado Las Animas		Abbreviation: Filename:	None C1996084
Agency or orga	nization	name: DF	RMS			
HOURLY EQUIPMI						
	at D9T - 9	9SU				
Horsepower: 40		1				
	emi-Univ					
	shank rip per day	per				
	CRG)					
Cost Breakdown:						
Ormenshin Cont/U			¢101 40	Utilization %		
Ownership Cost/Hour: Operating Cost/Hour:			\$121.49 \$105.84	<u>NA</u> 100		
Ripper own						
Cost/Hour:			\$13.94	NA		
Ripper op. Cost/Hour	-		\$0.00	0		
Operator Cost/Hours			\$41.24	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN	\$282. <b>\$565.</b>					
Initial Volume: 2,7						
Swell factor: 1.1						
	83 LCY					
Source of estimated vo		Table 2.0				
Source of estimated vo Source of estimated sw factor:		Cat Hand				
HOURLY PRODUC	<u>TION</u>					
Average push distance	: _	125 feet				
Unadjusted hourly production:	-	1,055.6 LC	Y/hr			
Materials consistency description:		Consol	idated stockpi	le 1.0		
Average push gradient:	0 %					
Average site altitude:	7,100	feet				
Matarial wai abt	2 550	lbs/LCY				
Material weight:	2,550	100, 201				

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.600	(FND-SF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:	355.63 LCY/hr
Adjusted fleet production:	711.26 LCY/hr

Fleet size:	2 Dozer(s)	
Unit cost:	\$0.794/LCY	

Total job time:	<b>4.33</b> Hours
Total job cost:	\$2,449

	line	Permit Action:	M15	Permit/Jo	b#: <u>C1996084</u>
PROJECT IDENTIFI	<b>CATION</b>				
Task #:       015         Date: $2/12/2020$		ate: Colorado nty: Las Animas		Abbreviation: Filename:	None C1996084
User: <u>DC1</u>					
Agency or organ	nization name:	DRMS			
HOURLY EQUIPME	NT COST				
	t D9T - 9SU				
Horsepower: 405 Blade Type: Ser	5 mi-Universal				
	hank ripper				
	er day				
Data Source: (Cl	RG)				
Cost Breakdown:		1	TT.'1' .' 0/		
Ownership Cost/Hour:		\$121.49	<u>Utilization %</u> NA		
Operating Cost/Hour:		\$105.84	100		
Ripper own.		\$13.94	NA		
Cost/Hour:		\$0.00	0		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour:	\$282.50 \$565.00	\$41.24	NA		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT	\$565.00 ITIES				
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume:2,74	\$565.00 ITIES 40				
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 2,74 Swell factor: 1.25	\$565.00 ITIES 40 50				
Ripper op. Cost/Hour:         Operator Cost/Hour:         Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       2,74         Swell factor:       1.25         Loose volume:       3,42	\$565.00 ITIES 40 50 25 LCY	\$41.24			
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 2,74 Swell factor: 1.25	\$565.00 ITIES 40 50 25 LCY ume: Tab				
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 2,74 Swell factor: 1.25 Loose volume: 3,42 Source of estimated volu Source of estimated swe	\$565.00 ITIES 40 50 25 LCY ume: Tab ell Cat	\$41.24 			
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 2,74 Swell factor: 1.25 Loose volume: 3,42 Source of estimated volt Source of estimated volt Source of estimated swe factor: HOURLY PRODUCT Average push distance:	\$565.00         ITIES         40         50         25 LCY         ume:       Tab         ell       Cat         CION         125 fe	\$41.24 			
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 2,74 Swell factor: 1.25 Loose volume: 3,42 Source of estimated volu Source of estimated volu Source of estimated swe factor: HOURLY PRODUCT	\$565.00         ITIES         40         50         25 LCY         ume:       Tab         ell       Cat         CION         125 fe	\$41.24 			
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 2,74 Swell factor: 1.25 Loose volume: 3,42 Source of estimated volu Source of estimated swe factor: HOURLY PRODUCT Average push distance: Unadjusted hourly	\$565.00 ITIES 40 50 25 LCY ume: Tab Cat CION 125 fe 1,055.	\$41.24 	NA		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 2,74 Swell factor: 1.25 Loose volume: 3,42 Source of estimated volu Source of estimated volu Source of estimated swe factor: HOURLY PRODUCT Average push distance: Unadjusted hourly production: Materials consistency description: Average push gradient:	\$565.00         ITIES         40         50         25 LCY         ume:       Tab         cat         Cat	\$41.24 \$41.24 le 2.05.4-1f Handbook et 6 LCY/hr	NA		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 2,74 Swell factor: 1.25 Loose volume: 3,42 Source of estimated volt Source of estimated volt Source of estimated volt Source of estimated swe factor: HOURLY PRODUCT Average push distance: Unadjusted hourly production: Materials consistency description: Average push	\$565.00 ITIES 40 50 25 LCY ume: Tab Cat Cat 125 fe 1,055. Cat Cat Cat Cat Cat Cat Cat Cat	\$41.24 \$41.24 le 2.05.4-1f Handbook et 6 LCY/hr	NA		

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.600	(FND-SF)
Push gradient:	1.115	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:	475.86 LCY/hr
Adjusted fleet production:	<b>951.72</b> LCY/hr

Fleet size:	2 Dozer(s)	
Unit cost:	\$0.594/LCY	

Total job time:	<b>3.60</b> Hours
Total job cost:	\$2,033

Task description:	Keplac	e Live-Ha	nalea Topso			
E Lorencito Canyon M	ine	Per	mit Action:	MT5	Permit/Jo	b#: <u>C1996084</u>
PROJECT IDENTIFI	<u>CATIO</u> N	I				
Task #:     016       Date:     2/12/2020       User:     DC1		State: County:	Colorado Las Anima	<u>s</u>	Abbreviation: Filename:	None C1996084
Agency or organ	nization na	me: DR	MS			
HOURLY EQUIPME	NT COS'	Т				
Basic Machine:Cat	: D9T - 9S			_		
Horsepower: 405		1		-		
• • •	ni-Univers hank rippe			-		
	er day	1		-		
	RG)			-		
Cost Breakdown:			1			
Ownership Cost/Hours			\$121.49	<u>Utilization %</u>		
Ownership Cost/Hour: Operating Cost/Hour:			\$105.84	<u>NA</u> 100		
Ripper own.			\$13.94	NA		
Cost/Hour: Ripper op. Cost/Hour:			\$0.00	0		
Operator Cost/Hour:			\$41.24	NA		
Total Fleet Cost/Hour: MATERIAL QUANT	<u>\$565.00</u> ITIES					
Initial Volume: 1,09	0					
Swell factor: 1.12			_			
Loose volume: 1,22	6 LCY		-			
Source of estimated volu Source of estimated swe factor:		Table 2.05 Cat Handb				
HOURLY PRODUCT	ION					
Average push distance:		25 feet				
Unadjusted hourly production:		,055.6 LCY	//hr			
Materials consistency description:		Consoli	dated stockp	ile 1.0		
	0 %					
Average push gradient:						
	7,100 fe	et				
gradient:	7,100 fe					

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.600	(FND-SF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:	355.63 LCY/hr
Adjusted fleet production:	711.26 LCY/hr

Fleet size:	2 Dozer(s)	
Unit cost:	\$0.794/LCY	

Total job time:	<b>1.72</b> Hours
Total job cost:	\$974

: Lorencito Canyon Mi	ina	Permit Action:	MT5	Dermit/La	b#: C1996084
	ine	Permit Action:	IVI I J	Permit/Jo	U#: <u>C1996084</u>
PROJECT IDENTIFI	<b>CATION</b>				
Task #: 017		State: Colorado		Abbreviation:	None
Date: <u>2/12/2020</u> User: DC1	Co	unty: Las Anima	S	Filename:	C1996084
Agency or organ	ization name	DRMS			
HOURLY EQUIPMEN	NT COST				
	D9T - 9SU		-		
Horsepower: 405			-		
	ni-Universal nank ripper		-		
	er day		-		
Data Source: (CR			-		
Cost Breakdown:					
		¢101.40	<u>Utilization %</u>		
Ownership Cost/Hour: Operating Cost/Hour:		\$121.49 \$105.84	<u>NA</u> 100		
Ripper own.		\$13.94	NA		
Cost/Hour:					
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$41.24	NA		
Total unit Cost/Hour:	\$282.50				
Total Fleet Cost/Hour:	\$565.00				
MATEDIAL OUANT					
MATERIAL QUANTI					
Initial Volume:	0				
Initial Volume: 1,090 Swell factor: 1.250	0				
Initial Volume:1,090Swell factor:1.250Loose volume:1,362	0 0 <b>3</b> LCY	bla 2.05 4.1f			
Initial Volume: 1,090 Swell factor: 1.250 Loose volume: 1,363 Source of estimated volu	0 0 <b>3</b> LCY 1me: Ta	ble 2.05.4-1f			
Initial Volume:1,090Swell factor:1.250Loose volume:1,362	0 0 <b>3</b> LCY 1me: Ta	ble 2.05.4-1f t Handbook			
Initial Volume: 1,090 Swell factor: 1.250 Loose volume: 1,362 Source of estimated volu Source of estimated swel factor:	0 0 <b>3</b> LCY 1me: Ta 11 Ca				
Initial Volume: 1,090 Swell factor: 1.250 Loose volume: 1,363 Source of estimated volu Source of estimated swel factor: HOURLY PRODUCT	0 0 <b>3</b> LCY 11me: Ta 11 Ca 10N	t Handbook			
Initial Volume: 1,090 Swell factor: 1.250 Loose volume: 1,363 Source of estimated volu Source of estimated swel factor: HOURLY PRODUCT	0 0 3 LCY 10 10 125 t	t Handbook			
Initial Volume: 1,090 Swell factor: 1.250 Loose volume: 1,363 Source of estimated volu Source of estimated swel factor: HOURLY PRODUCT	0 0 3 LCY 10 10 125 t	t Handbook			
Initial Volume: 1,090 Swell factor: 1.250 Loose volume: 1,363 Source of estimated volu Source of estimated swel factor: HOURLY PRODUCT Average push distance: Unadjusted hourly production: Materials consistency	$\begin{array}{c} 0 \\ 0 \\ \hline 3 \text{ LCY} \\ \hline \text{ime:} & \underline{\text{Ta}} \\ \hline 10 \\ \hline 125 \\ \hline 1,052 \\ \hline \end{array}$	t Handbook	   ile 1.0		
Initial Volume: 1,090 Swell factor: 1.250 Loose volume: 1,363 Source of estimated volu Source of estimated swel factor: HOURLY PRODUCT Average push distance: Unadjusted hourly production:	$\begin{array}{c} 0 \\ 0 \\ \hline 3 \text{ LCY} \\ \hline \text{ime:} & \underline{\text{Ta}} \\ \hline 10 \\ \hline 125 \\ \hline 1,052 \\ \hline \end{array}$	Yeet 5.6 LCY/hr	  ile 1.0		
Initial Volume: 1,090 Swell factor: 1.250 Loose volume: 1,362 Source of estimated volu Source of estimated swel factor: HOURLY PRODUCT Average push distance: Unadjusted hourly production: Materials consistency description: Average push	$\begin{array}{c} 0 \\ 0 \\ \hline 3 \text{ LCY} \\ \hline \text{ime:} & \underline{\text{Ta}} \\ \hline 10 \\ \hline 125 \\ \hline 1,052 \\ \hline \end{array}$	Yeet 5.6 LCY/hr	  ile 1.0		
Initial Volume: 1,090 Swell factor: 1,250 Loose volume: 1,362 Source of estimated volu Source of estimated swel factor: HOURLY PRODUCT Average push distance: Unadjusted hourly production: Materials consistency description: Average push gradient:	$ \begin{array}{c} 0\\ 0\\ 0\\ 3 LCY\\ 1000: Ta\\ Ca\\ Ca\\ 1000: Ta\\ 1000: Ta\\ 0\%\\ 0\%\\ 0\%\\ 0\%\\ 0\%\\ 0\%\\ 0\%\\ 0\%\\ 0\%\\ 0\%$	Yeet 5.6 LCY/hr	  ile 1.0		
Initial Volume: 1,090 Swell factor: 1.250 Loose volume: 1,362 Source of estimated volu Source of estimated swel factor: HOURLY PRODUCT Average push distance: Unadjusted hourly production: Materials consistency description: Average push	$\begin{array}{c} 0 \\ 0 \\ \hline 0 \\ \hline 3 \text{ LCY} \\ \hline \mathbf{3 \text{ LCY}} \\ \hline 1000 \\ \hline 125 \\ \hline 1,055 \\ \hline 0 \\ \hline $	Yeet 5.6 LCY/hr	  ile 1.0		
Initial Volume: 1,090 Swell factor: 1.250 Loose volume: 1,362 Source of estimated volu Source of estimated volu Source of estimated swel factor: HOURLY PRODUCT Average push distance: Unadjusted hourly production: Materials consistency description: Average push gradient:	$ \begin{array}{c} 0\\ 0\\ 0\\ 3 LCY\\ 1000: Ta\\ Ca\\ Ca\\ 1000: Ta\\ 1000: Ta\\ 0\%\\ 0\%\\ 0\%\\ 0\%\\ 0\%\\ 0\%\\ 0\%\\ 0\%\\ 0\%\\ 0\%$	t Handbook Seet 5.6 LCY/hr Consolidated stockp	 		

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.600	(FND-SF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:	355.63 LCY/hr
Adjusted fleet production:	711.26 LCY/hr

Fleet size:	2 Dozer(s)	
Unit cost:	\$0.794/LCY	

Total job time:	<b>1.92</b> Hours
Total job cost:	\$1,082

Total Fleet Cost/Hour:       \$5         MATERIAL QUANTITIE         Initial Volume:       1,400         Swell factor:       1.125         Loose volume:       1,575 LC         Source of estimated volume:       Source of estimated swell factor:	State: <u>Colorado</u> County: <u>Las Anima</u>  on name: <u>DRMS</u> <u>COST</u> `- 9SU niversal ripper		Permit/Job	None C1996084
Task #:       018         Date:       2/12/2020         User:       DC1         Agency or organization         HOURLY EQUIPMENT (Construction)         Basic Machine:       Cat D9T         Horsepower:       405         Blade Type:       Semi-Un         Attachment:       3-shank         Shift Basis:       1 per da         Data Source:       (CRG)         Cost Breakdown:       Operating Cost/Hour:         Operating Cost/Hour:       Ripper own.         Cost/Hour:       Cost/Hour:         Operator Cost/Hour:       S2         Total unit Cost/Hour:       \$2         Total Fleet Cost/Hour:       \$2         Total Fleet Cost/Hour:       \$5         MATERIAL QUANTITIE       Initial Volume:         Initial Volume:       1,400         Swell factor:       1.125         Loose volume:       1,575 LC         Source of estimated volume:       Source of estimated swell factor:	State: Colorado County: Las Anima on name: DRMS COST - 9SU niversal ripper y \$121.49 \$105.84 \$13.94 \$0.00 \$41.24	Utilization % NA 100 NA 0	-	
Date:       2/12/2020         User:       DC1         Agency or organization         HOURLY EQUIPMENT (         Basic Machine:       Cat D97         Horsepower:       405         Blade Type:       Semi-Un         Attachment:       3-shank         Shift Basis:       1 per da         Data Source:       (CRG)         Cost Breakdown:       Ownership Cost/Hour:         Operating Cost/Hour:       Ripper own.         Cost/Hour:       Cost/Hour:         Ripper op. Cost/Hour:       Operator Cost/Hour:         Total unit Cost/Hour:       \$2         Total Fleet Cost/Hour:       \$2         MATERIAL QUANTITIE       Initial Volume:         Initial Volume:       1,400         Swell factor:       1,575 LC         Source of estimated volume:       Source of estimated swell factor:	County: Las Anima COST	Utilization % NA 100 NA 0	-	
Agency or organization HOURLY EQUIPMENT ( Basic Machine: Cat D9T Horsepower: 405 Blade Type: Semi-Un Attachment: 3-shank Shift Basis: 1 per da Data Source: (CRG) Cost Breakdown: Ownership Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: 20 Ripper op. Cost/Hour: 22 Total unit Cost/Hour: \$2 Total unit Cost/Hour: \$2 Total Fleet Cost/Hour: \$2 MATERIAL QUANTITIE Initial Volume: 1,400 Swell factor: 1.125 Loose volume: 1,575 LC Source of estimated volume: Source of estimated swell factor:	COST - 9SU hiversal ripper y \$121.49 \$105.84 \$13.94 \$0.00 \$41.24 82.50	NA           100           NA           0		
HOURLY EQUIPMENT (         Basic Machine:       Cat D9T         Horsepower:       405         Blade Type:       Semi-Ur         Attachment:       3-shank         Shift Basis:       1 per da         Data Source:       (CRG)         Cost Breakdown:	COST - 9SU hiversal ripper y \$121.49 \$105.84 \$13.94 \$0.00 \$41.24 82.50	NA           100           NA           0		
Horsepower:       405         Blade Type:       Semi-Un         Attachment:       3-shank         Shift Basis:       1 per da         Data Source:       (CRG)         Cost Breakdown:       Ownership Cost/Hour:         Ownership Cost/Hour:	niversal ripper y \$121.49 \$105.84 \$13.94 \$0.00 \$41.24 \$2.50	NA           100           NA           0		
Blade Type:       Semi-Un         Attachment:       3-shank         Shift Basis:       1 per da         Data Source:       (CRG)         Cost Breakdown:	ripper y \$121.49 \$105.84 \$13.94 \$0.00 \$41.24 82.50	NA           100           NA           0		
Attachment:       3-shank         Shift Basis:       1 per da         Data Source:       (CRG)         Cost Breakdown:	ripper y \$121.49 \$105.84 \$13.94 \$0.00 \$41.24 82.50	NA           100           NA           0		
Shift Basis:       1 per da         Data Source:       (CRG)         Cost Breakdown:	y \$121.49 \$105.84 \$13.94 \$0.00 \$41.24 82.50	NA           100           NA           0		
Data Source: (CRG) Cost Breakdown: Ownership Cost/Hour: Operating Cost/Hour: Ripper own. Cost/Hour: Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Unit Cost/Hour: Total Fleet Cost/Hour: <b>\$2</b> <b>MATERIAL QUANTITIE</b> Initial Volume: 1,400 Swell factor: 1.125 Loose volume: <b>1,575</b> LC Source of estimated volume: Source of estimated swell factor:	\$121.49 \$105.84 \$13.94 \$0.00 \$41.24 82.50	NA           100           NA           0		
Ownership Cost/Hour:	\$105.84 \$13.94 \$0.00 \$41.24 82.50	NA           100           NA           0		
Operating Cost/Hour:         Ripper own.         Cost/Hour:         Ripper op. Cost/Hour:         Operator Cost/Hour:         Operator Cost/Hour:         Total unit Cost/Hour:         Total unit Cost/Hour:         \$2         Total Fleet Cost/Hour:         \$5         MATERIAL QUANTITIE         Initial Volume:       1,400         Swell factor:       1.125         Loose volume:       1,575 LC         Source of estimated volume:         Source of estimated swell         factor:	\$105.84 \$13.94 \$0.00 \$41.24 82.50	NA           100           NA           0		
Operating Cost/Hour:         Ripper own.         Cost/Hour:         Ripper op. Cost/Hour:         Operator Cost/Hour:         Operator Cost/Hour:         Total unit Cost/Hour:         Total unit Cost/Hour:         \$2         Total Fleet Cost/Hour:         \$5         MATERIAL QUANTITIE         Initial Volume:       1,400         Swell factor:       1.125         Loose volume:       1,575 LC         Source of estimated volume:         Source of estimated swell         factor:	\$105.84 \$13.94 \$0.00 \$41.24 82.50	100 NA 0		
Ripper own.       Cost/Hour:         Ripper op. Cost/Hour:	\$13.94 \$0.00 \$41.24 82.50	NA 0		
Cost/Hour:         Ripper op. Cost/Hour:         Operator Cost/Hour:         Total unit Cost/Hour:         Total unit Cost/Hour:         \$2         Total Fleet Cost/Hour:         \$5         MATERIAL QUANTITIE         Initial Volume:       1,400         Swell factor:       1.125         Loose volume:       1,575 LC         Source of estimated volume:       Source of estimated swell factor:	\$0.00 \$41.24 82.50	0		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <b>\$2</b> <b>\$5</b> <b>MATERIAL QUANTITIE</b> Initial Volume: 1,400 Swell factor: 1.125 Loose volume: <b>1,575</b> LC Source of estimated volume: Source of estimated swell factor:	\$41.24 82.50			
Total unit Cost/Hour:       \$2         Total Fleet Cost/Hour:       \$5         MATERIAL QUANTITIE         Initial Volume:       1,400         Swell factor:       1.125         Loose volume:       1,575 LC         Source of estimated volume:       Source of estimated swell         factor:       1	82.50	NA		
Total Fleet Cost/Hour:       \$5         MATERIAL QUANTITIE         Initial Volume:       1,400         Swell factor:       1.125         Loose volume:       1,575 LC         Source of estimated volume:       Source of estimated swell factor:				
Initial Volume: 1,400 Swell factor: 1.125 Loose volume: 1,575 LC Source of estimated volume: Source of estimated swell factor:				
Swell factor: 1.125 Loose volume: 1,575 LC Source of estimated volume: Source of estimated swell factor:	<u>0</u>			
Loose volume: <b>1,575</b> LC Source of estimated volume: Source of estimated swell factor:				
Source of estimated volume: Source of estimated swell factor:	Y			
Source of estimated swell factor:	Table 2.05.4-1f			
	Cat Handbook			
HOURLY PRODUCTION	Ī			
Average push distance:	75 feet			
Unadjusted hourly production:	1,514.3 LCY/hr			
Materials consistency description:	Consolidated stock	pile 1.0		
Average push 0 9 gradient:				
Average site altitude: 7,1	00 feet			
Material weight: _2,5				
Weight description: Ea	550 lbs/LCY			

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.600	(FND-SF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:	510.17 LCY/hr
Adjusted fleet production:	1020.34 LCY/hr

Fleet size:	2 Dozer(s)	
Unit cost:	\$0.554/LCY	-

Total job time:	<b>1.54</b> Hours
Total job cost:	\$872

Task description:	Repl	ace Topsoil	from Upslop	e Area to W-0		
: Lorencito Canyon N	Mine	Pe	rmit Action:	MT5	Permit/Jo	b#: <u>C1996084</u>
PROJECT IDENTIF	FICATIO	DN				
Task #:     019       Date:     2/12/202       User:     DC1		State: County:	Colorado Las Animas		Abbreviation: Filename:	None C1996084
Agency or orga	anization 1	name: DF	RMS			
HOURLY EQUIPM	ENT CO	<u>ST</u>				
Horsepower: 40 Blade Type: 50 Attachment: 3- Shift Basis: 1	at D9T - 9 05 emi-Unive -shank ripp per day CRG)	ersal				
Cost Breakdown:			I			
Ownership Cost/Hour			\$121.49	Utilization % NA		
Operating Cost/Hour			\$105.84	100		
Ripper own			\$13.94	NA		
Cost/Hour Ripper op. Cost/Hour	-		\$0.00	0		
Operator Cost/Hour	-		\$41.24	NA		
MATERIAL QUAN Initial Volume: <u>70</u>	0		_			
	250 5 LCY					
Source of estimated vo		Table 2.0	— 5 / 1f			
Source of estimated vo Source of estimated sw factor:		Cat Hand				
HOURLY PRODUC	TION					
Average push distance	:	75 feet				
Unadjusted hourly production:	_	1,514.3 LC	Y/hr			
Materials consistency		Consol	idated stockpi	le 1.0		
description:						
description: Average push gradient:	0 %					
description: Average push	0 % 7,100	feet				
description: Average push gradient:	7,100	feet lbs/LCY			_	

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.600	(FND-SF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:	510.17 LCY/hr
Adjusted fleet production:	1020.34 LCY/hr

Fleet size:	2 Dozer(s)	
Unit cost:	\$0.554/LCY	

Total job time:	0.86 Hours
Total job cost:	\$485

	-	opsoil from Upslop			
E Lorencito Canyon M	ine	Permit Action:	MT5	Permit/Jol	o#: C1996084
PROJECT IDENTIFI	CATION				
Task #:         022           Date:         2/12/2020           User:         DC1	S	tate: Colorado nty: Las Animas		Abbreviation: Filename:	None C1996084
Agency or organ	nization name:	DRMS			
HOURLY EQUIPME					
	t D9T - 9SU				
Horsepower: 405					
<i>v</i> 1	ni-Universal				
	hank ripper				
1	er day RG)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:		\$121.49	NA		
Operating Cost/Hour:		\$105.84	100		
Ripper own. Cost/Hour:		\$13.94	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$41.24	NA		
MATERIAL QUANT Initial Volume: 6,30 Swell factor: 1.25	00				
	5 LCY				
Source of estimated volu Source of estimated swe		le 2.05.4-1f Handbook			
factor:					
	<u>'ION</u>				
	150 fe	eet LCY/hr			
HOURLY PRODUCT Average push distance: Unadjusted hourly	150 fe 910.5		 le 1.0		
HOURLY PRODUCT Average push distance: Unadjusted hourly production: Materials consistency description: Average push gradient:	 910.5  0 %	LCY/hr	  le 1.0		
HOURLY PRODUCT Average push distance: Unadjusted hourly production: Materials consistency description: Average push	910.5	LCY/hr	 le 1.0		
HOURLY PRODUCT Average push distance: Unadjusted hourly production: Materials consistency description: Average push gradient:	 910.5  0 %	LCY/hr Consolidated stockpi	  le 1.0		

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.600	(FND-SF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:	306.75 LCY/hr
Adjusted fleet	<b>613.5</b> LCY/hr
production:	013.5 LC 1/m

Fleet size:	2 Dozer(s)
Unit cost:	\$0.921/LCY

Total job time:	<b>12.84</b> Hours
Total job cost:	\$7,253

Task description:	Rep	lace Live-Han	dled Topso	oil to N-2		
e: Lorencito Canyon	Mine	Perm	it Action:	MT5	Permit/Jo	b#: <u>C1996084</u>
PROJECT IDENTI	FICATIO	<u>DN</u>				
Task #:     021       Date:     2/12/202       User:     DC1	0		Colorado Las Animas	3	Abbreviation: Filename:	None C1996084
Agency or org	anization	name: DRM	IS			
HOURLY EQUIPM	ENT CC	)ST				
	at D9T -	9SU				
I	05	1				
<i>•</i> • • • • • • • • • • • • • • • • • •	emi-Univ -shank rip					
	per day	per				
	CRG)					
Cost Breakdown:				Utilization %		
Ownership Cost/Hour			\$121.49	NA		
Operating Cost/Hour			\$105.84	100		
Ripper owr Cost/Hour			\$13.94	NA		
Ripper op. Cost/Hour	:		\$8.96	100		
Operator Cost/Hour	•		\$41.24	NA		
Total Fleet Cost/Hour MATERIAL QUAN	<u> </u>	92				
Swell factor: 1.	300 125 088 LCY					
Source of estimated ve	olume.	Table 2.05.4	4-1f			
Source of estimated sy factor:		Cat Handbo				
HOURLY PRODUC	<u>TION</u>					
Average push distance	:	150 feet				
Unadjusted hourly production:	_	910.5 LCY/hr				
Materials consistency description:		Consolida	ated stockp	ile 1.0		
Average push gradient:	0 %	2	_			
Average site altitude:	7,100	feet	_			
Material weight:	2,550	lbs/LCY				
Weight description:	Earth	- Dry packed				

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.600	(FND-SF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:	306.75 LCY/hr
Adjusted fleet	<b>613.5</b> LCY/hr
production:	013.3 LC 1/11

Fleet size:	2 Dozer(s)
Unit cost:	\$0.950/LCY

Total job time:	<b>11.55</b> Hours
Total job cost:	\$6,734

Task description:	Replace L	ive-Handled Topso	oil to S-3		
Lorencito Canyon M	line	Permit Action:	MT5	Permit/Jo	b#: <u>C1996084</u>
PROJECT IDENTIFI	<b>ICATION</b>				
Task #:         023           Date:         2/12/2020           User:         DC1	S	tate: Colorado inty: Las Animas	3	Abbreviation: Filename:	None C1996084
Agency or organ	nization name:	DRMS			
HOURLY EQUIPME					
Basic Machine: Ca	t D9T - 9SU				
Horsepower: 403					
	mi-Universal				
	hank ripper				
	er day				
. <u> </u>	RG)				
Cost Breakdown:			· · · · ·		
Ormenshin Cont/II		¢101.40	<u>Utilization %</u>		
Ownership Cost/Hour: Operating Cost/Hour:		\$121.49 \$105.84	<u>NA</u> 100		
Ripper own.					
Cost/Hour:		\$13.94	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$41.24	NA		
MATERIAL QUANT	TTIES				
Initial Volume: 890					
Swell factor: 1.12					
	1 LCY				
Source of estimated volu	ume Tal	ole 2.05.4-1f			
Source of estimated von factor:		t Handbook			
HOURLY PRODUCT	<u>TION</u>				
Average push distance:	75 fe	et			
Unadjusted hourly production:	1,514	.3 LCY/hr			
Materials consistency description:	(	Consolidated stockp	ile 1.0		
Average push gradient:	0 %				
Average site altitude:	7,100 feet				
Material weight:	2,550 lbs/L0	CY			
Weight description.	Forth Da	naliad			
Weight description:	Earth - Dry	раскец			

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.600	(FND-SF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:	510.17 LCY/hr
Adjusted fleet production:	1020.34 LCY/hr

Fleet size:	2 Dozer(s)	
Unit cost:	\$0.554/LCY	-

Total job time:	<b>0.98</b> Hours
Total job cost:	\$554

Task description:	Repl	ace Topsoil	from Upslo	pe to S-3		
E: Lorencito Canyon	Mine	Pe	rmit Action:	MT5	Permit/Jo	b#: <u>C1996084</u>
PROJECT IDENTI	FICATIO	<u>DN</u>				
Task #:     024       Date:     2/12/202       User:     DC1	20	State: County:	Colorado Las Anima	S	Abbreviation: Filename:	None C1996084
Agency or org	anization	name: DR	RMS			
HOURLY EQUIPM						
	Cat D9T - 9	SU		_		
	05	1		-		
• I	emi-Unive -shank rip			-		
	per day	per		-		
	CRG)			-		
Cost Breakdown:			T			
Ormershin Cest/Herry			¢121.40	<u>Utilization %</u>		
Ownership Cost/Hour Operating Cost/Hour			\$121.49 \$105.84	<u>NA</u> 100		
Ripper owr	ı.		\$13.94	NA		
Cost/Hour						
Ripper op. Cost/Hour	-		\$0.00	0		
Operator Cost/Hour			\$41.24	NA		
Total unit Cost/Hour:	\$282.	50				
Total Fleet Cost/Hour	\$565.	00				
MATERIAL QUAN	TITIES					
Initial Volume: 48 Swell factor: 1.1	250		_			
	0 LCY					
Source of estimated ve		Table 2.0				
Source of estimated w factor:		Cat Hand				
HOURLY PRODUC	<u>CTION</u>					
Average push distance	:	75 feet				
Unadjusted hourly production:	-	1,514.3 LC	Y/hr			
Materials consistency description:		Consol	idated stockp	ile 1.0		
Average push gradient:	-5 %					
Average site altitude:	7,100	feet				
Material weight:	2,550	lbs/LCY				
Weight description:	Earth	- Dry packe	d			

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.600	(FND-SF)
Push gradient:	1.115	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:	568.77 LCY/hr			
Adjusted fleet production:	1137.54 LCY/hr			

Fleet size:	2 Dozer(s)	
Unit cost:	\$0.497/LCY	-

Total job time:	<b>0.53</b> Hours
Total job cost:	\$298

# TRUCK/LOADER TEAM WORK

Task description:	Replace	e Topsoil from S	tockpile BA#3 to	o S-3			
Site:       Lorencito Canyon Mine       Permit Action:       MT5       Permit/Job#:       C1996084							
PROJECT IDEN	TIFICATION						
Task #: 025		State: Color	ado	Abb	previation:	None	
		County: Las A	nimas		Filename:	C1996084	
User: DC1							
Agency of	r organization nan	ne: DRMS					
HOURLY EQUI	PMENT COST	-		Shift ba	sis: <u>1 per day</u>		
			Equipment Descr	iption			
]	Fruck Loader Tea		: 773F	-			
			T 990H high lift				
Supp	ort Equipment -L		<u>D9T - 9SU</u>				
Road M	aintenance – Moto		2 D9T - 9SU T 14M				
Koau M			ter Tanker, 5,000	Gal			
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		<i>iter Tunker</i> , <i>5</i> ,000	Oui			
Cost Breakdown:	Truck/Loa	der Team	Support	Equipment	Main	tenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck	
%Utilization-machine:	100	100	50	100		25 25	
Ownership cost/hour:	\$105.90	\$141.85	\$121.49	\$121.49	\$64.1	10 \$27.40	
Operating cost/hour:	\$93.41	\$135.12	\$52.92	\$105.84	\$14.0	04 \$10.00	
%Utilization-riper:	NA	0	50	0	N	A NA	
Ripper own. cost/hour:	NA	\$0.00	\$13.94	\$13.94	\$0.0	00 \$0.00	
Ripper op. cost/hour:	NA	\$0.00	\$4.48	\$0.00	\$0.0	00 \$0.00	
Operator cost/hour:	\$33.29	\$40.65	\$41.24	\$41.24	\$28.5	52 \$21.09	
Unit Subtotals:	\$232.60	\$317.62	\$220.13	\$268.57	\$106.0	56 \$58.49	
Number of Units:	3	1	1	1		1 1	
Group Subtotals:	Work:	\$1,015.42	Support:	\$488.70	Mair	nt: \$165.15	

Total work team cost/hour: <u>\$1,669.27</u>

# **MATERIAL QUANTITIES**

480	CCY	Swell factor:	1.125	
540	LCY			
e of estimated volume:	Table 2.05.4-	-1f		
estimated swell factor:	Cat Handboo	ok		
Material Purchase Cost:				
Total Cost:	\$0.00			
	540 e of estimated volume: estimated swell factor: laterial Purchase Cost:	540LCYe of estimated volume: estimated swell factor: laterial Purchase Cost:Table 2.05.4 Cat Handboo \$0.00	540LCYe of estimated volume:Table 2.05.4-1festimated swell factor:Cat HandbookIaterial Purchase Cost:\$0.00	540     LCY       e of estimated volume:     Table 2.05.4-1f       estimated swell factor:     Cat Handbook       Iaterial Purchase Cost:     \$0.00

# **HOURLY PRODUCTION**

Truck Capacity:								
Truck Payload (weight) Bas			_					
Material weight:	2,550	<u> </u>	Pounds/	LCY				
Description:	Earth - Dry p	acked	Dent					
Rated Payload:	122,520		Pounds					
Payload Capacity:	48.05		LCY					
Truck Bed (volume) Basis:								
Struck Volume:	35.00	LCY						
Heaped Volume:	46.50	LCY						
Average Volume:	40.75	LCY						
Adjusted Volume:	46.50	LCY						
Final	Truck Volume	Based on Nun	nber of L	oader Passes:	39.3	38	LCY	
Loading Tool Capacity								
Rated Capacity:	11.250	I CV (bc	anad)	Buck	et Size Clas	s: <u>N</u> A	4	
Bucket Fill Factor:	0.875	LCY (he		1" and over (8	5 - 90%) 0 8	375		
Adjusted Capacity:	9.844	LCY	latoriar		5 707070.0	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Job Condition Corrections	<u>::</u>		Site	Altitude (ft.):	<u>7100</u> feet			
	Truck	Loade		Source				
Altitude Adj: Job Efficiency:	<u>1.000</u> 0.830	1.000		(CAT HB (CAT HB				
				(CAT III)	)			
Net Correction:	0.830	0.830	)					
Loading Tool Cycle Time	_	Number of Lo	ading To	ol Passes Requ	ired to Fill Truck:		4	passes
Excavators and Front Shove	<u>els:</u>							
Machine Cycle Time Selected Value	vs. Job Condition within this Basi	U	JA JA					
Track Loaders -	- Material Descr	iption:						
Cycle Time Elements (min.)	:							
Load: NA	N	laneuver: N	NA		Dump:	0.100		
Wheel and Trac	ck Loaders - Una	adjusted Basic	c Loader	•	-	0.0	500 <sup>1</sup>	ninutes
Carala Tima Eastan				n	naneuver):		<u> </u>	
Cycle Time Factors Material:		rial 0.02			Factor (n 0.020		Source (Cat HE	
Stockpile:		dozer piled 1	0 ft high	or less			(Cat III	•)
Stockpile.	0.01	aozer pricu I	o n. mgi		0.010	)	(Cat HE	3)
Truck Ownership:		vnership of tru	icks and I	loaders -	-0.040	)	(Cat HE	3)
Operation:		eration -0.04			-0.040	)	(Cat HE	3)
Dump Target:					0.000		(Cat HE	
			cle Time	Adjustment:	-0.050	)	minute	
				Cycle Time:	0.550		minute	
		Net I	Load Tim	e per Truck:	1.750		minute	S

#### Truck Cycle Time:

Truck Exchange Time:	0.70	Minutes	Adjusted for site altitude:	0.700	Minutes
Truck Load Time:	1.750	Minutes	Adjusted for site altitude:	1.750	Minutes
Truck Maneuver and Dump Time:	1.10	Minutes	Adjusted for site altitude:	1.100	Minutes

Truck Travel (Haul & Return) Time: penetration 5.0

Road Condition: Rutted dirt, little maintenance, no water, 2" tire

I	Haul Route	:							
	Seg #	Haul Di	stance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
		(Ft)			(%)	(%)	(fpm)	Time (min)	
	1	2400.00		4.00	5.00	9.00	977	2.516	
-						Haul Time:	2.516	minute	es
l	Return Rou	1				<b>T</b> 1 <b>D</b>	<b>X</b> 7 <b>1</b> •.	T	
	Seg #	Haul Di	stance	Grade (%)	Roll. Res	Total Res	Velocity	Travel Time	
		(Ft)			(%)	(%)	(fpm)	(min)	
	1	2400.00		-4.00	5.00	1.00	3569	0.835	
						Return Time:	0.835	5 minut	es
					Total Tru	ck Cycle Time:	6.901	minut	es
Lo	oading Too	ol unit							
	Produ		964.29	LCY/Hour		Adjusted for jo	ob efficiency:	800.36	LCY/Hour
Truck	Unit Produ	iction							
			342.34	LCY/Hour		Adjusted for jo	ob efficiency:	284.14	LCY/Hour
Optima	l No. of Tr	ucks:	3	Truck(s)		Selected Numb	er of Trucks:	3	Truck(s)
				Adjusted	hourly truck	team productio	n: 852.	43 LCY	/Hour
				Adjusted single	truck/loader	team productio	n: 800.	.36 LCY	/Hour
			A	djusted multiple	truck/loader	team productio	n: <b>800.</b>	.36 LCY	/Hour
<u>.</u>	JOB TIM	IE AND	<u>COST</u>						
	Fleet	size:	1	Team(s)	Т	otal job time:	0.67	Но	ours
	Unit o	cost:	\$2.086	/LCY	Т	Total job cost:	\$1,12	26	

# TRUCK/LOADER TEAM WORK

Task description:	Replace	Topsoil from S	tockpile BA#3 to	o W-6		
Site: Lorencito Cany	on Mine		Permit/Job	#: <u>C1996084</u>		
PROJECT IDEN	<b>TIFICATION</b>					
Task #: 020		State: Colora	ado	Abb	previation:	None
Date: 2/12/2	2020	County: Las A	nimas		Filename:	C1996084
User: DC1						
Agency or	organization nan	ne: DRMS				
HOURLY EQUIE	PMENT COST	-		Shift ba	sis: <u>1 per day</u>	<u>′</u>
		]	Equipment Descr	iption		
T	ruck Loader Tear		773F	•		
			T 990H high lift			
Suppo	ort Equipment -L		D9T - 9SU			
Pood Ma	-Du Dintenance –Moto	1	D9T - 9SU Г 14M			
Koau Ma			ter Tanker, 5,000	Gal		
	, , , , , , , , , , , , , , , , , , ,		ier runner, 2,000	Out		
Cost Breakdown:	Truck/Loa	der Team	Support	Equipment	Main	tenance Equipment
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	50	100	1	25 25
Ownership cost/hour:	\$105.90	\$141.85	\$121.49	\$121.49	\$64.	10 \$27.40
Operating cost/hour:	\$93.41	\$135.12	\$52.92	\$105.84	\$14.0	04 \$10.00
%Utilization-riper:	NA	0	50	0	N	IA NA
Ripper own. cost/hour:	NA	\$0.00	\$13.94	\$13.94	\$0.0	00 \$0.00
Ripper op. cost/hour:	NA	\$0.00	\$4.48	\$0.00	\$0.0	00 \$0.00
Operator cost/hour:	\$33.29	\$40.65	\$41.24	\$41.24	\$28.	52 \$21.09
Unit Subtotals:	\$232.60	\$317.62	\$220.13	\$268.57	\$106.0	66 \$58.49
Number of Units:	3	1	1	1		1 1
Group Subtotals:	Work:	\$1,015.42	Support:	\$488.70	Mair	nt: \$165.15

Total work team cost/hour: <u>\$1,669.27</u>

# **MATERIAL QUANTITIES**

700	CCY	Swell factor:	1.125	
788	LCY			
e of estimated volume:	Table 2.05.4	4-1f		
Source of estimated swell factor:		ook		
Material Purchase Cost:				
Total Cost:	\$0.00			
	788 re of estimated volume: estimated swell factor: Material Purchase Cost:	788LCYre of estimated volume: estimated swell factor:Table 2.05. Cat Handbox \$0.00Material Purchase Cost:\$0.00	788LCYre of estimated volume: estimated swell factor: Material Purchase Cost:Table 2.05.4-1f Cat Handbook \$0.00	788     LCY       re of estimated volume:     Table 2.05.4-1f       estimated swell factor:     Cat Handbook       Material Purchase Cost:     \$0.00

# **HOURLY PRODUCTION**

Truck Capacity:								
Truck Payload (weight) Bas								
Material weight:			Pounds/	LCY				
Description:	Earth - Dry packed		D 1.					
Rated Payload:	122,520		Pounds					
Payload Capacity:	48.05		LCY					
Truck Bed (volume) Basis:								
Struck Volume:	35.00	LCY						
Heaped Volume:	46.50	LCY						
Average Volume:	40.75	LCY						
Adjusted Volume:	46.50	LCY						
Final	Truck Volume	Based on Nurr	nber of L	oader Passes:	39.3	8	LCY	
Loading Tool Capacity								
	11.050		1	Buck	et Size Class	s: <u>N</u> A	A	
Rated Capacity:	11.250	LCY (he		1" and array (9	5 000() 0 0	75		
Bucket Fill Factor: Adjusted Capacity:	0.875 <b>9.844</b>	Loose m LCY	laterial -	1" and over (8	5 - 90%) 0.8	15		
Job Condition Corrections			1	Altitude (ft.):	<u>7100</u> feet			
Altitudo Adi	Truck 1.000	Loade		Source				
Altitude Adj: Job Efficiency:	0.830	1.000 0.830		(CAT HB (CAT HB				
				(	· · · · ·			
Net Correction:	0.830	0.830						
Loading Tool Cycle Time	_	Number of Loa	ading To	ol Passes Requ	ired to Fill Truck:		4	passes
Excavators and Front Shove	<u>els:</u>							
Machine Cycle Time Selected Value	vs. Job Condition within this Basic	· · ·	IA IA					
Track Loaders -	- Material Descr	iption:						
Cycle Time Elements (min.)	):							
Load: NA	M	laneuver: N	JA		Dump:	0.100		
Wheel and Trac	ck Loaders - Una	adjusted Basic	Loader	•	· •	0.0	500 <sup>r</sup>	ninutes
	1			n	naneuver):	• 、		
Cycle Time Factors		rial 0.02			Factor (m 0.020		Source	
Stockpile		dozer piled 1	0 ft high	orless	0.020		(Cat HE	)
Stockpile.	0.01	uozei piieu i	o n. iligii	01 1055	0.010		(Cat HE	8)
Truck Ownership:	Common ow 0.04	nership of tru	icks and l	oaders -	-0.040	)	(Cat HE	3)
Operation:	Constant ope	eration -0.04			-0.040	)	(Cat HE	8)
Dump Target:	Nominal tar				0.000		(Cat HE	
		•		Adjustment:	-0.050		minute	
				Cycle Time:	0.550		minute	
		Net L	Load Tim	e per Truck:	1.750		minute	8

#### Truck Cycle Time:

Truck Exchange Time:	0.70	Minutes	Adjusted for site altitude:	0.700	Minutes
Truck Load Time:	1.750	Minutes	Adjusted for site altitude:	1.750	Minutes
Truck Maneuver and Dump Time:	1.10	Minutes	Adjusted for site altitude:	1.100	Minutes

Truck Travel (Haul & Return) Time: penetration 5.0

Road Condition: Rutted dirt, little maintenance, no water, 2" tire

Haul I	Route:							
Seg	# H	Iaul Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
	(]	Ft)		(%)	(%)	(fpm)	Time (min)	
1	3	600.00	3.00	5.00	8.00	1023	3.576	
D					Haul Time:	3.576	minutes	
	n Route:	Iaul Distance	Grade (%)	Roll. Res	Total Res	Valasity	Travel	
Seg		Ft)	Grade (%)	(%)	(%)	Velocity (fam)	Time	
	(I	rt)		(%)	(%)	(fpm)	(min)	
1	3	600.00	-3.00	5.00	2.00	3569	1.193	
					Return Time:	1.193	minutes	
				Total Tru	ck Cycle Time:	8.319	minutes	
Loading	g Tool u	nit						
	Producti		LCY/Hour		Adjusted for jo	ob efficiency:	800.36 I	LCY/Hour
Truck Unit I	Producti	on			5 5	•		
		283.99	LCY/Hour		Adjusted for jo	ob efficiency:	235.71 I	LCY/Hour
Optimal No.	of Truck	ks: <u>3</u>	Truck(s)		Selected Numb	er of Trucks:	37	Fruck(s)
			Adjusted	hourly truck	team productio	n: 707.	13 LCY/Hour	r
			Adjusted single	truck/loader	team productio	n: 707.	13 LCY/Hour	r
		А	djusted multiple	truck/loader	team productio	n: <b>707.</b>	13 LCY/Hour	r
JOB	TIME	AND COST						
F	Fleet size	: 1	Team(s)	Т	otal job time:	1.11	Hours	
ı	Unit cost	t: \$2.361	/LCY	Т	Total job cost:	\$1,85	9	

-	Replace Topso	n nom Stockp	ile SSP#2 to N-1		
Lorencito Canyon M	<b>fine</b> P	ermit Action:	MT5	Permit/Jo	b#: <u>C1996084</u>
PROJECT IDENTIF	<b>ICATION</b>				
Task #:     026       Date:     2/12/2020       User:     DC1	State: County:	Colorado Las Animas		Abbreviation: Filename:	None C1996084
Agency or orga	nization name: <u> </u>	ORMS			
HOURLY EQUIPME	ENT COST				
Horsepower: 40	nt D9T - 9SU 5 mi-Universal				
Attachment: 3- Shift Basis: 1	shank ripper per day				
Data Source: <u>(C</u> Cost Breakdown:	RG)				
Ownership Cost/Hour:		\$121.49	<u>Utilization %</u> NA		
Operating Cost/Hour: Ripper own.		\$105.84	100		
Cost/Hour: Ripper op. Cost/Hour:		\$13.94	NA 100		
Operator Cost/Hour:		\$41.24	NA		
Initial Volume: 3,1 Swell factor: 1.1	00 25				
Loose volume: <b>3,4</b>	88 LCY				
Source of estimated vol Source of estimated sw factor:					
HOURLY PRODUC	<u>FION</u>				
Average push distance: Unadjusted hourly production:	100 feet 1,243.2 Lo	CY/hr			
Unadjusted hourly	1,243.2 L	CY/hr blidated stockpi	 le 1.0		
Unadjusted hourly production: Materials consistency description: Average push gradient:	0 %		 le 1.0		
Unadjusted hourly production: Materials consistency description: Average push	1,243.2 Lo Conse		 le 1.0		
Unadjusted hourly production: Materials consistency description: Average push gradient:	0 %		 le 1.0		

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.600	(FND-SF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:	418.83 LCY/hr
Adjusted fleet production:	837.66 LCY/hr

Fleet size:	2 Dozer(s)	
Unit cost:	\$0.696/LCY	

Total job time:	<b>4.16</b> Hours
Total job cost:	\$2,427

Task description:	Repl	ace Live-Ha	andled Topso	oil to E-2		
e: <u>Lorencito Canyon I</u>	Mine	Pe	rmit Action:	MT5	Permit/Jo	b#: <u>C1996084</u>
PROJECT IDENTIF	<u>TICATIC</u>	<u>N</u>				
Task #:       027         Date:       2/12/202         User:       DC1	0	State: County:	Colorado Las Animas	š	Abbreviation: Filename:	None C1996084
Agency or orga	anization 1	name: DR	RMS			
HOURLY EQUIPM	<u>en</u> t co	<u>ST</u>				
Basic Machine: C	at D9T - 9					
1	05					
<i>•</i> • • • • • • • • • • • • • • • • • •	emi-Unive					
	-shank ripj per day	per				
	CRG)					
Cost Breakdown:			I	Utilization %		
Ownership Cost/Hour	:		\$121.49	NA		
Operating Cost/Hour	:		\$105.84	100		
Ripper own Cost/Hour			\$13.94	NA		
Ripper op. Cost/Hour	:		\$0.00	0		
Operator Cost/Hour	:		\$41.24	NA		
Total Fleet Cost/Hour: MATERIAL QUAN		00				
Initial Volume: 75						
Swell factor: 1.1	25		_			
	4 LCY		_			
Source of estimated vo	lume:	Table 2.0	5.4-1f			
Source of estimated vo factor:		Cat Hand				
HOURLY PRODUC	<u>TION</u>					
Average push distance	:	75 feet				
Unadjusted hourly production:	-	1,514.3 LC	Y/hr			
Materials consistency description:		Consol	idated stockp	ile 1.0		
Average push gradient:	0 %					
Average site altitude:	7,100	feet				
Material weight:	2,550	lbs/LCY				
Weight description:	Earth	- Dry packe	d			

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.200	(S-BY-S)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.600	(FND-SF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:	734.59 LCY/hr
Adjusted fleet production:	1469.18 LCY/hr

Fleet size:	2 Dozer(s)	
Unit cost:	\$0.385/LCY	_

Total job time:	<b>0.57</b> Hours
Total job cost:	\$324

Task description:	Replace 10	psoil from Upsloj			
: Lorencito Canyon Mi	ine	Permit Action:	MT5	Permit/Jo	b#: <u>C1996084</u>
PROJECT IDENTIFI	CATION				
Task #:     028       Date:     2/12/2020       User:     DC1	Sta	ate: Colorado aty: Las Anima	S	Abbreviation: Filename:	None C1996084
Agency or organ	ization name:	DRMS			
HOURLY EQUIPME	NT COST				
	D9T - 9SU		-		
Horsepower: 405			-		
• •	ni-Universal		-		
	er day		-		
Data Source: (CR			-		
Cost Breakdown:			Litilization 0/		
Ownership Cost/Hour:		\$121.49	<u>Utilization %</u> NA		
Operating Cost/Hour:		\$105.84	100		
Ripper own. Cost/Hour:		\$13.94	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$41.24	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour:	\$282.50 \$565.00				
MATERIAL QUANTI Initial Volume: 750	<u>TIES</u>				
Swell factor: 1.25	0				
Loose volume: 938	LCY				
Source of estimated volu	me: Tabl	e 2.05.4-1f			
Source of estimated swell factor:		Handbook			
HOURLY PRODUCT	ION				
Average push distance:	75 feet				
Unadjusted hourly production:	1,514.3	3 LCY/hr			
Materials consistency description:	Co	onsolidated stockp	ile 1.0		
Average push gradient:	-5 %				
	-5 % 7,100 feet				
gradient:		 Y			

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.600	(FND-SF)
Push gradient:	1.115	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:	568.77 LCY/hr		
Adjusted fleet production:	1137.54 LCY/hr		

Fleet size:	2 Dozer(s)	
Unit cost:	\$0.497/LCY	-

Total job time:	<b>0.82</b> Hours
Total job cost:	\$466

· I oronaita Convo-					
e: Lorencito Canyon N	Aine	Permit Actio	on: MT5	Permit/Jo	b#: <u>C1996084</u>
PROJECT IDENTIF	<u>ICAT</u> ION				
Task #:     029       Date:     2/12/2020       User:     DC1		State: Colorad		Abbreviation: Filename:	None C1996084
Agency or orga	anization nam	e: DRMS			
HOURLY EQUIPMI					
	at D9T - 9SU				
Horsepower: 40					
	emi-Universa	l			
	shank ripper				
	per day CRG)				
Cost Breakdown:			¥¥.44		
Ourmantin C //		φ1 <b>01</b> 40	Utilization %		
Ownership Cost/Hour: Operating Cost/Hour:		\$121.49 \$105.84			
Ripper own					
Cost/Hour:		\$13.94	NA		
Ripper op. Cost/Hour:		\$0.00	0 0		
Operator Cost/Hour:	-	\$41.24			
MATERIAL QUAN	<u>FITIES</u>				
Initial Volume: 900					
Swell factor: 1.1					
L	13 LCY				
Loose volume: 1,0	JLUI				
Source of estimated vo	lume:	Cable 2.05.4-1f			
	lume:	Cable 2.05.4-1f Cat Handbook			
Source of estimated vo Source of estimated sw factor:	lume: vell				
Source of estimated vo Source of estimated sw factor: HOURLY PRODUC	lume: <u>7</u> gell ( TION	Cat Handbook			
Source of estimated vo Source of estimated sw factor:	lume: <u>7</u> rell ( TION : 150				
Source of estimated vo Source of estimated sw factor: HOURLY PRODUC Average push distance: Unadjusted hourly	lume: <u>7</u> rell ( TION : 150	Cat Handbook	 		
Source of estimated vo Source of estimated sw factor: HOURLY PRODUC Average push distance: Unadjusted hourly production: Materials consistency	lume: <u>7</u> rell ( TION : 150	Cat Handbook ) feet ).5 LCY/hr			
Source of estimated vo Source of estimated sw factor: HOURLY PRODUC Average push distance: Unadjusted hourly production: Materials consistency description: Average push	lume: gell TION : 910	Cat Handbook ) feet ).5 LCY/hr Consolidated stor			
Source of estimated vo Source of estimated sw factor: HOURLY PRODUC Average push distance: Unadjusted hourly production: Materials consistency description: Average push gradient:	lume: 7 rell 0 TION : 150 910 	Cat Handbook ) feet ).5 LCY/hr Consolidated stor			

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.600	(FND-SF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:	306.75 LCY/hr		
Adjusted fleet	<b>613.5</b> LCY/hr		
production:	013.5 LC 1/m		

Fleet size:	2 Dozer(s)
Unit cost:	\$0.921/LCY

Total job time:	<b>1.65</b> Hours
Total job cost:	<b>\$932</b>

# TRUCK/LOADER TEAM WORK

Task description	Replace	e Topsoil from S	tockpile BA#3 to	) E-3		
Site: Lorencito Ca	nyon Mine	Permit Ac	tion: MT5		Permit/Job#	#: <u>C1996084</u>
PROJECT IDE	NTIFICATION					
Task #: 03	0	State: Color	ado	Abb	previation:	None
		County: Las A	nimas		Filename:	C1996084
User: DC	21					
Agency	or organization nar	ne: DRMS				
HOURLY EQU	IPMENT COST	<u>[</u>		Shift ba	sis: <u>1 per day</u>	
			Equipment Descr	iption		
	Truck Loader Tea		: 773F	-		
			T 990H high lift			
Sup	port Equipment -L		<u>D9T - 9SU</u>			
Road	Di- Maintenance – Moto		2 D9T - 9SU T 14M			
Koau			ter Tanker, 5,000	Gal		
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	tor rruch. , , u		Out		
Cost Breakdown	: Truck/Loa	der Team	Support	Equipment	Main	tenance Equipment
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine	: 100	100	50	100	2	25 25
Ownership cost/hour	: \$105.90	\$141.85	\$121.49	\$121.49	\$64.1	10 \$27.40
Operating cost/hour	: \$93.41	\$135.12	\$52.92	\$105.84	\$14.0	04 \$10.00
%Utilization-riper	: NA	0	50	0	N	A NA
Ripper own cost/hour		\$0.00	\$13.94	\$13.94	\$0.0	00 \$0.00
Ripper op. cost/hour	: NA	\$0.00	\$4.48	\$0.00	\$0.0	00 \$0.00
Operator cost/hour	: \$33.29	\$40.65	\$41.24	\$41.24	\$28.5	52 \$21.09
Unit Subtotals	: \$232.60	\$317.62	\$220.13	\$268.57	\$106.6	56 \$58.49
Number of Units	: 3	1	1	1		1 1
Group Subtotals	: Work:	\$1,015.42	Support:	\$488.70	Mair	nt: \$165.15

Total work team cost/hour: <u>\$1,669.27</u>

# **MATERIAL QUANTITIES**

900	CCY	Swell factor:	1.125	
1,013	LCY			
e of estimated volume:	Table 2.05.4-	-1f		
Source of estimated swell factor:		ok		
Material Purchase Cost:				
Total Cost:	\$0.00			
	1,013 e of estimated volume: estimated swell factor: Material Purchase Cost:	1,013LCYe of estimated volume: estimated swell factor:Table 2.05.4Cat Handboo \$0.00Cat Handboo \$0.00	1,013LCYe of estimated volume: estimated swell factor: Material Purchase Cost:Table 2.05.4-1f Cat Handbook \$0.00	1,013     LCY       e of estimated volume:     Table 2.05.4-1f       estimated swell factor:     Cat Handbook       Material Purchase Cost:     \$0.00

# HOURLY PRODUCTION

<u>Fruck Payload (weight) Basi</u> Material weight:		Da	ounds/LCY		
Description:	2,550 Earth - Dry packed 122,520		Julius/LC I		
Rated Payload:			ounds		
Payload Capacity:	48.05		CY		
Tayload Capacity.	40.03	K	<i>2</i> 1		
Truck Bed (volume) Basis:					
Struck Volume:	35.00	LCY			
Heaped Volume:	46.50	LCY			
Average Volume:	40.75	LCY			
Adjusted Volume:	46.50	LCY			
Final	Truck Volume	Based on Number	r of Loader Passes:	39.38	LCY
Loading Tool Capacity					
				ket Size Class: <u>N</u>	Α
Rated Capacity:	11.250	LCY (heape		RE 000() 0.077	
Bucket Fill Factor:	0.875		rial - 1" and over (	85 - 90%) 0.875	
Adjusted Capacity:	9.844	LCY			
Job Condition Corrections	<u>:</u>		Site Altitude (ft.):	<u>7100</u> feet	
	Truck	Loader	Source	•	
Altitude Adj:	1.000	1.000	(CAT HI	B)	
Job Efficiency:	0.830	0.830	(CAT HI	B)	
Net Correction:	0.830	0.830			
Loading Tool Cycle Time:		Number of Loadin	ng Tool Passes Req	uired to Fill	passes
Excavators and Front Shove				Truck:	4 Pubbeb
Machine Cycle Time v	s. Job Conditio	on Rating: NA			
Selected Value	within this Bas	sic Rating: NA			
Track Loaders –	Material Desc	cription:			
Cycle Time Elements (min.)	:				
Load: NA	1	Maneuver: NA		Dump: 0.100	)
Wheel and Trac	k Loaders - Ui	nadjusted Basic Lo	oader Cycle Time (1	oad, dump,	.600 minutes
			1	maneuver):	
Cycle Time Factors				Factor (min.)	Source
Material:	Mixed mate			0.020	(Cat HB)
Stockpile:	Conveyor o 0.01	or dozer piled 10 ft	t. high or less	0.010	(Cat HB)
Truck Ownership:	Common o 0.04	wnership of trucks	s and loaders -	-0.040	(Cat HB)
Operation:		peration -0.04		-0.040	(Cat HB)
Dump Target:	Nominal ta	-		0.000	(Cat HB)
			Time Adjustment:	-0.050	minutes
			bader Cycle Time: d Time per Truck:	0.550 1.750	_ minutes _ minutes

#### Truck Cycle Time:

Truck Exchange Time:	0.70	Minutes	Adjusted for site altitude:	0.700	Minutes
Truck Load Time:	1.750	Minutes	Adjusted for site altitude:	1.750	Minutes
Truck Maneuver and Dump Time:	1.10	Minutes	Adjusted for site altitude:	1.100	Minutes

Truck Travel (Haul & Return) Time: penetration 5.0

Road Condition: Rutted dirt, little maintenance, no water, 2" tire

Haul Rout		D	$G = 1  (\alpha_1)$	D 11 D	T . 1 D	<b>X</b> X <b>1</b>	Turnel	
Seg #	Haul (Ft)	Distance	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)	
1	2800.	00	-5.00	5.00	0.00	3569	1.108	
Return Ro	uto				Haul Time:	1.108	minute	S
Seg #		Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
505 "	(Ft)	Distance		(%)	(%)	(fpm)	Time (min)	
1	2800.	00	5.00	5.00	10.00	1819	1.621	
				Total Tm	Return Time: ck Cycle Time:	-		
				10tal 11u	ck Cycle Tille.	0.279		68
Loading To Prod ruck Unit Prod	uction	964.29	LCY/Hour		Adjusted for jo	ob efficiency:	800.36	LCY/Hour
luck Ollit Floa		376.25	LCY/Hour		Adjusted for jo	ob efficiency:	312.29	LCY/Hour
otimal No. of T	rucks:	3	Truck(s)		Selected Numb	er of Trucks:	3	Truck(s)
			Adjusted	hourly truck	team productio	n: 936.	87 LCY	/Hour
			Adjusted single		team productio			/Hour
		A	Adjusted single djusted multiple		team productio			/Hour /Hour
<u>JOB TIN</u>	<u>1E ANI</u>				team productio			
JOB TIN Fleet				truck/loader	team productio	n: <b>800.</b>	36 LCY	

Task description:	<b>Replace Topsoil from Upslop</b>	e Area to BA#1		
e: Lorencito Canyon M	ine Permit Action:	MT5	Permit/Jo	b#: <u>C1996084</u>
PROJECT IDENTIFI	<u>CATION</u>			
Task #: $031$ Date: $2/12/2020$	State: <u>Colorado</u> County: Las Animas		Abbreviation: Filename:	None C1996084
User: DC1				
Agency or organ	ization name: DRMS			
HOURLY EQUIPME	NT COST			
	D9T - 9SU			
Horsepower: 405				
• • • • •	ni-Universal			
	hank ripper			
Shift Basis: <u>1 p</u> Data Source: (CF	er day			
<u></u>				
Cost Breakdown:	1	Utilization %		
Ownership Cost/Hour:	\$121.49	NA		
Operating Cost/Hour:	\$105.84	100		
Ripper own. Cost/Hour:	\$13.94	NA		
Ripper op. Cost/Hour:	\$8.96	100		
Operator Cost/Hour:	\$41.24	NA		
MATERIAL QUANT				
Swell factor: 1.25				
Loose volume: 1,35	0 LCY			
Source of estimated volu	Ime: Table 2.05.4-1f			
Source of estimated swe factor:				
HOURLY PRODUCT	ION			
Average push distance:	100 feet			
Unadjusted hourly production:	1,243.2 LCY/hr			
Materials consistency description:	Consolidated stockpi	le 1.0		
Average push gradient:	-5 %			
Average site altitude:	7,100 feet			
Material weight:	2,550 lbs/LCY			
Weight description:	Earth - Dry packed			
-				

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	0.800	(POOR)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.600	(FND-SF)
Push gradient:	1.115	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:	373.58 LCY/hr
Adjusted fleet production:	747.16 LCY/hr

Fleet size:	2 Dozer(s)
Unit cost:	\$0.780/LCY

Total job time:	<b>1.81</b> Hours
Total job cost:	\$1,053

Task description:	Replace Topsoil	from Upslope	Area to BA#2		
e: Lorencito Canyon M	<b>line</b> Pe	rmit Action:	MT5	Permit/Job	o#: C1996084
PROJECT IDENTIF	<b>ICATION</b>				
Task #:         032           Date:         2/12/2020           User:         DC1	State: County:	Colorado Las Animas		Abbreviation: Filename:	None C1996084
Agency or orga	nization name: DF	RMS			
HOURLY EQUIPME	ENT COST				
Horsepower: 40 Blade Type: Se Attachment: 3-s Shift Basis: 1 p	t D9T - 9SU 5 mi-Universal shank ripper per day RG)				
Cost Breakdown:			Utilization 0/		
Ownership Cost/Hour:		\$121.49	<u>Utilization %</u> NA		
Operating Cost/Hour:		\$105.84	100		
Ripper own. Cost/Hour:		\$13.94	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$41.24	NA		
MATERIAL QUANT Initial Volume: 1,22 Swell factor: 1.25	90 50	_			
Loose volume: <b>1,6</b>	13 LCY	_			
Source of estimated vol Source of estimated swe factor:					
HOURLY PRODUCT	<u> TION</u>				
Average push distance: Unadjusted hourly production:	100 feet 1,243.2 LC	Y/hr	_		
Materials consistency description:	Consol	idated stockpile	e 1.0		
Average push gradient:	-5 %				
Average site altitude:	7,100 feet				
Material weight:	2,550 lbs/LCY				
Weight description:	Earth - Dry packe	d			

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.600	(FND-SF)
Push gradient:	1.115	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)
		· · ·

Adjusted unit production:	466.95 LCY/hr
Adjusted fleet production:	933.9 LCY/hr

Fleet size:	2 Dozer(s)	
Unit cost:	\$0.605/LCY	_

Total job time:	1.73 Hours
Total job cost:	\$976

Task description:	Replace Topsoil	from Upslope	e Area to BA#3		
e: Lorencito Canyon M	<b>line</b> Pe	rmit Action:	MT5	Permit/Job	o#: <u>C1996084</u>
PROJECT IDENTIF	<b>ICATION</b>				
Task #:         033           Date:         2/12/2020           User:         DC1	State: County:	Colorado Las Animas		Abbreviation: Filename:	None C1996084
Agency or organ	nization name: DF	RMS			
HOURLY EQUIPME	<u>ENT COST</u>				
Horsepower: 40. Blade Type: Ser Attachment: 3-s Shift Basis: 1 p	t D9T - 9SU 5 mi-Universal shank ripper ber day RG)				
Cost Breakdown:	,		Utilization %		
Ownership Cost/Hour:		\$121.49	<u>Utilization %</u> NA		
Operating Cost/Hour:		\$105.84	100		
Ripper own. Cost/Hour:		\$13.94	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$41.24	NA		
MATERIAL QUANT Initial Volume: 2,90 Swell factor: 1.25	00	_			
Loose volume: <b>3,6</b> 2	25 LCY	_			
Source of estimated vol Source of estimated swe factor:					
HOURLY PRODUCT	<u> TION</u>				
Average push distance: Unadjusted hourly production:	100 feet 1,243.2 LC	Y/hr			
Materials consistency description:	Consol	idated stockpil	le 1.0		
Average push gradient:	-5 %				
Average site altitude:	7,100 feet				
Material weight:	2,550 lbs/LCY				
Weight description:	Earth - Dry packe	d			

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.600	(FND-SF)
Push gradient:	1.115	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:	560.43 LCY/hr
Adjusted fleet production:	1120.86 LCY/hr

Fleet size:	2 Dozer(s)
Unit cost:	\$0.504/LCY

Total job time:	<b>3.23</b> Hours
Total job cost:	\$1,827

Task description:	Remove Topsoil	from Knob Abo	ove Cut		
e: Lorencito Canyon M	ine Pe	rmit Action: <u>M</u>	Τ5	Permit/Jo	b#: <u>C1996084</u>
PROJECT IDENTIFI	CATION				
Task #:     034       Date:     2/12/2020       User:     DC1	State: County:	Colorado Las Animas		Abbreviation: Filename:	None C1996084
Agency or organ	ization name:	RMS			
HOURLY EQUIPME	NT COST				
Horsepower: 405 Blade Type: Sen Attachment: 3-sl	ni-Universal nank ripper er day				
Cost Breakdown:	,		Litilization 0/		
Ownership Cost/Hour:		\$121.49	<u>Utilization %</u> NA		
Operating Cost/Hour:		\$105.84	100		
Ripper own. Cost/Hour:		\$13.94	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$41.24	NA		
Total Fleet Cost/Hour: <u>MATERIAL QUANT</u> Initial Volume: 5,91 Swell factor: 1.25 Loose volume: 7,39	6				
Source of estimated volu Source of estimated swe factor:					
HOURLY PRODUCT	ION				
Average push distance: Unadjusted hourly production:	300 feet 437.8 LCY	'nr			
Materials consistency description:	Consol	idated stockpile 1	.0		
Average push gradient: Average site altitude:	0 %				
Average site attitude: Material weight:	2,550 lbs/LCY				
wateriai weigint.	2,330 108/ LC I				
Weight description:	Earth - Dry packe	d			

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.600	(FND-SF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)
		· ·

 Net correction:
 0.3369

 Adjusted unit
 147.49 LCY/hr

 production:
 294.98 LCY/hr

Fleet size:	2 Dozer(s)
Unit cost:	\$1.915/LCY

Total job time:	<b>25.07</b> Hours
Total job cost:	\$14,164

# BOREHOLE SEALING WORK

	Task desc	ription:	Plug and Seal	l Drill Hole a	nd Monitor	ing Wells		
Site:	Lorencito	o Canyon Mine	Pe	ermit Action:	MT5	]	Permit/Job#:	C1996084
	Task	<b>T IDENTIFIC</b> 040	EATION State:	Colorado		Abbreviation:	None	
	#: Date: User:	2/12/2020 DC1	County:	Las Animas	8	Filename:	C1996084	
	-	DCI Agency or organiz	 zation name:	DRMS				

# <u>UNIT COSTS</u>

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Plug and Seal 8" Holes (1)	Portland cement grout ( Bag, material cost only94 lb. bag)	8"	25	4.30	bag	\$13.40	\$57.62
Borehole Plug	PVC plug - 8 in. diameter borehole	8"	NA	1.00	EA	\$80.77	\$80.77
Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	1.00	EA	\$32.00	\$32.00
Drill Rig and Labor	SCHRAMM T145EX	NA	NA	1.00	EA	\$378.69	\$378.69
Water Truck	Water Tanker, 2,500 Gal.	NA	NA	1.00	EA	\$27.02	\$27.02
Plug and Seal 6" Holes (9)	Portland cement grout ( Bag, material cost only94 lb. bag)	6"	209	20.00	bag	\$13.40	\$268.00
Borehole Plug	PVC plug - 6 in. diameter borehole	6"	NA	9.00	EA	\$58.97	\$530.70
Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	9.00	EA	\$32.00	\$288.00
Drill Rig and Labor	SCHRAMM T145EX	NA	NA	9.00	EA	\$378.69	\$3,408.21
Water Truck	Water Tanker, 2,500 Gal.	NA	NA	9.00	EA	\$27.02	\$243.18
Seal All 4" Holes (17)	Portland cement grout ( Bag, material cost only94 lb. bag)	4"	4231	184.00	bag	\$13.40	\$2,465.60
Borehole Plug	PVC plug - 4 in. diameter borehole	4"	NA	17.00	EA	\$32.62	\$554.53
Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	17.00	EA	\$32.00	\$544.00
Drill Rig and Labor	SCHRAMM T145EX	NA	NA	17.00	EA	\$378.69	\$6,437.73
Water Truck	Water Tanker, 2,500 Gal.	NA	NA	17.00	EA	\$27.02	\$459.34

Plug and Seal 8" Holes (1)	Portland cement grout ( Bag, material	8"	25	4.30	bag	\$13.40	\$57.62
	cost only94 lb. bag)						
Borehole	PVC plug - 8 in.	8"	NA	1.00	EA	\$80.77	\$80.77
Plug	diameter borehole						
Borehole	Borehole	NA	NA	1.00	EA	\$32.00	\$32.00
Marker	location/identification						
	marker (EA, material						
	cost only)						
Drill Rig and	SCHRAMM T145EX	NA	NA	1.00	EA	\$378.69	\$378.69
Labor							
Water Truck	Water Tanker, 2,500	NA	NA	1.00	EA	\$27.02	\$27.02
	Gal.						
Plug and Seal	Portland cement	6"	209	20.00	bag	\$13.40	\$268.00
6" Holes (9)	grout (Bag, material						
	cost only94 lb. bag)						
Borehole	PVC plug - 6 in.	6"	NA	9.00	EA	\$58.97	\$530.70
Plug	diameter borehole						
Borehole	Borehole	NA	NA	9.00	EA	\$32.00	\$288.00
Marker	location/identification						
	marker (EA, material						
	cost only)	N7.4		0.00		¢270.00	<b>\$2,400,21</b>
Drill Rig and	SCHRAMM T145EX	NA	NA	9.00	EA	\$378.69	\$3,408.21
Labor	W. T. 1. 0.500	NT A	NT A	0.00		¢27.02	¢2.42.10
Water Truck	Water Tanker, 2,500	NA	NA	9.00	EA	\$27.02	\$243.18
Seal All 4"	Gal. Portland cement	4"	4231	184.00	1	¢12.40	¢2 465 60
		4	4231	184.00	bag	\$13.40	\$2,465.60
Holes (17)	grout (Bag, material						
Borehole	cost only94 lb. bag) PVC plug - 4 in.	4"	NA	17.00	EA	\$32.62	\$554.53
	diameter borehole	4	NA	17.00	EA	\$32.02	\$334.33
Plug Borehole	Borehole	NA	NA	17.00	EA	\$32.00	\$544.00
Marker	location/identification	INA	INA	17.00	EA	φ32.00	φ <b>J</b> 44.00
IVIAI KCI	marker (EA, material						
	cost only)						
Drill Rig and	SCHRAMM T145EX	NA	NA	17.00	EA	\$378.69	\$6,437.73
Labor		1111	11/1	17.00		ψ570.07	ψυ,τυ1.10
Water Truck	Water Tanker, 2,500	NA	NA	17.00	EA	\$27.02	\$459.34
, and Huon	Gal.		11/1	17.00		<i>\\_\.\\\_</i>	φ.09.01

Job Hours: 27.00

Total Cost: \$31,551.00

# **REVEGETATION WORK**

Ta	ask descrip	otion:	Broadcast Seeding Mine Site		
Site: _	Lorencito	o Canyon Mi	ne Permit Action: MT5	Permit/Jo	b#: C1996084
PR	ROJECT	IDENTIFIC	CATION		
	Task #: Date: User:	050 2/13/2020 DC1	State:     Colorado       County:     Las Animas	Abbreviation: Filename:	None C19960084
		ency or organi	zation name: DRMS		

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
10-34-0, 18-46-0, 5-10-5	250.00	pound	\$0.34	\$85.00
			Total Fertilizer Materials	
			Cost/Acre	\$85.00

#### Application

Description		Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)		\$36.15
Tota	l Fertilizer Application Cost/Acre	\$36.15

# TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$101.93
Total Tilling Cost/Acre	\$101.93

# **SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Switchgrass - Blackwell	0.96	8.57	\$11.04
Blue Grama - Native	0.40	6.53	\$5.49
Little Bluestem - Native	0.56	3.34	\$7.60
Sideoats Grama - Butte	0.64	2.10	\$5.76
Orchardgrass - Shawnee	1.50	18.60	\$4.65
Alfalfa - Ranger (inoculated)	1.60	7.71	\$4.08
Sheep Fescue - Covar	0.48	7.49	\$2.93
Milk Vetch, Cicer - Monarch	1.50	4.99	\$12.30
Mahogany, Mountain	1.20	1.63	\$44.17
Western Wheatgrass - Arriba	6.00	15.15	\$39.00
Needlegrass, Green - Lodorm	2.00	8.31	\$23.55
Saltbush, Four Wing	0.80	1.10	\$10.00
Winter Fat	1.60	4.08	\$32.80
Penstemon, Rocky Mountain	0.50	7.84	\$14.75
Totals Seed Mix	19.74	97.44	\$218.11

# Application

Description		Cost /Acre
Broadcast seeding [DMG]		\$267.22
	<b>Total Seed Application Cost/Acre</b>	\$267.22

# **MULCHING and MISCELLANEOUS**

# Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$295.00	\$590.00
Total Mulch Materials Cost/Acre				\$590.00

#### **Application**

Description	Cost /Acre
Description	

Crimping, with tractor {DMG survey data}		\$70.17
Power mulcher (MEANS 32 91 13.16 0350)		\$95.83
	<b>Total Mulch Application Cost/Acre</b>	\$166.00

# NURSERY STOCK PLANTING

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

	No. of Acres:	84	Cost /Acre:	\$1,464.41	
Estimate	ed Failure Rate:	50%	Cost /Acre*:	\$1,464.41	
*Selected Replanti	*Selected Replanting Work Items:		FERTILIZING,TILLING,SEEDING,MU		
		LCHING			
Initial Job Cost:	\$123,010.44				
Reseeding Job Cost:	\$61,505.22				
Total Job Cost:					
Job Hours:	126.00				

# **REVEGETATION WORK**

Т	ask descrip	otion:	Hydroseeding Steep Slopes	at Mine Site				
Site: Lorencito Canyon Mine		o Canyon Min	Permit Action:	MT5	Permit/Jo	b#: <u>C1996084</u>		
<u>PF</u>	<u>ROJECT</u>	<u>IDENTIFIC</u>	ATION					
	Task #:	051	State: Colorado		Abbreviation:	None		
	Date:	2/13/2020	County: Las Anima	S	Filename:	C1996084		
	User:	DC1						
	Age	ency or organiz	ation name: DRMS					
<b>FERTILIZING</b>								

#### Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
10-34-0, 18-46-0, 5-10-5	250.00	pound	\$0.34	\$85.00
			Total Fertilizer Materials	
			Cost/Acre	\$85.00

#### Application

Description		Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)		\$36.15
	Total Fertilizer Application Cost/Acre	\$36.15

# TILLING

Description	Cost /Acre
	\$
Total Tilling Cost/Acre	\$0.00

# **SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Switchgrass - Blackwell	0.96	8.57	\$11.04
Blue Grama - Native	0.40	6.53	\$5.49
Little Bluestem - Native	0.56	3.34	\$7.60
Sideoats Grama - Butte	0.64	2.10	\$5.76
Orchardgrass - Shawnee	1.50	18.60	\$4.65
Alfalfa - Ranger (inoculated)	1.60	7.71	\$4.08
Sheep Fescue - Covar	0.48	7.49	\$2.93
Milk Vetch, Cicer - Monarch	1.50	4.99	\$12.30
Mahogany, Mountain	1.20	1.63	\$44.17
Western Wheatgrass - Arriba	6.00	15.15	\$39.00
Needlegrass, Green - Lodorm	2.00	8.31	\$23.55
Saltbush, Four Wing	0.80	1.10	\$10.00
Winter Fat	1.60	4.08	\$32.80
Penstemon, Rocky Mountain	0.50	7.84	\$14.75
Totals Seed Mix	19.74	97.44	\$218.11

#### Application

Description		Cost /Acre
Hydro seeding (MEANS 32 92 19.14 0200)		\$947.43
	Total Seed Application Cost/Acre	\$947.43

# **MULCHING and MISCELLANEOUS**

#### Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Hydromulch tackifier, >15 ac. {Materials Only}	1.00	ACRE	\$453.02	\$453.02
Hydromulch, 1 ton/ac. rate {Materials Only}	1.00	ACRE	\$453.02	\$453.02
Total Mulch Materials Cost/Acre				\$906.05

## Application

Description		Cost /Acre
NA-mulch application incl. with hydroseeding		\$0.00
	<b>Total Mulch Application Cost/Acre</b>	\$0.00

# NURSERY STOCK PLANTING

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

# JOB TIME AND COST

	No. of Acres:	18	Cost /Acre:	\$2,192.74
Estimate	ed Failure Rate:	50%	Cost /Acre*:	\$2,192.74
*Selected Replanting	ng Work Items:	FERTILIZING,SE	EDING, MULCHING	
Initial Job Cost:	\$39,469.32			
Reseeding Job Cost:	\$19,734.66			
<b>T</b> 1110				

 Total Job Cost:
 \$59,204

 Job Hours:
 16.00

## **REVEGETATION WORK**

Та	ask descrip	otion:	Fertilize Mine Site During Year	2		
Site:	Lorencito	o Canyon Min	e Permit Action: M	Г5	Permit/Jo	b#: <u>C1996084</u>
<u>PR</u>	ROJECT	<b>IDENTIFIC</b>	ATION			
	Task #: Date: User:	052 2/13/2020 DC1	State:     Colorado       County:     Las Animas		Abbreviation: Filename:	None C1996084
	Age	ency or organiz	ation name: DRMS			
FE	RTILIZ	ING				
Ma	aterials					

	Units /	<b>T</b> T •4	Cost / Unit	Cost /Acre
Description	Acre	Unit		
10-34-0, 18-46-0, 5-10-5	250.00	pound	\$0.34	\$85.00
			<b>Total Fertilizer</b>	
			Materials	
			Cost/Acre	\$85.00

## Application

Description		Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)		\$36.15
	<b>Total Fertilizer Application Cost/Acre</b>	\$36.15

# TILLING

Description	Cost /Acre
	\$
Total Tilling Cost/Acre	\$0.00

# **SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
			\$
Totals Seed Mix	0.00	0.00	\$0.00

#### **Application**

Description	Cost /Acre
	\$
Total Seed Application Cost/Acre	\$0.00

# **MULCHING and MISCELLANEOUS**

#### Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

**Application** 

Description		Cost /Acre
		\$
	Total Mulch Application Cost/Acre	\$0.00

# NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$

Totals Nursery Stock Cost / Acre\$0.00

#### JOB TIME AND COST

No. of Acres:	84	Cost /Acre:	\$121.15
Estimated Failure Rate:	0%	Cost /Acre*:	\$121.15
*Selected Replanting Work Items:	FERTILIZING		
Initial Job Cost: <b>\$10,176.60</b> Reseeding Job Cost: <b>\$0.00</b>			

 Store
 Store

 Total Job Cost:
 \$10,177

 Job Hours:
 84.00

## **REVEGETATION WORK**

			tilize Mine Site During Year 3	ription: Fei	Task descrip
34	o#: <u>C1996084</u>	Permit/Job	Permit Action: MT5	ito Canyon Mine	: Lorencito
			<u>ON</u>	<u>T IDENTIFICATI</u>	PROJECT
	None C1996084	Abbreviation: Filename:	State:ColoradoCounty:Las Animas	: 2/13/2020	Task #: Date: User:
			name: DRMS	gency or organization	Age
			n name: DRMS		-
			County: Las Animas	2/13/2020 DC1 gency or organization	Date: User:

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
10-34-0, 18-46-0, 5-10-5	250.00	pound	\$0.34	\$85.00
			Total Fertilizer Materials	
			Cost/Acre	\$85.00

## Application

Description		Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)		\$36.15
	<b>Total Fertilizer Application Cost/Acre</b>	\$36.15

# TILLING

Description	Cost /Acre
	\$
Total Tilling Cost/Acre	\$0.00

# **SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
			\$
Totals Seed Mix	0.00	0.00	\$0.00

#### **Application**

Description	Cost /Acre
	\$
Total Seed Application Cost/Ac	re \$0.00

# **MULCHING and MISCELLANEOUS**

#### Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

**Application** 

Description		Cost /Acre
		\$
	Total Mulch Application Cost/Acre	\$0.00

# NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$

Totals Nursery Stock Cost / Acre\$0.00

#### JOB TIME AND COST

No. of Acres:	84	Cost /Acre:	\$121.15
Estimated Failure Rate:	0%	Cost /Acre*:	\$121.15
*Selected Replanting Work Items:	FERTILIZING	·	· · · · · · · · · · · · · · · · · · ·
Initial Job Cost: \$10,176.60 Reseeding Job Cost: \$0.00			

 Store
 Store

 Total Job Cost:
 \$10,177

 Job Hours:
 84.00

## **REVEGETATION WORK**

a. <b>.</b>				
Site: L	Lorencito Canyon Mi	ine Permit Action: MT5	Permit/Jo	b#: C1996084
<u>PRC</u>	<u>) DJECT IDENTIFI(</u>	CATION		
]	Task #:     054       Date: $2/13/2020$	State:       Colorado         County:       Las Animas	Abbreviation: Filename:	None C1996084
	User: DC1 Agency or organ	 ization name: DRMS		

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
10-34-0, 18-46-0, 5-10-5	250.00	pound	\$0.34	\$85.00
			Total Fertilizer Materials Cost/Acre	\$85.00

#### Application

Description		Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)		\$36.15
	Total Fertilizer Application Cost/Acre	\$36.15

# TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$101.93
Total Tilling Cost/Acre	\$101.93

## **SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Switchgrass - Blackwell	0.96	8.57	\$11.04
Blue Grama - Native	0.40	6.53	\$5.49
Little Bluestem - Native	0.56	3.34	\$7.60
Sideoats Grama - Butte	0.64	2.10	\$5.76
Orchardgrass - Shawnee	1.50	18.60	\$4.65
Alfalfa - Ranger (inoculated)	1.60	7.71	\$4.08
Sheep Fescue - Covar	0.48	7.49	\$2.93
Milk Vetch, Cicer - Monarch	1.50	4.99	\$12.30
Mahogany, Mountain	1.20	1.63	\$44.17
Western Wheatgrass - Arriba	6.00	15.15	\$39.00
Needlegrass, Green - Lodorm	2.00	8.31	\$23.55
Saltbush, Four Wing	0.80	1.10	\$10.00
Winter Fat	1.60	4.08	\$32.80
Penstemon, Rocky Mountain	0.50	7.84	\$14.75
Totals Seed Mix	19.74	97.44	\$218.11

## Application

Description		Cost /Acre
Broadcast seeding [DMG]		\$267.22
	Total Seed Application Cost/Acre	\$267.22

# **MULCHING and MISCELLANEOUS**

# Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$295.00	\$590.00
Total Mulch Materials Cost/Acre				\$590.00

#### **Application**

Description	Cost /Acre
Description	

Crimping, with tractor {DMG survey data}		\$70.17
Power mulcher (MEANS 32 91 13.16 0350)		\$95.83
	<b>Total Mulch Application Cost/Acre</b>	\$166.00

## NURSERY STOCK PLANTING

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

# JOB TIME AND COST

	No. of Acres:	2.7	Cost /Acre:	\$1,464.41
Estimate	ed Failure Rate:	50%	Cost /Acre*:	\$1,464.41
*Selected Replanti	ng Work Items:	FERTILIZING,TI	LLING,SEEDING,MU	
		LCHING		
Initial Job Cost:	\$3,953.91			
Reseeding Job Cost:	\$1,976.95			
Total Job Cost:	\$5,931			
Job Hours:	4.05			

## **REVEGETATION WORK**

ROJECT	IDENTIFICAT	TION			
Task #:	055	State:	Colorado	Abbreviation:	None
Date:	2/13/2020	County:	Las Animas	Filename:	C1996084
User:	DC1				

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

# <u>TILLING</u>

Description	Cost /Acre
	\$
Total Tilling Cost/Acre	\$0.00

# **SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Bitterbrush, Antelope	0.50	0.15	\$9.75
Mahogany, Mountain	0.50	0.68	\$18.40
Rose, Wood's	2.00	0.00	\$41.00
Saltbush, Four Wing	1.00	1.38	\$12.50
Sumac, Skunkbrush	1.00	0.47	\$21.00
Winter Fat	0.50	1.27	\$10.25
Totals Seed Mix	5.50	3.95	\$112.90

#### Application

Description	Cost /Acre
	\$
Total Seed Application Cost/Acre	\$0.00

# **MULCHING and MISCELLANEOUS**

#### Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
Total Mulch Materials Cost/Acre				\$0.00

#### **Application**

Description	Cost /Acre
	\$
Total Mulch Application Cos	t/Acre \$0.00

# NURSERY STOCK PLANTING

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

# JOB TIME AND COST

No. of Acres:	4.5	Cost /Acre:	\$112.90
Estimated Failure Rate:	50%	Cost /Acre*:	\$112.90
*Selected Replanting Work Items:	SEEDING		
Initial Job Cost: \$508.05			

Reseeding Job Cost:	\$254.03
Total Job Cost:	\$762
Job Hours:	9.00

# TRUCK/LOADER TEAM WORK

Task description:	Clean S	ediment Po	nds a	at Mine Site				
Site:   Lorencito Canyon Mine   Permit Action:   MT5						Permit/Job#: C1996084		
PROJECT IDENT	<b><u><b>FIFICATION</b></u></b>							
Task #: 060		State: C	olora	ado	Abb	previation:	No	ne
Date: 2/13/2	2020	County: L	as A	nimas		Filename:	C19	996084
User: DC1								
Agency or o	organization nan	ne: DRMS	S					
	MENT COST	T			C1:6 L			
HOURLY EQUIP	TWIENT COST	<u> </u>	_			sis: <u>1 per da</u>	<u>ay</u>	
	1 I	<b>T</b> 1		Equipment Descr				
11	ruck Loader Tear	-Loader:		neric 10-12 cy, 6x 324D L 9'-8" St				
Suppo	rt Equipment -L		NA	<u>524DL 9-8 50</u>	ICK			
		imp Area:		D8T - 8SU				
Road Ma	intenance – Moto	or Grader:	NA					
	-Wa	ter Truck:	NA					
	Truck/Loa	1		Course out	E	Ma		
<u>Cost Breakdown</u> :	Truck/Loa	Excavator		Load Area	Equipment Dump Area	Motor	mena	ance Equipment Water Truck
	THER	Excuvator		Loud Med	Dump / neu	Grader		
%Utilization-machine:	100	1	100	NA	100		NA	NA
Ownership cost/hour:	\$19.51	\$46	.78	NA	\$103.86		NA	NA
Operating cost/hour:	\$46.51	\$49	.99	NA	\$82.26		NA	NA
%Utilization-riper:	NA		0	NA	NA		NA	NA
Ripper own. cost/hour:	NA	\$0	.00	NA	\$0.00		NA	NA
Ripper op. cost/hour:	NA	\$0	.00	NA	\$0.00		NA	NA
Operator cost/hour:	\$0.00	\$37	.27	NA	\$41.24		NA	NA
Unit Subtotals:	\$66.02	\$134	03	NA	\$227.36		NA	NA

Total work team cost/hour: <u>\$625.47</u>

4

\$398.11

Work:

## **MATERIAL QUANTITIES**

Number of Units:

Group Subtotals:

Initial volume:	21,780	CCY	Swell factor:	1.270	
Loose volume:	27,661	LCY			
Source	e of estimated volume:	Operator E	stimate		
Source of	estimated swell factor:	Cat Handbo	ook		
Ν	Aaterial Purchase Cost:	\$0.00			
	Total Cost:	\$0.00			

1

0

\$227.36

Support:

1

0

\$0.00

Maint:

0

# HOURLY PRODUCTION

<u>Truck Capacity:</u> Truck Payload (weight) Basis:						
Material weight:	2,700	Poun	ds/LCY			l
Description:	Earth - Wet exc					
Rated Payload:	35,400	Pound				
Payload Capacity:	13.11	LCY				
Truck Bed (volume) Basis:						
Struck Volume:	10.00	LCY				I
Heaped Volume:	12.00	LCY				
Average Volume:	11.00	LCY				
Adjusted Volume: _	12.00	LCY				
	Final Truck Vo	olume Based on Numbe	er of Loader Passes:	11.87	LCY	
Loading Tool Capacity			_			!
	2 2 4 0	1)	Bu	ucket Size Class:	Medium	- !
Rated Capacity:	2.260	LCY (heaped)	1/20 - 2/40 (95 0)			. <b>!</b>
Bucket Fill Factor: Adjusted Capacity:	0.875 <b>1.978</b>	Loose material - LCY	- 1/2" to 3/4" (85 - 90	)%) 0.875		· /
Aujusitu Japainy.	1.7/0					!
Job Condition Corrections:			ude (ft.): <u>7100</u> feet			
	Truck	Loader	Source			1
Altitude Adj:	1.000	1.000	(CAT HB)			I
Job Efficiency:	0.830	0.830	(CAT HB)			l
Net Correction:	0.830	0.830				
Loading Tool Cycle Time:		Number of Loading	g Tool Passes Require	red to Fill Truck:	6	passes
Excavators and Front Shovels:						ļ
Machine Cycle Tir Selected Va	me vs. Job Condit alue within this Ba					
	ers – Material Des	<u> </u>				I
Cycle Time Elements (min.):						
Load: NA		Maneuver: NA		Dump: 0.100	0	
		isted Basic Loader Cycl	e Time (load, dump.		NA minute	tes
Cycle Time Factors				Factor (min.)	Source (Cat HB)	_
Material: Stocknile:				NA NA	(Cat HB)	_
Stockpile: Truck Ownership:				NA NA	(Cat HB) (Cat HB)	_
Operation:				NA NA	(Cat HB)	_
Dump Target:				NA	(Cat HB)	_
	1		Time Adjustment:	NA	minutes	-
			oader Cycle Time:	0.403	minutes	
		Net Loa	ad Time per Truck:	2.115	minutes	
<u>Truck Cycle Time:</u>						
Truck Exchange Tir			A 1	ted for site altitude:	0.500	Minute
	me: 0.50	Minutes	Adjus	ted for site attitude.	0.500	1.111000

Truck Maneuver and Dump Time: 0.90

0 Minutes

Adjusted for site altitude:

0.900

Minute

Truck Travel (Haul & Return) Time:

Road Condition: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0

Haul Route:								
Seg #	Haul Di	stance (Ft)	Grade (%)	Roll. Res	Total Res	Velocity	Travel Time	
				(%)	(%)	(fpm)	(min)	
1	5000.00		5.00	5.00	10.00	1068	4.695	
Return Rout	0.			Н	aul Time:	4.695	minutes	
Seg #		stance (Ft)	Grade (%)	Roll. Res	Total Res (%)	Velocity (fpm)	Travel Time (min)	
1	5000.00		-5.00	5.00	0.00	2938	1.727	
					Return Time:	1.727	minutes	
				Total Truc	k Cycle Time:	9.937	minutes	
Loading To	ool unit							
	duction	272.24	LCY/Hour		Adjusted f	or job efficiency:	225.96	LCY/Hour
ick Unit Prod	duction	71.64	LCY/Hour		Adjusted f	for job efficiency:	59.46	LCY/Hour
imal No. of T	Frucks:	4	Truck(s)		Selected N	umber of Trucks:	4	Truck(s)
			Adj	usted hourly tr	uck team product	ion: 237.	85 LC	Y/Hour
					ader team product		96 LC	Y/Hour
			Adjusted mu	ltiple truck/loa	ader team product	ion: 225.	96 LC	Y/Hour
JOB TIMI	E AND C	<u>OST</u>						
Fleet	t size:	1	Team(s)		Total job time:	122.4	1 <u>2</u> H	Iours
Unit	t cost:	\$2.768	/LCY		Total job cost:	\$76,50	67	

## SITE MAINTENANCE

	Task description:	Site Maintenance							
Site:	Lorencito Canyon Mine	Permit Action:	MT5	Permit	/Job#: <u>C1996084</u>				
<u>PROJE</u>	CT IDENTIFICATION	<u>1</u>							
Task	#: 061	State: Colorado		Abbreviation:	None				
Dat	e: 2/13/2020	County: Las Animas		Filename:	C1996084				
Use	er: DC1								
Agency or organization name: DRMS									
UNIT C	<u>OSTS</u>								

Maintenance Item	Hours per Year	Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Miscellaneous	40.00	Cat D3K LGP - 3P	400.00	EA	\$90.65	\$36,260.00
Maintenance						
Road and Ditch	24.00	CAT 14M	240.00	EA	\$148.79	\$35,709.60
Maintenance						
Miscellaneous	40.00	Cat 315D L 8'-6"	400.00	EA	\$102.39	\$40,956.00
Maintenance		Stick				

Job Hours: 40.00

Total Cost: \$112,925.60

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#### EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: Me	bilize/Demobiliz	e for Initial Reclar	nation	
e: Lorencito Canyon Mine	Permi	t Action: MT5	Perm	it/Job#: <u>C1996084</u>
PROJECT IDENTIFICAT	<u>ION</u>			
Task #:     070       Date:     2/13/2020       User:     DC1		olorado as Animas	Abbreviation Filenan	
Agency or organizatio	n name: DRMS	5		
EQUIPMENT TRANSPOR	<u>T RIG COST</u>			
			Shift basis:	1 per day
			Cost Data Source:	CRG Data
Truck Tractor Desc	ription: GENE		AY TRUCK TRACTOR, 6 400 HP (2ND HALF, 2006	
Truck Trailer Desc	ription: C	<b>GENERIC FOLDIN</b>	G GOOSENECK, DROP I AILER (25T, 50T, AND 10	DECK EQUIPMENT
			HEER (201, 501, 11) D 10	,01)
<u>Cost Breakdown:</u>				
Cost Breakdown: Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons	
	<b>0-25 Tons</b> \$17.20			
Available Rig Capacities		26-50 Tons	51+ Tons	
Available Rig Capacities Ownership Cost/Hour:	\$17.20	<b>26-50 Tons</b> \$29.63	<b>51+ Tons</b> \$38.69	
Available Rig Capacities Ownership Cost/Hour: Operating Cost/Hour:	\$17.20 \$26.56	<b>26-50 Tons</b> \$29.63 \$47.02	<b>51+ Tons</b> \$38.69 \$55.69	

## **NON ROADABLE EQUIPMENT:**

Machine	Weight/	Owner ship	Haul Rig	Fleet	Haul Trip	Return Trip	DOT Permit
Description	Unit	Cost/hr/ unit	Cost/hr/unit	Size	Cost/hr/	Cost/hr/ fleet	Cost/ fleet
-	(TONS)				fleet		
Cat D9T - 9SU	60.01	\$121.49	\$141.54	4	\$1,052.12	\$566.16	\$1,000.00
Cat 773F	49.74	\$105.90	\$123.81	4	\$918.84	\$495.24	\$1,000.00
Cat 336D L 10'-	32.23	\$55.49	\$123.81	1	\$179.30	\$123.81	\$250.00
6" Stick							
CAT 14M	23.57	\$64.10	\$67.39	1	\$131.49	\$67.39	\$250.00
Water Tanker,	15.00	\$27.40	\$67.39	1	\$94.79	\$67.39	\$250.00
5,000 Gal.							
CAT 990H high	83.34	\$141.85	\$141.54	1	\$283.39	\$141.54	\$250.00
lift							
SCHRAMM	0.00	\$173.39	\$67.39	1	\$240.78	\$67.39	\$250.00
T145EX							
Drill/Broadcast	25.00	\$18.15	\$67.39	1	\$85.54	\$67.39	\$250.00
Seeder with							
Tractor							
Power Mulcher	6.00	\$9.74	\$67.39	1	\$77.13	\$67.39	\$250.00
(Bowie LD-90)							
Hydroseeder with	28.00	\$23.59	\$123.81	1	\$147.40	\$123.81	\$250.00
Tractor							

Subtotals: \$3,210.78 \$1,787.51

87.51 \$4,000.00

## **ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Fuel Tanker, 6x4, 210 HP	\$42.46	1	\$42.46	\$42.46
Lube Truck, 6x4, 250 HP	\$50.41	1	\$50.41	\$50.41
Flatbed Truck, 6x4, 45K GVW	\$48.50	1	\$48.50	\$48.50
Light Duty Pickup, 4x4, 1 T.	\$20.93	1	\$20.93	\$20.93
Crew				
		Subtotals:	\$162.30	\$162.30

#### **EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region:	TRINIDAD	_
Total one-way travel distance:	20.00	miles
Average Travel Speed:	35.00	mph
Total Non-Roadable Mob/Demob Cost *	\$20,133.89 \$185.49	_

Transportation Cycle Time:

	Non- Roadable	Roadable
	Equipment	Equipment
Haul Time (Hours):	0.57	0.57
Return Time (Hours):	0.57	0.57
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	2.14	1.14

#### JOB TIME AND COST

Total job time: **4.29** Hours

Total job cost: **\$20,319** 

#### EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description:	Mobilize/Den	nobilize Equipment for	Pond Cleaning	
e: Lorencito Canyon M	ine	Permit Action: <u>MT5</u>	Permit/Jo	b#: <u>C1996084</u>
PROJECT IDENTIFI	<u>CATION</u>			
Task #:071	State	e: Colorado	Abbreviation:	None
Date: 2/13/2020	County	y: Las Animas	Filename:	C1996084
User: DC1				
				1 per day
				CRG Data
Truck Tracto	or Description:	GENERIC ON-HIGHW	AY TRUCK TRACTOR, 6X4, 400 HP (2ND HALF, 2006)	DIESEL POWERED,
Truck Traile	r Description:	GENERIC FOLDI	NG GOOSENECK, DROP DEC	K EQUIPMENT
	_	T	RAILER (25T, 50T, AND 100T)	
Cost Breakdown:				
Available Rig Canaciti	es 0-25 Te	ons 26-50 Tons	51+ Tons	

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$17.20	\$29.63	\$38.69
Operating Cost/Hour:	\$26.56	\$47.02	\$55.69
Operator Cost/Hour:	\$23.63	\$23.63	\$23.63
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$67.39	\$123.81	\$141.54

## **NON ROADABLE EQUIPMENT:**

Machine	Weight/	Owner ship	Haul Rig	Fleet	Haul Trip	Return Trip	DOT Permit
Description	Unit	Cost/hr/ unit	Cost/hr/unit	Size	Cost/hr/	Cost/hr/ fleet	Cost/ fleet
	(TONS)				fleet		
Cat D8T - 8SU	47.71	\$103.86	\$123.81	1	\$227.67	\$123.81	\$250.00
Cat 324D L 9'-8"	27.33	\$46.78	\$123.81	1	\$170.59	\$123.81	\$250.00
Stick							
				Subtotala	\$208.26	\$217 62	\$500.00
				Subtotals:	\$398.26	\$247.62	\$500.00

## **ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Generic 10-12 cy, 6x4	\$97.89	4	\$391.56	\$391.56
Flatbed Truck, 6x4, 45K GVW	\$48.50	1	\$48.50	\$48.50
		Subtotals:	\$440.06	\$440.06

#### **EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region:	TRINIDAD	_
Total one-way travel distance:	20.00	miles
Average Travel Speed:	35.00	mph
Total Non-Roadable Mob/Demob Cost *	\$2,534.67 \$502.93	-

Transportation Cycle Time:

	Non- Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.57	0.57
Return Time (Hours):	0.57	0.57
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	2.14	1.14

#### JOB TIME AND COST

Total job time: **4.29** Hours

Total job cost: \$3,038

#### EQUIPMENT MOBILIZATION/DEMOBILIZATION

: Lorencito	o Canyon Min	e P	ermit Action:	MT5		Permit/J	ob#:	C1996084
	IDENTIFIC							
Task #:	072	State:	Colorado		A	Abbreviation:	No	one
Date:	2/13/2020	County:	Las Animas			Filename:	Cl	1996084
User:	DC1							
Age	ency or organiz	cation name:	DRMS					
Age					Shi	ft basis:	1 per	r day
Age					Shi Cost Data		1	r day Data
Age EQUIPME		PORT RIG CO	<u>IST</u>		Cost Data	Source:	ĊŔĠ	2

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$17.20	\$29.63	\$38.69
Operating Cost/Hour:	\$26.56	\$47.02	\$55.69
Operator Cost/Hour:	\$23.63	\$23.63	\$23.63
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$67.39	\$123.81	\$141.54

## **NON ROADABLE EQUIPMENT:**

Machine	Weight/	Owner ship	Haul Rig	Fleet	Haul Trip	Return Trip	DOT Permit
Description	Unit	Cost/hr/ unit	Cost/hr/unit	Size	Cost/hr/	Cost/hr/ fleet	Cost/ fleet
-	(TONS)				fleet		
Cat D3K LGP - 3P	9.20	\$24.76	\$67.39	10	\$921.50	\$673.90	\$2,500.00
Cat 315D L 8'-6"	19.05	\$32.62	\$67.39	10	\$1,000.10	\$673.90	\$2,500.00
Stick							
CAT 14M	23.57	\$64.10	\$67.39	10	\$1,314.90	\$673.90	\$2,500.00
						1	1

Subtotals: \$3,236.50 \$2,021.70 \$7,500.00

# **ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Flatbed Truck, 6x4, 45K GVW	\$48.50	1	\$48.50	\$48.50
		Subtotals:	\$48.50	\$48.50

# **EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region:	TRINIDAD	
Total one-way travel distance:	20.00	miles
Average Travel Speed:	35.00	mph
Total Non-Roadable Mob/Demob Cost *	\$27,482.37	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	\$55.43	

Transportation Cycle Time:

	Non- Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.57	0.57
Return Time (Hours):	0.57	0.57
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	2.14	1.14

#### JOB TIME AND COST

 Total job time:
 4.29
 Hours

Total job cost: \$27,538