

Department of Natural Resources

March 14, 2024

Michael B. Toelle Holcim (US) Inc. 3500 Highway 120 Florence, CO 81226

Re: Portland Limestone Quarries - File No. M-1977-344

> Holcim (US) Inc. **Surety Increase (SI-2)** Surety increase to \$21,320,092.00

Dear Michael B. Toelle:

On March 14, 2024 the Division of Reclamation, Mining and Safety increased the current Financial Warranty for this permit to \$21,320,092.00, in accordance with Rule 4.2.1 of the Rules and Regulations. This is an increase of \$16,051,542.00.

The Division ordered amendment of the current Financial Warranty, or submittal of a new Financial Warranty reflecting the increase, within 60 days from the date of this letter (March 14, 2024).

Please make arrangements with Sara M. Stevenson-Benn at the Division's Denver office for submittal of the financial warranty. Any other questions regarding completion, execution and/or submittal of financial warranty forms should also be directed to Sara M. Stevenson-Benn by telephone at (303) 866-3567 (8148), or by email at Sara.stevenson-benn@state.co.us.

The Permittee for this site may be scheduled for a Formal Board Hearing for possible revocation of the permit after May 13, 2024, if the amount of any increased Financial Warranty has not been provided.

Bond Held:	\$5,268,550.00
Prior Liability:	\$5,268,550.00
Change in Liability:	\$16,051,542.00
Revised Liability:	\$21,320,092.00
Prior Permit Acreage:	5,615.34
Change in Permit Acreage:	0.00



Revised Permit Acreage:	5,615.34
Prior Affected Acreage:	5,615.34
Change in Affected Acreage:	0.00
Revised Affected Acreage:	5,615.34

If you have any questions, please contact me by telephone at (303) 866-3567 x 8176, or by email at Hunter.ridley@state.co.us.

Sincerely,

Hunter C. Ridley

Hunter Ridley

Environmental Protection Specialist

cc: Timothy Smith

M-GR-04

COST SUMMARY WORK

Task description: R		Reclamation Co	st Summary	(AM-2)			
Site: Portland	Limestone Q	uarries Per	mit Action:	AM-2	Permit/Job	#: <u>M1977344</u>	
PROJECT	IDENTIFIC	<u>ATION</u>					
Task #: Date: User:	0000 2/27/2024 TC1	State: County:	Colorado Fremont		Abbreviation: Filename:	None M344-0000	

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
B010	BCQ - Slope benched highwalls 3H:1V	TRUCK1	2	698.05	\$1,504,899
B030	Rip BCQ Plant, Arkansas River Crossing Area and	RIPPER	1	235.77	\$105,665
	interior roa				, ,
B040	Finish grade disturbed areas (BCQ)	GRADER	1	470.55	\$74,724
B041	Construct Remaining BCQ Channel 1400'x8'x24'	TRUCK1	1	68.54	\$55,298
B050	Distribute 4" topsoil over affected areas (776 Ac)	TRUCK1	1	935.42	\$750,986
B060	BCQ Reseed disturbed area (1,277.6 Ac)	REVEGE	1	1,277.00	\$3,389,636
M130	Mob/Demob Equipment	MOBILIZE	1	3.50	\$13,750
P010	Demo 2 Plant Site CKD related structures	DEMOLISH	1	323.00	\$263,394
R070	RCQ - Backfill 2 bench highwalls 3H:1V	TRUCK1	2	2,919.58	\$5,830,541
R080	RCQ Demolish/Remove Structures	DEMOLISH	1	1,511.00	\$1,761,065
R090	RCQ Rip facility area (18 acres)	RIPPER	1	26.19	\$11,741
R100	Finish grade disturbed areas (RCQ)	GRADER	1	394.16	\$62,594
R110	Distribute 6" topsoil over RCQ affected areas (645	TRUCK1	1	1,166.27	\$936,313
	Ac)				
R120	RCQ Reseed disturbed area (645 Ac)	REVEGE	1	2,654.00	\$1,711,268
		SUBTO	TALS:	12683.03	\$16,471,874

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	\$332,732
Performance bond:	1.05	Total =	\$172,955
Job superintendent:	13,678.70	Total =	\$890,210
Profit:	10.00	Total =	\$1,647,187

Total = \$1,647,187TOTAL O & P = $\frac{$3,043,084}{$19,514,958}$

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	\$0	Total =	\$0
Engineering work and/or contract/bid preparation:	4.25	Total =	\$829,386
Reclamation management and/or administration:	5.00		\$975,748

CONTINGENCY: 0.00 Total = __\$0

TOTAL INDIRECT COST = \$4,848,217

TOTAL BOND AMOUNT (direct + indirect) = __\$21,320,091

TRUCK/LOADER TEAM WORK

Task description: BCQ - Slope bench	ned highwalls 3H:1V		
: Portland Limestone Quarries Permi	t Action: AM-2	Permit/Job#:	M1977344
PROJECT IDENTIFICATION			
Task #: B010 State:	Colorado	Abbreviation:	None
Date: 2/27/2024 County:	Fremont	Filename:	M344-B010
User: TC1			
Agency or organization name: <u>DRM</u>	18		
Agency or organization name: DRM HOURLY EQUIPMENT COST		Shift basis: 1 per day	
		Shift basis: 1 per day	
HOURLY EQUIPMENT COST	Equipment Description	Shift basis: 1 per day	
HOURLY EQUIPMENT COST Truck Loader Team -Truck:	Equipment Description Cat 730	Shift basis: 1 per day	
HOURLY EQUIPMENT COST Truck Loader Team -Truck: -Loader:	Equipment Description Cat 730 CAT 950H	Shift basis: 1 per day	
HOURLY EQUIPMENT COST Truck Loader Team -Truck: -Loader: Support Equipment -Load Area:	Equipment Description Cat 730 CAT 950H Cat D8T - 8SU	Shift basis: 1 per day	

Cost Breakdown:	Truck/Loa	ader Team	Support I	Equipment	Maintenan	ce Equipment
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	100	100
Ownership cost/hour:	\$108.06	\$49.32	\$241.38	\$241.38	\$74.98	\$11.35
Operating cost/hour:	\$71.88	\$39.80	\$143.92	\$143.92	\$55.26	\$22.92
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Operator cost/hour:	\$32.54	\$40.71	\$41.30	\$41.30	\$28.56	\$0.00
Unit Subtotals:	\$212.48	\$129.83	\$426.60	\$426.60	\$158.80	\$34.27
Number of Units:	4	2	1	1	1	1
Group Subtotals:	Work:	\$1,109.58	Support:	\$853.20	Maint:	\$193.07

Total work team cost/hour: \$2,155.85

MATERIAL QUANTITIES

Initial volume: 536,197 CCY Swell factor: 1.125

Loose volume: 603,222 LCY

Source of estimated volume: Exhibit L, Task 001

Source of estimated swell factor: Cat Handbook

Material Purchase Cost: \$_\$0.00

Total Cost: \$0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight:
Description:2,650Pounds/LCYRated Payload:Decomposed rock - 25% Rock, 75% EarthPayload Capacity:62,000PoundsLCY

<u>Truck Bed (volume) Basi</u> Struck Volume:		17.10	LCY						
Heaped Volume:		22.10	LCY						
Average Volume:		19.60	LCY						
Adjusted Volume:		22.10	LCY						
_									
	inal Tru	uck Volume	e Based on	Number of	Loader Passes:	22.	04	LCY	
Loading Tool Capacity					Buc	ket Size Cla	ss: N	A	
Rated Capacity	':	4.300	LCY	(heaped)					
Bucket Fill Factor		1.025			xture (100%-10	5%) 1.025			
Adjusted Capacity	' :	4.408	LCY			,			
Job Condition Correction	ons:			Sit	e Altitude (ft.):	<u>5263</u> feet			
	T	ruck	Lo	oader	Source	<u>;</u>			
Altitude Adj:	1	.000	1	.000	(CAT H	B)			
Job Efficiency:	0	0.830	0	.830	(CAT H	B)			
Net Correction:	0	0.830	0	.830					
			-		<u> </u>				
T 11 M 10 1 M			CT 11			F::: # 1		_	
Loading Tool Cycle Tir		Numbe	er of Loadi	ng Tool Pas	ses Required to	Fill Truck:		5	passe
Loading Tool Cycle Tin Excavators and Front Sh		Numbe	er of Loadi	ng Tool Pas	sses Required to	Fill Truck:		5	passe
	ovels: ne vs. Jo	ob Conditio	on Rating:	ng Tool Pas NA NA	ses Required to	Fill Truck:		5	passe
Excavators and Front Sh Machine Cycle Tin	ovels: ne vs. Jo ue with	ob Conditionin this Bas	on Rating:	NA	sses Required to	Fill Truck:		5	passe
Excavators and Front Sh Machine Cycle Tin Selected Val Track Loader	ovels: ne vs. Jo ue with	ob Conditionin this Bas	on Rating:	NA	sses Required to	Fill Truck:		5	passe
Excavators and Front Sh Machine Cycle Tin Selected Val Track Loader	ovels: ne vs. Jo ue with	ob Conditic nin this Bas nterial Descr	on Rating:	NA	sses Required to	Fill Truck:	0.100		passe
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<u>Truck Travel (Haul & Return) Time:</u> Road Condition: <u>Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0</u>

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	-5.00	3.00	-2.00	3064	0.393

Haul Time: 0.393 minutes

Return Route:

Return Route.							
	Seg#	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
	1	1000.00	5.00	3.00	8.00	1903	0.619

Return Time: 0.619 minutes
Total Truck Cycle Time: 4.552 minutes

Loading Tool unit

Production _____520.57 ___ LCY/Hour Adjusted for job efficiency: ____432.07 ___ LCY/Hour Truck Unit Production

290.48 LCY/Hour Adjusted for job efficiency: 241.10 LCY/Hour

Optimal No. of Trucks: 2 Truck(s) Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 482.19 LCY/Hour Adjusted single truck/loader team production: 432.07 LCY/Hour Adjusted multiple truck/loader team production: 864.15 LCY/Hour

JOB TIME AND COST

Fleet size: 2 Team(s) Total job time: **698.05** Hours

Unit cost: \$2.495 /LCY Total job cost: \$1,504,899

BULLDOZER RIPPING WORK

	Task description:	: Rip	BCQ Plant, Arkansas F	River Crossing	Area and interior	or roa		
Site:	Portland Lim	estone Quarrie	Permit Action:	AM-2	P	Permit/Job#	: <u>M197734</u>	1
	PROJECT ID	ENTIFICATI	ION					
	Task #: <u>B0</u> Date: <u>2/2</u> User: TC	29/2024	State: Colorado County: Fremont			oreviation: Filename:	None M344-B03	0
			n name: DRMS					
	HOURLY EQ	· ·						
					**		210	
	Ripper Att		at D8T - 8SU Shank Ripper		Horsepower: Shift Basis:		310 per day	_
	Tupper Time			<u> </u>	Data Source:		CRG)	
	Cost Breakdown	<u>:</u>						
		0 1: 0		Φ2.41.20	Utilization %			
		Ownership C Operating C		\$241.38 \$143.92	NA 100	=		
	Ripp	er Ownership C		\$143.92	NA	_		
		per Operating C		\$7.45	100	= _		
		Operator C	-	\$41.30	NA	-		
		Total Unit C	Cost/Hour:	\$448.16				
		Total Fleet C	Cost/Hour: \$44	18.16				
	MATERIAL (DUANTITIES	Se. Se.	lected estimatin	g method: Are	a		
	Alternate Method	ds:			<u></u>			
mic:	NA		Bank Volume:	NA	BCY		NA	
rea:	162.00	acres	Rip Depth (ft):	$\frac{1.00}{1.00}$		261,360		BCY or C
		Source of esti	imated quantity: AM-2	Exh I. Task (
	HOURLY PRO			, 2 2, 1 4.511				<u> </u>
		ODUCTION						
	Seismic:		Seismic Velocity:	NA	feet/sec	cond		
			Seisinic velocity.	IVA		Zona		
	Area:	Avoro	ge Ripping Depth:	2.56	feet/pas	99		
			ge Ripping Depth	7.08	feet/pas			
			e Ripping Length:	600.00	feet/pas			
			rage Dozer Speed:	88.00	feet/mi			
			e Maneuver Time: ction per unit area:	0.25 0.828	minute acres/h	-		
				0.828	acres/ii	our		
	Job Condition Co							
	Un	nadjusted Hourly	y Unit Production:	0.828	Acres/h	nr		
			Site Altitude:	5,263	feet			
			Altitude Adj:	1.00	(CAT I			
			Job Efficiency: Net Correction:	0.83 0.83	(1 shift multipl			
			Hourly Unit Production: Hourly Fleet Production:	0.69	Acres/hr Acres/hr			
	JOB TIME AN	•	•					
	Fleet size:	1	_ Grader(s)	Total job tir	me:2	235.77	Hour	rs
	Unit cost:	\$652.251	Per acre	Total job co	net· \$1	105,665		

MOTOR GRADER WORK

Task description:	Finish grade d	isturbed areas	(BCQ)			
Portland Limeston	e Quarries P	ermit Action: _	AM-2	Per	rmit/Job#	M1977344
PROJECT IDENT	IFICATION					
Task #: B040	State	: Colorado		Abbre	eviation:	None
Date: 2/29/202	4 County				lename:	M344-B040
User: TC1		-				
A ganay or or	ganization name: I	DRMS				
Agency of of	gamzation namei	DKWB				
<u>HOURLY EQUIPN</u>	MENT COST					
Basic Mach	ine: CAT 12M			Horsepower:		158
Ripper Attachm	ent:		<u> </u>	Shift Basis:	1 1	per day
				Data Source:	(CRG)
Cost Breakdown:				_		
Cost Dicardown.				Utilization %		
Ow	nership Cost/Hour:		\$74.98	NA		
	perating Cost/Hour:		\$55.26	100		
	nership Cost/Hour:		\$0.00	NA		
	perating Cost/Hour:		\$0.00			
Č	perator Cost/Hour:		\$28.56	NA		
To	tal Unit Cost/Hour:		\$158.80			
Tot	al Fleet Cost/Hour:	\$158	90			
100	ai Meet Cost/Hour.	φ130				
MATERIAL QUAN	NTITIES					
	ea to be graded or rip	ped: 770.00				9.0705
Total Al	ea to be graded of Tip	ped. //0.00				acres
Sou	irce of estimated acre	eage: AM-2,	Exh. L, Task 00	04		
HOURLY PRODU	CTION					
I TOURLE I I HODE	Average Grader	Sneed:	1.50	mph		
	Selected Appli			grading (0-2.5 mp	h) - 1.5	
	Selected Blade		0	degrees	11) 1.0	
	Effective Blade I		12.00	feet		
Wid	th of blade overlap pe		2.00	feet		
	ig or ripping width pe		10.00	feet		
	ted Hourly Unit Prod		1.8182	acres/hou	ır	
Job Condition Correcti	on Factors		Sin	te Altitude: <u>5263</u> f	eet	
	·	Source				
Altitude Adj:	1.00	(CAT HB)			
Job Efficiency:		(1sh/d, fav				
Net Correction:		multiplier	<u> </u>			
			1 6264	oores/Horr		
	Adjusted Hourly Ur		1.6364	acres/Hour		
	Adjusted Hourly Fle	et Production:	1.6364	acres/Hour		
JOB TIME AND C	OST					
Fleet size:				4=0.5		
1:0.1.1.517.5	1 Gradam	e)	Total job time	· 1711 54	•	Hours
1 1001 5120.	1 Grader((s)	Total job time	: 470.50)	Hours

TRUCK/LOADER TEAM WORK

Task description:	Constru	ct Remaining BC	CQ Channel 1400)'x8'x24'		
Site: Portland Limes	tone Quarries	Permit Actio	on: AM-2		Permit/Job#: M	1977344
PROJECT IDEN	NTIFICATION					
Task #: B041		State: Colora	ndo	Ab	breviation: No	ne
Date: 2/29/2	2024	County: Fremo	nt		Filename: M3	44-B041
User: TC1						
Agency or	r organization nan	ne: DRMS				
HOURLY EQUI	PMENT COST	=	English and December		is: 1 per day	
	Fruck Loader Tea		Equipment Descri	ption		
•	Track Boader Tea		Г 950Н			
Supp	ort Equipment -L		D6T LGP			
Pood M	-Du Iaintenance –Moto	imp Area: NA or Grader: NA				
Koau IV.		ter Truck: NA				
Cost Breakdown:	Truck/Loa	ıder Team	Support I	Equipment	Maintenan	ce Equipment
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	NA	NA
Ownership cost/hour:	\$108.06	\$49.32	\$127.53	NA	NA	NA
Operating cost/hour:	\$71.88	\$39.80	\$83.13	NA	NA	NA
% Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	NA	NA
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	NA	NA
Operator cost/hour:	\$32.54	\$40.71	\$41.30	NA	NA	NA
Unit Subtotals:	\$212.48	\$129.83	\$251.96	NA	NA	NA
Number of Units:	2	1	1	0	0	0
Group Subtotals:	Work:	\$554.79	Support:	\$251.96	Maint:	\$0.00
Total work team co						
Initial volume	: 19,911	CCY	Swell	factor: 1.330		
Loose volume	26,48	2 LCY				
	ource of estimated e of estimated swe		ion of Reclamatic	on, Mining & Safe	ety	
	Material Purcha To	ase Cost: \$0.00 tal Cost: \$0.00				
HOUDI V DDC						
HOURLY PRO	DUCTION					
Truck Capacity: Truck Payload (wei						
Material v		1 1 500	Pounds/LCY			
Descr Rated Pa		posed rock - 50%	Rock, 50% Earth Pounds	1		
Payload Ca			LCY			

Truck Travel (Haul & Return) Time:

penetration 5.0

Ct 1 37 1						
Struck Volume:	17.10 Lo	CY				
Heaped Volume:	22.10 Lo	CY				
Average Volume:		CY				
Adjusted Volume:	21.38 Lo	CY				
Final '	Truck Volume B	ased on Number of	Loader Passes:	17.63	LCY	
Loading Tool Capacity						
Poted Consoity	4.300	LCY (heaped)	Buck	et Size Class: N.	A	_
Rated Capacity: Bucket Fill Factor:	1.025	Rock - Earth Mix	ture (100%-105	%) 1 025		=
Adjusted Capacity:	4.408	LCY	ture (10070-103	70) 1.025		=
Job Condition Corrections:	_	Site	e Altitude (ft.): <u>5</u>	263 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:		f Loading Tool Pass	_		4 1	oasses
Excavators and Front Shovel						
Machine Cycle Time vs						
Selected Value w	vithin this Basic l	Rating: NA				
Selected Value w Track Loaders – I	vithin this Basic l	Rating: NA				
Selected Value w Track Loaders – I Cycle Time Elements (min.):	vithin this Basic l Material Descript	Rating: NA				
Selected Value w Track Loaders – I	vithin this Basic l Material Descript	Rating: NA		Dump: 0.100	<u> </u>	
Selected Value w Track Loaders – I Cycle Time Elements (min.):	vithin this Basic l Material Descript Mar	Rating: NA tion: neuver: NA	e (load, dump, n	·		utes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA	vithin this Basic I Material Descript Mar - Unadjusted Basic	Rating: NA tion: neuver: NA c Loader Cycle Tim	e (load, dump, n	·		utes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material:	within this Basic I Material Descript Mar Unadjusted Basic	Rating: NA tion: NA neuver: NA c Loader Cycle Tim 0.02		naneuver): 0.	Source (Cat HB)	utes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile:	within this Basic I Material Descript Mar Unadjusted Basic Mixed material No adjustment	Rating: NA tion: NA neuver: NA c Loader Cycle Tim 0.02 - factor not applicab	le 0.00	naneuver): 0. Factor (min.) 0.020 0.000	Source (Cat HB) (Cat HB)	utes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership:	Material Descript Mar Unadjusted Basic Mixed material No adjustment Common owne	Rating: NA tion: NA neuver: NA c Loader Cycle Tim 0.02 - factor not applicab rship of trucks and I	le 0.00	Factor (min.) 0.020 0.000 -0.040	Source (Cat HB) (Cat HB) (Cat HB)	utes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Material Descript Mar Unadjusted Basic Mixed material No adjustment Common owne Constant operat	Rating: NA tion: NA c Loader Cycle Tim 0.02 factor not applicab rship of trucks and I tion -0.04	le 0.00	Factor (min.) 0.020 0.000 -0.040 -0.040	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership:	Material Descript Mar Unadjusted Basic Mixed material No adjustment Common owne	Rating: NA tion: neuver: NA c Loader Cycle Tim 0.02 - factor not applicab rship of trucks and 1 tion -0.04 0.00	le 0.00 oaders -0.04	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Material Descript Mar Unadjusted Basic Mixed material No adjustment Common owne Constant operat	Rating: NA tion: NA C Loader Cycle Tim 0.02 - factor not applicab rship of trucks and I tion -0.04 0.00 Net Cycle Time	le 0.00 oaders -0.04	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	utes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Material Descript Mar Unadjusted Basic Mixed material No adjustment Common owne Constant operat	Rating: NA tion: neuver: NA c Loader Cycle Tim 0.02 - factor not applicab rship of trucks and I tion -0.04 0.00 Net Cycle Time Adjusted Loade	le 0.00 oaders -0.04	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Material Descript Mar Unadjusted Basic Mixed material No adjustment Common owne Constant operat	Rating: NA tion: neuver: NA c Loader Cycle Tim 0.02 - factor not applicab rship of trucks and I tion -0.04 0.00 Net Cycle Time Adjusted Loade	le 0.00 oaders -0.04 e Adjustment: Cycle Time:	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	utes
Selected Value w Track Loaders - I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	Material Descript Mar Unadjusted Basic Mixed material No adjustment Common owne Constant operat Nominal target	Rating: NA tion: neuver: NA c Loader Cycle Tim 0.02 - factor not applicab rship of trucks and I tion -0.04 0.00 Net Cycle Time Adjusted Loade	le 0.00 oaders -0.04 e Adjustment: c Cycle Time: me per Truck:	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	
Selected Value w Track Loaders - I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time:	Material Descript Mar Unadjusted Basic Mixed material No adjustment Common owne Constant operat Nominal target	Rating: NA tion: neuver: NA c Loader Cycle Tim 0.02 - factor not applicab rship of trucks and I tion -0.04 0.00 Net Cycle Time Adjusted Loade Net Load Tin	le 0.00 oaders -0.04 e Adjustment: c Cycle Time: me per Truck:	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 1.420	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	utes Minute Minute

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

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	2.00	5.00	7.00	1036	1.030

Haul Time: **1.030** minutes Return Route: Roll. Res Total Res Travel Seg# Haul Distance Grade (%) Velocity Time (Ft) (%) (%) (fpm) (min) 1000.00 -2.00 5.00 3.00 2936 0.495

Return Time: 0.495 minutes
Total Truck Cycle Time: 4.545 minutes

Loading Tool unit

Production Truck Unit Production

Truck Unit Production

232.74 LCY/Hour Adjusted for job efficiency: 434.64 LCY/Hour Adjusted for job efficiency: 193.17 LCY/Hour Optimal No. of Trucks: 2 Truck(s)

Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 386.35 LCY/Hour Adjusted single truck/loader team production: 386.35 LCY/Hour Adjusted multiple truck/loader team production: 386.35 LCY/Hour

JOB TIME AND COST

 Fleet size:
 1
 Team(s)
 Total job time:
 68.54
 Hours

 Unit cost:
 \$2.088
 /LCY
 Total job cost:
 \$55,298

TRUCK/LOADER TEAM WORK

Task description:	Distribu	ıte 4" topsoil ov	er affected areas ((776 Ac)		
Site: Portland Limes	stone Quarries	Permit Act	ion: AM-2		Permit/Job#: M	1977344
PROJECT IDE	NTIFICATION	<u>I</u>				
Task #:B050)	State: Color	rado	Ab	breviation: No	ne
Date: 3/1/2	2024	County: Frem	ont		Filename: M3	344-B050
User: TC1						
Agency o	or organization nar	ne: DRMS				
HOURLY EQU	IPMENT COST	<u>r</u>	T		sis: 1 per day	
-	Truck Loader Tea	ım -Truck: Ca	Equipment Descri t 730	ption		
	Truck Louder Tee		T 950H			
Sup	port Equipment -I					
Dood N	-D ⁻ Maintenance –Mot		t D7R DS Series II	LGP		
Road N		or Grader: NA				
						
Cost Breakdown:		ader Team		Equipment		nce Equipment
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	NA	100	NA	NA
Ownership cost/hour:	\$108.06	\$49.32	NA	\$114.76	NA	NA
Operating cost/hour:	\$71.88	\$39.80	NA	\$91.98	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:	\$32.54	\$40.71	NA	\$41.30	NA	NA
Unit Subtotals:	\$212.48	\$129.83	NA	\$248.04	NA	NA
Number of Units:	2	1	0	1	0	0
Group Subtotals:	Work:	\$554.79	Support:	\$248.04	Maint:	\$0.00
Total work team co	ost/hour: \$802.8 3	3				
MATERIAL QU	JANTITIES					
Initial volume		CC		factor: 1.000		
Loose volume	e: 417,3	16 LCY	<i>Y</i>			
	ource of estimated		-2, Exh. L, Task 00	05 (4" over 776 A	c); 1000' haul	
Sourc	e of estimated swe		Handbook			
	Material Purch	ase Cost: \$0.0 otal Cost: \$0.0				
	1.	year Cost				
HOURLY PRO	DDUCTION					
Truck Capacity:						
Truck Payload (we	eight) Basis:					
Material	weight: 2,650		Pounds/LCY			
			% Rock, 75% Earth	1		
Rated F Payload C		<u> </u>	Pounds LCY			
I dy Iodd C						

Struck Volume:	17.10	LCY				
Heaped Volume:	22.10	LCY				
Average Volume:	19.60	LCY				
Adjusted Volume:	22.10	LCY				
Fin	al Truck Volur	me Based on Number	of Loader Passes:	22.04	LCY	
Loading Tool Capacity						
				ket Size Class:	NA	_
Rated Capacity:		LCY (heaped)				
Bucket Fill Factor:	1.025		Mixture (100%-10:	5%) 1.025		
Adjusted Capacity:	4.408	LCY				
Job Condition Correction	ns:	:	Site Altitude (ft.):	5263 feet		
	Truck	Loader	Source			
Altitude Adj:	1.000	1.000	(CAT HE	3)		
Job Efficiency:	0.830	0.830	(CAT HE	3)		
Net Correction:	0.830	0.830				
_						
Excavators and Front Short	vels:					
Machine Cycle Time						
Machine Cycle Time Selected Valu	vs. Job Condite within this Ba	asic Rating: NA				
Machine Cycle Time Selected Valu Track Loaders	vs. Job Condite within this Barbara Material Des	asic Rating: NA				
Machine Cycle Time Selected Valu	vs. Job Condite within this Barbara Material Des	asic Rating: NA		Dump: <u>0.1</u>	00	
Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min	vs. Job Condite within this Bar – Material Des	asic Rating: NA scription: Maneuver: NA		Dump:0.1	00 0.500 minu	tes
Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader	vs. Job Condite within this Bar — Material Des	asic Rating: NA scription: Maneuver: NA		Dump: 0.1	0.500 minu	tes
Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA	vs. Job Condite within this Bar – Material Des	asic Rating: NA scription: Maneuver: NA Basic Loader Cycle T		Dump:0.1		tes
Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factors	vs. Job Condite within this Bar – Material Des.): s - Unadjusted Mixed mat	asic Rating: NA scription: Maneuver: NA Basic Loader Cycle T	Time (load, dump, 1	Dump: 0.1 maneuver): Factor (min.)	0.500 minu Source	tes -
Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile Truck Ownership	vs. Job Condite within this Bar — Material Des - Material Des .): s - Unadjusted Mixed mat No adjustn Common of	asic Rating: NA scription: Maneuver: NA Basic Loader Cycle Terial 0.02	Time (load, dump, 1	Dump: 0.1 maneuver): Factor (min.) 0.020	0.500 minu Source (Cat HB)	tes - -
Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile Truck Ownership Operation	vs. Job Condite within this Bar — Material Des - Material Des .): s - Unadjusted Mixed mat No adjustn Common of Constant of	asic Rating: NA scription: Maneuver: NA Basic Loader Cycle Terial 0.02 nent - factor not applicownership of trucks are peration -0.04	Time (load, dump, 1	Dump: 0.1 maneuver): Factor (min.) 0.020 0.000 -0.040 -0.040	0.500 minu Source (Cat HB) (Cat HB)	tes
Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile Truck Ownership	vs. Job Condite within this Bar — Material Des - Material Des .): s - Unadjusted Mixed mat No adjustn Common of Constant of	asic Rating: NA scription: Maneuver: NA Basic Loader Cycle Terial 0.02 nent - factor not application of trucks are operation -0.04 arget 0.00	Cime (load, dump, 1 cable 0.00 nd loaders -0.04	Dump: 0.1 maneuver): Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	0.500 minu Source (Cat HB) (Cat HB)	tes - - -
Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile Truck Ownership Operation	vs. Job Condite within this Bar — Material Des - Material Des .): s - Unadjusted Mixed mat No adjustn Common of Constant of	asic Rating: NA scription: Maneuver: NA Basic Loader Cycle Terial 0.02 nent - factor not application of trucks are peration -0.04 arget 0.00 Net Cycle T	Cime (load, dump, 1) cable 0.00 nd loaders -0.04 ime Adjustment:	Dump: 0.1 maneuver): Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060	Source (Cat HB) minutes	tes - - - -
Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile Truck Ownership Operation	vs. Job Condite within this Bar — Material Des - Material Des - S - Unadjusted - Mixed mat - No adjustn - Common of - Constant o	asic Rating: NA scription: Maneuver: NA Basic Loader Cycle Terial 0.02 nent - factor not application of trucks are operation -0.04 arget 0.00 Net Cycle T Adjusted Loa	Cime (load, dump, 1 cable 0.00 nd loaders -0.04	Dump: 0.1 maneuver): Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	0.500 minu Source (Cat HB) (Cat HB)	tes - - - -
Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile Truck Ownership Operation	vs. Job Condite within this Bar — Material Des - Material Des - S - Unadjusted - Mixed mat - No adjustn - Common of - Constant o	asic Rating: NA scription: Maneuver: NA Basic Loader Cycle Terial 0.02 nent - factor not application of trucks are operation -0.04 arget 0.00 Net Cycle T Adjusted Loa	cable 0.00 nd loaders -0.04 ime Adjustment: nder Cycle Time:	Dump: 0.1 maneuver): Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	O.500 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	tes - - - -
Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile Truck Ownership Operation Dump Target Truck Cycle Time:	vs. Job Condite within this Bar — Material Des .): s - Unadjusted Mixed mat No adjustin Common car Constant o Nominal tar	asic Rating: NA Scription: Maneuver: NA Basic Loader Cycle Terial 0.02 nent - factor not applied by the serial of trucks are peration -0.04 arget 0.00 Net Cycle T Adjusted Load Net Load	cable 0.00 nd loaders -0.04 ime Adjustment: nder Cycle Time: Time per Truck:	Dump: 0.1 maneuver): Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 1.860	O.500 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	- - - -
Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile Truck Ownership Operation Dump Target Truck Cycle Time: Truck Exchange Time	vs. Job Condite within this Bar Material Des I.): s - Unadjusted Is Mixed material No adjusting Common Carlo Constant Or Nominal target in Nominal target i	asic Rating: NA Scription: Maneuver: NA Basic Loader Cycle Terial 0.02 Inent - factor not applicownership of trucks are peration -0.04 Arget 0.00 Net Cycle T Adjusted Load Net Load Minutes	cable 0.00 nd loaders -0.04 ime Adjustment: nder Cycle Time: Time per Truck:	Dump:	O.500 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes minutes 0.600	Minu
Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile Truck Ownership Operation Dump Target Truck Cycle Time:	vs. Job Condite within this Baran Material Description.): s - Unadjusted Mixed material No adjusting Common of Constant of Nominal target No	asic Rating: NA Scription: Maneuver: NA Basic Loader Cycle Total 0.02 Inent - factor not application of trucks are peration -0.04 Arget 0.00 Net Cycle Total Adjusted Load Net Load Minutes Minutes	cable 0.00 nd loaders -0.04 ime Adjustment: nder Cycle Time: Time per Truck: Adjusted	Dump: 0.1 maneuver): Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 1.860	O.500 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	- - - -

<u>Truck Travel (Haul & Return) Time:</u> Road Condition: <u>Rutted dirt, little maintenance, no water, 2" tire penetration 5.0</u>

Haul Route:

Seg#	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	0.00	5.00	5.00	1427	0.823

Haul Time: 0.823 minutes

Return Route:

ixctuiii ix	Juic.					
Seg#	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	0.00	5.00	5.00	2646	0.537

Return Time: 0.537 minutes
Total Truck Cycle Time: 4.820 minutes

Loading Tool unit

Production _____537.50 ___ LCY/Hour Adjusted for job efficiency: ____446.13 ___ LCY/Hour Truck Unit Production

274.33 LCY/Hour Adjusted for job efficiency: 227.69 LCY/Hour

Optimal No. of Trucks: 2 Truck(s) Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 455.38 LCY/Hour Adjusted single truck/loader team production: 446.13 LCY/Hour Adjusted multiple truck/loader team production: 446.13 LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: 935.42 Hours

Unit cost: \$1.800 /LCY Total job cost: **\$750,986**

REVEGETATION WORK

Task description:	BCQ Reseed d	listurbed area (1,277	.6 Ac)		
: Portland Limestone	Quarries I	Permit Action: <u>AM</u> -	2	Permit/Jo	ob#: <u>M1977344</u>
PROJECT IDENTIF	<u>ICATION</u>				
Task #: B060	State	: Colorado		Abbreviation:	None
Date: $\frac{10000}{3/1/2024}$				Filename:	M344-B060
User: TC1		·			111511 2000
Agency or orga	anization name: <u>I</u>	ORMS			
FERTILIZING					
Materials					
D		Units /	TT \$4	Cost / Unit	Cost /Acre
Description		Acre	Unit	Cost / Cint	Cost/Acre
				\$	\$
				Total Fertilize	ar .
				Materia	
				Cost/Acı	
					\$
		Total	Fertilizer A	pplication Cost/Aci	e \$0.00
<u> TILLING</u>					
Description					Cost /Acre
Chisel plowing {DM	G}				\$100.40
			To	otal Tilling Cost/Aci	e \$100.40
SEEDING					\$100.40
	_			Rate –	
Seed Mix				PLS Seeds	Cost /Acre
]	LBS / per SQ.	
				Acre	
Alkali Sacaton				3.00 117.08	\$85.43
Indian Ricegrass - No				12.50 40.46	\$110.94
Crested Wheatgrass -				10.00 45.91	\$39.75
Great Basin Wildrye	- Magnar			30.00 121.90	\$346.50

Sideoats Grama - El Reno

Alfalfa - Ladak (inoculated)

Streambank Wheatgrass - Sodar

\$150.75

\$40.80

\$125.40

\$899.56

18.00

16.00

22.00

111.50

Totals Seed Mix

59.09

77.13

71.72

533.30

Application

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

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Hay, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$429.79	\$859.57
Total Mulch Materials Cost/Acre				\$859.57

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$74.46
Power mulcher (MEANS 32 91 13.16 0350)		\$147.67
	Total Mulch Application Cost/Acre	\$222.13

NURSERY STOCK PLANTING

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

JOB TIME AND COST

 No. of Acres:
 1277.6
 Cost /Acre:
 \$2,313.66

 Estimated Failure Rate:
 30%
 Cost /Acre*:
 \$1,131.56

*Selected Replanting Work Items: SEEDING

Initial Job Cost: \$2,955,932.02

Reseeding Job Cost: \$433,704.32

Total Job Cost: \$3,389,636

Job Hours: 1,277.00

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: Mob/Demob Equipment

Site: Portland Limestone Quarries Permit Action: AM-2 Permit/Job#: M1977344

PROJECT IDENTIFICATION

Task #: M130 State: Colorado Abbreviation: None

Date: 2/29/2024 County: Fremont Filename: M344-M130

User: TC1

Agency or organization name: DRMS

EQUIPMENT TRANSPORT RIG COST

Shift basis: 1 per day
Cost Data Source: CRG Data

Truck Tractor Description: GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED,

400 HP (2ND HALF, 2006)

Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT

TRAILER (25T, 50T, AND 100T)

Cost Breakdown:

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$20.26	\$36.04	\$47.05
Operating Cost/Hour:	\$39.51	\$76.08	\$82.85
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$82.29	\$158.17	\$175.95

NON ROADABLE EQUIPMENT:

Machine	Weight/	Owner ship	Haul Rig	Fleet	Haul Trip	Return Trip	DOT Permit
Description	Unit	Cost/hr/ unit	Cost/hr/uni	Size	Cost/hr/	Cost/hr/ fleet	Cost/ fleet
	(TONS)		t		fleet		
Cat D8T - 8SU	53.08	\$255.49	\$175.95	1	\$431.44	\$175.95	\$250.00
CAT 973D	29.07	\$146.11	\$158.17	1	\$304.28	\$158.17	\$250.00
Grove RT650E,	28.74	\$270.71	\$158.17	1	\$428.88	\$158.17	\$250.00
105', 45.4 MT							
Cat D6T LGP	26.87	\$127.53	\$158.17	1	\$285.70	\$158.17	\$250.00
Cat D7R DS	34.57	\$114.76	\$158.17	1	\$272.93	\$158.17	\$250.00
Series II LGP							
Cat 730	25.19	\$108.06	\$82.29	4	\$761.40	\$329.16	\$1,000.00
Drill/Broadcast	25.00	\$6.73	\$82.29	1	\$89.02	\$82.29	\$250.00
Seeder with							
Tractor							
Power Mulcher	6.00	\$25.94	\$82.29	1	\$108.23	\$82.29	\$250.00
(Bowie LD-90)							

Subtotals: \$2,681.88 \$1,302.37 \$2,750.00

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Generic 12-18 cy, 6x4	\$123.06	2	\$246.12	\$246.12
Fuel Tanker, 6x4, 210 HP	\$54.25	1	\$54.25	\$54.25

Lube Truck, 6x4, 250 HP	\$54.25	1	\$54.25	\$54.25
Flatbed Truck, 6x4, 45K GVW	\$61.15	1	\$61.15	\$61.15
Water Tanker, 3,500 Gal.	\$54.25	1	\$54.25	\$54.25

Subtotals: \$470.02 \$470.02

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:

Total one-way travel distance:

Average Travel Speed:

PUEBLO

miles

40.00

mph

Transportation Cycle Time:

	Non-	
	Roadable	Roadable
	Equipment	Equipment
Haul Time (Hours):	0.63	0.63
Return Time (Hours):	0.63	0.63
Loading Time (Hours):	0.25	NA
Unloading Time (Hours):	0.25	NA
Subtotals:	1.75	1.25

JOB TIME AND COST

Total job cost: 3.50 Hours

Total job cost: \$13,750

DEMOLITION WORK

Site:	Portland Limestone	Quarries P	ermit Action:	AM-2	Permit/s	Job#: _	M1977344
ROJEC	T IDENTIFICAT	<u>ION</u>					
Task #:	P010	State:	Colorado		Abbreviation:	None	:
Date:	2/27/2024	County:	Fremont		Filename:	M344	4-P010
User:	TC1						

UNIT COSTS

Location adjustment: 87.70 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
ID#17: XFOBS 16 Raw Material Silo	2,625 ft2x90' {75% vol.}	Bldg. (MC) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	177,187.00	CF	\$0.42	\$74,985.54
ID#46: Scrubber	970 ft2x189'	Plant (1S) demo./off-site disposal in approved landfill - Max. 15 mile haul	183,330.00	CF	\$0.74	\$134,949.21
ID#17: CKD disposal (onsite)	75% Struct. Vol	Load/haul/dump demolished materials/debris into pit - Max. 10,000 ft. haul	6,563.00	CY	\$1.97	\$12,902.86
ID#46: CKD disposal (onsite)	75% Struct. Vol	Load/haul/dump demolished materials/debris into pit - Max. 10,000 ft. haul	5,092.00	CY	\$1.97	\$10,010.87
Conveyor G{see AM-2 Facility Catalog}	1,360 ft	Conveyor, demolition, off-site disposal in approved landfill, 15 mile haul	87,040.00	CF	\$0.74	\$64,409.60
Conveyor G Footers	68 2'x3'	Demo. and on-site disposal in existing pit, 2.0 ft. x 3 ft Max. 10,000 ft. haul	204.00	LF	\$15.09	\$3,077.56

			Total Cost	
	Subtotal		(adjusted for	
Job Hours: 323.00	(unadjusted):	\$300,335.64	location):	\$263,394.36

TRUCK/LOADER TEAM WORK

Task description: RCQ - Backfill 2 bo	ench highwalls 3H:1V		
Site: Portland Limestone Quarries Permit	t Action: AM-2	Permit/Job#:	M1977344
PROJECT IDENTIFICATION			
	Colorado Fremont	Abbreviation: _Filename:	None M344-R070
User: TC1		_	
Agency or organization name: _DRM	IS		
HOURLY EQUIPMENT COST		Shift basis: 1 per day	
	Equipment Description		
Truck Loader Team -Truck:	Cat 730		
-Loader:	CAT 950H		
Support Equipment -Load Area:	Cat D8T - 8SU		
-Dump Area:	Cat D8T - 8SU		
Road Maintenance – Motor Grader:	NA		
-Water Truck:	Water Tanker, 2,500 Gal.		
Cost Breakdown: Truck/Loader Team	Support Equipme	nt Maint	enance Equipment

Cost Breakdown:	Truck/Loa	ader Team	Support I	Equipment	Maintenan	ce Equipment
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	100	NA	100
Ownership cost/hour:	\$108.06	\$49.32	\$241.38	\$241.38	NA	\$11.35
Operating cost/hour:	\$71.88	\$39.80	\$143.92	\$143.92	NA	\$22.92
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	\$0.00	NA	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	\$0.00	NA	\$0.00
Operator cost/hour:	\$32.54	\$40.71	\$41.30	\$41.30	NA	\$0.00
Unit Subtotals:	\$212.48	\$129.83	\$426.60	\$426.60	NA	\$34.27
Number of Units:	4	2	1	1	0	1
Group Subtotals:	Work:	\$1,109.58	Support:	\$853.20	Maint:	\$34.27

Total work team cost/hour: \$1,997.05

MATERIAL QUANTITIES

Initial volume: 2,242,618 CCY Swell factor: 1.125

Loose volume: 2,522,945 LCY

Source of estimated volume: AM-2 Exhibit L, Task 007, 10,571 LF max highwall

Cat Handbook

Material Purchase Cost: \$0.00

Total Cost: \$0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight:2,650Pounds/LCYDescription:Decomposed rock - 25% Rock, 75% EarthRated Payload:62,000Pounds

Payload Capacity: 23.40 LCY

Struck Volume:	17.10	LCY					
Heaped Volume:	22.10	LCY					
Average Volume:	19.60	LCY					
Adjusted Volume:	22.10	LCY					
F	nal Truck Vo	lume Based	on Number of	f Loader Passes:	22.04	LCY	
Loading Tool Capacity							
				Buc	ket Size Class:!	NA	
Rated Capacity			CY (heaped)				_
Bucket Fill Factor				ixture (100%-10	5%) 1.025		_
Adjusted Capacity	: 4.4 ()8 LO	CY				
Job Condition Correction	ons:		Si	te Altitude (ft.):	5263 feet		
	Truck		Loader	Source			
Altitude Adj:	1.000		1.000	(CAT HE	3)		
Job Efficiency:	0.830		0.830	(CAT HE	3)		
Net Correction:	0.830		0.830				
Loading Tool Cycle Tir Excavators and Front Sh Machine Cycle Tin	ovels: ne vs. Job Cor	ndition Rating	g: <u>NA</u>	sses Required to	Fill Truck:	5	passes
Excavators and Front Sh Machine Cycle Tin	ovels: ne vs. Job Cor ne within this	ndition Rating Basic Rating	g: <u>NA</u>	sses Required to	Fill Truck:	5	passes
Excavators and Front Sh Machine Cycle Tin Selected Val	ovels: ne vs. Job Cor ne within this s – Material l	ndition Rating Basic Rating	g: <u>NA</u>	sses Required to	Fill Truck:	5	passes
Excavators and Front Sh Machine Cycle Tin Selected Val Track Loader	ovels: ne vs. Job Cor ne within this s – Material l	ndition Rating Basic Rating	g: <u>NA</u> g: <u>NA</u>	sses Required to	Fill Truck: Dump:0.10		passes
Excavators and Front Sh Machine Cycle Tin Selected Val Track Loader Cycle Time Elements (mi	ovels: ne vs. Job Cor ue within this s – Material I n.):	ndition Rating Basic Rating Description: Maneuve	g: NA g: NA er: NA		Dump: 0.10	00	passes
Excavators and Front Sh Machine Cycle Tin Selected Val Track Loader Cycle Time Elements (mit Load: NA	ovels: ne vs. Job Cor ue within this s – Material I n.): rs - Unadjust	ndition Rating Basic Rating Description: Maneuve	g: NA g: NA er: NA		Dump: 0.10	00	
Excavators and Front Sh Machine Cycle Tim Selected Val Track Loader Cycle Time Elements (minus) Load: NA Wheel and Track Loader	ovels: ne vs. Job Cor ue within this s – Material I n.): rs - Unadjust rs li: Bank or	ndition Rating Basic Rating Description: Maneuve ed Basic Loa	g: NA g: NA er: NA der Cycle Tin	me (load, dump,	Dump: 0.10	00 0.500 min	
Excavators and Front Sh Machine Cycle Tim Selected Val Track Loader Cycle Time Elements (mit Load: NA Wheel and Track Loader Cycle Time Factor Materia Stockpil	ovels: ne vs. Job Cor ne within this s – Material I n.): rs - Unadjust rs li: Bank or e: No adju	ndition Rating Basic Rating Description: Maneuve ed Basic Loa broken mate stment - factor	g: NA g: NA er: NA der Cycle Tin erial 0.04 or not applical	me (load, dump, i	Dump: 0.10 maneuver): 6 Factor (min.) 6.040 0.000	0.500 min Source (Cat HB) (Cat HB)	
Excavators and Front Sh Machine Cycle Tim Selected Val Track Loader Cycle Time Elements (mit Load: NA Wheel and Track Loader Cycle Time Factor Materia Stockpil Truck Ownershi	ne vs. Job Corue within this s – Material Inn.): ors - Unadjust rs li Bank ore: No adjup: Commo	Maneuve ed Basic Loa broken mate stment - factor n ownership	g: NA g: NA er: NA der Cycle Tin erial 0.04 or not applicat of trucks and	me (load, dump,	Dump: 0.10 maneuver): Factor (min.) 0.040 0.000 -0.040	0.500 min Source (Cat HB) (Cat HB) (Cat HB)	
Excavators and Front Sh Machine Cycle Tin Selected Val Track Loader Cycle Time Elements (mit Load: NA Wheel and Track Loader Cycle Time Factor Materia Stockpil Truck Ownershi	ne vs. Job Corue within this s – Material Inn.): ars - Unadjust rs li: Bank or e: No adjup: Common: Constant	Maneuve ed Basic Loa broken mate stment - factor n ownership t operation - 6	g: NA g: NA er: NA der Cycle Tin erial 0.04 or not applicat of trucks and	me (load, dump, i	Dump: 0.10 maneuver): 0.040 0.000 -0.040 -0.040	0.500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)	
Excavators and Front Sh Machine Cycle Tim Selected Val Track Loader Cycle Time Elements (mit Load: NA Wheel and Track Loader Cycle Time Factor Materia Stockpil Truck Ownershi	ne vs. Job Corue within this s – Material Inn.): ars - Unadjust rs li: Bank or e: No adjup: Common: Constant	Maneuve ed Basic Loa broken mate stment - factor n ownership t operation -6 l target 0.00	g: NA g: NA er: NA der Cycle Tin erial 0.04 or not applicat of trucks and 0.04	me (load, dump, 1) ble 0.00 loaders -0.04	Dump: 0.10 maneuver): Factor (min.) 0.040 0.000 -0.040 -0.040 0.000	0.500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	
Excavators and Front Sh Machine Cycle Tin Selected Val Track Loader Cycle Time Elements (mit Load: NA Wheel and Track Loader Cycle Time Factor Materia Stockpil Truck Ownershi	ne vs. Job Corue within this s – Material Inn.): ars - Unadjust rs li: Bank or e: No adjup: Common: Constant	Maneuve ed Basic Loa broken mate stment - factor n ownership t operation -(1) l target 0.00	g: NA g: NA er: NA der Cycle Tin erial 0.04 or not applicat of trucks and 0.04 Net Cycle Tim	me (load, dump, me loaders -0.04	Dump: 0.10 maneuver): Factor (min.) 0.040 0.000 -0.040 0.000 -0.040 0.000	0.500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	
Excavators and Front Sh Machine Cycle Tin Selected Val Track Loader Cycle Time Elements (mit Load: NA Wheel and Track Loader Cycle Time Factor Materia Stockpil Truck Ownershi	ne vs. Job Corue within this s – Material Inn.): ars - Unadjust rs li: Bank or e: No adjup: Common: Constant	Maneuve ed Basic Loa broken mate stment - factor n ownership t operation -(1) l target 0.00	g: NA g: NA er: NA der Cycle Tin erial 0.04 or not applical of trucks and 0.04 Net Cycle Tim djusted Loade	me (load, dump, 1) ble 0.00 loaders -0.04	Dump: 0.10 maneuver): Factor (min.) 0.040 0.000 -0.040 -0.040 0.000	0.500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	
Excavators and Front Sh Machine Cycle Tin Selected Val Track Loader Cycle Time Elements (mit Load: NA Wheel and Track Loader Cycle Time Factor Materia Stockpil Truck Ownershi	ne vs. Job Corue within this s – Material Inn.): ars - Unadjust rs li: Bank or e: No adjup: Common: Constant	Maneuve ed Basic Loa broken mate stment - factor n ownership t operation -(1) l target 0.00	g: NA g: NA er: NA der Cycle Tin erial 0.04 or not applical of trucks and 0.04 Net Cycle Tim djusted Loade	ble 0.00 loaders -0.04 me Adjustment: er Cycle Time:	Dump: 0.10 maneuver): Factor (min.) 0.040 0.000 -0.040 -0.040 0.000 -0.040 0.040 0.040	0.500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	
Excavators and Front Sh Machine Cycle Tin Selected Val Track Loader Cycle Time Elements (m: Load: NA Wheel and Track Loader Cycle Time Factor Materia Stockpil Truck Ownershi Operatio Dump Targe	e vs. Job Corue within this s – Material I n.): ers - Unadjust rs	Maneuve ed Basic Loa broken mate stment - facto n ownership t operation - 0 1 target 0.00	g: NA g: NA er: NA der Cycle Tin erial 0.04 or not applical of trucks and 0.04 Net Cycle Tim djusted Loade	ble 0.00 loaders -0.04 me Adjustment: er Cycle Time: ime per Truck:	Dump: 0.10 maneuver): Factor (min.) 0.040 0.000 -0.040 -0.040 0.000 -0.040 0.040 0.040	0.500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	
Excavators and Front Sh Machine Cycle Tim Selected Val Track Loader Cycle Time Elements (mit Load: NA Wheel and Track Loader Cycle Time Factor Materia Stockpil Truck Ownershi Operation Dump Targer	e vs. Job Corue within this s – Material Inn.): ers - Unadjusters el: Bank ore e: No adjupe: Common: Constante: Nomina	Maneuve ed Basic Loa broken mate stment - factor n ownership t operation -(l target 0.00	g: NA g: NA er: NA er: NA erial 0.04 er not applical of trucks and 0.04 Net Cycle Tim djusted Loade Net Load Ti	ble 0.00 loaders -0.04 ne Adjustment: er Cycle Time: ime per Truck:	Dump: 0.10 maneuver): Factor (min.) 0.040 0.000 -0.040 0.000 -0.040 0.040 0.460 1.940	O.500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	utes

<u>Truck Travel (Haul & Return) Time:</u> Road Condition: <u>Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0</u>

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	-5.00	3.00	-2.00	3064	0.393

Haul Time: 0.393 minutes

Return Route:

ixctuiii ixc	Juic.					
Seg#	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	5.00	3.00	8.00	1903	0.619

Return Time: 0.619 minutes
Total Truck Cycle Time: 4.552 minutes

Loading Tool unit

Production _____520.57 ___ LCY/Hour Adjusted for job efficiency: ____432.07 ___ LCY/Hour Truck Unit Production

Optimal No. of Trucks: _____ 2 Truck(s) Selected Number of Trucks: ____ 2 Truck(s)

Adjusted hourly truck team production: 482.19 LCY/Hour Adjusted single truck/loader team production: 432.07 LCY/Hour Adjusted multiple truck/loader team production: 864.15 LCY/Hour

JOB TIME AND COST

Fleet size: 2 Team(s) Total job time: 2,919.58 Hours

Unit cost: \$2.311 /LCY Total job cost: \$5,830,541

DEMOLITION WORK

ite:	Portland Limestone Quarry	<u> </u>	Permit Action:	AM-2	Permit/.	Job#: M1977344
OJE(CT IDENTIFICATION					
ask #:	R080	State:	Colorado		Abbreviation:	None
Date:	3/1/2024	County:	Fremont		Filename:	M344-R080
Date.						

<u>UNIT COSTS</u> <u>Location adjustment: 87.70 %</u>

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Chain link fence - 13 miles	6 ft x 68,640 ft	Fencing, chain link, including posts and fabric - to 6 ft. high	68,640.00	LF	\$2.90	\$199,056.00
Septic Vault	2000 gal	Comprehensive storage tank removal, non- leaking - 3,000 to 5,000 gal. tank	1.00	EA	\$3,550.90	\$3,550.90
6.5 miles of conveyor (MTAC)	9ft H x 6.4ft W	Conveyor, demolition, off-site disposal in approved landfill, 30 mile haul	1,976,832.00	CF	\$0.81	\$1,601,233.92
MTAC footers (486 footers, 8' long), 2mile Haul	8x0.75x0.75	Demo. and on-site disposal in existing pit, 2.0 ft. x 3 ft Max. 10,000 ft. haul	3,888.00	LF	\$15.09	\$58,654.76
MTAC footers (last 1.5 mile haul to pit)	3,888 CF	Load/haul/dump demolished materials/debris into pit - Max. 10,000 ft. haul	144.00	CY	\$1.97	\$283.10
Office and Break Room - Metal	184x70x20	Bldg. (SN) demo./off- site disposal in approved landfill - Max. 30 mile haul	257,600.00	CF	\$0.46	\$118,289.92
Concrete Slab	184x70x0.75	Demo. and on-site disposal in existing pit, 10 in. thick - Max. 10,000 ft. haul	12,880.00	SF	\$2.10	\$26,987.46

				Total Cost	
		Subtotal		(adjusted for	
Job Hours:	1,511.00	(unadjusted):	\$2,008,056.06	location):	\$1,761,065.16

BULLDOZER RIPPING WORK

	Task description:	RC	Q Rip facility area (18 ac	eres)				
Site	: Portland Lime	estone Quarrie	es Permit Action:	AM-2	P	ermit/Job#	: <u>M197734</u>	4
	PROJECT IDI	ENTIFICATI	ION					
	Task #:	/2024	State: Colorado County: Fremont			reviation: Filename:	None M344-R09	0
			n name: DRMS					
	HOURLY EQU	•						
			at D8T - 8SU		Horsepower:		310	
	Ripper Att		Shank Ripper		Shift Basis:		per day	<u>—</u>
					Data Source:	(CRG)	_
	Cost Breakdown:			ı				
		Ownership C	ost/Hour:	\$241.38	Utilization % NA			
		Operating C		\$143.92	100	=		
		er Ownership C	Cost/Hour:	\$14.11	NA	= =		
	Ripp	per Operating C		\$7.45	100 NA	_		
		Operator C Total Unit C		\$41.30 \$448.16	NA	_		
			-	<u> </u>				
		Total Fleet C		8.16				
	MATERIAL Q	<u>UANTITIES</u>	Sel	ected estimating	g method: Are	a		
	Alternate Method	<u>ls:</u>						
Seismic:	NA		Bank Volume:	NA	BCY _		NA	
Area:	18.00	acres	Rip Depth (ft):	1.00	Volume:	29,040	I	BCY or CC
		Source of esti	mated quantity: AM-2	Exh. L, Task (009			<u> </u>
	HOURLY PRO	<u>DDUCTION</u>						
	Seismic:							
			Seismic Velocity:	NA	feet/sec	cond		
	Area:		D D .	0.74	0			
			ge Ripping Depth: ge Ripping Width:	2.56 7.08	feet/pas feet/pas			
			e Ripping Width:	600.00	feet/pas			
			rage Dozer Speed:	88.00	feet/mi			
			e Maneuver Time: ction per unit area:	0.25 0.828	minutes acres/h	-		
			<u> </u>	0.020	acres/iii	oui		
	Job Condition Co							
	Un	adjusted Hourly	y Unit Production:	0.828	Acres/h	ır		
			Site Altitude:	5,263	feet			
			Altitude Adj: Job Efficiency:	1.00 0.83	(CAT I (1 shift			
			Net Correction:	0.83	multipl			
			Hourly Unit Production: Hourly Fleet Production:	0.69 0.69	Acres/hr Acres/hr			
	JOB TIME AN	ID COST						
	Fleet size:	1	_ Grader(s)	Total job tin	ne:	26.20	Hour	rs.
	Unit cost:	\$652,251	Per acre	Total job co	ost: \$	11.741		

MOTOR GRADER WORK

Task description:	Finish grade disturb	ed areas (RCQ)		
Portland Limestone	e Quarries Permit A	Action: AM-2	Per	rmit/Job#: <u>M1977344</u>
PROJECT IDENTI	FICATION			
Task #: R100	State: Co	olorado	Abbre	eviation: None
Date: 3/1/2024		emont		lename: M344-R100
User: TC1				
Agency or or	ganization name: DRMS			
HOURLY EQUIPM	IENT COST			
Basic Machi	<u> </u>		Horsepower:	158
Ripper Attachme	ent:		Shift Basis:	1 per day
			Data Source:	(CRG)
Cost Breakdown:				
			Utilization %	
	nership Cost/Hour:	\$74.98	NA	
	perating Cost/Hour:	\$55.26	100	
	nership Cost/Hour:	\$0.00	NA	
	perating Cost/Hour:	\$0.00	NT A	
	perator Cost/Hour:	\$28.56	NA	
10	tal Unit Cost/Hour:	\$158.80	_	
Tot	al Fleet Cost/Hour:	\$158.80		
MATERIAL QUAN Total Are	ea to be graded or ripped:	645.00		acres
Sou	arce of estimated acreage:	AM-2, Exh. L, Task	010	
HOURLY PRODU	CTION			
	Average Grader Speed:		mph	
	Selected Application:		h grading (0-2.5 mp)	h) - 1.5
	Selected Blade Angle:		degrees	
Widt	Effective Blade Length: h of blade overlap per pass:		feet feet	
	g or ripping width per pass:		feet	
	ed Hourly Unit Production:		acres/hou	ır
Job Condition Correcti	•		Site Altitude: <u>5263</u> f	
		Source		
Altitude Adj:	1.00	CAT HB)		
Job Efficiency:		sh/d, fav.)		
Net Correction:		ultiplier		
	Adjusted Hourly Unit Prod	luction: 1.6364	acres/Hour	
	Adjusted Hourly Fleet Proc			
		1,0004		
JOB TIME AND C	<u>OST</u>			
Fleet size:	1 Grader(s)	Total job tin	ne: 394.17	Hours
Unit cost: \$	97.04 per acre	Total job co	st: \$62,59	4

TRUCK/LOADER TEAM WORK

Task description:	Distribu	ıte 6" topsoil ov	er RCQ affected a	areas (645 Ac)		
Site: Portland Limes	tone Quarries	Permit Act	ion: AM-2		Permit/Job#: M	1977344
PROJECT IDEN	NTIFICATION	I				
Task #: R110		<u>t</u> State: Coloi	and a	Λh	breviation: No	
Date: $\frac{138K \#: R110}{3/1/2}$		County: Frem		AD		ne 344-R110
User: $\frac{3/1/2}{\text{TC1}}$	024	county. Trem	Ont		i ilciidiile. <u>Wis</u>	44 K110
Agency o	r organization nai	me: DRMS				
HOURLY EQU	IPMENT COS	<u>r</u>		Shift bas	is: 1 per day	
		,	Equipment Descri	iption		
,	Truck Loader Tea		t 730			
Cun	oort Equipment -I		T 950H			
Տարլ			t D7R DS Series II	LGP		
Road M	Iaintenance –Mot	-				
	-Wa	ater Truck: NA	1			
Cost Breakdown:	Truck/Lo	ader Team	Support 1	Equipment	Maintenan	nce Equipment
Cost Di canao wii.	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
% Utilization-machine:	100	100	NA	100	NA	NA
Ownership cost/hour:	\$108.06	\$49.32	NA	\$114.76	NA	NA
Operating cost/hour:	\$71.88	\$39.80	NA	\$91.98	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:	\$32.54	\$40.71	NA	\$41.30	NA	NA
Unit Subtotals:	\$212.48	\$129.83	NA	\$248.04	NA	NA
Number of Units:	2	1	0	1	0	0
Group Subtotals:	Work:	\$554.79	Support:	\$248.04	Maint:	\$0.00
Total work team co	st/hour: \$802.83	3				
MATERIAL QU	<u>JANTITIES</u>					
Initial volume Loose volume		00 CCY		factor: 1.000		
So	ource of estimated	l volume: AM	-2, Exh. L, Task 0	11 (6" over 645 A	c); 1000' haul	
Source	e of estimated swe		Handbook	,		
	Material Purch					
	Т	otal Cost: \$0.0	U .			
HOURLY PRO	<u>DUCTION</u>					
Truck Capacity:						
Truck Payload (we						
Material			Pounds/LCY			
Desc	ription: Decon	iposea rock - 25%	6 Rock, 75% Earth	1		

Pounds LCY

Rated Payload: 62,000
Payload Capacity: 23.40

62,000

Truck Bed (volume) Basis Struck Volume:	<u>.</u> 17.10	LCY					
Heaped Volume:	22.10	_ LCY					
Average Volume:	19.60	— LCY					
Adjusted Volume:	22.10	LCY					
,							
	nal Truck Volu	ume Based on Nu	mber of Lo	oader Passes:	22.04	LCY	
Loading Tool Capacity				Bucl	ket Size Class: 1	NA	
Rated Capacity:	4.300	LCY (he	eaned)			·	_
Bucket Fill Factor:				re (100%-105	5%) 1.025		
Adjusted Capacity:				(_
Job Condition Correctio	ns:		Site A	Altitude (ft.): <u>{</u>	5263 feet		
	Truck	Load	er	Source			
Altitude Adj:	1.000	1.000)	(CAT HE	3)		
Job Efficiency:	0.830	0.830)	(CAT HE	3)		
Net Correction:	0.830	0.830	0				
Loading Tool Cycle Tim	e• Niii	mber of Loading	Tool Passes	Required to	Fill Truck:	5	nasses
Loading Tool Cycle Tim Excavators and Front Sho		mber of Loading	Γool Passes	Required to	Fill Truck:	5 1	passes
Excavators and Front Sho	vels:	·		s Required to	Fill Truck:	5 1	passes
	vels: e vs. Job Cond	lition Rating: 1	Γool Passes NA NA	s Required to	Fill Truck:	5	passes
Excavators and Front Sho Machine Cycle Tim	vels: e vs. Job Cond e within this	lition Rating: 18	NA NA		Fill Truck:	51	passes
Excavators and Front Sho Machine Cycle Tim Selected Valu	vels: e vs. Job Conce within this less — Material D	lition Rating: 18	NA NA			5	passes
Excavators and Front Sho Machine Cycle Tim Selected Valu Track Loaders	vels: e vs. Job Conce within this less — Material D	lition Rating:	NA NA				passes
Excavators and Front Sho Machine Cycle Tim Selected Valu Track Loaders Cycle Time Elements (min	vels: e vs. Job Conce within this less Material Description.	lition Rating:	NA NA		Dump: 0.10		
Excavators and Front Sho Machine Cycle Tim Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loaders	vels: e vs. Job Conde within this less — Material Description.): ess - Unadjusted	lition Rating:	NA NA		Dump: 0.10	00 0.500 min	
Excavators and Front Sho Machine Cycle Tim Selected Valu Track Loaders Cycle Time Elements (min	vels: e vs. Job Conde within this less — Material Description.): ess - Unadjusted s	lition Rating:	NA NA		Dump: 0.10	00	
Excavators and Front Sho Machine Cycle Tim Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factor	vels: e vs. Job Conde within this less — Material Dan.): ess - Unadjusted selections	lition Rating: 1 Basic Rating: 1 escription: 1 Maneuver: 1 d Basic Loader C	NA NA NA Vycle Time ((load, dump, 1	Dump: 0.10 maneuver): 0.10 Factor (min.)	00 0.500 min Source	
Excavators and Front Sho Machine Cycle Tim Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loade Cycle Time Factor Materia	vels: e vs. Job Conce the within this less — Material Description.): ers - Unadjusters s	lition Rating:	NA NA VA ycle Time ((load, dump, 1	Dump: 0.10 maneuver): 0.10 Factor (min.) 0.020	00 0.500 min Source (Cat HB)	
Excavators and Front Sho Machine Cycle Tim Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factor Materia Stockpile Truck Ownership Operation	vels: e vs. Job Conc ae within this la a – Material D a.): es - Unadjuste s b: Mixed m c: No adjust c: Common c: Constant	lition Rating:	NA NA VA ycle Time ((load, dump, 1	Dump: 0.10 maneuver): 0.020 0.000 -0.040 -0.040	0.500 min Source	
Excavators and Front Sho Machine Cycle Tim Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factor Materia Stockpile Truck Ownership	vels: e vs. Job Conc ae within this la a – Material D a.): es - Unadjuste s b: Mixed m c: No adjust c: Common c: Constant	lition Rating:	NA NA VA ycle Time (applicable cks and loa	(load, dump, 1 0.00 ders -0.04	Dump: 0.10 maneuver): 0.020 0.000 -0.040 -0.040 0.000	00 min Source (Cat HB) (Cat HB) (Cat HB)	
Excavators and Front Sho Machine Cycle Tim Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factor Materia Stockpile Truck Ownership Operation	vels: e vs. Job Conc ae within this la a – Material D a.): es - Unadjuste s b: Mixed m c: No adjust c: Common c: Constant	Basic Rating:	NA NA NA ycle Time (applicable cks and loa	O.00 ders -0.04	Dump: 0.10 maneuver): 0.020 0.000 -0.040 -0.040 0.000 -0.060	00 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	
Excavators and Front Sho Machine Cycle Tim Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factor Materia Stockpile Truck Ownership Operation	vels: e vs. Job Conc ae within this la a – Material D a.): es - Unadjuste s b: Mixed m c: No adjust c: Common c: Constant	Basic Rating: Basic Rating: Basic Rating: Maneuver: Maneuver: d Basic Loader C aterial 0.02 tment - factor not ownership of tru operation -0.04 target 0.00 Net Cy Adjuste	NA NA Value Time (applicable cks and loader Code Time A	(load, dump, r 0.00 ders -0.04 Adjustment:	Dump: 0.10 maneuver): 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	00 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	
Excavators and Front Sho Machine Cycle Tim Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factor Materia Stockpile Truck Ownership Operation	vels: e vs. Job Conc ae within this la a – Material D a.): es - Unadjuste s b: Mixed m c: No adjust c: Common c: Constant	Basic Rating: Basic Rating: Basic Rating: Maneuver: Maneuver: d Basic Loader C aterial 0.02 tment - factor not ownership of tru operation -0.04 target 0.00 Net Cy Adjuste	NA NA Value Time (applicable cks and loader Code Time A	O.00 ders -0.04	Dump: 0.10 maneuver): 0.020 0.000 -0.040 -0.040 0.000 -0.060	00 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	
Excavators and Front Sho Machine Cycle Tim Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factor Materia Stockpile Truck Ownership Operation	vels: e vs. Job Conc ae within this la a – Material D a.): es - Unadjuste s b: Mixed m c: No adjust c: Common c: Constant	Basic Rating: Basic Rating: Basic Rating: Maneuver: Maneuver: d Basic Loader C aterial 0.02 tment - factor not ownership of tru operation -0.04 target 0.00 Net Cy Adjuste	NA NA Value Time (applicable cks and loader Code Time A	(load, dump, r 0.00 ders -0.04 Adjustment:	Dump: 0.10 maneuver): 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	00 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	
Excavators and Front Sho Machine Cycle Tim Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loade Cycle Time Factor Materia Stockpile Truck Ownership Operation Dump Targe	vels: e vs. Job Cond the within this list. s – Material D the control of the cont	lition Rating:	NA NA Value Time (applicable cks and loader Code Time A	O.00 ders -0.04 Adjustment: Cycle Time:	Dump: 0.10 maneuver): 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	00 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	
Excavators and Front Sho Machine Cycle Tim Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factor Materia Stockpile Truck Ownership Operation Dump Targe	vels: e vs. Job Conde within this last – Material Dan.): es - Unadjusted services No adjusted services Common Constant Nominal	lition Rating:	NA NA Value Time (applicable cks and loader Code Time A	O.00 ders -0.04 Adjustment: Cycle Time: per Truck:	Dump: 0.10 maneuver): 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 1.860	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	utes

<u>Truck Travel (Haul & Return) Time:</u> Road Condition: <u>Rutted dirt, little maintenance, no water, 2" tire penetration 5.0</u>

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	0.00	5.00	5.00	1427	0.823

Haul Time: 0.823 minutes

Return Route:

IXCUITI IXC	Juic.					
Seg#	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	0.00	5.00	5.00	2646	0.537

Return Time: 0.537 minutes
Total Truck Cycle Time: 4.820 minutes

Loading Tool unit

Production 537.50 LCY/Hour Adjusted for job efficiency: 446.13 LCY/Hour Truck Unit Production 274.33 LCY/Hour Adjusted for job efficiency: 227.69 LCY/Hour

Optimal No. of Trucks: 2 Truck(s) Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 455.38 LCY/Hour Adjusted single truck/loader team production: 446.13 LCY/Hour Adjusted multiple truck/loader team production: 446.13 LCY/Hour

JOB TIME AND COST

Fleet size: _____1 Team(s) Total job time: _____1,166.27 Hours

Unit cost: \$1.800 /LCY Total job cost: **\$936,313**

REVEGETATION WORK

Γask description:	RCQ R						
Portland Limeston	e Quarries	Permi	t Action: <u>AM</u> -	2		Permit/Job#	: <u>M1977344</u>
ROJECT IDENTII	FICATION						
Task #: R120		State: C	olorado		ΛЫ	breviation:	None
Date: $\frac{120}{3/1/2024}$			remont		_		M344-R120
User: TC1			remont		_	i ilcitatiic.	W1544 K120
Agency or org	ganization nai	me: DRMS	5				
ERTILIZING							
[aterials							
Description			Units / Acre	Unit	Cos	t / Unit	Cost /Acre
					\$		\$
					Tot	al Fertilizer Materials Cost/Acre	\$0.00
pplication Description							Cost /Acre
							Cost /Acre
			Total	l Fertilizer A	Applicatio	n Cost/Acre	
			Total	l Fertilizer A	Applicatio	n Cost/Acre	\$
Description ILLING			Total	l Fertilizer A	Applicatio	n Cost/Acre	\$
Description	1G}		Total	l Fertilizer A	Applicatio	n Cost/Acre	\$0.00
Description ILLING Description	1G}		Total			n Cost/Acre	\$ \$0.00 Cost /Acre
Description ILLING Description	1G}		Total				\$ \$0.00 Cost /Acre \$100.40
Description ILLING Description Chisel plowing {DM	1G}		Total	T		g Cost/Acre	\$ \$0.00 Cost /Acre \$100.40 \$100.40
Description ILLING Description Chisel plowing {DM	1G}		Total	T	otal Tillin	g Cost/Acre	\$ \$0.00 Cost /Acre \$100.40
Description ILLING Description Chisel plowing {DM	1G}		Total	T	otal Tillin Rate – PLS LBS /	g Cost/Acre Seeds per SQ.	\$ \$0.00 Cost /Acre \$100.40 \$100.40
Description ILLING Description Chisel plowing {DM EEDING Seed Mix	1G}		Total	T	Rate – PLS LBS / Acre	g Cost/Acre Seeds per SQ. FT	\$ \$0.00 Cost /Acre \$100.40 \$100.40
Description ILLING Description Chisel plowing {DM EEDING Seed Mix Alkali Sacaton			Total	T	Rate – PLS LBS / Acre 3.00	g Cost/Acre Seeds per SQ.	\$ \$0.00 Cost /Acre \$100.40 \$100.40
Description ILLING Description Chisel plowing {DM EEDING Seed Mix	(espar		Total	T	Rate – PLS LBS / Acre	g Cost/Acre Seeds per SQ. FT	\$ \$0.00 Cost /Acre \$100.40 \$100.40

Great Basin Wildrye - Magnar

Streambank Wheatgrass - Sodar

Sideoats Grama - El Reno

Alfalfa - Ladak (inoculated)

\$346.50

\$150.75

\$125.40

\$899.56

\$40.80

30.00

18.00

16.00

22.00

111.50

Totals Seed Mix

121.90

59.09

77.13

71.72

533.30

Application

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

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Hay, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$429.79	\$859.57
Total Mulch Materials Cost/Acre				\$859.57

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$74.46
Power mulcher (MEANS 32 91 13.16 0350)		\$147.67
	Total Mulch Application Cost/Acre	\$222.13

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:
 645
 Cost /Acre:
 \$2,313.66

 Estimated Failure Rate:
 30%
 Cost /Acre*:
 \$1,131.56

*Selected Replanting Work Items: SEEDING

Initial Job Cost: \$1,492,310.70

Reseeding Job Cost: \$218,956.86

Total Job Cost: \$1,711,268

Job Hours: 2,654.00