

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

1313 Sherman Street, Room 215 Denver, CO 80203

July 9, 2019

Jay Wagner Wagner Construction, Inc. 1850 E. 1st Street Craig, CO 81625

Re: Wagner Rock Pit, Permit No. M-1999-018, Objections to Surety Increase (SI-3) Response-1

Dear Mr. Daehling,

The Division of Reclamation Mining and Safety (Division) issued a Surety Increase (SI-3) as the result of a site inspection conducted on June 12, 2019. The additional financial warranty amount of \$25,520 for a total bond amount of \$73,827 is due September 2, 2019. This 60-day deadline is pursuant to C.R.S. 34-32.5-117(4) and may not be extended at a staff level.

Included with the reclamation cost estimate summary was a table summarizing factors that were changed as compared to the CN-1 calculation in fall of 2018. This summary table does not take into account changes resulting from inflation or other RS Means cost changes. Also note that recently our CIRCES program has had the second of four annual installments to phase-in the net cost increase which is in addition to the standard inflation increases.

On July 8, 2019 the Division received email correspondence which indicated that you may wish to object to the financial warranty increase, SI-3 for your mining permit, M-1999-018. The calculations are based on what it would cost the State to hire a contractor to complete reclamation if an operator was unable to do so. Therefore, it is inherent that the costs will be more than what it costs the company to complete the required work. The Division will review specific tasks, equipment used, quantities, and volumes. However, staff will not review equipment efficiencies and labor costs as they are determined by using nationally accepted sources and values within the bonding program that are updated regularly. Please remember that estimates are a based on a combination of current site conditions and worst case scenario of the mining plan.

Please be advised that in order to officially object to the noticed increase the following documentation must be submitted to the Division's Denver office no later than the compliance date for the revisions, which is September 2, 2019.



Required Documentation

- 1. A cover letter identifying the permit and financial warranty increase you are objecting to as well as an explanation the justification for your objection
- 2. Any new reclamation cost estimate, including all calculations, figures, diagrams, and totals for the specific tasks you are objecting too.

These materials must be received by the Division's Denver office no later than September 2, 2019. Please note that the objection for the increase must be sent under a separate cover, and clearly identified as to which site the objection is in reference to.

Any objections to the financial warranty increase must be received by the Division's Denver office by the compliance date of September 2, 2019. Failure to submit the objection with the sufficient supporting documents by this date may result in the Division issuing a "Reason to Believe" a violation exists letter and scheduling for a hearing before the Mined Land Reclamation Board for failure to post a financial warranty increase after being noticed.

Please feel free to contact me with any further questions. Amy Yeldell at the Division of Reclamation, Mining and Safety, 1313 Sherman St., Room 215, Denver, CO 80203. Direct contact can be made by phone at 303-866-3567 Ext 8183 or via email at amy.yeldell@ state.co.us

Sincerely,

Amy Geldell

Amy Yeldell Environmental Protection Specialist Department of Natural Resources Division of Reclamation, Mining and Safety

Enclosures:

Notice of Surety Increase (SI-3) w/ attachments Jay Wagner's email received 7-8-19

Ec:

Travis Marshall, Senior EPS, Grand Junction DRMS



Yeldell - DNR, Amy <amy.yeldell@state.co.us>

Wagner rock pit 1999

1 message

JayWagner <wagnercorp@q.com> To: amy <amy.yeldell@state.co.us> Mon, Jul 8, 2019 at 2:46 PM

Amy,

I am in receipt of your proposed increase in bond for the Wagner rock pit #1999. Since the last evaluation this pit has only sold 21,000 tons of material and has not changed in mine surface area. The excavation has extended to 40' deep over a 2025 square foot area.

Your increase is out of range!

I request 6 months to reevaluate and compile our own reclamation costs. I am completely booked up through November.

Jay L. Wagner The WAGNER Corporation 1850 E. 1st. Craig, Co. 81625 970-824-2709 office 970-629-2709 cell



July 2, 2019

Jay Wagner Wagner Construction, Inc. 1850 E. 1st Street Craig, CO 81625

RE: Wagner Rock Pit, Permit No. M-1999-018, Notice of Surety Increase (SI-3)

Dear Mr. Wagner:

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

Division calculations estimate the cost to reclaim the above referenced site to be <u>\$73,827</u>. This is an increase of <u>\$25,520</u> over the <u>\$48,307</u> currently held by the Division. This estimate is based on conditions observed during the June 12, 2018 inspection. *Therefore, pursuant to Section 34–32.5–117(4) of the Colorado Land Reclamation Act, adequate Financial Warranty must be submitted to the Division within 60 days of the mailing date of this letter.* The additional amount needs to be accepted prior to Monday, September 02, 2019. Please review the enclosed figures as soon as possible and contact our office if any calculation errors are noted.

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

If you require additional information, or have questions or concerns, please feel free to contact me. Amy Yeldell at the Division of Reclamation, Mining and Safety, 1313 Sherman St., Room 215, Denver, CO 80203. Direct contact can be made by phone at 303-866-3567 Ext 8183 or via email at amy.yeldell@ state.co.us

Sincerely,

my Geldell

Amy Yeldell Environmental Protection Specialist

Ec: Travis Marshall, Senior EPS, Grand Junction DRMS



COST SUMMARY WORK

Task description:		Post inspection update 6-12-2019						
Site: Wagner Rock		Pe	Permit Action: 2019-0		Permit/Job#: M1999018			
<u>P</u>]		IDENTIFIC ACY 6/19/2019	CATION State: County:	Colorado Moffat		Abbreviation: Filename:	None M018-ACY	
	User:	ACY		Wonat				

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
01a	Demolition of scale house	DEMOLISH	1	8.00	\$278
02a	Grade highwalls to 2H:1V	DOZER	2	65.71	\$31,799
03a	Transport topsoil	LOADER	1	17.20	\$2,460
03b	Spread topsoil	DOZER	2	4.54	\$2,065
04a	Rip compacted areas	RIPPER	2	3.40	\$1,678
05a	Reveg disturbed areas	REVEGE	1	16.00	\$9,677
06a	Hay storage- grade graveled areas	DOZER	2	8.23	\$3,741
07a	Equipment storage- grade graveled areas	DOZER	2	3.08	\$1,403
08a	Initial Mobilization	MOBILIZE	1	2.57	\$3,904
08b	Secondary Mobilization	MOBILIZE	1	2.57	\$729
		TALS:	131.3	\$57,734	

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	\$1,166
Performance bond:	1.05	Total =	\$606
Job superintendent:	65.65	Total =	\$4,555
Profit:	10.00	Total =	\$5,773
		TOTAL O & P =	\$12,101
		CONTRACT AMOUNT (direct + O & P) = $($	\$69,835

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	\$500	Total =	\$500
Engineering work and/or contract/bid preparation:	0.00	Total =	\$0
Reclamation management and/or administration:	5.00		\$3,492
CONTINGENCY:	0.00	Total =	\$0
	TOTAL IN	DIRECT COST =	\$16,093
TOTAL BO	\$73,827		

DEMOLITION WORK

	Task descriptio	n: Demo	olition of scale house				
Site:	Wagner Rocl	k Pit	Permit Action: 2019-	06	Pe	ermit/Job#:	M1999018
<u>PROJE</u>	<u>CT IDENTII</u>	FICATION					
Task # Date User	6/19/2019 ACY		State: <u>Colorado</u> ounty: <u>Moffat</u> me: <u>DRMS</u>		Abbreviat Filena		
UNIT C	<u>OSTS</u>				Location	adjustment	<u>: 95.50 %</u>
Structure or Item Description Dimensi		Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Scale hou	ise	8' x 10' x 20'	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 200 ft. push	1,600.00	CF	\$0.18	\$291.20

			Total Cost	
	Subtotal		(adjusted for	
Job Hours: 8.00	(unadjusted):	\$291.20	location):	\$278.10

BULLDOZER WORK

Task description:	Grade highwalls	to 2H:1V			
Wagner Rock Pit	Per	mit Action:	2019-06	Permit/Job#:	M1999018
PROJECT IDENTI	FICATION				
Task #: 02A	State:	Colorado		Abbreviation:	None
Date: $6/19/2019$		Moffat		Filename:	M018-02a
User: ACY					11010 024
Agency or org	ganization name: DI	RMS			
HOURLY EQUIPM					
	Cat D8T - 8SU				
	10				
	emi-Universal				
×1	-shank ripper				
	per day				
	CRG)				
	,				
Cost Breakdown:			Utilization %		
Ownership Cost/Hour		\$103.86	NA		
Operating Cost/Hour		\$82.26	100		
Ripper own. Cost/Hour		\$10.43	NA		
Ripper op. Cost/Hour		\$4.19	50		
Operator Cost/Hour		\$41.24	NA		
MATERIAL QUAN					
	,667 490				
Loose volume: 18	,874 LCY				
Source of estimated vol			cal to 2H:1V slope		
Source of estimated swe	ell factor: Cat Hand	lhoolr			
		IDOOK			
	CTION	IDOOK			
HOURLY PRODUC		IDOOK			
HOURLY PRODUC	135 feet				
HOURLY PRODUC Average push distance: Unadjusted hourly prod	135 feet 689.5 LCY	/hr	l or blasted 0.6		
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HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency d Average push gradient: Average site altitude: Material weight:	135 feetluction: $689.5 LCY$ lescription:Rock, $0%$ $6,490 feet$	/hr			
HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency d Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction	135 feet luction: 689.5 LCY lescription: Rock, 1 0 % 6,490 feet 3,300 lbs/LCY Basalt on Factor 135 feet	/hr poorly rippec	l or blasted 0.6		
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Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.697	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.2083	
Adjusted unit production: 14	43.62 LCY/hr	
Adjusted fleet production: 2	87.24 LCY/hr	

Fleet size:	2 Dozer(s)
Unit cost:	\$1.685/LCY

Total job time:	65.71 Hours
Total job cost:	\$31,799

WHEEL LOADER - LOAD AND CARRY WORK

PROJECT IDENTIFICATION Task #: 03A State: Colorado Abbreviation: None Date: 6/19/2019 County: Moffat Filename: M018/03a Agency or organization name: DRMS IOURLY EQUIPMENT COST Basic Machine: CAT 972H Horsepower: 287 Attachment 1: ROPS Cab Data Source: (CRG) Cost Breakdown; Utilization % Data Source: (CRG) Operating Cost/Hour: \$46,54 NA Data Source: (CRG) Operating Cost/Hour: \$46,54 NA Data Source: (CRG) Operating Cost/Hour: \$413.00 Total Unit Cost/Hour: \$143.00 Total Fleet Cost/Hour: \$143.00 More source of estimated volume: 6" topsoil over 4.6 ac Source of estimated swell factor: Source of estimated swell factor: C2Y Swell factor: 1.125 Coder Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.525 minutes Source of estimated swell factor: C	Task description:	Transpo	ort topsoil					
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Loose volume: 4,174 LCY Source of estimated volume: 6" topsoil over 4.6 ac Source of estimated swell factor: Cat Handbook HOURLY PRODUCTION aoader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.525 minutes Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.525 minutes Cycle Time Factors Factor (min.) Source Material: Mixed material 0.02 0.020 (Cat HB) Stockpile: Conveyor or dozer piled 10 ft. high or less 0.01 0.010 (Cat HB) Truck Ownership: Common ownership of trucks and loaders -0.04 -0.040 (Cat HB) Operation: Constant operation -0.04 -0.040 (Cat HB) Dump Target: Nominal target 0.00 0.000 (Cat HB) Dump Target: Nominal target 0.00 0.000 (Cat HB) Adjusted Basic Cycle Time: -0.050 minutes Adjusted Basic Cycle Time: 0.475 minutes Return: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0 Haul: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0								
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coader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.525 minutes Cycle Time Factors Factor (min.) Source Material: Mixed material 0.02 0.020 (Cat HB) Stockpile: Conveyor or dozer piled 10 ft. high or less 0.01 0.010 (Cat HB) Truck Ownership: Common ownership of trucks and loaders -0.04 -0.040 (Cat HB) Operation: Constant operation -0.04 -0.040 (Cat HB) Dump Target: Nominal target 0.00 0.0000 (Cat HB) Dump Target: Nominal target 0.00 0.0000 (Cat HB) Net Cycle Time Adjustment: -0.0450 minutes Adjusted Basic Cycle Time: 0.475 minutes Return: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0 minutes Return: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0 Material 5.0 Haul: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0 Material 5.0 Haul and Return Time (%) Res. (%) (%) Source	Source o	i estimated swe	en factor: <u>Cat</u>	папароок				
Cycle Time Factors Factor (min.) Source Material: Mixed material 0.02 0.020 (Cat HB) Stockpile: Conveyor or dozer piled 10 ft. high or less 0.01 0.010 (Cat HB) Truck Ownership: Common ownership of trucks and loaders -0.04 -0.040 (Cat HB) Operation: Constant operation -0.04 -0.040 (Cat HB) Dump Target: Nominal target 0.00 0.000 (Cat HB) Dump Target: Nominal target 0.00 0.000 (Cat HB) Met Cycle Time Adjustment: -0.050 minutes Adjusted Basic Cycle Time: 0.475 minutes Return: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0 minutes Return: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0 Haul: Source Haul and Return Time Use of the dirt, little maintenance, no water, 2" tire penetration 5.0 Source	HOURLY PRODU	JCTION						
Material: Mixed material 0.02 0.020 (Cat HB) Stockpile: Conveyor or dozer piled 10 ft. high or less 0.01 0.010 (Cat HB) Truck Ownership: Common ownership of trucks and loaders -0.04 -0.040 (Cat HB) Operation: Constant operation -0.04 -0.040 (Cat HB) Dump Target: Nominal target 0.00 0.000 (Cat HB) Net Cycle Time Adjustment: -0.050 minutes Adjusted Basic Cycle Time: 0.475 minutes Return: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0 Return 5.0 Haul: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0 Source Haul and Return Time Grade Res. Rolling Total Res. Travel Time (feet) (%) Res. (%) (%) Source	Loader Cycle Time:	Unadjust	ted Basic Cycle 7	Time (load, dum	p, maneuver):	0.525	minutes	
Stockpile: Conveyor or dozer piled 10 ft. high or less 0.01 0.010 (Cat HB) Truck Ownership: Common ownership of trucks and loaders -0.04 -0.040 (Cat HB) Operation: Constant operation -0.04 -0.040 (Cat HB) Dump Target: Nominal target 0.00 0.000 (Cat HB) Net Cycle Time Adjustment: -0.050 minutes Adjusted Basic Cycle Time: 0.475 minutes Rolling Resistance – Road Conditions Rutted dirt, little maintenance, no water, 2" tire penetration 5.0 Return: Haul: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0 Haul: Source Haul and Return Time Length Grade Res. Rolling Total Res. Travel Time Source	Cycle Time Fa	actors				Factor (min.)	Source	
Truck Ownership: Common ownership of trucks and loaders -0.04 -0.040 (Cat HB) Operation: Constant operation -0.04 -0.040 (Cat HB) Dump Target: Nominal target 0.00 0.000 (Cat HB) Net Cycle Time Adjustment: -0.050 minutes Adjusted Basic Cycle Time: 0.475 minutes Rolling Resistance – Road Conditions Haul: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0 Return: Haul: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0 Haul: Source Haul and Return Time Length Grade Res. Rolling Total Res. Travel Time Source (%) Res. (%) (%) Source Source			d material 0.02			0.020	(Cat HB)	
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Dump Target: Nominal target 0.00 (Cat HB) Net Cycle Time Adjustment: -0.050 minutes Adjusted Basic Cycle Time: 0.475 minutes Rolling Resistance – Road Conditions Haul: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0 Return: Return: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0 Haul: Source Haul and Return Time Length Grade Res. Rolling Total Res. Travel Time Source (%) Res. (%) (%) Source Source		1	1		lers -0.04		(Cat HB)	
Net Cycle Time Adjustment: -0.050 minutes Adjusted Basic Cycle Time: 0.475 minutes Rolling Resistance – Road Conditions Haul: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0 Return: Return: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0 Haul: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0 Haul and Return Time Length Grade Res. Rolling Total Res. Travel Time Keter (%) Res. (%) (%) Source				04			(Cat HB)	
Adjusted Basic Cycle Time: 0.475 minutes Relurn: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0 Return: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0 Haul: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0 Return: Image: Comparison of the second seco	Dump T	arget: Nomi					(Cat HB)	
Rolling Resistance – Road Conditions Haul: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0 Return: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0 Haul and Return Time Length (feet) Grade Res. Rolling Resident Res. Travel Time (%) Length (feet) Grade Res. Rolling Res. (%) Total Res. Travel Time (%) Source (%)								
Haul: Return: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0 Haul and Return Time Length (feet) Grade Res. (%) Rolling Res. (%) Total Res. (%) Travel Time (%) Source			А	djusted Basic C	ycle Time:	0.475	minutes	
Haul: Return: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0 Haul and Return Time Length (feet) Grade Res. (%) Rolling Res. (%) Total Res. (%) Travel Time (%) Source	Rolling Resistance –	Road Conditior	18					
Return: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0 Haul and Return Time Length (feet) Grade Res. Rolling Res. (%) Total Res. Travel Time (minutes) Source					0.7			
Haul and Return TimeLength (feet)Grade Res.Rolling Res. (%)Total Res.Travel Time (minutes)Source								
Length (feet)Grade Res.Rolling Res. (%)Total Res.Travel Time (minutes)Source	Retu	min: Kutted c	int, ittle mainter	ance, no water,	∠ ure penetra	uon 5.0		
(feet)(%)Res. (%)(%)(minutes)Source	Haul and Return Time	2						
(feet)(%)Res. (%)(%)(minutes)Source		Length	Grade Res	Rolling	Total Res	Travel Time	1	
		-		-			Source	
	Haul Route:						(Cat HB)	

5.00

5.00

Return Route:

450

0.00

0.3744

(Cat HB)

			otal Travel Ti otal Cycle Ti		
Load Bucket Capacity					
Rated Capacity Bucket Fill Factor Adjusted Capacity	1.100	LCY (heaped) Other - rock/di		(100-120%) 1.2	100
Job Condition Correction Site Altitude: <u>6490</u> feet	Factors				
		Source			
Altitude Adj:	1.00	(CAT HB)			
Job Efficiency:	0.83	(1 shift/day)			
Net Correction:	0.83	multiplier			
A	djusted Hourly Un djusted Hourly Un ljusted Hourly Flee	it Production:	292.32 242.62 242.62	LCY/Hour LCY/Hour LCY/Hour	
JOB TIME AND COS	<u>5T</u>				
Fleet size: 1	Loader(s	s) Tota	al job time:	17.20	Hours

Unit cost:	\$0.589	/LCY	Total job cost:	\$2,460
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BULLDOZER WORK

Task description:	Spread tops	, on			
Wagner Rock Pit		Permit Action:	2019-06	Permit/Job#:	M1999018
PROJECT IDENTIF	TCATION				
Task #: 03B	St	ate: Colorado		Abbreviation:	None
Date: $\frac{65D}{6/19/2019}$				Filename:	M018-03b
User: ACY					
	anization name:	DRMS			
HOURLY EQUIPM					
	at D8T - 8SU		_		
Horsepower: 31			_		
• •	emi-Universal				
Attachment: NA					
	per day				
Data Source: (C	CRG)		_		
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:		\$103.86	NA		
Operating Cost/Hour:		\$82.26	100		
Ripper own. Cost/Hour:		\$0.00	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$41.24	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour:	\$227.36 \$454.72				
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN	\$227.36 \$454.72 TITIES				
Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: _4,1	\$227.36 \$454.72 TITIES 74				
Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: <u>4,1</u> Swell factor: <u>1.00</u>	\$227.36 \$454.72 TITIES 74 00				
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 4,1 Swell factor: 1.00 Loose volume: 4,1	\$227.36 \$454.72 TITIES 74 00 74 LCY				
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 4,1 Swell factor: 1.00 Loose volume: 4,1 Source of estimated volu	\$227.36 \$454.72 TITIES 74 00 74 LCY ume:Trar	nsported volume, 6	5" over 4.6 ac		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 4,1 Swell factor: 1.00 Loose volume: 4,1	\$227.36 \$454.72 TITIES 74 00 74 LCY ume:Trar	nsported volume, 6	5" over 4.6 ac		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 4,1 Swell factor: 1.00 Loose volume: 4,1 Source of estimated volu Source of estimated swe	\$227.36 \$454.72 TITIES 74 00 74 LCY 1me: Tran 11 factor: Cat	1 /	5" over 4.6 ac		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 4,1 Swell factor: 1.00 Loose volume: 4,1 Source of estimated volu	\$227.36 \$454.72 TITIES 74 00 74 LCY 1me: Tran 11 factor: Cat	1 /	5" over 4.6 ac		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 4,1 Swell factor: 1.00 Loose volume: 4,1 Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance:	\$227.36 \$454.72 TITIES 74 00 74 LCY ume: Tran 11 factor: Cat TION 100 fe	Handbook	5" over 4.6 ac		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: 4,1' Swell factor: 1.00 Loose volume: 4,1' Source of estimated volu Source of estimated swe HOURLY PRODUCC	\$227.36 \$454.72 TITIES 74 00 74 LCY ume: Tran 11 factor: Cat TION 100 fe	Handbook	 5" over 4.6 ac		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 4,1 Swell factor: 1.00 Loose volume: 4,1 Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance:	\$227.36 \$454.72 TITIES 74 00 74 LCY ume: Tran 11 factor: Cat TION 2TION 100 fe 852.6	Handbook	5" over 4.6 ac		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 4,1' Swell factor: 1.00 Loose volume: 4,1' Source of estimated volu 5000000000000000000000000000000000000	\$227.36 \$454.72 TITIES 74 00 74 LCY ume: Tran 11 factor: Cat TTION action: 100 fe 852.6 escription: Log	Handbook et LCY/hr	5" over 4.6 ac		
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Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 4,1' Swell factor: 1.00 Loose volume: 4,1' Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude:	$ \begin{array}{r} & \$227.36 \\ \hline \$454.72 \\ \hline \\ $	Handbook et LCY/hr oose stockpile 1.2	5" over 4.6 ac		
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Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 4,1' Swell factor: 1.00 Loose volume: 4,1' Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description:		Handbook et LCY/hr oose stockpile 1.2			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 4,1 Swell factor: 1.00 Loose volume: 4,1 Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction	$ \begin{array}{r} \$227.36 \\ \$454.72 \\ \hline \\ \hline \\ \$454.72 \\ \hline \\ $	Handbook et LCY/hr oose stockpile 1.2 Y acked			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 4,1' Swell factor: 1.00 Loose volume: 4,1' Source of estimated volu Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator	\$227.36 \$454.72 TITIES 74 00 74 LCY Ime: Tran 11 factor: Cat 2TION action: 100 fe escription: Lo 0 % 6,490 feet 2,550 lbs/LC Earth - Dry p n Factor Skill: Skill: Stency:	Handbook et LCY/hr oose stockpile 1.2 Y acked 0.750	<u>Source</u> (AVG.)		

Job efficiency	: 0.830	(1 SHIFT/DAY)
Spoil pile	: 0.800	(FND-RF)
Push gradient	: 1.000	(CAT HB)
Altitude	: 1.000	(CAT HB)
Material Weight	: 0.902	(CAT HB)
Blade type	: 1.000	(PAT)
Net correction	: 0.5390	
Adjusted unit production:	459.55 LCY/hr	
Adjusted fleet production:	919.1 LCY/hr	

Fleet size:	2 Dozer(s)
Unit cost:	\$0.495/LCY

Total job time:	4.54 Hours
Total job cost:	\$2,065

BULLDOZER RIPPING WORK

	Task description:	Rip compacted areas			
Site:	Wagner Rock Pit	Permit Action:	2019-06	Permit/Job#	: <u>M1999018</u>
	PROJECT IDENT	TIFICATION			
	Task #: 04A	State: Colorado		Abbreviation:	None
	Date: 6/19/20	19 County: Moffat		Filename:	M018-04a
	User: ACY				
	Agency or o	rganization name: DRMS			
	HOURLY EQUIP	MENT COST			
	Basic Mac	hine: Cat D8T - 8SU		Horsepower:	310
	Ripper Attachr	nent: 3-Shank Ripper			per day
				Data Source:	(CRG)
	Cost Breakdown:				
	0	en en hie Cest/Heere		Utilization %	
		wnership Cost/Hour: Dperating Cost/Hour:	\$103.86 \$82.26	<u>NA</u> 100	
		wnership Cost/Hour:	\$10.43	NA	
		Deperating Cost/Hour:	\$8.38	100	
		Operator Cost/Hour:	\$41.24	NA	
	Т	otal Unit Cost/Hour:	\$246.17		
	Te	otal Fleet Cost/Hour: \$4	92.33		
	MATERIAL QUA	NTITIES So	looted estimating r	nothody Aroa	
		se se	lected estimating r	method: Area	
	Alternate Methods:				
mic:	NA	Bank Volume:	NA	BCY	NA
rea:	3.98	acres Rip Depth (ft):	2.00	Volume: 12,842	BCY or
	So	urce of estimated quantity:Rec F	lan		
	HOURLY PRODU	JCTION			
	Seismic:				
	<u>Bolbinici</u>	Seismic Velocity:	NA	feet/second	
	Area:				
	<u>Mita.</u>	Average Ripping Depth:	2.56	feet/pass	
		Average Ripping Width:	7.08	feet/pass	
		Average Ripping Length:	100.00	feet/pass	
		Average Dozer Speed:	88.00	feet/minute	
		Average Maneuver Time: Production per unit area:	0.25 0.703	minutes/pass acres/hour	
			0.703		
	Job Condition Correc				
	Unadju	sted Hourly Unit Production:	0.703	Acres/hr	
		Site Altitude:	6,490	feet	
		Altitude Adj:	1.00	(CAT HB)	
		Job Efficiency: Net Correction:	0.83	(1 shift/day)	
				multiplier	
		Adjusted Hourly Unit Production		Acres/hr	
			. 117	Acres/hr	
		Adjusted Hourly Fleet Production	: 1.17		
	JOB TIME AND		1.17		
	JOB TIME AND (Total job time:	3.41	Hours

REVEGETATION WORK

Т	ask descrip	tion:	Reveg disturbed areas			
Site:	Wagner F	Rock Pit	Permit Action:	2019-06	Permit/Job	#: <u>M1999018</u>
PF	ROJECT	IDENTIFIC	CATION			
					A11 · ··	N.
	Task #:	05A	State: Colorado		Abbreviation:	None
	Task #: Date:	05A 6/19/2019	County: Moffat		Abbreviation: Filename:	None M018-05a

FERTILIZING

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
10-34-0, 18-46-0, 5-10-5	200.00	pound	\$0.34	\$68.00
			Total Fertilizer Materials Cost/Acre	\$68.00

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
Indian Ricegrass - Nespar	0.19	0.62	\$1.69
Prairie Clover, Purple - Kaneb	0.06	0.41	\$3.39
Sandberg Bluegrass - VNS	0.20	4.25	\$1.68
Lupine, Silver	0.56	0.33	\$39.19
Thickspike Wheatgrass - Critana	0.57	2.02	\$3.92
Muttongrass	0.03	0.62	\$1.03
Western Wheatgrass - Arriba	2.40	6.06	\$15.60
Rabbitbrush, Rubber	0.03	0.45	\$1.93
Sweetvetch, Utah or Northern	0.22	0.10	\$16.50
Needle and Thread	0.27	0.71	\$11.30
Sagebrush, Mountain or Big	0.10	5.28	\$1.98

Prairie Junegrass	0.04	2.13	\$1.04
Flax, Lewis Blue	0.06	0.40	\$0.99
Serviceberry, Utah	0.02	0.04	\$1.35
Penstemon, Palmer	0.03	0.66	\$1.64
Totals Seed Mix	4.78	24.06	\$103.21

Application

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

MULCHING and MISCELLANEOUS

Materials

	Units /			
Description	Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - 2,4D @ 1.0 pt/ac	1.00	ACRE	\$2.74	\$2.74
Herbicide - Escort @ 1.0 pt/ac	1.00	ACRE	\$179.00	\$179.00
Herbicide - Plateau @ 1.0 pt/ac	1.00	ACRE	\$10.11	\$10.11
Herbicide - Tordon 22K @ 1.0 pt/ac	1.00	ACRE	\$12.15	\$12.15
Herbicide - Transline @ 1.0 pt/ac	2.00	ACRE	\$9.34	\$18.68
Total Mulch Materials Cost/Acre				\$222.68

Application

Description		Cost /Acre
Weed spray, truck, non-aquatic area, nox. [DMG]		\$71.50
	Total Mulch Application Cost/Acre	\$71.50

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

	No. of Acres:	8.58	Cost /Acre:	\$835.47
Estimate	ed Failure Rate:	35%	Cost /Acre*:	\$835.47
*Selected Replanti	ng Work Items:	FERTILIZING,TIL	LING,SEEDING,MU	
		LCHING		
Initial Job Cost:	\$7,168.33			
Reseeding Job Cost:	\$2,508.92			
Total Job Cost:	\$9,677			
Job Hours:	16.00			

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BULLDOZER WORK

Task description:	Hay storage- grade	graverea	areas		
Wagner Rock Pit	Permi	t Action:	2019-06	Permit/Job#:	M1999018
PROJECT IDENTIF	ICATION				
Task #: 06A Date: 6/19/2019 User: ACY		Colorado Moffat		Abbreviation: Filename:	None M018-06a
Agency or organ	nization name:DRM	IS			
HOURLY EQUIPME	ENT COST				
	2 D8T - 8SU				
Horsepower: 310 Blade Type: Ser) ni-Universal				
Attachment: NA					
	er day				
Data Source: (CH	, ,				
Cost Breakdown:		1			
Ormenshin Cost/Herm		¢102.96	<u>Utilization %</u>		
Ownership Cost/Hour: Operating Cost/Hour:		\$103.86 \$82.26	<u>NA</u> 100		
Ripper own. Cost/Hour:		\$0.00	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$41.24	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour:	\$227.36 \$454.72				
Total Fleet Cost/Hour: <u>MATERIAL QUANT</u> Initial Volume: <u>4,30</u>	\$454.72 <u>TTIES</u> 2				
Total Fleet Cost/Hour: <u>MATERIAL QUANT</u> Initial Volume: 4,30 Swell factor: 1.24	\$454.72 <u>TTIES</u> 2				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 4,30 Swell factor: 1.24 Loose volume: 5,35 Source of estimated volum Source of estimated swell	\$454.72 TTIES 2 5 6 LCY me: 8 ac @ 4" d Cat Handbo 1 factor:				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 4,30 Swell factor: 1.24 Loose volume: 5,35 Source of estimated volu Source of estimated swell HOURLY PRODUCT	\$454.72 TTIES 2 5 6 LCY me: 8 ac @ 4" d 1 factor: Cat Handbo FION				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 4,30 Swell factor: 1.24 Loose volume: 5,35 Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance:	\$454.72 TTIES 2 5 6 LCY me: 8 ac @ 4" d 1 factor: Cat Handbo <u>CION</u> 100 feet	ok			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 4,30 Swell factor: 1.24 Loose volume: 5,35 Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly produc	\$454.72 TTIES 2 5 6 LCY me: 8 ac @ 4" d 1 factor: Cat Handbo TION 100 feet ction: 852.6 LCY/hr	ok	 stockpile 1.1		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 4,30 Swell factor: 1.24 Loose volume: 5,35 Source of estimated volu Source of estimated volu Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly produc Materials consistency des Average push gradient:	\$454.72 TTIES 2 5 6 LCY me: 8 ac @ 4" d 1 factor: Cat Handbo FION ction: 100 feet scription: Partly cor 0 %	ok			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 4,30 Swell factor: 1.24 Loose volume: 5,35 Source of estimated volu Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude:	\$454.72 TTIES 2 5 6 LCY me: 8 ac @ 4" d 1 factor: Cat Handbo FION ction: 100 feet ction: 852.6 LCY/hr scription: Partly cor 0 % 6,490 feet	ok			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 4,30 Swell factor: 1.24 Loose volume: 5,35 Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight:	\$454.72 TTIES 2 5 6 LCY me: 8 ac @ 4" d 1 factor: Cat Handbo TION ction: 100 feet scription: Partly cor 0 % 6,490 feet 3,300 lbs/LCY	ok			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 4,30 Swell factor: 1.24 Loose volume: 5,35 Source of estimated volum 5,35 Source of estimated volum Source Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Entert State	\$454.72 TTIES 2 5 6 LCY me: 8 ac @ 4" d 1 factor: Cat Handbo FION ction: 100 feet ction: 852.6 LCY/hr scription: Partly cor 0 % 6,490 feet 3,300 lbs/LCY Basalt	ok			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 4,30 Swell factor: 1.24 Loose volume: 5,35 Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction	\$454.72 TTIES 2 5 6 LCY me: 8 ac @ 4" d 1 factor: Cat Handbo FION ction: 100 feet ction: 852.6 LCY/hr scription: Partly cor 0 % 6,490 feet 3,300 lbs/LCY Basalt Factor Factor	nsolidated	Source		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 4,30 Swell factor: 1.24 Loose volume: 5,35 Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator	\$454.72 TTIES 2 5 6 LCY me: 8 ac @ 4" d 1 factor: Cat Handbo TION ction: 100 feet scription: Partly cor 0 % 6,490 feet 3,300 lbs/LCY Basalt Factor 0.75	ok nsolidated 	Source (AVG.)		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 4,30 Swell factor: 1.24 Loose volume: 5,35 Source of estimated volum Source of estimated volum Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction	\$454.72TTIES256 LCY 6 LCYme:8 ac @ 4" d1 factor:Cat HandboCat Handbo 100 feetction: 100 feetscription:Partly cor0 % $6,490$ feet3,300 lbs/LCYBasaltFactor $5,300$ lbs/LCYBasalt $5,300$ lbs/LCYImage: scription in the second s	ok nsolidated 	Source		

Job efficience	y: 0.830	(1 SHIFT/DAY)
Spoil pi	e: 0.800	(FND-RF)
Push gradie	nt: 1.000	(CAT HB)
Altitud	e: 1.000	(CAT HB)
Material Weig	nt: 0.697	(CAT HB)
Blade typ	e: 1.000	(PAT)
Net correction	n: 0.3818	
Adjusted unit production:	325.52 LCY/hr	
Adjusted fleet production:	651.04 LCY/hr	

Fleet size:	2 Dozer(s)
Unit cost:	\$0.698/LCY
Total ich time	9 22 Hours

Total job time:	8.23 Hours
Total job cost:	\$3,741

BULLDOZER WORK

Task description:	Equipment stor	age- grade gi	raveled areas		
Wagner Rock Pit	Pe	rmit Action:	2019-06	Permit/Job#:	M1999018
PROJECT IDENTIE	FICATION				
Task #: 07A	State:	Colorado		Abbreviation:	None
Date: 6/19/2019		Moffat		Filename:	M018-07a
User: ACY				-	
Agency or orga	anization name: <u>D</u>	RMS			
HOURLY EQUIPM	ENT COST				
	at D8T - 8SU				
Horsepower: 31					
Blade Type: Se Attachment: NA	emi-Universal				
	per day				
	(RG)				
Cost Breakdown:	,				
			Utilization %		
Ownership Cost/Hour:		\$103.86	NA		
Operating Cost/Hour:		\$82.26	100		
Ripper own. Cost/Hour:		\$0.00	<u>NA</u> 0		
Ripper op. Cost/Hour:		\$0.00			
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour:	\$227.36 \$454.72	\$41.24	NA		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: <u>1,6</u> Swell factor: <u>1.2</u>	\$227.36 \$454.72 TITIES 13 45				
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: <u>1,6</u> Swell factor: <u>1.2</u>	\$227.36 \$454.72 TITIES 13				
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: <u>1,6</u> Swell factor: <u>1.2</u>	\$227.36 \$454.72 TITIES 13 45 08 LCY	\$41.24			
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 1,6 Swell factor: 1.2 Loose volume: 2,0	\$227.36 \$454.72 TITIES 13 45 08 LCY Ime:3 ac @ 4	\$41.24			
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: 1,6 Swell factor: 1.2 Loose volume: 2,00 Source of estimated volu Source of estimated swe	\$227.36 \$454.72 TITIES 13 45 08 LCY Ime: <u>3 ac @ 4</u> Il factor: <u>Cat Han</u>	\$41.24			
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 1,6 Swell factor: 1.2 Loose volume: 2,0 Source of estimated volu	\$227.36 \$454.72 <u>TITIES</u> 13 45 08 LCY Ime: <u>3 ac @ 4</u> Il factor: <u>Cat Han</u> <u>CTION</u>	\$41.24			
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: 1,6 Swell factor: 1.2 Loose volume: 2,00 Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance:	\$227.36 \$454.72 TITIES 13 45 08 LCY Ime: <u>3 ac @ 4</u> 11 factor: <u>Cat Han</u> TION 100 feet	\$41.24			
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 1,6 Swell factor: 1.2 Loose volume: 2,00 Source of estimated volu Source of estimated swe HOURLY PRODUC 100	\$227.36 \$454.72 TITIES 13 45 08 LCY Ime: <u>3 ac @ 4</u> 11 factor: <u>Cat Han</u> TION 100 feet	\$41.24			
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: 1,6 Swell factor: 1.2 Loose volume: 2,00 Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance:	\$227.36 \$454.72 TITIES 13 45 08 LCY Ime: <u>3 ac @ 4</u> Il factor: <u>Cat Han</u> TION TION action: <u>100 feet</u> 852.6 LCY	\$41.24	NA		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 1,6 Swell factor: 1,2 Loose volume: 2,0 Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ	$\begin{array}{r} \$227.36 \\ \hline \$454.72 \\ \hline \\ $	\$41.24 4" depth dbook	NA		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 1,6 Swell factor: 1.2 Loose volume: 2,0 Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ	\$227.36 \$454.72 TITIES 13 45 08 LCY Ime: <u>3 ac @ 4</u> 11 factor: <u>Cat Han</u> TION TION action: <u>100 feet</u> 852.6 LCY	\$41.24 4" depth dbook	NA		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 1,6 Swell factor: 1,2 Loose volume: 2,0 Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient:	$ \begin{array}{c} & \$227.36 \\ \hline \$454.72 \\ \hline $	\$41.24 4" depth dbook	NA		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 1,6 Swell factor: 1.2 Loose volume: 2,00 Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude:	$ \begin{array}{c} $	\$41.24 4" depth dbook	NA		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 1.6 Swell factor: 1.2. Loose volume: 2,00 Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average site altitude: Material weight: Weight description: Job Condition Correction	$\begin{array}{r} \$227.36 \\ \$454.72 \\ \hline \\ $	\$41.24 4" depth dbook Z/hr consolidated	NA		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 1,6 Swell factor: 1.2 Loose volume: 2,0 Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	\$41.24 \$41.24 \$41.24 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	NA		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 1,6 Swell factor: 1.2 Loose volume: 2,0 Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correctio Operator Material consis	\$227.36 \$454.72 TITIES 13 45 08 LCY ime: $3 \text{ ac } @ 4$ 11 factor: Cat Han TION TION action: 852.6 LCY escription: Partly $0 %$ $6,490$ feet $3,300 \text{ lbs/LCY}$ Basalt n Factor Skill: 0 rency: 1	\$41.24 \$41.24 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	NA		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 1,6 Swell factor: 1.2 Loose volume: 2,0 Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consis Dozing m	\$227.36 \$454.72 TITIES 13 45 08 LCY ime: $3 \text{ ac } @ 4$ 11 factor: Cat Han TION action: 100 feet action: 252.6 LCY escription: Partly 0% $6,490 \text{ feet}$ $3,300 \text{ lbs/LCY}$ Basalt n Factor 0 kill: \circ Skill: 0 kill:	\$41.24 \$41.24 \$41.24 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	NA		

Job efficiency	0.830	(1 SHIFT/DAY)
Spoil pile	0.800	(FND-RF)
Push gradient	1.000	(CAT HB)
Altitude	1.000	(CAT HB)
Material Weight	0.697	(CAT HB)
Blade type	1.000	(PAT)
Net correction	n: 0.3818	
Adjusted unit production:	325.52 LCY/hr	
Adjusted fleet production:	651.04 LCY/hr	
—		

Fleet size:	2 Dozer(s)
Unit cost:	\$0.698/LCY

Total job time:	3.08 Hours
Total job cost:	\$1,403

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task descrip	otion: Init	tial Mobilization					
: Wagner	Rock Pit	Permit	Action: 2019	-06	I	Permit/Job#:	M1999018
PROJECT	IDENTIFICATI	<u>ON</u>					
Task #:	08A	State: Co	olorado		Abbre	viation: N	one
Date:	6/19/2019	County: Mo	offat		Fi	lename: M	I018-08a
User:	ACY	·					
Age	ency or organization	n name: DRMS					
EQUIPME	NT TRANSPOR	<u>T RIG COST</u>					
					Shift bas	sis: 1 pe	er day
				(Cost Data Sour		b Data
,	Truck Tractor Desc	ription: GENE	RIC ON-HIGH	WAY TRI	ICK TRACTO	R. 6X4. DIF	SEL POWERED,
					(2ND HALF,		
	Truck Trailer Desc	ription G	ENERIC FOLD		· · · · · · · · · · · · · · · · · · ·	,	OUIPMENT
	Truck Trunch Dese				(25T, 50T, AN		
					(201,001,11	(2 1001)	
Cost Breakdo	<u>own:</u>						
Available H	Rig Capacities	0-25 Tons	26-50 Tons	51+	Tons		
Owne	ership Cost/Hour:	\$17.20	\$29.63	\$3	88.69		
Oper	rating Cost/Hour:	\$26.56	\$47.02	\$5	5.69		
Ôp	erator Cost/Hour:	\$23.63	\$23.63	\$2	23.63		
Ĥ	Ielper Cost/Hour:	\$0.00	\$23.53	\$2	23.53		
	1 Unit Cost/Hour:	\$67.39	\$123.81	\$1	41.54		
				· · ·			
	DABLE EQUIPN	AFNT.					
Machine	Weight/	Owner ship	Haul Rig	Fleet	Haul Trip	Return Trip	
Description		Cost/hr/ unit	Cost/hr/uni	Size	Cost/hr/	Cost/hr/ fle	et Cost/ fleet
1	(TONS)		t		fleet		
Cat D8T - 8S		\$114.29	\$141.54	2	\$511.66	\$283.08	\$500.00
CAT 972H	28.00	\$46.54	\$123.81	1	\$170.35	\$123.81	\$250.00
Drill/Broadca Seeder with Tractor		\$18.15	\$67.39	1	\$85.54	\$67.39	\$250.00
Tractor							
				Subtotals:	\$767.55	\$474.2	8 \$1,000,00

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 1 T. Crew	\$48.58	1	\$48.58	\$48.58
		Subtotals:	\$48.58	\$48.58

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region: Total one-way travel distance: Average Travel Speed:	CRAIG, CO 5.00 35.00	miles mph
Total Non-Roadable Mob/Demob Cost *	\$3,889.91	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	\$13.88	

Transportation Cycle Time:

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

JOB TIME AND COST

Total job time: 2.57 Hours

Total job cost: \$3,904

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Wagner Rock	. Pit	Permit	Action: 2019	-06		Permit/Job#: M	[1999018
Wugher Roek	1 R		<u>2019</u>	00			1777010
PROJECT IDE	NTIFICATI	<u>ON</u>					
Task #: 08	В	State: Co	olorado		Abbre	eviation: None	:
Date: 6/1 User: AC	9/2019 CY	County: Mo	offat		F	ilename: M018	3-08b
Agency	or organizatior	n name: DRMS					
EQUIPMENT 2	FRANSPOR	T RIG COST					
				C	Shift ba Cost Data Sou		
Truc	k Tractor Desc	ription: GENE	RIC ON-HIGH		CK TRACTO (2ND HALF,	OR, 6X4, DIESEI 2006)	L POWERED,
Truc	k Trailer Desc	ription: G			SENECK, DF (25T, 50T, AI	ROP DECK EQU ND 100T)	IPMENT
Truc Cost Breakdown:	ek Trailer Desc	ription: G					IPMENT
Cost Breakdown: Available Rig C	Capacities	0-25 Tons		TRAILER (IPMENT
Cost Breakdown: Available Rig C Ownershij	Capacities	0-25 Tons \$17.20	26-50 Tons \$29.63	<u>FRAILER (</u> 51+ \$3	(25T, 50T, AN Tons (8.69		IPMENT
Cost Breakdown: Available Rig C Ownershij Operating	Capacities o Cost/Hour: g Cost/Hour:	0-25 Tons \$17.20 \$26.56	26-50 Tons \$29.63 \$47.02	TRAILER (51+ \$3 \$5	(25T, 50T, A) Tons 8.69 5.69		IPMENT
Cost Breakdown: Available Rig C Ownershij Operating Operato	Capacities o Cost/Hour: g Cost/Hour: r Cost/Hour:	0-25 Tons \$17.20 \$26.56 \$23.63	26-50 Tons \$29.63 \$47.02 \$23.63	TRAILER (51+ \$3 \$5 \$2	(25T, 50T, AN Tons 8.69 5.69 3.63		IPMENT
Cost Breakdown: Available Rig C Ownershij Operating Operato Helpe	2 apacities o Cost/Hour: g Cost/Hour: r Cost/Hour: r Cost/Hour:	0-25 Tons \$17.20 \$26.56 \$23.63 \$0.00	26-50 Tons \$29.63 \$47.02 \$23.63 \$23.53	TRAILER (51+ \$3 \$5 \$2 \$2	(25T, 50T, A) Tons 8.69 5.69 3.63 3.53		IPMENT
Cost Breakdown: Available Rig C Ownershij Operating Operato Helpe	Capacities o Cost/Hour: g Cost/Hour: r Cost/Hour:	0-25 Tons \$17.20 \$26.56 \$23.63	26-50 Tons \$29.63 \$47.02 \$23.63	TRAILER (51+ \$3 \$5 \$2 \$2	(25T, 50T, AN Tons 8.69 5.69 3.63		IPMENT
Cost Breakdown: Available Rig C Ownershij Operating Operato Helpe	Capacities o Cost/Hour: g Cost/Hour: r Cost/Hour: r Cost/Hour: t Cost/Hour:	0-25 Tons \$17.20 \$26.56 \$23.63 \$0.00 \$67.39	26-50 Tons \$29.63 \$47.02 \$23.63 \$23.53	TRAILER (51+ \$3 \$5 \$2 \$2	(25T, 50T, A) Tons 8.69 5.69 3.63 3.53		IPMENT
Cost Breakdown: Available Rig C Ownership Operating Operato Helpe Total Uni	Capacities o Cost/Hour: g Cost/Hour: r Cost/Hour: r Cost/Hour: t Cost/Hour: BLE EQUIPN	0-25 Tons \$17.20 \$26.56 \$23.63 \$0.00 \$67.39 MENT:	26-50 Tons \$29.63 \$47.02 \$23.63 \$23.53	TRAILER (51+ \$3 \$5 \$2 \$2	(25T, 50T, A) Tons 8.69 5.69 3.63 3.53	ND 100T)	DOT Permit
Cost Breakdown: Available Rig O Ownershij Operating Operato Helpe Total Uni	Capacities o Cost/Hour: g Cost/Hour: r Cost/Hour: r Cost/Hour: t Cost/Hour: SLE EQUIPN Weight/ Unit	0-25 Tons \$17.20 \$26.56 \$23.63 \$0.00 \$67.39	26-50 Tons \$29.63 \$47.02 \$23.63 \$23.53 \$123.81 Haul Rig Cost/hr/uni	TRAILER (51+ \$3 \$5 \$2 \$14	(25T, 50T, AN Tons 8.69 5.69 3.63 3.53 41.54 Haul Trip Cost/hr/	ND 100T)	
Cost Breakdown: Available Rig C Ownership Operating Operato Helpe Total Uni NON ROADAB Machine	Capacities o Cost/Hour: g Cost/Hour: r Cost/Hour: r Cost/Hour: t Cost/Hour: sLE EQUIPN Weight/	0-25 Tons \$17.20 \$26.56 \$23.63 \$0.00 \$67.39 MENT: Owner ship	26-50 Tons \$29.63 \$47.02 \$23.63 \$23.53 \$123.81 Haul Rig	TRAILER (51+ \$3 \$5 \$2 \$14 \$14 \$14 \$14 \$14 \$14 \$14 \$14 \$14 \$14 \$14 \$14 \$14	(25T, 50T, A) Tons 8.69 5.69 3.63 3.53 41.54 Haul Trip	ND 100T)	DOT Permit
Cost Breakdown: Available Rig C Ownership Operating Operato Helpe Total Uni NON ROADAE Machine Description Drill/Broadcast Seeder with	Capacities o Cost/Hour: g Cost/Hour: r Cost/Hour: r Cost/Hour: t Cost/Hour: BLE EQUIPM Weight/ Unit (TONS)	0-25 Tons \$17.20 \$26.56 \$23.63 \$0.00 \$67.39 MENT: Owner ship Cost/hr/ unit	26-50 Tons \$29.63 \$47.02 \$23.63 \$23.53 \$123.81 Haul Rig Cost/hr/uni t \$67.39	TRAILER (51+ \$3 \$5 \$2 \$14 \$2 \$2 \$14 Fleet Size	(25T, 50T, AN Tons 8.69 5.69 3.63 3.53 41.54 Haul Trip Cost/hr/ fleet	ND 100T) Return Trip Cost/hr/ fleet	DOT Permit Cost/ fleet

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 1 T. Crew	\$48.58	1	\$48.58	\$48.58
		Subtotals:	\$48.58	\$48.58

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region: Total one-way travel distance: Average Travel Speed:	CRAIG, CO 5.00 35.00	miles
Total Non-Roadable Mob/Demob Cost * '* two round trips with haul rig:	\$714.77	mpn
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	\$13.88	

Transportation Cycle Time:

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

JOB TIME AND COST

Total job time: 2.57 Hours

Total job cost: \$729

Wagner Rock Pit M-1999-018

Task: 2016-06 -Post inspection 6-12-19 update

Updates from CN-1 calculation **Changes**

Elevation: 6,490 ft.

CIRCES program was last updated on 7/1/2019

-	01a	Demo Scale & Scale house, push into pit
		Corrected volumes and demo selection
+	02a	Highwall Reduction
		400' long slope max 60'D, vertical->2:1, cut and fill 12,667 CCY, slopes will
		be approx. 135', poorly blasted mostly consolidated material. If use of
		excavator w/o blasting add ~20k.
-	03a	Transport 6" of topsoil for 4.6 ac, 3,710 CCY, Loader only
		avg of approx. 450', mostly flat no slope, not existing road
+	03b	Grade topsoil 4.6 ac @ 6" deep, 4,174 LCY, 100' push
	04a	Rip compacted stockpile 24" deep areas 3.98 ac
+	05a	Reveg 8.58 ac, 35% failure
		Disk harrow
		Fetilizer 18-46-0 @ 200 lbs
		Drill seed USDA mix provided-all seeds no nursery
		No mulching at this time
		Weed treatments, increase application types (Transline x2 for Scotch
		Thistle, Tordon for Dalmatian Toadflax, Escort + 2,4-D for Black Henbane,
		Plateau for White top)
	06a	Grade existing graveled surface 8 ac @ 4", 100' push no slope 4,302 cy
	07a	Grade existing graveled surface 3 ac @ 4", 100' push no slope 1,613 cy
-	08a	Initial Mobilization
		2 x D-8 w ripper, 1x 972 wheel loader, 1x drill seeder/tractor, crew truck
	09a	Secondary Mobilization
		1x drill seeder/tractor, crew truck