

Interoffice Memorandum

To: File for Delta Paving Gravel Pit (M-1998-105)

From: Rob Zuber *ROZ*

Date: January 4, 2023

Subject: Reclamation Cost Estimate for AM-01

On January 4, 2023, the applicant (Jim Doody, Grand Junction Pipe & Supply Co. and Elam Construction) indicated via email that he accepts the enclosed reclamation cost estimate, which was created by Rob Zuber of the Division.



COST SUMMARY WORK

te: Delta Pavin	g Gravel Pit	Perr	nit Action:	AM-01	Permit/Joba	#: <u>M1998105</u>
PROJECT ID						
	000	State:	Colorado		Abbreviation:	None
Date:	1/15/2022	County:	Delta		Filename:	M105-000
User: I	RDZ	_				

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
01	Dewatering pit	PUMPING	1	437.70	\$27,794
04a	Phase 1 - haul material to pond slopes	TRUCK1	2	31.44	\$22,694
04b	Phase 1 - grade material on pond slopes	DOZER	2	12.30	\$7,106
05a	Haul topsoil	TRUCK1	2	17.23	\$12,440
05b	Grade topsoil	DOZER	2	4.93	\$2,847
06	Rip area for revegetation	RIPPER	2	22.54	\$13,023
07	Vegetate Phase 1 and stockpile area	REVEGE	1	27.00	\$49,283
10	Mobilization and Demobilization	MOBILIZE	1	0.44	\$1,776
		SUBTO	OTALS:	553.58	\$136,963

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02 Total = \$2,767 Performance bond: 1.05 Total =\$1,438 Job superintendent: 57.72 Total = \$4,337 Profit: 10.00 Total = \$13,696

TOTAL O & P =\$22,238

CONTRACT AMOUNT (direct + O & P) = $\frac{7-3,100}{159,201}$

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):

Engineering work and/or contract/bid preparation:

Reclamation management and/or administration:

\$500 Total = \$500

Total = \$0

\$7,960

CONTINGENCY: 0.00 Total = \$0

TOTAL INDIRECT COST = \$30,698

TOTAL BOND AMOUNT (direct + indirect) = \$167,661

PUMPING WORK

Task description: Delta Paving Gravel	<u>Dewat</u>	Permit Action	n: AM-01	Permit/Job#: N	 М1998105	
PROJECT IDENTII		_			,11,5,01,05	
Task #: 01		State: Colorad	lo	Abbreviation: N	one	
Date: $\frac{01}{11/15/202}$	2.	County: Delta			1105-01	
User: RDZ	-				1100 01	
Agency or orga	nization n	ame: DRMS				
HOURLY EQUIPM	ENT CO	ST				
	Descrip	otion .		Quantity		
Make and Model:	Centrif	ugal pump - 200M, 1	0 in.	1	_	
Attachment 1:		n hose - 6 in. diam., 2:		1		
Attachment 2:		rge hose - 6 in. D., 25	i ft.	1		
Labor Unit 1:	Pump o	perator		1		
Horsepower:	70					
	per day					
Weight:	1.95 (S Tons)	<u> </u>				
Cost Breakdown:	is rolls)					
Cost Breakdown.			Utilization %			
Ownership Cost		\$16.19	NA			
Operating Cost		\$19.63	100			
Operator Cost		\$27.68	NA			
Total Unit Cost	Hour:	\$63.50	_			
Total Fleet Cos	t/Hour:	\$63.50				
PUMPING QUANT	ITIES					
Initial Pond Vo	lume:	294.00		Conversion factor:	325850.5800	
Final Pond Vo	lume:	95,800,070.52	gallons			
Total Pond Inflow Su	ırface			Unit inflow rate in		
	Area:	75,000	Sq. ft.	gph/sq. ft.:	0.0879	
Total Pond Inflow Vo	olume Hour:	6,592.50	gallons			
•		·	eant's Exhibit L			
PUMPING TIME	or estimat	ed vorame. Tippine	ant 5 Emileit E			
·	vimum Du	mp Capacity:	200,000	gph/pump		
		Suction Head:	10	feet		
F		detion fieud.				
	imated Dis	scharge Head:	5	reet		
	imated Dis	scharge Head: Total Head:	5 15	feet feet		
		Total Head:		feet		
	CPB Pu		15			
Est	CPB Pu	Total Head: Imp Capacity: Site Altitude:	15 201,000 4,990	feet gph/pump feet		
Est Adju	CPB Pu	Total Head: Imp Capacity: Site Altitude: ing Capacity:	15 201,000 4,990 201,000	feet gph/pump feet gph		
Est Adju Initial Una	CPB Pu sted Pump udjusted Pu	Total Head: Imp Capacity: Site Altitude: ing Capacity: Imping Time:	15 201,000 4,990 201,000 476.62	feet gph/pump feet gph hours		
Est Adju Initial Una Inflow	CPB Pu sted Pump adjusted Pu during Ini	Total Head: Imp Capacity: Site Altitude: ing Capacity: Imping Time: tial Pumping:	15 201,000 4,990 201,000 476.62 3,142,099	feet gph/pump feet gph hours gallons		
Est Adju Initial Una Inflow Net Una	CPB Pu sted Pump idjusted Pu during Ini idjusted Pu	Total Head: Imp Capacity: Site Altitude: ing Capacity: Imping Time: tial Pumping: Imping Time:	15 201,000 4,990 201,000 476.62 3,142,099 492.25	feet gph/pump feet gph hours gallons Hours		
Est Adju Initial Una Inflow Net Una Altit	CPB Pusted Pumpadjusted Puduring Iniadjusted Pudude Adjusted Pusted Pust	Total Head: Imp Capacity: Site Altitude: ing Capacity: Imping Time: tial Pumping: Imping Time: Itment Factor:	15 201,000 4,990 201,000 476.62 3,142,099 492.25 0.9700	feet gph/pump feet gph hours gallons Hours (3% rule)		
Est Adju Initial Una Inflow Net Una Altit	CPB Pusted Pumpadjusted Puduring Iniadjusted Pusted Adjusted Pusted Pusted Efficient Pump Efficient CPUmp Efficient Pump Effic	Total Head: Imp Capacity: Site Altitude: ing Capacity: Imping Time: tial Pumping: Imping Time:	15 201,000 4,990 201,000 476.62 3,142,099 492.25	feet gph/pump feet gph hours gallons Hours		
Est Adju Initial Una Inflow Net Una Altit	CPB Punt djusted Puduring Ini djusted Pudusted Pude Adjus Pump Effic djusted Pu	Total Head: Imp Capacity: Site Altitude: ing Capacity: Imping Time: tial Pumping: Imping Time: Itiment Factor: Eiency Factor:	15 201,000 4,990 201,000 476.62 3,142,099 492.25 0.9700 0.9167 437.71	feet gph/pump feet gph hours gallons Hours (3% rule) (55 min./hr.) hours	**	
Adju Initial Una Inflow Net Una Altii I Total A	CPB Punt djusted Puduring Ini djusted Pudusted Pude Adjus Pump Effic djusted Pu	Total Head: Imp Capacity: Site Altitude: ing Capacity: Imping Time: tial Pumping: Imping Time: Itiment Factor: Eiency Factor:	15 201,000 4,990 201,000 476.62 3,142,099 492.25 0.9700 0.9167	feet gph/pump feet gph hours gallons Hours (3% rule) (55 min./hr.) hours	Hours	

TRUCK/LOADER TEAM WORK

Task description:		- haul mate					
Site: Delta Paving C	Gravel Pit	Permit	Action:	AM-01		Permit/Job#: _	M1998105
PROJECT IDE	ENTIFICATION	<u>[</u>					
Task #: 04A		State: C	Colorado)	Ab	breviation:	None
		County: [Delta			Filename:	M105-04a
User: RD2	<u>Z</u>						
Agency	or organization nar	ne: DRM	S				
HOURLY EQU	JIPMENT COS	<u>r</u>			Shift bas	sis: 1 per day	
	Truck Loader Tea	m Truele		uipment Descri c 12-18 cy, 6x ²			
	Truck Loader Tea	-Loader:		c 12-18 cy, 6x ² 66H high lift	+		
Sup	pport Equipment -I		NA	8			
D 41		ump Area:	NA				
Road I	Maintenance –Mot -Wa	or Grader: iter Truck:	NA NA				
			-				
Cost Breakdown		ader Team	T	Support I oad Area	Equipment		nance Equipmen Truc
	Truck	Loader		oad Area	Dump Area	Motor Grade	r water fruc
%Utilization-machine:	100		100	NA	NA	N/	
Ownership cost/hour:	\$24.21	\$49		NA	NA	N.	
Operating cost/hour:	\$57.28	\$43		NA	NA	N/	
%Utilization-riper:	NA NA	\$0	0.00	NA NA	NA NA	NA NA	
Ripper own. cost/hour: Ripper op. cost/hour:	NA NA		0.00	NA NA	NA NA	NA NA	
Operator cost/hour:	\$32.54	\$40		NA NA	NA NA	N ₂	
Unit Subtotals:	\$114.03	\$132		NA	NA	N ₂	
Number of Units:	4	4102	2	0	0		0
Group Subtotals:	Work:	\$721.92	_	Support:	\$0.00	Main	
Total work team c		<u>·</u>				-	, , , , , , ,
Total work team c	08t/110til. <u>\$721.92</u>	<u>. </u>					
MATERIAL Q	<u>UANTITIES</u>						
Initial volum	ne: 27,000		CCY	Swell	factor: 1.000		
Loose volum			LCY	S Well	1.000		
S	Source of estimated	volume:	Applica	nt's Exhibit L			
	ce of estimated swe	ell factor:	Cat Han				
	Material Purch		\$0.00				
	10	otal Cost:	\$0.00				
HOURLY PR	<u>ODUCTION</u>						
Truck Capacity:							
Truck Payload (w				Dougla /I CV			
Material Des		nd gravel - D)rv	Pounds/LCY			
	Payload: 50,300		- · J	Pounds			
Payload C				LCY			

LCY

Truck Bed (volume) Bas Struck Volume		2.00	LCY				
Heaped Volume	: 1	8.00	LCY				
Average Volume		5.00	LCY				
Adjusted Volume	: 1	7.34	LCY				
J	Final True	ck Volume	Based on Number of	of Loader Passes:	13.88	LCY	
Loading Tool Capacity							
		- 000	1	Buck	et Size Class: N.	A	
Rated Capacit		5.000	LCY (heaped)	1/02/ / 2/02/ /00	050() 0.005		_
Bucket Fill Facto		0.925		- 1/8" to 3/8" (90	- 95%) 0.925		_
Adjusted Capacit	y:	4.625	LCY				
Job Condition Correct	ions:		S	ite Altitude (ft.): 4	990 feet		
	Tr	uck	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 Ti	ime:	Number	of Loading Tool Pa	seese Paguired to I	Zill Tensols	2	
			of Loading 100112	isses Required to I	'III Truck:		passes
Excavators and Front S	hovels:		of Loading 100112	isses Required to I	·III Truck:		passes
			_	isses Required to I	THI Truck:	_ 3]	passes
Excavators and Front S Machine Cycle Ti Selected Va	me vs. Jo	b Condition	n Rating: NA	isses Required to I		3]	passes
Machine Cycle Ti	me vs. Jo	b Condition in this Basic	n Rating: NA C Rating: NA	isses Required to I		3	passes
Machine Cycle Ti Selected Va Track Loade	me vs. Jo alue withi ers – Mate	b Condition in this Basic	n Rating: NA C Rating: NA	isses Required to I		3	passes
Machine Cycle Ti Selected Va Track Loade	me vs. Jo alue withi ers – Mate	b Condition in this Basic erial Descri	n Rating: NA C Rating: NA	isses Required to I	Dump: 0.100		passes
Machine Cycle Ti Selected Va Track Loade Cycle Time Elements (n Load: <u>NA</u>	me vs. Jo due withi ers – Mate nin.):	b Condition in this Basic erial Descri M	n Rating: NA c Rating: NA ption: NA aneuver: NA		Dump: 0.100		
Machine Cycle Ti Selected Va Track Loade Cycle Time Elements (n Load: <u>NA</u> Wheel and Track Load	me vs. Jo nlue withi ers – Mate nin.): Hers - Una	b Condition in this Basic erial Descri M	n Rating: NA c Rating: NA ption: NA aneuver: NA		Dump: 0.100 naneuver): 0.		
Machine Cycle Ti Selected Va Track Loade Cycle Time Elements (n Load: <u>NA</u> Wheel and Track Load Cycle Time Fact	me vs. Jo nlue withi ers – Mate nin.): lers - Una	b Condition in this Basic erial Descri M adjusted Ba	n Rating: NA	me (load, dump, n	Dump: 0.100 naneuver): 0. Factor (min.)	500 min	
Machine Cycle Ti Selected Va Track Loade Cycle Time Elements (n Load: <u>NA</u> Wheel and Track Load Cycle Time Fact Mater	me vs. Jo alue withi ers – Mate nin.): lers - Una ors	b Condition in this Basic erial Descri M adjusted Ba	n Rating: NA c Rating: NA ption: NA aneuver: NA sic Loader Cycle Ti	me (load, dump, n	Dump: 0.100 naneuver): 0. Factor (min.) 0.000	500 min Source (Cat HB)	
Machine Cycle Ti Selected Va Track Loade Cycle Time Elements (n Load: NA Wheel and Track Load Cycle Time Fact Mater Stockp	me vs. Jo alue withi ers – Mate nin.): lers - Una ors ial: No	b Condition in this Basic erial Descri M adjusted Ba b adjustmen b adjustmen	n Rating: NA c Rating: NA ption: NA aneuver: NA sic Loader Cycle Ti t - factor not applicate - factor not applicate - factor not applicate.	me (load, dump, n	Dump: 0.100 naneuver): 0. Factor (min.) 0.000 0.000	500 min Source (Cat HB) (Cat HB)	
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Machine Cycle Ti- Selected Va Track Loade Cycle Time Elements (n Load: NA Wheel and Track Loade Cycle Time Fact Mater Stockp Truck Ownersh	me vs. Jo alue withi ers – Mate nin.): lers - Una ors ial: No ile: No on: No	b Condition in this Basic erial Descri M adjusted Ba b adjustmen b adjustmen b adjustmen o adjustmen o adjustmen	n Rating: NA c Rating: NA ption: NA aneuver: NA sic Loader Cycle Ti t - factor not applica Net Cycle Ti Adjusted Load	me (load, dump, n able 0.00 able 0.00 able 0.00 cable 0.00 able 0.00	Dump: 0.100 naneuver): 0. Factor (min.) 0.000 0.000 0.000 0.000 0.000	500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	
Machine Cycle Tic Selected Va Track Loade Cycle Time Elements (n Load: NA Wheel and Track Load Cycle Time Fact Mater Stockp Truck Ownersh Operation	me vs. Jo alue withi ers – Mate nin.): lers - Una ors ial: No ile: No on: No	b Condition in this Basic erial Descri M adjusted Ba b adjustmen b adjustmen b adjustmen o adjustmen o adjustmen	n Rating: NA c Rating: NA ption: NA aneuver: NA sic Loader Cycle Ti t - factor not applica Net Cycle Ti Adjusted Load	me (load, dump, n able 0.00 able 0.00 able 0.00 able 0.00 able 0.00 me Adjustment:	Dump: 0.100 naneuver): 0. Factor (min.) 0.000 0.000 0.000 0.000 0.000 0.000 0.000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	
Machine Cycle Tic Selected Va Track Loade Cycle Time Elements (n Load: NA Wheel and Track Load Cycle Time Fact Mater Stockp Truck Ownersh Operation	me vs. Jo alue withi ers – Mate nin.): lers - Una ors ial: No ile: No on: No get: No	b Condition in this Basic erial Descri M adjusted Ba b adjustmen b adjustmen b adjustmen o adjustmen o adjustmen	n Rating: NA c Rating: NA ption: NA aneuver: NA sic Loader Cycle Ti t - factor not applica Net Cycle Ti Adjusted Load	me (load, dump, n able 0.00 able 0.00 able 0.00 able 0.00 able 0.00 me Adjustment: ler Cycle Time:	Dump: 0.100 naneuver): 0. Factor (min.) 0.000 0.000 0.000 0.000 0.000 0.000 0.000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	utes — — —
Machine Cycle Tir Selected Va Track Loade Cycle Time Elements (n Load: NA Wheel and Track Loade Cycle Time Fact Mater Stockp Truck Ownersh Operation Dump Targ	me vs. Jo alue withi ers – Mate nin.): lers - Una ors ial: No iile: No on: No get: No	b Condition in this Basic erial Descri M adjusted Basic o adjustmen o adjustmen o adjustmen o adjustmen o adjustmen	n Rating: NA c Rating: NA ption: NA faneuver: NA sic Loader Cycle Ti t - factor not applicate - factor not appl	me (load, dump, n able 0.00 able 0.00 able 0.00 able 0.00 able 0.00 me Adjustment: ler Cycle Time:	Dump: 0.100 naneuver): 0. Factor (min.) 0.000 0.000 0.000 0.000 0.000 0.000 0.500 1.100	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	

Truck Travel (Haul & Return) Time:

Road Condition: Very hard, smooth, asphalt or concrete, no tire

penetration 1.2

Haul Route:

Seg#	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	800.00	0.00	1.20	1.20	2895	0.409

				Haul Time:	0.409	minutes
Return R	oute:			•		
Seg#	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	800.00	0.00	1.20	1.20	2913	0.309

Return Time: 0.309 minutes
Total Truck Cycle Time: 3.218 minutes

Loading Tool unit

Production 520.31 LCY/Hour Adjusted for job efficiency: 431.86 LCY/Hour Truck Unit Production 258.70 LCY/Hour Adjusted for job efficiency: 214.72 LCY/Hour

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

Adjusted hourly truck team production: 429.44 LCY/Hour Adjusted single truck/loader team production: 429.44 LCY/Hour Adjusted multiple truck/loader team production: 858.89 LCY/Hour

JOB TIME AND COST

 Fleet size:
 2
 Team(s)
 Total job time:
 31.44
 Hours

 Unit cost:
 \$0.841
 /LCY
 Total job cost:
 \$22,694

BULLDOZER WORK

Task descrip	ption:	Phas	e 1 - grade ı	naterial on p	ond slopes		
Delta Pa	ving Gra	avel Pit	Per	mit Action:	AM-01	Permit/Job#:	M1998105
PROJEC	Γ IDEN	TIFICATI	<u>ON</u>				
Task #:	04B		State:	Colorado		Abbreviation:	None
Date:	11/15/	2022	County:	Delta		Filename:	M105-04b
User:	RDZ		•			-	
Aş	gency or	organization	name: DF	RMS			
HOURLY	EQUI	PMENT CO	<u>DST</u>				
Basic Ma	achine:	Cat D8T - 8	BSU				
	power:	310					
	Type:	Semi-Unive					
	hment:	1-shank rip	per		<u> </u>		
	Basis:	1 per day			<u> </u>		
Data S	Source:	(CRG)			<u> </u>		
Cost Break	down:						
·	_				<u>Utilization %</u>		
Ownership				\$124.85	NA		
Operating				\$97.63	100		
Ripper own				\$16.38	NA		
Ripper op	. Cost/H	our:		\$8.60	100		
Operator	Cost/H	our:		\$41.30	NA		
TT . 1	1 //TT	Φ200	7.6				
Total unit C							
Total Tiect	C031/1101	л. ф377.	34				
MATERI	AL OU	ANTITIES					
Initial Vo		27,000					
Swell f		1.000		_			
Loose vo	lume:	27,000 LCY		_			
Source of es		volume: swell factor:	Applicant Cat Hand	's Exhibit L book			
HOURLY	PROD	UCTION					
	.113 - 4 -		50 fact				
U 1	sh distan	_	50 feet	V /l			
Average pur Unadjusted		_	50 feet 1,400.0 LC	Y/hr			
Unadjusted	hourly p	_	1,400.0 LC	Y/hr stockpile 1.2			
Unadjusted Materials co	hourly ponsistences sh gradie	roduction:ey description ent:10 %	1,400.0 LC				
Unadjusted Materials co	hourly ponsistences sh gradie	roduction:ey description ent:10 %	1,400.0 LC				
Unadjusted Materials co	hourly ponsistencesh gradie	ent: -10 % c: 4,990	1,400.0 LC				
Unadjusted Materials co Average pur Average site	hourly ponsistencesh gradie altitude	roduction:	1,400.0 LC : Loose s	stockpile 1.2			
Unadjusted Materials co Average pur Average site Material we Weight desc	hourly ponsistencesh gradie e altitude eight:	roduction:	1,400.0 LC : Loose s feet lbs/LCY	stockpile 1.2	Source		
Unadjusted Materials co Average pur Average site Material we Weight desc Job Conditi	hourly ponsistences hourly gradie e altitude e altitude e cription: on Corre Oper	ent: -10 % 2,900 Sand ection Factor rator Skill:	feet lbs/LCY and gravel - 1	Dry	(AVG.)		
Unadjusted Materials co Average pur Average site Material we Weight desc Job Conditi	hourly ponsistence sh gradice e altitude eight: cription: Oper aterial co	ent:	feet lbs/LCY and gravel - 1 0.	Dry 750 200	(AVG.) (CAT HB))	
Unadjusted Materials co Average pur Average site Material we Weight desc Job Conditi	hourly ponsistences of gradie e altitude e altitude e cription: on Correct Operaterial con Dozin	ent: -10 % 2,900 Sand ection Factor rator Skill:	feet lbs/LCY and gravel - 1 0. 1.	Dry	(AVG.))	

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.7837

Adjusted unit production: 1,097.18 LCY/hr
Adjusted fleet production: 2194.36 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: \$0.263/LCY

Total job time: 12.30 Hours
Total job cost: \$7,106

TRUCK/LOADER TEAM WORK

Task description:	Haul to	psoil				
Site: Delta Paving G	Fravel Pit	Permit Action	on: <u>AM-01</u>		Permit/Job#: M	1998105
PROJECT IDE	NTIFICATION	<u>I</u>				
Task #:05A		State: Color	ado	Ab	breviation: No	-
		County: Delta			Filename: M1	05-05a
User: RD2	<u>Z</u>					
Agency	or organization na	me: DRMS				
HOURLY EQU	IPMENT COS	<u>r</u>		Shift bas	sis: 1 per day	
	Truck Loader Tea		Equipment Descri			
	Truck Loader Tea		T 966H high lift	†		
Sup	port Equipment -I	oad Area: NA				
Road I	-D Maintenance –Mot	ump Area: NA or Grader: NA				
		ater Truck: NA				
Cost Breakdown	Tenals/Lo	ader Team	Cunnort I	Equipment	Maintanar	ice Equipment
Cost Breakdown	Truck/Lo	Loader	Load Area	Equipment Dump Area	Motor Grader	Water Truck
% Utilization-machine:	100	100	NA	NA	NA	NA
Ownership cost/hour:	\$24.21	\$49.15	NA NA	NA NA	NA NA	NA NA
Operating cost/hour:	\$57.28	\$43.04	NA	NA	NA	NA NA
%Utilization-riper:	NA	0	NA	NA	NA	NA NA
Ripper own. cost/hour:	NA	\$0.00	NA	NA	NA	NA
Ripper op. cost/hour:	NA	\$0.00	NA	NA	NA	NA
Operator cost/hour:	\$32.54	\$40.71	NA	NA	NA	NA
Unit Subtotals:	\$114.03	\$132.90	NA	NA	NA	NA
Number of Units:	4	2	0	0	0	C
Group Subtotals:	Work:	\$721.92	Support:	\$0.00	Maint:	\$0.00
Total work team c	ost/hour: \$721.9 2	2				
MATERIAL Q	<u>UANTITIES</u>					
Initial volum		CCY		factor: 1.000		
Loose volum	e: 14,80	00 LCY				
	ource of estimated		icant's Exhibit L			
Sourc	ce of estimated swe		Handbook			
	Material Purch	ase Cost: \$0.00 otal Cost: \$0.00				
	_					
HOURLY PR	ODUCTION					
Truck Capacity:						
Truck Payload (we						
Material		. 11	Pounds/LCY			
	eription: Top So Payload: 50,300		Pounds			
	apacity: 31.44	•	LCY			

_____ LCY

Struck Volume:	12.00	LCY				
Heaped Volume:	18.00	LCY				
Average Volume:	15.00	LCY				
Adjusted Volume:	18.00	LCY				
Final	Truck Volume	e Based on Number of	f Loader Passes:	15.75	LCY	
Loading Tool Capacity			_			
			Buck	et Size Class: N	A	
Rated Capacity:	5.000	LCY (heaped)				
Bucket Fill Factor:	1.050	Moist loam or s	andy clay (100% -	- 110%) 1.050		
Adjusted Capacity:	5.250	LCY				
Job Condition Corrections:	<u>-</u>	Si	te Altitude (ft.): 49	990 feet		
	Truck	Loader	Source			
Altitude Adj:	1.000	1.000	(CAT HB)	1		
Job Efficiency:	0.830	0.830	(CAT HB)	<u> </u>		
Net Correction:	0.830	0.830				
Loading Tool Cycle Time:	Numbe	er of Loading Tool Pa	sses Required to F	ill Truck:	3	passes
Excavators and Front Shove		C	1			passes
Excavators and Front Shove	ls:	D	1			pusses
Excavators and Front Shove Machine Cycle Time v Selected Value v	l <u>s:</u> s. Job Conditic		1		<u> </u>	pusses
Machine Cycle Time v	l <u>s:</u> s. Job Conditic within this Bas	ic Rating: NA				pusses
Machine Cycle Time v Selected Value v Track Loaders –	ls: s. Job Conditic within this Bas Material Descr	ic Rating: NA			<u> </u>	pusses
Machine Cycle Time v Selected Value v Track Loaders –	ls: s. Job Conditic within this Bas Material Descr	ic Rating: NA		Dump: 0.100		pusses
Machine Cycle Time von Selected Value von Track Loaders – Cycle Time Elements (min.):	ls: s. Job Condition within this Bas Material Descri	ic Rating: NA ription: Maneuver: NA		Dump: 0.100		utes
Machine Cycle Time von Selected Value von Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders –	ls: s. Job Condition within this Bas Material Descri	ic Rating: NA ription: Maneuver: NA		Dump: 0.100		
Machine Cycle Time von Selected Value von Track Loaders – Cycle Time Elements (min.): Load: NA	ls: s. Job Condition within this Bas Material Descript M Unadjusted B	ic Rating: NA ription: Maneuver: NA	ne (load, dump, m	Dump: 0.100 aneuver): 0.	500 min	
Machine Cycle Time von Selected Value von Track Loaders — Cycle Time Elements (min.): Load: NA Wheel and Track Loaders — Cycle Time Factors	ls: s. Job Condition within this Bas Material Description Unadjusted B No adjustme	ic Rating: NA ription: NA Maneuver: NA asic Loader Cycle Tir	me (load, dump, m	Dump: 0.100 aneuver): 0. Factor (min.)	500 min Source	
Machine Cycle Time von Selected Value von Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership:	Is: s. Job Condition within this Bas Material Description Unadjusted B No adjustme No adjustme No adjustme	ic Rating: NA ription: NA Maneuver: NA asic Loader Cycle Tin nt - factor not applica	me (load, dump, m ble 0.00 ble 0.00 ble 0.00	Dump: 0.100 aneuver): 0. Factor (min.) 0.000 0.000 0.000	500 min Source (Cat HB) (Cat HB) (Cat HB)	
Machine Cycle Time von Selected Value von Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	s. Job Condition within this Bas Material Description Material Descripti	ic Rating: NA ription: NA Maneuver: NA asic Loader Cycle Tin nt - factor not applica	me (load, dump, m ble 0.00 ble 0.00 ble 0.00	Dump: 0.100 naneuver): 0. Factor (min.) 0.000 0.000 0.000 0.000	500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)	
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Machine Cycle Time von Selected Value von Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	s. Job Condition within this Bas Material Description Material Descripti	ic Rating: NA ription: NA Maneuver: NA asic Loader Cycle Tin nt - factor not applica nt - factor not applica nt - factor not applica ent - factor not applica Net Cycle Tin Adjusted Load	me (load, dump, m ble 0.00 ble 0.00 ble 0.00 able 0.00 ble 0.00 me Adjustment: er Cycle Time:	Dump: 0.100 aneuver): 0. Factor (min.) 0.000 0.000 0.000 0.000 0.000 0.000 0.000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	
Machine Cycle Time von Selected Value von Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	s. Job Condition within this Bas Material Description Material Descripti	ic Rating: NA ription: NA Maneuver: NA asic Loader Cycle Tin nt - factor not applica nt - factor not applica nt - factor not applica ent - factor not applica Net Cycle Tin Adjusted Load	me (load, dump, m ble 0.00 ble 0.00 ble 0.00 able 0.00 ble 0.00	Dump: 0.100 aneuver): 0. Factor (min.) 0.000 0.000 0.000 0.000 0.000 0.000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	
Machine Cycle Time verselected Value verselected	Is: s. Job Condition within this Bas Material Description Unadjusted B No adjustme	ic Rating: NA ription: NA Maneuver: NA asic Loader Cycle Tin nt - factor not applica nt - factor not applica nt - factor not applica ent - factor not applica nt - factor not applica Net Cycle Tin Adjusted Load Net Load T	me (load, dump, m ble 0.00 ble 0.00 ble 0.00 able 0.00 ble 0.00 me Adjustment: er Cycle Time: ime per Truck:	Dump: 0.100 aneuver): 0. Factor (min.) 0.000 0.000 0.000 0.000 0.000 0.000 1.100	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	utes
Machine Cycle Time von Selected Value von Track Loaders — Cycle Time Elements (min.): Load: NA Wheel and Track Loaders — Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time: Truck Exchange Time	s. Job Condition within this Bas Material Description Material	ic Rating: NA ription: NA Maneuver: NA asic Loader Cycle Tin nt - factor not applica ent - factor not applica Net Cycle Tin Adjusted Load Net Load T Minutes	me (load, dump, m lble 0.00 lble 0.00 lble 0.00 lble 0.00 lble 0.00 me Adjustment: er Cycle Time: ime per Truck: Adjusted f	Dump: 0.100 aneuver): 0. Factor (min.) 0.000 0.000 0.000 0.000 0.000 0.500 1.100 Cor site altitude:	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	utes
Machine Cycle Time verselected Value verselected	s. Job Condition within this Bas Material Description Material Materi	ic Rating: NA ription: NA Maneuver: NA asic Loader Cycle Tin nt - factor not applica nt - factor not applica nt - factor not applica ent - factor not applica nt - factor not applica Net Cycle Tin Adjusted Load Net Load T	me (load, dump, m ble 0.00 ble 0.00 ble 0.00 ble 0.00 me Adjustment: er Cycle Time: ime per Truck:	Dump: 0.100 aneuver): 0. Factor (min.) 0.000 0.000 0.000 0.000 0.000 0.000 1.100	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>Very hard, smooth, asphalt or concrete, no tire penetration 1.2</u>

Haul Route:

Seg#	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	800.00	0.00	1.20	1.20	2895	0.409

Haul Time: 0.409 minutes Return Route: Seg# Haul Distance Grade (%) Roll. Res Total Res Velocity Travel Time (Ft) (%) (%) (fpm) (min) 800.00 1.20 1.20 2913 0.00 0.309

Return Time: 0.309 minutes
Total Truck Cycle Time: 3.218 minutes

Loading Tool unit

Production 590.63 LCY/Hour Adjusted for job efficiency: 490.22 LCY/Hour Truck Unit Production 293.66 LCY/Hour Adjusted for job efficiency: 243.74 LCY/Hour

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

Adjusted hourly truck team production: 487.48 LCY/Hour Adjusted single truck/loader team production: 487.48 LCY/Hour Adjusted multiple truck/loader team production: 974.95 LCY/Hour

JOB TIME AND COST

 Fleet size:
 2
 Team(s)
 Total job time:
 15.18
 Hours

 Unit cost:
 \$0.740
 /LCY
 Total job cost:
 \$10,959

BULLDOZER WORK

Task description:	Grad	le topsoil			
Delta Paving Gr	ravel Pit	Permit Action:	AM-01	Permit/Job#:	M1998105
PROJECT IDEN	NTIFICATI	<u>ON</u>			
Task #: 05B		State: Colorado		Abbreviation:	None
	5/2022	County: Delta		Filename:	M105-05b
User: $\frac{1775}{RDZ}$		County. Delta		i ilenane.	141105 050
		DDMC			
Agency or	organization	name: DRMS			
HOURLY EQUI	PMENT CO	<u>OST</u>			
Basic Machine:	Cat D8T - 8	BSU			
Horsepower:	310				
Blade Type:	Semi-Unive	ersal			
Attachment:	1-shank rip	per			
Shift Basis:	1 per day				
Data Source:	(CRG)				
Cost Breakdown:					
Obst Bitalian III.			Utilization %		
Ownership Cost/H	Hour:	\$124.85	NA		
Operating Cost/H		\$97.63	100		
Ripper own. Cost/H	Hour:	\$16.38	NA		
Ripper op. Cost/H	Hour:	\$8.60	100		
O	-	\$41.30	NA		
Operator Cost/H	lour:	\$ 4 1.50	INA		
•	-	<u>.</u>	INA		
Total unit Cost/Hou	ır: \$288.	76	IVA		
•	ır: \$288.	76	INA		
Total unit Cost/Hou Total Fleet Cost/Ho	\$288. \$577.	76	INA		
Total unit Cost/Hou	\$288. \$577. \$28NTITIES	76	INA		
Total unit Cost/Hou Total Fleet Cost/Ho	\$288. 50ur: \$577. \$577. \$14,800	76	INA		
Total unit Cost/Hou Total Fleet Cost/Ho MATERIAL QU	\$288. \$577. \$577. \$14,800 1.215	76 52	INA		
Total unit Cost/Hou Total Fleet Cost/Ho MATERIAL QU Initial Volume:	\$288. 50ur: \$577. \$577. \$14,800	76 52	INA		
Total unit Cost/Hou Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated	\$288. \$577. \$577. \$288. \$577. \$14,800 1.215 17,982 LCY	76 52 Applicant's Exhibit I			
Total unit Cost/Hou Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume:	\$288. \$577. \$577. \$288. \$577. \$14,800 1.215 17,982 LCY	76 52			
Total unit Cost/Hou Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated	\$288. \$577. SANTITIES 14,800 1.215 17,982 LCY I volume: I swell factor:	76 52 Applicant's Exhibit I			
Total unit Cost/Hou Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated	\$288. \$577. SANTITIES 14,800 1.215 17,982 LCY I volume: I swell factor: DUCTION	Applicant's Exhibit I Cat Handbook			
Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated	\$288. \$577. SANTITIES 14,800 1.215 17,982 LCY I volume: I swell factor: DUCTION nce:	76 52 Applicant's Exhibit I			
Total unit Cost/Hou Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROI Average push distan	\$288. \$287. \$288. \$577. \$288. \$577. \$288. \$4,800 1.215 17,982 LCY \$1 volume: \$1 swell factor: \$288. \$388. \$4	Applicant's Exhibit I Cat Handbook 50 feet 1,400.0 LCY/hr			
Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROI Average push distar Unadjusted hourly p	\$288. \$377. \$4,800 1.215 17,982 LCY \$1 volume: \$288. \$577. \$288. \$577. \$288. \$577. \$288. \$4,800 \$1.215 \$1,982 LCY \$280. \$380. \$40.	Applicant's Exhibit I Cat Handbook 50 feet 1,400.0 LCY/hr : Partly consolidated			
Total unit Cost/Hou Total Fleet Cost/Hou Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROI Average push distar Unadjusted hourly publicated Materials consistence Average push gradie	\$288. \$377. \$4,800 1.215 17,982 LCY \$1 volume: \$288. \$577. \$288. \$4,800 1.215 \$288. \$4,800 1.215 \$288. \$4,800 1.215 \$288. \$4,990 \$288. \$4,990	Applicant's Exhibit I Cat Handbook 50 feet 1,400.0 LCY/hr : Partly consolidated			
Total unit Cost/Hou Total Fleet Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROI Average push distar Unadjusted hourly publication of the consistency	\$288. \$377. \$288. \$577. \$288. \$577. \$288. \$4,800 1.215 17,982 LCY \$1 volume: \$1 swell factor: \$288. \$14,800 1.215 17,982 LCY \$288. \$14,800 1.215 1,600	Applicant's Exhibit I			
Total unit Cost/Hou Total Fleet Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROI Average push distant Unadjusted hourly push Materials consistent Average push gradic Average site altitud Material weight: Weight description: Job Condition Corrections	\$288. \$377. \$288. \$577. \$288. \$577. \$288. \$577. \$288. \$4,800 1.215 17,982 LCY \$288. \$380. \$4,990 \$4,990 \$4,990 \$4,990 \$4,990 \$4,990 \$4,990 \$4,990 \$4,990 \$4,990 \$4,990 \$4,990	Applicant's Exhibit I Cat Handbook 50 feet 1,400.0 LCY/hr : Partly consolidated feet lbs/LCY oil	I stockpile 1.1		
Total unit Cost/Hou Total Fleet Cost/Hou Materials Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROI Average push distant Unadjusted hourly push Materials consistent Average push gradic Average site altitud Material weight: Weight description: Job Condition Correct Ope	\$288. \$377. \$288. \$577. \$288. \$577. \$288. \$4,800 1.215 17,982 LCY \$1 volume: \$1 swell factor: \$288. \$14,800 1.215 17,982 LCY \$2 volume: \$2 volume: \$2 volume: \$2 volume: \$2 volume: \$2 volume: \$3 volume: \$4,900 \$4,990 \$4,990 \$4,990 \$4,990 \$4,990 \$5 volume: \$4,990 \$6 volume: \$1 volume: \$4,990 \$6 volume: \$1 volume: \$2 volume: \$4,990 \$6 volume: \$1 volume: \$2 volume: \$4,990 \$6 volume: \$1 volume: \$2 volume: \$4,990 \$6 volume: \$1 volume: \$2 volume: \$4,990 \$6 volume: \$1 volume: \$1 volume: \$1 volume: \$4,990 \$1 volume: \$2 volume: \$4,990 \$1 volume: \$2 volume: \$4,990 \$2 volume: \$4,990 \$3 volume: \$4,990 \$4,990 \$4,990 \$5 volume: \$4,990 \$6 volume: \$4,990 \$6 volume: \$4,990 \$6 volume: \$6 volum	Applicant's Exhibit I	Source (AVG.)		
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Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.3027

Adjusted unit production: 1,823.78 LCY/hr
Adjusted fleet production: 3647.56 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)

Unit cost: \$0.158/LCY

Total job time: 4.93 Hours
Total job cost: \$2,847

BULLDOZER RIPPING WORK

Source of estimated quantity: Applicant's Exhibit L HOURLY PRODUCTION Seismic: Seismic Velocity: NA feet/second Area: Average Ripping Depth: 3.71 feet/pass Average Ripping Width: 5.56 feet/pass Average Ripping Length: 150.00 feet/pass Average Dozer Speed: 88.00 feet/minute Average Maneuver Time: 0.25 minutes/pass Production per unit area: 0.588 acres/hour Job Condition Correction Factors Unadjusted Hourly Unit Production: 0.588 Acres/hr Site Altitude: 4,990 feet Altitude Adj: 1.00 (CAT HB) Job Efficiency: 0.83 (1 shift/day) Net Correction: 0.83 multiplier Adjusted Hourly Unit Production: 0.49 Acres/hr Adjusted Hourly Fleet Production: 0.98 Acres/hr JOB TIME AND COST		Task description:	Rip a	rea for revegetation					
Task #: 06	Site	: Delta Paving	Gravel Pit	Permit Action:	AM-01	Permit	t/Job#:	M1998	3105
Date: L1/15/2022 County: Delta Filename: M105-06		PROJECT ID	ENTIFICATION	<u>ON</u>					
Date: L1/15/2022 County: Delta Filename: M105-06		Task # 06		State: Colorado		Abbrevia	tion.	None	
Agency or organization name: DRMS			/15/2022				_)6
HOURLY EQUIPMENT COST							_	1,1100	
Basic Machine: Cat D8T - 8SU		Agency	or organization	name: DRMS					
Ripper Attachment: I-Shank Ripper		HOURLY EQ	UIPMENT CO	<u>OST</u>					
Cost Breakdown: CRG CRG		Basic	Machine: Cat	D8T - 8SU		Horsepower:	3	310	
Cost Breakdown: Utilization % NA		Ripper Att	tachment: 1-S	hank Ripper					
Ownership Cost/Hour: \$124.85 NA						Data Source:	(C	RG)	
Ownership Cost/Hour S124.85		Cost Breakdown:	<u>.</u>						
Operating Cost/Hour: S97.6.3 100					445405				
Ripper Ownership Cost/Hour: \$16.38 NA Ripper Operating Cost/Hour: \$88.60 100 Operator Cost/Hour: \$288.76 Total Unit Cost/Hour: \$288.76 Total Fleet Cost/Hour: \$577.52									
Ripper Operating Cost/Hour:		D'			· ·				
Operator Cost/Hour: S41,30 NA									
Total Unit Cost/Hour: \$288.76 Total Fleet Cost/Hour: \$577.52		Kipj							
MATERIAL QUANTITIES Altermate Methods: Seismic: NA Area: Seismic NA			-			IVA			
MATERIAL QUANTITIES Altermate Methods: Seismic: NA Area: Seismic NA			Total Fleet Co	est/Hour \$57	7.52				
Alternate Methods: Seismic: NA		MATEDIAI (.1 1 A			
Seismic: NA acres Rip Depth (ft): 0.50 Volume: 17,747 BCY or CCY Source of estimated quantity: Applicant's Exhibit L HOURLY PRODUCTION Seismic: Seismic Velocity: NA feet/second Area: Average Ripping Depth: 3.71 feet/pass Average Ripping Length: 150.00 feet/pass Average Ripping Length: 150.00 feet/pass Average Maneuver Time: 0.25 minutes/pass Average Maneuver Time: 0.25 minutes/pass Production per unit area: 0.588 acres/hour Job Condition Correction Factors Unadjusted Hourly Unit Production: 0.588 Acres/hr Site Altitude: 4,990 feet Altitude Adj: 1.00 (CAT HB) Job Efficiency: 0.83 (1 shift/day) Net Correction: 0.83 multiplier Adjusted Hourly Unit Production: 0.49 Acres/hr Adjusted Hourly Unit Production: 0.98 Acres/hr Adjusted Hourly Fleet Production: 0.98 Acres/hr			-	Sei	ected estimating	g method: Area			
Area: 22.00 acres Rip Depth (ft): 0.50 Volume: 17,747 BCY or CCY Source of estimated quantity: Applicant's Exhibit L HOURLY PRODUCTION Seismic: Seismic Velocity: NA feet/second Area: Average Ripping Depth: 3.71 feet/pass feet/pass Average Ripping Width: 5.56 feet/pass Average Ripping Length: 150.00 feet/pass feet/pass Average Ripping Length: 0.25 minutes/pass production per unit area: 0.588 acres/hour Job Condition Correction Factors Unadjusted Hourly Unit Production: 0.588 Acres/hr Site Altitude Adj: 1.00 (CAT HB) Job Efficiency: 0.83 (1 shift/day) multiplier Adjusted Hourly Unit Production: 0.49 Acres/hr Adjusted Hourly Fleet Production: 0.98 Acres/hr JOB TIME AND COST	~		<u>18:</u>			2011	_		
Source of estimated quantity: Applicant's Exhibit L HOURLY PRODUCTION Seismic: Seismic Velocity: NA feet/second Area: Average Ripping Depth: 3.71 feet/pass Average Ripping Width: 5.56 feet/pass Average Ripping Length: 150.00 feet/pass Average Dozer Speed: 88.00 feet/minute Average Maneuver Time: 0.25 minutes/pass Production per unit area: 0.588 acres/hour Job Condition Correction Factors Unadjusted Hourly Unit Production: 0.588 Acres/hr Site Altitude: 4,990 feet Altitude Adj: 1.00 (CAT HB) Job Efficiency: 0.83 (1 shift/day) Net Correction: 0.83 multiplier Adjusted Hourly Unit Production: 0.49 Acres/hr Adjusted Hourly Fleet Production: 0.98 Acres/hr JOB TIME AND COST			acres					NA	BCY or CC
HOURLY PRODUCTION Seismic: Seismic Velocity: NA feet/second Area: Average Ripping Depth: 3.71 feet/pass Average Ripping Width: 5.56 feet/pass Average Ripping Length: 150.00 feet/pass Average Dozer Speed: 88.00 feet/minute Average Maneuver Time: 0.25 minutes/pass Production per unit area: 0.588 acres/hour Job Condition Correction Factors Unadjusted Hourly Unit Production: 0.588 Acres/hr Site Altitude: 4,990 feet Altitude Adj: 1.00 (CAT HB) Job Efficiency: 0.83 (1 shift/day) Net Correction: 0.83 multiplier Adjusted Hourly Unit Production: 0.49 Acres/hr Adjusted Hourly Fleet Production: 0.98 Acres/hr JOB TIME AND COST				<u> </u>					
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Seismic Velocity: Area: Average Ripping Depth: Average Ripping Width: 5.56 feet/pass Average Ripping Length: 150.00 feet/pass Average Ripping Length: Average Maneuver Time: O.25 minutes/pass Production per unit area: O.588 Acres/hour Job Condition Correction Factors Unadjusted Hourly Unit Production: Site Altitude: Altitude Adj: Altitude Adj: Job Efficiency: NA feet/second feet/pass feet/pass feet/pass feet/pass feet/pass feet/minute minutes/pass acres/hour Job Condition Correction Factors Unadjusted Hourly Unit Production: O.588 Acres/hr Altitude Adj: Altitude Adj: Job Efficiency: O.83 (1 shift/day) Net Correction: O.83 multiplier Adjusted Hourly Unit Production: O.49 Acres/hr Adjusted Hourly Fleet Production: O.98 Acres/hr			<u>obuction</u>						
Area: Average Ripping Depth: 3.71 feet/pass Average Ripping Width: 5.56 feet/pass Average Ripping Length: 150.00 feet/pass Average Dozer Speed: 88.00 feet/minute Average Maneuver Time: 0.25 minutes/pass Production per unit area: 0.588 acres/hour Job Condition Correction Factors Unadjusted Hourly Unit Production: 0.588 Acres/hr Site Altitude: 4,990 feet Altitude Adj: 1.00 (CAT HB) Job Efficiency: 0.83 (1 shift/day) Net Correction: 0.83 multiplier Adjusted Hourly Unit Production: 0.49 Acres/hr Adjusted Hourly Fleet Production: 0.98 Acres/hr JOB TIME AND COST		Seismic:	•	Saismia Valacity	NΑ	foot/second			
Average Ripping Depth: Average Ripping Width: 5.56 feet/pass Average Ripping Length: 150.00 feet/pass Average Dozer Speed: 88.00 feet/minute Average Maneuver Time: 0.25 minutes/pass Acres/hour Job Condition Correction Factors Unadjusted Hourly Unit Production: Site Altitude: Altitude Adj: Job Efficiency: Net Correction: 0.83 Adjusted Hourly Unit Production: 0.49 Adjusted Hourly Unit Production: Adjusted Hourly Unit Production: 0.49 Acres/hr Adjusted Hourly Fleet Production: 0.98 Acres/hr Acres/hr Adjusted Hourly Fleet Production: 0.98 Acres/hr Acres/hr			.	beising velocity.	IVA				
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Adjusted Hourly Fleet Production: 0.98 Acres/hr JOB TIME AND COST									
Adjusted Hourly Fleet Production: 0.98 Acres/hr JOB TIME AND COST			Adjusted	Hourly Unit Production:	0.49	Acres/hr			
Fleet size: 2 Grader(s) Total job time: 22.55 Hours		JOB TIME AN	ND COST						
		Fleet size:	2	Grader(s)	Total job tim	ne: 22.55	5	Н	Iours
Unit cost: \$591.937 Per acre Total job cost: \$13,023		Unit cost:	\$591.937	Per acre	Total job cos	st: \$13,02	23		

REVEGETATION WORK

Delta Paving Gravel Pit	Per	mit Action: AM	I -01		Permit/Job#	: M1998105
ROJECT IDENTIFICATI	<u>ON</u>					
Task #: 07	State:	Colorado		Ab	breviation:	None
Date: 11/15/2022	County:	Delta		_	Filename:	M105-07
User: RDZ						
Agency or organization	n name: DR	MS				
ERTILIZING						
aterials						
		Units /	T T 1.	C	-4 / TI34	C 4 / 4
Description		Acre	Unit		st / Unit	Cost /Acre
10-34-0, 18-46-0, 5-10-5		200.00	pound	\$0.3	38	\$76.00
				To	tal Fertilizer Materials	
					Cost/Acre	\$76.00
		Tot	al Fertilizer A	pplication	on Cost/Acre	\$39.64
<u>ILLING</u>						
Description						Cost /Acre
Chisel plowing {DMG}						\$98.43
Weed control spraying (MEA	NS 31 31 16.1	3 3100)				\$290.40
			To	otal Tillir	ng Cost/Acre	\$388.83
EEDING						
				Rate –	G .	G
Seed Mix				PLS LBS /	Seeds per SQ. FT	Cost /Acre
Seed Man				Acre		
Blue Grama - Native				0.50	8.16	\$6.86
Blue Grama - Native Indian Ricegrass - Native				0.50 1.60	5.18	\$10.40
Blue Grama - Native Indian Ricegrass - Native Sand Dropseed				0.50 1.60 0.10	5.18 11.94	\$10.40 \$0.98
Blue Grama - Native Indian Ricegrass - Native				0.50 1.60	5.18	\$10.40

A	pplication	

Totals Seed Mix

\$69.26

33.45

6.20

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

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - Curtail @ 4.0 pt/ac	1.00	ACRE	\$7.94	\$7.94
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$421.36	\$842.72
Total Mulch Materials Cost/Acre				\$850.66

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$73.00
Weed spray, truck, non-aquatic area, nox. [DMG]		\$62.72
	Total Mulch Application Cost/Acre	\$135.72

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres: 22 Cost /Acres: \$1,792.11

Estimated Failure Rate: 25% Cost /Acre*: \$1,792.11

*Selected Replanting Work Items: FERTILIZING,TILLING,SEEDING,MU

LCHING

Initial Job Cost: \$39,426.42

Reseeding Job Cost: \$9,856.61

Total Job Cost: \$49,283

Job Hours: 27.00

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description:	Mobilization and D	emobilization		
ite: Delta Paving Gravel Pit	Permi	t Action: AM-01	Permit/Jo	b#: <u>M1998105</u>
PROJECT IDENTIFICA	<u>TION</u>			
Task #: 10	State: C	Colorado	Abbreviation:	None
Date: 11/16/2022 User: RDZ	County: D	Delta	Filename:	M105-10
Agency or organizat EQUIPMENT TRANSPO		S		
				1 per day CRG Data
Truck Tractor De	escription: GENI		AY TRUCK TRACTOR, 6X4, 400 HP (2ND HALF, 2006)	DIESEL POWERED,
Truck Trailer De	escription: (GENERIC FOLDIN	G GOOSENECK, DROP DEC AILER (25T, 50T, AND 100T)	
Cost Breakdown:				
Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons	
Ownership Cost/Hour	: \$15.25	\$23.06	\$37.58	
Operating Cost/Hour	\$25.26	\$30.83	\$51.41	
Operator Cost/Hour	\$27.71	\$27.71	\$27.71	

NON ROADABLE EQUIPMENT:

Total Unit Cost/Hour:

Helper Cost/Hour:

\$0.00

\$68.22

Machine Description	Weight/ Unit	Owner ship Cost/hr/ unit	Haul Rig Cost/hr/uni	Fleet Size	Haul Trip Cost/hr/	Return Trip Cost/hr/ fleet	DOT Permit Cost/ fleet
Description	(TONS)	Cost/III/ dilit	t	Size	fleet		
CAT 966H high	25.80	\$49.15	\$68.22	1	\$117.37	\$68.22	\$250.00
lift							
Cat D8T - 8SU	52.21	\$141.23	\$136.92	2	\$556.30	\$273.84	\$500.00

\$20.22

\$101.82

\$20.22

\$136.92

Subtotals: \$673.67 \$342.06 \$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	\$113.40	2	\$226.80	\$226.80

Subtotals: \$226.80 \$226.80

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:

Total one-way travel distance:

Average Travel Speed:

DELTA

miles

45.00

mph

Transportation Cycle Time:

	Non-	
	Roadable	Roadable
	Equipment	Equipment
Haul Time (Hours):	0.11	0.11
Return Time (Hours):	0.11	0.11
Loading Time (Hours):	0.00	NA
Unloading Time (Hours):	0.00	NA
Subtotals:	0.22	0.22

JOB TIME AND COST

Total job cost: 0.44 Hours

Total job cost: \$1,776