

Lennberg - DNR, Patrick <patrick.lennberg@state.co.us>

Approval Letter, TR-1, Two Rivers, M2022-013

Good Afternoon, Patrick,

Attached is the Surety Reduction Request and associated current Cost Summary sheet that serves as the estimate for the cost to reclaim the site.

Please let us know if you need any additional information.

Thank you,



[Quoted text hidden]

Confidentiality Notice: This E-mail and any attachments is covered by the Electronic Communications Privacy Act, 18 U.S.C. & 2510-2524, is confidential and may be legally privileged. If you are not the intended recipient, you are hereby notified that any retention, dissemination, or copying of this communication is strictly prohibited. Please reply to the sender that you have received the message in error, and permanently delete the original and destroy any copy, including printed copies of this email and any attachments thereto.





1313 Sherman Street, Room 215 Denver, CO 80203

REQUEST FOR FULL OR PARTIAL RELEASE OF PERMIT AREA/SURETY REDUCTION

Please indicate if you	are requesting	:			
FULL/FINAL RELE	EASE OF ENT	TRE PERMITT	ED AREA (per	Rule 4.17)	
ACREAGE REDUC	TION (PART)	IAL RELEASE	per Rule 4.17)		
I wish to release	acı	res at this time.			
You will need to s permit <u>and</u> updated if the release is app	d mining and rec				from the current new permit boundary
SURETY (Bond) RI	EDUCTION (p	er Rule 4.14)			
the actual cost to r	eclaim the site beding unit costs for Rule 3.1 and the	pased on what it was or reclamation ac	would cost an indestrivities as approped Reclamation P	ependent contrac riate to the opera an.	nest a new estimate of tor to complete ation to comply with and Reservoir Project
County: Weld					
Permittee: Raptor	Materials L	LC			
Permittee Address:	8120 Gage	e Street			
			(Street Ad	dress)	
Frederick				CO	80516
	(City)			(State)	(Zip)



Permittee Representative:	Garrett Varra	28 28 28	
Certified Mail#			
In accordance with Rule 4.17.1(2) the			
owners of record to the affected land	d. Please attach additional sheets	for this informatio	n if required.
<u>Name</u>	<u>Address</u>		Phone Number
Raptor Materials LLC	8120 Gage St, Frederic	ck, CO 80516	303-666-6657
n accordance with Rule 4.17.1(4), if they have complied with the following ave been satisfied in accordance with	g statement: "All applicable port	ions of the Reclama	ation Plan requirements
		10/18/202	24

Important: In accordance with Rules 4.14.2(a) and 4.17.1(3) This release request must be submitted to the Division via certified mail and separate from any other correspondence to the Division.

COST SUMMARY WORK

	ers Sand, Gra	vel and P	Permit Action:		- · /- ·		
: Reservoir Project			<u>TR-1</u>		Permit/Job#: M20220		
KOJEC I	IDENTIFIC	ATION					
Task #:	000	State:	Colorado		Abbreviation:	None	
Task #: Date:	9/16/2024	State: County:			Abbreviation: Filename:	None 000	

TASK LIST (DIRECT COSTS)

Task		Form	Fleet	Task	
Task	Description	Used	Size	Hours	Cost
01A	Dewater pit - initial pumping	PUMPING	1	423.90	\$41,661
01B	Dewater pit - continual pumping	PUMPING	1	122.39	\$12,029
02A	Grade slope under liner	DOZER	2	13.03	\$8,900
02B	Haul liner material to pit area	TRUCK1	1	128.20	\$71,183
02C	Mix material for liner	DOZER	2	13.73	\$9,284
02D	Compact liner	COMPACT	2	15.96	\$8,169
03A	Haul subsoil to grade over liner	TRUCK1	1	558.56	\$288,416
03B	Grade subsoil over liner	DOZER	2	148.48	\$100,254
03C	Haul topsoil to pit area	TRUCK1	1	8.09	\$4,178
03D	Spread topsoil on pond bank	DOZER	2	1.91	\$1,288
03E	Seed banks of pond	REVEGE	1	9.00	\$10,854
04A	Process Area Decommissioning	DEMOLISH	1	175.00	\$14,440
05A	Rip processing area, wash pond area	RIPPER	2	19.47	\$13,462
05C	Haul topsoil to process and wash pond areas	TRUCK1	1	50.15	\$25,895
05D	Spread topsoil on process and wash pond areas	DOZER	2	7.87	\$5,312
05E	Seed processing area and wash pond area	REVEGE	1	22.00	\$53,842
06	Mobilization and Demob.	MOBILIZE	1	0.50	\$4,143
		OTALS:	1718.24	\$673,310	

INDIRECT COSTS

OVERHEAD AND PROFIT:

2.02	Total =	\$13,601
1.05	Total =	\$7,070
858.87	Total =	\$68,083
10.00	Total =	\$67,331
	2.02 1.05 858.87 10.00	1.05 Total = 858.87 Total =

 $TOTAL O \& P = \frac{\$156,084}{CONTRACT AMOUNT (direct + O \& P)} = \frac{\$829,394}{\$829,394}$

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	\$500	Total =	\$500
Engineering work and/or contract/bid preparation:	6.00	Total =	\$49,764
Reclamation management and/or administration:	4.50	_	\$37,323

 $Total = \underline{\$0}$ CONTINGENCY: 0.00

TOTAL INDIRECT COST = \$243,671

TOTAL BOND AMOUNT (direct + indirect) = __\$916,981

PUMPING WORK

Task description: Dew	vater pit - initial pumpin	ıg		
Two Rivers Sand, Gravel ar Reservoir Project	Permit Action:	TR-1	Permit/Job#:	M2022013
PROJECT IDENTIFICATION	<u>ON</u>			
Task #: 01A Date: 9/16/2024 User: JPL	State: Colorado County: Weld			one 1013-01A
Agency or organization	name: DRMS			
HOURLY EQUIPMENT CO	<u>OST</u>			
Make and Model: Attachment 1: Attachment 2: Discl	ription nersible pump - 460v, 8 in on hose - 6 in. diam., 25 for parge hose - 6 in. D., 25 for operator	ft.	Quantity 5 5 5 1	
Horsepower: 95 Shift Basis: 1 per day Weight: 0.70 (US Tons)				
Cost Breakdown:	I	Utilization %		
Ownership Cost/Hour:	\$49.45	NA		
Operating Cost/Hour:	\$20.60	100		
Operator Cost/Hour: Total Unit Cost/Hour:	\$28.23 \$98.28	NA		
-				
Total Fleet Cost/Hour:	\$98.28			
PUMPING QUANTITIES	424 520 050 00			1 0000
Initial Pond Volume: _ Final Pond Volume:	434,529,979.00 434,529,979.00	_ gallons	Conversion factor:	1.0000
Total Pond Inflow Surface	434,329,979.00	_ ganons	Unit inflow rate in	
Area:	300,000	Sq. ft.	gph/sq. ft.:	0.0000
Total Pond Inflow Volume	200,000	_ 54.10	Spin 54. 1	0.0000
per Hour:	0.00	_ gallons		
Source of estima	ated volume: Exh L, pa	age 6		
PUMPING TIME				
	ump Capacity:	170,000	gph/pump	
	Suction Head:	0	feet	
	ischarge Head:	15	feet	
	Total Head:	15	feet	
CPB P	ump Capacity:	168,000	gph/pump	
	Site Altitude:	4,680	feet	
A. P 1 D	mina Conit	940,000	amb.	
Adjusted Pum Initial Unadjusted I	ping Capacity:	840,000 517.30	gph hours	
Inflow during In		0	gallons	
Net Unadjusted I		517.30	Hours	
	istment Factor:	1.0000	(3% rule)	
Pump Eff	iciency Factor:	0.9167	(55 min./hr.)	
Total Adjusted I	Pumping Time:	474.21	hours	
JOB TIME AND COST		Total job tim	e: 474.21	Hours
Unit cost: \$0.000107	/Gallon	Total job cos	st: \$46,605	

PUMPING WORK

Task description:	Dewater pit - continual p	oumping		
Two Rivers Sand, Grav Site: Reservoir Project	yel and Permit Acti	on: TR-1	Permit/Job#:	M2022013
PROJECT IDENTIFIC	<u>ATION</u>			
Task #: 01B Date: 9/16/2024 User: JPL	State: Colora County: Weld	do		one 1013-01B
Agency or organiz	ation name: DRMS			
HOURLY EQUIPMEN	Γ COST			
Make and Model: Attachment 1: Attachment 2: Labor Unit 1: Horsepower: 9		25 ft.	Quantity 5 5 5 1	
Shift Basis: 1 per US 7 (US 7	70			
Cost Breakdown: Ownership Cost/Ho	ur: \$49.45	Utilization % NA		
Operating Cost/Ho		100		
Operator Cost/Ho	ur: \$28.23	NA		
Total Unit Cost/Ho	ur: \$98.28	_		
Total Fleet Cost/Ho	our: \$98.28			
PUMPING QUANTITII	<u>ES</u>			
Initial Pond Volum Final Pond Volum	ne: 112,151,304.00	gallons	Conversion factor:	1.0000
Total Pond Inflow Surfa Are		Sq. ft.	Unit inflow rate in gph/sq. ft.:	0.0000
Total Pond Inflow Volur		Sq. 1t.	gpii/sq. 1t	0.0000
per Ho	ar: 0.00	gallons		
Source of e	estimated volume: Exh L	, page 6		
PUMPING TIME				
Maxim	um Pump Capacity:	170,000	gph/pump	
Estin	nated Suction Head:	0	feet	
Estimat	ted Discharge Head:	15	feet	
C	Total Head: PB Pump Capacity:	15 168,000	feet gph/pump	
	Site Altitude:	4,680	feet	
	Pumping Capacity:	840,000	gph	
	sted Pumping Time:	133.51	hours	
	ing Initial Pumping:sted Pumping Time:	0 133.51	gallons Hours	
	Adjustment Factor:	1.0000	(3% rule)	
	p Efficiency Factor:	0.9167	(55 min./hr.)	
	sted Pumping Time:	122.39	hours	
JOB TIME AND COST		Total job	time: 122.39	Hours
Unit cost: \$0.0001	.07 /Gallon	Total job	cost: \$12,029	

BULLDOZER WORK

Task description:	Grade slope und	ler liner			
Two Rivers Sand, C Reservoir Project	Gravel and Pe	rmit Action:	TR-1	Permit/Jo	b#: <u>M2022013</u>
PROJECT IDENTIF	<u>ICATION</u>				
Task #: 02A Date: 9/17/2024 User: JPL	State: County:	Colorado Weld		Abbreviation: Filename:	None M013-02A
Agency or orga	anization name: DI	RMS			
HOURLY EQUIPMI	ENT COST				
Horsepower: 3 Blade Type: S Attachment: 3 Shift Basis: 1	at D8T - 8SU 10 emi-Universal -shank ripper per day				
Data Source:(0 Cost Breakdown:	CRG)		_		
Ownership Cost/Hour Operating Cost/Hour		\$173.32 \$109.71	Utilization % NA 100		
Ripper own Cost/Hour		\$14.53	NA		
Ripper op. Cost/Hour Operator Cost/Hour	:	\$3.98 \$40.04	50 NA		
Swell factor: 1.2	502 215 620 LCY				
Source of estimated vo Source of estimated sw factor:	lume: Calc fror		.4' length, 1' deep. pg	10 Ex L	
HOURLY PRODUC	<u>TION</u>				
Average push distance Unadjusted hourly production:	50 feet 1,400.0 LC	Y/hr			
Materials consistency	description: Partly	consolidated	stockpile 1.1		
Average push gradient:	20 %				
Average site altitude:	4,680 feet				
Material weight:	1,600 lbs/LCY				
Weight description:	Top Soil				
Job Condition Correction	n Factor		Source		

Operator Skill:	0.750	(AVG.)
Material consistency:	1.100	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	0.545	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4830

Adjusted unit production:

Adjusted fleet production:

676.20 LCY/hr

1352.4 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: \$0.505/LCY

Total job time: 13.03 Hours
Total job cost: \$8,900

TRUCK/LOADER TEAM WORK

Task description: Two Rivers Sand		er material Permi					
Site: Reservoir Projec	,	T CITIII	ıı Acı	TR-1		Permit/Job#	±: <u>M2022013</u>
PROJECT IDENT	<u>TIFICATION</u>						
Task #: 02B		State: C	Color	ado	Ab	breviation:	None
Date: 9/17/2 User: JPL	024		Weld				M013-02B
Agency or o	organization nan	ne: DRM	S				
HOURLY EQUIP	MENT COST				Shift ba	sis: 1 per day	
]	Equipment Descri	ption		
Tr	uck Loader Tear	-		neric 12-18 cy, 6x	4		
Cuma	rt Equipment -L	-Loader:	NA	T 966H high lift			
Suppor		mp Area:	NA				
Road Mar	Road Maintenance – Motor Grader: CAT 120M						
	-Wat	ter Truck:	Wa	ter Tanker, 2,500	Gal.		
Cost Breakdown:	Truck/Loa	dar Taam		Support 1	Equipment	Maint	onanaa Egyinma
Cost Breakdown:	Truck/Loa	Loader		Load Area	Dump Area	Motor Grader	Water Truc
Utilization-machine:	100		75	NA	NA		25 2
Ownership cost/hour:	\$27.14	\$57	.78	NA	NA	\$52.8	32 \$11.6
Operating cost/hour:	\$62.81	\$34	.69	NA	NA	\$10.9	94 \$5.6
%Utilization-riper:	NA		0	NA	NA	N.	A N
ipper own. cost/hour:	NA	\$0	0.00	NA	NA	\$0.0	00 \$0.0
Ripper op. cost/hour:	NA		0.00	NA	NA	\$0.0	
Operator cost/hour:	\$24.82	\$56		NA	NA	\$56.7	
Unit Subtotals:	\$114.77	\$149		NA	NA	\$120.4	
Number of Units:	2		1	0	0		1
Group Subtotals:	Work:	\$378.64		Support:	\$0.00	Main	nt: \$137.72
Total work team cost/	/hour: \$516.36						
MATERIAL QUA	NTITIES						
Initial volume:	61,706		CCY	Swell	factor: 1.000		
Loose volume:	61,70		LCY		<u> </u>		
Sour	rce of estimated	volume:	Ex L	Page 10-11			
	of estimated swe	ll factor:		Handbook			
	Material Purcha		\$0.00				
	То	tal Cost: _	\$0.00)			
HOURLY PROD	<u>DUCTION</u>						
Truck Capacity:							
Truck Payload (weigh							
Material w	eight: 1,600			Pounds/LCY	F		

Description: Top Soil

Track Loader Worksheet Cor	1. u	Tuok II 02B			1 45	, 2 01 1
Rated Payload:	50,300	Pounds	.			
Payload Capacity:	31.44	LCY	•			
, 1 , <u>-</u>						
Truck Bed (volume) Basis:						
Struck Volume:		LCY .				
Heaped Volume:		LCY .				
Average Volume:		CY				
Adjusted Volume:	18.00 I	LCY				
Final 7	Truck Volume Ba	ased on Number of L	oader Passes:	15.75	LCY	
Loading Tool Capacity						
			Ruck	et Size Class:	NA	
Rated Capacity:	5.000	LCY (heaped)	Buch	cet bize class.	1171	
Bucket Fill Factor:	1.050	Other - moist loa	ım (100-	-110%) 1.050		
Adjusted Capacity:	5.250	LCY	(100	11070) 11000		
3 1 3 _						
Job Condition Corrections:	=	Site	e Altitude (ft.):	4680 feet		
	Truck	Loader	Source			
Altitude Adj:	1.000	1.000	(CAT HI			
Job Efficiency:	0.830	0.830	(CAT HI			
Net Correction:	0.830	0.830				
	3.7	1 (1 1 7	10 0	. 1. P.11		
Loading Tool Cycle Time:	N	umber of Loading To	ool Passes Req	uired to Fill Truck:	3	passes
Excavators and Front Shovel	<u>s:</u>			Truck		
Machine Cycle Time vs	s. Job Condition	Rating: NA				
Selected Value v				 -		
Track Loaders –	Material Descrip	otion:				
	1					
Cycle Time Elements (min.):						
Load: NA	Ma	neuver: NA		Dump:	0.100	
	<u> </u>					_
Wheel and Track	Loaders - Unad	justed Basic Loader	•	-	0.500	minutes
			ı	naneuver):		
Cycle Time Factors				Factor (min	n.) Sour	ce
Material:		t - factor not applical		0.000	(Cat I	HB)
Stockpile:		t - factor not applical		0.000	(Cat I	
Truck Ownership:		t - factor not applical		0.000	(Cat I	
Operation:		nt - factor not applica		0.000	(Cat I	
Dump Target:	No adjustmen	 t - factor not applical Net Cycle Time 		0.000	(Cat I minu	
		Adjusted Loader		0.500	minu	
		Net Load Tim	•	1.100	minu	
			г	2,100		-
Truck Cycle Time:						
Truck Exchange Time	e: 0.50	Minutes	Adjusted	for site altitud	e: 0.500	Minutes
Truck Load Time	-	Minutes	•	for site altitud		
	-	Minutes	•	for site altitud		
Truck Maneuver and Dump	n 11911	IV/I1011TAC	/\ dingted	TOP CITE altifuld	e: 0.900	Minutes
Time		Williams	Aujusteu	101 Site attitud	0.500	Williaces

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

TI	r 1	n			
_	โลบไ	ıĸ	α	11	re.

Seg#	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	800.00	0.00	3.00	3.00	2824	0.445

				Haul Time:	0.445	minutes
Return Ro	ute:					
Seg#	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	800.00	0.00	3.00	3.00	2874	0.314

Return Time: 0.314 minutes
Total Truck Cycle Time: 3.259 minutes

Loading Tool unit

Production 590.63 LCY/Hour Adjusted for job efficiency: 490.22 LCY/Hour Truck Unit Production 289.97 LCY/Hour Adjusted for job efficiency: 240.67 LCY/Hour

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

Adjusted hourly truck team production: 481.34 LCY/Hour Adjusted single truck/loader team production: 481.34 LCY/Hour Adjusted multiple truck/loader team production: 481.34 LCY/Hour

JOB TIME AND COST

Fleet size:	1	_ Team(s)	Total job time:	128.20	Hours
Unit cost:	\$1.073	/LCY	Total job cost:	\$66,195	

BULLDOZER WORK

Two Rivers Sand, C Reservoir Project	Gravel and	Per	rmit Action:	TR-1	Permit/Jo	b#: <u>M2022013</u>
PROJECT IDENTIF	ICATION					
Task #: 02C Date: 9/17/2024 User: JPL	4	State: County:	Colorado Weld		Abbreviation: Filename:	None M013-02C
Agency or orga	anization naı	me: <u>DF</u>	RMS			
HOURLY EQUIPMI	ENT COST	Γ				
Basic Machine: C Horsepower: 3 Blade Type: S	at D8T - 8S 10 emi-Univers -shank rippe	U sal		- - -		
	per day CRG)			_		
Cost Breakdown:	eko)			Utilization %		
Ownership Cost/Hour			\$173.32	NA		
Operating Cost/Hour Ripper own			\$109.71	100		
Cost/Hour	:		\$14.53	NA		
Ripper op. Cost/Hour Operator Cost/Hour			\$0.40 \$40.04	5 NA		
Swell factor: 1.2	,853 215 , 486 LCY	Assumed Cat Hand		me of liner material Ex	s L pg 11	
factor:	_	Cat Hanc	IOOOK			
HOURLY PRODUC						
Average push distance Unadjusted hourly production:		0 feet 400.0 LC	Y/hr			
Materials consistency	description:	Partly	consolidated	stockpile 1.1		
Average push gradient:	0 %					
Average site altitude:	4,680 fe	et				
	1 (00 11	-/I CV				
Material weight:	1,600 lb	S/LC Y				
Material weight: Weight description:	Top Soil					

Operator Skill:	0.750	(AVG.)
Material consistency:	1.100	(CAT HB)
Dozing method:	1.100	(50% SL)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.9748

Adjusted unit production:
Adjusted fleet

production:

1,364.72 LCY/hr

2729.44 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: \$0.248/LCY

Total job time: 13.73 Hours
Total job cost: \$9,284

COMPACTION WORK

Task description: Compact liner				
Two Rivers Sand, Gravel and Permit A Reservoir Project	Action: TR-1		Permit/Job#:	M2022013
PROJECT IDENTIFICATION				
Task #: 02D State: Col	orado	Abbro	eviation: N	one
Date: 9/17/2024 County: We	ld			013-02D
User: JPL				
Agency or organization name: <u>DRMS</u>				
HOURLY EQUIPMENT COST				
Basic Machine: CAT 815F		Horsepower:	240	
Compactor Type: Soil - tamping foot		Shift Basis:	1 per c	
		Data Source:	(CRC	
Cost Drook down		-	`	
Cost Breakdown:		Utilization %		
Ownership Cost/Hour:	\$107.16	NA		
Operating Cost/Hour:	\$117.19	100		
Operator Cost/Hour:	\$31.50	NA		
Total Unit Cost/Hour:	\$255.85			
Total Fleet Cost/Hour:	\$511.71			
MATERIAL QUANTITIES				
Loose volume: 61,706 Compacted volume: 56,152	LCY CCY	Shri	nkage factor:	0.910
Source of estimated volume:		uantity. ExL pg11		
Source of estimated shrinkage factor:	Cat Handbook			
HOURLY PRODUCTION	Unadjus	sted hourly product	$ion = (W \times S)$	<u>x L x C) / P</u>
Compacted width per pass (W)		feet		
Average Compactor Speed (S)		mph		
Compacted thickness of each lift (L)		inches	/10: /07 0	`
Conversion Constant (C) Required number of machine passes (P)			./12in./27cu.ft	.)
Unadjusted Hourly Unit Production		passes CCY/ho	ıır	
Job Condition Correction Factors		itude: 4,680 feet	WI	
	Source			
t e e e e e e e e e e e e e e e e e e e	AT HB)			
•	shift/day)			
	ltiplier			
Adjusted Hourly Unit Produ	action: 1,758.7	7 CCY/Hour		
Adjusted Hourly Fleet Produ				
JOB TIME AND COST	an.	-4-1	15.00	II
Fleet size: 2 Compactor(s)	Т	otal job time:	15.96	Hours
Unit cost: \$0.145 per CCY	T	otal job cost:	\$8,169	

TRUCK/LOADER TEAM WORK

Task description:	Haul su	bsoil to gra	ade ov	er liner			
Two Rivers Sand, Gravel and Permi ite: Reservoir Project			it Acti	ion: TR-1		Permit/Job#:	M2022013
PROJECT IDEN	TIFICATION						
Task #: 03A Date: 9/17/ User: JPL	2024		Colora Weld	ado	Abl		None M013-03A
	organization nar	ne: DRM	1S				
rigency of	organization har	ne. <u>Dia</u>	10				
HOURLY EQUII	PMENT COST	-			Shift ba	sis: 1 per day	
				Equipment Descri			
Т	ruck Loader Tea	m -Truck: -Loader:		eric 12-18 cy, 6x Γ 966H high lift	.4		
Suppo	ort Equipment -L		NA	1 900H IIIgii IIII			
	-Dı	ımp Area:	NA				
Road Ma	aintenance –Mot			Г 120М			
	-Wa	ter Truck:	Wat	er Tanker, 2,500	Gal.		
Cost Breakdown:	Truck/Loa	der Team		Support 1	Equipment	Mainte	nance Equipment
Cost Bi caraowii.	Truck	Loader		Load Area	Dump Area	Motor Grader	Water Truck
Utilization-machine:	100		75	NA	NA	25	25
Ownership cost/hour:	\$27.14	\$5′	7.78	NA	NA	\$52.82	\$11.65
Operating cost/hour:	\$62.81	\$34	4.69	NA	NA	\$10.94	\$5.61
%Utilization-riper:	NA		0	NA	NA	NA	
pper own. cost/hour:	NA		0.00	NA	NA	\$0.00	
Ripper op. cost/hour:	NA		0.00	NA	NA	\$0.00	
Operator cost/hour:	\$24.82	,	6.64	NA	NA	\$56.70	\$0.00
Unit Subtotals:	\$114.77	\$149	9.10	NA	NA	\$120.46	\$17.26
Number of Units:	2		1	0	0	1	. 1
Group Subtotals:	Work:	\$378.64		Support:	\$0.00	Maint:	: \$137.72
Total work team cos	t/hour: \$516.36						
MATERIAL QUA	<u>ANTITIES</u>						
Initial volume Loose volume		15	CCY LCY	Swell	factor: 1.000		
Sor	urce of estimated	volume	Ev I	Pg 9 total for bo	oth slopes 273815		
	of estimated swe	_		Iandbook	mi siopes 275015		
	Material Purch	ase Cost:	\$0.00				
	To	otal Cost: _	\$0.00				
HOURLY PRO	<u>DUCTION</u>						
Truck Capacity:							
Truck Payload (weig							
Material v	weight: <u>1,600</u>			Pounds/LCY	•		

Description: Top Soil

Track Loader Worksheet Cor		Tubit II Obli			18	0 2 01 1
Rated Payload:	50,300	Pounds				
Payload Capacity:	31.44	LCY				
, 1 , <u>-</u>						
Truck Bed (volume) Basis:						
Struck Volume:		.CY				
Heaped Volume:		LCY .				
Average Volume:		CY				
Adjusted Volume:	18.00 L	.CY				
Final 7	Truck Volume Ba	ased on Number of L	oader Passes:	15.75	LCY	
Loading Tool Capacity						
			Ruck	ket Size Class:	NA	
Rated Capacity:	5.000	LCY (heaped)	Buch	tet bize Ciass.	1171	
Bucket Fill Factor:	1.050	Other - moist loa	m (100-	-110%) 1.050		
Adjusted Capacity:	5.250	LCY	(100	11070) 11000		
3 1 3 _						
Job Condition Corrections:	=	Site	Altitude (ft.):	4680 feet		
	Truck	Loader	Source	,		
Altitude Adj:	1.000	1.000	(CAT HI			
Job Efficiency:	0.830	0.830	(CAT HI			
				<u> </u>		
Net Correction:	0.830	0.830				
T 1' T 10 1 T'	2.7	1 01 1' 75	1 D D	' 1. P'II		
Loading Tool Cycle Time:	N	umber of Loading To	ool Passes Req	urred to Fill Truck:	3	passes
Excavators and Front Shovel	<u>s:</u>			Truck		
Machine Cycle Time vs	s. Job Condition	Rating: NA				
Selected Value v				 -		
Track Loaders –	Material Descrip	tion:				
	1					
Cycle Time Elements (min.):						
Load: NA	Ma	neuver: NA		Dump:	0.100	
	<u> </u>					_
Wheel and Track	CLoaders - Unad	justed Basic Loader	•	-	0.500	minutes
			ı	naneuver):		
Cycle Time Factors				Factor (min	n.) Sour	rce
Material:		t - factor not applicab		0.000	(Cat]	HB)
Stockpile:		t - factor not applicab		0.000	(Cat]	
Truck Ownership:		t - factor not applicab		0.000	(Cat]	
Operation:		nt - factor not applica		0.000	(Cat]	
Dump Target:	No adjustmen	t - factor not applicat Net Cycle Time		0.000	(Cat)	
		Adjusted Loader		0.500	minu	
		Net Load Tim	•	1.100	minu	
			1	_,_,		
Truck Cycle Time:						
Truck Exchange Time	e: 0.50	Minutes	Adjusted	for site altitud	e: 0.500) Minutes
Truck Load Time	-	Minutes	·	for site altitud		
		=	·			
Truck Maneuver and Dump) (· · · · · · · · · · · · · · · · · ·	A 1° , 1	C 1, 1, 1		
Time		Minutes	Adjusted	for site altitud	e: 0.900) Minutes

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

Haul Route:

Seg#	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	600.00	0.00	3.00	3.00	2824	0.374

Haul Time: 0.374 minutes Return Route: Grade (%) Roll. Res Total Res Travel Seg# Haul Distance Velocity Time (fpm) (Ft) (%) (%)(min) 3.00 3.00 600.00 0.00 2874 0.244

Return Time: 0.244 minutes
Total Truck Cycle Time: 3.118 minutes

Loading Tool unit

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

____303.08 LCY/Hour Adjusted for job efficiency: ____251.56 LCY/Hour

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

Adjusted hourly truck team production: 503.11 LCY/Hour Adjusted single truck/loader team production: 490.22 LCY/Hour Adjusted multiple truck/loader team production: 490.22 LCY/Hour

JOB TIME AND COST

 Fleet size:
 1
 Team(s)
 Total job time:
 558.56
 Hours

 Unit cost:
 \$1.053
 /LCY
 Total job cost:
 \$288,416

BULLDOZER WORK

Task description:	Grade s	ubsoil o	ver liner			
Two Rivers Sand, ORE: Reservoir Project	Gravel and	Pe	rmit Action:	TR-1	Permit/Jol	b#: <u>M2022013</u>
PROJECT IDENTII	FICATION					
Task #: 03B Date: 9/17/202 User: JPL	4 (State: County:	Colorado Weld		Abbreviation: Filename:	None M013-03B
Agency or org	anization nam	ne: <u>DI</u>	RMS			
HOURLY EQUIPM	ENT COST					
Horsepower: 3 Blade Type: S Attachment: 3 Shift Basis: 1	Cat D8T - 8SU 10 Semi-Universa -shank ripper per day CRG)			- - - -		
Cost Breakdown:	,			_		
Ownership Cost/Hour Operating Cost/Hour	:		\$173.32 \$109.71	Utilization % NA 100		
Ripper own Cost/Hour			\$14.53	NA		
Ripper op. Cost/Hour Operator Cost/Hour			\$0.00 \$40.04	0 NA		
Swell factor: 1.2						
Source of estimated vo Source of estimated sv factor:		Ex L pg ! Cat Hand				
HOURLY PRODUC	<u>CTION</u>					
Average push distance Unadjusted hourly production:		feet 00.0 LC	Y/hr			
Materials consistency	description:	Partly	consolidated	stockpile 1.1		
Average push gradient:	5 %					
Average site altitude:	4,680 fee	t				
Material weight:	_1,600 lbs/	/LCY			<u> </u>	
Weight description:	Top Soil					
Job Condition Correctio	n Factor			Source		

Operator Skill:	0.750	(AVG.)
Material consistency:	1.100	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.8002

Adjusted unit production: Adjusted fleet

production:

1,120.28 LCY/hr

2240.56 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: \$0.301/LCY

Total job time: 148.48 Hours
Total job cost: \$100,254

TRUCK/LOADER TEAM WORK

Two Rivers Sar e: Reservoir Proje		Permit Act	tion: TR-1		Permit/Job#:	M2022013
PROJECT IDEN	<u>TIFICATION</u>					
Task #: 03C		State: Color	ado	Abl	breviation: N	one
-	/2024	County: Weld				013-03C
User: JPL						
Agency or	organization nan	ne: DRMS				
HOURLY EQUI	PMENT COST	<u>.</u>		Shift ba	sis: 1 per day	
]	Equipment Descr	iption		
Т	ruck Loader Tea	m -Truck: Ger	neric 12-18 cy, 6x			
	. D		T 966H high lift			
Supp	ort Equipment -L	oad Area: NA				
Road M	aintenance –Moto		T 120M			
	-Wa	ter Truck: Wa	ter Tanker, 2,500	Gal.		
Cost Breakdown:	Truck/Loa			Equipment		ance Equipmen
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
tilization-machine:	100	75	NA	NA	25	2
nership cost/hour:	\$27.14	\$57.78	NA	NA	\$52.82	\$11.6
perating cost/hour:	\$62.81	\$34.69	NA	NA	\$10.94	\$5.6
%Utilization-riper:	NA	0	NA	NA	NA	N ₂
per own. cost/hour:	NA	\$0.00	NA	NA	\$0.00	\$0.0
pper op. cost/hour:	NA	\$0.00	NA	NA	\$0.00	\$0.0
Operator cost/hour:	\$24.82	\$56.64	NA	NA	\$56.70	\$0.0
Unit Subtotals:	\$114.77	\$149.10	NA	NA	\$120.46	\$17.2
Number of Units:	2	1	0	0	1	
Group Subtotals:	Work:	\$378.64	Support:	\$0.00	Maint:	\$137.72
Total work team cos	t/hour: \$516.36					
MATERIAL QU	<u>ANTITIES</u>					
Initial volume	e: 3,895	CCY	Swell	factor: 1.000		
Loose volume				1.000		
So	urce of estimated	volume: 3805	ExL pg 12			
	of estimated swe		Handbook			
	Material Purcha					
	To	otal Cost: \$0.00	0			
HOURLY PRO						

Pounds/LCY

Material weight: 1,600

Description: Top Soil

Truck/Loader worksneet Cor	ıı a	1 ask # 03C			Page 2 01	4
Rated Payload:	50,300	Pour	nds			
Payload Capacity:	31.44	LCY				
Truck Bed (volume) Basis:						
Struck Volume:		LCY				
Heaped Volume:		LCY				
Average Volume: _ Adjusted Volume:		LCY LCY				
Adjusted Volume.	16.00	.C I				
Final 7	Truck Volume B	ased on Number o	f Loader Passes:	15.75	LCY	
Loading Tool Capacity						
			Bucl	ket Size Class:	NA	
Rated Capacity:	5.000	LCY (heaped)				
Bucket Fill Factor:	1.050	Other - moist		0-110%) 1.050		=
Adjusted Capacity:	5.250	LCY		,		=
Job Condition Corrections:			Site Altitude (ft.):	· 1680 foot		
Job Condition Corrections.	-					
Altitude Adj:	1.000	Loader 1.000	Source (CAT H			
Job Efficiency:	0.830	0.830	(CAT H			
			(232233			
Net Correction:	0.830	0.830				
Loading Tool Cycle Time:	N	umber of Loading	Tool Passes Req	•	3	passes
Excavators and Front Shovel	<u>s:</u>			Truck:		
Machine Cycle Time vs Selected Value v						
Track Loaders –	Material Descrip	otion:				
Cycle Time Elements (min.):						
Load: NA	Ma	neuver: NA		Dump:(0.100	
Wheel and Track	Loaders - Unac	ljusted Basic Load	ler Cycle Time (l	oad, dump,	0.500 min	utes
			1	maneuver):		
Cycle Time Factors				Factor (min	.) Source	
Material:		t - factor not appli		0.000	(Cat HB)	
Stockpile:		t - factor not appli		0.000	(Cat HB)	_
Truck Ownership:		t - factor not appli		0.000	(Cat HB)	_
Operation:		nt - factor not appl		0.000	(Cat HB)	_
Dump Target:	No adjustmen	t - factor not appli	ne Adjustment:	0.000	(Cat HB) minutes	_
			ler Cycle Time:	0.500	minutes	
			Time per Truck:	1.100	minutes	
Truck Cycle Time:						
Truck Exchange Time	: 0.50	Minutes	Adjusted	for site altitude	e: 0.500	Minutes
Truck Load Time	: 1.100	Minutes	Adjusted	for site altitude	1.100	Minutes
Truck Maneuver and Dump Time	•	Minutes	Adjusted	for site altitude	0.900	Minutes

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

Page 4 of 4

TI	r 1	n			
_	โลบไ	ıĸ	α	11	re.

Seg#	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	800.00	0.00	3.00	3.00	2824	0.445

Haul Time: **0.445** minutes Return Route: Grade (%) Roll. Res Total Res Travel Seg# Haul Distance Velocity Time (fpm) (Ft) (%) (%)(min) 3.00 3.00 800.00 0.00 2874 0.314

Return Time: 0.314 minutes
Total Truck Cycle Time: 3.259 minutes

Loading Tool unit

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

_____289.97 LCY/Hour Adjusted for job efficiency: ____240.67 LCY/Hour

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

Adjusted hourly truck team production: 481.34 LCY/Hour Adjusted single truck/loader team production: 481.34 LCY/Hour Adjusted multiple truck/loader team production: 481.34 LCY/Hour

JOB TIME AND COST

 Fleet size:
 1
 Team(s)
 Total job time:
 8.09
 Hours

 Unit cost:
 \$1.073
 /LCY
 Total job cost:
 \$4,178

BULLDOZER WORK

Task description:	Spread	topsoil o	n pond bank	(
Two Rivers Sand, C e: Reservoir Project	Gravel and	Pe	rmit Action:	TR-1	Permit/Jol	b#: <u>M2022013</u>
PROJECT IDENTIF	<u>ICATION</u>					
Task #: 03D Date: 9/17/2024 User: JPL	4 (State: County:	Colorado Weld		Abbreviation: Filename:	None M013-03D
Agency or orga	anization nam	ne: <u>DI</u>	RMS			
HOURLY EQUIPMI	ENT COST					
Horsepower: 3 Blade Type: S Attachment: 3 Shift Basis: 1	at D8T - 8SU 10 emi-Universa -shank ripper per day CRG)			 		
Cost Breakdown:	,			_		
Ownership Cost/Hour Operating Cost/Hour			\$173.32 \$109.71	<u>Utilization %</u> NA 100		
Ripper own Cost/Hour			\$14.53	NA		
Ripper op. Cost/Hour Operator Cost/Hour			\$0.00 \$40.04	0 NA		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 3,8 Swell factor: 1.2 Loose volume: 4,7	395		_			
Source of estimated vo Source of estimated sw factor:		Ex L pg Cat Hanc	12 lbook			
HOURLY PRODUC	TION					
Average push distance Unadjusted hourly production:		feet ·00.0 LC	Y/hr			
Materials consistency	description:	Partly	consolidated	stockpile 1.1		
Average push gradient:	0 %					
Average site altitude:	4,680 fee	t				
Material weight:	1,600 lbs	/LCY			<u> </u>	
Weight description:	Top Soil					
Job Condition Correction	n Factor			Source		

Operator Skill:	0.750	(AVG.)
Material consistency:	1.100	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.8862

Adjusted unit production: 1,240.68 LCY/hr

Adjusted fleet production: 2481.36 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: \$0.272/LCY

Total job time: 1.91 Hours
Total job cost: \$1,288

REVEGETATION WORK

	l'ask descript	tion:	Seed banks of po	ond			
Site:		rs Sand, Grav Project	el and Per	rmit Action:	TR-1	Permit/Job	o#: M2022013
P]	ROJECT I	DENTIFICA	ATION				
_		DEI VIII ICI	111011				
	Task #:	03E	State:	Colorado		Abbreviation:	None
				Colorado Weld		Abbreviation:	None M013-03E

Agency or organization name: DRMS

FERTILIZING

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
10-34-0, 18-46-0, 5-10-5	200.00	pound	\$0.51	\$102.32
			Total Fertilizer Materials Cost/Acre	\$102.32

Application

Description		Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)		\$43.12
	Total Fertilizer Application Cost/Acre	\$43.12

TILLING

Description	Cost /Acre
Chisel plowing {DMG}	\$102.41
Weed control spraying (MEANS 31 31 16.13 3100)	\$338.80
Total Tilling Cost/Acre	\$441.21

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Alkali Sacaton	0.10	3.90	\$2.91
Blue Grama - Lovington	0.20	3.26	\$5.55
Indian Ricegrass - Paloma	1.90	6.15	\$39.01
Switchgrass - Pathfinder	0.90	8.04	\$12.11
Sand Dropseed	0.10	11.94	\$1.30
Kentucky Bluegrass - Ginger	0.10	4.94	\$0.41
Little Bluestem - Pastura	0.30	1.79	\$4.76
Sideoats Grama - Vaughn	1.80	5.91	\$44.26
Strawberry Clover (coated)	0.10	0.68	\$0.98

Smooth Brome - Manchar	0.30	1.00	\$1.57
Sheep Fescue - Covar	0.40	6.24	\$2.47
Tall Wheatgrass - Jose	1.10	1.99	\$6.32
Totals Seed Mix	7.30	55.84	\$121.66

Application

Description	Cost /Acre	
Drill Seeding (DRMS Survey Cost)	\$236.64	
Total Seed Ap	plication Cost/Acre \$236.64	

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - Curtail @ 4.0 pt/ac	1.00	ACRE	\$36.14	\$36.14
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$492.78	\$985.56
Total Mulch Materials Cost/Acre				\$1,021.70

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$85.37
Weed spray, truck, non-aquatic area, nox. [DMG]		\$83.26
	Total Mulch Application Cost/Acre	\$168.64

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres: 4.8 Cost /Acre: \$2,135.29 Estimated Failure Rate: 25% Cost /Acre*: \$358.30

*Selected Replanting Work Items: SEEDING

Initial Job Cost: \$10,249.39

Reseeding Job Cost: \$429.96

Total Job Cost: \$10,679

9.00

DEMOLITION WORK

Task description	on: Process A	area Decommissioning				
Two Rivers Site: Reservoir Pr	Sand, Gravel and roject	Permit Action: TR-1				M2022013
PROJECT IDENTI	FICATION					
Task #: 04A Date: 9/17/2024 User: JPL	Stat Count			Abbrevia Filen	None M013-	04A
Agency	y or organization name:	DRMS				
UNIT COSTS				Location	on adjustment:	89.20 %
Structure or Item Description	Dim and and		Quantity	Unit	Unit Cost	Total Cost
Concrete pads	15x30,15x60,15x25	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	1,725.00	SF	\$2.31	\$3,990.10
Concrete supports - truck scales	Convert 10 CY (Exh L)	Demo. and on-site disposal in existing pit, 1.5 ft. x 2 ft Max. 10,000 ft. haul	90.00	LF	\$6.94	\$624.53
Concrete supports - temp buildings	Convert 8 CY (Exh L)	Demo. and on-site disposal in existing pit, 1.5 ft. x 2 ft Max. 10,000 ft. haul	72.00	LF	\$6.94	\$499.62
Fuel tanks	6,000 gallons	Comprehensive storage tank removal, non-leaking - 6,000 to 8,000 gal, tank	2.00	EA	\$5,536.95	\$11,073.90

Subtotal

Job Hours: _____175.00

(unadjusted): \$16,188.15

Total Cost (adjusted for

location): \$14,439.83

BULLDOZER RIPPING WORK

Two Rivers Sand, Gravel and Permit Action: Promit Jobs: M2022013	Task description:	Rip processing area, wash	pond area				_
Task #:05A		el and Permit Action			Permit/Job#	#: <u>M202201</u>	13
Date 917/2024 County: Weld Filename: M013-05A	PROJECT IDENTIFICA	<u>ATION</u>					
User: PI. Agency or organization name: DRMS	Task #: 05A	State: Colorado)	Abbı	eviation:	None	
Materiale Methods: Selected estimating method: Area	Date: 9/17/2024	County: Weld		F	ilename:	M013-05A	
Basic Machine: Cat D8T - 8SU Horsepower: 310 Shift Basis: 1 per day Data Source: (CRG)	User: JPL				_		
Basic Machine: Cat D8T - 8SU Horsepower: 310 Shift Basis: 1 per day Data Source: (CRG)	Agency or organiza	tion name: DRMS					
Ripper Attachment: 3-Shank Ripper	HOURLY EQUIPMENT	COST					
Ripper Attachment: 3-Shank Ripper	Basic Machine:	Cat D8T - 8SU		Horsepower:	3	10	
Data Source: (CRG)	-						
Ownership Cost/Hour: \$173.32	-						
Ownership Cost/Hour: \$173.32	Cost Breakdown:						
Operating Cost/Hour: \$109.71 100 Ripper Ownership Cost/Hour: \$14.53 NA Ripper Operating Cost/Hour: \$40.04 NA Total Unit Cost/Hour: \$345.55 Total Fleet Cost/Hour: \$691.09 MATERIAL QUANTITIES Selected estimating method: Area	COST BIOMRAO WIII			Utilization %			
Ripper Ownership Cost/Hour: \$7.95 100 Operator Cost/Hour: \$7.95 100 Operator Cost/Hour: \$340.04 NA Total Unit Cost/Hour: \$345.55 Total Fleet Cost/Hour: \$691.09 MATERIAL QUANTITIES Selected estimating method: Area	Ownershi	p Cost/Hour:	\$173.32	NA			
Ripper Operating Cost/Hour: \$49.04 NA S40.04 NA	Operatin	g Cost/Hour:	\$109.71	100	.		
Operator Cost/Hour:	Ripper Ownershi	p Cost/Hour:		NA	<u> </u>		
Total Unit Cost/Hour: S691.09 S691.09				100	_		
MATERIAL QUANTITIES Selected estimating method: Area Alternate Methods: Somic: NA Bank Volume: NA BCY NA Area: 24.20 acres Rip Depth (ft): 1.00 Volume: 39,043 BCY of Source of estimated quantity: Ex L pg 12-13 HOURLY PRODUCTION Seismic: Seismic Velocity: NA feet/second Area: Average Ripping Depth: 2.56 feet/pass Average Ripping Width: 7.08 feet/pass Average Ripping Width: 7.08 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: 0.748 acres/hour Job Condition Correction Factors Unadjusted Hourly Unit Production: 0.748 Acres/hr Site Altitude: 4,680 feet Altitude Adj: 1.00 (CAT HB) Job Efficiency: 0.83 (1 shift/day) Net Correction: 0.83 multiplier Adjusted Hourly Unit Production: 0.62 Acres/hr Adjusted Hourly Fleet Production: 1.24 Acres/hr	Operato	or Cost/Hour:	\$40.04	NA	-		
MATERIAL QUANTITIES Alternate Methods: Smic: NA Bank Volume: NA BCY NA Area: 24.20 acres Rip Depth (ft): 1.00 Volume: 39,043 BCY of Source of estimated quantity: Ex L pg 12-13 HOURLY PRODUCTION Seismic: Seismic Velocity: NA feet/second Area: Average Ripping Depth: 2.56 feet/pass Average Ripping Width: 7.08 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: 0.748 acres/hour Job Condition Correction Factors Unadjusted Hourly Unit Production: 0.748 Acres/hr Adjusted Hourly Unit Production: 0.83 multiplier Adjusted Hourly Unit Production: 0.62 Acres/hr Adjusted Hourly Fleet Production: 1.24 Acres/hr	Total Un	it Cost/Hour:	\$345.55				
MATERIAL QUANTITIES Alternate Methods: Smic: NA Bank Volume: NA BCY NA Area: 24.20 acres Rip Depth (ft): 1.00 Volume: 39,043 BCY of Source of estimated quantity: Ex L pg 12-13 HOURLY PRODUCTION Seismic: Seismic Velocity: NA feet/second Area: Average Ripping Depth: 2.56 feet/pass Average Ripping Width: 7.08 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: 0.748 acres/hour Job Condition Correction Factors Unadjusted Hourly Unit Production: 0.748 Acres/hr Adjusted Hourly Unit Production: 0.83 multiplier Adjusted Hourly Unit Production: 0.62 Acres/hr Adjusted Hourly Fleet Production: 1.24 Acres/hr	T-4-1 F1-		01.00				
Seismic: Seismic Velocity: NA feet/second			-		39,043		BCY or
Seismic: Seismic Velocity: NA feet/second Area: Average Ripping Depth: Average Ripping Width: Average Ripping Length: 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: 0.748 acres/hour Job Condition Correction Factors Unadjusted Hourly Unit Production: 0.748 Acres/hr Site Altitude: 4,680 feet Altitude Adj: 1.00 (CAT HB) Job Efficiency: 0.83 (1 shift/day) Net Correction: 0.83 multiplier Adjusted Hourly Unit Production: 0.62 Acres/hr JOB TIME AND COST		• • ——	pg 12-13				
Seismic Velocity: NA feet/second Area: Average Ripping Depth: 2.56 feet/pass Average Ripping Width: 7.08 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: 0.748 acres/hour Job Condition Correction Factors Unadjusted Hourly Unit Production: 0.748 Acres/hr Site Altitude: 4,680 feet Altitude Adj: 1.00 (CAT HB) Job Efficiency: 0.83 (1 shift/day) Net Correction: 0.83 multiplier Adjusted Hourly Unit Production: 0.62 Acres/hr JOB TIME AND COST		<u>N</u>					
Area: Average Ripping Depth: Average Ripping Width: Average Ripping Length: Average Ripping Length: 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: 0.748 Acres/hour Job Condition Correction Factors Unadjusted Hourly Unit Production: Site Altitude: Altitude Adj: Altitude Adj: 1.00 (CAT HB) Job Efficiency: 0.83 (1 shift/day) Net Correction: 0.62 Adjusted Hourly Unit Production: Adjusted Hourly Fleet Production: 0.62 Acres/hr Adjusted Hourly Fleet Production: 1.24 Acres/hr	<u>Seismic:</u>	Seismic Velocity:	NA	feet/sec	ond		
Average Ripping Depth: Average Ripping Width: Average Ripping Length: Average Ripping Length: Average Pozer Speed: Average Maneuver Time:		, <u> </u>					
Average Ripping Width: Average Ripping Length: Average Ripping Length: Average Dozer Speed: Average Maneuver Time: Production per unit area: Unadjusted Hourly Unit Production: Site Altitude: Altitude Adj: Job Efficiency: Net Correction: Adjusted Hourly Unit Production: Adjusted Hourly Unit Production: Adjusted Hourly Unit Production: O.748 Acres/hr Site Altitude: Altitude Adj: Job Efficiency: 0.83 (1 shift/day) Net Correction: Adjusted Hourly Unit Production: Adjusted Hourly Unit Production: Adjusted Hourly Unit Production: Adjusted Hourly Fleet Production: Adjusted Hourly Fleet Production: 1.24 Acres/hr JOB TIME AND COST		Diamina Dandha	2.56	£4/	_		
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: 0.748 acres/hour Job Condition Correction Factors Unadjusted Hourly Unit Production: 0.748 Acres/hr Site Altitude: 4,680 feet Altitude Adj: 1.00 (CAT HB) Job Efficiency: 0.83 (1 shift/day) Net Correction: 0.83 multiplier Adjusted Hourly Unit Production: 0.62 Acres/hr Adjusted Hourly Fleet Production: 1.24 Acres/hr							
Average Dozer Speed: 88.00 feet/minute Average Maneuver Time: 0.25 minutes/pass Production per unit area: 0.748 acres/hour Job Condition Correction Factors Unadjusted Hourly Unit Production: 0.748 Acres/hr Site Altitude: 4,680 feet Altitude Adj: 1.00 (CAT HB) Job Efficiency: 0.83 (1 shift/day) Net Correction: 0.83 multiplier Adjusted Hourly Unit Production: 0.62 Acres/hr Adjusted Hourly Fleet Production: 1.24 Acres/hr JOB TIME AND COST							
Average Maneuver Time: Production per unit area: 0.25							
Production per unit area: 0.748 acres/hour Job Condition Correction Factors Unadjusted Hourly Unit Production: 0.748 Acres/hr Site Altitude: 4,680 feet Altitude Adj: 1.00 (CAT HB) Job Efficiency: 0.83 (1 shift/day) Net Correction: 0.83 multiplier Adjusted Hourly Unit Production: 0.62 Acres/hr Adjusted Hourly Fleet Production: 1.24 Acres/hr JOB TIME AND COST							
Unadjusted Hourly Unit Production: Site Altitude: Altitude Adj: Job Efficiency: Net Correction: Adjusted Hourly Unit Production: Adjusted Hourly Unit Production: Adjusted Hourly Fleet Production: 1.24 Acres/hr Acres/hr Acres/hr Acres/hr					•		
Site Altitude: 4,680 feet Altitude Adj: 1.00 (CAT HB) Job Efficiency: 0.83 (1 shift/day) Net Correction: 0.83 multiplier Adjusted Hourly Unit Production: 0.62 Acres/hr Adjusted Hourly Fleet Production: 1.24 Acres/hr JOB TIME AND COST	Job Condition Correction Fac	tors					
Site Altitude: 4,680 feet Altitude Adj: 1.00 (CAT HB) Job Efficiency: 0.83 (1 shift/day) Net Correction: 0.83 multiplier Adjusted Hourly Unit Production: 0.62 Acres/hr Adjusted Hourly Fleet Production: 1.24 Acres/hr JOB TIME AND COST	Unadjusted Ho	urly Unit Production:	0.748	Acres/h	ır		
Altitude Adj: 1.00 (CAT HB) Job Efficiency: 0.83 (1 shift/day) Net Correction: 0.83 multiplier Adjusted Hourly Unit Production: 0.62 Acres/hr Adjusted Hourly Fleet Production: 1.24 Acres/hr JOB TIME AND COST	J	<u></u>					
Job Efficiency: 0.83 (1 shift/day) Net Correction: 0.83 multiplier Adjusted Hourly Unit Production: 0.62 Acres/hr Adjusted Hourly Fleet Production: 1.24 Acres/hr JOB TIME AND COST					IR)		
Net Correction: O.83 multiplier Adjusted Hourly Unit Production: Adjusted Hourly Fleet Production: 1.24 Acres/hr JOB TIME AND COST							
Adjusted Hourly Unit Production: 0.62 Acres/hr Adjusted Hourly Fleet Production: 1.24 Acres/hr JOB TIME AND COST							
Adjusted Hourly Fleet Production: 1.24 Acres/hr JOB TIME AND COST	A dina						
JOB TIME AND COST							
	•	,	·				
					0.40		

Unit cost:	\$556.276	Per acre	Total job cost:	\$13,462

TRUCK/LOADER TEAM WORK

	Two Rivers Sand, Gravel and Permir Reservoir Project		it Act	ion: TR-1		Permit/Job#:	M2022013
PROJECT IDEN	TIFICATION						
Task #: 05C Date: 9/17/	2024		Colora Weld	ıdo			None M013-05C
User: <u>JPL</u>							
Agency or	organization nar	ne: DRM	1S				
HOURLY EQUI	PMENT COST				Shift ba	sis: 1 per day	
		-	F	Equipment Descri			
T	ruck Loader Tea	m -Truck:		eric 12-18 cy, 6x			
		-Loader:		Γ 966H high lift			
Suppo	ort Equipment -L	oad Area: imp Area:	NA NA				
Road Ma	aintenance –Mot			Γ 120M			
	-Wa	ter Truck:		er Tanker, 2,500	Gal.		
G (B 11	T 1/T	1 75		G	D	3.6.1.	F
Cost Breakdown:	Truck/Loa Truck	Loader		Support Load Area	Equipment Dump Area	Mainte Motor	mance Equipment Water Truck
	Huck	Louder		Loud Hou	Dump / neu	Grader	
Utilization-machine:	100		75	NA	NA	25	5 25
wnership cost/hour:	\$27.14	\$5'	7.78	NA	NA	\$52.82	2 \$11.65
Operating cost/hour:	\$62.81	\$34	4.69	NA	NA	\$10.94	4 \$5.61
%Utilization-riper:	NA		0	NA	NA	NA	
pper own. cost/hour:	NA		0.00	NA	NA	\$0.00	
Ripper op. cost/hour:	NA		0.00	NA	NA	\$0.00	
Operator cost/hour:	\$24.82		6.64	NA	NA	\$56.70	
Unit Subtotals:	\$114.77	\$149	9.10	NA	NA	\$120.46	5 \$17.26
Number of Units:	2		1	0	0]	1 1
Group Subtotals:	Work:	\$378.64		Support:	\$0.00	Maint	:: \$137.72
Total work team cos	t/hour: \$516.36						
1.5.4 mm p. 1.4.4 o. 1.4							
MATERIAL QUA	ANTITIES						
Initial volume			CCY	Swell	factor: 1.000		
Loose volume	: 19,52	21	LCY				
	urce of estimated	-		of 24.2 acres and	l depth of 6" ExL	pg12	
Source	of estimated swe Material Purch	_	\$0.00	Iandbook			
		ase Cost: _ otal Cost:	\$0.00				
	1	_	ψοίο ο				
HOURLY PRO	DUCTION						
Truck Capacity:							
Truck Payload (weig							
Material v	veight: 1,600			Pounds/LCY	•		

Description: Top Soil

Truck Bounds (volkshoot con		Tuble # 05 C			-	450 2 01	•
Rated Payload: Payload Capacity:	50,300 31.44	Pounds LCY					
Truck Bed (volume) Basis: Struck Volume: Heaped Volume: Average Volume: Adjusted Volume:	18.00 Lo 15.00 Lo	CY CY CY CY					
Final T	ruck Volume Ba	sed on Number of L	oader Passes:	15.75	L	CY	
Loading Tool Capacity							
			Buck	et Size Class:	NA		_
Rated Capacity:	5.000	LCY (heaped)					-
Bucket Fill Factor:	1.050	Other - moist loan	m (100-	-110%) 1.050			-
Adjusted Capacity: _	5.250	LCY					
Job Condition Corrections:	-	Site	Altitude (ft.):	4680 feet			
	Truck	Loader	Source				
Altitude Adj:	1.000	1.000	(CAT HE				
Job Efficiency:	0.830	0.830	(CAT HE	3)			
Net Correction:	0.830	0.830					
Loading Tool Cycle Time:	Nii	mber of Loading To	ol Passes Reg	uired to Fill			passes
Excavators and Front Shovel		meer or zeaming re	211 3 22 2 1 2 4	Truck:	3		Passas
Machine Cycle Time vs Selected Value v	s. Job Condition F vithin this Basic F						
Track Loaders – 1	Material Descript	ion:					
Cycle Time Elements (min.):							
Load: NA	Man	neuver: NA		Dump:	0.100		
Wheel and Track	Loaders - Unadj	usted Basic Loader (•	oad, dump, naneuver):	0.500	minu 	ıtes
Cycle Time Factors				Factor (min	n.) S	Source	
Material:	No adjustment	- factor not applicab	le 0.00	0.000		at HB)	- -
Stockpile:		- factor not applicab		0.000		(at HB)	_
Truck Ownership:		- factor not applicab		0.000		Cat HB)	_
Operation: Dump Target:		factor not applicalfactor not applicab		0.000		Cat HB) Cat HB)	_
Dump Target.	140 adjustificiti	Net Cycle Time		0.000		inutes	_
		Adjusted Loader		0.500	-	inutes	
		Net Load Tim	•	1.100		inutes	
Truck Cycle Time:							
Truck Exchange Time	: 0.50	Minutes	Adjusted	for site altitud	e: 0.	500	Minutes
Truck Load Time	: 1.100	Minutes	•	for site altitud		100	Minutes
Truck Maneuver and Dump Time	0.90	Minutes	•	for site altitud		900	Minutes

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

TT 1	- D	
Han	l Rou	to.
Hau	i ivou	···

Seg#	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1900.00	0.00	3.00	3.00	2824	0.834

				Haul Time:	0.834	minutes
Return Rou	ıte:					
Seg#	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1900.00	0.00	3.00	3.00	2874	0.696

Return Time: 0.696 minutes
Total Truck Cycle Time: 4.030 minutes

T 1'	TD 1	
Loading	$\Gamma \cap \cap$	11m1f
Loading	100	unit

Optimal No. of Trucks: _____ 3 ___ Truck(s) Selected Number of Trucks: ____ 2 ___ Truck(s)

Adjusted hourly truck team production: 389.26 LCY/Hour Adjusted single truck/loader team production: 389.26 LCY/Hour Adjusted multiple truck/loader team production: 389.26 LCY/Hour

JOB TIME AND COST

Fleet size:	1	Team(s)	Total job time:	50.15	Hours
Unit cost:	\$1.327	/LCY	Total job cost:	\$25,895	

BULLDOZER WORK

Task description:	Spread	topsoil o	n process an	d wash pond areas		
Two Rivers Sand, e: Reservoir Project	Gravel and	Per	rmit Action:	TR-1	Permit/Jo	b#: <u>M2022013</u>
PROJECT IDENTI	FICATION					
Task #: 05D Date: 9/17/202 User: JPL		State: County:	Colorado Weld		Abbreviation: Filename:	None M013-05D
Agency or or	ganization nan	ne: <u>DF</u>	RMS			
HOURLY EQUIPM	IENT COST					
Horsepower: Blade Type: Attachment: Shift Basis:	Cat D8T - 8SU 310 Semi-Universa 3-shank ripper 1 per day	ıl		_ _ _ _ _		
Data Source: Cost Breakdown:	(CRG)			_		
Ownership Cost/Hou Operating Cost/Hou			\$173.32 \$109.71	Utilization % NA 100		
Ripper ow: Cost/Hou			\$14.53	NA		
Ripper op. Cost/Hou Operator Cost/Hou	r:		\$0.00 \$40.04	0 NA		
Swell factor: 1	9,521 .000					
	9,521 LCY					
Source of estimated v Source of estimated s factor:		Area of 2 Cat Hand		epth of 6" Ex L pg 12		
HOURLY PRODUC	CTION					
Average push distanc Unadjusted hourly production:		feet 100.0 LC	Y/hr			
Materials consistency	description:	Partly	consolidated	stockpile 1.1		
Average push gradient:	0 %					
Average site altitude:	4,680 fee	t				
Material weight:	_1,600 lbs	/LCY				
Weight description:	Top Soil					
Job Condition Correction	on Factor			Source		

Operator Skill:	0.750	(AVG.)
Material consistency:	1.100	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.8862

Adjusted unit production:

1,240.68 LCY/hr

Adjusted fleet production:

2481.36 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: \$0.272/LCY

-1:-1-4:..... 7 07 H-....

Total job time: 7.87 Hours
Total job cost: \$5,312

REVEGETATION WORK

]	Γask description:	Seed proce	ssing area and wa	sh pond area			
Site:	Two Rivers Sand, Grav Reservoir Project	el and	Permit Action:	TR-1	Permit/Job#:	M2022013	
ΡI	ROJECT IDENTIFICA	ATION					

Γask #:	05E	State:	Colorado	Abbreviation:	None
Date:	9/17/2024	County:	Weld	Filename:	M013-05E
User:	JPL				

Agency or organization name: DRMS

FERTILIZING

Task description:

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
10-34-0, 18-46-0, 5-10-5	200.00	pound	\$0.51	\$102.32
			Total Fertilizer Materials	6102.22
			Cost/Acre	\$102.32

Application

Description		Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)		\$43.12
	Total Fertilizer Application Cost/Acre	\$43.12

TILLING

Description		Cost /Acre
Chisel plowing {DMG}		\$102.41
Weed control spraying (MEANS 31 31 16.13 3100)		\$338.80
	Total Tilling Cost/Acre	\$441.21

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Alkali Sacaton	0.10	3.90	\$2.91
Blue Grama - Lovington	0.20	3.26	\$5.55
Indian Ricegrass - Paloma	1.90	6.15	\$39.01
Switchgrass - Pathfinder	0.90	8.04	\$12.11
Sand Dropseed	0.10	11.94	\$1.30
Kentucky Bluegrass - Ginger	0.10	4.94	\$0.41
Little Bluestem - Pastura	0.30	1.79	\$4.76
Sideoats Grama - Vaughn	1.80	5.91	\$44.26
Strawberry Clover (coated)	0.10	0.68	\$0.98

Smooth Brome - Manchar	0.30	1.00	\$1.57
Sheep Fescue - Covar	0.40	6.24	\$2.47
Tall Wheatgrass - Jose	1.10	1.99	\$6.32
Totals Seed Mix	7.30	55.84	\$121.66

Application

Description	Cost /Acre
Drill Seeding (DRMS Survey Cost)	\$236.64
Total Seed Application Cost/Acre	\$236.64

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - Curtail @ 4.0 pt/ac	1.00	ACRE	\$36.14	\$36.14
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$492.78	\$985.56
Total Mulch Materials Cost/Acre				\$1,021.70

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$85.37
Weed spray, truck, non-aquatic area, nox. [DMG]		\$83.26
	Total Mulch Application Cost/Acre	\$168.64

NURSERY STOCK PLANTING

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

JOB TIME AND COST

 No. of Acres:
 24.2
 Cost /Acre:
 \$2,135.29

 Estimated Failure Rate:
 25%
 Cost /Acre*:
 \$358.30

*Selected Replanting Work Items: SEEDING

Initial Job Cost: \$51,674.02

Reseeding Job Cost: \$2,167.72

Total Job Cost: \$53,842

Job Hours: 22.00

EQUIPMENT MOBILIZATION/DEMOBILIZATION

	Two Rivers Sand, Gravel and	Permit Action:			
Site:	Reservoir Project	TR	R-1 Permit/Jo	b#: M2022013	_

PROJECT IDENTIFICATION

Task description:

Task #:06State:ColoradoAbbreviation:NoneDate:9/17/2024County:WeldFilename:M013-06User:JPL

Agency or organization name: DRMS

EQUIPMENT TRANSPORT RIG COST

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

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

400 HP (2ND HALF, 2006)

Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT

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

Cost Breakdown:

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$10.44	\$22.18	\$23.94
Operating Cost/Hour:	\$26.48	\$54.55	\$55.65
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$59.44	\$122.78	\$125.64

Mobilization and Demob.

NON ROADABLE EQUIPMENT:

Machine	Weight/	Owner ship	Haul Rig	Fleet	Haul Trip	Return Trip	DOT Permit
Description	Unit	Cost/hr/ unit	Cost/hr/uni	Size	Cost/hr/	Cost/hr/ fleet	Cost/ fleet
	(TONS)		t		fleet		
Cat D8T - 8SU	52.21	\$187.01	\$125.64	2	\$625.30	\$251.28	\$250.00
CAT 966H high	25.80	\$57.78	\$59.44	1	\$117.22	\$59.44	\$250.00
lift							
CAT 815F	22.88	\$107.16	\$59.44	2	\$333.20	\$118.88	\$500.00
Drill/Broadcast	25.00	\$41.02	\$59.44	1	\$100.46	\$59.44	\$250.00
Seeder with							
Tractor							
Grove RT890E,	54.55	\$222.11	\$125.64	1	\$347.75	\$125.64	\$250.00
142', 81.60 MT							
CAT 120M	15.53	\$52.82	\$59.44	1	\$112.26	\$59.44	\$250.00

Subtotals: \$1,636.19 \$674.12 \$1,750.00

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	\$114.77	2	\$229.54	\$229.54
Water Tanker, 2,500 Gal.	\$34.10	1	\$34.10	\$34.10

Subtotals:	\$263.64	\$263.64	
ounidais.	J4UJ.UT	J4UJ.UT	

Task # 06

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:

Total one-way travel distance:

Average Travel Speed:

GREELEY

miles

40.00

mph

Transportation Cycle Time:

	Non-	
	Roadable	Roadable
	Equipment	Equipment
Haul Time (Hours):	0.13	0.13
Return Time (Hours):	0.13	0.13
Loading Time (Hours):	0.00	NA
Unloading Time (Hours):	0.00	NA
Subtotals:	0.25	0.25

JOB TIME AND COST

Total job cost: 0.50 Hours

Total job cost: \$4,143