COST SUMMARY WORK

obinson Sons Gravel	Pit No. Pe	rmit Action:	July 2019 Inspection	Permit/Job	o#: <u>M2008076</u>
JECT IDENTIFIC	ATION				
'ask #: 000	State:	Colorado		Abbreviation:	None
Date: 8/7/2019	County:	Las Animas	3	Filename:	M076-000
User: JLE				-	
]	IECT IDENTIFIC ask #: 000 Date: 8/7/2019	IECT IDENTIFICATION ask #: 000 State: Date: 8/7/2019 County:	IECT IDENTIFICATION ask #: 000 State: Colorado Date: 8/7/2019 County: Las Animas	July 2019 Inspection July 2019 Inspection IECT IDENTIFICATION ask #: 000 State: Colorado Date: 8/7/2019 County: Las Animas	July 2019 Inspection Permit/John IECT IDENTIFICATION Abbreviation: ask #: 000 State: Colorado Abbreviation: Date: 8/7/2019 County: Las Animas Filename:

TASK LIST (DIRECT COSTS)

Task		Form	Fleet	Task	Gent
	Description	Used	Size	Hours	Cost
001	Backfill southern highwall – Area 1	LOADER	1	74.08	\$11,473
002	Cut/Fill/Grade West and North Highwall - Area 1	DOZER	1	2.48	\$705
003	Grade Overburden Stockpile Area - Area 1	DOZER] 1	0.16	\$45
004	Spread topsoil over Area 1	SCRAPER1	1	14.37	\$13,978
005	Backfill/Grade - Area 2	DOZERGRA	1	8.00	\$2,271
		DER			
006	Spread topsoil over Area 2	SCRAPER1	1	4.43	\$4,314
007	Backfill and Grade basins in creek reclamation	DOZER	1	4.53	\$1,286
	area.				
008	Revegetate Affected Land	REVEGE	1	27.00	\$30,905
009	Mobilization	MOBILIZE	1	7.22	\$15,377
010	Demolition of scale and scale house	DEMOLISH	1	10.00	\$3,337
		<u>SUBTO</u>	<u>TALS:</u>	152.27	\$83,691

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02		Total =	\$1,691
Performance bond:	1.05		Total =	\$879
Job superintendent:	76.14		Total =	\$5,283
Profit:	10.00		Total =	\$8,369
			TOTAL O & P =	\$16,221
	CONT	RACT AMOUNT	(direct + O & P) =	\$99,912
LEGAL - ENGINEERING - PR	DJECT MANAGEMENT	·:		
Financial warranty processi	ng (legal/related costs):	\$500	Total =	\$500
Engineering work and/or c	ontract/bid preparation:	4.25	Total =	\$4,246
Reclamation managemen	t and/or administration:	5.00	-	\$4,996
	CONTINGENCY:	0.00	Total =	\$0
		TOTAL IN	DIRECT COST =	\$25,963
	TOTAL BO	ND AMOUNT (di	irect + indirect) =	\$109,654

WHEEL LOADER - LOAD AND CARRY WORK

Task description:	Backfill southern highwall	l – Area 1		
Robinson Sons Gravel P	it No. Permit Action	n: July 2019 Inspection	Permit/Job	o#: <u>M2008076</u>
PROJECT IDENTIFICA	TION			
Task #: 001	State: Colorado	0	Abbreviation:	None
Date: 8/7/2019	County: Las Anir		Filename:	M076-001
User: JLE				
Agency or organiza	tion name: DRMS			
HOURLY EQUIPMENT	COST			
Basic Machine: CA	AT 980H	Horser	oower:	315
	OPS Cab		-	er day
		Data S	ource: (C	CRG)
Cost Breakdown:				
Cost Divardo will.		Utilization %		
Ownership Cost/Hou	r: \$52.71	NA		
Operating Cost/Hou		100		
Operator Cost/Hou	I	NA		
Total Unit Cost/Hou	r: \$154.87			
Total Fleet Cost/Hou	ar: \$154.87	_		
MATERIAL QUANTITI	ES			
		Consell for story 1	000	
Initial volume: 20,66 Loose volume:	67 CCY 20,667 LCY	Swell factor: _1	.000	
		n of Reclamation, Mining	g & Safety	
Source of estimation	ted swell factor: Cat Har	ndbook		
HOURLY PRODUCTIO	N			
Loader Cycle Time:	Unadjusted Basic	c Cycle Time (load, dump maneuver)	0.550	minutes
Cycle Time Factors		maneuver	Factor (min.)	Source
Material:	Mixed material 0.02		0.020	(Cat HB)
Stockpile:	Conveyor or dozer piled	10 ft. high and up	0.000	(Cat HB)
Truck Ownership:	Common ownership of tr 0.04	ucks and loaders -	-0.040	(Cat HB)
Operation:	Constant operation -0.04		-0.040	(Cat HB)
Dump Target:	Nominal target 0.00		0.000	(Cat HB)
Dump Target.	ě			
Dump Target.	Net Cy	cle Time Adjustment:	-0.060 0.490	minutes minutes

Rolling Resistance – Road Conditions

Haul:	Loose sand or gravel 10
Return:	Loose sand or gravel 10

Haul and Return Time

	Length	Grade Res.	Rolling	Total Res.	Travel Time	Source
	(feet)	(%)	Res. (%)	(%)	(minutes)	Source
Haul Route:	300	0.00	10.00	10.00	0.3763	(Cat HB)
Return Route:	300	0.00	10.00	10.00	0.3387	(Cat HB)
			Total T	ravel Time:	0.7149	minutes
			Total (Cycle Time:	1.2049	minutes
				•		
Load Dualtat Canaaita						
Load Bucket Capacity	<u>-</u>					
Rated Cap	acity: 7	.50 LCY	Y (heaped)			
Bucket Fill Fa	actor: 0.	900 Oth	er - soil, boulde	rs, roots (80 -10	00%) 0.900	
Adjusted Cap	acity: 6	.75 LCY	Y			
Job Condition Compat	ion Eastons					
Job Condition Correct						
Site Altitude: 7000 fee	a					
		Se	ource			
Altitude Ad	j: 1.00	(CA	T HB)			
Job Efficienc	y: 0.83	(1 sh	ift/day)			
Net Correction	n: 0.83	mult	iplier			
	T 1 1 TT.	al Ha't David at	tion: 336	10 1.03		
	Unadjusted Hourly Unit Production:				/Hour	
	Adjusted Hourly Unit Production: Adjusted Hourly Fleet Production:				/Hour	
	Adjusted Hou	rly Fleet Product	tion: 278	.98 LCY	/Hour	
JOB TIME AND (COST					
Fleet size:	1 1	Loader(s)	Total job	time'	74.08	Hours
1 ICCI 512C.	I	200001(3)	10101 100		/ 1.00	
Unit cost:	\$0.555	LCY	Total job	cost'	\$11,473	
Onit 005t.	φ0.000 /		10001 500		Ψ.Ι.9.Τ/Ο	-

BULLDOZER WORK

Task description:	Cut/Fill/Grade	West and No	rth Highwall - Area 1		
Robinson Sons Grav	v el Pit No. P	ermit Action:	July 2019 Inspection	Permit/Jo	b#: <u>M2008076</u>
DDAIECT IDENTIE					
PROJECT IDENTIF	State: County:	Colorado Las Anima	S	Abbreviation: Filename:	None M076-002
	nization name:	RMS			
Agency or orga	mzation name. <u>L</u>	KMS			
HOURLY EQUIPME	ENT COST				
Horsepower: 40	nt D9T - 9SU 5 mi-Universal		-		
Attachment: 3-s	shank ripper		-		
	per day RG)		-		
<u>Cost Breakdown:</u>	KO)		-		
			Utilization %		
Ownership Cost/Hour:		\$121.49 \$105.84	NA		
Operating Cost/Hour: Ripper own.			100		
Cost/Hour:		\$13.94	NA		
Ripper op. Cost/Hour:		\$1.34	15		
Operator Cost/Hour:		\$41.24	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour:	\$283.85 \$283.85				
MATERIAL QUANT	<u>TITIES</u>				
Initial Volume: 1,88	80				
Swell factor: 1.00					
Loose volume: 1,99	93 LCY				
Source of estimated vol	ume: 1,231 fe Repose	et of pit wall,	about 20 feet deep, Angl	le of	
Source of estimated swe factor:		dbook			
HOURLY PRODUC	<u>FION</u>				
Average push distance: Unadjusted hourly production:	60 feet 1,872.0 L0	CY/hr			
Materials consistency description:	Comp	acted fill or er	nbankment 0.9		
Average push gradient:	15 %				
Average site altitude:	7,000 feet				

Material weight:	2,400 lbs	/LCY	
Weight description:	Sand - Di	ry, loose	
Job Condition Correction Fa	ctor		Source
Operator Sk		0.750	(AVG.)
Material consistent	cy:	0.900	(CAT HB))
Dozing metho	od:	1.200	(SLOT)
Visibili	ity:	1.000	(AVG.)
Job efficient	cy:	0.830	(1 SHIFT/DAY)
Spoil pi	ile:	1.000	(DOZ-OC)
Push gradie	ent:	0.666	(CAT HB)
Altitu	de:	1.000	(CAT HB)
Material Weig	ht:	0.958	(CAT HB)
Blade ty	pe:	1.000	(PAT)
Net correction	on: 0.4	289	
Adjusted unit production:	802.90	LCY/hr	
Adjusted fleet production:	802.9 1	LCY/hr	
JOB TIME AND COST			
Fleet size: 1 l	Dozer(s)		
Unit cost: \$0	354/LC	Y	

Unit cost:	\$0.554/LC I	
Total job time:	2.48 Hours	

Total job cost: **\$705**

BULLDOZER WORK

Task description:	Grade	Overbur	den Stockpile	e Area - Area 1		
Robinson Sons G te: 1	Fravel Pit No.	Pe	rmit Action:	July 2019 Inspection	Permit/Jo	b#: M2008076
		-	-			
PROJECT IDENT	TFICATION	[
Task #: 003		State:	Colorado		Abbreviation:	None
Date: 8/7/20	19	County:	Las Animas	6	Filename:	M076-003
User: JLE						
Agency or o	organization nat	ne: DI	RMS			
HOURLY EQUIP	MENT COST	<u> </u>				
Basic Machine:	Cat D9T - 9SU	J				
Horsepower:	405					
Blade Type:	Semi-Univers					
Attachment:	3-shank ripper	r				
Shift Basis:	1 per day					
Data Source:	(CRG)					
Cost Breakdown:						
				Utilization %		
Ownership Cost/He			\$121.49	NA		
Operating Cost/Ho			\$105.84	100		
Ripper o			\$13.94	NA		
Cost/He						
Ripper op. Cost/He			\$1.34	15		
Operator Cost/He	our:		\$41.24	NA		
Total unit Cost/Hou	r: \$283.85					
Total Fleet Cost/Ho						
MATERIAL QUA	NTITIES					
Initial Volume:	134					
Swell factor:	1.060					
Loose volume:	142 LCY					
		250 6	- 6 - 11 - 1		. C	
Source of estimated			of pit wall, ab	out 10 feet deep, Angle	OI	
Source of estimated		Repose Cat Hand	lbook			
factor:	swell		IDOOK			
lactor.						
HOURLY PRODU	ICTION					
HUUKLI PKUDU	JUIIUN					
Average push distar) feet				
Unadjusted hourly	2,	110.5 LC	Y/hr			
production:						
Materials consisten	су	Compa	cted fill or en	nbankment 0.9		
description:						
A	15.0/					
Average push gradient:	15 %					
Average site altitud	e: 7,000 fe	et				
Average site antitud	-1,000 Ie	σι				

Material weight:	2,40	0 lbs/LCY	
Weight description:	Sand	l - Dry, loose	
Job Condition Correction Fa	actor		Source
Operator Sk	cill:	0.750	(AVG.)
Material consisten	cy:	0.900	(CAT HB))
Dozing meth	od:	1.200	(SLOT)
Visibili	ity:	1.000	(AVG.)
Job efficien	cy:	0.830	(1 SHIFT/DAY)
Spoil p	ile:	1.000	(DOZ-OC)
Push gradie	ent:	0.666	(CAT HB)
Altitu	de:	1.000	(CAT HB)
Material Weig	Material Weight: Blade type:		(CAT HB)
Blade ty			(PAT)
Net correcti	on:	0.4289	
Adjusted unit production:	90	05.19 LCY/hr	
Adjusted fleet 90 production:		95.19 LCY/hr	
JOB TIME AND COST Fleet size: 1	Doze	sr (c)	

Fleet size:	1 Dozer(s)
Unit cost:	\$0.314/LCY

Total job time:	0.16 Hours
Total job cost:	\$45

SCRAPER TEAM WORK

Robinson Sons G Site: 1	ravel Pit No.	Permit Action	n: July 2019 Inspe	ection I	Permit/Job#: <u>M</u>	2008076
PROJECT IDENT	TIFICATION					
Task #: 004	Stat	e: Colorado	, ,	Abbrey	viation: None	
Date: $\frac{8}{7/20}$					ename: M076	-004
User: JLE						
Agency or o	organization name:	DRMS				
HOURLY EQUIP	<u>MENT</u>		COSTSh	ift basis: <u>1 per</u>	day	
		Equipm	ent Description			
	-Scra		7G w/push-pull			
Suppor	-Do rt Equipment -Load A		9T - 9SU			
	-Dump A	rea: NA				
Road Mai	intenance – Motor Gra					
. <u></u>	-Water Tr	uck: Water	Tanker, 5,000 Gal.			
Cost Breakdown:	Scraper Work 7	Геат	Support Equip	ment	Maintenan	ce Equip
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Wate
%Utilization-machine:	100	50	NA	NA	25	
Ownership cost/hour:	\$126.52	\$121.49	NA	NA	\$33.62	
Operating cost/hour:	\$149.69	\$52.92	NA	NA	\$8.55	
%Utilization-ripper:	NA	0	NA	NA	NA	
Ripper own. cost/hour:	NA	\$13.94	NA	NA	\$0.00	
Ripper op. cost/hour:	NA	\$0.00	NA	NA	\$0.00	
Operator cost/hour:	\$30.86	\$41.24	NA	NA	\$28.52	
Unit Subtotals:	\$307.07	\$229.58	NA	NA	\$70.69	
Number of Units:	2	1	0	0	1	
Group Subtotals:	Work:	\$843.72	Support:	\$0.00	Maint:	\$12
Total work team cost/	hour: <u>\$972.90</u>					
MATERIAL QUA	NTITIES					
Initial volume:	11,831	CCY	Swell factor	r: 1.000		
Loose volume:	11,831	LCY				
	rce of estimated volum		11 acres			
Source o	of estimated swell fact	or: <u>Cat Han</u>	ndbook			
HOURLY PRODU	JCTION					
			Scraper Bo	wl (volume) Ba	asis:	
	1 (00 11 / CN)		Struck V	olume: 15.70)]	LCY
Material weight:	1,600 lbs/LCY					
Material weight: Material description: Rated Payload:	Top Soil 52,800 pounds		Heaped V Average V			LCY LCY

<u>0.90</u> Minutes

0.60 Minutes

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 7000 feet

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.830	0.830	

Travel Time:

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	700.00	0.00	3.00	3.00	2824	0.42

eg #	Haul Distance (Ft)	Grade (%)	Roll. Res	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	700.00	0.00	3.00	3.00	2874	0.36

Total Scraper team cycle time.	2.20	minutes
Adjusted for job conditions:	823.45	LCY/Hour
Selected Number of Scrapers:	2	Scraper(s)
Adjusted single scraper team (unit) hourly production:	823.45	LCY/Hour
Adjusted multiple scraper team (fleet) hourly production:	823.45	LCY/Hour

Unadjusted unit production/hour: 992.11 LCY/Hour Optimal Number of Scrapers per push

dozer: _____

JOB TIME AND COST

Fleet size:	1	Team(s)	Total job time:	14.37	Hours
Unit cost:	\$1.181	/LCY	Total job cost:	\$13,978	

DOZERGRADER WORK

Task description:	Backfill/Grad				
Robinson Sons Grave e: 1	el Pit No.	Permit Action:	July 2019 Inspection	Permit/Jo	b#: <u>M2008076</u>
PROJECT IDENTIFI	CATION				
Task #: 005	Stat	e: Colorado		Abbreviation:	None
Date: 8/7/2019	Count	y: Las Anima	S	Filename:	M076-005
User: JLE					
Agency or organ	ization name:	DRMS			
HOURLY EQUIPME	NT COST				
	D9T - 9SU		-		
Blade Type:			-		
	hank ripper		-		
	er day		-		
Data Source:	-		-		
Cost Breakdown:			-		
Cost Dicardo wil.			Utilization %		
Ownership Cost/Hour:		\$121.49	NA		
Operating Cost/Hour:		\$105.84	100		
Ripper own.		\$13.94	NA		
Cost/Hour:					
Ripper op. Cost/Hour:		\$1.34	15		
Operator Cost/Hours		\$41.24	NA		
Operator Cost/Hour:					
Total unit Cost/Hour:	\$283.85				

Fleet size: 1 Dozer(s) Unit cost: \$283.85/LCY Total job time: 8 00 Hours

I otal job time:	8.00 Hours
Total job cost:	\$2,271

SCRAPER TEAM WORK

Robinson Sons G Site: 1	ravel Pit No.	Perm	it Action	: July 2019 Insp	ection I	Permit/Job#: <u>M2</u>	2008076
PROJECT IDENT	IFICATION						
Task #: 006	ç	tate:	Colorado		Abbrey	viation: None	
Date: $\frac{8}{7/20}$			Las Anim	nas		lename: M076-	006
User: JLE							
Agency or o	rganization name:	DRM	IS				
HOURLY EQUIP	MENT_			COSTSI	nift basis: <u>1 per</u>	day	
			Equipme	ent Description			
		craper:	Cat 627	7G w/push-pull			
<u> </u>		Dozer:		T - 9SU			
Suppor	t Equipment -Load Dumi-	o Area:	NA NA				
Road Mai	ntenance – Motor	Grader:	CAT 1				
	-Water	Truck:	Water	Fanker, 5,000 Gal			
Cost Breakdown:	Scraper Wor	k Team		Support Equip	oment	Maintenand	ce Equip
<u> </u>	Scraper	Doz	zer	Load Area	Dump Area	Motor Grader	Water
%Utilization-machine:	100		50	NA	NA	25	
Ownership cost/hour:	\$126.52	\$	121.49	NA	NA	\$33.62	
Operating cost/hour:	\$149.69		\$52.92	NA	NA	\$8.55	
%Utilization-ripper:	NA		0	NA	NA	NA	
Ripper own. cost/hour:	NA	2	\$13.94	NA	NA	\$0.00	
Ripper op. cost/hour:	NA		\$0.00	NA	NA	\$0.00	
Operator cost/hour:	\$30.86		\$41.24	NA	NA	\$28.52	
Unit Subtotals:	\$307.07	\$2	229.58	NA	NA	\$70.69	
Number of Units:	2		1	0	0	1	
Group Subtotals:	Work:	\$843	3.72	Support:	\$0.00	Maint:	\$12
Total work team cost/	hour: <u>\$972.90</u>						
MATERIAL QUA	<u>NTITIES</u>						
Initial volume:	2,151		CCY	Swell facto	or: 1.000		
Loose volume:	2,151		LCY				
	ce of estimated vo		8" over 2				
Source of	f estimated swell f	actor:	Cat Han	dbook			
HOURLY PRODU	UCTION						
				<u>Scraper Bo</u>	owl (volume) Ba	<u>asis:</u>	
Material weight:	1,600 lbs/LCY			Struck V			LCY
Material description:	Top Soil			Heaped V			LCY
Rated Payload: Payload Capacity:	52,800 pounds 33.00 LCY			Average V Adjusted C			LCY LCY

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 7000 feet

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.830	0.830	

Travel Time:

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2000.00	6.00	3.00	9.00	1249	1.64

Haul Time: **1.64** minutes **Return Route: Travel Time** Seg # Haul Distance (Ft) Grade **Roll. Res Total Res** Velocity (min) (%) (%) (%) (fpm) 3.00 2000.00 -3.00 0.73 -6.00 2938 1 **Return Time:** 0.73 minutes Total Scraper team cycle time: 3.87 minutes Adjusted for job conditions: 485.13 LCY/Hour 2 Selected Number of Scrapers: Scraper(s) Adjusted single scraper team (unit) hourly production: 485.13 LCY/Hour Adjusted multiple scraper team (fleet) hourly production: 485.13 LCY/Hour

Unadjusted unit production/hour: 584.50 LCY/Hour Optimal Number of Scrapers per push dozer:

JOB TIME AND COST

Fleet size:	1	Team(s)	Total job time:	4.43	Hours
Unit cost:	\$2.005	/LCY	Total job cost:	\$4,314	

Task # 001

0.90 Minutes

0.60 Minutes

BULLDOZER WORK

Robinson Sons Grave	el Pit No. P	ermit Action:	July 2019 Inspection	Permit/Jo	b#: <u>M2008076</u>
PROJECT IDENTIFI	<u>CATION</u>				
Task #: 007 Date: 8/7/2019 User: JLE	State: County:	Colorado Las Animas	5	Abbreviation: Filename:	None M076-007
Agency or organ	ization name: D	RMS			
HOURLY EQUIPME					
	D9T - 9SU				
1	ni-Universal				
	nank ripper				
	er day				
Data Source: (CR					
Cost Breakdown:		1			
a			<u>Utilization %</u>		
Ownership Cost/Hour:		\$121.49	NA		
Operating Cost/Hour:		\$105.84	100		
Ripper own.		\$13.94	NA		
Cost/Hour:					
Ripper op. Cost/Hour:		\$1.34	15		
Operator Cost/Hour:		\$41.24	NA		
Total unit Cost/Hour:	\$283.85				
Total Fleet Cost/Hour:	\$283.85				
	,				
MATERIAL QUANTI	TIES				
Initial Volume: 3,22					
Swell factor: 1.00					
Loose volume: 3,22	7 LCY				
Source of estimated volu	me 5 $\Delta cred$	basins, cut and	fill 4 feet		
Source of estimated swel					
factor:		GUUUK			
100101.					
HOURLY PRODUCT	ION				
Average push distance:	100 feet	7874			
Unadjusted hourly	1,243.2 LO	CY/hr			
production:					
Mada	0	1 (*11	1		
Materials consistency	Comp	acted fill or en	nbankment 0.9		
description:					
A	0.0/				
Average push	0 %				
gradient:	7.000 6				
Average site altitude:	7,000 feet				
Material weight:	2,700 lbs/LCY				
material weight.	2,700 108/LC I			_	

Job Condition Correction Factor	_	Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.200	(SLOT)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.852	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.5728	
Adjusted unit 71 production:	12.10 LCY/hr	
Adjusted fleet 7	12.1 LCY/hr	

Weight description: Earth - Wet excavated

JOB TIME AND COST

production:

Fleet size:	1 Dozer(s)
Unit cost:	\$0.399/LCY
Total job time: Total job cost:	4.53 Hours \$1,286

REVEGETATION WORK

ite:	Robinsor 1	Sons Gravel	Pit No. F	ermit Action:	July 2019 Inspection	Permit/Jo	b#: <u>M2008076</u>
<u>PI</u>	ROJECT	IDENTIFIC	ATION				
	Task #:	008	State:	Colorado		Abbreviation:	None
	Date:	8/7/2019	County:	Las Animas	3	Filename:	M076-008
	User:	JLE					

FERTILIZING

Materials

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

Application

Description	Cost /Acre
	\$
Total Fautilizan Application Cost/Acro	
Total Fertilizer Application Cost/Acre	\$0.00

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$101.93
Weed control spraying (MEANS 31 31 16.13 3100)	\$193.60
Total Tilling Cost/Acre	\$295.53

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Big Bluestem - Native	5.50	16.41	\$64.99
Blue Grama - Native	1.50	24.48	\$20.59
Sideoats Grama - Vaughn	4.50	14.77	\$37.69
Western Wheatgrass - Native	8.00	20.20	\$48.00
Totals Seed Mix	19.50	75.87	\$171.27

Application

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

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, delivered {MEANS 31 25 14.16 1200}	1.00	TON	\$295.00	\$295.00
Total Mulch Materials Cost/Acre				\$295.00

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$70.17
	Total Mulch Application Cost/Acre	\$70.17

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:	27	Cost /Acre:	\$1,063.97
Estimated Failure Rate:	20%	Cost /Acre*:	\$403.27
*Selected Replanting Work Items:	SEEDING		
Initial Job Cost: \$28,727,10			

Initial Job Cost:	\$28,727.19
Reseeding Job Cost:	\$2,177.66
Total Job Cost:	\$30,905
Job Hours:	27.00

EQUIPMENT MOBILIZATION/DEMOBILIZATION

	: <u>Mo</u>	bilization						
Robinson Son 1	as Gravel Pit N	No. Permit		2019 Inspe	ction	Permit/Job	#: <u>M</u>	2008076
PROJECT IDE	NTIFICATI	<u>ON</u>						
Task #: 00	9	State: Co	olorado		Abbre	eviation:	None	
Date: 8/7 User: JL	7/2019 E	County: La	s Animas		Fi	lename:	M076-	.009
Agency	or organization	name: DRMS						
EQUIPMENT '	FRANSPOR	<u>T RIG COST</u>						
					Shift ba	sis: 1	per day	1
				C	Cost Data Sour		RG Dat	
True	r Treator Daga	rintion: CENE					IECEI	DOWEDED
True	k Tractor Desc	ilpuoli. Gene	RIC ON-HIGH		(2ND HALF,		IESEL	FUWERED
Truc	k Trailer Desci	rintion: C	ENERIC FOLD			,	EOUI	DMENT
Truc	K Hallel Desc	inpuoli. O			25T, 50T, AN		EQUI	
			1	KAILEK (231, 301, AI	ND 1001)		
Cost Breakdown:								
Available Rig (Capacities	0-25 Tons	26-50 Tons	51+	Tons			
Ownership	o Cost/Hour:	\$17.20	\$29.63	\$3	8.69			
Operating	g Cost/Hour:	\$26.56	\$47.02	\$5	5.69			
Operato	r Cost/Hour:	\$23.63	\$23.63	\$2	3.63			
	r Cost/Hour:	\$0.00	\$23.53		3.53			
1	t Cost/Hour:	\$67.39	\$123.81	\$14	41.54			
NON ROADAE	BLE EQUIPN	AENT:		I				
Machine	Weight/	Owner ship	Haul Rig	Fleet	Haul Trip	Return T	rip	DOT Perm
Machine Description	Weight/ Unit	Owner ship Cost/hr/ unit	Haul Rig Cost/hr/unit	Fleet Size	Haul Trip Cost/hr/	Return T Cost/hr/		DOT Perm Cost/ fleet
Description		Cost/hr/ unit	Cost/hr/unit		Cost/hr/ fleet	Cost/hr/ t		Cost/ fleet
Description CAT 980H	Unit (TONS) 33.12	Cost/hr/ unit \$52.71	Cost/hr/unit \$123.81	Size	Cost/hr/ fleet \$176.52	Cost/hr/ 1 \$123.81		Cost/ fleet \$250.00
Description CAT 980H Cat D9T - 9SU	Unit (TONS) 33.12 66.13	Cost/hr/ unit \$52.71 \$135.43	Cost/hr/unit \$123.81 \$141.54	Size 1 2	Cost/hr/ fleet \$176.52 \$553.94	Cost/hr/ t		Cost/ fleet \$250.00 \$500.00
Description CAT 980H Cat D9T - 9SU Cat 627G	Unit (TONS) 33.12 66.13 41.80	Cost/hr/ unit \$52.71 \$135.43 \$112.52	Cost/hr/unit \$123.81 \$141.54 \$123.81	Size 1 2 2	Cost/hr/ fleet \$176.52 \$553.94 \$472.66	Cost/hr/ 1 \$123.81 \$283.08 \$247.62		Cost/ fleet \$250.00 \$500.00 \$500.00
CAT 980H Cat D9T - 9SU Cat 627G CAT 12M	Unit (TONS) 33.12 66.13 41.80 16.01	Cost/hr/ unit \$52.71 \$135.43 \$112.52 \$33.62	Cost/hr/unit \$123.81 \$141.54 \$123.81 \$67.39	Size 1 2 2 1	Cost/hr/ fleet \$176.52 \$553.94 \$472.66 \$101.01	Cost/hr/ 1 \$123.81 \$283.08 \$247.62 \$67.39		Cost/ fleet \$250.00 \$500.00 \$500.00 \$250.00
CAT 980H Cat D9T - 9SU Cat 627G CAT 12M Drill/Broadcast Seeder with	Unit (TONS) 33.12 66.13 41.80	Cost/hr/ unit \$52.71 \$135.43 \$112.52	Cost/hr/unit \$123.81 \$141.54 \$123.81	Size 1 2 2	Cost/hr/ fleet \$176.52 \$553.94 \$472.66	Cost/hr/ 1 \$123.81 \$283.08 \$247.62		Cost/ fleet \$250.00 \$500.00 \$500.00
CAT 980H Cat D9T - 9SU Cat 627G CAT 12M Drill/Broadcast	Unit (TONS) 33.12 66.13 41.80 16.01	Cost/hr/ unit \$52.71 \$135.43 \$112.52 \$33.62	Cost/hr/unit \$123.81 \$141.54 \$123.81 \$67.39	Size 1 2 2 1	Cost/hr/ fleet \$176.52 \$553.94 \$472.66 \$101.01	Cost/hr/ 1 \$123.81 \$283.08 \$247.62 \$67.39		\$250.00 \$500.00 \$500.00 \$250.00

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Water Tanker, 5,000 Gal.	\$88.48	1	\$88.48	\$88.48
Light Duty Pickup, 4x4, 3/4 T.	\$111.44	1	\$111.44	\$111.44
Fuel Tanker, 6x4, 210 HP	\$63.55	2	\$127.10	\$127.10

Subtotals: \$327.02

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region: Total one-way travel distance: Average Travel Speed:	TRINIDAD 25.00 45.00	miles mph
Total Non-Roadable Mob/Demob Cost *	\$15,013.27	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	\$363.36	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.56	0.56
Return Time (Hours):	0.56	0.56
Loading Time (Hours):	1.25	NA
Unloading Time (Hours):	1.25	NA
Subtotals:	3.61	1.11

JOB TIME AND COST

Total job time:	7.22	Hours
Total job cost:	\$15,377	

DEMOLITION WORK

	Task description:	Demolition	of scale and sca	le house		
Site:	Robinson Sons Gravel Pit	No.	Permit Action:	July 2019 Inspection	Permit	/Job#: <u>M2008076</u>
<u>PROJE</u>	CCT IDENTIFICATION					
Task Dat		State: County:	Colorado Las Animas		eviation: lename:	None M076-010

Agency or organization name: DRMS

UNIT COSTS

Location adjustment: 91.50 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Truck Scale	1,100 SF	Floor, concrete,	1,100.00	SF	\$1.70	\$1,871.76
Demo		demolition only,				
		average reinforcing				
		- 12 in. thick				
Scale House	160 SF x 8 F	Demo. only, small	1,280.00	CF	\$0.18	\$229.12
Demo		or single buildings				
		(single story) -				
		Wood structures				
Loading and Off-	40.7 CY +	Loading and 2 mile	88.10	CY	\$17.55	\$1,546.16
site Disposal	47.4 CY	haul, no salvage -				
		Machine loading				

				Total Cost	
		Subtotal		(adjusted for	
Job Hours:	10.00	(unadjusted):	\$3,647.04	location):	\$3,337.04