

MINERALS PROGRAM INSPECTION REPORT PHONE: (303) 866-3567

The Division of Reclamation, Mining and Safety has conducted an inspection of the mining operation noted below. This report documents observations concerning compliance with the terms of the permit and applicable rules and regulations of the Mined Land Reclamation Board.

MINE NAME:	MINE/PROSPECTING ID#:	MINERAL:	COUNTY:	
Gypsum Ranch Pit	M-1998-014	Sand and gravel	Eagle	
INSPECTION TYPE:	INSPECTOR(S):	INSP. DATE:	INSP. TIME:	
Monitoring	Travis H. Marshall	April 11, 2017	11:30	
OPERATOR:	OPERATOR REPRESENTATIVE:	TYPE OF OPERATION:		
Oldcastle SW Group, Inc. dba United Compar Chip Bair 112c - Construction Regular			Regular Operation	
County	-			

REASON FOR INSPECTION:	BON	D CALCULATION TYPE:	BOND AMOUNT:
Normal I&E Program	Comp	olete Bond	\$446,143.00
DATE OF COMPLAINT:	POST	FINSP. CONTACTS:	JOINT INSP. AGENCY:
NA	None		None
WEATHER:	INSPECTOR	'S SIGNATURE:	SIGNATURE DATE:
Clear	2.60	nel	April 17, 2017

The following inspection topics were identified as having Problems or Possible Violations. OPERATORS SHOULD READ THE FOLLOWING PAGES CAREFULLY IN ORDER TO ASSURE COMPLIANCE WITH THE TERMS OF THE PERMIT AND APPLICABLE RULES AND REGULATIONS. If a Possible Violation is indicated, you will be notified under separate cover as to when the Mined Land Reclamation Board will consider possible enforcement action.

INSPECTION TOPIC: Financial Warranty

PROBLEM/POSSIBLE VIOLATION: Problem: The financial warranty is not adequate to reclaim the site in accordance with the approved reclamation plan. This is a failure to maintain the proper financial warranty amount to complete reclamation of the affected lands pursuant to C.R.S. 34-32.5-117(4)(b) of the Act. **CORRECTIVE ACTIONS:** The operator shall submit adequate financial warranty, as determined by the Division. The Division will be sending a separate surety increase notice to the operator regarding the increase of the financial warranty. The operator will have 60 days from the date on the surety increase notice to post the additional financial warranty.

CORRECTIVE ACTION DUE DATE: 6/12/17

INSPECTION TOPIC: Sediment Control

PROBLEM/POSSIBLE VIOLATION: Problem: Erosion gullies and ruts were observed on-site. This is a problem at this time for failure to protect the affected land from erosion pursuant to C.R.S. 34-32.5-116 (4) (j). **CORRECTIVE ACTIONS:** The operator shall provide a technical revision to the Division addressing the erosion and sloughing of material adjacent to the Eagle River. The technical revision shall include methods and a proposed configuration that demonstrates how the area of concern will minimize the future potential for offsite damage and stabilized to prevent erosion damage by the corrective action due date. **CORRECTIVE ACTION DUE DATE:** 6/02/17

OBSERVATIONS

This inspection was conducted as part of the normal monitoring program established by the Colorado Division of Reclamation, Mining and Safety. The Gypsum Ranch Pit is located approximately 1.5 miles east of Gypsum just north of U.S. Highway 6. The site is a 112c operation that consists of 155.6 acres. Chip Bair of Oldcastle SW Group, Inc. dba United Companies of Mesa County accompanied the inspector during the inspection.

The mine identification sign and the affected area boundary markers are in place and in compliance with rule 3.1.12.

The pit was active during the inspection and various stockpiles of construction materials were observed on the pit floor. All fuel storage was properly stored in secondary containment. The overall appearance of the site was organized and no unnecessary trash or debris was observed.

One area of concern is sediment control problem cited above. It appears that there is some sloughing adjacent to the Eagle River along the northern permit boundary. All the material that has sloughed down the bank appears to be within the permit boundary but is a concern and considered a problem. The operator shall provide a technical revision to the Division addressing the erosion and sloughing of material adjacent to the Eagle River. The technical revision shall include methods and a proposed configuration that demonstrates how the area of concern will minimize the future potential for off-site damage and stabilized to prevent erosion damage by the corrective action due date of June 2, 2017.

No noxious weeds were observed during the inspection.

In an effort to ensure that the financial warranty remains adequate to reclaim the site per the requirements of the approved reclamation plan, DRMS has recalculated the reclamation cost estimate (copy enclosed). Therefore pursuant to Sections 34-32.5-117(4) of the Colorado Land Reclamation Act, adequate financial warranty must be submitted to the DRMS within 60 days of the mailing date of this inspection. If you have any questions regarding placement of the additional required financial warranty please contact Barbara Coria at (303) 866-3567 ext. 8148.

Photos that show the conditions observed during the inspection are included at the end of this report.

Responses to this inspection report should be directed to Travis Marshall at the Division of Reclamation, Mining and Safety, Grand Junction Field Office, 101 South 3rd Street, Room 301, Grand Junction, Colorado 81501, phone no. 970-241-2042.

PERMIT #: M-1998-014 INSPECTOR'S INITIALS: THM INSPECTION DATE: April 11, 2017











PERMIT #: M-1998-014 INSPECTOR'S INITIALS: THM INSPECTION DATE: April 11, 2017





GENERAL INSPECTION TOPICS

The following list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each

(AR) RECORDS <u>Y</u>	(FN) FINANCIAL WARRANTY PB	(RD) ROADS <u>N</u>
(HB) HYDROLOGIC BALANCE <u>Y</u>	(BG) BACKFILL & GRADING <u>Y</u>	(EX) EXPLOSIVES <u>NA</u>
(PW) PROCESSING WASTE/TAILING <u>NA</u>	(SF) PROCESSING FACILITIES Y	(TS) TOPSOIL <u>Y</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>Y</u>	(FW) FISH & WILDLIFE <u>Y</u>	(RV) REVEGETATION <u>Y</u>
(SM) SIGNS AND MARKERS <u>Y</u>	(SP) STORM WATER MGT PLAN <u>NA</u>	(CI) COMPLETE INSP Y
(ES) OVERBURDEN/DEV. WASTE <u>NA</u>	(SC) EROSION/SEDIMENTATION PB	(RS) RECL PLAN/COMP <u>Y</u>
(AT) ACID OR TOXIC MATERIALS <u>Y</u>	(OD) OFF-SITE DAMAGE <u>Y</u>	(ST) STIPULATIONS <u>NA</u>

Y = Inspected and found in compliance / N = Not inspected / NA = Not applicable to this operation / PB = Problem cited / PV = Possible violation cited

Inspection Contact Address Jason Burkey Oldcastle SW Group, Inc. 2273 River Road Grand Junction, CO 81502 Enclosure - Reclamation Cost Update

COST SUMMARY WORK

G	Sypsum	Ranch Pit	Per	mit Action:	SI-01	Permit/Jol	o#: M1998014
<u>PRO</u>)JECT	IDENTIFICA	TION				
T	Task #:	001	State:	Colorado		Abbreviation:	None
	Date:	4/13/2017	County:	Eagle		Filename:	M014-001
	User:	THM					

TASK LIST (DIRECT COSTS)

Task		Form	Fleet	Task	Cost
	Description	Used	Size	Hours	Cost
01a	Demo/Disposal concrete batch plant and feeder bin	DEMOLISH	1	80.00	\$46,345.04
01b	Demo/disposal of site facilities	DEMOLISH	1	40.00	\$1,956.72
02a	Highwall slope reduction (Phase 1-4)	DOZER] 2	149.83	\$48,861.00
02b	Transport backfill material	SCRAPER1] 4	44.27	\$139,760.00
03a	Rip pit floor and access road	RIPPER	2	57.16	\$23,618.00
04a	Replace topsoil	SCRAPER1] 4	15.57	\$49,156.00
05a	Distribute topsoil	DOZER] 2	30.00	\$9,784.00
06a	Revegetate pit floor	REVEGE] 1	80.00	\$131,232.00
06b	Revegetate slopes	REVEGE] 1	40.00	\$24,635.00
07a	Mobilize/demobilize reclamation crew/equipment	MOBILIZE	1	3.14	\$5,065.00
		539.97	\$480,413		

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	\$9,704.34
Performance bond:	1.05	Total =	\$5,044.34
Job superintendent:	344.85	Total =	\$25,191.29
Profit:	10.00	Total =	\$48,041.30
		TOTAL O & $P =$	\$87,981.27
		CONTRACT AMOUNT (direct + O & P) =	\$568,394.27

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	500.00	Total =	500.00
Engineering work and/or contract/bid preparation:	0.00	Total =	\$0.00
Reclamation management and/or administration:	5.00		\$28,419.71
CONTINGENCY:	3.00	Total =	\$14,412.39
	TOTAL IN	DIRECT COST =	\$131,313.37
TOTAL BO	\$611,726.37		

DEMOLITION WORK

5	Task description:	Demo/Disposal concrete batch plant and feeder bin					
Site:	Gypsum Ranch Pit		Permit Action:	SI-01	Permit/.	Job#: <u>M1998014</u>	
PROJE	CT IDENTIFICATIO	<u>N</u>					
Task #:	01A	State:	Colorado		Abbreviation:	None	
Date:	4/13/2017	County:	Eagle		Filename:	01a	
User:	THM						
	Agency or organiza	tion name:	DRMS				

Location adjustment: 102.20 %

UNIT COSTS

Structure or Item **Demolition Menu** Unit **Total Cost** Dimensions Quantity Unit Description Selection Cost CF Concrete batch plant 20' x 24' x 65'H Plant (3S) demo./off-site 31,200.00 \$0.60 \$18,720.00 disposal in approved landfill - Max. 15 mile haul Concrete batch plant 1.5'T x 4'H x Demo. and on-site 384.00 SF \$1.41 \$541.44 stem wall 64'L disposal in excavated pit, 12 in. thick - Max. 200 ft. push 20' x 24' (3) Concrete plant Demo. and on-site SF 1,440.00 \$0.87 \$1,251.36 pad/wash area disposal in excavated pit, 8 in. thick - Max. 200 ft. push Bldg. (SN) demo./off-Plant storage building 40' x 40' x 14'H 22,400.00 CF \$0.35 \$7,929.60 site disposal in approved landfill - Max. 15 mile haul Plant storage building 1'T x 6'H x Demo, and on-site 756.00 SF \$1.41 \$1,065.96 stemwall 126'L disposal in excavated pit, 12 in. thick - Max. 200 ft. push Conveyer 192.5'L OBSOLETE-Conveyor, 192.50 LF \$44.51 \$8,567.98 elevated, including supports - 5 ft. W x 6 ft. H housing Lower feeder bin Demo, and on-site 1752.65 cf., 1,752.65 SF \$1.41 \$2,471.24 walls and dividers 14.5'H disposal in excavated pit, 12 in. thick - Max. 200 ft. push Upper feeder bin walls 402.50 3.5'H x 115'L Demo. and on-site SF \$0.94 \$378.35 and dividers disposal in excavated pit, 8 in. thick - Max. 200 ft. push Feeder bin pad 80' x 60' x 8"T Demo. and on-site SF 4,800.00 \$0.87 \$4,171.20 disposal in excavated pit, 8 in. thick - Max. 200 ft. push Fuel storage facility 3'H x 96'L x Demo, and on-site 288.00 SF \$0.87 \$250.27 8"T disposal in excavated pit, 8 in. thick - Max. 200 ft. push

				Total Cost	
		Subtotal		(adjusted for	
Job Hours:	80.00	(unadjusted):	\$45,347.40	location):	\$46,345.04

DEMOLITION WORK

	Task description:	Demo/disposal	of site facili	ies	,		
Site:	Gypsum Ranch Pit	Per	mit Action:	SI-01	Permit/.	lob#:	M1998014
PROJE	CT IDENTIFICATIO	N					
Task #:	01B	State: C	olorado		Abbreviation:	Non	e
Date:	4/13/2017	County: E	agle		Filename:	01b	
User:	THM	1					
		7			Filename:	018)

UNIT COSTS

Location adjustment: 102.20 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Office Trailer	8' x 10' x 40'	Bldg. (SN) demo./off-site disposal in approved landfill - Max. 15 mile haul	3,200.00	CF	\$0.35	\$1,132.80
Scale	60' x 10'	Demo. and on-site disposal in excavated pit, 12 in. thick - Max. 200 ft. push	600.00	SF	\$1.30	\$781.80

				Total Cost	
		Subtotal		(adjusted for	
Job Hours:	40.00	(unadjusted):	\$1,914.60	location):	\$1,956.72

BULLDOZER WORK

Task description:	Highwall slope reduc	tion (r nas	se 1-4)		
Gypsum Ranch Pit	Permit A	ction: S	I-01	Permit/Job#:	M1998014
PROJECT IDENTI	FICATION				
Task #: 02A	State: Co	lorado		Abbreviation:	None
Date: 4/13/2017				Filename:	02a
User: THM				-	
Agency or org	anization name: DRMS				
HOURLY EQUIPM	ENT COST				
	BSOLETE-Cat D8T - 8U				
Horsepower: 30					
* A	niversal				
Attachment: N Shift Basis: 1					
	per day CRG)				
Data Source(C					
Cost Breakdown:		1			
	-		Utilization %		
Ownership Cost/Hour:		52.86	<u>NA</u>		
Operating Cost/Hour:		68.35	100		
Ripper own. Cost/Hour:		\$0.00	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hours	>	41.85	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour:	\$163.06 \$326.11				
Total Fleet Cost/Hour: MATERIAL QUAN	\$326.11 TITIES				
Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume:	\$326.11 TITIES 9,907				
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 219 Swell factor: 1.1	\$326.11 TITIES 9,907 24				
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 219 Swell factor: 1.1	\$326.11 TITIES 9,907				
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 219 Swell factor: 1.1 Loose volume: 24' Source of estimated vol	\$326.11 TITIES 9,907 24 7,088 LCY ume: Observations 1		ng Oct. 2010 inspection	1	
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 219 Swell factor: 1.1 Loose volume: 24	\$326.11 TITIES 9,907 24 7,088 LCY ume: Observations r		ng Oct. 2010 inspection	<u>1</u>	
Total Fleet Cost/Hour: MATERIAL OUAN Initial Volume: 219 Swell factor: 1.1 Loose volume: 249 Source of estimated vol Source of estimated swe	\$326.11 TITIES 9,907 24 7,088 LCY ume: Observations n ell factor: Cat Handbook		ng Oct. 2010 inspection	1	
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 219 Swell factor: 1.1 Loose volume: 24' Source of estimated vol	\$326.11 TITIES 9,907 24 7,088 LCY ume: Observations n ell factor: Cat Handbook		ng Oct. 2010 inspection	1	
Total Fleet Cost/Hour: MATERIAL OUAN Initial Volume: 219 Swell factor: 1.1 Loose volume: 249 Source of estimated vol Source of estimated swe HOURLY PRODUC	\$326.11 TITIES 9,907 24 7,088 LCY ume: Observations r cat Handbook CTION		ng Oct. 2010 inspection	<u>n</u>	
Total Fleet Cost/Hour: MATERIAL OUAN Initial Volume: 219 Swell factor: 1.1 Loose volume: 249 Source of estimated vol Source of estimated swe	\$326.11 TITIES 9,907 24 7,088 LCY ume: Observations r cat Handbook CTION 50 feet		ng Oct. 2010 inspection	1	
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 219 Swell factor: 1.1 Loose volume: 249 Source of estimated vol Source of estimated swe HOURLY PRODUC Average push distance:	\$326.11 TITIES 9,907 24 7,088 LCY ume: Observations r cat Handbook CTION so feet uction: 50 feet 1,627.0 LCY/hr		ng Oct. 2010 inspection	1	
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 219 Swell factor: 1.1 Loose volume: 24' Source of estimated vol Source of estimated sweet HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency destinated set	\$326.11 TITIES 9,907 24 7,088 LCY ume: Observations r cat Handbook CTION solution: 50 feet 1,627.0 LCY/hr escription: Compacted			<u>n</u>	
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 219 Swell factor: 1.1 Loose volume: 247 Source of estimated vol Source of estimated vol Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency de Average push gradient:	\$326.11 TITIES 9,907 24 7,088 LCY ume: Observations r cat Handbook CTION scription: 50 feet 1,627.0 LCY/hr escription: Compacted -20 %			1	
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 219 Swell factor: 1.1 Loose volume: 24' Source of estimated vol Source of estimated sweet HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency destinated set	\$326.11 TITIES 9,907 24 7,088 LCY ume: Observations r cat Handbook CTION solution: 50 feet 1,627.0 LCY/hr escription: Compacted			1	
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 219 Swell factor: 1.1 Loose volume: 24' Source of estimated vol Source of estimated sweet HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency de Average push gradient: 1	\$326.11 TITIES 9,907 24 7,088 LCY ume: Observations r cat Handbook CTION scription: 50 feet 1,627.0 LCY/hr escription: Compacted -20 %			<u>n</u>	
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 219 Swell factor: 1.1 Loose volume: 24 Source of estimated vol Source of estimated vol Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency de Average push gradient: Average site altitude:	\$326.11 TITIES 9,907 24 7,088 LCY ume: Observations r cat Handbook CTION scription: 50 feet uction: 1,627.0 LCY/hr escription: Compacted -20 % 6,400 feet			n	
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 219 Swell factor: 1.1 Loose volume: 24' Source of estimated vol Source of estimated vol Source of estimated vol Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency de Average push gradient: Average site altitude: Material weight:	\$326.11 TITIES 9,907 24 7,088 LCY ume: Observations r cat Handbook CTION scription: 50 feet uction: 1,627.0 LCY/hr escription: Compacted -20 % 6,400 feet 2,900 lbs/LCY Sand and gravel - Dry			1	
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 219 Swell factor: 1.1 Loose volume: 24 Source of estimated vol Source of estimated vol Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description:	\$326.11 TITIES 9,907 24 7,088 LCY ume: Observations r cat Handbook CTION scription: 50 feet uction: 1,627.0 LCY/hr escription: Compacted -20 % 6,400 feet 2,900 lbs/LCY Sand and gravel - Dry on Factor		pankment 0.9	1	
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 219 Swell factor: 1.1 Loose volume: 24' Source of estimated vol Source of estimated vol Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operato Material consistency	\$326.11 TITIES 9,907 24 7,088 LCY ume: Observations r cat Handbook CTION uction: 50 feet 1,627.0 LCY/hr escription: Compacted -20 % 6,400 feet 2,900 lbs/LCY Sand and gravel - Dry on Factor 0.750 r Skill: 0.750 stency: 0.900		pankment 0.9	1	
Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 219 Swell factor: 1.1 Loose volume: 24' Source of estimated vol Source of estimated vol Source of estimated vol Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Material consistency Doperator Material consistency	\$326.11 TITIES 9,907 24 7,088 LCY ume: Observations r cat Handbook CTION uction: 50 feet 1,627.0 LCY/hr escription: Compacted -20 % 6,400 feet 2,900 lbs/LCY Sand and gravel - Dry on Factor 0.750 r Skill: 0.750 stency: 0.900		pankment 0.9 Source (AVG.)	n	

Task # 02A

0.830	(1 SHIFT/DAY)
0.800	(FND-RF)
1.426	(CAT HB)
1.000	(CAT HB)
0.793	(CAT HB)
1.000	(PAT)
0.5068	
	0.800 1.426 1.000 0.793 1.000

Adjusted unit production:	824.56 LCY/hr
Adjusted fleet production:	1649.12 LCY/hr

JOB TIME AND COST

Fleet size:	2 Dozer(s)
Unit cost:	\$0.198/LCY

Total job time:	149.83 Hours
Total job cost:	\$48,861

SCRAPER TEAM WORK

Site: Gypsum Ranch F	Pit	Permi	t Action:	SI-01	Perr	nit/Job#: M199	8014
PROJECT IDEN	TIFICATION						
Task #: 02B	Sta	te: (Colorado		Abbrev	viation: None	
Date: 4/13/2	017 Coun	ty: 🗌	Eagle		Fil	ename: 02b	
User: THM							
Agency or	organization name:	DRM	IS				
HOURLY EQUI	<u>PMENT</u>			COSTS	hift basis: <u>1 per d</u>	ay	
			Equipme Cat 657	ent Description			
		aper: ozer:	Cat 057				
Suppo	ort Equipment -Load A		NA				
	-Dump A		NA				
Road Ma	intenance –Motor Gr -Water T		NA NA				
	- water 1	IUCK.	INA				
Cost Breakdown:	Scraper Work	Team		Support Equi	pment	Maintenance	Equipment
	Scraper	Do	zer	Load Area	Dump Area	Motor Grader	Water Tr
%Utilization-machine:	100		100	NA	NA	NA	
Ownership cost/hour:	\$154.79		\$83.81	NA	NA	NA	
Operating cost/hour:	\$184.57		\$66.17	NA	NA	NA	
%Utilization-ripper:	NA		NA	NA	NA	NA	
Ripper own. cost/hour:	NA		\$0.00	NA	NA	NA	
Ripper op. cost/hour:	NA		\$0.00	NA	NA	NA	
Operator cost/hour:	\$31.26		\$41.85	NA	NA	NA	
Unit Subtotals:	\$370.62	\$	5191.83	NA	NA	NA	
Number of Units:	8		1	0	0	0	
Group Subtotals:	Work:	\$3,15	56.79	Support:	\$0.00	Maint:	\$0.00
Total work team cost	ANTITIES						
Initial volume: Loose volume:	219,907 247,088		CCY LCY	Swell fact	tor: 1.124		
Sou	rce of estimated volu	me		of Reclamation, 1	Mining & Safety		
	of estimated swell fac		Cat Hand		winning & Ballety		
HOURLY PROD	UCTION						
				Scraper B	owl (volume) Bas	is:	
Material weight:	2,900 lbs/LCY			Struck	Volume: 32.00	L	СҮ
Material description:	Sand and gravel - D	Dry		-	Volume: 44.00		СҮ
Rated Payload:	104,000 pounds	_		Average			CY
Payload Capacity:	35.86 LCY			Adjusted C	Capacity: 35.86	L	CY

1.00 Minutes

0.60 Minutes

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6400 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: <u>Rutted dirt, little maintenance, no water, 2" tire penetration 5.0</u>

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	500.00	0.00	5.00	5.00	2335	0.57

Haul Time: 0.57 minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	500.00	0.00	5.00	5.00	2888	0.39
				Return Time:	0.39	minutes
			Total Scrap	er team cycle time:	2.56	minutes
			Adjusted	for job conditions:	697.63	LCY/Hour
			Selected N	umber of Scrapers:	2	Scraper(s)
	Adjuste	d single scra	per team (unit)	hourly production:	1,395.26	LCY/Hour
	Adjusted n	nultiple scra	per team (fleet)	hourly production:	5,581.03	LCY/Hour
Optim	Unadjusted unit pro al Number of Scrapers pe			LCY/Hour		
JOB T	IME AND COST					
Flee	t size: A	Team(s)	1	Fotal job time:	44.27	Hours

Fleet size:	4	Team(s)	Total job time:	44.27	Hours
Unit cost:	\$0.566	/LCY	Total job cost:	\$139,760	

BULLDOZER RIPPING WORK

	Task description:	Rip pit floor and access ro	ad			
Site	:Gypsum Ranch	Pit Permit Action	: SI-01	Permit/	Job#: <u>M1998</u>	8014
	PROJECT IDE	NTIFICATION				
	Task #: 03A	State: Colorad	0	Abbreviat	ion: None	
		2017 County: Eagle		Filena	me: 03a	
	User: THM					
	Agency o	r organization name: DRMS				
	HOURLY EQU	IPMENT COST				
	Basic M			Horsepower:	310	
	Ripper Attac	chment: 3-Shank Ripper		Shift Basis:	1 per day	
				Data Source:	(CRG)	
	Cost Breakdown:		1			
		Our and in Cost/Hours	002.01	Utilization %		
		Ownership Cost/Hour: Operating Cost/Hour:	\$83.81 \$66.17	<u>NA</u> 100		
	Ripper	Ownership Cost/Hour:	\$7.55	NA		
		r Operating Cost/Hour:	\$7.21	100		
		Operator Cost/Hour:	\$41.85	NA		
		Total Unit Cost/Hour:	\$206.59			
		Total Fleet Cost/Hour: \$4	413.17			
	MATERIAL QU	IANTITIES	alastad actimating	mothod. Ano		
		8	elected estimating	method: Area		
	Alternate Methods					
Seismic:	NA	Bank Volume:		BCY	NA	
Area:	78.00	acres Rip Depth (ft):		Volume: 125,84	40	BCY or CCY
		Source of estimated quantity:Ann	ual report			
	HOURLY PRO	DUCTION				
	Seismic:					
		Seismic Velocity:	NA	feet/second		
	Area:					
		Average Ripping Depth:	2.56	mph		
		Average Ripping Width:	7.08	degrees		
		Average Ripping Length:	500.00	feet		
		Average Dozer Speed: Average Maneuver Time:	<u>88.00</u> 0.25	feet feet		
		Production per unit area:	0.822	acres/hour		
	Job Condition Corr	•				
			0.000			
	Unac	ljusted Hourly Unit Production:	0.822	Acres/hr		
		Site Altitude:	6,400	feet		
		Altitude Adj:	1.00	(CAT HB)		
		Job Efficiency: Net Correction:	0.83	(1 shift/day) multiplier		
		Adjusted Hourly Unit Production		Acres/hr		
		Adjusted Hourly Fleet Production	n: <u>1.36</u>	Acres/hr		
	JOB TIME ANI	<u>) COST</u>				
	Fleet size:	2 Grader(s)	Total job time	e: 57.16	H	ours
	Unit cost:	\$302.798 Per acre	Total job cos	st: \$23,61 8	3	

SCRAPER TEAM WORK

Site: Gypsum Ranch P	it	Permi	t Action:	SI-01	Perr	nit/Job#: <u>M1998</u>	3014
PROJECT IDENT	TIFICATION						
Task #:04A		State:	Colorado		Abbrev	viation: None	
Date: 4/13/20	017 Cor	unty:	Eagle		Fil	ename: 04a	
User: <u>THM</u>			10				
	organization name:	DRM	15				
HOURLY EQUIP	<u>MENT</u>			COSTS	hift basis: <u>1 per d</u>	ay	
		craper:	Equipme Cat 657	nt Description			
		-Dozer:	Cat D8				
Suppo	rt Equipment -Loa	d Area:	NA				
		p Area:	NA				
Road Ma	intenance – Motor	Grader: Truck:	NA NA				
	- water	TTUCK.					
Cost Breakdown:	Scraper Wor	rk Team		Support Equi	oment	Maintenance	Equipm
	Scraper	Do	zer	Load Area	Dump Area	Motor Grader	Wate
%Utilization-machine:	100		100	NA	NA	NA	
Ownership cost/hour:	\$154.79		\$83.81	NA	NA	NA	
Operating cost/hour:	\$184.57		\$66.17	NA	NA	NA	
%Utilization-ripper:	NA		NA	NA	NA	NA	
Ripper own. cost/hour:	NA		\$0.00	NA	NA	NA	
Ripper op. cost/hour:	NA		\$0.00	NA	NA	NA	
Operator cost/hour:	\$31.26		\$41.85	NA	NA	NA	
Unit Subtotals:	\$370.62	\$	5191.83	NA	NA	NA	
Number of Units:	8		1	0	0	0	
Group Subtotals:	Work:	\$3,15	56.79	Support:	\$0.00	Maint:	\$(
Total work team cost	/hour: <u>\$3,156.79</u>						
MATERIAL QUA	NTITIES						
Initial volume:	83,893		CCY	Swell fact	tor: 1.000		
Loose volume:	83,893		LCY				
Sou	rce of estimated vo	olume:	78 ac. at	8" depth			
Source of	of estimated swell i	factor: _	Cat Hand				
HOURLY PRODU	UCTION		e				
				Scraper Be	owl (volume) Bas	is:	
Material weight:	1,600 lbs/LCY				Volume:32.00		CY
Material description:	Top Soil			Heaped			CY
Rated Payload:	104,000 pounds			Average	Volume: 38.00	LO	CY

1.00 Minutes

0.60 Minutes

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6400 feet

7	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: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	0.00	5.00	5.00	2335	0.65

Haul Time:	0.65	minutes
------------	------	---------

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	0.00	5.00	5.00	2888	0.56
				Return Time:	0.56	minutes
			Total Scrap	er team cycle time:	2.81	minutes
				for job conditions:	673.45	 LCY/Hour
			Selected N	umber of Scrapers:	2	Scraper(s)
	Adjuste	i single scra	per team (unit)	hourly production:	1,346.90	LCY/Hour
	Adjusted m	ultiple scra	per team (fleet)	hourly production:	5,387.62	LCY/Hour
Optima	Unadjusted unit prov al Number of Scrapers pe			LCY/Hour		
JOB T	IME AND COST					
Flee	t size: 4	_ Team(s)		Total job time:	15.57	Hours
Uni	t cost: \$0.586	_ /LCY		Total job cost:	\$49,156	

BULLDOZER WORK

Task description:	Dist	tribute topsoil				
: _Gypsum Ranch P	Pit	Permit Action	SI-01		Permit/Job#:	M1998014
PROJECT IDEN	TIFICAT	ION				
Task #: 05A		State: Colorado			Abbreviation:	None
Date: $\frac{3011}{4/13/20}$	017	County: Eagle			Filename:	05a
User: THM						
Agency or o	organizatio	n name: DRMS				
HOURLY EQUIF	-					
Basic Machine:		TE-Cat D8T - 8U				
Horsepower:	305	1L-Cat D01 - 00				
Blade Type:	Universal					
Attachment:	NA					
Shift Basis:	1 per day					
Data Source:	(CRG)					
Cost Preakdoum						
Cost Breakdown:			T I+i1i	ation %		
Ownership Cost/Ho		\$52.86		IA		
Operating Cost/Ho		\$68.35	the second	00		
Ripper own. Cost/Ho		\$0.00		IA		
Ripper op. Cost/Ho		\$0.00		0		
Operator Cost/Ho		\$41.85		IA		
Total unit Cost/Hour	: \$163					
Total unit Cost/Hour Total Fleet Cost/Hou	:: \$163 ur: \$326	5.11				
Total unit Cost/Hour Total Fleet Cost/Hou MATERIAL QUA	:: \$163 1r: \$326 ANTITIES	5.11				
Total unit Cost/Hour Total Fleet Cost/Hou <u>MATERIAL OUA</u> Initial Volume:	:: \$163 1r: \$326 ANTITIE: 83,893	5.11				
Total unit Cost/Hour Total Fleet Cost/Hou <u>MATERIAL QUA</u> Initial Volume: Swell factor:	:: \$163 ir: \$326 ANTITIES 83,893 1.000	5.11 5				
Total unit Cost/Hour Total Fleet Cost/Hou <u>MATERIAL QUA</u> Initial Volume: Swell factor:	:: \$163 1r: \$326 ANTITIE: 83,893	5.11 5				
Total unit Cost/Hour Total Fleet Cost/Hou <u>MATERIAL QUA</u> Initial Volume: Swell factor:	:: \$163 ir: \$326 ANTITIES 83,893 1.000 83,893 LC	5.11 5				
Total unit Cost/Hour Total Fleet Cost/Hou <u>MATERIAL OUA</u> Initial Volume: Swell factor: Loose volume:	:: \$163 Ir: \$326 ANTITIES 83,893 1.000 83,893 LC volume:	5.11 5 Y 78 ac. at 8" depth				
Total unit Cost/Hour Total Fleet Cost/Hour MATERIAL OUA Initial Volume: Swell factor: Loose volume: Source of estimated of Source of estimated of	:: \$163 ar: \$326 ANTITIE: 83,893 1.000 83,893 LC volume: swell factor	5.11 5 Y 78 ac. at 8" depth				
Total unit Cost/Hour Total Fleet Cost/Hour MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated source	:: \$163 ar: \$326 ANTITIES 83,893 1.000 83,893 LC volume: swell factor UCTION	5.11 5 Y 78 ac. at 8" depth Cat Handbook				
Total unit Cost/Hour Total Fleet Cost/Hour MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated source of estimated source of Source of estimated source of estima	:: \$163 ar: \$326 ANTITIES 83,893 1.000 83,893 LC volume: swell factor UCTION ce:	5.11 5 Y 78 ac. at 8" depth Cat Handbook 50 feet				
Total unit Cost/Hour Total Fleet Cost/Hour MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated source	:: \$163 ar: \$326 ANTITIES 83,893 1.000 83,893 LC volume: swell factor UCTION ce:	5.11 5 Y 78 ac. at 8" depth Cat Handbook				
Total unit Cost/Hour Total Fleet Cost/Hour MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated source of estimated source of Source of estimated source of estima	:: \$163 Ir: \$326 ANTITIES 83,893 1.000 83,893 LC volume: swell factor UCTION ce: roduction:	5.11 5 Y 78 ac. at 8" depth Cat Handbook 50 feet 1,627.0 LCY/hr				
Total unit Cost/Hour Total Fleet Cost/Hour MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated source	:: \$163 Ir: \$326 ANTITIES 83,893 1.000 83,893 LC volume: swell factor UCTION ce: roduction: y descriptio	5.11 5 Y 78 ac. at 8" depth Cat Handbook 50 feet 1,627.0 LCY/hr				
Total unit Cost/Hour Total Fleet Cost/Hour MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated s Source of estimated s HOURLY PROD Average push distand Unadjusted hourly pu	:: \$163 ar: \$326 ANTITIES 83,893 1.000 83,893 LC volume: swell factor UCTION ce: roduction: y descriptio ent: _0 %	5.11 5 Y 78 ac. at 8" depth Cat Handbook 50 feet 1,627.0 LCY/hr				
Total unit Cost/Hour Total Fleet Cost/Hour MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated s Source of estimated s HOURLY PROD Average push distance Unadjusted hourly pu Materials consistency	\$163 arr: \$326 ANTITIES 83,893 1.000 83,893 1.000 83,893 LCV volume: swell factor UCTION cc: roduction: y descriptio ent: 0 % 6,40	5.11 5 Y 78 ac. at 8" depth Cat Handbook 50 feet 1,627.0 LCY/hr n: Loose stockpile 1				
Total unit Cost/Hour Total Fleet Cost/Hour MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated s Source of estimated s HOURLY PROD Average push distand Unadjusted hourly pr Materials consistency Average push gradie Average site altitude	\$163 arr: \$326 ANTITIES 83,893 1.000 83,893 1.000 83,893 LCV volume: swell factor UCTION cc: roduction: y descriptio ent: 0 % 6,40	5.11 5 Y 78 ac. at 8" depth Cat Handbook 50 feet 1,627.0 LCY/hr n: Loose stockpile 1 0 feet 0 lbs/LCY				
Total unit Cost/Hour Total Fleet Cost/Hour MATERIAL OUA Initial Volume: Swell factor: Loose volume: Source of estimated of Source of estimated of Source of estimated of Source of estimated of Average push distand Unadjusted hourly pr Materials consistency Average push gradie: Average site altitude Material weight:	\$163 arr: \$326 ANTITIES 83,893 1.000 83,893 1.000 83,893 LCV volume: swell factor UCTION cce: roduction: y descriptio ent: 0 %	5.11 5 Y 78 ac. at 8" depth Cat Handbook 50 feet 1,627.0 LCY/hr n: Loose stockpile 1 0 feet 0 lbs/LCY Soil		Source		
Total unit Cost/Hour Total Fleet Cost/Hour MATERIAL OUA Initial Volume: Swell factor: Loose volume: Source of estimated of Source of estimated of Source of estimated of Source of estimated of Average push distand Unadjusted hourly pr Materials consistency Average push gradie: Average push gradie: Average site altitude Material weight: Weight description: Job Condition Correct Oper	\$163 arr: \$326 ANTITIES 83,893 1.000 83,893 1.000 83,893 1.000 83,893 1.000 83,893 1.000 83,893 1.000 83,893 LCV volume: swell factor UCTION cc: roduction: y descriptio ant: 0 %	5.11 5 Y 78 ac. at 8" depth Cat Handbook 50 feet 1,627.0 LCY/hr n: Loose stockpile 1 0 feet 0 lbs/LCY Soil	.2	Source (AVG.)		
Total unit Cost/Hour Total Fleet Cost/Hour MATERIAL QUA Initial Volume: Swell factor: Loose volume: Source of estimated s Source of estimated s HOURLY PROD Average push distand Unadjusted hourly pr Materials consistency Average push gradie Average site altitude Material weight: Weight description: Job Condition Correct Oper- Material con	:: \$163 ur: \$326 ANTITIES \$326 83,893 1.000 83,893 1.000 83,893 LCV volume: swell factor UCTION cc: roduction: y descriptio ent: 0 % .: 6,40	5.11 5 Y 78 ac. at 8" depth Cat Handbook 50 feet 1,627.0 LCY/hr n: Loose stockpile 1 0 feet 0 lbs/LCY Soil 0.750 1.200	.2	(AVG.) CAT HB)		
Total unit Cost/Hour Total Fleet Cost/Hour MATERIAL OUA Initial Volume: Swell factor: Loose volume: Source of estimated y Source of estimated y Source of estimated y Average push distand Unadjusted hourly pr Materials consistency Average push gradie: Average site altitude Material weight: Weight description: Job Condition Correct Oper- Material con Dozing	\$163 arr: \$326 ANTITIES 83,893 1.000 83,893 1.000 83,893 1.000 83,893 1.000 83,893 1.000 83,893 1.000 83,893 LCV volume: swell factor UCTION cc: roduction: y descriptio ant: 0 %	5.11 5 Y 78 ac. at 8" depth Cat Handbook 50 feet 1,627.0 LCY/hr n: Loose stockpile 1 0 feet 0 lbs/LCY Soil 0.750	.2	(AVG.)		

Task # 05A

SHIFT/DAY)
(FND-RF)
(CAT HB)
(CAT HB)
(CAT HB)
(PAT)

Adjusted unit production:	1,398.08 LCY/hr			
Adjusted fleet production:	2796.16 LCY/hr			

JOB TIME AND COST

Fleet size:	2 Dozer(s)
Unit cost:	\$0.117/LCY

Total job time:	30.00 Hours
Total job cost:	\$9,784

REVEGETATION WORK

Task description:		Revegetate pit floor			
ite: Gypsum	Ranch Pit	Permit Action:	SI-01	Permit/Jol	o#: <u>M1998014</u>
PROJECT	<u>IDENTIFIC</u>	CATION			
Task #:	06A	State: Colorado		Abbreviation:	None
Date:	4/13/2017	County: Eagle		Filename:	06a
Date					

FERTILIZING

Materials

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

Application

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

TILLING

Description		Cost /Acre
Chisel plowing {DMG}		\$90.60
Weed control spraying (MEANS 31 31 16.13 3100)		\$242.00
	Total Tilling Cost/Acre	\$332.60

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Meadow Brome - Regar	10.00	9.18	\$50.80
Orchardgrass - Potomac	4.00	49.59	\$12.12
Alfalfa - Ladak (inoculated)	3.00	14.46	\$8.04
Red Clover - Medium	2.00	12.40	\$26.66
Ryegrass, Perennial - Zero Nui	4.00	22.68	\$6.64
Timothy - Climax	1.00	28.70	\$1.57
Totals Seed Mix	24.00	137.01	\$105.83

Application

Description		Cost /Acre
.		\$0.00
	2	
	Total Seed Application Cost/Acre	\$0.00

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - Curtail @ 4.0 pt/ac	1.00	ACRE	\$7.16	\$7.16
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$261.00	\$522.00
Total Mulch Materials Cost/Acre				\$529.16

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$66.02
Weed spray, truck, non-aquatic area, nox. [DMG]		\$71.50
	Total Mulch Application Cost/Acre	\$137.52

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
		Tot	als Nursery Stoo	k Cost / Acre	\$0.00

JOB TIME AND COST

	No. of Acres: ed Failure Rate: ng Work Items:	 Cost /Acre: Cost /Acre*: MULCHING	
Initial Job Cost:	\$104,985.45		
Reseeding Job Cost:	\$26,246.36		
Total Job Cost:	\$131,232		
Job Hours:	80.00		

REVEGETATION WORK

Site: Gypsu	m Ranch Pit				
		Permit Action:	SI-01	Permit/Jol	o#: <u>M1998014</u>
PROJEC	T IDENTIFIC	CATION			
Task #		State: Colorado		Abbreviation:	None
Date User		County: Eagle		Filename:	06b

FERTILIZING

Materials

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

Application

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

TILLING

Description		Cost /Acre
Chisel plowing {DMG}		\$90.60
Weed control spraying (MEANS 31 31 16.13 3100)		\$242.00
	Total Tilling Cost/Acre	\$332.60

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Arrowleaf Balsamroot	0.25	0.31	\$17.55
Bitterbrush, Antelope	0.13	0.04	\$2.44
Indian Ricegrass - Native	1.00	3.24	\$7.00
Creeping Red Fescue - Cindy	2.00	25.25	\$4.44
Bottlebrush Squirreltail	1.00	4.41	\$23.50
Sandberg Bluegrass - VNS	2.00	42.47	\$16.12
Idaho Fescue	2.00	25.25	\$18.00
Holly or Oregon Grape	0.25	0.31	\$43.88
Lupine, Silver	0.25	0.15	\$17.50

Totals Seed Mix	20.95	205.39	\$314.61
Yarrow, Western	0.01	0.76	\$0.52
Sulphur Flower (or Buckwheat)	0.25	0.52	\$32.25
Globemallow, Scarlet (or copper)	0.25	2.83	\$33.88
Prairie Junegrass	1.00	53.15	\$30.33
Sagebrush, Mountain or Big	0.13	6.60	\$2.47
Sage, Fringed	0.06	5.22	\$2.56
Rose, Wood's	0.25	0.00	\$5.13
Needlegrass, Green - Lodorm	2.00	8.31	\$9.74
Western Wheatgrass - Native	4.00	10.10	\$28.00
Rabbitbrush, Rubber	0.13	1.86	\$8.04
Slender Wheatgrass - Native	4.00	14.60	\$11.28

Application

Description		Cost /Acre
		\$
	Total Seed Application Cost/Acre	\$0.00

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - Curtail @ 4.0 pt/ac	1.00	ACRE	\$7.16	\$7.16
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$261.00	\$522.00
Total Mulch Materials Cost/Acre				\$529.16

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$66.02
Weed spray, truck, non-aquatic area, nox. [DMG]		\$71.50
	Total Mulch Application Cost/Acre	\$137.52

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
		Tot	als Nursery Stoo	ek Cost / Acre	\$0.00

JOB TIME AND COST

Estimate *Selected Replantir	No. of Acres: d Failure Rate: ng Work Items:	25%	Cost /Acre: Cost /Acre*: NG,MULCHING	
Initial Job Cost: Reseeding Job Cost:				

Total Job Cost:	\$24,635		
Job Hours:	40.00		

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Description Unit (TONS) Cost/hr/unit t Cost/hr/unit t Size Cost/hr/ fleet	Gypsum Ranch	Pit	Permit	Action: SI-0)1	1	Permit/Job#: <u>M</u>	1998014
Date: $4/13/2017$ User:County:EagleFilename: $07a$ Agency or organization name:DRMSOUIPMENT TRANSPORT RIG COSTShift basis:1 per day Cost Data Source:CRG DataOUIPMENT TRANSPORT RIG COSTTruck Tractor Description:GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWEH 400 HP (2ND HALF, 2006)Truck Trailer Description:GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT TRAILER (25T, 50T, AND 100T)ost Breakdown:Available Rig Capacities0-25 Tons26-50 Tons51+ Tons S0.00Ownership Cost/Hour:\$16.63\$18.37\$22.33Operating Cost/Hour:\$27.66\$27.66\$27.66Helper Cost/Hour:\$0.00\$25.39\$25.39Total Unit Cost/Hour:\$88.67\$117.55\$125.45ON ROADABLE EQUIPMENT:Machine $Unit(TONS)Owner shipCost/hr/unittHaul RigCost/hr/unitSizeCost/hr/lieetReturn TripCost/hr/fleetDOT FCost/hr/fleetCat D8R Series II-8U (2005)53.17$45.97$125.452$342.83$250.90$500.00Cat D8R Series II-8U (2005)67.38-52.00$39.59$88.671$128.26$88.67$250.00Seeder withTractor25.00$39.59$88.671$128.26$88.67$250.00$	<u>ROJECT IDEN</u>	TIFICATI	<u>ON</u>					
User: THMAgency or organization name: DRMSOUIPMENT TRANSPORT RIG COSTShift basis: 1 per day Cost Data Source: CRG DataTruck Tractor Description:GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWEH 400 HP (2ND HALF, 2006)Truck Trailer Description:GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWEH 400 HP (2ND HALF, 2006)Truck Trailer Description:GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT TRAILER (2ST, 50T, AND 100T)ost Breakdown:Available Rig Capacities0-25 Tons26-50 Tons51+ Tons OSI, AND 100T)ost Breakdown:Available Rig Capacities0-25 Tons26-50 Tons51+ Tons StarsOperating Cost/Hour:\$16.63\$18.37\$22.33Operating Cost/Hour:\$27.66\$27.66\$27.66Helper Cost/Hour:\$27.66\$27.66\$27.66Helper Cost/Hour:\$88.67\$117.55\$125.45ON ROADABLE EQUIPMENT:Machine DescriptionWeight/ Unit (TONS)Owner ship Cost/hr/ unit t t Cost/hr/ unit (TONS)\$45.97\$125.452\$3342.83\$250.90\$500.00Cost/hr/ Return Trip Cost/hr/ Return TripCost/hr/ Cost/hr/ SiteStart Trip Cost/hr/ Return Trip Cost/hr/ Return Trip Cost/hr/ Return Trip Cost/hr/ Return Trip Cost/hr/ Return Trip Cost/hr/ Ret	Task #: 07A		State: Co	olorado		Abbre	viation: None	
Agency or organization name: DRMS OUIPMENT TRANSPORT RIG COST Shift basis: 1 per day Cost Data Source: CRG Data Truck Tractor Description: GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWER 400 HP (2ND HALF, 2006) Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT TRAILER (25T, 50T, AND 100T) ost Breakdown: Available Rig Capacities 0-25 Tons 26-50 Tons 51+ Tons Ownership Cost/Hour: \$16.63 \$18.37 \$22.33 Operating Cost/Hour: \$27.66 \$27.66 \$27.66 Helper Cost/Hour: \$20.00 \$25.39 \$25.39 Total Unit Cost/Hour: \$88.67 \$117.55 \$125.45 On ROADABLE EQUIPMENT: Machine Weight/ (TONS) Owner ship Cost/hr/unit Haul Rig Cost/hr/unit Fleet Haul Trip Cost/hr/ Return Trip Cost/hr/ DOT F Cost/hr/ Cat DBR Series II 53.17 \$45.97 \$125.45 2 \$342.83 \$250.90 \$500.00 -8U (2005) Cat D88.67 \$125.45 2 \$390.70 \$250.90 \$500.00 Cost/hr/ unit </td <td></td> <td></td> <td>County: Ea</td> <td>gle</td> <td></td> <td>Fi</td> <td>lename: 07a</td> <td></td>			County: Ea	gle		Fi	lename: 07a	
OUIPMENT TRANSPORT RIG COST Shift basis: 1 per day Cost Data Source: CRG Data Truck Tractor Description: GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWER 400 HP (2ND HALF, 2006) Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT TRAILER (25T, 50T, AND 100T) ost Breakdown: Available Rig Capacities 0-25 Tons 26-50 Tons 51+ Tons Ownership Cost/Hour: \$16.63 \$18.37 Operating Cost/Hour: \$16.63 \$18.37 \$22.33 Operating Cost/Hour: \$27.66 Operating Cost/Hour: \$27.66 \$27.66 Proteon Cost/Hour: \$27.66 \$25.39 Total Unit Cost/Hour: \$88.67 \$117.55 \$125.45 ON ROADABLE EQUIPMENT: Machine Weight/ Unit Owner ship Cost/hr/unit Cost/hr/unit Size Cost/hr/ fleet Cost/hr Cost/how: \$125.45 Cost/how: \$25.00 Sign colspan="2">Cost/hr/ fleet Cost/hr/unit Cost/hr/(Init) Cost/hr/ fleet Cost/hr/ fleet	User: THM	[
$\begin{tabular}{lllllllllllllllllllllllllllllllllll$	Agency or	organization	name: DRMS					
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	OUIPMENT TH	RANSPOR	<u>T RIG COST</u>					
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$						Shift ba	sis: 1 per da	V
How the there is the two products of					C		A	
400 HP (2ND HALF, 2006)GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT TRAILER (25T, 50T, AND 100T)ost Breakdown:Available Rig Capacities0-25 Tons26-50 Tons51+ TonsOwnership Cost/Hour:\$16.63\$18.37\$22.33Operating Cost/Hour:\$44.38\$46.13\$50.07Operator Cost/Hour:\$27.66\$27.66\$27.66Helper Cost/Hour:\$0.00\$25.39\$25.39Total Unit Cost/Hour:\$88.67\$117.55\$125.45ON ROADABLE EQUIPMENT:MachineWeight/ Unit (TONS)Owner ship Cost/hr/ unit tHaul Rig Cost/hr/unit tFleet Cost/hr/ fleetHaul Trip Cost/hr/ fleetDOT F Cost/hr/ fleetCat D8R Series II53.17\$45.97\$125.452\$390.70\$250.90\$500.00Stu (2005)67.38\$69.90\$125.452\$390.70\$250.90\$500.00Drill/Broadcast ractor25.00\$39.59\$88.671\$128.26\$88.67\$250.00	Truck	Fractor Desc	ription GENE	RIC ON-HIGI	HWAY TRI		DR 6X4 DIESEI	POWERED
Truck Trailer Description:GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT TRAILER (25T, 50T, AND 100T)ost Breakdown:Available Rig Capacities0-25 Tons26-50 Tons51+ TonsOwnership Cost/Hour:\$16.63\$18.37\$22.33Operating Cost/Hour:\$44.38\$46.13\$50.07Operator Cost/Hour:\$27.66\$27.66\$27.66Helper Cost/Hour:\$0.00\$25.39\$25.39Total Unit Cost/Hour:\$88.67\$117.55\$125.45ON ROADABLE EQUIPMENT:MachineWeight/ Unit (TONS)Owner ship Cost/hr/ unit t Cost/hr/unit t t tHaul Rig Cost/hr/unit fleetReturn Trip Cost/hr/ fleet fleetDOT H Cost/hr/ fleetCat D8R Series II - 8U (2005)53.17\$45.97\$125.452\$390.70\$250.90\$500.00Cat 651E - 67.38\$69.90\$125.452\$390.70\$250.90\$500.00Drill/Broadcast Seeder with Tractor\$39.59\$88.671\$128.26\$88.67\$250.00	Truck							JIOWERED,
ost Breakdown: Available Rig Capacities 0-25 Tons 26-50 Tons 51+ Tons Ownership Cost/Hour: \$16.63 \$18.37 \$22.33 Operating Cost/Hour: \$44.38 \$46.13 \$50.07 Operator Cost/Hour: \$27.66 \$27.66 \$27.66 Helper Cost/Hour: \$0.00 \$25.39 \$25.39 Total Unit Cost/Hour: \$88.67 \$117.55 \$125.45 ON ROADABLE EQUIPMENT: Machine Weight/ Unit (TONS) Owner ship Cost/hr/ unit (TONS) Haul Rig Cost/hr/Init Fleet Cost/hr/ Event Haul Trip Cost/hr/ fleet Return Trip Cost/hr/ fleet DOT F Cost/hr/ Cat D8R Series II - 8U (2005) 53.17 \$45.97 \$125.45 2 \$342.83 \$250.90 \$500.00 Cat 651E 67.38 \$69.90 \$125.45 2 \$390.70 \$250.90 \$500.00 Drill/Broadcast 25.00 \$39.59 \$88.67 1 \$128.26 \$88.67 \$250.00	Truck	Trailer Desc	ription: G	ENERIC FOL				IPMENT
Available Rig Capacities 0-25 Tons 26-50 Tons 51+ Tons Ownership Cost/Hour: \$16.63 \$18.37 \$22.33 Operating Cost/Hour: \$44.38 \$46.13 \$50.07 Operator Cost/Hour: \$27.66 \$27.66 \$27.66 Helper Cost/Hour: \$0.00 \$25.39 \$25.39 Total Unit Cost/Hour: \$88.67 \$117.55 \$125.45 ON ROADABLE EQUIPMENT: Machine Weight/ Unit (TONS) Owner ship Cost/hr/ unit Haul Rig Cost/hr/unit Size Fleet Cost/hr/ fleet Haul Trip Cost/hr/ fleet DOT F Cost/hr/ fleet Cat D8R Series II - 8U (2005) \$3.17 \$45.97 \$125.45 2 \$342.83 \$250.90 \$500.00 Cat 651E 67.38 \$69.90 \$125.45 2 \$390.70 \$250.90 \$500.00 Cat 651E 67.38 \$69.90 \$125.45 2 \$390.70 \$250.90 \$500.00 Seeder with Tractor 25.00 \$39.59 \$88.67 1 \$128.26 \$88.67 \$250.00 <td></td> <td></td> <td></td> <td></td> <td>TRAILER</td> <td>(25T, 50T, AN</td> <td>ND 100T)</td> <td>- ···</td>					TRAILER	(25T, 50T, AN	ND 100T)	- ···
Available Rig Capacities 0-25 Tons 26-50 Tons 51+ Tons Ownership Cost/Hour: \$16.63 \$18.37 \$22.33 Operating Cost/Hour: \$44.38 \$46.13 \$50.07 Operator Cost/Hour: \$27.66 \$27.66 \$27.66 Helper Cost/Hour: \$0.00 \$25.39 \$25.39 Total Unit Cost/Hour: \$88.67 \$117.55 \$125.45 ON ROADABLE EQUIPMENT: Machine Weight/ Unit (TONS) Owner ship Cost/hr/ unit Haul Rig Cost/hr/unit Size Fleet Cost/hr/ fleet Haul Trip Cost/hr/ fleet DOT F Cost/hr/ fleet Cat D8R Series II - 8U (2005) \$3.17 \$45.97 \$125.45 2 \$342.83 \$250.90 \$500.00 Cat 651E 67.38 \$69.90 \$125.45 2 \$390.70 \$250.90 \$500.00 Cat 651E 67.38 \$69.90 \$125.45 2 \$390.70 \$250.90 \$500.00 Seeder with 	ost Breakdown:							
Ownership Cost/Hour: \$16.63 \$18.37 \$22.33 Operating Cost/Hour: \$44.38 \$46.13 \$50.07 Operator Cost/Hour: \$27.66 \$27.66 \$27.66 Helper Cost/Hour: \$0.00 \$25.39 \$25.39 Total Unit Cost/Hour: \$88.67 \$117.55 \$125.45 ON ROADABLE EQUIPMENT: Machine Weight/ Unit (TONS) Owner ship Cost/hr/ unit Haul Rig Cost/hr/unit Fleet Size Haul Trip Cost/hr/ fleet Return Trip Cost/hr/ fleet DOT F Cost/hr/ fleet Cat D8R Series II -8U (2005) 53.17 \$45.97 \$125.45 2 \$342.83 \$250.90 \$500.00 Cat D8R Series II -8U (2005) 67.38 \$69.90 \$125.45 2 \$342.83 \$250.90 \$500.00 Cat 651E -8U (2005) 67.38 \$69.90 \$125.45 2 \$390.70 \$250.90 \$500.00 Seeder with Tractor 7 \$39.59 \$88.67 1 \$128.26 \$88.67 \$250.00	Available Big Ca	acities	0.25 Tons	26-50 Tone	514	Tons		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $								
Helper Cost/Hour: $\$0.00$ $\$25.39$ $\$25.39$ Total Unit Cost/Hour: $\$88.67$ $\$117.55$ $\$125.45$ ON ROADABLE EQUIPMENT:Machine DescriptionWeight/ Unit (TONS)Owner ship Cost/hr/ unit tHaul Rig Cost/hr/unit tFleet SizeHaul Trip Cost/hr/ fleetReturn Trip Cost/hr/ fleetDOT H Cost/hr/ fleetCat D8R Series II - 8U (2005) 53.17 $\$45.97$ $\$125.45$ 2 $\$342.83$ $\$250.90$ $\$500.00$ Cat 651E Drill/Broadcast Seeder with Tractor 67.38 $\$69.90$ $\$125.45$ 2 $\$390.70$ $\$250.90$ $\$500.00$								
Total Unit Cost/Hour:\$88.67\$117.55\$125.45ON ROADABLE EQUIPMENT:Machine DescriptionWeight/ Unit (TONS)Owner ship Cost/hr/ unitHaul Rig Cost/hr/unit tFleet SizeHaul Trip Cost/hr/ fleetReturn Trip Cost/hr/ fleetDOT F Cost/hr/ fleetCat D8R Series II - 8U (2005)53.17\$45.97\$125.452\$342.83\$250.90\$500.00Cat 651E - 8U (2005)67.38\$69.90\$125.452\$390.70\$250.90\$500.00Drill/Broadcast Seeder with Tractor25.00\$39.59\$88.671\$128.26\$88.67\$250.00			\$27.66	\$27.66				
ON ROADABLE EQUIPMENT:Machine DescriptionWeight/ Unit (TONS)Owner ship Cost/hr/ unitHaul Rig Cost/hr/unitFleet SizeHaul Trip Cost/hr/ fleetReturn Trip Cost/hr/ fleetDOT F Cost/hr/ fleetCat D8R Series II - 8U (2005)53.17\$45.97\$125.452\$342.83\$250.90\$500.00Cat 651E Drill/Broadcast Seeder with Tractor67.38\$69.90\$125.452\$390.70\$250.90\$500.00			+			and the second se		
Machine DescriptionWeight/ Unit (TONS)Owner ship Cost/hr/ unitHaul Rig Cost/hr/unitFleet SizeHaul Trip Cost/hr/ fleetReturn Trip Cost/hr/ fleetDOT F Cost/hr/ fleetCat D8R Series II - 8U (2005)53.17\$45.97\$125.452\$342.83\$250.90\$500.00Cat 651E Drill/Broadcast Seeder with Tractor67.38\$69.90\$125.452\$390.70\$250.90\$500.00	Total Unit C	Cost/Hour:	\$88.67	\$117.55	\$1:	25.45		
Machine DescriptionWeight/ Unit (TONS)Owner ship Cost/hr/ unitHaul Rig Cost/hr/unitFleet SizeHaul Trip Cost/hr/ fleetReturn Trip Cost/hr/ fleetDOT F Cost/hr/ fleetCat D8R Series II - 8U (2005)53.17\$45.97\$125.452\$342.83\$250.90\$500.00Cat 651E Drill/Broadcast Seeder with Tractor67.38\$69.90\$125.452\$390.70\$250.90\$500.00		FEOIDDA						
Description Unit (TONS) Cost/hr/ unit t Cost/hr//unit t Size Cost/hr/ fleet		<u>E EQUIPN</u>	<u>1ENI:</u>					
Cat D8R Series II 53.17 \$45.97 \$125.45 2 \$342.83 \$250.90 \$500.00 Cat 651E 67.38 \$69.90 \$125.45 2 \$390.70 \$250.90 \$500.00 Drill/Broadcast 25.00 \$39.59 \$88.67 1 \$128.26 \$88.67 \$250.00								DOT Permit
Cat D8R Series II 53.17 \$45.97 \$125.45 2 \$342.83 \$250.90 \$500.00 - 8U (2005) Cat 651E 67.38 \$69.90 \$125.45 2 \$390.70 \$250.90 \$500.00 Drill/Broadcast 25.00 \$39.59 \$88.67 1 \$128.26 \$88.67 \$250.00 Seeder with Tractor Tract	Description		Cost/hr/ unit		Size		Cost/nr/ fleet	Cost/ fleet
- 8U (2005) Cat 651E 67.38 \$69.90 \$125.45 2 \$390.70 \$250.90 \$500.00 Drill/Broadcast 25.00 \$39.59 \$88.67 1 \$128.26 \$88.67 \$250.00 Seeder with Tractor Tractor 500.00 \$125.45 1 \$128.26 \$88.67 \$250.00	Cat D&R Series II	1 /	\$45.97	-	2		\$250.90	\$500.00
Cat 651E 67.38 \$69.90 \$125.45 2 \$390.70 \$250.90 \$500.00 Drill/Broadcast 25.00 \$39.59 \$88.67 1 \$128.26 \$88.67 \$250.00 Seeder with Tractor Tractor 500.00 \$250.00 \$250.00		55.17	J.7/	ψ12J. T J	2	ΨJ42.0J	φ 2 30.70	\$500.00
Seeder with Tractor	Cat 651E				2			\$500.00
Tractor		25.00	\$39.59	\$88.67	1	\$128.26	\$88.67	\$250.00
Subtotals: \$861.79 \$590.47 \$1.25		1		1	- · · · ·			.1
					Subtotals:	\$861.79	\$590.47	\$1,250.00

Machine Description Total Cost/hr/ unit Fleet Size Haul Trip Cost/hr/ fleet Return Trip Cost/hr/ fleet Light Duty Pickup, 4x4, 1 T. Crew \$20.91 1 \$20.91 \$20.91 Subtotals: \$20.91 \$20.91 \$20.91

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	EAGLE	
Total one-way travel distance:	10.00	miles
Average Travel Speed:	35.00	mph
Total Non-Roadable Mob/Demob Cost * '* two round trips with haul rig:	\$5,053.44	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	\$11.95	_

Transportation Cycle Time:

	Non- Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.29	0.29
Return Time (Hours):	0.29	0.29
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	1.57	0.57

e

JOB TIME AND COST

Total job time:	3.14	Hours
Total job cost:	\$5,065	

CIRCES Cost Estimating Software