



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: Windy Ridge Pit	MINE/PROSPECTING ID#: M-2003-052	MINERAL: Sand and gravel	COUNTY: Prowers
INSPECTION TYPE: Monitoring	INSPECTOR(S): Amy Eschberger	INSP. DATE: September 17, 2020	INSP. TIME: 12:00
OPERATOR: J. E. Cattle, LLC	OPERATOR REPRESENTATIVE: Justin Emick	TYPE OF OPERATION: 112c - Construction Regular Operation	

REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: Complete Bond	BOND AMOUNT: \$33,000.00
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None
WEATHER: Clear	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: October 20, 2020

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.

<p>INSPECTION TOPIC: Financial Warranty</p> <p>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) and Rule 4.2.1(1).</p> <p>CORRECTIVE ACTIONS: The Division has reassessed the required financial warranty for reclaiming the site in accordance with the approved reclamation plan (see enclosed cost estimate). The Division will send the operator a notice of surety increase (separate from this report) for the amount provided in the cost estimate. The operator will have 60 days from the date on the surety increase notice to post the additional financial warranty.</p> <p>CORRECTIVE ACTION DUE DATE: 60 days from date of surety increase notice</p>
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OBSERVATIONS

This was a normal monitoring inspection of the Windy Ridge Pit (Permit No. M-2003-052) conducted by Amy Eschberger of the Division of Reclamation, Mining and Safety (Division). The operator was represented by Justin Emick during the inspection. The site is located approximately 30 miles southwest of Lamar, CO in Prowers County. Access to the site is via a private dirt road off of Co Rd 5.5. The affected lands are owned by Windy Ridge, LLC. **Photos 1-12** taken during the inspection are included with this report.

This is a 112c operation permitted for 320 acres (see enclosed Google Earth image of site showing permit area) to mine sand and gravel for use in road construction and maintenance. Initially, the mined material was used to construct access roads and pad sites for wind turbines constructed in the area in the early 2000's through the Colorado Green Wind Power Project. Mining began in an old pre-law gravel pit located near the eastern edge of the permit area, and will continue generally westward. The maximum mining depth is approximately 15 feet. Mined material will be processed on site with mobile crushing and screening equipment. The approved maximum disturbance at any time is 20 acres.

The approved post-mining land use for the site is rangeland. The reclamation plan includes grading pit slopes to 3H:1V or flatter, replacing approximately 4 inches of topsoil on disturbed land, and revegetating the land with a rangeland grass mixture recommended by the local Soil Conservation District, including Sideoats grama, Western wheatgrass, Switchgrass, Blue grama, and Indiangrass. The existing ranch roads will remain after reclamation.

At the time of the inspection, the weather was sunny and dry. A permit identification sign was posted at the eastern gated entrance to the site. The permit boundary was delineated by property fencing. The mine was not active during the inspection. However, according to the operator, mining activities (e.g., excavation, processing, hauling off from stockpiled material) occur every year as required for an intermittent operation. Approximately 12.5 acres have been disturbed in the far eastern portion of the permit area (see enclosed Google Earth image of site showing close-up of disturbed area). This disturbance includes a pit which daylights primarily to the west with highwalls ranging from 5-15 feet in height with near vertical slopes, a shallow test trench at the northern edge of the pit, a stockpiling/processing area, a small topsoil stockpile stored above the highwall, and a large topsoil stockpile stored at the western edge of the pit floor. A few small material stockpiles were scattered across the pit floor. The portion of the pit located north of the access road has pit slopes graded to 3H:1V or flatter and is currently used for stockpiling, processing, and equipment storage.

The Division last inspected the site on April 9, 2015 while reviewing a Succession of Operators application (SO-1) to transfer the permit from Carder, Inc. to the current operator. Since that time, the new operator has expanded the pit slightly at its southeastern edge. The southern pit wall is approximately 5-8 feet in height with near vertical slopes. According to the operator, mined material is primarily used to maintain roads on their property, but is also used to construct/maintain roads and pad sites for nearby wind farms. No significant erosion problems were observed. Additionally, very few weeds (no noxious weed species) were observed in the disturbed area. The topsoil stockpiles appeared to be stable with good vegetative cover. Native grasses and shrubs are volunteering across much of the disturbed area.

The Division currently holds a financial warranty for the site in the amount of \$33,000.00. After conducting this inspection, the Division reassessed the required financial warranty for completing reclamation of the site in accordance with the approved plan. This estimate includes grading approximately 775 feet of highwall at an average height of 10 feet to 3H:1V, replacing topsoil on 12.5 acres, and revegetating 12.5 acres with the approved seed mixture. The Division's bond estimate (see enclosed cost estimate) shows the required financial warranty to be in the amount of \$36,545.00, which is \$3,545.00 more than the currently held amount.

Therefore, a problem is cited in this report (see page 1) for the inadequate financial warranty. A notice of surety increase for the revised amount will be mailed to the operator separately from this report. The operator will have 60 days from the date of notice to post the additional required financial warranty.

This concludes the report.

Any questions or comments regarding this inspection report should be forwarded to Amy Eschberger at the Colorado Division of Reclamation, Mining and Safety, 1313 Sherman Street, Room 215, Denver, CO 80203, via telephone at 303-866-3567, ext. 8129, or via email at amy.eschberger@state.co.us.

PHOTOGRAPHS



Photo 1. View looking west at existing ranch road which crosses permit area. This road will remain after reclamation.



Photo 2. View looking southeast across pit showing eastern pit wall in background. Note grasses volunteering across pit floor.



Photo 3. Closer view of eastern pit wall, approximately 15 feet in height with near vertical slopes. Note grasses volunteering across pit floor.



Photo 4. View looking north across eastern pit wall located north of access road which has been graded to 3H:1V or flatter.



Photo 5. View looking east across northern portion of pit located north of access road which is currently used for stockpiling, processing, and equipment storage.



Photo 6. View looking east across northern portion of pit located north of access road, showing material stockpiled in this area.



Photo 7. View looking west across northern portion of pit located north of access road, showing material stockpiled in this area.



Photo 8. View looking west across northern portion of pit located north of access road, showing material stockpiled in this area.



Photo 9. View looking northeast at southeastern portion of pit (circled) which has been expanded slightly since the Division's last inspection in 2015.



Photo 10. View looking north across main pit area from south of pit.



Photo 11. View looking west at large topsoil stockpile stored at western edge of pit. Note stockpile stable with good vegetative cover.



Photo 12. View looking northwest at small topsoil stockpile stored at eastern edge of pit, above highwall. Note stockpile stable with good vegetative cover.

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

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

Inspection Contact Address

Justin Emick
J. E. Cattle, LLC
6424 Hwy 287
Lamar, CO 81052

Encls: Google Earth image of site showing permit area
Google Earth image of site showing close-up of disturbed area
Division's bond estimate

CC: Michael Cunningham, DRMS

M-2003-052 / Windy Ridge Pit / J.E. Cattle, LLC / (112c)

Red outline = 320 acres = Approved permit area (location approximated based on approved maps)
Purple outline = 12.5 acres = Disturbed area (as of 9/17/2020 inspection)
Yellow line = 775 feet = Approximate length of highwall requiring reclamation grading
(Image data from 6/12/2017)

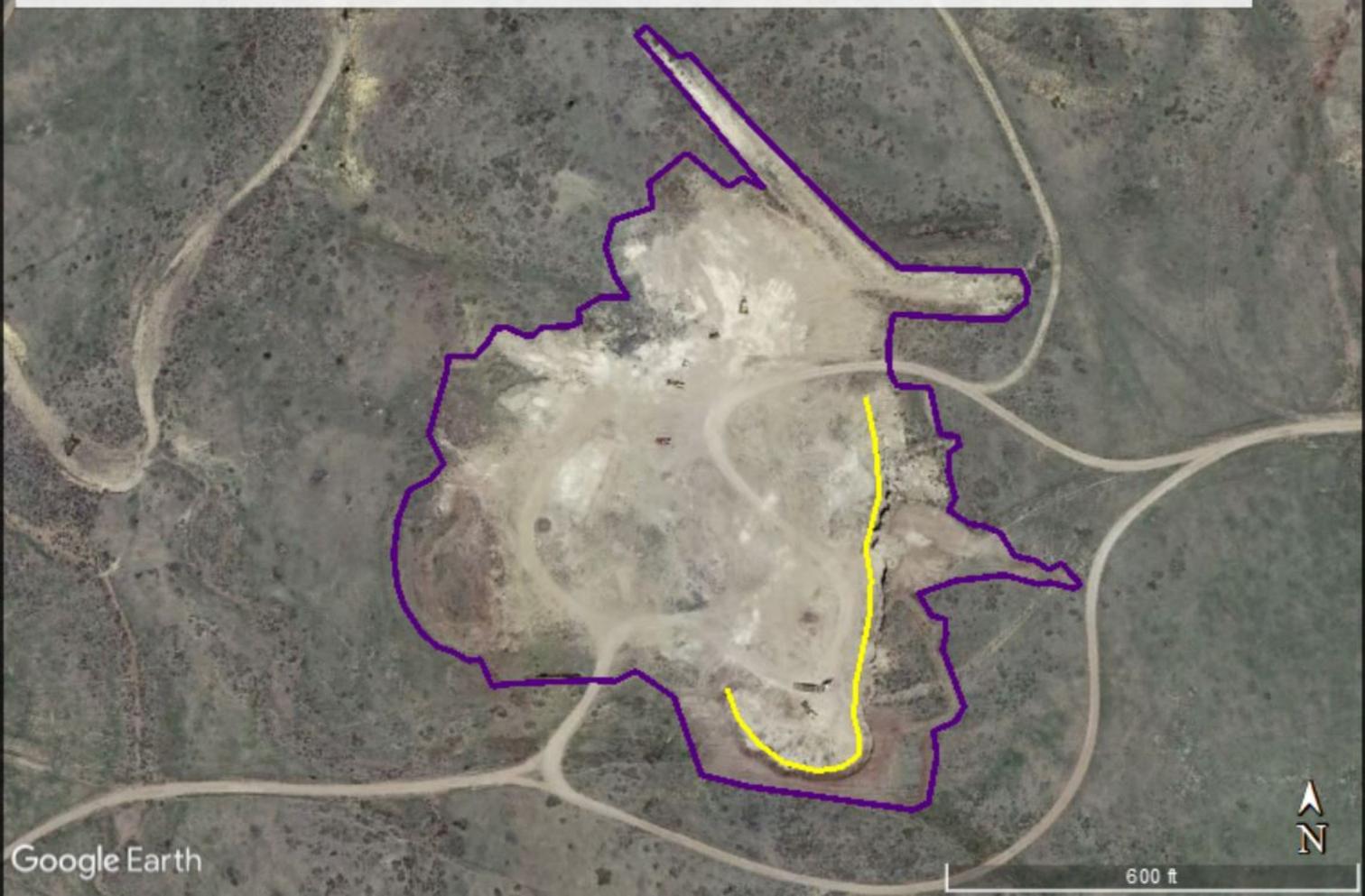


M-2003-052 / Windy Ridge Pit / J.E. Cattle, LLC / (112c) Close-Up of Disturbed Area

Approved permit area = 320 acres (boundary not shown)

Purple outline = 12.5 acres = Disturbed area (as of 9/17/2020 inspection)

Yellow line = 775 feet = Approximate length of highwall requiring reclamation grading
(Image data from 6/12/2017)



COST SUMMARY WORK

Task description: Cost summary

Site: Windy Ridge Pit

Permit Action: 9/17/2020 Inspection

Permit/Job#: M2003052

PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 10/7/2020

County: Prowers

Filename: M052-000

User: AME

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Grade highwall to 3H:1V slopes	DOZER	1	1.94	\$373
002	Replace topsoil on 12.5 ac	SCRAPER1	1	16.62	\$7,975
003	Revegetate 12.5 ac to rangeland	REVEGE	1	24.00	\$12,262
004	Mobilization/Demobilization	MOBILIZE	1	8.40	\$8,274
<u>SUBTOTALS:</u>				50.96	\$28,884

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02
Performance bond: 1.05
Job superintendent: 24.00
Profit: 10.00

Total = \$583

Total = \$303

Total = \$1,669

Total = \$2,888

TOTAL O & P = \$5,444

CONTRACT AMOUNT (direct + O & P) = \$34,328

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): \$500

Total = \$500

Engineering work and/or contract/bid preparation: 0.00

Total = \$0

Reclamation management and/or administration: 5.00

\$1,716

CONTINGENCY: 0.00

Total = \$0

TOTAL INDIRECT COST = \$7,661

TOTAL BOND AMOUNT (direct + indirect) = \$36,545

BULLDOZER WORK

Task description: Grade highwall to 3H:1V slopes

Site: Windy Ridge Pit Permit Action: 9/17/2020 Inspection Permit/Job#: M2003052

PROJECT IDENTIFICATION

Task #: 001 State: Colorado Abbreviation: None
 Date: 10/7/2020 County: Prowers Filename: M052-001
 User: AME

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D7R DS Series II LGP
 Horsepower: 240
 Blade Type: Straight
 Attachment: NA
 Shift Basis: 1 per day
 Data Source: (CRG)

Cost Breakdown:

		<u>Utilization %</u>
Ownership Cost/Hour:	\$76.61	NA
Operating Cost/Hour:	\$74.78	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: \$192.69
 Total Fleet Cost/Hour: \$192.69

MATERIAL QUANTITIES

Initial Volume: 1,076
 Swell factor: 1.250
 Loose volume: 1,345 LCY

Source of estimated volume: DRMS, Approx Length= 775ft, Avg Height= 10ft
 Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 50 feet
 Unadjusted hourly production: 800.0 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: -5 %
 Average site altitude: 4,430 feet

Material weight: 2,650 lbs/LCY

Weight description: Decomposed rock - 25% Rock, 75% Earth

Job Condition Correction Factor

		<u>Source</u>
Operator Skill:	1.000	(EXCL.)
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:	1.115	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.8676

Adjusted unit production: 694.08 LCY/hr

Adjusted fleet production: **694.08** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.278/LCY

Total job time: **1.94** Hours

Total job cost: **\$373**

SCRAPER TEAM WORK

Task description: Replace topsoil on 12.5 ac

Site: Windy Ridge Pit Permit Action: 9/17/2020 Inspection Permit/Job#: M2003052

PROJECT IDENTIFICATION

Task #: 002 State: Colorado Abbreviation: None
 Date: 10/7/2020 County: Prowers Filename: M052-002
 User: AME

Agency or organization name: DRMS

HOURLY EQUIPMENT

COSTShift basis: 1 per day

Equipment Description	
-Scraper:	Cat 627G
-Dozer:	NA
Support Equipment -Load Area:	NA
-Dump Area:	NA
Road Maintenance -Motor Grader:	CAT 14M
-Water Truck:	Water Tanker, 2,500 Gal.

Cost Breakdown:

	Scraper Work Team		Support Equipment		Maintenance Equipment	
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	NA	NA	NA	100	100
Ownership cost/hour:	\$109.10	NA	NA	NA	\$65.89	\$10.06
Operating cost/hour:	\$150.55	NA	NA	NA	\$58.96	\$18.78
%Utilization-ripper:	NA	NA	NA	NA	50	NA
Ripper own. cost/hour:	NA	NA	NA	NA	\$4.83	\$0.00
Ripper op. cost/hour:	NA	NA	NA	NA	\$2.20	\$0.00
Operator cost/hour:	\$30.90	NA	NA	NA	\$28.56	\$0.00
Unit Subtotals:	\$290.54	NA	NA	NA	\$160.44	\$28.84
Number of Units:	1	0	0	0	1	1
Group Subtotals:	Work: \$290.54		Support:	\$0.00	Maint:	\$189.28

Total work team cost/hour: **\$479.82**

MATERIAL QUANTITIES

Initial volume: 6,723 CCY Swell factor: 1.215
 Loose volume: 8,168 LCY

Source of estimated volume: 4 inches depth x 12.5 acres
 Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Scraper Bowl (volume) Basis:

Material weight:	<u>1,600 lbs/LCY</u>	Struck Volume:	<u>15.70</u>	LCY
Material description:	<u>Top Soil</u>	Heaped Volume:	<u>22.00</u>	LCY
Rated Payload:	<u>52,800 pounds</u>	Average Volume:	<u>18.85</u>	LCY
Payload Capacity:	<u>33.00 LCY</u>	Adjusted Capacity:	<u>18.85</u>	LCY

Cycle Time:

Scraper Loading Time: 0.70 Minutes
 Maneuver and Spread Time: 0.60 Minutes

Job Condition Correction:

Site Altitude: 4430 feet

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

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	400.00	6.00	5.00	11.00	1018	0.42

Haul Time: 0.42 minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	400.00	-6.00	5.00	-1.00	2938	0.19

Return Time: 0.19 minutes

Total Scraper team cycle time: 1.91 minutes
 Adjusted for job conditions: 491.48 LCY/Hour
 Selected Number of Scrapers: 1 Scraper(s)
 Adjusted single scraper team (unit) hourly production: 491.48 LCY/Hour
 Adjusted multiple scraper team (fleet) hourly production: 491.48 LCY/Hour

Unadjusted unit production/hour: 592.15 LCY/Hour
 Optimal Number of Scrapers per push dozer: _____

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: 16.62 Hours
 Unit cost: \$0.976 /LCY Total job cost: \$7,975

REVEGETATION WORKTask description: Revegetate 12.5 ac to rangelandSite: Windy Ridge PitPermit Action: 9/17/2020 InspectionPermit/Job#: M2003052PROJECT IDENTIFICATIONTask #: 003State: ColoradoAbbreviation: NoneDate: 10/7/2020County: ProwersFilename: M052-003User: AMEAgency or organization name: DRMSFERTILIZINGMaterials

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
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$107.16
Total Tilling Cost/Acre	\$107.16

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Hachita	0.45	7.35	\$7.19
Indiangrass - Cheyenne	2.00	6.10	\$22.60
Switchgrass - Blackwell	0.90	8.04	\$10.35
Sideoats Grama - El Reno	2.25	7.39	\$18.84
Western Wheatgrass - Arriba	3.20	8.08	\$20.80
Totals Seed Mix	8.80	36.95	\$79.78

Application

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EQUIPMENT MOBILIZATION/DEMobilIZATIONTask description: Mobilization/DemobilizationSite: Windy Ridge PitPermit Action: 9/17/2020 InspectionPermit/Job#: M2003052**PROJECT IDENTIFICATION**

Task #: 004 State: Colorado Abbreviation: None
 Date: 10/7/2020 County: Prowers Filename: M052-004
 User: AME

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:	\$17.20	\$29.63	\$38.69
Operating Cost/Hour:	\$26.56	\$47.02	\$55.69
Operator Cost/Hour:	\$23.63	\$23.63	\$23.63
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$67.39	\$123.81	\$141.54

NON ROADABLE EQUIPMENT:

Machine Description	Weight/ Unit (TONS)	Owner ship Cost/hr/ unit	Haul Rig Cost/hr/uni t	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet	DOT Permit Cost/ fleet
Cat D7R DS XR Series II	32.01	\$74.64	\$123.81	1	\$198.45	\$123.81	\$250.00
Cat 627G	41.80	\$109.10	\$123.81	1	\$232.91	\$123.81	\$250.00
CAT 14M	23.57	\$70.72	\$67.39	1	\$138.11	\$67.39	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$6.72	\$67.39	1	\$74.11	\$67.39	\$250.00
Power Mulcher (Bowie LD-90)	6.00	\$11.19	\$67.39	1	\$78.58	\$67.39	\$250.00

Subtotals: **\$722.16** **\$449.79** **\$1,250.00****ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Water Tanker, 2,500 Gal.	\$28.84	1	\$28.84	\$28.84

Subtotals: **\$28.84** **\$28.84**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region: LAMAR
 Total one-way travel distance: 30.00 miles
 Average Travel Speed: 50.00 mph

Total Non-Roadable Mob/Demob Cost * \$8,239.30
 * two round trips with haul rig:
 Total Roadable Mob/Demob Cost ** \$34.61
 ** one round trip, no haul rig:

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.60	0.60
Return Time (Hours):	0.60	0.60
Loading Time (Hours):	1.50	NA
Unloading Time (Hours):	1.50	NA
Subtotals:	4.20	1.20

JOB TIME AND COST

Total job time: 8.40 Hours

Total job cost: \$8,274