STATE OF COLORADO

Simmons - DNR, Leigh <leigh.simmons@state.co.us>

M2013023, Sharp Pit #2, 2024 Inspection Report

Simmons - DNR, Leigh <leigh.simmons@state.co.us> Thu, Aug 1, 2024 at 12:24 PM
To: riversideaggregatesllc@gmail.com

Mr Kerrigan,

Please find attached the report of the Division's inspection of the Sharp Pit #2, conducted earlier this year. Note that a problem has been cited, which will require your attention.

I apologise for the delay in sending the report to you.

Please let me know if you have any questions,

Leigh Simmons
Environmental Protection Specialist

COLORADO
Division of Reclamation, Mining and Safety
Department of Natural Resources

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M2013023 2024 Inspection Report with RCE.pdf
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COLORADO
Division of Reclamation, Mining and Safety
Department of Natural Resources

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: Sharp Pit #2	**MINE/PROSPECTING ID#:** M-2013-023	**MINERAL:** Gravel and sand	**COUNTY:** Bent
INSPECTION TYPE: Monitoring	**WEATHER:** Clear	**INSP. DATE:** April 16, 2024	**INSP. TIME:** 16:00
OPERATOR: Riverside Aggregates, LLC	**OPERATOR REPRESENTATIVE:** Mark Kerrigan	**TYPE OF OPERATION:** 110c - Construction Limited Impact	

REASON FOR INSPECTION: Normal I&E Program	**BOND CALCULATION TYPE:** Complete Bond	**BOND AMOUNT:** $24,800.00
DATE OF COMPLAINT: NA	**POST INSP. CONTACTS:** None	**JOINT INSP. AGENCY:** None
INSPECTOR(S): Leigh Simmons	**INSPECTOR'S SIGNATURE:** 	**SIGNATURE DATE:** August 1, 2024

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: Please review the attached Reclamation Cost Estimate and respond with comments within 30 days. After 30 days the Division will initiate a separate Surety Increase notice to increase 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: 8/30/24

OBSERVATIONS

This inspection was conducted as part of the normal monitoring program established by the Colorado Division of Reclamation, Mining and Safety (Division). The inspection was conducted by Leigh Simmons of the Division, and accompanied by Mark Kerrigan of Riverside Aggregates, LLC.

The Sharp Pit #2 is a 110(c) operation with a total permit area of 9.9 acres, located on private land approximately four miles south-east of the city of McClave. The pit is accessed from County Rd LL, east of the intersection with County Road 33.

The locations of photos taken during the inspection are shown on the screenshot of the field map.

Financial Warranty:
The Division currently holds a reclamation bond of $24,800 for the site. As is customary, the Reclamation Cost Estimate (RCE) for the site was re-evaluated with current unit costs as of 7/31/2024. The new RCE is attached to this inspection report - note that the tasks were not changed except to update obsolete equipment as necessary. The total required bond amount, including indirect costs, has increased to $38,495 meaning that the current financial warranty is insufficient; a problem has been cited above. (If some progress has been made toward reclaiming the site, it may not be necessary to increase the bond held.)

Gen. Compliance With Mine Plan:
Some stockpiled material was on site, but had apparently already been sold. A loader and a screen with a single conveyor section was on site (there was no crusher).To mine material an excavator is brought to the site to break up material before the loader feeds it to the screen. Mr Kerrigan estimated that material would continue to be extracted for a couple of months before the eastern limit of the pit would be reached. He expected reclamation to begin in the summer and seeding to take place in the autumn.

Revegetation:
The site was fairly well vegetated, despite not having been seeded. The site was surrounded by irrigated cropland, and was completely fenced, preventing any livestock grazing (in stark contrast to most of the other sites in the county).

Signs and Markers:
The Mine ID sign was in place. The permit boundary was marked with steel well casing at the corners and a barbed wire fence.

Topsoil:
Topsoil had been stockpiled and was adequately vegetated.

PHOTOGRAPHS

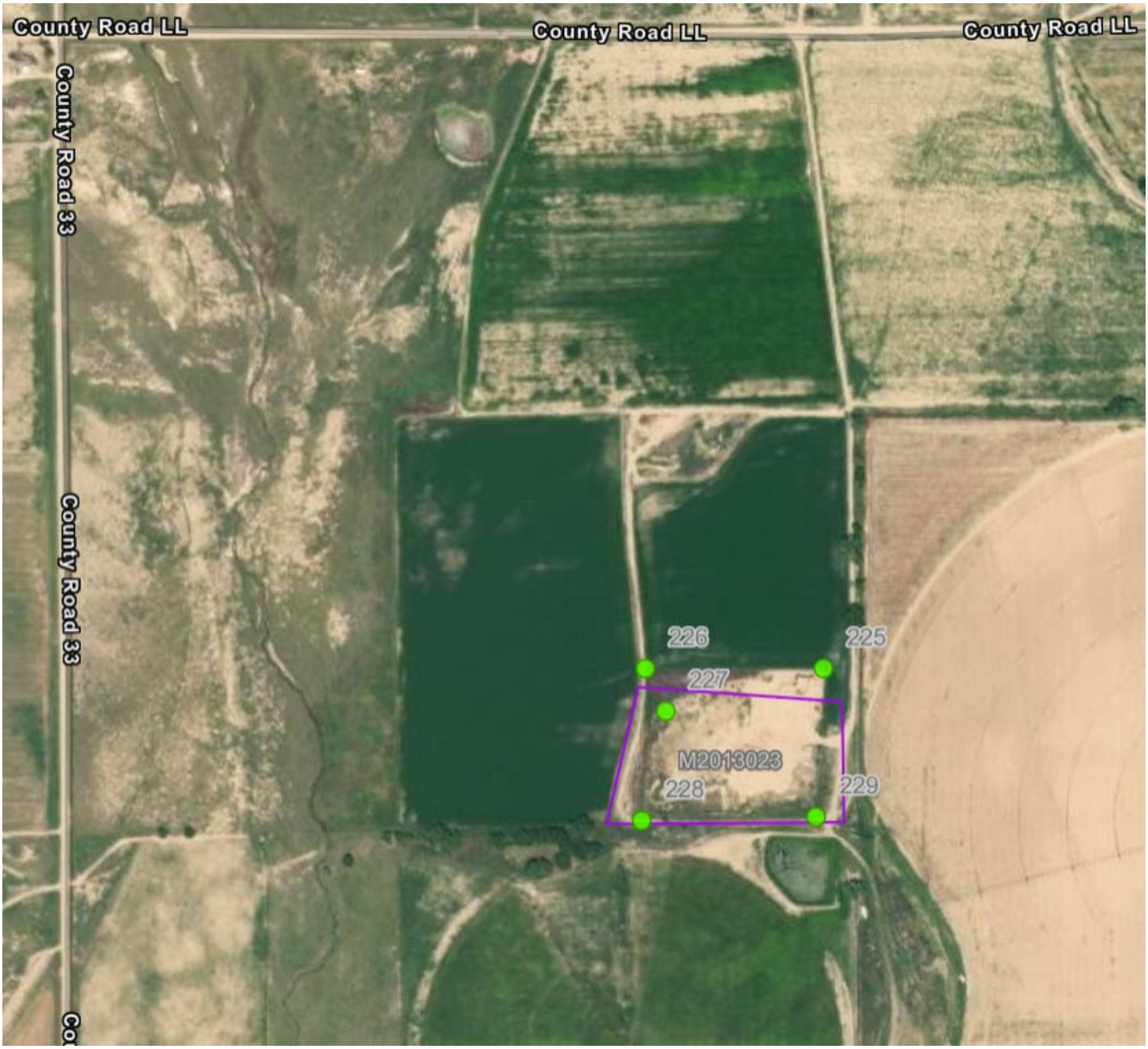

Figure 1: Screenshot of inspection map, with approximate permit boundary in purple and inspection features in green

Figure 2: Eastern boundary of permit area (225)

Figure 3: Northern boundary of permit area, screen and conveyor (225)

Figure 4: Pit area, with seedbed material in center of frame (227)

Figure 5: Stockpiled material in pit (227)

Figure 6: Western edge of permit area (228)

Figure 7: Southern edge of permit area (229)

Figure 8: Eastern edge of permit area, with stockpiled rock

GENERAL INSPECTION TOPICS

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

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

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

Inspection Contact Address
Mark Kerrigan
Riverside Aggregates, LLC
1750 County Road HH
Lamar, CO 81052

Enclosure: 2024 Inspection Reclamation Cost Estimate

COST SUMMARY WORK

Task description: **RCE update with 2024 costs**

Site: **Sharp Pit #2** Permit Action: 2024 Inspection Permit/Job#: M2013023

PROJECT IDENTIFICATION

Task #: 000 State: Colorado Abbreviation: None
Date: 8/1/2024 County: Bent Filename: M023-000
User: LDS

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Grade highwall to 3H:1V	DOZER	1	1.25	$260
002	Replace 6" topsoil on 7 acres	SCRAPER1	1	9.88	$11,578
003	Revegetate 7 acres	REVEGE	1	7.00	$11,132
004	Mobilization/Demobilization	MOBILIZE	1	5.00	$7,044
	SUBTOTALS:			**23.13**	**$30,014**

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	$606
Performance bond:	1.05	Total =	$315
Job superintendent:	11.57	Total =	$917
Profit:	10.00	Total =	$3,001
		TOTAL O & P =	$4,840
		CONTRACT AMOUNT (direct + O & P) =	$34,854

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	$0	Total =	$0
Engineering work and/or contract/bid preparation:	4.25	Total =	$1,481
Reclamation management and/or administration:	6.20		$2,161
CONTINGENCY:	0.00	Total =	$0
		TOTAL INDIRECT COST =	$8,482
		TOTAL BOND AMOUNT (direct + indirect) =	**$38,496**

BULLDOZER WORK

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

Site: **Sharp Pit #2** Permit Action: 2024 Inspection Permit/Job#: M2013023

PROJECT IDENTIFICATION

Task #: 001 State: Colorado Abbreviation: None
Date: 8/1/2024 County: Bent Filename: 023-001
User: LDS

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:

		Utilization %
Ownership Cost/Hour:	$90.24	NA
Operating Cost/Hour:	$78.95	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $207.78
Total Fleet Cost/Hour: **$207.78**

MATERIAL QUANTITIES

Initial Volume: 694
Swell factor: 1.250
Loose volume: **868** LCY

Source of estimated volume: 10' H x 750' L, 1H:1V to 3H:1V slope
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: 3,800 feet

Material weight: 2,650 lbs/LCY

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

Job Condition Correction Factor		Source
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: $0.299/LCY

Total job time: **1.25** Hours
Total job cost: **$260**

SCRAPER TEAM WORK

Task description: **Replace 6" topsoil on 7 acres**

Site: **Sharp Pit #2** Permit Action: 2024 Inspection Permit/Job#: M2013023

PROJECT IDENTIFICATION

Task #: 002 State: Colorado Abbreviation: None
Date: 8/1/2024 County: Bent Filename: 023-002
User: LDS

Agency or organization name: DRMS

HOURLY EQUIPMENT

COSTShift basis: 1 per day

	Equipment Description
-Scraper:	Cat 631G
-Dozer:	NA
Support Equipment -Load Area:	Cat D7R DS Series II LGP
-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	50	NA	100	50
Ownership cost/hour:	$442.19	NA	$90.24	NA	$129.81	$11.65
Operating cost/hour:	$252.89	NA	$39.48	NA	$89.13	$11.23
%Utilization-ripper:	NA	NA	NA	NA	50	NA
Ripper own. cost/hour:	NA	NA	$0.00	NA	$5.75	$0.00
Ripper op. cost/hour:	NA	NA	$0.00	NA	$2.09	$0.00
Operator cost/hour:	$30.90	NA	$38.59	NA	$27.76	$0.00
Unit Subtotals:	$725.98	NA	$168.30	NA	$254.54	$22.88
Number of Units:	1	0	1	0	1	1
Group Subtotals:	Work:	$725.98	Support:	$168.30	Maint:	$277.42

Total work team cost/hour: **$1,171.70**

MATERIAL QUANTITIES

Initial volume: 5,647 CCY Swell factor: 1.215
Loose volume: **6,861** LCY

Source of estimated volume: 7 acres disturbed x 6" depth replacement
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Scraper Bowl (volume) Basis:

Material weight: 1,600 lbs/LCY
Material description: Top Soil
Rated Payload: 81,600 pounds
Payload Capacity: 51.00 LCY

Struck Volume: 24.00 LCY
Heaped Volume: 34.00 LCY
Average Volume: 29.00 LCY
Adjusted Capacity: **29.00** LCY

Cycle Time:

Scraper Loading Time: 0.80 Minutes
Maneuver and Spread Time: 0.70 Minutes

Job Condition Correction: Site Altitude: 3800 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: 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	300.00	2.50	3.00	5.50	1069	0.32

Haul Time: **0.32** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	300.00	-2.50	3.00	0.50	2937	0.26

Return Time: **0.26** minutes

Total Scraper team cycle time: **2.08** minutes
Adjusted for job conditions: 694.33 LCY/Hour
Selected Number of Scrapers: 1 Scraper(s)
Adjusted single scraper team (unit) hourly production: 694.33 LCY/Hour
Adjusted multiple scraper team (fleet) hourly production: **694.33** LCY/Hour

Unadjusted unit production/hour: 836.54 LCY/Hour
Optimal Number of Scrapers per push dozer:

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **9.88** Hours

Unit cost: $1.688 /LCY Total job cost: **$11,578**

REVEGETATION WORK

Task description: **Revegetate 7 acres**

Site: **Sharp Pit #2** Permit Action: 2024 Inspection Permit/Job#: M2013023

PROJECT IDENTIFICATION

Task #: 003 State: Colorado Abbreviation: None
Date: 8/1/2024 County: Bent Filename: 023-003
User: LDS

Agency or organization name: DRMS

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
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Lovington	0.30	4.90	$8.33
Indian Ricegrass - Paloma	0.40	1.29	$8.21
Little Bluestem - Native	0.70	4.18	$10.77
Sideoats Grama - Vaughn	1.10	3.61	$27.05
Western Wheatgrass - Native	2.00	5.05	$18.01
Totals Seed Mix	4.50	19.03	**$72.37**

Application

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

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	$492.78	$985.56
Total Mulch Materials Cost/Acre				**$985.56**

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	$85.37
Total Mulch Application Cost/Acre	**$85.37**

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres: 7
Estimated Failure Rate: 30%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $1,497.55
Cost /Acre*: $309.01

Initial Job Cost: **$10,482.85**
Reseeding Job Cost: **$648.92**
Total Job Cost: **$11,132**
Job Hours: **7.00**

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: **Mobilization/Demobilization**

Site: **Sharp Pit #2** Permit Action: 2024 Inspection Permit/Job#: M2013023

PROJECT IDENTIFICATION

Task #: 004 State: Colorado Abbreviation: None
Date: 8/1/2024 County: Bent Filename: 023-004
User: LDS

Agency or organization name: DRMS

EQUIPMENT TRANSPORT RIG COST

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

Truck Tractor Description: GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED, 400 HP (2ND HALF, 2006)

Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT TRAILER (25T, 50T, AND 100T)

Cost Breakdown:

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

NON ROADABLE EQUIPMENT:

Machine Description	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 Permit Cost/ fleet
Cat D7R DS Series II LGP	34.57	$90.24	$122.78	1	$213.02	$122.78	$250.00
Cat 631G	52.50	$442.19	$125.64	1	$567.83	$125.64	$250.00
CAT 14M	23.57	$135.56	$59.44	1	$195.00	$59.44	$250.00
Drill/Broadcast Seeder with Tractor	25.00	$41.02	$59.44	1	$100.46	$59.44	$250.00
Subtotals:					**$1,076.31**	**$367.30**	**$1,000.00**

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.	$34.10	1	$34.10	$34.10
Subtotals:			**$34.10**	**$34.10**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	LAMAR	
Total one-way travel distance:	12.50	miles
Average Travel Speed:	50.00	mph
Total Non-Roadable Mob/Demob Cost * '* two round trips with haul rig:	$7,027.05	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	$17.05	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.25	0.25
Return Time (Hours):	0.25	0.25
Loading Time (Hours):	1.00	NA
Unloading Time (Hours):	1.00	NA
Subtotals:	2.50	0.50

JOB TIME AND COST

Total job time:	**5.00**	Hours
Total job cost:	**$7,044**	