




**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.

<b>MINE NAME:</b> Lascar Pit	<b>MINE/PROSPECTING ID#:</b> M-2023-005	<b>MINERAL:</b> Aggregate	<b>COUNTY:</b> Huerfano
<b>INSPECTION TYPE:</b> Monitoring	<b>WEATHER:</b> Clear	<b>INSP. DATE:</b> September 4, 2024	<b>INSP. TIME:</b> 10:30
<b>OPERATOR:</b> Siete, Inc.	<b>OPERATOR REPRESENTATIVE:</b> Jodi Schreiber and Mike L.	<b>TYPE OF OPERATION:</b> 111 - Construction by Government Agency	

<b>REASON FOR INSPECTION:</b> Normal I&E Program	<b>BOND CALCULATION TYPE:</b> Complete Bond	<b>BOND AMOUNT:</b> \$96,976.00
<b>DATE OF COMPLAINT:</b> NA	<b>POST INSP. CONTACTS:</b> None	<b>JOINT INSP. AGENCY:</b> None
<b>INSPECTOR(S):</b> Amber M. Gibson	<b>INSPECTOR'S SIGNATURE:</b> 	<b>SIGNATURE DATE:</b> September 30, 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:** Signs & Markers

**PROBLEM:** A mine identification sign that complies with Section 3.1.12(1) of the Rule was not posted at the entrance of the mine site. This is a problem for failure to post a mine identification sign as required by Section 3.1.12(1) of the rule. The Operator shall, at the entrance of the mine site post a sign, which shall be clearly visible from the access road, with a minimum size equaling one hundred and eighty-seven (187) square inches, such as eleven (11) inches in height and seventeen (17) inches in width, with appropriate font size, with the following: the name of the Operator, a statement that a reclamation permit for the operation has been issued by the Colorado Mined Land Reclamation Board; and the permit number.

**CORRECTIVE ACTIONS:** The Operator shall, at the entrance of the mine site, post a sign which shall be clearly visible from the access road with the following: the name of the operator, a statement that a reclamation permit for the operation has been issued by the Colorado Mined Land Reclamation Board; and the permit number. The operator shall submit photo documentation that a proper sign has been posted by the corrective action date.

**CORRECTIVE ACTION DUE DATE:** 10/30/24

## OBSERVATIONS

The Lascar Pit was inspected by Amber Gibson with the Division of Reclamation, Mining, and Safety (Division/DRMS). The inspection was conducted as a routine monitoring inspection. The site was previously inspected by the Division on March 28, 2023 as part of a pre-operation inspection. The Permittee/Operator for this operation is Siete, Inc. Jodi Schreiber (of PFM Consulting LLC) and Mike L. accompanied me during the inspection and represented the Operator. The weather was warm and the skies were clear.

The Lascar pit is located approximately 13 miles north of Walsenburg, Colorado, is about one mile west of Exit 64 on Interstate 25 South, and is located north of County Road 650. This site is a 111 Special Operation that is permitted to disturb up to 30 acres. The primary commodity produced at this operation is aggregate material for construction. The product is used for both the Colorado Project No. FBR 025A-045 and Federal Highway Administration Project 6982AF23C000001. Affected lands will be reclaimed to support rangeland as the post-mining land use.

### Availability Of Records:

The annual report, map, and fee are paid through May 2, 2025. There are no outstanding infractions.

### Acid and Toxic Materials:

Fuel storage onsite is contained within a double-walled fuel tank, in compliance with approved mining plan.

### Financial Warranty:

The Division currently holds a reclamation bond in the amount of \$96,976.00 for this site. The Division has estimated the reclamation liability at the site (to factor in current reclamation costs) and estimated the reclamation liability to be \$109,614 -- a difference of \$12,638 from the bond currently held. The Division's cost estimate is enclosed with this report. **The Operator will have 14 days** (until October 14, 2024), from the issuance of this report to submit any questions on the cost estimate. If no questions are received, the Division may issue a surety increase notice for the difference. The Operator will have 60 days from the date of the notice to submit and obtain acceptance of the increase in financial warranty from the Division in accordance with Rule 4.2.1(2).

### Hydrologic Balance and Sediment Control:

The Operators have built permitter berms to act as stormwater berms around the excavation/processing area and additional perimeter berms along the permit boundary. Along the south and southeastern sides of the excavation/processing area, the Operators have installed a series of straw wattles to aid in sediment control and to prevent runoff from leaving the site (Photo 1). No standing water was observed during the inspection, nor was there any evidence of off-site impacts due to run-off.

### Gen. Compliance With Mine Plan:

Mining operations at this site began this year between late spring and early summer. The Operator stated that they had finished excavating for the season and will continue to haul product following the inspection. The site was active on the day of the inspection. The Operator explained that as material was excavated and stockpiled, the operators would enter the cite from the southern road, move clockwise around and within the excavated area, load product, weigh the product on the truck scale located near the southwest side of the excavation/processing area, and leave the site (see Figure 1). Excavation is currently limited to the southwestern portion of the main permit area, currently encompassing approximately 5.7 acres (see Map 1 at the end of this report; see Photos 1-7 & 10). Product is stockpiled within the southern portion of the site. The mining activities conducted onsite appear to be in compliance with the approved mining plan.

Reclamation Success:

Reclamation has not yet begun at this site.

Roads:

An access road was constructed to lead from to the site from the north side of County Road 650 (see Map 1). The road has t-post boundary markers lining both sides (Photo 8) and appears to be in the orientation depicted on the approved permit boundary map.

Signs and Markers:

A sign was posted to the east of the entrance to the access road, along the fence (Photo 9). The sign that is posted does not contain all of the information required by Rule 3.1.12(1), such as the site name and permit number. Additionally, it is not clearly visible from the road, as required by Rule 3.1.12(1). **This has been cited as a problem above.** The Operator shall post a new sign that includes all the information required by Rule 3.1.12(1) and that is clearly visible from the road by the corrective action date.

The Division observed white-topped green t-posts serving as permit boundary markers throughout the site. Many (not all) of the marker locations' coordinates were collected using the Esri Field Maps application (see green dots on Map 1). In addition to the boundary markers, many areas along the permit boundary also had a small permitter berm within the boundary to aid in ensuring that disturbance does not go offsite (as seen in Photos 5, 7, and 10). The boundary markers appear to agree with the approved mining plan map and are posted in compliance with Rule 3.1.12(2).

Topsoil:

Topsoil was striped prior to excavation and is stored to the east of the currently excavated area -- out of the way of ongoing mining operations, in compliance with Rule 3.1.9(3) (see Map 1 at the end of this report). Additionally, topsoil has been segregated into two piles (Photo 11). The northern pile is composed of originally salvaged topsoil material. The southern pile is composed of topsoil/overburden material sifted from product and stored for later use during reclamation. The Operators have ensured that the original topsoil material is segregated from other spoil/materials, pursuant to 3.1.9(1).

Conclusion:

This concludes the Division's Inspection Report; a figure and map displaying topics discussed in the report, and a subset of corresponding photographs that were taken during the time of the inspection, are included below. If you need additional information or have any questions, please contact me by email at [amber.gibson@state.co.us](mailto:amber.gibson@state.co.us) or by telephone at (720) 836-0967.

Inspection Contact Address

Jodi Schreiber and Mike L.  
Siete, Inc.  
P.O. Box 202  
Rye, CO 81069

*Enclosure: Updated Reclamation Cost Estimate 2024*

Ec: Jared Ebert, DRMS

### GENERAL INSPECTION TOPICS

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

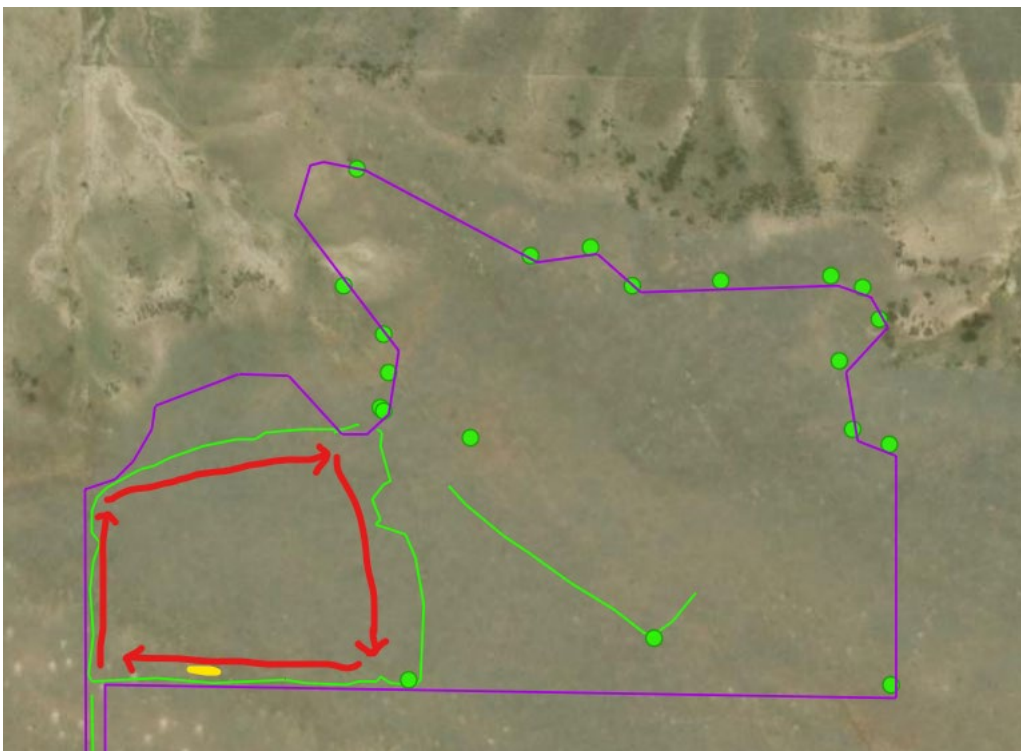
(AR) RECORDS----- <u>Y</u>	(FN) FINANCIAL WARRANTY----- <u>Y</u>	(RD) ROADS----- <u>Y</u>
(HB) HYDROLOGIC BALANCE----- <u>Y</u>	(BG) BACKFILL & GRADING----- <u>Y</u>	(EX) EXPLOSIVES----- <u>N</u>
(PW) PROCESSING WASTE/TAILING---- <u>N</u>	(SF) PROCESSING FACILITIES----- <u>N</u>	(TS) TOPSOIL----- <u>Y</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>PB</u>	(SP) STORM WATER MGT PLAN---- <u>N</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>Y</u>	(OD) OFF-SITE DAMAGE----- <u>N</u>	

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

## PHOTOGRAPHS



**Photo 1:** Looking west at the straw wattles being used for sediment control along the south and southeastern boundary of the excavation and processing area.



**Figure 1:** Close up from the Inspection Map (Map 1 below) of the main site area. The red arrows indicate the general direction of mining during the past season as described by the Operator in the field. The yellow dash indicates the approximate location of the truck scale seen in Photo 4 below.





**Photo 2:** Looking west within the pit.



**Photo 3:** Looking south at the pit. Pictured are some product stockpiles and equipment observed onsite during the inspection.





**Photo 4:** Looking west from within the pit at the truck scale onsite.



**Photo 5:** Looking north from the excavation area to the northwestern corner of the permit boundary.





**Photo 6:** Looking east along the northern permit boundary.



**Photo 7:** Looking southwest at the excavation area.





**Photo 8:** Standing at the entrance to the pit, looking northwest at the access road.



**Photo 9:** Looking down at the currently posted permit sign, located to the east of the entrance location of the access road.



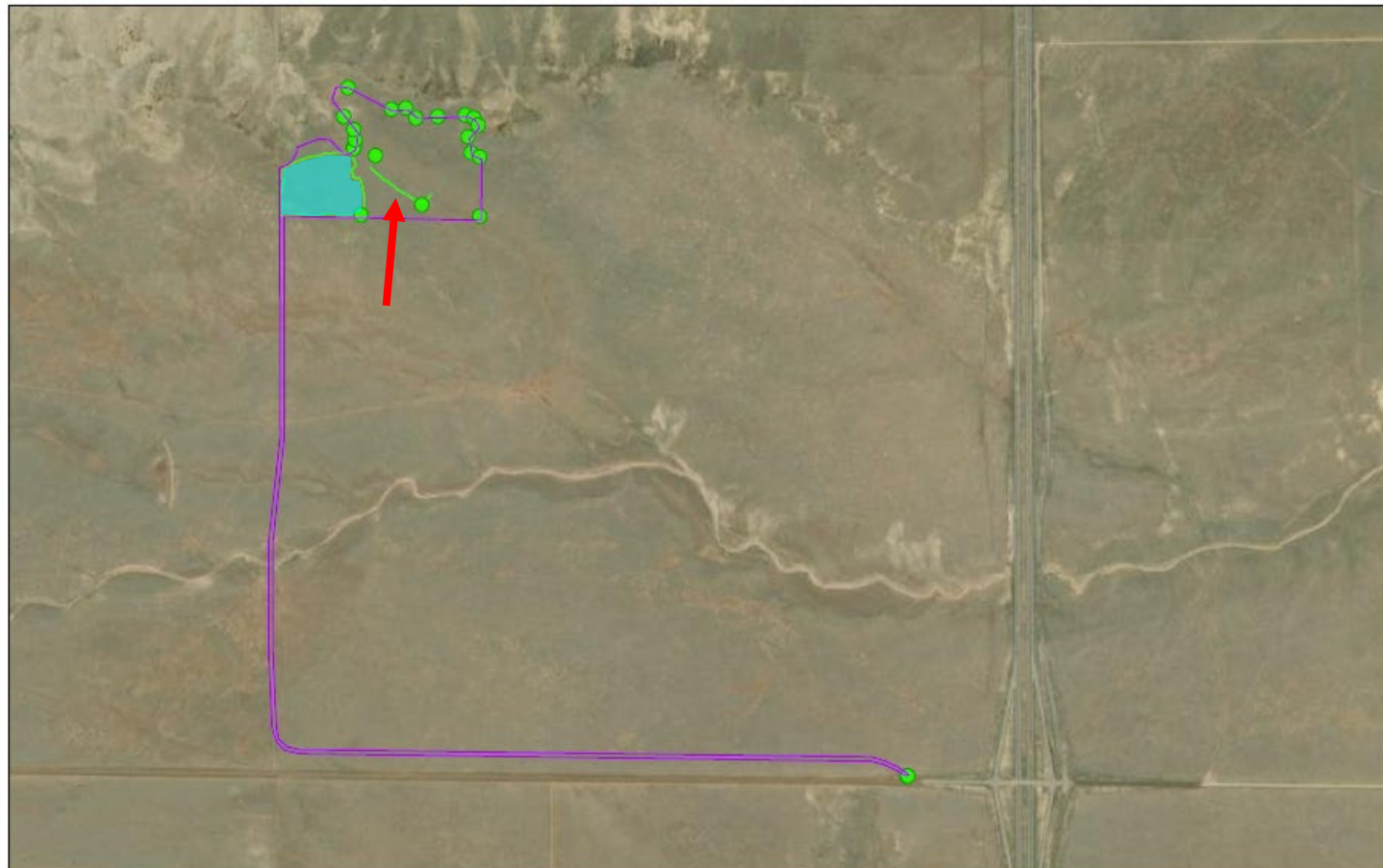


**Photo 10:** Looking northwest along the southeastern-most corner.

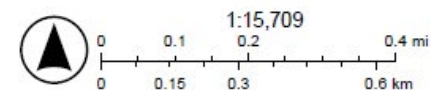


**Photo 11:** Topsoil stockpiles. The southern pile (left) is composed of additional topsoil/growth media material that had been sifted from excavated product. The northern pile (right) is composed of initially salvaged topsoil material.

## Lascar Pit M-2023-005 2024 Inspection Map



Map created on: 9/27/2024  
Map created by: AMG



**Map 1:** Inspection map generated (using ArcGIS Online) from data collected in the field (using Field Maps) during the inspection. The blue highlighted area indicates the excavation, product stockpile storage, and processing area. The red arrow points to the green inspection line indicating the measured southern border of the southern topsoil pile.



## COST SUMMARY WORK

Task description: Reclamation Cost Estimate, Lascar Pit, 2024 Update

Site: Lascar Pit

Permit Action: 2024 inspection

Permit/Job#: M2023005

### PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 9/27/2024

County: Huerfano

Filename: M005-000

User: AMG

Agency or organization name: DRMS

### TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Pit highwall reduction and regrading	DOZER	1	2.29	\$737
002	Ripping access road	RIPPER	1	4.17	\$1,437
003	Spread topsoil in main permit area	SCRAPER1	1	14.29	\$16,590
004	Spread topsoil over access road	SCRAPER1	1	2.53	\$3,547
005	Revegetation	REVEGE	1	30.00	\$55,650
006	Mob/Demob	MOBILIZE	1	4.34	\$8,350
<b><u>SUBTOTALS:</u></b>				<b>57.62</b>	<b>\$86,311</b>

### INDIRECT COSTS

#### OVERHEAD AND PROFIT:

Liability insurance: 2.02  
Performance bond: 1.05  
Job superintendent: 28.81  
Profit: 10.00

Total = \$1,743

Total = \$906

Total = \$2,284

Total = \$8,631

TOTAL O & P = \$13,565

CONTRACT AMOUNT (direct + O & P) = \$99,876

#### LEGAL - ENGINEERING - PROJECT MANAGEMENT:

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

Total = \$500

Engineering work and/or contract/bid preparation: 4.25

Total = \$4,245

Reclamation management and/or administration: 5.00

\$4,994

CONTINGENCY: 0.00

Total = \$0

TOTAL INDIRECT COST = \$23,303

**TOTAL BOND AMOUNT (direct + indirect) = \$109,614**

**BULLDOZER WORK**Task description: **Pit highwall reduction and regrading**Site: **Lascar Pit** Permit Action: 2024 inspection Permit/Job#: M2023005**PROJECT IDENTIFICATION**

Task #: 001 State: Colorado Abbreviation: None  
 Date: 9/27/2024 County: Huerfano Filename: M005-001  
 User: AMG

Agency or organization name: DRMS**HOURLY EQUIPMENT COST**

Basic Machine: Cat D8T - 8SU  
 Horsepower: 310  
 Blade Type: Semi-Universal  
 Attachment: NA  
 Shift Basis: 1 per day  
 Data Source: (CRG)

**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$173.32</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$109.71</u>	<u>100</u>
Ripper own. Cost/Hour:	<u>\$0.00</u>	<u>NA</u>
Ripper op. Cost/Hour:	<u>\$0.00</u>	<u>0</u>
Operator Cost/Hour:	<u>\$38.59</u>	<u>NA</u>

Total unit Cost/Hour: \$321.62  
 Total Fleet Cost/Hour: **\$321.62**

**MATERIAL QUANTITIES**

Initial Volume: 2,734  
 Swell factor: 1.230  
 Loose volume: **3,363 LCY**

Source of estimated volume: Highwall calc, depth of excavation, max. highwall 700ft  
 Source of estimated swell factor: Cat Handbook

**HOURLY PRODUCTION**

Average push distance: 50 feet  
 Unadjusted hourly production: 1,400.0 LCY/hr

Materials consistency description: Dry, non-cohesive 0.8

Average push gradient: -30 %  
 Average site altitude: 6,093 feet

Material weight: 2,100 lbs/LCYWeight description: Earth - Loam**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	<u>0.750</u>	<u>(AVG.)</u>
Material consistency:	<u>0.800</u>	<u>(CAT HB)</u>
Dozing method:	<u>1.200</u>	<u>(SLOT)</u>
Visibility:	<u>1.000</u>	<u>(AVG.)</u>

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.095	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.0476

Adjusted unit production: 1,466.64 LCY/hr

Adjusted fleet production: **1466.64** LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)

Unit cost: \$0.219/LCY

Total job time: **2.29** Hours

Total job cost: **\$737**



## BULLDOZER RIPPING WORK

Task description: Ripping access road

Site: Lascar Pit Permit Action: 2024 inspection Permit/Job#: M2023005

### PROJECT IDENTIFICATION

Task #: 002 State: Colorado Abbreviation: None  
Date: 9/27/2024 County: Huerfano Filename: M005-002  
User: AMG

Agency or organization name: DRMS

### HOURLY EQUIPMENT COST

Basic Machine: Cat D8T - 8SU Horsepower: 310  
Ripper Attachment: 3-Shank Ripper Shift Basis: 1 per day  
Data Source: (CRG)

#### Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	<u>\$173.32</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$109.71</u>	<u>100</u>
Ripper Ownership Cost/Hour:	<u>\$14.53</u>	<u>NA</u>
Ripper Operating Cost/Hour:	<u>\$7.95</u>	<u>100</u>
Operator Cost/Hour:	<u>\$38.59</u>	<u>NA</u>
Total Unit Cost/Hour:	<u>\$344.10</u>	
Total Fleet Cost/Hour:	<u><b>\$344.10</b></u>	

### MATERIAL QUANTITIES

Selected estimating method: Area

#### Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA  
Area: 2.91 acres Rip Depth (ft): 1.50 Volume: 7,042 BCY or CCY

Source of estimated quantity: Road dimensions 30' and road length 4,224'

### HOURLY PRODUCTION

#### Seismic:

Seismic Velocity: NA feet/second

#### Area:

Average Ripping Depth: 1.50 feet/pass  
Average Ripping Width: 7.08 feet/pass  
Average Ripping Length: 999.99 feet/pass  
Average Dozer Speed: 88.00 feet/minute  
Average Maneuver Time: 0.25 minutes/pass  
Production per unit area: 0.840 acres/hour

#### Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.840 Acres/hr  
Site Altitude: 6,093 feet  
Altitude Adj: 1.00 (CAT HB)  
Job Efficiency: 0.83 (1 shift/day)  
Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.70 Acres/hr  
Adjusted Hourly Fleet Production: **0.70** Acres/hr

### JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: **4.18** Hours

Unit cost: \$493.717 Per acre Total job cost: **\$1,437**

**SCRAPER TEAM WORK**Task description: Spread topsoil in main permit areaSite: Lascar PitPermit Action: 2024 inspectionPermit/Job#: M2023005**PROJECT IDENTIFICATION**Task #: 003State: ColoradoAbbreviation: NoneDate: 9/27/2024County: HuerfanoFilename: M005-003User: AMGAgency 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 12M
-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	25	25
Ownership cost/hour:	\$217.39	NA	NA	NA	\$69.16	\$11.65
Operating cost/hour:	\$257.76	NA	NA	NA	\$13.69	\$5.61
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	NA	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	NA	NA	NA	\$0.00	\$0.00
Operator cost/hour:	\$30.90	NA	NA	NA	\$27.76	\$21.12
Unit Subtotals:	\$506.05	NA	NA	NA	\$110.61	\$38.39
Number of Units:	2	0	0	0	1	1
Group Subtotals:	Work: \$1,012.10		Support: \$0.00		Maint: \$149.00	

Total work team cost/hour: \$1,161.10**MATERIAL QUANTITIES**Initial volume: 14,422

CCY

Swell factor: 1.000Loose volume: 14,422

LCY

Source of estimated volume: Main permit acreage minus access road, 4" topsoilSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Scraper Bowl (volume) Basis:

Material weight:	<u>2,100 lbs/LCY</u>	Struck Volume:	<u>15.70</u>	LCY
Material description:	<u>Earth - Loam</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>25.14 LCY</u>	Adjusted Capacity:	<u>18.85</u>	LCY

Cycle Time:Scraper Loading Time: 0.70 MinutesManeuver and Spread Time: 0.60 MinutesJob Condition Correction:

Site Altitude: 6093 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 3.0Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	400.00	-3.00	3.00	0.00	2921	0.27

Haul Time: 0.27 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	400.00	3.00	3.00	6.00	2736	0.29

Return Time: 0.29 minutesTotal Scraper team cycle time: 1.86 minutesAdjusted for job conditions: 504.69 LCY/HourSelected Number of Scrapers: 2 Scraper(s)Adjusted single scraper team (unit) hourly production: 1,009.39 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 1,009.39 LCY/HourUnadjusted unit production/hour: 608.06 LCY/Hour

Optimal Number of Scrapers per push dozer: \_\_\_\_\_

**JOB TIME AND COST**Fleet size: 1 Team(s)Total job time: 14.29 HoursUnit cost: \$1.150 /LCYTotal job cost: \$16,590



**SCRAPER TEAM WORK**Task description: **Spread topsoil over access road**Site: **Lascar Pit**Permit Action: 2024 inspectionPermit/Job#: M2023005**PROJECT IDENTIFICATION**Task #: 004State: ColoradoAbbreviation: NoneDate: 9/27/2024County: HuerfanoFilename: 4User: AMGAgency 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:	Cat D8T - 8SU
Road Maintenance -Motor Grader:	CAT 12M
-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	25	25	25
Ownership cost/hour:	\$217.39	NA	NA	\$173.32	\$69.16	\$11.65
Operating cost/hour:	\$257.76	NA	NA	\$27.43	\$13.69	\$5.61
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	NA	\$0.00	\$0.00	\$0.00
Ripper op. cost/hour:	NA	NA	NA	\$0.00	\$0.00	\$0.00
Operator cost/hour:	\$30.90	NA	NA	\$38.59	\$27.76	\$21.12
Unit Subtotals:	\$506.05	NA	NA	\$239.33	\$110.61	\$38.39
Number of Units:	2	0	0	1	1	1
Group Subtotals:	Work: \$1,012.10		Support: \$239.33		Maint: \$149.00	

Total work team cost/hour: **\$1,400.43****MATERIAL QUANTITIES**Initial volume: 1,549

CCY

Swell factor: 1.000Loose volume: **1,549**

LCY

Source of estimated volume: 2.91 acre access road, 4" topsoilSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION****Scraper Bowl (volume) Basis:**

Material weight: 2,100 lbs/LCY  
 Material description: Earth - Loam  
 Rated Payload: 52,800 pounds  
 Payload Capacity: 25.14 LCY

Struck Volume: 15.70 LCY  
 Heaped Volume: 22.00 LCY  
 Average Volume: 18.85 LCY  
 Adjusted Capacity: **18.85** LCY

Cycle Time:Scraper Loading Time: 0.70 MinutesManeuver and Spread Time: 0.60 MinutesJob Condition Correction:

Site Altitude: 6093 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 3.0Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2112.00	-1.20	3.00	1.80	2868	0.90

Haul Time: 0.90 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2112.00	1.20	3.00	4.20	2849	0.87

Return Time: 0.87 minutesTotal Scraper team cycle time: 3.07 minutesAdjusted for job conditions: 305.78 LCY/HourSelected Number of Scrapers: 2 Scraper(s)Adjusted single scraper team (unit) hourly production: 611.55 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 611.55 LCY/HourUnadjusted unit production/hour: 368.40 LCY/Hour

Optimal Number of Scrapers per push dozer: \_\_\_\_\_

**JOB TIME AND COST**Fleet size: 1 Team(s)Total job time: 2.53 HoursUnit cost: \$2.290 /LCYTotal job cost: \$3,547

**REVEGETATION WORK**Task description: **Revegetation**Site: **Lascar Pit**Permit Action: 2024 inspectionPermit/Job#: M2023005**PROJECT IDENTIFICATION**Task #: 005State: ColoradoAbbreviation: NoneDate: 9/27/2024County: HuerfanoFilename: 5User: AMGAgency or organization name: DRMS**SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Native	1.20	19.59	\$25.59
Sand Dropseed	0.10	11.94	\$1.30
Galleta	1.60	5.84	\$88.70
Western Wheatgrass - Arriba	16.00	40.40	\$144.54
Winter Fat	0.10	0.25	\$4.67
<b>Totals Seed Mix</b>	19.00	78.02	<b>\$264.80</b>

**Application**

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

**MULCHING and MISCELLANEOUS****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Hay, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$492.78	\$985.56
<b>Total Mulch Materials Cost/Acre</b>				<b>\$985.56</b>

**Application**

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$85.37
Power mulcher (MEANS 32 91 13.16 0350)	\$157.25
<b>Total Mulch Application Cost/Acre</b>	<b>\$242.63</b>

**JOB TIME AND COST**

No. of Acres:	<u>30</u>	Cost /Acre:	<u>\$1,729.63</u>
Estimated Failure Rate:	<u>25%</u>	Cost /Acre*:	<u>\$501.44</u>
*Selected Replanting Work Items:	<u>SEEDING</u>		
Initial Job Cost:	<u><b>\$51,888.90</b></u>		
Reseeding Job Cost:	<u><b>\$3,760.80</b></u>		
Total Job Cost:	<u><b>\$55,650</b></u>		
Job Hours:	<u><b>30.00</b></u>		



**EQUIPMENT MOBILIZATION/DEMOBILIZATION**Task description: **Mob/Demob**Site: **Lascar Pit**Permit Action: 2024 inspectionPermit/Job#: M2023005**PROJECT IDENTIFICATION**Task #: 006State: ColoradoAbbreviation: NoneDate: 9/27/2024County: HuerfanoFilename: 6User: AMGAgency or organization name: DRMS**EQUIPMENT TRANSPORT RIG COST**Shift basis: 1 per dayCost Data Source: CRG DataTruck 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:**

<b>Available Rig Capacities</b>	<b>0-25 Tons</b>	<b>26-50 Tons</b>	<b>51+ Tons</b>
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 D8T - 8SU	53.08	\$187.85	\$125.64	1	\$313.49	\$125.64	\$250.00
Cat 627G	41.80	\$217.39	\$122.78	2	\$680.34	\$245.56	\$500.00
Drill/Broadcast Seeder with Tractor	25.00	\$41.02	\$59.44	1	\$100.46	\$59.44	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$41.02	\$59.44	1	\$100.46	\$59.44	\$250.00
Power Mulcher (Bowie LD-90)	6.00	\$27.21	\$59.44	1	\$86.65	\$59.44	\$250.00

Subtotals: **\$1,281.40** **\$549.52** **\$1,500.00****ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 3/4 T.	\$97.64	1	\$97.64	\$97.64
Water Tanker, 2,500 Gal.	\$55.22	1	\$55.22	\$55.22
Fuel Tanker, 4x2, 170 HP	\$55.22	1	\$55.22	\$55.22
Lube Truck, 4x2, 190 HP	\$62.53	1	\$62.53	\$62.53

Subtotals: 

<b>\$270.61</b>	<b>\$270.61</b>
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**EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region: WALSENBURG  
 Total one-way travel distance: 13.00 miles  
 Average Travel Speed: 55.00 mph

Total Non-Roadable Mob/Demob Cost \* \$8,222.29  
 '\* two round trips with haul rig:  
 Total Roadable Mob/Demob Cost \*\* \$127.92  
 \*\* one round trip, no haul rig:

**Transportation Cycle Time:**

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.24	0.24
Return Time (Hours):	0.24	0.24
Loading Time (Hours):	0.85	NA
Unloading Time (Hours):	0.85	NA
Subtotals:	2.17	0.47

**JOB TIME AND COST**

Total job time: 4.35 Hours

Total job cost: \$8,350