




**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> Lopez Quarry No. 2	<b>MINE/PROSPECTING ID#:</b> M-2007-034	<b>MINERAL:</b> Sand and gravel	<b>COUNTY:</b> Las Animas
<b>INSPECTION TYPE:</b> Surety-Related Inspection	<b>WEATHER:</b> Clear	<b>INSP. DATE:</b> March 26, 2024	<b>INSP. TIME:</b> 11:00
<b>OPERATOR:</b> S & S Services	<b>OPERATOR REPRESENTATIVE:</b> Lonny Lopez	<b>TYPE OF OPERATION:</b> 110c - Construction Limited Impact	
<b>REASON FOR INSPECTION:</b> Surety Related	<b>BOND CALCULATION TYPE:</b> Complete Bond	<b>BOND AMOUNT:</b> \$24,832.00	
<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> April 3, 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:** The affected area boundary markers are missing or incorrectly placed. This is a problem for failure to maintain boundary markers around the affected area as required by Section 3.1.12(2) of the Rule.

**CORRECTIVE ACTIONS:** The Operator shall send the Division coordinates and photos of markers installed to delineate the permit boundary (excluding the northern 'stockpile' area portion) to the satisfaction of the Division by the corrective action date.

**CORRECTIVE ACTION DUE DATE:** 5/03/24

## **OBSERVATIONS**

The Lopez Quarry No. 2 was inspected by Amber Gibson with the Division of Reclamation, Mining and Safety (Division/DRMS). The inspection was conducted as part of a surety release (SR1) inspection to re-evaluate the reclamation cost estimate calculated after the Division's November 29, 2023 routine monitoring inspection. Since the previous inspection, the Division had issued a surety increase (SI2) to increase the financial warranty. The Operator has since conducted a significant amount of reclamation, and requested that the required surety be re-evaluated. Lonny Lopez, representing the Operator (S & S Services), accompanied me during the inspection. The ground was muddy and the weather was cool and clear at the time of the inspection.

This site is an active, 9.80 acre, 110c permit held by S & S Services. This site is located approximately 5 miles east of Weston, CO. The main mining commodities at the site are sand and gravel. The pre-mining land use was rangeland, and the post-mining land use is both rural residential and rangeland.

### **Availability of Records:**

The annual report, map, and fee are paid through September 7, 2024. The Division issued a Surety Increase (SI2) on January 2, 2024. In response, a Surety Reduction request (SR1) was submitted by the Operator and was received by the Division on March 4, 2024. See the Financial Warranty section below for details pertaining to SI2 and SR1. There is an outstanding problem citation from the November 29, 2024 inspection that has been modified as a result of the recent inspection (see Signs & Markers section below).

### **Backfilling and Grading:**

During the Division's November 29, 2023 inspection, a problem was cited for excess erosion. Erosion gullies and rills had formed throughout much of the area in the western portion of the site. Since that inspection, the Operator has performed a significant amount of reclamation throughout the site (Photos 1-6). Not only have the slopes been stabilized, but the highwalls have also been backfilled and graded (except for a small section seen in Photos 5 & 6 and on Figure 1). In addition to backfilling and grading, the Operator has also spread topsoil and seeded the majority of the site. The area that has not yet been topsoiled is the small section of highwall remaining. The area above the highwall, where equipment and product is currently stored, is approved to be reclaimed to a rural residential post-mining land use, and is to be overlain by two inches of soil once all mining has ceased (per the approved mining and reclamation plans).

Additional overburden material is available on-site to be used as backfill in the future (Photos 5, 7, & 8). During the inspection, broken concrete slabs were noted within the piles containing material to be crushed (Photo 5). The Operator stated that they will crush that material when they crush again, or use it for backfill. The Division reminds the Operator that per their currently approved plan, they are not approved to import inert fill. If any imported materials are to be used as fill, they must be approved as inert fill via a Technical Revision. If the Operator crushes the concrete material and incorporates it within the product, a revision will not be required.

### **Financial Warranty:**

The Division currently holds a reclamation bond in the amount of \$24,832 for this site. Following the November 2023 inspection, the Division estimated the reclamation liability at the site based on what was currently disturbed to be \$34,227-- a difference of \$9,395 from the bond currently held. The Division issued an SI2 on January 2, 2024. The Operator submitted an SR1 on March 4, 2024. After the March 26, 2024

inspection, the Division re-estimated the reclamation liability at the site to account for the recent reclamation conducted by the Operator, and found the new liability to be \$24,618—a reduction of \$214 from the bond currently held. Therefore, the bond amount currently held by the Division is adequate at this time. The Division's current cost estimate is enclosed within this report. In response to the re-evaluated liability estimate, the Division will not pursue the SI2 increase and will approve SR1.

#### Hydrologic Balance and Sediment Control:

The Operator has re-stabilized the slopes throughout the disturbed area to repair erosion that occurred as a result of surface water run-off throughout the pit. To prevent run-off from leaving the site, earthen berms are located along the southern perimeter of the disturbance (Photo 9). The Operator has also installed water bars along the re-stabilized slopes in the north-west portion of the permit to help direct and slow surface water flow over the slopes (Photo 1).

#### Gen. Compliance with Mine Plan:

The Operator stated that they intend to keep operating out of the pit for at least the next few years. The active mining area has been greatly reduced, and now is contained within approximately 2 acres near the east-central portion of the permitted area. As stated during the previous inspection, the Operator does not intend to mine any further north, with no intentions to mine within the northern-most area originally described as a stockpile area (see Figure 1).

#### Roads:

The road that begins north of Highway 12, and extends along the north side of the pit portion of the permit is approved to remain post-reclamation.

#### Right of Entry:

The Operator is the landowner, and thus maintains legal right of entry to the site.

#### Reclamation Success and Revegetation:

The Operator has conducted the initial backfilling, grading, topsoiling, and revegetation on the majority of the site. Because seeding had recently been conducted, no vegetation has yet established. The Operator stated that if the vegetation becomes established while they're still operating in the reduced area, they may or may not seek a partial release at that time.

#### Signs and Markers:

A permit sign, posted in compliance with Rule 3.1.12(1) was observed at the entrance to the site (Photo 13).

The Operator and the Division agree that there are many discrepancies in the spatial orientation of features on the approved map in comparison with what is on the ground. Most specifically, the area that was to be designated as a stockpile area in the northern most portion of the permit was to be located to the east of the bend in the access road (see Figure 1 and Figure 2). However, to maintain a similar shape and orientation of the approved map, and in agreement with the approved 9.8 acres, this area actually would have to be located on top of a hill to the north of the main mining area, beyond the creek bed (see Photo 14 and Figure 1).

A **problem has been re-cited** for failure to maintain markers around the affected boundary pursuant to Rule 3.1.12(2). However, because the mining area has been greatly reduced, and much of the area has been reclaimed, the Division will not require new maps at this time. The Operator shall instead send the Division

coordinates and photos of markers placed along the permit boundary (excluding the northern 'stockpile' area) by the corrective action date. The Division and the Operator walked the northern-most disturbance (blue line on Figure 1) and the Division collected coordinates for the markers currently onsite (flag icons on Figure 1). The Division will follow this inspection report with written correspondence to indicate the coordinates collected by the Division during the inspection.

As a reminder, if the Operator later intends to affect new areas in support of the mining operation, a land survey will be required and at minimum, a Technical Revision will be required to update mining and reclamation plans and maps.

Topsoil:

During the Division's November 29, 2023 inspection, a topsoil stockpile was observed running east to west near the south-east corner of the pit boundary. The majority of the stockpile appeared to be stable. The Operator had stated that they seeded the topsoil stockpile in 2020 along the south side. During the inspection, it was noted that on the south-west portion of the pile, on the north facing side, some erosion rills had formed. A problem was cited requiring the Operator to repair the rills, stabilize, and seed this portion of the topsoil pile.

On February 22, 2024, the Operator sent the Division photos indicating that this issue had been resolved. During the recent March 26, 2024 inspection, the topsoil pile was again observed. The area that had had erosion features forming has since been stabilized and seeded (Photo 15), as implicated in the Operator's submission.

Conclusion:

This concludes the Division's Inspection Report; two figures 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

Lonny Lopez  
S & S Services  
20999 State Highway 12  
Weston, CO 81091

*Enclosure: 2024 Reclamation Cost Estimate Conducted as Part of SR1*

CC: 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>N</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>Y</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>N</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 north-east across recently reclaimed slopes that had erosion gullies present during the Division's 2023 inspection. The arrows point to the water bars installed to help slow and direct surface water flow on the slopes.



**Photo 2:** Looking at the north-east corner of the disturbed area that has been recently reclaimed.





**Photo 3:** Looking south along the western fence at recent reclamation.



**Photo 4:** Looking east from the western and north-western most extent of the disturbance onsite at the recent reclamation.





**Photo 5:** Looking north-east at the remaining section of highwall. The red arrow points to a pile of material that may still be crushed. The yellow arrows points to overburden that can be used for backfilling and grading.



**Photo 6:** Looking east at the western portion of the highwall that runs north to south.





**Photo 7:** Looking west across excess fill material.



**Photo 8:** Looking east across excess fill material.





**Photo 9:** Looking south at the recent reclamation along the south border. The arrows point to earthen berms used to keep run-off from leaving the site.



**Photo 10:** Looking south-east across the pit. Circled is the sloped topsoil pile.





**Photo 11:** Looking east at a product stockpile and equipment in the laydown area.



**Photo 12:** Looking east at another smaller product pile, grizzly screener, red water tank, and loader.





**Photo 13:** Looking north-west at the mine sign posted at the entrance to the site.

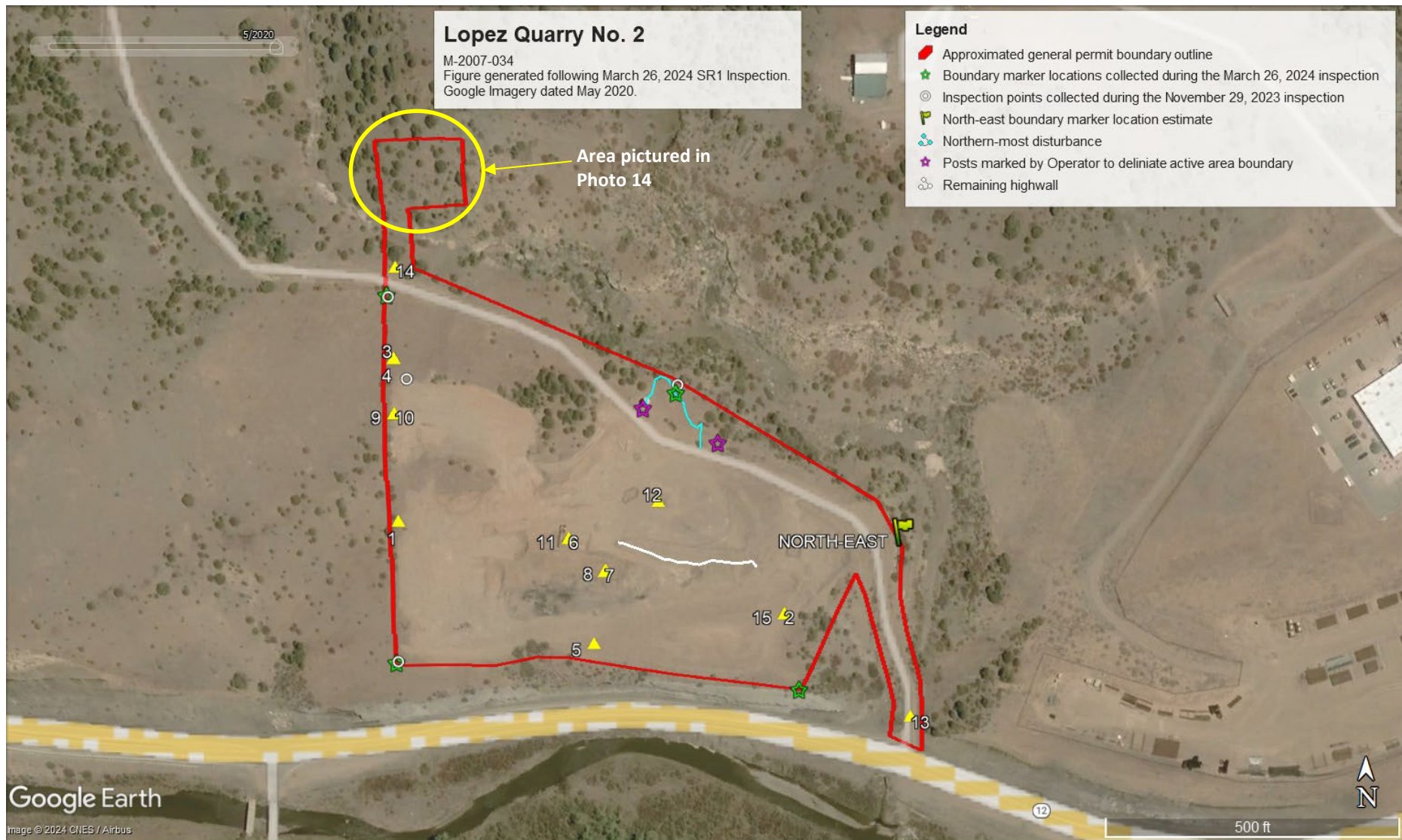


**Photo 14:** Looking north-west at the hill beyond the creek bed (see Figure 1).



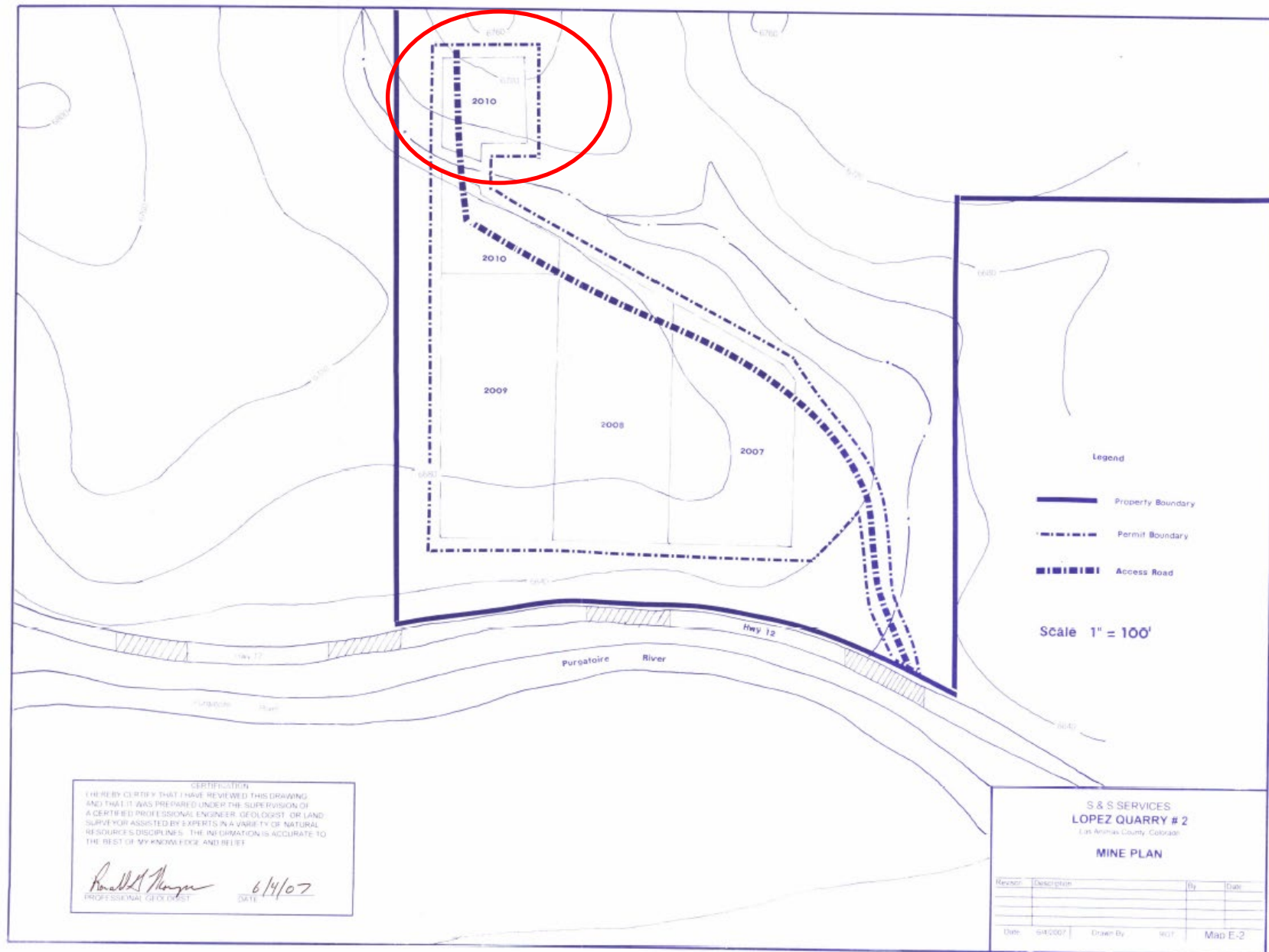


**Photo 15:** Looking west across the topsoil stockpile. The area that had been cited for erosion and that required seeding has been graded and seeded (in the foreground).



**Figure 1:** Figure generated in Google Earth Pro following the Division's November 29, 2023 and March 26, 2024 inspections. The Division collected coordinates and paths using Esri Field Maps during the inspection. The white circle icons indicate specific inspection points collected during the November 2023 inspection. The blue line indicates the northern-most disturbance boundary, walked by the Division and Operator during the 2024 inspection. The boundary marker collected in this area during the 2023 inspection (see photo 12.4 in the 2023 report) appears to more accurately represent the northern permit boundary, compared with the temporary flag observed during the 2024 inspection (green star in the north central portion of the permit in the figure). The north-east marker was not observed during the inspection, but the Division proposes that one be placed in the approximate location shown above (yellow flag).





**Figure 2:** Approved mining plan map with a red circle added to indicate the northern portion mentioned in the mining plan that was proposed to possible serve as a topsoil stockpile location. Notice how the map appears to suggest that this area is directly north of the bend in the access road, in an area with a gradual slope.

## COST SUMMARY WORK

Task description: Reclamation Cost Estimate for the Lopez Quarry No. 2: SR1

Site: Lopez Quarry No. 2 Permit Action: 2024 SR1 Inspection Permit/Job#: M2007034

### PROJECT IDENTIFICATION

Task #: 000 State: Colorado Abbreviation: None  
Date: 4/1/2024 County: Las Animas Filename: M034-000  
User: AMG

Agency or organization name: DRMS

### TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Cut slopes to 3:1	DOZER	1	0.25	\$109
002	Apply 6 inches of topsoil over 0.5 acres	DOZER	1	1.48	\$654
003	Apply 2 inches of topsoil over 1.5 acres	DOZER	1	1.42	\$627
004	Re-vegetate 7.5 acres	REVEGE	1	7.50	\$12,828
005	Mobilization and demobilization of equipment	MOBILIZE	1	4.24	\$4,878
<b><u>SUBTOTALS:</u></b>				<b>14.89</b>	<b>\$19,096</b>

### INDIRECT COSTS

#### OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	\$386
Performance bond:	1.05	Total =	\$201
Job superintendent:	7.45	Total =	\$485
Profit:	10.00	Total =	\$1,910

TOTAL O & P = \$2,980

CONTRACT AMOUNT (direct + O & P) = \$22,076

#### LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	<u>\$500</u>	Total =	<u>\$500</u>
Engineering work and/or contract/bid preparation:	<u>4.25</u>	Total =	<u>\$938</u>
Reclamation management and/or administration:	<u>5.00</u>		<u>\$1,104</u>

CONTINGENCY: 0.00 Total = \$0

TOTAL INDIRECT COST = \$5,522

**TOTAL BOND AMOUNT (direct + indirect) = \$24,618**

**BULLDOZER WORK**Task description: **Cut slopes to 3:1**Site: **Lopez Quarry No. 2**Permit Action: **2024 SR1 Inspection**Permit/Job#: **M2007034****PROJECT IDENTIFICATION**Task #: **001**  
Date: **4/1/2024**  
User: **AMG**State: **Colorado**  
County: **Las Animas**Abbreviation: **None**  
Filename: **M034-001**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D8T - 8SU**  
Horsepower: **310**  
Blade Type: **Semi-Universal**  
Attachment: **3-shank ripper**  
Shift Basis: **1 per day**  
Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$241.38	NA
Operating Cost/Hour:	\$143.92	100
Ripper own. Cost/Hour:	\$14.11	NA
Ripper op. Cost/Hour:	\$3.73	50
Operator Cost/Hour:	\$41.30	NA
Total unit Cost/Hour:	\$444.44	
Total Fleet Cost/Hour:	<b>\$444.44</b>	

**MATERIAL QUANTITIES**Initial Volume: **191**  
Swell factor: **1.266**  
Loose volume: **242 LCY**Source of estimated volume: **Avg 9' x 242' (remaining HWs)**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: **Compacted fill or embankment 0.9**Average push  
gradient: **-10 %**  
Average site altitude: **6,630 feet**Material weight: **2,700 lbs/LCY**Weight description: **Sand and clay - Loose****Job Condition Correction Factor**Operator Skill: **0.750**Source  
(AVG.)



Material consistency:	0.900	(CAT HB))
Dozing method:	1.200	(SLOT)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.852	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.7017

Adjusted unit production: 982.38 LCY/hr

Adjusted fleet production: **982.38** LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)

Unit cost: \$0.452/LCY

Total job time: **0.25** Hours

Total job cost: **\$109**

**BULLDOZER WORK**Task description: Apply 6 inches of topsoil over 0.5 acresSite: Lopez Quarry No. 2Permit Action: 2024 SR1 InspectionPermit/Job#: M2007034**PROJECT IDENTIFICATION**Task #: 002State: ColoradoAbbreviation: NoneDate: 4/1/2024County: Las AnimasFilename: 2User: AMGAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D8T - 8SUHorsepower: 310Blade Type: Semi-UniversalAttachment: 3-shank ripperShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$241.38	NA
Operating Cost/Hour:	\$143.92	100
Ripper own.		
Cost/Hour:	\$14.11	NA
Ripper op. Cost/Hour:	\$1.12	15
Operator Cost/Hour:	\$41.30	NA
Total unit Cost/Hour:	\$441.83	
Total Fleet Cost/Hour:	<b>\$441.83</b>	

**MATERIAL QUANTITIES**Initial Volume: 404Swell factor: 1.215Loose volume: 491 LCYSource of estimated volume: 6" over 6 acres of mined areaSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 250 feetUnadjusted hourly production: 377.8 LCY/hrMaterials consistency description: Consolidated stockpile 1.0Average push gradient: -10 %Average site altitude: 6,630 feetMaterial weight: 1,600 lbs/LCYWeight description: Top Soil**Job Condition Correction Factor**Operator Skill: 0.750Source  
(AVG.)

Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.8773

Adjusted unit  
production: 331.44 LCY/hr  
Adjusted fleet  
production: **331.44** LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)  
Unit cost: \$1.333/LCY

Total job time: **1.48** Hours  
Total job cost: **\$654**

**BULLDOZER WORK**Task description: Apply 2 inches of topsoil over 1.5 acresSite: Lopez Quarry No. 2Permit Action: 2024 SR1 InspectionPermit/Job#: M2007034**PROJECT IDENTIFICATION**Task #: 003State: ColoradoAbbreviation: NoneDate: 4/1/2024County: Las AnimasFilename: 3User: AMGAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D8T - 8SUHorsepower: 310Blade Type: Semi-UniversalAttachment: 3-shank ripperShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$241.38	NA
Operating Cost/Hour:	\$143.92	100
Ripper own. Cost/Hour:	\$14.11	NA
Ripper op. Cost/Hour:	\$1.12	15
Operator Cost/Hour:	\$41.30	NA
Total unit Cost/Hour:	\$441.83	
Total Fleet Cost/Hour:	<b>\$441.83</b>	

**MATERIAL QUANTITIES**Initial Volume: 387Swell factor: 1.215Loose volume: **470 LCY**Source of estimated volume: 2" over 1.5 acres of laydown areaSource of estimated swell  
factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 250 feetUnadjusted hourly  
production: 377.8 LCY/hrMaterials consistency description: Consolidated stockpile 1.0Average push  
gradient: -10 %Average site altitude: 6,630 feetMaterial weight: 1,600 lbs/LCYWeight description: Top Soil**Job Condition Correction Factor**Operator Skill: 0.750Source  
(AVG.)



Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.8773

Adjusted unit  
production: 331.44 LCY/hr  
Adjusted fleet  
production: **331.44** LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)  
Unit cost: \$1.333/LCY

Total job time: **1.42** Hours  
Total job cost: **\$627**

REVEGETATION WORKTask description: Re-vegetate 7.5 acresSite: Lopez Quarry No. 2Permit Action: 2024 SR1 InspectionPermit/Job#: M2007034PROJECT IDENTIFICATIONTask #: 004State: ColoradoAbbreviation: NoneDate: 4/1/2024County: Las AnimasFilename: 4User: AMGAgency or organization name: DRMSFERTILIZING**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Superphosphate, 0-20-0 with 12% S	30.00	pound	\$0.69	\$20.70
			<b>Total Fertilizer Materials Cost/Acre</b>	<b>\$20.70</b>

**Application**

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	\$41.82
<b>Total Fertilizer Application Cost/Acre</b>	<b>\$41.82</b>

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$112.82
<b>Total Tilling Cost/Acre</b>	<b>\$112.82</b>

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Hachita	2.00	32.64	\$31.95
Little Bluestem - Native	1.00	5.97	\$13.57
Smooth Brome - Lincoln	7.50	24.97	\$24.94
Milk Vetch, Cicer - Lutana	1.00	3.33	\$8.20
Western Wheatgrass - Arriba	8.00	20.20	\$52.00
<b>Totals Seed Mix</b>	<b>19.50</b>	<b>87.11</b>	<b>\$130.65</b>

**Application**

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

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

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$429.79	\$859.57
<b>Total Mulch Materials Cost/Acre</b>				<b>\$859.57</b>

**Application**

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$74.46
Power mulcher (MEANS 32 91 13.16 0350)	\$147.67
<b>Total Mulch Application Cost/Acre</b>	<b>\$222.13</b>

**JOB TIME AND COST**

No. of Acres:	<u>7.5</u>	Cost /Acre:	<u>\$1,619.69</u>
Estimated Failure Rate:	<u>25%</u>	Cost /Acre*:	<u>\$362.65</u>
*Selected Replanting Work Items:	<u>SEEDING</u>		

Initial Job Cost:	<u><b>\$12,147.68</b></u>
Reseeding Job Cost:	<u><b>\$679.97</b></u>
Total Job Cost:	<u><b>\$12,828</b></u>
Job Hours:	<u><b>7.50</b></u>

**EQUIPMENT MOBILIZATION/DEMOBILIZATION**Task description: **Mobilization and demobilization of equipment**Site: **Lopez Quarry No. 2**Permit Action: **2024 SR1 Inspection**Permit/Job#: **M2007034****PROJECT IDENTIFICATION**

Task #: **005** State: **Colorado** Abbreviation: **None**  
 Date: **4/1/2024** County: **Las Animas** Filename: **5**  
 User: **AMG**

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:**

<b>Available Rig Capacities</b>	<b>0-25 Tons</b>	<b>26-50 Tons</b>	<b>51+ Tons</b>
Ownership Cost/Hour:	\$20.26	\$36.04	\$47.05
Operating Cost/Hour:	\$39.51	\$76.08	\$82.85
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$82.29	\$158.17	\$175.95

**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	\$255.49	\$175.95	1	\$431.44	\$175.95	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$6.73	\$82.29	2	\$178.04	\$164.58	\$500.00
Power Mulcher (Bowie LD-90)	6.00	\$25.94	\$82.29	1	\$108.23	\$82.29	\$250.00

Subtotals: **\$717.71** **\$422.82** **\$1,000.00**

**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.	\$88.63	1	\$88.63	\$88.63

Subtotals: **\$88.63** **\$88.63**



**EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region:	TRINIDAD	
Total one-way travel distance:	20.00	miles
Average Travel Speed:	50.00	mph

Total Non-Roadable Mob/Demob Cost *	\$4,807.18
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	\$70.90
** one round trip, no haul rig:	

**Transportation Cycle Time:**

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.40	0.40
Return Time (Hours):	0.40	0.40
Loading Time (Hours):	0.66	NA
Unloading Time (Hours):	0.66	NA
Subtotals:	2.12	0.80

**JOB TIME AND COST**

Total job time:	4.24	Hours
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Total job cost:	\$4,878
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