

STATE OF
COLORADO

Armstrong - DNR, Ursula <ursula.armstrong@state.co.us>

J-Rude Pit (M-1989-009) Inspection Report

1 message

Armstrong - DNR, Ursula <ursula.armstrong@state.co.us>

Fri, Oct 18, 2024 at 12:06 PM

To: jrudeinc@outlook.com

Cc: "Eschberger - DNR, Amy" <amy.eschberger@state.co.us>

Hi Rudy,

Attached is the inspection report from 9/24 inspection at the J-Rude Site (M-1989-009). There are also a few files enclosed with the report. I also set up a short call through Google Meet at 1:30pm today. You should be able to join that call with your phone. Amy and I will both be on the call.

If this time doesn't work for you, please let me know another time that works for you.

--

Ursula Armstrong
Environmental Protection Specialist
Active Mines Program



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

P: 720.793.3031

Physical Address: 1313 Sherman Street, Room 215, Denver, CO 80203

ursula.armstrong@state.co.us | <https://drms.colorado.gov>**M1989009_InspectionReport_9-24-2024.pdf**

1679K



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: J-Rude Site	MINE/PROSPECTING ID#: M-1989-009	MINERAL: Sand and clay (general)	COUNTY: Prowers
INSPECTION TYPE: Monitoring	WEATHER: Clear	INSP. DATE: September 24, 2024	INSP. TIME: 14:15
OPERATOR: J-Rude Inc	OPERATOR REPRESENTATIVE: Rudy Torres	TYPE OF OPERATION: 110c - Construction Limited Impact	

REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: Complete Bond	BOND AMOUNT: \$800.00
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None
INSPECTOR(S): Ursula Armstrong Amy Eschberger	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: October 18, 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 #1: A proper mine identification sign was not posted at the entrance of the mine site. This is a problem for failure to post a mine identification sign in accordance with Rule 3.1.12(1).

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 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, the operation name, 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: November 17, 2024

INSPECTION TOPIC: Signs & Markers

PROBLEM #2: 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 Rule 3.1.12(2).

CORRECTIVE ACTIONS: The operator shall conduct a survey and replace the boundary markers in the correct location(s). The operator shall provide proof to the Division that this has been done by the corrective action date. Such proof shall be in the form of photo documentation and GPS coordinates of the boundary markers.

CORRECTIVE ACTION DUE DATE: November 17, 2024

INSPECTION TOPIC: Gen. Compliance With Mine Plan

PROBLEM #3: The current mining plan map needs to be updated to meet all requirements of Rules 6.2.1(2) and 6.3.5 and depict the approved permit boundary

CORRECTIVE ACTIONS: The operator shall submit a Technical Revision, with the required \$216 revision fee, to update the current approved mining plan map in accordance with Rules 6.2.1(2) and 6.3.5 by the corrective action date.

CORRECTIVE ACTION DUE DATE: November 17, 2024

INSPECTION TOPIC: Reclamation Success

PROBLEM #4: Failure to follow approved reclamation plan or current reclamation plan needs to be updated and clarified pursuant to C.R.S. 34-32.5-116 and Rule 6.3.4. The operator must follow approved reclamation plan or provide sufficient information to describe or identify how the operator intends to conduct reclamation.

Specifically, the reclamation plan needs to be updated to clarify the intended post-mining land use(s) and reclamation for the site. Additionally, the reclamation plan map must be updated to meet the requirements of Rules 6.2.1(2) and 6.3.5 and depict the approved permit boundary.

CORRECTIVE ACTIONS: The operator shall submit a Technical Revision, with the required \$216 revision fee, to update and clarify the current approved reclamation plan in accordance with Rule 6.3.4 to reflect existing and proposed activities by the corrective action date. Additionally, the revision must include an updated reclamation plan map in accordance with Rule 6.2.1(2) and 6.3.5. (This corrective action can be addressed through the same Technical Revision submittal required by Problem #3.)

CORRECTIVE ACTION DUE DATE: November 17, 2024

INSPECTION TOPIC: Financial Warranty

PROBLEM #5: 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).

CORRECTIVE ACTIONS: The operator shall review the enclosed bond estimate and provide any comments by the corrective action deadline. If, by the corrective action deadline, no comments have been received, the Division will send a separate surety increase notice to the operator regarding the increase of the financial warranty. The operator will have 60 days from the date on the surety increase notice to post the additional financial warranty.

CORRECTIVE ACTION DUE DATE: November 1, 2024

OBSERVATIONS

This was a normal monitoring inspection of the J-Rude Site (Permit No. M-1989-009) conducted by Ursula Armstrong and Amy Eschberger of the Division of Reclamation, Mining and Safety (Division). The operator was represented by Mr. Rudy Torres during the inspection. The site is located approximately ½ mile south of Lamar, CO in Prowers County. Access to this site is from the north off Co Rd Ff. The affected lands are owned by the operator. The site is situated in an area of sagebrush-covered sand hills. **Photos 1-6** taken during the inspection are included with this report.

This is a 110c operation permitted for 4 acres to mine blow sand and clay to be used for fill material off site. The permit area had consisted of two separate 4-acre blocks, one located in the northwestern corner of the property, and the other located in the southeastern corner of the property. However, the Division approved an Acreage Reduction request (AR-1) in 2015 which released the southeastern 4 acres, leaving only the northwestern 4 acres in the permit area. The operation is mining the sand hills, leveling them to approximately the same grade as the surrounding lands. The approved post-mining land use for the site is industrial/commercial. However, the reclamation plan does not specify how the site will be prepared for industrial/commercial use. The approved reclamation plan includes grading disturbed slopes to 3H:1V or flatter, mixing manure into the soil to create a growth medium, and revegetating the site with a grass seed mixture consisting of Sideoats grama, Switchgrass, and Sand bluestem.

At the time of the inspection, the weather was clear, warm, and dry. A permit sign was posted at the entrance to the site off Co Rd Ff. The permit sign has the name of the operator, the operation name, and the permit number. However, it does not include a statement that a reclamation permit for the operation has been issued by the Colorado Mined Land Reclamation Board, as required by Rule 3.1.12(1). A problem is cited for this issue; see Problem #1 in this report for the required corrective actions.

The four corners of the 4-acre permit boundary were marked with PVC pipes. The Division was unable to collect GPS data from all boundary markers due to the dense vegetation and high rattlesnake activity in the area. The Division did collect GPS coordinates for the southwestern corner marker. However, this location appears to be approximately 100 feet east and 100 feet south of where the Division believes the southwestern corner should be located based on approved maps. After the inspection, the operator sent the Division GPS coordinates for what they indicated was the southeastern permit boundary corner. However, this point plots closer to the southwestern corner marker, and it does not correlate with the location of the southeastern corner marker observed during the inspection. A Google Earth image of the site that depicts the information described above is enclosed with this report. The boundaries of the affected area must be marked by monuments or other markers that are clearly visible and adequate to delineate such boundaries, per Rule 3.1.12(2). While the operator has placed markers to delineate the corners of the permit boundary, it appears that some or all of the markers are not in the correct location. A problem is cited for this issue; see Problem #2 in this report for the required corrective actions.

The site was not active during the inspection. However, additional disturbances have been created at the site since the Division last inspected it on September 12, 2019. The horseshoe-shaped pit has been expanded to the south. The pit wall is approximately 300 feet in length and 10 feet in height, with near vertical slope gradients. No product stockpiles or mining equipment were present on site. The pit area is mostly bare in vegetative cover, with some sparse weed growth consisting primarily of Russian thistle and wild sunflowers. There are a few brush piles stored in the western portion of the permit area, near the access road. The operator explained to the Division these brush piles help discourage the public from illegally dumping trash in the pit. The operator is not approved to use this material for reclamation of the mine. After conducting the 2019 inspection, the Division

estimated the unreclaimed disturbance at the site to cover 0.2 acre. After conducting the recent inspection, the Division estimates current disturbance to cover approximately 1.5 acres.

After AR-1 was approved in 2015 reducing the permit area to 4 acres (see enclosed AR-1 map showing area released), a Technical Revision was never submitted to update the mining and reclamation plan maps to reflect the new permit boundary. A review of the permit file indicates the most recently approved maps for the site were submitted with the original permit application approved in 1989 (see enclosed site map approved with original application). The operator will need to submit a Technical Revision (see enclosed form) to provide updated mining and reclamation plan maps that meet the requirements of Rules 6.2.1(2) and 6.3.5 (for a 110c permit) and reflect the current 4-acre permit boundary. A problem is cited for this issue; see Problems #3 and #4 in this report for the required corrective actions.

In its May 13, 2015 inspection report, the Division noted a discrepancy between the approved post-mining land use for the site, which is industrial/commercial, and the site reclamation plan, which correlates more with a rangeland use. The permit is not clear what industrial/commercial uses are intended for the site and whether the area is even zoned for these uses. In its 2015 inspection report, the Division determined that adding the post-mining land use of rangeland to this permit could be achieved through a Technical Revision submittal (rather than an Amendment), as this change would not have a significant effect upon the approved or proposed mining plan or reclamation plan. The Division will continue to honor this determination, unless the details of the proposal were to change significantly. Therefore, the discrepancy between the approved post-mining land use (industrial/commercial) and reclamation plan (rangeland) can be addressed by submitting a Technical Revision to update the reclamation plan and map to clarify the intended post-mining land use(s) and reclamation for the site. A problem is cited for this issue; see Problem #4 in this report for the required corrective actions. (The operator can address these corrective actions through the same Technical Revision submittal required for Problem #3.)

After conducting the inspection, the Division recalculated the required financial warranty for reclaiming the 1.5 acres of current disturbance at the site in accordance with the approved reclamation plan (see enclosed bond estimate). The Division estimates the required financial warranty to be in the amount of \$12,288.00, which is \$11,488.00 more than the currently held amount of \$800.00. A problem is cited for this issue; please see Problem #4 in this report for the required corrective actions. The operator will have a chance to review the Division's bond estimate and provide any comments prior to a Surety Increase being issued for the site. Once the Surety Increase is issued, the operator will have 60 days to submit the additional required financial warranty.

During the inspection, the operator inquired about transferring the mine permit to a new operator and increasing the permit area to more than 10 acres. The Division informed the operator that to transfer the permit, the operator will need to submit a Request for Transfer of Mineral Permit and Succession of Operators application (\$144.00 fee). The Division also informed the operator that to expand the permit area to 10 acres or more, a Conversion application (\$2,696.00 fee) will need to be submitted to convert the 110c permit to a 112c permit. These forms can be downloaded from the Division's website at <https://drms.colorado.gov/forms/minerals-program-forms>.

This concludes the report.

Any questions or comments regarding this inspection report should be forwarded to Ursula Armstrong at the Colorado Division of Reclamation, Mining and Safety, 1313 Sherman Street, Room 215, Denver, CO 80203, via telephone at 720-793-3031, or via email at ursula.armstrong@state.co.us.

PHOTOGRAPHS



Photo 1. View looking west showing the posted mine identification sign.



Photo 2. View looking west at the southwestern PVC permit boundary marker.



Photo 3. View looking southeast across recent disturbance near center of permit area. Note this area is mostly bare in vegetative cover and includes pit walls in a horseshoe-shaped pattern.



Photo 4. Above view of the recent disturbance area shown in Photo 3 (looking north).



Photo 5. View looking west at the western section of the pit highwall. Note the brush piles in the western area (circled).



Photo 6. View looking northeast at the eastern section of the pit highwall.

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>PB</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>N</u>
(MP) GENL MINE PLAN COMPLIANCE-	<u>PB</u>	(FW) FISH & WILDLIFE-----	<u>N</u>	(RV) REVEGETATION---	<u>N</u>
(SM) SIGNS AND MARKERS-----	<u>2PB</u>	(SP) STORM WATER MGT PLAN---	<u>Y</u>	(RS) RECL PLAN/COMP--	<u>PB</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

Inspection Contact Address

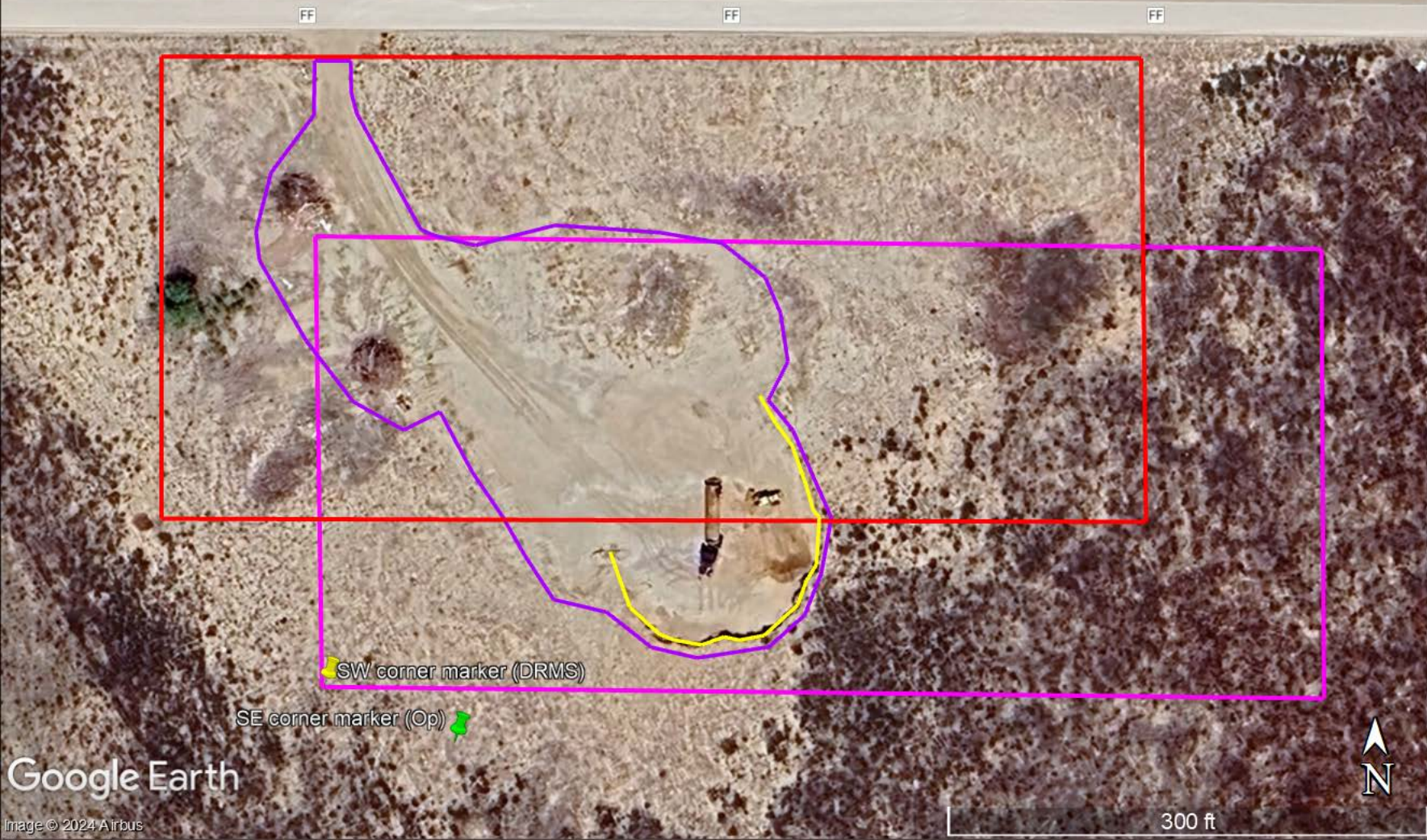
Rudy Torres
J-Rude Inc
1750 Rd. HH
Lamar, CO 81052

Encl(s): Google Earth image of site
AR-1 map showing area released in 2015
Site map submitted with original application in 1989
Technical revision form
Division's bond estimate

CC: Amy Eschberger, DRMS

M-1989-009 / J-Rude Site / J-Rude Inc. (Image data from 5/8/2023)

Purple Outline = 1.5 acres = Estimated disturbance (as of 9/24/2024 inspection)
Yellow Line = 300 feet = Estimated highwall length (as of 9/24/2024 inspection)
Yellow Thumbtack = Location of SW corner boundary marker (GPS data collected by DRMS)
Green Thumbtack = Location of SE corner boundary marker (GPS data provided by Operator)
Red Outline = Approximate location of 4 acre permit area based on approved maps
Pink Outline = Approximate location of 4 acre permit area based on SW corner boundary marker



RECEIVED

APR 15 2015

DIVISION OF RECREATION
AND SAFETY

Walker Land

J-Rude Pit
Permit # M-1989-009

West

Post

Post

NW 4 Acres

Post

Post

← 624' →

← 277.33' →

Entrance

Entrance

Post New Boundary Line Post

New Boundary Line

Eastern
11
Acres

Partial Release
area

Post

Post

East

South

Walker Land

County Rd. 170

North

County Road

(N)

4 Acres

20' Cut Hill x

County Road Level Needed
For Building Site

4 Acres

15' Hill x 600 ft Long

Extraction
direction
North
In vertical well.
To level grade

5' Hill x 30' across

J. Kude Inc

10' Hill x 30' across

Desired Level
Extraction South East

30' High Hill
200' x 300'

Access Road To
Mining Area

Dewitt's

WALKERS

0028 1373



EBBE'S PLUMBING SERVICE

8 FOREST • LAMAR, COLORADO 81052 • 719/338-5871



COLORADO DIVISION OF RECLAMATION, MINING AND SAFETY

1313 Sherman Street, Room 215, Denver, Colorado 80203 ph(303) 866-3567

REQUEST FOR TECHNICAL REVISION (TR) COVER SHEET

File No.: M- _____ Site Name: _____

County _____ TR# _____ (DRMS Use only)

Permittee: _____

Operator (If Other than Permittee): _____

Permittee Representative: _____

Please provide a brief description of the proposed revision: _____

As defined by the Minerals Rules, a Technical Revision (TR) is: “a change in the permit or application which does not have more than a minor effect upon the approved or proposed Reclamation or Environmental Protection Plan.” The Division is charged with determining if the revision as submitted meets this definition. If the Division determines that the proposed revision is beyond the scope of a TR, the Division may require the submittal of a permit amendment to make the required or desired changes to the permit.

The request for a TR is not considered “filed for review” until the appropriate fee is received by the Division (as listed below by permit type). Please submit the appropriate fee with your request to expedite the review process. After the TR is submitted with the appropriate fee, the Division will determine if it is approvable within 30 days. If the Division requires additional information to approve a TR, you will be notified of specific deficiencies that will need to be addressed. If at the end of the 30 day review period there are still outstanding deficiencies, the Division must deny the TR unless the permittee requests additional time, in writing, to provide the required information.

There is no pre-defined format for the submittal of a TR; however, it is up to the permittee to provide sufficient information to the Division to approve the TR request, including updated mining and reclamation plan maps that accurately depict the changes proposed in the requested TR.

Required Fees for Technical Revision by Permit Type - Please mark the correct fee and submit it with your request for a Technical Revision.

<u>Permit Type</u>	<u>Required TR Fee</u>	<u>Submitted</u> (mark only one)
110c, 111, 112 construction materials, and 112 quarries	\$216	☐
112 hard rock (not DMO)	\$175	☐
110d, 112d(1, 2 or 3)	\$1006	☐

COST SUMMARY WORK

Task description: Cost Summary

Site: J-Rude Site

Permit Action: 9-24-2024 Inspection

Permit/Job#: M1989009

PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 10/17/2024

County: Prowers

Filename: M009-000

User: UEA

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Backfill highwall to 3H:1V	DOZER	1	1.43	\$298
002	Rip compacted areas	RIPPER	1	2.54	\$566
003	Spread growth medium on 1.5 acre	DOZER	1	5.06	\$1,051
004	Revegetate 1.5 acre	REVEGE	1	0.75	\$5,310
005	Mobilization/Demobilization	MOBILIZE	1	2.08	\$1,902
<u>SUBTOTALS:</u>				11.86	\$9,127

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02

Total = \$184

Performance bond: 1.05

Total = \$96

Job superintendent: 5.93

Total = \$470

Profit: 10.00

Total = \$913

TOTAL O & P = \$1,663

CONTRACT AMOUNT (direct + O & P) = \$10,790

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

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

Total = \$500

Engineering work and/or contract/bid preparation: 4.25

Total = \$459

Reclamation management and/or administration: 5.00

\$539

CONTINGENCY: 0.00

Total = \$0

TOTAL INDIRECT COST = \$3,161

TOTAL BOND AMOUNT (direct + indirect) = \$12,288

BULLDOZER WORKTask description: **Backfill highwall to 3H:1V**Site: **J-Rude Site**Permit Action: **9-24-2024 Inspection**Permit/Job#: **M1989009****PROJECT IDENTIFICATION**Task #: **001**State: **Colorado**Abbreviation: **None**Date: **10/17/2024**County: **Prowers**Filename: **M009-001**User: **UEA**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:	\$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: **417**Swell factor: **1.180**Loose volume: **492 LCY**Source of estimated volume: **9/24/2024 inspection, 10 ft H, 300 ft L**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: **-10 %**Average site altitude: **3,700 feet**Material weight: **4,050 lbs/LCY**Weight description: **Sand and clay - Compacted****Job Condition Correction Factor**Operator Skill: **0.750****Source****(AVG.)**

Material consistency:	0.900	(CAT HB))
Dozing method:	1.100	(50% SL)
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:	0.568	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4288

Adjusted unit
production: 343.04 LCY/hr

Adjusted fleet
production: **343.04** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.606/LCY

Total job time: **1.43** Hours

Total job cost: **\$298**

BULLDOZER RIPPING WORK

Task description: Rip compacted areas

Site: J-Rude Site

Permit Action: 9-24-2024 Inspection

Permit/Job#: M1989009

PROJECT IDENTIFICATION

Task #: 002

State: Colorado

Abbreviation: None

Date: 10/17/2024

County: Prowers

Filename: M009-002

User: UEA

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D7R DS Series II LGP

Horsepower: 240

Ripper Attachment: 3-Shank Ripper

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$90.24	NA
Operating Cost/Hour:	\$78.95	100
Ripper Ownership Cost/Hour:	\$9.25	NA
Ripper Operating Cost/Hour:	\$5.20	100
Operator Cost/Hour:	\$38.59	NA
Total Unit Cost/Hour:	\$222.23	
Total Fleet Cost/Hour:	\$222.23	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA

Bank Volume: NA

BCY NA

Area: 1.50 acres

Rip Depth (ft): 2.00

Volume: 4,840

BCY or CCY

Source of estimated quantity: 9-24-2024 inspection, 1.5 ac pit floor and road

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	<u>2.45</u>	feet/pass
Average Ripping Width:	<u>6.50</u>	feet/pass
Average Ripping Length:	<u>200.00</u>	feet/pass
Average Dozer Speed:	<u>88.00</u>	feet/minute
Average Maneuver Time:	<u>0.25</u>	minutes/pass
Production per unit area:	<u>0.710</u>	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.710 Acres/hr

Site Altitude: 3,700 feet

Altitude Adj: 1.00 (CAT HB)

Job Efficiency: 0.83 (1 shift/day)

Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.59 Acres/hr

Adjusted Hourly Fleet Production: 0.59 Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 2.55 Hours

Unit cost: \$377.214 Per acre Total job cost: \$566

BULLDOZER WORKTask description: Spread growth medium on 1.5 acreSite: J-Rude SitePermit Action: 9-24-2024 InspectionPermit/Job#: M1989009**PROJECT IDENTIFICATION**Task #: 003State: ColoradoAbbreviation: NoneDate: 10/17/2024County: ProwersFilename: M009-003User: UEAAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D7R DS Series II LGPHorsepower: 240Blade Type: StraightAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$90.24</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$78.95</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:	<u>\$207.78</u>	
Total Fleet Cost/Hour:	<u>\$207.78</u>	

MATERIAL QUANTITIESInitial Volume: 1,210Swell factor: 1.000Loose volume: 1,210 LCYSource of estimated volume: 9/24/2024 inspection, 1.5 ac x 6 in depth growth medSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 200 feetUnadjusted hourly production: 289.3 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: 0 %Average site altitude: 3,700 feetMaterial weight: 1,600 lbs/LCYWeight description: Top SoilJob Condition Correction FactorOperator Skill: 0.750Source
(AVG.)

Material consistency:	1.200	(CAT HB)
Dozing method:	1.100	(50% SL)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.700	(FND-MF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.8271

Adjusted unit production: 239.28 LCY/hr

Adjusted fleet production: **239.28** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.868/LCY

Total job time: **5.06** Hours

Total job cost: **\$1,051**

REVEGETATION WORKTask description: Revegetate 1.5 acreSite: J-Rude SitePermit Action: 9-24-2024 InspectionPermit/Job#: M1989009**PROJECT IDENTIFICATION**Task #: 004State: ColoradoAbbreviation: NoneDate: 10/17/2024County: ProwersFilename: M009-004User: UEAAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Composted manure DRMS Survey	20.00	pound	\$0.43	\$8.56
			Total Fertilizer Materials Cost/Acre	\$8.56

Application

Description	Cost /Acre
Manure, push spreader (MEANS 32 91 13.23 4400)	\$774.40
Total Fertilizer Application Cost/Acre	\$774.40

TILLING

Description	Cost /Acre
	\$
Total Tilling Cost/Acre	\$0.00

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Switchgrass - Blackwell	2.60	23.22	\$34.37
Sideoats Grama - Butte	5.40	17.73	\$130.44
Sand Bluestem - Woodward	6.40	16.60	\$146.68
Totals Seed Mix	14.40	57.55	\$311.49

Application

Description	Cost /Acre
Broadcast seeding [DMG]	\$272.56

Total Seed Application Cost/Acre	\$272.56
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MULCHING and MISCELLANEOUS**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost / Acre
Straw, delivered {MEANS 31 25 14.16 1200}	4.00	TON	\$492.78	\$1,971.12
Total Mulch Materials Cost/Acre				\$1,971.12

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:	1.5	Cost /Acre:	\$3,423.50
Estimated Failure Rate:	20%	Cost /Acre*:	\$584.05
*Selected Replanting Work Items:	SEEDING		

Initial Job Cost:	\$5,135.25
Reseeding Job Cost:	\$175.22
Total Job Cost:	\$5,310
Job Hours:	0.75

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Mobilization/Demobilization**Site: **J-Rude Site**Permit Action: **9-24-2024 Inspection**Permit/Job#: **M1989009****PROJECT IDENTIFICATION**Task #: **005**State: **Colorado**Abbreviation: **None**Date: **10/17/2024**County: **Prowers**Filename: **M009-005**User: **UEA**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 D7R DS Series II LGP	38.49	\$99.49	\$122.78	1	\$222.27	\$122.78	\$250.00
Subtotals:					\$435.29	\$245.56	\$500.00

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Drill/Broadcast Seeder with Tractor	\$79.16	1	\$79.16	\$79.16
Light Duty Pickup, 4x2, 1/2 T.	\$13.05	1	\$13.05	\$13.05
Subtotals:			\$92.21	\$92.21

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>LAMAR</u>	
Total one-way travel distance:	<u>1.00</u>	miles
Average Travel Speed:	<u>50.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$1,897.81</u>
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$3.69</u>
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>0.02</u>	<u>0.02</u>
Return Time (Hours):	<u>0.02</u>	<u>0.02</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>1.04</u>	<u>0.04</u>

JOB TIME AND COST

Total job time:	<u>2.08</u>	Hours
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Total job cost:	<u>\$1,902</u>
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