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: Cortner Pit	**MINE/PROSPECTING ID#:** M-1986-159	**MINERAL:** Sand and gravel	**COUNTY:** Pueblo
INSPECTION TYPE: Illegal(Unpermitted Operation)	**WEATHER:** Clear	**INSP. DATE:** April 5, 2023	**INSP. TIME:** 09:30
OPERATOR: Martin Marietta Materials, Inc.	**OPERATOR REPRESENTATIVE:** Julie Mikulas	**TYPE OF OPERATION:** 112c - Construction Regular Operation	

REASON FOR INSPECTION: Normal I&E Program	**BOND CALCULATION TYPE:** Complete Bond	**BOND AMOUNT:** $73,556.00
DATE OF COMPLAINT: NA	**POST INSP. CONTACTS:** None	**JOINT INSP. AGENCY:** None
INSPECTOR(S): Amber Michels	**INSPECTOR'S SIGNATURE:** 	**SIGNATURE DATE:** May 11, 2023

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: Gen. Compliance With Mine Plan
PROBLEM: The Operator has affected more acres than what is currently approved by their mine plan. The current mine plan needs to be updated and clarified pursuant to C.R.S. 34-32.5-112 (1)(c)(VI). Alternatively, the Operator may seek an Acreage Reduction or Surety Reduction pursuant to Rule 4.17.
CORRECTIVE ACTIONS: The Operator shall submit a Technical Revision, with the required $216 revision fee, to update and clarify the current approved mine plan to reflect existing and proposed activities or they shall submit an Acreage Reduction by the corrective action date.

CORRECTIVE ACTION DUE DATE: 6/10/23

INSPECTION TOPIC: Reclamation Success
PROBLEM: Tamarisk (salt cedar) trees are present within or have volunteered into the permit area and are becoming established. This is a problem for failure to employ weed control methods for a state listed noxious weed species within the permitted area, and to reduce the spread of weeds to nearby areas as required by Section 3.1.10 (6) of the rule.

CORRECTIVE ACTIONS: The Operator shall implement the existing weed control plan and provide photo evidence to the Division that indicates that this problem has been abated by the corrective action date.

CORRECTIVE ACTION DUE DATE: 6/10/23

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 conduct a survey and replace the boundary markers in the correct location(s). The Operator shall provide photo evidence to the Division that this has been done by the corrective action date.

CORRECTIVE ACTION DUE DATE: 6/10/23

OBSERVATIONS

This inspection was conducted as part of the Division's routine monitoring program for permitted operations. Amber Michels, with the Division of Reclamation, Mining, and Safety (Division/DRMS), conducted the inspection while Julie Mikulas representing the Operator Martin Marietta Materials, Inc., accompanied me during the inspection.

The Cortner Pit is a Construction Material Regular 112c Operation Reclamation Permit for 182.7 acres and is approved to affect 49 acres of land. Affected lands will be reclaimed to support rangeland post-mining land use. The site is located 3 miles southwest of Vineland, Colorado. The Cortner Pit is located west of one of the Operator's other permits, the Beeman Pit #1 (M-2002-009).

The Division met Mrs. Mikulas at the mine site entrance on the south side of Cortner Road, approximately 1.5 miles east of 27th Lane/Doyle Road. The mine is currently in final reclamation and there are no current plans to continue mining operations on this site.

Excess Spoil and Dev. Waste:
Photo 12 shows a stockpile observed onsite. When asked what this pile consisted of, the Operator stated that it was asphalt used for ice management on the roads. The pile appears to be stable.

Financial Warranty:
The current bond held by the Division for this site is in the amount of $73,556. The Division updated the cost estimate to reflect current conditions observed onsite and the required surety is in the amount of $204,831 a difference of $131,275. The Division's cost estimate is enclosed with this report. The Operator will have 14 days (May 25, 2023), from the issuance of this report to submit any questions on the cost estimate. If no questions are received, the Division will 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 from the Division in accordance with Rule 4.2.1(2). Or, if mining is complete at the site the Operator could seek a bond release or surety reduction in accordance with Rule 4.17.

Hydrologic Balance:
No water was observed on site.

Gen. Compliance With Mine Plan:
The Cortner Pit is currently approved to affect a maximum of 49 acres of land at any one time. The 2022 annual report and annual report map submitted by the Operator indicate that 58.5 acres have been affected at this time. A **problem** has been cited above for this issue. The Operator has been instructed to either submit a technical revision (TR) to request an increase in approved affected acreage, or submit an acreage reduction and/or surety reduction to release the reclaimed areas or reduce the reclamation liability. During the inspection, the Operator stated that they plan to request a release for the southern portion of the site (Phase V—see Photo 16) that was never mined.

Other:
Upon file review, both the Division and Operator became independently aware that there is a discrepancy between the permitted acreage and the approved permit boundary. The permitted acreage is currently set at 182.7 acres, which appears to have been the result of compounding errors. Both the Division and the Operator

agree that the permitted acres should equate to 86.12 acres total. The Division advised the Operator to apply for an acreage reduction of the additional 96.58 acres so that the permit file reflects the acreage described on the approved mining and reclamation maps.

The Division asked if the Operator still planned to request release of the Phase V area and portion of the Phase III area for the use by a proposed utility line project as stated in the Division's 2018 inspection. The Operator stated that that project did not end up happening, but instead they have had other offers of proposed use by outside companies for these areas if they're approved for release.

Roads:
The roads are approved to remain after reclamation and are in good condition.

Right of Entry:
Upon arrival, before the Operator arrived, the adjacent landowner Joe Scalese, asked what the nature of the Division's visit was. When he was told the Division was doing a monitoring inspection and was waiting for the Operator, Mr. Scalese stated that he had put a new lock on the entrance gate because he was having issues with trespassers. He left and returned with the gate key. When the Operator was made aware of this, they stated that they had brought their own lock in case this may have happened, and stated that they'd meet with the landowner after the inspection to give them a key to the Operator's lock.

Reclamation Success:
The previously mined areas have been partially to completely reclaimed. The 2022 annual report and report map submitted by the Operator indicate that 53.9 acres have had topsoil replaced and have been seeded (Map 2). However, the report also states that 58.5 acres have been reclaimed to date. When asked about the 4.6 acre discrepancy, the Operator stated that that may be a typo, or that it may be the area along the access road within the permit boundary where check dams were installed, reclaimed, and reseeded. The Operator will need to correct this discrepancy on the next annual report and report map for clarification.

The slopes in the central area (Phase III) appear to be stable, vegetated, and do not show signs of erosion. The area in the northern portion of the permit area described in the Division's 2018 inspection report as barren has since been seeded and appears to be growing vegetation reflective of the adjacent undisturbed areas. All reclaimed slopes observed on sight appeared to be at a 3H:1V slope or shallower.

The Operator asked if they could request a release for the central area (Phase III) at the same time as requesting an acreage reduction for the Phase V area. Upon inspection, the central area has well vegetated slopes and vegetation density and composition that reflects that of the surrounding unaffected areas, with the exception of the lowland spot south of where a pipeline dissects the permit area (Photo 13). The Operator stated that this flat area has been seeded and re-seeded with little to no success, partially as a result of this area being accessible to cattle (Photos 17 through 22). Within this area, the Division also noticed the establishment of the state listed noxious weed, tamarisk. A **problem** has been cited for the presence of tamarisk in this area. Upon review of past inspection reports, this has been a recurring issue. The tamarisk will need to be eradicated before this area would be eligible for bond release.

Sediment Control:
During the inspection, the Operator indicated the area where check dams had been installed to correct

erosion that occurred from run-off on the access/haul road. The check dams in this area have since been reclaimed and re-vegetated (Photos 28 and 29). West of this area, seemingly outside of the permit boundary, check dams and an earthen dam beyond them are still in place (Photos 30 through 33). When the Division stated the presence of these may be a problem, the Operator insisted that they were instructed to install these by the Division as a result of a previous inspection. The Division's 2012 inspection instructed the Operators to correct the erosion observed to the west of the Phase III area, as well as stabilize the areas adjacent to the haul roads, therefore, this appears to have been complied with as instructed. The remaining check dams and earthen damn appear to be stable, and no additional erosion was observed on or adjacent to the haul road.

Signs and Markers:
A mine sign was posted on the entrance gate located east of Cortner Road alongside the sign for the Operator's adjacent Beeman Pit #1 (Photos 1 and 2). The mine sign posted for the Cortner Pit complies with Rule 3.1.12(1).

No boundary markers were observed onsite, except one located in the north-east corner (Photo 6). The Operator stated that this is due to the discrepancy in the permitted acreage and the 86.12 acres that the approved permit boundary reflects. They stated that they have had a survey done and intended to ask the Division about this before verifying their markers prior to requesting a release of the southern Phase V area. The Division took GPS points around the site using Esri Field Maps to find approximately where the permit boundary should be (Map 3), as well as to link photos taken around the pit to show the land from the various directions georeferenced in Map 1. A **problem** was cited above for failure to maintain boundary markers. The Operator will need to provide evidence that this has been abated and that the boundary markers reflect the approved affected acreage by the corrective action date.

Conclusion:
This concludes the Division's Inspection Report; a map displaying topics discussed during the inspection 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.michels@state.co.us or by telephone at (720) 836-0967.

Inspection Contact Address
Julie Mikulas
Martin Marietta Materials, Inc.
1800 N. Taft Hill Road
Fort Collins, CO 80521

Enclosure: DRMS 2023 Updated Reclamation Cost Estimate

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

PHOTOGRAPHS

Photo 1: Looking east at the mine sign posted at the entrance to the Cortner Pit (right) on the east side of Cortner Road. The mine sign for the Operator's adjacent pit, Beeman Pit #1, is posted to the left.

Photo 2: Looking east at the mine sign posted at the entrance to the Cortner Pit on the east side of Cortner Road.

Photo 3: Taken from outside of the permit boundary, on the north fork of the access road, looking south-west.

Photo 4: Taken from outside of the permit boundary, on the north fork of the access road, looking south-east.

Photo 5: Looking west at the approximate extent of the fence located just west of the northwest corner of the permit boundary indicated by the binder.

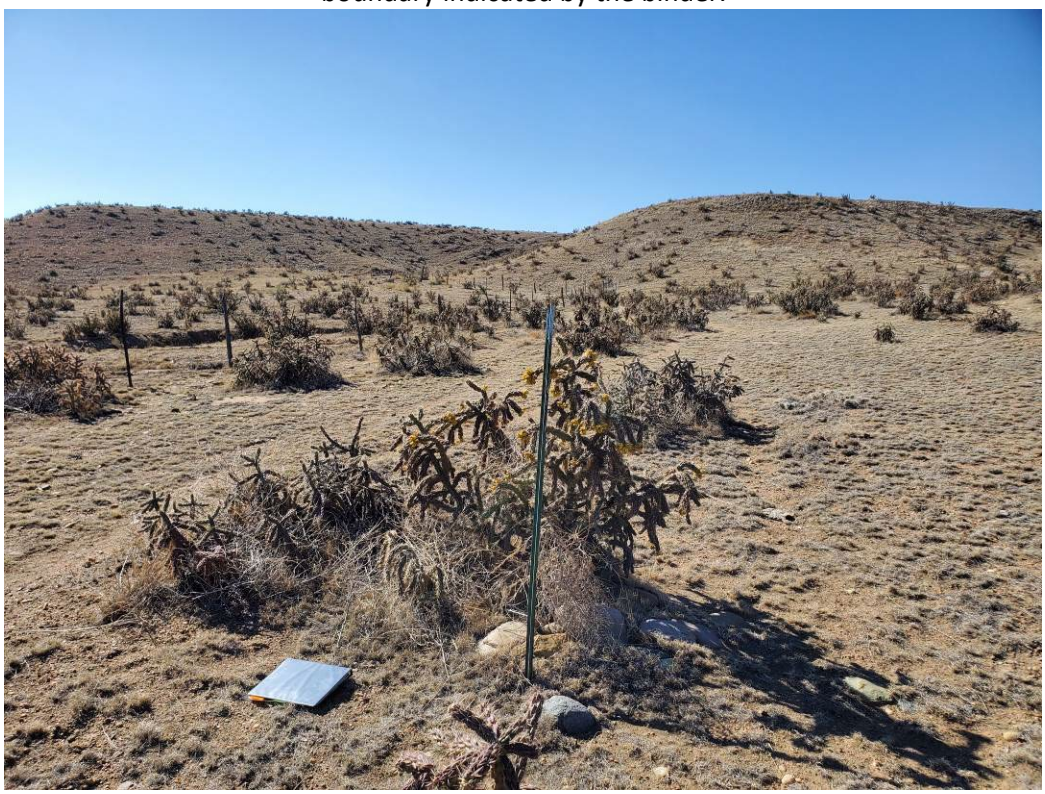


Photo 6: Looking south at the approximate northwest corner of the permit boundary indicated by the binder and remaining boundary marker.

Photo 7: Looking north at the fence pole that is within the permit boundary (indicated by the yellow arrow), and the portion of the fence that is not (see Map 3)

Photo 8: Looking south at fence line within the permit boundary along the north-west border.

Photo 9: Outside of the permit boundary, looking north-west at trail down to western-boarder and fence line.

Photo 10: Looking south-west along the access road along the western boarder of the permit area that meets up with the fenceline on its east side.

Photo 11: Looking north-east along the access road along the western boarder of the permit area were it meets up with the fenceline on its east side.

Photo 12: Looking west at the asphalt stockpile (indicated by the yellow arrow) used for ice control on the access and haul roads. Also pictured beyond the stockpile to the west are the reclaimed slopes daylighting north in the Phase I area.

Photo 13: Looking west along the pipe line that disects the permit area, sepearting Phases II and III.

Photo 14: Looking north at the reclaimed south side of the Phase III permit area. The reclaimed slopes appear stable with no erosional features.

Photo 15: Looking east at the bend in the fence near the estimated east permit boundary.

Photo 16: Looking south-west into the un-mined Phase V area.

Photo 17: Looking north at the reclaimed slopes in the Phase III area that daylight to the south. The yellow arrow indicates the flat area that has been unable to sustain vegetation.

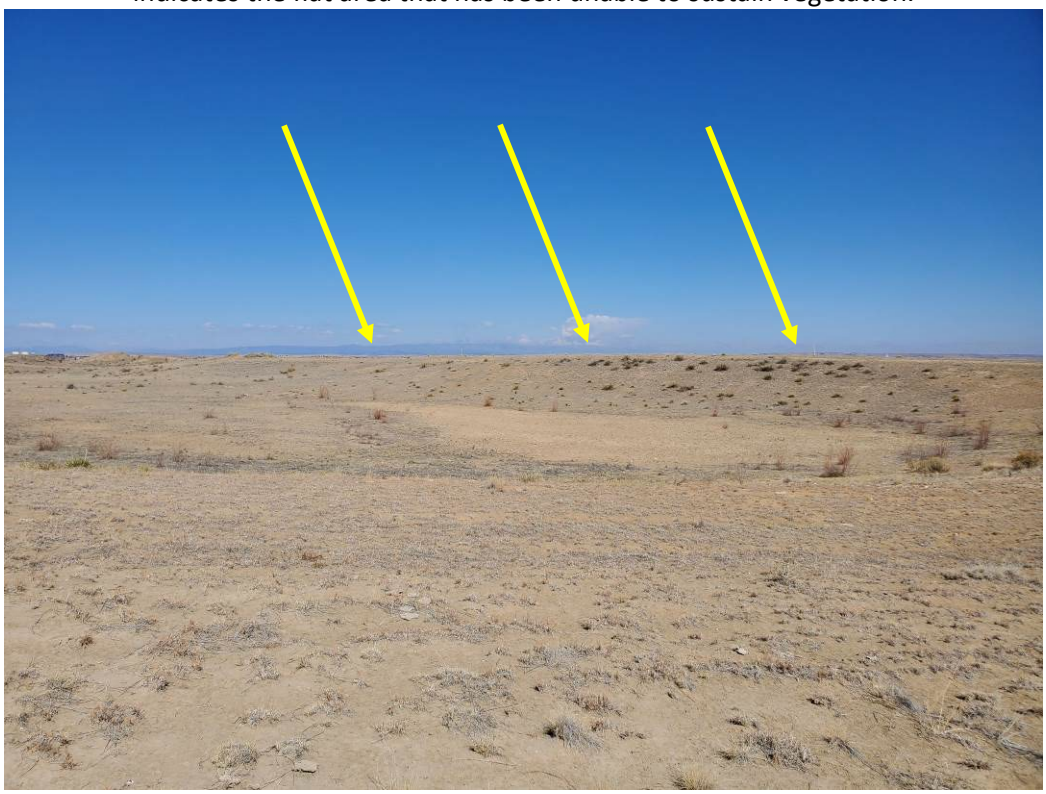


Photo 18: Looking north-west at the reclaimed slopes in the Phase III area that daylight to the south (yellow arrows). The flat area has been unable to sustain vegetation.

Photo 19: Looking west at the reclaimed slopes in the Phase III area that daylight to the north (yellow arrows). The slopes look stable and are at a 3H:1V slope or shallower.

Photo 20: Looking west across the reclaimed north-daylighting-slopes with the flat area to the north.

Photo 21: Looking north at the re-establishment of tamarisk plants (circled in yellow) within the flat area.

Photo 22: Looking north-west across the flat area that has been unable to sustain vegetation. Cattle prints were observed throughout the area, as well as the re-establishment of tamarisk around its boarders.

Photo 23: Standing approximately at the south-east corner permit boundary.

Photo 24: Looking east at where the binder in the photo indicates where photo 23 was taken from.

Photo 25: Looking north at the south-facing reclaimed slopes in Phase II, at the approximate boundary between Phase III and Phase V.

Photo 26: Looking west at one of the approximate south-western corners of the permit boundary.

Photo 27: Looking north along the fenceline located near the western permit boundary.

Photo 28: Looking north at the reclaimed erosional area cited in the Division's 2012 inspection.

Photo 29: Looking south at the reclaimed erosional area cited in the Division's 2012 inspection.

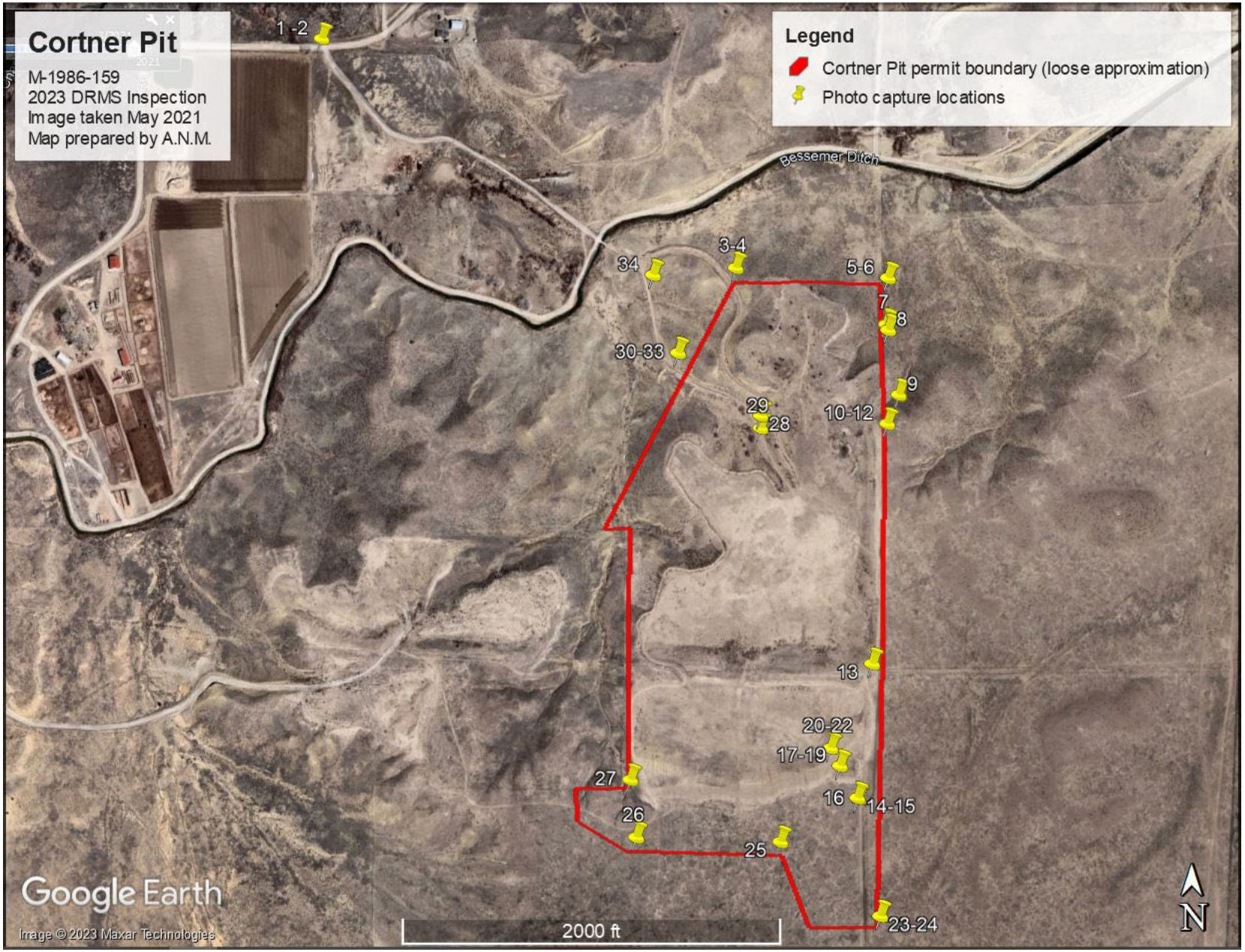
Photo 30: Looking north outside of the permit area to the west of the haul road at the check dams created as a result of an inspection citation during the Division's 2012 inspection.

Photo 31: Looking west outside of the permit area to the west of the haul road at the earthen dam located at the extent of the check dams created as a result of an inspection citation during the Division's 2012 inspection.

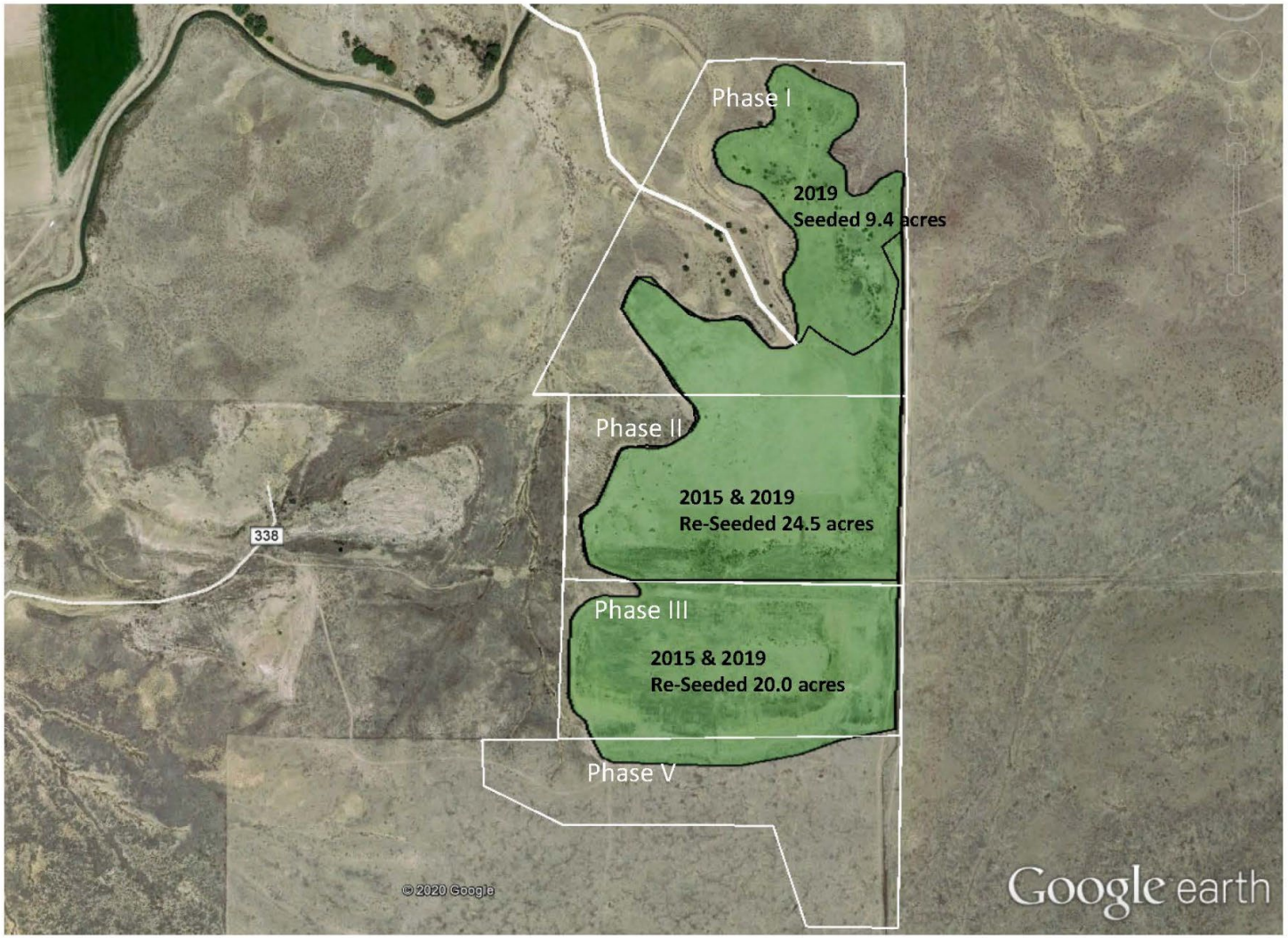
Photo 32: Looking south outside of the permit area to the west of the haul road at the check dams created as a result of an inspection citation during the Division's 2012 inspection.

Photo 33: Looking south-east outside of the permit area to the west of the haul road at the check dams created as a result of an inspection citation during the Division's 2012 inspection.

Photo 34: Looking north from the south-fork of the haul road at an area unaffected by mining located outside of the permit boundary.



Map 1: Map generated in Google Earth Pro using a base layer image taken in May 2021. The yellow pins indicate the locations where the associated photos were taken during the 2023 DRMS monitoring inspection.



Map 2: Map edited from the Operator's 2022 annual report map used to indicate the reported location of the 53.9 acres of seeded and topsoiled areas. *The Division's edits are the Phase labels.

Map 3: Screengrab from ArcGIS Online, showing the data points collected during the 2023 DRMS inspection. The points were collected around the approximate permit boundary to aid in field location and to compare with the boundary markers to be installed by the Operator. The points in the yellow circle were collected along a fence line that is not within the permit boundary for orientation.

COST SUMMARY WORK

Task description: **2023 Updated DRMS Reclamation Cost Estimate**

Site: **Cortner Pit** Permit Action: 2023 Inspection Permit/Job#: M1986159

PROJECT IDENTIFICATION

Task #: 000 State: Colorado Abbreviation: None
Date: 5/2/2023 County: Pueblo Filename: M159-000
User: ANM

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Replace Topsoil	SCRAPER1	1	55.49	$75,637
002	Revegetation	REVEGE	1	54.00	$77,829
003	Mobilize/De-mobilize Reclamation Equipment	MOBILIZE	1	4.72	$8,151
	SUBTOTALS:			**114.21**	**$161,617**

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	$3,265
Performance bond:	1.05	Total =	$1,697
Job superintendent:	57.11	Total =	$4,290
Profit:	10.00	Total =	$16,162
		TOTAL O & P =	$25,414
		CONTRACT AMOUNT (direct + O & P) =	$187,031

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	$500	Total =	$500
Engineering work and/or contract/bid preparation:	4.25	Total =	$7,949
Reclamation management and/or administration:	5.00		$9,352
CONTINGENCY:	0.00	Total =	$0
		TOTAL INDIRECT COST =	$43,214
		TOTAL BOND AMOUNT (direct + indirect) =	**$204,831**

SCRAPER TEAM WORK

Task description: **Replace Topsoil**

Site: **Cortner Pit** Permit Action: 2023 Inspection Permit/Job#: M1986159

PROJECT IDENTIFICATION

Task #: 001 State: Colorado Abbreviation: None
Date: 5/2/2023 County: Pueblo Filename: M159-001
User: ANM

Agency or organization name: DRMS

HOURLY EQUIPMENT

COSTShift basis: 1 per day

Equipment Description	
-Scraper:	Cat 637G w/push-pull
-Dozer:	NA
Support Equipment -Load Area:	NA
-Dump Area:	NA
Road Maintenance –Motor Grader:	CAT 140M
-Water Truck:	NA

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	30	NA
Ownership cost/hour:	$287.19	NA	NA	NA	$75.87	NA
Operating cost/hour:	$277.83	NA	NA	NA	$16.14	NA
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	NA	NA	$0.00	NA
Ripper op. cost/hour:	NA	NA	NA	NA	$0.00	NA
Operator cost/hour:	$47.07	NA	NA	NA	$46.87	NA
Unit Subtotals:	$612.09	NA	NA	NA	$138.89	NA
Number of Units:	2	0	0	0	1	0
Group Subtotals:	Work:	$1,224.18	Support:	$0.00	Maint:	$138.89

Total work team cost/hour: **$1,363.07**

MATERIAL QUANTITIES

Initial volume: 54,377 CCY Swell factor: 1.125
Loose volume: **61,175** LCY

Source of estimated volume: 2022 annual report, 53.9 acres topsoiled
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Scraper Bowl (volume) Basis:

Material weight: 2,650 lbs/LCY
Material description: Decomposed rock - 25% Rock, 75% Earth
Rated Payload: 81,600 pounds
Payload Capacity: 30.79 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: 1.00 Minutes
Maneuver and Spread Time: 0.60 Minutes

Job Condition Correction: Site Altitude: 4600 feet

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

Travel Time:

Road Condition: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	800.00	0.00	5.00	5.00	1867	0.56

Haul Time: **0.56** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	800.00	0.00	5.00	5.00	2795	0.46

Return Time: **0.46** minutes

Total Scraper team cycle time: **2.62** minutes
Adjusted for job conditions: 1,102.44 LCY/Hour
Selected Number of Scrapers: 2 Scraper(s)
Adjusted single scraper team (unit) hourly production: 1,102.44 LCY/Hour
Adjusted multiple scraper team (fleet) hourly production: **1,102.44** LCY/Hour

Unadjusted unit production/hour: 1,328.24 LCY/Hour
Optimal Number of Scrapers per push dozer:

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **55.49** Hours

Unit cost: $1.236 /LCY Total job cost: **$75,637**

REVEGETATION WORK

Task description: **Revegetation**

Site: **Cortner Pit** Permit Action: 2023 Inspection Permit/Job#: M1986159

PROJECT IDENTIFICATION

Task #: 002 State: Colorado Abbreviation: None
Date: 5/2/2023 County: Pueblo Filename: M159-002
User: ANM

Agency or organization name: DRMS

FERTILIZING

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
5-10-10, 5-10-15, 6-12-12	40.00	pound	$0.23	$9.20
			Total Fertilizer Materials Cost/Acre	**$9.20**

Application

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	$39.64
Total Fertilizer Application Cost/Acre	**$39.64**

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	$117.18
Total Tilling Cost/Acre	**$117.18**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Switchgrass - Nebraska 28	0.50	4.47	$6.75
Blue Grama - Native	0.90	14.69	$12.35
Sand Dropseed	0.10	11.94	$0.98
Sideoats Grama - Vaughn	4.50	14.77	$37.69
Totals Seed Mix	6.00	45.87	**$57.77**

Application

Description	Cost /Acre
Drill Seeding (DRMS Survey Cost)	$232.00
Total Seed Application Cost/Acre	**$232.00**

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	$421.36	$842.72
Total Mulch Materials Cost/Acre				**$842.72**

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	$73.00
Total Mulch Application Cost/Acre	**$73.00**

JOB TIME AND COST

No. of Acres:	53.9	Cost /Acre:	$1,371.51
Estimated Failure Rate:	25%	Cost /Acre*:	$289.77
*Selected Replanting Work Items:	SEEDING		

Initial Job Cost:	**$73,924.39**
Reseeding Job Cost:	**$3,904.65**
Total Job Cost:	**$77,829**
Job Hours:	**54.00**

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: **Mobilize/De-mobilize Reclamation Equipment**

Site: **Cortner Pit** Permit Action: 2023 Inspection Permit/Job#: M1986159

PROJECT IDENTIFICATION

Task #: 003 State: Colorado Abbreviation: None
Date: 5/9/2023 County: Pueblo Filename: M159-003
User: ANM

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:	$15.25	$23.06	$37.58
Operating Cost/Hour:	$25.26	$30.83	$51.41
Operator Cost/Hour:	$27.71	$27.71	$27.71
Helper Cost/Hour:	$0.00	$20.22	$20.22
Total Unit Cost/Hour:	$68.22	$101.82	$136.92

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 637G w/push-pull	59.59	$287.19	$136.92	2	$848.22	$273.84	$500.00
CAT 140M	16.68	$75.87	$68.22	1	$144.09	$68.22	$250.00
Drill/Broadcast Seeder with Tractor	25.00	$6.25	$68.22	2	$148.94	$136.44	$250.00
Power Mulcher (Bowie LD-90)	6.00	$14.79	$68.22	1	$83.01	$68.22	$250.00
Subtotals:					**$1,224.26**	**$546.72**	**$1,250.00**

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Fuel Tanker, 4x2, 170 HP	$69.51	1	$69.51	$69.51
Lube Truck, 4x2, 190 HP	$76.19	1	$76.19	$76.19
Water Tanker, 2,500 Gal.	$69.51	1	$69.51	$69.51
Light Duty Pickup, 4x4, 3/4 T.	$87.03	1	$87.03	$87.03
Subtotals:			**$302.24**	**$302.24**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	Pueblo	
Total one-way travel distance:	10.00	miles
Average Travel Speed:	55.00	mph
Total Non-Roadable Mob/Demob Cost * '* two round trips with haul rig:	$8,041.03	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	$109.91	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.18	0.18
Return Time (Hours):	0.18	0.18
Loading Time (Hours):	1.00	NA
Unloading Time (Hours):	1.00	NA
Subtotals:	2.36	0.36

JOB TIME AND COST

Total job time:	**4.73**	Hours
Total job cost:	**$8,151**	