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: 4406 Alaska, LLC Pit #1	**MINE/PROSPECTING ID#:** M-2010-036	**MINERAL:** Clay (general), grave	**COUNTY:** Phillips
INSPECTION TYPE: Surety-Related Inspection	**INSPECTOR(S):** Brock Bowles	**INSP. DATE:** January 12, 2022	**INSP. TIME:** 13:00
OPERATOR: 4406 Alaska LLC	**OPERATOR REPRESENTATIVE:** Chris Eisenhard	**TYPE OF OPERATION:** 112c - Construction Regular Operation	

REASON FOR INSPECTION: Surety Related	**BOND CALCULATION TYPE:** Complete Bond	**BOND AMOUNT:** $59,000.00
DATE OF COMPLAINT: NA	**POST INSP. CONTACTS:** None	**JOINT INSP. AGENCY:** None
WEATHER: Clear	**INSPECTOR'S SIGNATURE:** 	**SIGNATURE DATE:** January 26, 2022

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: Sediment Control
PROBLEM/POSSIBLE VIOLATION: Problem: Erosion gullies and ruts were observed on-site. This is a problem at this time for failure to protect the affected land from erosion pursuant to C.R.S. 34-32.5-116 (4) (j).
CORRECTIVE ACTIONS: The operator shall provide photo documentation to the Division verifying erosion gullies and ruts have been repaired, and that the site has have been reconstructed and stabilized to prevent erosion damage by the corrective action date.
CORRECTIVE ACTION DUE DATE: 3/28/22

INSPECTION TOPIC: Signs & Markers
PROBLEM/POSSIBLE VIOLATION: Problem: The 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 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: 3/28/22

OBSERVATIONS

This inspection was conducted by Brock Bowles of the Division of Reclamation, Mining and Safety (Division). Chris Eisenhard of 4406 Alaska, LLC (Operator) was present for the inspection. The pit is located about 7 miles south of Haxtun. The site is an active 112c operation with 108 acres permitted and the post-mining land use is wildlife. At the time of the inspection it was partly cloudy, cool, and the ground was dry.

This inspection was conducted as part of the SO3 application process. The operator changed from Rick Ensminger to 4406 Alaska, LLC. The application was approved on December 27,2021. This inspection looked at the site conditions for the purpose of evaluating the reclamation cost estimate as required by Rule 1.12.1(2).

The mine entrance sign was missing. Mr. Eisenhard said that the former operator took the sign down when SO3 was approved. A new sign with the required information needs to be installed within 60 days of this report. See corrective action box above for more information.

The northern permit boundary is CR 16. The eastern boundary is 130 feet west of CR 3 and is marked with a t-post. The southern boundary is marked by t-posts along the creek bank and agriculture field. The western boundary is 200 feet east of CR 97 but was not checked as it is more than 3,000 feet from current mining operations. Mining operations are approved to take place in 7 areas as shown on Exhibit C of the CN1 application. Mining is currently only bonded to take place in areas 1 and 2. The western side of area 2 was marked with t-posts (photo 1).

Pit area 2 is about 4-6 feet deep (photo 2). No mining was taking place and no equipment was on site. The sides of the pit were sloped to about 1h:1v. The area 2 pit is separated from the creek by a berm that was left in place by the mining operations. No standing water was in the pit, although there are water marks on the pit walls (photo 3) indicating the pit was filled with water, most likely during the heavy rains of the previous summer. The upstream end of the berm was breached during the rain events and water entered the pit area on the western side of the pit. The water was able to exit the pit area on the eastern, downstream side of the pit which is open to the creek.

The main topsoil stock pile is located north of pit area 2. The pile is well vegetated and appears to be stable (photo 4). A second topsoil stock pile is located on the west side of area 2, is well vegetated and appears stable.

The pit in area 1 is about 1 acre is area, 4-6 feet deep and the pit walls are 1h:1v. There was no standing water in the pit but there was debris from the flood event (photo 5). A small excavation is in the eastern side of area 1. This pit is well vegetated and did not contain water. The topsoil pile for this pit is on the southern edge of the pit and is also well vegetated and stable (photo 6).

In the northern part of area 1 there are a couple of gullies about 12" deep that are close to CR 16 (photo 7). These gullies need to be repaired to prevent further erosion within 60 days of this report. See corrective action box above for more information.

The cost estimate for reclaiming the 21.1 disturbed acres (areas 1 and 2) was calculated as $58,184. The Division currently holds a bond for $59,000 which is adequate to cover reclamation costs. The cost estimate is attach to this report.

PHOTOGRAPHS

Photo 1 – Western marker of area 2

Photo 2 – Pit area 2 facing southeast

Photo 3 – Pit area 2 facing south west

Photo 4 – Topsoil stockpile

Photo 5 – Area 1 pit

Photo 6 – Small excavation (red), topsoil pile (green)

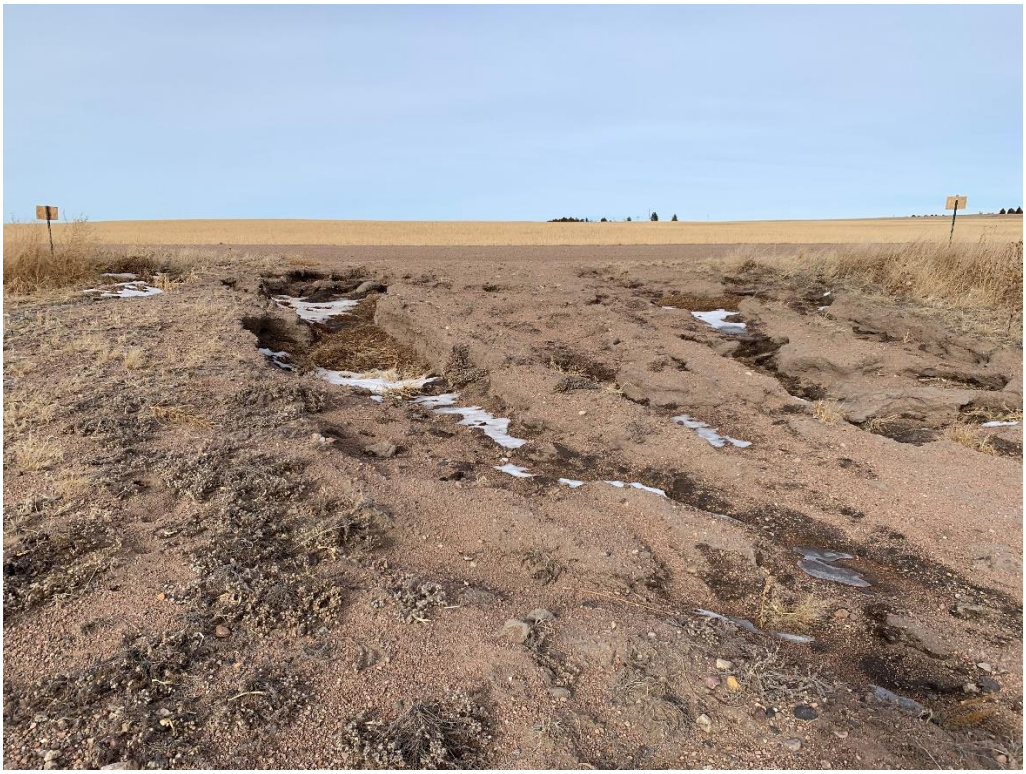

Photo 7 – Gullies in area 1

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

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

Inspection Contact Address
Chris Eisenhard
4406 Alaska LLC
5210 Getaway Drive
Berthoud, CO 80513

Enclosure: 2022 cost estimate

COST SUMMARY WORK

Task description:

Site: **4406 Alaska, LLC Pit #1** Permit Action: 2022 SO3 Permit/Job#: M2010036

PROJECT IDENTIFICATION

Task #: 000 State: Colorado Abbreviation: None
Date: 1/26/2022 County: Phillips Filename: M036-000
User: BFB

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Backfilling and Grading	DOZER	1	69.17	$17,573
002	Replace Topsoil	DOZER	1	37.32	$9,483
003	Revegetate (-2 acres for creek)	REVEGE	1	20.00	$16,401
004	Mobilization/Demobilization	MOBILIZE	1	4.11	$2,198
	SUBTOTALS:			**130.6**	**$45,655**

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	$922
Performance bond:	1.05	Total =	$479
Job superintendent:	46.02	Total =	$3,315
Profit:	10.00	Total =	$4,566
		TOTAL O & P =	$9,282
		CONTRACT AMOUNT (direct + O & P) =	$54,937

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	$500	Total =	$500
Engineering work and/or contract/bid preparation:	0.00	Total =	$0
Reclamation management and/or administration:	5.00		$2,747
CONTINGENCY:	0.00	Total =	$0
		TOTAL INDIRECT COST =	$12,529
		TOTAL BOND AMOUNT (direct + indirect) =	**$58,184**

BULLDOZER WORK

Task description: **Backfilling and Grading**

Site: **4406 Alaska** Permit Action: 2022 SO3 Permit/Job#: M2010036

PROJECT IDENTIFICATION

Task #:	001	State:	Colorado	Abbreviation:	None
Date:	1/26/2022	County:	Phillips	Filename:	M036-001
User:	BFB				

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:

		Utilization %
Ownership Cost/Hour:	$97.46	NA
Operating Cost/Hour:	$97.63	100
Ripper own. Cost/Hour:	$15.19	NA
Ripper op. Cost/Hour:	$2.49	25
Operator Cost/Hour:	$41.30	NA

Total unit Cost/Hour: $254.07
Total Fleet Cost/Hour: **$254.07**

MATERIAL QUANTITIES

Initial Volume:	17,020
Swell factor:	1.124
Loose volume:	**19,124** LCY

Source of estimated volume: Application (6" Overburden on 21.1 acres)
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 150 feet
Unadjusted hourly production: 634.3 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: -5 %
Average site altitude: 4,069 feet

Material weight: 2,900 lbs/LCY

Weight description: Sand and gravel - Dry

Job Condition Correction Factor		Source
Operator Skill:	0.750	(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:	0.800	(FND-RF)
Push gradient:	1.115	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4359

Adjusted unit production: 276.49 LCY/hr
Adjusted fleet production: **276.49** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.919/LCY

Total job time: **69.17** Hours
Total job cost: **$17,573**

BULLDOZER WORK

Task description: **Replace Topsoil**

Site: **4406 Alaska** Permit Action: 2022 SO3 Permit/Job#: M2010036

PROJECT IDENTIFICATION

Task #:	002	State:	Colorado	Abbreviation:	None
Date:	1/26/2022	County:	Phillips	Filename:	M036-002
User:	BFB				

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:

		Utilization %
Ownership Cost/Hour:	$97.46	NA
Operating Cost/Hour:	$97.63	100
Ripper own. Cost/Hour:	$15.19	NA
Ripper op. Cost/Hour:	$2.49	25
Operator Cost/Hour:	$41.30	NA

Total unit Cost/Hour: $254.07
Total Fleet Cost/Hour: **$254.07**

MATERIAL QUANTITIES

Initial Volume:	14,600
Swell factor:	1.215
Loose volume:	**17,739** LCY

Source of estimated volume: Application (6" on 18.1 acres) -2 acres for creekbed
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 200 feet
Unadjusted hourly production: 491.9 LCY/hr

Materials consistency description: Partly consolidated stockpile 1.1

Average push gradient: -5 %
Average site altitude: 4,069 feet

Material weight: 1,600 lbs/LCY

Weight description: Top Soil

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	1.100	(CAT HB)
Dozing method:	1.100	(50% SL)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.115	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.9662

Adjusted unit production: 475.27 LCY/hr
Adjusted fleet production: **475.27** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.535/LCY

Total job time: **37.32** Hours
Total job cost: **$9,483**

REVEGETATION WORK

Task description: **Revegetate (-2 acres for creek)**

Site: **4406 Alaska** Permit Action: 2022 SO3 Permit/Job#: M2010036

PROJECT IDENTIFICATION

Task #: 003 State: Colorado Abbreviation: None
Date: 1/26/2022 County: Phillips Filename: M036-003
User: BFB

Agency or organization name: DRMS

FERTILIZING

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Ammonium nitrate, 33-0-0	121.20	pound	$0.36	$43.63
Triple superphosphate, 0-46-0	86.90	pound	$0.46	$39.97
			Total Fertilizer Materials Cost/Acre	**$83.61**

Application

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	$38.77
Total Fertilizer Application Cost/Acre	**$38.77**

TILLING

Description	Cost /Acre
Weed control spraying (MEANS 31 31 16.13 3100)	$290.40
Total Tilling Cost/Acre	**$290.40**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Big Bluestem - Kaw	2.20	6.57	$29.37
Indiangrass - Cheyenne	1.00	3.05	$11.30
Switchgrass - Nebraska 28	2.00	17.86	$27.00
Alfalfa - Ladak (inoculated)	0.80	3.86	$2.04
Western Wheatgrass - Arriba	1.60	4.04	$10.40
Totals Seed Mix	7.60	35.37	**$80.11**

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
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	Cost /Acre
	$
Total Mulch Application Cost/Acre	**$0.00**

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: 18.1 Cost /Acre: $724.89
Estimated Failure Rate: 25% Cost /Acre*: $724.89
*Selected Replanting Work Items: FERTILIZING,TILLING,SEEDING

Initial Job Cost: **$13,120.51**
Reseeding Job Cost: **$3,280.13**
Total Job Cost: **$16,401**
Job Hours: **20.00**

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: **Mobilization/Demobilization**

Site: **4406 Alaska** Permit Action: 2022 SO3 Permit/Job#: M2010036

PROJECT IDENTIFICATION

Task #: 004 State: Colorado Abbreviation: None
Date: 1/26/2022 County: Phillips Filename: M036-004
User: BFB

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:	$21.28	$37.94	$47.67
Operating Cost/Hour:	$26.55	$50.48	$56.21
Operator Cost/Hour:	$20.54	$20.54	$20.54
Helper Cost/Hour:	$0.00	$23.53	$23.53
Total Unit Cost/Hour:	$68.37	$132.49	$147.95

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	$112.65	$147.95	1	$260.60	$147.95	$250.00
Drill/Broadcast Seeder with Tractor	25.00	$7.98	$68.37	1	$76.35	$68.37	$250.00
Subtotals:					**$336.95**	**$216.32**	**$500.00**

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Subtotals:			**$0.00**	**$0.00**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	YUMA	
Total one-way travel distance:	35.00	miles
Average Travel Speed:	45.00	mph

Total Non-Roadable Mob/Demob Cost * '* two round trips with haul rig:	$2,197.59
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	$0.00

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.78	0.78
Return Time (Hours):	0.78	0.78
Loading Time (Hours):	0.25	NA
Unloading Time (Hours):	0.25	NA
Subtotals:	2.06	1.56

JOB TIME AND COST

Total job time:	**4.11**	Hours
Total job cost:	**$2,198**	