




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: Keeling Pit	MINE/PROSPECTING ID#: M-1991-081	MINERAL: Sand and gravel	COUNTY: Huerfano
INSPECTION TYPE: Monitoring	WEATHER: Cloudy	INSP. DATE: January 11, 2024	INSP. TIME: 10:00
OPERATOR: Sam Keeling	OPERATOR REPRESENTATIVE: Sam Keeling	TYPE OF OPERATION: 110c - Construction Limited Impact	
REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: Complete Bond	BOND AMOUNT: \$14,737.42	
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None	
INSPECTOR(S): Amber Gibson	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: February 1, 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: Acid And Toxic Materials

PROBLEM: Improper storage and containment of fuels and/or other hazardous materials was present on site.

CORRECTIVE ACTIONS: All storage tanks, petroleum and any hazardous materials on site for any period of time shall have appropriate secondary containment. The site will also have to comply with all applicable SPCC requirements. Please supply photo documentation that any fuel or hazardous materials containers are stored properly - including applicable secondary containment structures by the corrective action date. Note that secondary containment structures shall consist of an impermeable containment which could contain all contents of the tanks and various containers (when full) plus 10% of the total capacity. The Operator may also provide photo documentation that all containers have been removed from the site on or before the corrective action date.

CORRECTIVE ACTION DUE DATE: 4/25/24

INSPECTION TOPIC: Other

PROBLEM: Trash and refuse was noticed on the site. This is a problem at this time for failure to dispose of refuse in a manner that controls unsightliness or deleterious effects of such refuse pursuant to C.R.S. 34-32.5-116(4)(e).

CORRECTIVE ACTIONS: The Operator shall submit a written notice to the Division with photo documentation, that the trash has been removed from the site by the corrective action date.

CORRECTIVE ACTION DUE DATE: 4/25/24

INSPECTION TOPIC: Signs & Markers

PROBLEM: The mine identification sign was posted at the entrance of the mine site, but has become illegible. This is a problem for failure to post a mine identification sign that meets the requirement of 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: 4/25/24

INSPECTION TOPIC: Signs & Markers

PROBLEM: The affected area boundary markers are incorrectly placed. The area encompassed by the field markers is nearly an acre larger than the approved permit area boundary. 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 and GPS coordinates of the adjusted marker locations as proof to the Division that this has been done by the corrective action date.

CORRECTIVE ACTION DUE DATE: 4/25/24

INSPECTION TOPIC: Topsoil

PROBLEM: The topsoil stockpiles do not have established vegetation on them and are therefore susceptible to erosion. Rule 3.1.9(1) states if topsoil is not replaced into the backfill area within a time short enough to avoid deterioration of the topsoil, vegetative cover or other means shall be employed so that the topsoil is protected from erosion.

CORRECTIVE ACTIONS: The Operator shall seed the stockpiles with the seed mix that was submitted as part of the approved Reclamation Plan. If no seed mix has been provided, the operator shall submit a seed mix for approval as a technical revision to the permit along with the appropriate \$216 revision fee to the Division by the corrective action date. The Operator shall demonstrate compliance by submitting seed tags, a bill of sale or photographs of seeding activities. The Operator may also request a follow up inspection.

CORRECTIVE ACTION DUE DATE: 4/25/24

OBSERVATIONS

The Keeling Pit was inspected by Amber Gibson with the Division of Reclamation, Mining and Safety (Division/DRMS). The inspection was completed as part of the Division's routine monitoring inspection program. The site was last inspected on June 7, 2019 as part of a routine monitoring inspection. Sam Keeling, the Operator, accompanied me during the inspection. The weather was cloudy and cold, and the ground had a thin layer of snow cover throughout most of the site.

The Keeling Pit is located approximately 4.5 miles northwest of La Veta, Colorado and about 0.5 miles north of County Road 440. The Keeling Pit is a 110c Limited Impact Construction Materials Operation, permitted for the removal of sand and gravel. The approved permit area is 9.9 acres and the approved post mining land use is rangeland. The current land uses surrounding the site are rural residential and rangeland.

Availability of Records:

The annual report, fee, and map are current through September 29, 2024. There are no outstanding infractions.

Acid And Toxic Materials:

During the Division's October 29, 2007 inspection, containers of used motor oil located adjacent to the pit were observed. The Operator was informed that these containers require secondary containment to contain the oil in the event that any containers leak. The Operator stated, at that time, that he had an extra stock tank that he would bring to the site to use as secondary containment.

During the 2024 inspection, a stock tank was observed near the pit, but an abundance of motor oil containers were placed around it (Photo 1). When asked about this, the Operator stated that they had been putting the oil containers in the stock tank. However, the Operator allows some people to bring their leftover motor oil to him. The Operator stated that they received more than they were able to use, or store in the tank, and that is why there are additional containers outside of the secondary containment. The Division informed the Operator that the additional containers need to be placed in secondary containment or removed from the site. This has been **cited above as a problem**. The Operator shall provide the Division with photo evidence that the motor oil containers have been placed within an appropriate secondary containment structure, or have been removed from the site, by the corrective action date.

Backfilling and Grading:

The Operator has overburden stockpiles placed around the perimeter of the pit to reduce the push and haul distances required to backfill the slopes once reclamation begins (Photos 2-4). The Operator has also stockpiled additional overburden material in a line following closely with the Northern border (see Map 1). The Operator is cautioned not proceed any further north where the disturbance nearly meets the permit boundary. As a reminder, no disturbance is permitted outside of the permitted affected area boundary, including reclamation activities. Pursuant to Rule 3.1.5(3), the Operator shall protect areas outside of the affected land from slides or other damage. Failure to do so may be cited as a Possible Violation and the matter may be brought before the Mined Land Reclamation Board (MLRB) for an enforcement hearing.

Financial Warranty:

The Division currently holds a reclamation bond in the amount of \$14,737.42 for this operation. The Division

has estimated the reclamation liability at the site, based on what is currently disturbed, and found it to be \$29,620-- a difference of \$14,882.58 from the bond currently held. The Division's cost estimate is enclosed with this report. The Operator will have 14 days (February 15, 2024), from the issuance of this report to submit any questions on the cost estimate. If no questions are received, the Division may issue a Surety Increase notice for the difference. The Operator will have 60 days from the date of the notice to submit and obtain acceptance of the increase in financial warranty from the Division in accordance with Rule 4.2.1(2).

Hydrologic Balance:

No standing water, exposed groundwater, or evidence of off-site disturbance caused by surface water run-off was observed during the inspection. It appeared that any surface water falling on the site would drain into the pit, consistent with approved mining plan.

Gen. Compliance with Mine Plan:

The Keeling Pit is conducted as an Intermittent Operation. The Operator stated that the last date of active excavation took place in September 2023, and that the last time material had been hauled off-site was in December 2023. The open pit area encompasses about 2.4 acres. The perimeter of the pit is constructed of highwalls with a maximum height of about 20 feet and an approximate length of 1400 feet (see Photos 4-7 and the pink line on Map 1). The highwalls appear to be stable at this time.

Excavation occurs in west and northerly directions. The Division walked around the disturbance on-site to determine the extent of the disturbance boundary by using the Esri Field Maps application. The yellow line on Map 1 indicates where the Division walked, and the blue line indicates an approximation of additional disturbance (gathered from aerial imagery in Google Earth Pro). The total disturbed area encompasses approximately 6.5 acres.

The permit boundary markers are not in the correct locations (see the Signs and Markers section below). Initially, it appeared that there was some disturbance in the area to the south that was off-site. The disturbance in this area consists of stockpiles and disturbance from equipment traffic (see the background of Photo 13). However, upon further review of the permit file, previous inspection reports, and Google Earth imagery, it was determined that this disturbance was likely created during the previous gravel pit and prior to permit issuance. The Division reminds the Operator that if they wish to utilize any of the material in the small stockpiles south of the boundary, this will qualify as re-disturbance, and will need to be incorporated into the permit boundary via an amendment or conversion application to avoid a possible violation citation and enforcement hearing before the Mined Land Reclamation Board.

A variety of mining equipment and vehicles are stored in and around the permit boundary (Photos 8-11), many of which have been there prior to the permitted operation. A few product stockpiles are also located throughout the site. When mining is active, crushing and screening is conducted on-site.

Other:

Trash and debris were observed within the pit (Photo 4). The Operator stated that a lot of the trash had blown into the pit, but some pieces (like the refrigerator in Photo 12) were placed there for target practice. Trash and refuse must be disposed in a manner that controls unsightliness or deleterious effects of such refuse pursuant to C.R.S. 34-32.5-116(4)(e). Thus, this has been **cited as a problem above**. The Operator must remove the trash/refuse/debris from the pit and provide the Division with photo evidence that this has been complied with by the corrective action date.

Roads:

The entrance to the site is located approximately 0.5 miles north of County Road 440. The road ascends a slope that can be difficult to impossible to access in a vehicle during the winter months. The Operator stated that they cease mining in the winter and lock the entrance gate in an attempt to prevent theft and/or vandalism, which had occurred in the past. The haul road that leads into the pit is approved to remain post-reclamation.

Right of Entry:

The Operator is the surface/subsurface owner, and therefore maintains legal right of entry.

Reclamation Success:

No reclamation has occurred on-site. In the Division's 2016 and 2019 inspections, the Operator was informed that unless reclamation of some of the slopes takes place, there will be a cost increase issued for the financial warranty held by the Division. Per standard procedure, a cost estimate was calculated following the inspection to evaluate the cost that the State would incur to reclaim the site if it were to be forfeited or revoked. The updated reclamation cost estimate is discussed above in the Financial Warranty section, and is attached to this report.

During the Division's 2019 inspection, a problem citation was issued for the abundance of the state listed noxious weed Hoary Cress, observed throughout the northern portion of the permit boundary. Following the inspection, the Operator had submitted a revision (TR1) to update the operation's weed control management plan. Due to the dormant vegetation and snow cover, the Division could not verify that this problem continues to be resolved during the 2024 inspection. However, the Operator stated that per their TR1 revision, the county has been spraying for noxious weeds consistently over the last three to four years and that the problem has been resolved.

Signs and Markers:

A sign was located at the entrance to the site. However, the sign is faded, which the Operator states is due to the sign being exposed to sand erosion from easterly blowing winds (Photo 13). This has been **cited as a problem above**. The Operator shall repair or replace the sign in accordance with Rule 3.1.12(1) and provide the Division with photo evidence that this has been done by the corrective action date.

Most of the affected area boundary markers were observed during the inspection. The north-east marker had been placed within a tire. The tire is still in place, but the marker had fallen down. Instead of having the Operator replace the marker, the Division informed him that during a review of the permit file prior to the inspection, it was determined that the permit boundary marked in the field (collected during the Division's 2019 inspection) exceeds the approved acreage (see Maps 1 and 2). This has been **cited above as a problem**. The Operator shall replace all of the boundary markers in their approved locations per the dimensions provided on the approved mining plan map (see Map 2), or hire a surveyor to conduct a survey and replace the markers. The Operator shall provide photos and GPS coordinates of the correctly placed markers to the Division by the corrective action date.

Topsoil:

During the Division's 2001 inspection, the Operator was informed that the topsoil piles were located too close to mining activities, and that they needed to be stabilized with a vegetative cover. During the 2024 inspection,

the Operator was asked which stock piles were topsoil piles. The Operator indicated that the piles located in the south-east portion of the disturbed area were the primary topsoil piles (Photos 14 & 15). The piles are located in an area where disturbance from active mining would be minimized per Rule 3.1.9(3). However, the piles are not stabilized with a vegetative cover per Rule 3.1.9(1). This has been **cited as a problem above**. The Operator shall seed the topsoil piles and provide evidence to the Division that this has been complied with by the corrective action date.

Conclusion:

This concludes the Division's Inspection Report; a few maps 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.gibson@state.co.us or by telephone at (720) 836-0967.

Inspection Contact Address

Sam Keeling
PO Box 361
La Veta, CO 81055

Enclosure: DRMS 2023 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----- <u>Y</u>	(FN) FINANCIAL WARRANTY----- <u>Y</u>	(RD) ROADS----- <u>Y</u>
(HB) HYDROLOGIC BALANCE----- <u>Y</u>	(BG) BACKFILL & GRADING----- <u>Y</u>	(EX) EXPLOSIVES----- <u>N</u>
(PW) PROCESSING WASTE/TAILING---- <u>N</u>	(SF) PROCESSING FACILITIES----- <u>N</u>	(TS) TOPSOIL----- <u>PB</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>Y</u>	(FW) FISH & WILDLIFE----- <u>N</u>	(RV) REVEGETATION---- <u>N</u>
(SM) SIGNS AND MARKERS----- <u>PB</u>	(SP) STORM WATER MGT PLAN---- <u>N</u>	(RS) RECL PLAN/COMP-- <u>Y</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>N</u>	(SC) EROSION/SEDIMENTATION--- <u>N</u>	(ST) STIPULATIONS----- <u>N</u>
(AT) ACID OR TOXIC MATERIALS----- <u>PB</u>	(OD) OFF-SITE DAMAGE----- <u>N</u>	OTHER----- <u>PB</u>

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

PHOTOGRAPHS



Photo 1: The stock tank for the oil is located under the blue tarp. The buckets surrounding the tarp also contain oil.



Photo 2: Looking west along the northern disturbance boundary. The disturbance consists of a berm of overburden material.



Photo 3: Looking south-east from the northern disturbance boundary to the additional overburden stored around the pit perimeter.

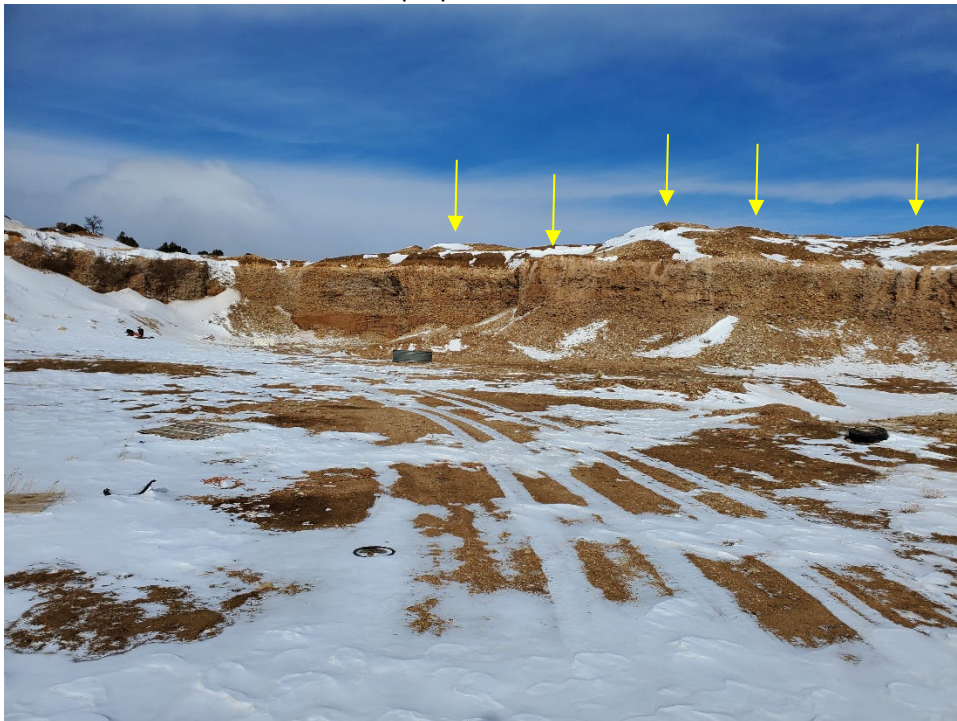


Photo 4: Looking at the north-west corner of the pit. Arrows indicate where overburden is stored above the highwalls.



Photo 5: Looking north-west across the open pit.



Photo 6: Looking south-east across the open pit.



Photo 7: Looking east from within the pit at more highwalls with overburden stored above.



Photo 8: Old vehicles and equipment stored outside of the permit boundary.



Photo 9: Equipment located within the permit boundary.



Photo 10: Looking north at equipment and product stockpiles located within the permit boundary.



Photo 11: Looking east at more vehicles and equipment located in and outside of the permit boundary.



Photo 12: Refrigerator located within the pit that had been used for target practice.



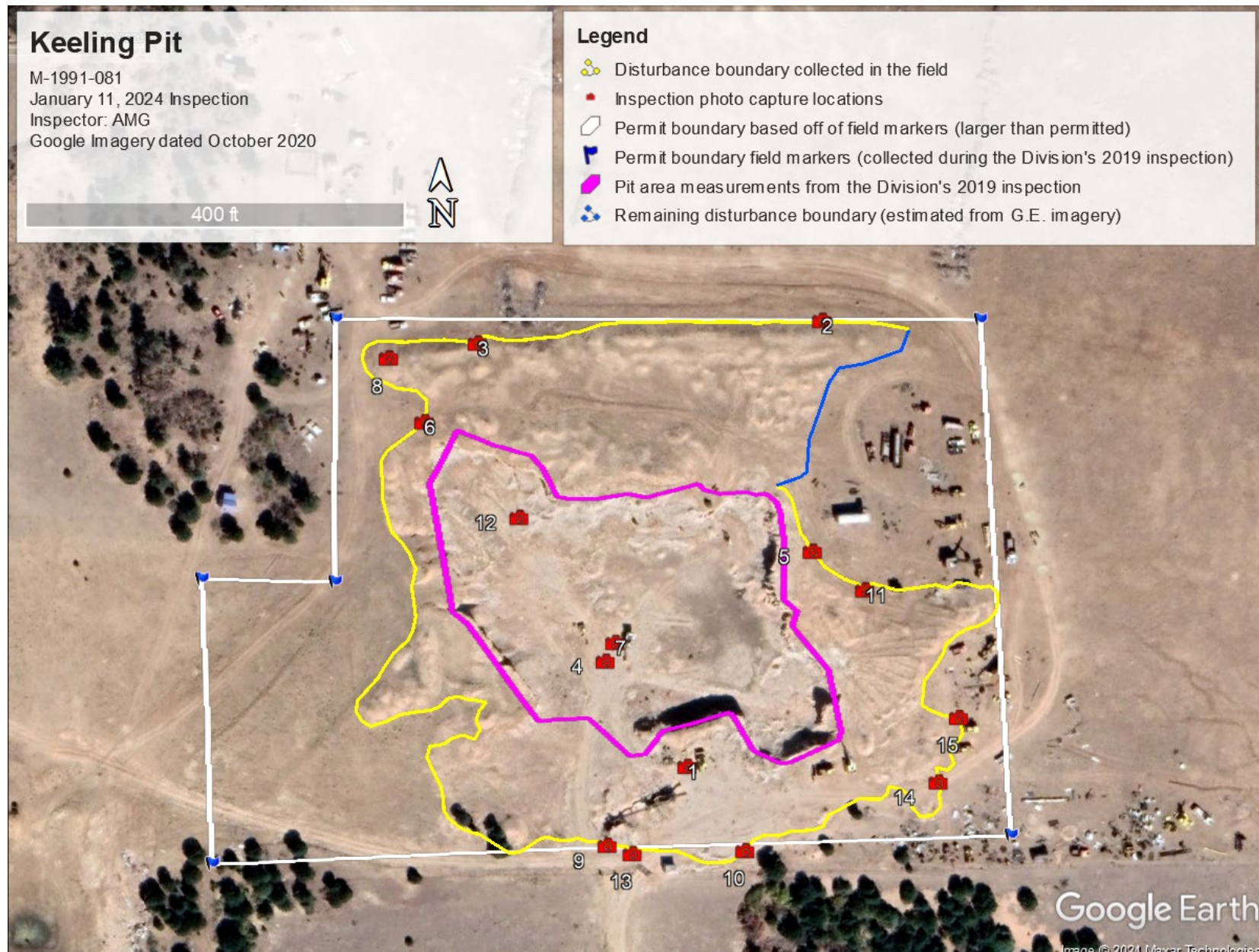
Photo 13: Faded mine sign posted at the entrance to the site. Stockpiled material located behind the structure.



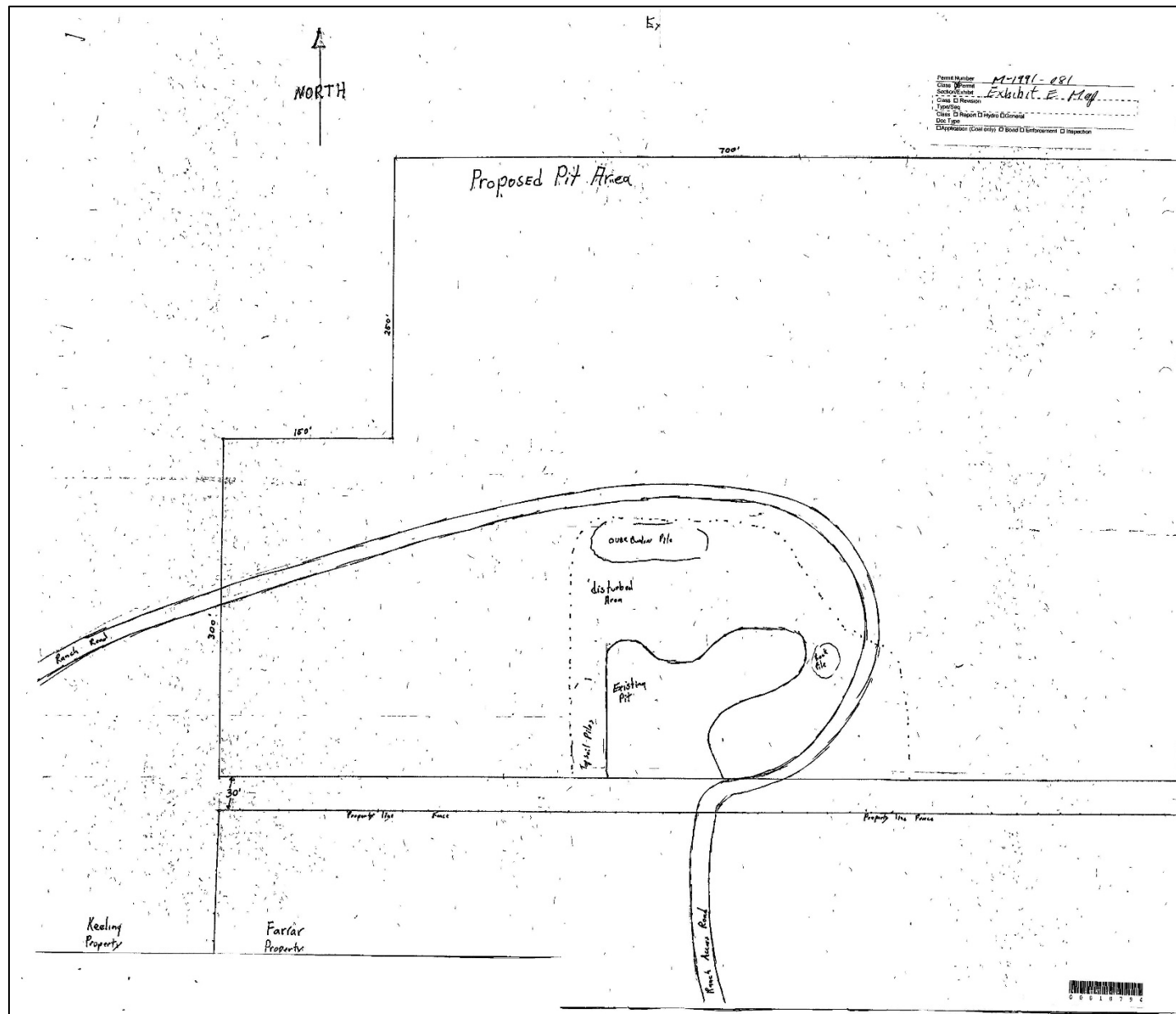
Photo 14: Looking north-east at the topsoil pile.



Photo 15: Looking south at the topsoil pile and an overburden pile.



Map 1: Map generated in Google Earth to display the locations where photos were taken and where the disturbance boundary was walked during the January 11, 2024 inspection of the Keeling Pit. Google aerial imagery dated October 2020.



Map 2: Copy of the approved mining plan map for the Keeling Pit. The approved distances between markers are provided on the map. The total area, calculated from the distances provided, equals 9.9 acres – consistent with the approved acreage for this operation.

COST SUMMARY WORKTask description: **Reclamation Cost Summary: Keeling Pit**Site: **Keeling Pit**Permit Action: 2024 InspectionPermit/Job#: M1991081**PROJECT IDENTIFICATION**Task #: 000State: ColoradoAbbreviation: NoneDate: 1/5/2024County: HuerfanoFilename: M081-000User: AMGAgency or organization name: DRMS**TASK LIST (DIRECT COSTS)**

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Grade Highwalls to 3:1	DOZER	1	11.23	\$2,887
002	Spread Topsoil	DOZER	1	17.63	\$4,534
003	Revegetation	REVEGE	1	6.50	\$11,251
003b	Weed Control	REVEGE	1	3.00	\$1,016
004	Mob/Demob	MOBILIZE	1	3.52	\$3,085
<u>SUBTOTALS:</u>				41.88	\$22,773

INDIRECT COSTS**OVERHEAD AND PROFIT:**

Liability insurance: 2.02

Total = \$460

Performance bond: 1.05

Total = \$239

Job superintendent: 20.94

Total = \$1,363

Profit: 10.00

Total = \$2,277

TOTAL O & P = \$4,339

CONTRACT AMOUNT (direct + O & P) = \$27,112

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): \$0

Total = \$0

Engineering work and/or contract/bid preparation: 4.25

Total = \$1,152

Reclamation management and/or administration: 5.00

\$1,356

CONTINGENCY: 0.00

Total = \$0

TOTAL INDIRECT COST = \$6,847

TOTAL BOND AMOUNT (direct + indirect) = \$29,620

BULLDOZER WORKTask description: Grade Highwalls to 3:1Site: Keeling PitPermit Action: 2024 InspectionPermit/Job#: M1991081PROJECT IDENTIFICATIONTask #: 001State: ColoradoAbbreviation: NoneDate: 1/5/2024County: HuerfanoFilename: M081-001User: AMGAgency or organization name: DRMSHOURLY EQUIPMENT COSTBasic Machine: Cat D7R DS XR Series IIHorsepower: 240Blade Type: Semi-UniversalAttachment: 3-shank ripperShift Basis: 1 per dayData Source: (CRG)Cost Breakdown:

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper own. Cost/Hour:	\$9.06	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: \$257.10Total Fleet Cost/Hour: **\$257.10**MATERIAL QUANTITIESInitial Volume: 5,469Swell factor: 1.124Loose volume: **6,145** LCYSource of estimated volume: 1400' long 20' highSource of estimated swell
factor: Cat HandbookHOURLY PRODUCTIONAverage push distance: 50 feetUnadjusted hourly
production: 1,022.9 LCY/hrMaterials consistency
description: Compacted fill or embankment 0.9Average push
gradient: -5 %Average site altitude: 7,500 feetMaterial weight: 2,900 lbs/LCY

Weight description: Sand and gravel - Dry

Job Condition Correction Factor

		<u>Source</u>
Operator Skill:	0.750	(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:	0.900	(SSD-FC)
Push gradient:	1.115	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5350

Adjusted unit
production: 547.25 LCY/hr

Adjusted fleet
production: **547.25** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.470/LCY

Total job time: **11.23** Hours
Total job cost: **\$2,887**

BULLDOZER WORKTask description: Spread TopsoilSite: Keeling PitPermit Action: 2024 InspectionPermit/Job#: M1991081PROJECT IDENTIFICATIONTask #: 002State: ColoradoAbbreviation: NoneDate: 1/5/2024County: HuerfanoFilename: 2User: AMGAgency or organization name: DRMSHOURLY EQUIPMENT COSTBasic Machine: Cat D7R DS XR Series IIHorsepower: 240Blade Type: Semi-UniversalAttachment: 3-shank ripperShift Basis: 1 per dayData Source: (CRG)Cost Breakdown:

		<u>Utilization %</u>
Ownership Cost/Hour:	\$114.76	NA
Operating Cost/Hour:	\$91.98	100
Ripper own. Cost/Hour:	\$9.06	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: \$257.10Total Fleet Cost/Hour: \$257.10MATERIAL QUANTITIESInitial Volume: 4,840Swell factor: 1.125Loose volume: 5,445 LCYSource of estimated volume: Spread 6" TS over 4.5 acres of disturbanceSource of estimated swell
factor: Cat HandbookHOURLY PRODUCTIONAverage push distance: 100 feetUnadjusted hourly
production: 714.3 LCY/hrMaterials consistency
description: Consolidated stockpile 1.0Average push
gradient: 0 %Average site altitude: 7,500 feetMaterial weight: 2,650 lbs/LCY

Weight description: Decomposed rock - 25% Rock, 75% Earth

<u>Job Condition</u>	<u>Correction Factor</u>	<u>Source</u>
Operator Skill:	0.750	(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	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4323

Adjusted unit
production: 308.79 LCY/hr

Adjusted fleet
production: **308.79** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.833/LCY

Total job time: **17.63** Hours
Total job cost: **\$4,534**

REVEGETATION WORKTask description: RevegetationSite: Keeling PitPermit Action: 2024 InspectionPermit/Job#: M1991081PROJECT IDENTIFICATIONTask #: 003State: ColoradoAbbreviation: NoneDate: 1/5/2024County: HuerfanoFilename: M081-003User: AMGAgency or organization name: DRMSFERTILIZING**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Ammonium nitrate, 33-0-0	120.00	pound	\$0.62	\$74.80
Triple superphosphate, 0-46-0	87.00	pound	\$0.89	\$77.43
			Total Fertilizer Materials Cost/Acre	\$152.23

Application

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

TILLING

Description	Cost /Acre
Chisel plowing {DMG}	\$100.40
Total Tilling Cost/Acre	\$100.40

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Smooth Brome - Lincoln	6.50	21.64	\$21.61
Yellow Sweet Clover - Madrid	1.00	5.97	\$2.83
Western Wheatgrass - Arriba	8.00	20.20	\$52.00
Totals Seed Mix	15.50	47.81	\$76.44

Application

Description	Cost /Acre
Drill Seeding (DRMS Survey Cost)	\$232.00

Total Seed Application Cost/Acre	\$232.00
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MULCHING and MISCELLANEOUS**Materials**

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

Application

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

JOB TIME AND COST

No. of Acres:	6.5	Cost /Acre:	\$1,684.59
Estimated Failure Rate:	15%	Cost /Acre*:	\$308.44
*Selected Replanting Work Items:	SEEDING		

Initial Job Cost:	\$10,949.84
Reseeding Job Cost:	\$300.73
Total Job Cost:	\$11,251
Job Hours:	6.50

REVEGETATION WORKTask description: **Weed Control**Site: **Keeling Pit**Permit Action: 2024 InspectionPermit/Job#: M1991081**PROJECT IDENTIFICATION**Task #: 003BState: ColoradoAbbreviation: NoneDate: 2/1/2024County: HuerfanoFilename: M081-003bUser: AMGAgency or organization name: DRMS**TILLING**

Description	Cost /Acre
Weed control spraying (MEANS 31 31 16.13 3100)	\$338.80
Total Tilling Cost/Acre	\$338.80

JOB TIME AND COST

No. of Acres:	3	Cost /Acre:	\$338.80
Estimated Failure Rate:	0%	Cost /Acre*:	\$0.00
*Selected Replanting Work Items:	NONE		

Initial Job Cost: **\$1,016.40**
 Reseeding Job Cost: **\$0.00**
 Total Job Cost: **\$1,016**
 Job Hours: **3.00**

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: Mob/Demob

Site: Keeling Pit

Permit Action: 2024 Inspection

Permit/Job#: M1991081

PROJECT IDENTIFICATION

Task #: 004

State: Colorado

Abbreviation: None

Date: 1/5/2024

County: Huerfano

Filename: 4

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:

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
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 D7R DS XR Series II	35.93	\$123.82	\$158.17	1	\$281.99	\$158.17	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$6.73	\$82.29	2	\$178.04	\$164.58	\$500.00

Subtotals: **\$460.03** **\$322.75** **\$750.00**

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x2, 1/2 T.	\$87.62	1	\$87.62	\$87.62

Subtotals: **\$87.62** **\$87.62**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region: WALSENBURG

Total one-way travel distance: 21.00

Average Travel Speed: 55.00

miles

mph

Total Non-Roadable Mob/Demob Cost *	\$3,017.82
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	\$66.91
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non- Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.38	0.38
Return Time (Hours):	0.38	0.38
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	1.76	0.76

JOB TIME AND COSTTotal job time: 3.53 HoursTotal job cost: \$3,085