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: Williams/Illinois Gravel Pit	**MINE/PROSPECTING ID#:** M-1997-039	**MINERAL:** Gravel and sand	**COUNTY:** Jackson
INSPECTION TYPE: Monitoring	**WEATHER:** Clear	**INSP. DATE:** August 24, 2023	**INSP. TIME:** 10:30
OPERATOR: High Country Hard Rock, LLC	**OPERATOR REPRESENTATIVE:**	**TYPE OF OPERATION:** 112c - Construction Regular Operation	
REASON FOR INSPECTION: Normal I&E Program	**BOND CALCULATION TYPE:** Complete Bond	**BOND AMOUNT:** $74,500.00	
DATE OF COMPLAINT: NA	**POST INSP. CONTACTS:** None	**JOINT INSP. AGENCY:** None	
INSPECTOR(S): Hunter Ridley	**INSPECTOR'S SIGNATURE:** Hunter Ridley	**SIGNATURE DATE:** September 18, 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/POSSIBLE VIOLATION: Problem: The current mine plan needs to be updated and clarified pursuant to C.R.S. 34-32.5-112 (1)(c)(VI). The operator must provide sufficient information to describe or identify how the operator intends to conduct the operation.
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 by the corrective action date.
CORRECTIVE ACTION DUE DATE: 11/15/23

GENERAL INSPECTION TOPICS

This list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each. No problems or possible violations were noted during the inspection. The mine operation was found to be in full compliance with Mineral Rules and Regulations of the Colorado Mined Land Reclamation Board for the Extraction of Construction Materials and/or for Hard Rock, Metal and Designated Mining Operations. Any person engaged in any mining operation shall notify the office of any failure or imminent failure, as soon as reasonably practicable after such person has knowledge of such condition or of any impoundment, embankment, or slope that poses a reasonable potential for danger to any persons or property or to the environment; or any environmental protection facility designed to contain or control chemicals or waste which are acid or toxic-forming, as identified in the permit.

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

OBSERVATIONS

The Williams/Illinois Gravel Pit was inspected by Hunter Ridley with the Division of Reclamation, Mining and Safety (Division) as part of the Division's monitoring inspection program. Josh Sibson with High Country Hard Rock, LLC was present during the inspection. The Williams/IL Pit is located approximately 17 miles south of Walden, CO off CR125. The site is a 112c operation permitted for 204.83 acres.

The permitted acreage is divided up into 35 stages of mining, each of which is on average around 5.5 acres. The permitted acreage also includes an 'Existing Permit Area' as labeled in the attached map. This area is approximately 10.5 acres and includes 9.9 acres of the site's original 110c permit which was converted to a 112c in 2014. Through SI2, the Williams/Illinois Gravel Pit has been bonded to cover disturbance of Stages 1-3 and the 'Existing Permit Area'. The Division should be given notification of intent to mine beyond Stage 3 before work begins in the next stage.

The site was not active at the time of inspection. This site crushes material approximately once per year and hauls product consistently throughout the year. An entrance sign was posted and permit boundary markers in the form of t-posts were observed as required by Rule 3.1.12 (Photo 1). A scale and scale house are located along the site's entrance road (Photo 13).

At the time of the last inspection in 2018, mining had progressed from the 'Existing Permit Area' into Stage 1. At the time of this inspection, mining had progressed further south into Stage 2. Pit depth was estimated at 10-16' depending on which section of the highwall is measured. About 5 acres of the 'Existing Permit Area' have been reclaimed to rangeland habitat as per the approved Reclamation Plan (Photos 8 and 9). These 4H:1V slopes were stable with no erosion features observed during the inspection. The Operator is reminded of the commitment laid out in the Reclamation Plan under Conversion 1 (CN1) in which the Operator will disturb no more than 14.98 acres at one time and reclaim each pit concurrently. Current disturbance at the site is approximately 25 acres and includes an entrance road and activity within the 'Existing Permit Area', Stage 1, and Stage 2 of mining. Since the site is currently bonded for the disturbance of more than 14.98 acres, the Division will not pursue enforcement action for mining outside the approved disturbance area at this time. **However, the Division will cite this as a problem for failure to follow the approved Mining Plan and**

require a Technical Revision to be submitted by the corrective action due date which amends the Mining Plan. The updated mining plan should include a new max disturbance acreage and a clarification of how reclamation will progress at the site.

Active highwalls are located to the south and east of the permit boundary (Photos 2, 3, and 4). Product stockpiles are located in various areas across the pit floor (Photos 4, 5, 6, 8, and 11). Overburden/topsoil stockpiles were located on the pit floor to the east, west, and south of the permit boundary (Photos 7, 10, and 12). Topsoil and overburden have never been segregated at this site due to limited distinction between the two in this area of rocky soil. Volunteer vegetation has stabilized these piles. The Operator stated that annual weeds are sprayed on an as needed basis. No noxious weeds were observed during this inspection.

The Division currently holds a financial warranty amount of, $74,500.00 for this site. The bond was last updated post inspection in 2019. In an effort to ensure the Financial Warranty adequately reflects the actual current cost of fulfilling the requirements of the approved reclamation plan, the Division has updated the reclamation cost estimate. The Division has found the current bond to be **inadequate** for reclamation of the site. The updated required bond amount is $93,905.00. This is an **increase of $19,405.00**. A copy of staff calculations has been attached with this report. A notice of surety increase will be sent under separate cover.

Photographs taken during the inspection have been included below. Responses to this inspection report should be directed to: Hunter Ridley at the Division of Reclamation, Mining and Safety, 1313 Sherman St., Room 215, Denver, CO 80203. Direct contact can be made by phone at 720-868-7757 or via email at hunter.ridley@state.co.us.

PHOTOGRAPHS

Photo 1: Mine sign located at the site entrance.

Photo 2: View southeast of the active highwall in Stage 2.

Photo 3: View southwest of the active highwall in Stage 2.

Photo 4: View east of highwalls and product stockpiles.

Photo 5: Product stockpiles on the pit floor.

Photo 6: View north of stockpiles on the pit floor.

Photo 7: A topsoil/overburden pile to the east which has been stabilized by volunteer vegetation.

Photo 8: View north of the partially reclaimed areas of the 'Existing Permit Area' and a product stockpile.

Photo 9: View northwest of the partially reclaimed areas of the 'Existing Permit Area'.

Photo 10: View northwest of a topsoil/overburden pile and reclaimed slopes within the 'Existing Permit Acreage'.

Photo 11: Product stockpiles located in the northern portion of the pit.

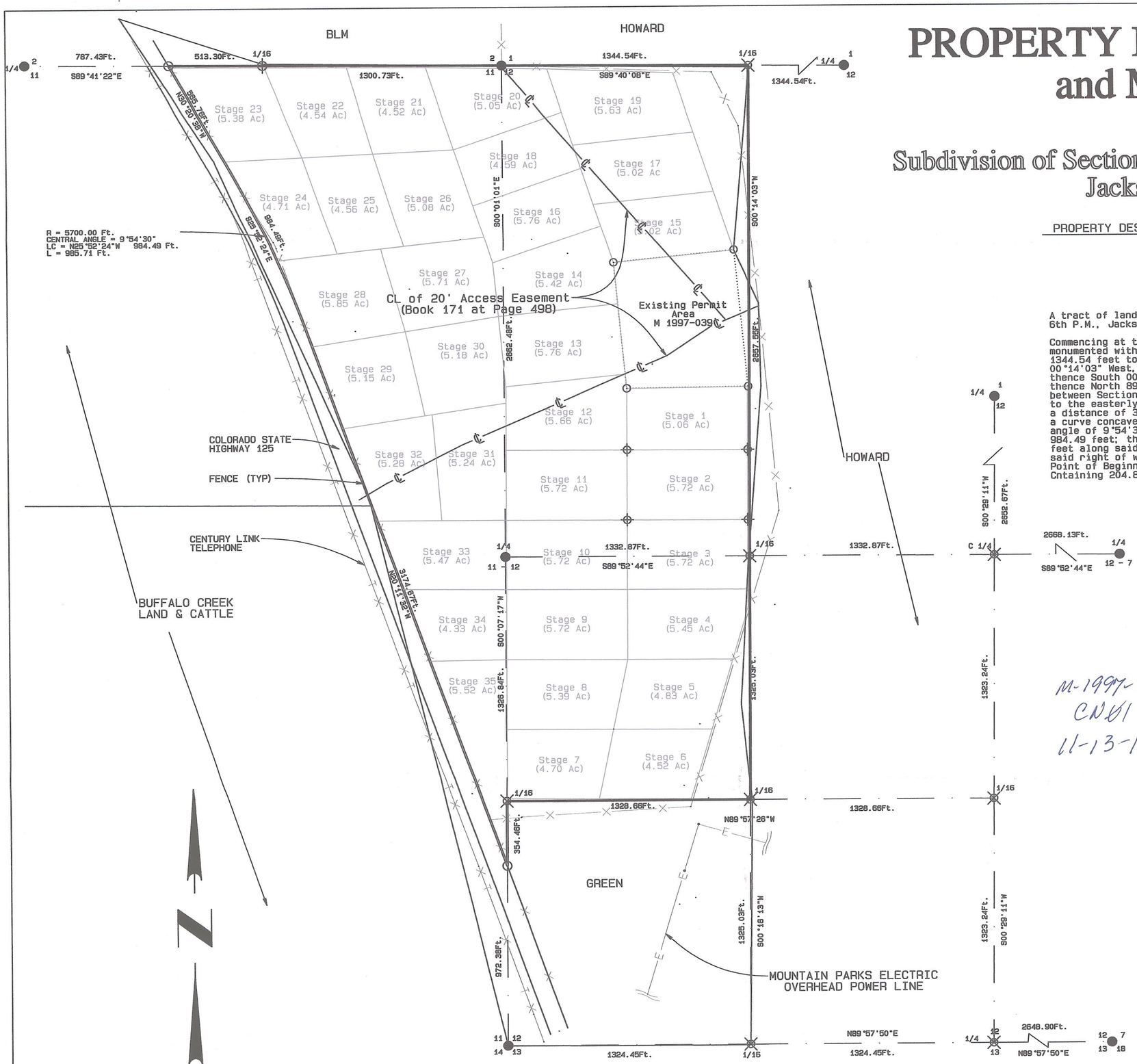
Photo 12: View west of the entrance to the pit floor, a topsoil/overburden pile is situated to the north.

Photo 13: A scale and scale house are located along the access road.

Inspection Contact Address
Josh Sibson
High Country Hard Rock, LLC
45 6th St Unit 3
Steamboat Springs, CO 80487

PROPERTY BOUNDARY SURVEY and MINING PLAN

Subdivision of Sections 11 and 12, T. 6 N., R. 79 W., 6th PM Jackson County, Colorado



GRAPHIC SCALE 1"=400'

0 400 800 1200

LEGEND

- FENCE
- TELEPHONE (UNDERGROUND)
- FOUND GLO BRASS CAP (1940)
- SET #6 REBAR WITH ALUM CAP "PLS24303" (2002)
- SET #4 REBAR WITH YELLOW PLASTIC CAP "PLS38084"
- SET T-POST

NOTICE: According to Colorado law you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based on any defect in this survey be commenced more than ten years from the date of the certification shown hereon.

PROPERTY DESCRIPTION

A tract of land located in Sections 11 and 12, Township 6 North, Range 79 West of the 6th P.M., Jackson County, State of Colorado, being more particularly described as follows:

Commencing at the Point of Beginning, being the Corner of Sections 1, 2, 11, and 12 and monumented with a 1940 GLO brass cap; thence South 89°40'08" East, a distance of 1344.54 feet to the West 1/16 corner between Sections 1 and 12; thence South 00°14'03" West, a distance of 2657.55 feet to the CW 1/16 corner of Section 12; thence South 00°18'13" West, a distance of 1325.03 feet SW 1/16 corner of Section 12; thence North 89°57'26" West, a distance of 1328.66 feet to the South 1/16 corner between Sections 11 and 12; thence South 00°07'17" West, a distance of 354.46 feet to the easterly right of way of Colorado State Highway 125; thence North 20°11'32" West, a distance of 3174.67 feet along the east right of way of said highway to the beginning of a curve concave to the southwest having a radius of 5700.00 feet and a central angle of 9°54'30" and being subtended by a chord which bears North 25°52'24" West 984.49 feet; thence northerly and northwesterly along said curve, a distance of 985.71 feet along said right of way; thence North 30°20'38" West, a distance of 565.76 feet along said right of way; thence South 89°41'22" East, a distance of 1814.03 feet to the Point of Beginning.
Cntaining 204.822 acres, more or less.

LAND SURVEYOR'S CERTIFICATE

I, Randall R. Miller, being a Registered Land Surveyor in the State of Colorado, do hereby certify that this plat was made by me and/or under my direct supervision and that it is accurate to the best of my knowledge.

Dated this 10 day of November 2014.

Randall R. Miller PLS #38084

COLORADO LICENSED RANDALL R. MILLER 38084 11/10/2014 PROFESSIONAL LAND SURVEYOR

M-1997-039
CN01
11-13-14
psh

NOTES:

1. This survey does not constitute a title search by this surveyor or by North Park Engineering & Consulting, Inc.
2. At the request of the client, easement data was not obtained nor shown on this plat.
3. The positions of corners used herein were obtained using a combination of static and RTK GPS techniques. The positional accuracies meet BLM standards as well as applicable minimum standards of the State of Colorado.
4. This plat is invalid as a legal document and possession or use of this plat is unauthorized by the surveyor unless it bears the original signature and wet stamp of Randall R. Miller, PLS. Documents prepared by the surveyor and without a signature and wet stamp are to be viewed as preliminary and all information shown thereon is subject to change.

psh

Wyatt Redi-Mix Company – Williams Pit

NORTH PARK ENGINEERING & CONSULTING, INC.
P.O. Box 395, 492 Lafever
Walden, CO 80480
970-723-3725

Surveyed by: R. Miller Drawn by: R. Miller Checked by: C. Carmichael

Scale: 1"=400' Date Completed: November 10, 2014 Sheet 1 of 1 Job #13-152

COST SUMMARY WORK

Task description: **Updated post inspection**

Site: **Williams/Illinois Gravel Pit** Permit Action: 2023_Post Inspection Permit/Job#: M1997039

PROJECT IDENTIFICATION

Task #: 000 State: Colorado Abbreviation: None
Date: 9/6/2023 11:06:58 AM County: Jackson Filename: 000
User: HR1

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Final Grading - Stage 1 - East Boundary Only	DOZER	1	19.60	$8,786
002	Replace 8" Topsoil - 14.98 Acres - 110c & Stage 1	DOZER	1	21.11	$9,462
003	Revegetate 14.98 Acres - 110c & Stage 1	REVEGE	1	80.00	$22,299
004	Fence 5 Acres in Reclamation	SITEMAINTENANCE	1	0.00	$500
005	Mob/Demob	MOBILIZE	1	4.26	$2,051
006	Replace 8" Topsoil - 5.72 Acres - Stage 2	DOZER	1	8.06	$3,613
007	Revegetate 5.72 Acres - Stage 2	REVEGE	1	80.00	$8,515
008	Replace 8" Topsoil - 5.72 Acres - Stage 3	DOZER	1	8.06	$3,613
009	Revegetate 5.72 Acres - Stage 3	REVEGE	1	80.00	$8,515
		SUBTOTALS:		**301.09**	**$67,354**

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	$1,361
Performance bond:	1.05	Total =	$707
Job superintendent:	150.54	Total =	$9,797
Profit:	10.00	Total =	$6,735
		TOTAL O & P =	$18,600
		CONTRACT AMOUNT (direct + O & P) =	$85,954

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	$0	Total =	$0
Engineering work and/or contract/bid preparation:	4.25	Total =	$3,653
Reclamation management and/or administration:	5.00		$4,298
CONTINGENCY:	0.00	Total =	$0
		TOTAL INDIRECT COST =	$26,551
		TOTAL BOND AMOUNT (direct + indirect) =	**$93,905**

BULLDOZER WORK

Task description: **Final Grading - Stage 1 - East Boundary Only**

Site: **Williams/Illinois Gravel Pit** Permit Action: 2023_Post Inspection Permit/Job#: M1997039

PROJECT IDENTIFICATION

Task #:	001	State:	Colorado	Abbreviation:	None
Date:	9/6/2023 11:04:09 AM	County:	Jackson	Filename:	001
User:	HR1				

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:	$241.38	NA
Operating Cost/Hour:	$143.92	100
Ripper own. Cost/Hour:	$14.11	NA
Ripper op. Cost/Hour:	$7.45	100
Operator Cost/Hour:	$41.30	NA

Total unit Cost/Hour: $448.16
Total Fleet Cost/Hour: **$448.16**

MATERIAL QUANTITIES

Initial Volume:	8,167
Swell factor:	1.000
Loose volume:	**8,167** LCY

Source of estimated volume: Division of Reclamation, Mining & Safety
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 80 feet
Unadjusted hourly production: 984.2 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: -10 %
Average site altitude: 8,450 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:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.700	(FND-MF)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4233

Adjusted unit production: 416.61 LCY/hr
Adjusted fleet production: **416.61** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $1.076/LCY

Total job time: **19.60** Hours
Total job cost: **$8,786**

BULLDOZER WORK

Task description: **Replace 8" Topsoil - 14.98 Acres - 110c & Stage 1**

Site: **Williams/Illinois Gravel Pit** Permit Action: 2023_Post Inspection Permit/Job#: M1997039

PROJECT IDENTIFICATION

Task #:	002	State:	Colorado	Abbreviation:	None
Date:	9/6/2023	County:	Jackson	Filename:	002
	11:04:50 AM				
User:	HR1				

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:	$241.38	NA
Operating Cost/Hour:	$143.92	100
Ripper own. Cost/Hour:	$14.11	NA
Ripper op. Cost/Hour:	$7.45	100
Operator Cost/Hour:	$41.30	NA

Total unit Cost/Hour: $448.16
Total Fleet Cost/Hour: **$448.16**

MATERIAL QUANTITIES

Initial Volume:	15,950
Swell factor:	1.000
Loose volume:	**15,950** LCY

Source of estimated volume: Division of Reclamation, Mining & Safety
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 80 feet
Unadjusted hourly production: 984.2 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: -10 %
Average site altitude: 8,450 feet

Material weight: 1,600 lbs/LCY

Weight description: Top Soil

Job Condition Correction Factor		Source
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:	0.700	(FND-MF)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.7676

Adjusted unit production: 755.47 LCY/hr
Adjusted fleet production: **755.47** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.593/LCY

Total job time: **21.11** Hours
Total job cost: **$9,462**

REVEGETATION WORK

Task description: **Revegetate 14.98 Acres - 110c & Stage 1**

Site: **Williams/Illinois Gravel Pit** Permit Action: 2023_Post Inspection Permit/Job#: M1997039

PROJECT IDENTIFICATION

Task #: 003 State: Colorado Abbreviation: None
Date: 9/6/2023 11:01:05 AM County: Jackson Filename: 003
User: HR1

Agency or organization name: DRMS

FERTILIZING

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			$	$
			Total Fertilizer Materials Cost/Acre	**$0.00**

Application

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

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	$112.82
Weed control spraying (MEANS 31 31 16.13 3100)	$338.80
Total Tilling Cost/Acre	**$451.62**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Beardless Wheatgrass - Whitmar	5.00	16.30	$58.63
Mountain Brome - Bromar	10.00	16.07	$38.00
Bottlebrush Squirreltail	2.50	11.02	$40.56
Sandberg Bluegrass - VNS	5.00	106.18	$42.00
Rocky Mountain Fescue	5.00	80.35	$36.25
Slender Wheatgrass - Native	10.00	36.50	$46.25
Streambank Wheatgrass - Sodar	5.00	16.30	$28.50
Thickspike Wheatgrass - Critana	5.00	17.68	$34.38

Prairie Junegrass	2.50	132.89	$65.00
Totals Seed Mix	50.00	433.28	**$389.56**

Application

Description	**Cost /Acre**
Broadcast seeding [DMG]	$267.22
Total Seed Application Cost/Acre	**$267.22**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
Weed spray, hand, non-aquatic area, nox. [DMG]	$183.16
Total Mulch Application Cost/Acre	**$183.16**

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: 14.98
Estimated Failure Rate: 30%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $1,291.56
Cost /Acre*: $656.78

Initial Job Cost: **$19,347.57**
Reseeding Job Cost: **$2,951.57**
Total Job Cost: **$22,299**
Job Hours: **80.00**

SITE MAINTENANCE

Task description: **Fence 5 Acres in Reclamation**

Site: **Williams/Illinois Gravel Pit** Permit Action: 2023_Post Inspection Permit/Job#: M1997039

PROJECT IDENTIFICATION

Task #: 004 State: Colorado Abbreviation: None
Date: 9/6/2023 11:00:27 AM County: Jackson Filename: 004
User: HR1

Agency or organization name: DRMS

UNIT COSTS

Maintenance Item	Hours per Year	Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Electric Fence - 5 Acres @ $100/Acre	0.00	USER PROVIDED ITEM	5.00		$100.00	$500.00

Job Hours: 0.00 **Total Cost: $500.00**

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: **Mob/Demob**

Site: **Williams/Illinois Gravel Pit** Permit Action: 2023_Post Inspection Permit/Job#: M1997039

PROJECT IDENTIFICATION

Task #: 005 State: Colorado Abbreviation: None
Date: 9/6/2023 11:03:22 AM County: Jackson Filename: 005
User: HR1

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 D8T - 8SU	53.08	$255.49	$175.95	1	$431.44	$175.95	$250.00
Subtotals:					**$431.44**	**$175.95**	**$250.00**

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:	WALDEN	
Total one-way travel distance:	17.00	miles
Average Travel Speed:	30.00	mph

Total Non-Roadable Mob/Demob Cost * '* two round trips with haul rig:	$2,051.26
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	$0.00

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.57	0.57
Return Time (Hours):	0.57	0.57
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	2.13	1.13

JOB TIME AND COST

Total job time:	**4.27**	Hours
Total job cost:	**$2,051**	

BULLDOZER WORK

Task description: **Replace 8" Topsoil - 5.72 Acres - Stage 2**

Site: **Williams/Illinois Gravel Pit** Permit Action: 2023_Post Inspection Permit/Job#: M1997039

PROJECT IDENTIFICATION

Task #:	006	State:	Colorado	Abbreviation:	None
Date:	9/6/2023 11:05:37 AM	County:	Jackson	Filename:	006
User:	HR1				

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:	$241.38	NA
Operating Cost/Hour:	$143.92	100
Ripper own. Cost/Hour:	$14.11	NA
Ripper op. Cost/Hour:	$7.45	100
Operator Cost/Hour:	$41.30	NA

Total unit Cost/Hour: $448.16
Total Fleet Cost/Hour: **$448.16**

MATERIAL QUANTITIES

Initial Volume:	6,090
Swell factor:	1.000
Loose volume:	**6,090** LCY

Source of estimated volume: Division of Reclamation, Mining & Safety
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 80 feet
Unadjusted hourly production: 984.2 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: -10 %
Average site altitude: 8,450 feet

Material weight: 1,600 lbs/LCY

Weight description: Top Soil

Job Condition Correction Factor		Source
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:	0.700	(FND-MF)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.7676

Adjusted unit production: 755.47 LCY/hr
Adjusted fleet production: **755.47** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.593/LCY

Total job time: **8.06** Hours
Total job cost: **$3,613**

REVEGETATION WORK

Task description: **Revegetate 5.72 Acres - Stage 2**

Site: **Williams/Illinois Gravel Pit** Permit Action: 2023_Post Inspection Permit/Job#: M1997039

PROJECT IDENTIFICATION

Task #: 007 State: Colorado Abbreviation: None
Date: 9/6/2023 11:01:48 AM County: Jackson Filename: M039-007
User: HR1

Agency or organization name: DRMS

FERTILIZING

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			$	$
			Total Fertilizer Materials Cost/Acre	**$0.00**

Application

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

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	$112.82
Weed control spraying (MEANS 31 31 16.13 3100)	$338.80
Total Tilling Cost/Acre	**$451.62**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Beardless Wheatgrass - Whitmar	5.00	16.30	$58.63
Mountain Brome - Bromar	10.00	16.07	$38.00
Bottlebrush Squirreltail	2.50	11.02	$40.56
Sandberg Bluegrass - VNS	5.00	106.18	$42.00
Rocky Mountain Fescue	5.00	80.35	$36.25
Slender Wheatgrass - Native	10.00	36.50	$46.25
Streambank Wheatgrass - Sodar	5.00	16.30	$28.50
Thickspike Wheatgrass - Critana	5.00	17.68	$34.38

Prairie Junegrass	2.50	132.89	$65.00
Totals Seed Mix	50.00	433.28	**$389.56**

Application

Description	**Cost /Acre**
Broadcast seeding [DMG]	$267.22
Total Seed Application Cost/Acre	**$267.22**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
Weed spray, hand, non-aquatic area, nox. [DMG]	$183.16
Total Mulch Application Cost/Acre	**$183.16**

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: 5.72
Estimated Failure Rate: 30%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $1,291.56
Cost /Acre*: $656.78

Initial Job Cost: **$7,387.72**
Reseeding Job Cost: **$1,127.03**
Total Job Cost: **$8,515**
Job Hours: **80.00**

BULLDOZER WORK

Task description: **Replace 8" Topsoil - 5.72 Acres - Stage 3**

Site: **Williams/Illinois Gravel Pit** Permit Action: 2023_Post Inspection Permit/Job#: M1997039

PROJECT IDENTIFICATION

Task #:	008	State:	Colorado	Abbreviation:	None
Date:	9/6/2023 11:06:19 AM	County:	Jackson	Filename:	008
User:	HR1				

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:	$241.38	NA
Operating Cost/Hour:	$143.92	100
Ripper own. Cost/Hour:	$14.11	NA
Ripper op. Cost/Hour:	$7.45	100
Operator Cost/Hour:	$41.30	NA

Total unit Cost/Hour: $448.16
Total Fleet Cost/Hour: **$448.16**

MATERIAL QUANTITIES

Initial Volume:	6,090
Swell factor:	1.000
Loose volume:	**6,090** LCY

Source of estimated volume: Division of Reclamation, Mining & Safety
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 80 feet
Unadjusted hourly production: 984.2 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: -10 %
Average site altitude: 8,450 feet

Material weight: 1,600 lbs/LCY

Weight description: Top Soil

Job Condition Correction Factor		Source
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:	0.700	(FND-MF)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.7676

Adjusted unit production: 755.47 LCY/hr
Adjusted fleet production: **755.47** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.593/LCY

Total job time: **8.06** Hours
Total job cost: **$3,613**

REVEGETATION WORK

Task description: **Revegetate 5.72 Acres - Stage 3**

Site: **Williams/Illinois Gravel Pit** Permit Action: 2023_Post Inspection Permit/Job#: M1997039

PROJECT IDENTIFICATION

Task #: 009 State: Colorado Abbreviation: None
Date: 9/6/2023 11:02:33 AM County: Jackson Filename: 009
User: HR1

Agency or organization name: DRMS

FERTILIZING

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			$	$
			Total Fertilizer Materials Cost/Acre	**$0.00**

Application

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

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	$112.82
Weed control spraying (MEANS 31 31 16.13 3100)	$338.80
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Application

Description	**Cost /Acre**
Broadcast seeding [DMG]	$267.22
Total Seed Application Cost/Acre	**$267.22**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
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Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	**Cost /Acre**
Weed spray, hand, non-aquatic area, nox. [DMG]	$183.16
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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: 5.72
Estimated Failure Rate: 30%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $1,291.56
Cost /Acre*: $656.78

Initial Job Cost: **$7,387.72**
Reseeding Job Cost: **$1,127.03**
Total Job Cost: **$8,515**
Job Hours: **80.00**