

May 6, 2022

Gary Knippa
CJK Milling Company LLC
33084 Bergen Mountain Road
Evergreen, CO 80439



1313 Sherman Street, Room 215
Denver, CO 80203

***RE: Arkansas Valley Slag (AVS), File No. M-2021-058, Contruction Material Regular (112)
Operation Reclamation Permit Application Decision Letter – Financial and Performance
Warranty Request***

Mr. Knippa:

On May 5, 2022, the Division of Reclamation, Mining and Safety (Division) approved the above noted permit application.

The amount of financial warranty set by the Division for this operation is an amount of **(\$22,067.00)**. A Financial Warranty of the entire amount, as well as a Performance Warranty, must be submitted to the Division before the Reclamation Permit can be issued. Please select a type of Financial Warranty from those detailed in Rule 4.3 and download the applicable Financial Warranty and Performance Warranty forms from the Division's website.

Please make arrangements with Sara Stevenson-Benn at the Division of Reclamation, Mining and Safety Denver Office, phone no. 303.866.3567, ext. 8148 or sara.stevenson-benn@state.co.us for submittal of the Financial and Performance Warranties. Any questions regarding completion, execution and/or submittal of Financial and/or Performance Warranty forms should also be directed to Mrs. Stevenson-Benn.

PLEASE NOTE THAT MINING OPERATIONS MAY NOT COMMENCE UNTIL A PERMIT HAS BEEN ISSUED BY THE DIVISION AFTER RECEIPT OF THE FINANCIAL AND PERFORMANCE WARRANTIES. A PERMIT WILL NOT BE ISSUED UNTIL THE ADEQUACY OF BOTH THE FINANCIAL WARRANTY AND PERFORMANCE WARRANTY ARE VERIFIED BY THE DIVISION.

If you require additional information, or have questions or concerns, please contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Dustin Czapla', is located below the 'Sincerely,' text.

Dustin Czapla
Environmental Protection Specialist
Division of Reclamation, Mining and Safety
Phone: (303) 866-3567, ext. 8188

Enc: Reclamation Cost Estimate 2022-05-05



COST SUMMARY WORK

Task description: Reclamation Cost Estimate

Permit Action: 2022-05-05
Reclamation Cost
Estimate

Site: Arkansas Valley Slag (AVS)

Permit/Job#: M2021058

PROJECT IDENTIFICATION

Task #: 000 State: Colorado Abbreviation: None
Date: 5/6/2022 County: Lake Filename: M058-000
User: DMC

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
01a	Remove rock berms and check dams	DOZER	1	0.35	\$82
02a	Grade mining area	DOZER	1	28.16	\$6,657
03a	Vegetate affected areas	REVEGE	1	8.00	\$9,492
04a	Mobilize reclamation crew/equipment	MOBILIZE	1	2.22	\$2,356
<u>SUBTOTALS:</u>				38.73	\$18,587

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	\$375
Performance bond:	1.05	Total =	\$195
Job superintendent:	0.00	Total =	\$0
Profit:	10.00	Total =	\$1,859
		TOTAL O & P =	\$2,429
		CONTRACT AMOUNT (direct + O & P) =	\$21,016

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	\$0	Total =	\$0
Engineering work and/or contract/bid preparation:	0.00	Total =	\$0
Reclamation management and/or administration:	5.00		\$1,051

CONTINGENCY: 0.00 Total = \$0

TOTAL INDIRECT COST = \$3,480

TOTAL BOND AMOUNT (direct + indirect) = \$22,067

BULLDOZER WORKTask description: **Remove rock berms and check dams**Permit Action: 2022-05-05
Reclamation Cost
EstimateSite: **Arkansas Valley Slag (AVS)**Permit/Job#: M2021058**PROJECT IDENTIFICATION**Task #: 01A
Date: 5/6/2022
User: DMCState: Colorado
County: LakeAbbreviation: None
Filename: M058-01aAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D8T - 8SU
Horsepower: 310
Blade Type: Semi-Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$97.46</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$97.63</u>	<u>100</u>
Ripper own. Cost/Hour:	<u>\$0.00</u>	<u>NA</u>
Ripper op. Cost/Hour:	<u>\$0.00</u>	<u>0</u>
Operator Cost/Hour:	<u>\$41.30</u>	<u>NA</u>
Total unit Cost/Hour:	<u>\$236.39</u>	
Total Fleet Cost/Hour:	<u>\$236.39</u>	

MATERIAL QUANTITIESInitial Volume: 250
Swell factor: 1.000
Loose volume: **250 LCY**Source of estimated volume: Division of Reclamation, Mining & Safety
Source of estimated swell
factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feet
Unadjusted hourly
production: 1,400.0 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push
gradient: 0 %
Average site altitude: 9,800 feetMaterial weight: 3,300 lbs/LCYWeight description: Decomposed rock - 75% Rock, 25% Earth

Job Condition Correction Factor

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(CAT HB)
Dozing method:	1.100	(50% SL)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.697	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5155

Adjusted unit
production: 721.70 LCY/hr
Adjusted fleet
production: **721.7** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.328/LCY

Total job time: **0.35** Hours
Total job cost: **\$82**

BULLDOZER WORKTask description: Grade mining areaPermit Action: 2022-05-05
Reclamation Cost
EstimateSite: Arkansas Valley Slag (AVS)Permit/Job#: M2021058**PROJECT IDENTIFICATION**Task #: 02A
Date: 5/6/2022
User: DMCState: Colorado
County: LakeAbbreviation: None
Filename: M058-02aAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D8T - 8SU
Horsepower: 310
Blade Type: Semi-Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$97.46	NA
Operating Cost/Hour:	\$97.63	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.30	NA
Total unit Cost/Hour:	\$236.39	
Total Fleet Cost/Hour:	\$236.39	

MATERIAL QUANTITIESInitial Volume: 10,000
Swell factor: 1.000
Loose volume: **10,000 LCY**Source of estimated volume: Division of Reclamation, Mining & Safety
Source of estimated swell
factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 100 feet
Unadjusted hourly
production: 852.6 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push
gradient: 0 %
Average site altitude: 9,800 feetMaterial weight: 3,300 lbs/LCYWeight description: Decomposed rock - 75% Rock, 25% Earth

Job Condition Correction Factor

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(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:	0.697	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4165

Adjusted unit
production: 355.11 LCY/hr
Adjusted fleet
production: **355.11** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.666/LCY

Total job time: **28.16** Hours
Total job cost: **\$6,657**

REVEGETATION WORKTask description: Vegetate affected areasPermit Action: 2022-05-05
Reclamation Cost
EstimateSite: Arkansas Valley Slag (AVS)Permit/Job#: M2021058**PROJECT IDENTIFICATION**Task #: 03A
Date: 5/6/2022
User: DMCState: Colorado
County: LakeAbbreviation: None
Filename: M058-03aAgency 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
Chisel plowing {DMG}	\$96.50
Weed control spraying (MEANS 31 31 16.13 3100)	\$290.40
Total Tilling Cost/Acre	\$386.90

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Wildrye - Arlington or Elkton	1.75	6.03	\$11.66
Nodding Brome	2.50	6.23	\$21.25
Creeping Red Fescue - Shademaster II	0.50	6.31	\$1.03
Lupine, Annual	1.00	0.73	\$35.98
Hard Fescue - Durar	0.50	6.49	\$1.46
Sheep Fescue - Covar	0.50	7.81	\$3.05
Slender Wheatgrass - San Luis	1.40	5.11	\$5.95

Muttongrass	0.50	10.33	\$17.20
Red Top	0.10	11.46	\$0.79
Tufted Hairgrass	0.50	28.70	\$5.51
Yarrow, White	0.10	6.36	\$4.00
Totals Seed Mix	9.35	95.54	\$107.87

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	\$307.02	\$614.04
Total Mulch Materials Cost/Acre				\$614.04

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$71.57
Power mulcher (MEANS 32 91 13.16 0350)	\$106.29
Total Mulch Application Cost/Acre	\$177.86

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 Cost /Acre: \$1,518.67
 Estimated Failure Rate: 25% Cost /Acre*: \$1,518.67
 *Selected Replanting Work Items: TILLING,SEEDING,MULCHING

Initial Job Cost: \$7,593.35
 Reseeding Job Cost: \$1,898.34
 Total Job Cost: \$9,492
 Job Hours: 8.00

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Mobilize reclamation crew/equipment**Permit Action: 2022-05-05

Reclamation Cost

Site: Arkansas Valley Slag (AVS)

Estimate

Permit/Job#: M2021058**PROJECT IDENTIFICATION**Task #: 04AState: ColoradoAbbreviation: NoneDate: 5/6/2022County: LakeFilename: M058-04aUser: DMCAgency or organization name: DRMS**EQUIPMENT TRANSPORT RIG COST**Shift basis: 1 per dayCost Data Source: CRG DataTruck 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	47.71	\$97.46	\$132.49	1	\$229.95	\$132.49	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$7.98	\$68.37	1	\$76.35	\$68.37	\$250.00
Power Mulcher (Bowie LD-90)	6.00	\$14.98	\$68.37	1	\$83.35	\$68.37	\$250.00

Subtotals: **\$389.65** **\$269.23** **\$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, 4x4, 3/4 T.	\$12.93	1	\$12.93	\$12.93

Subtotals: **\$12.93** **\$12.93**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region: LEADVILLE
 Total one-way travel distance: 2.00 miles
 Average Travel Speed: 35.00 mph

Total Non-Roadable Mob/Demob Cost * \$2,354.60
 ** two round trips with haul rig:
 Total Roadable Mob/Demob Cost ** \$1.48
 ** one round trip, no haul rig:

Transportation Cycle Time:

	Non- Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.06	0.06
Return Time (Hours):	0.06	0.06
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	1.11	0.11

JOB TIME AND COST

Total job time: 2.23 Hours

Total job cost: \$2,356