COLORADO
Division of Reclamation, Mining and Safety
Department of Natural Resources

October 18, 2024

John M. Warren
Connell Resources, Inc.
7785 Highland Meadows Parkway, Suite 100
Fort Collins, Co 80528

Re: 5J Pit – File No. M-2024-032
Connell Resources, Inc.
112c Construction Materials
Reclamation Application

Dear John M. Warren:

On October 18, 2024 the Division of Reclamation, Mining and Safety concluded its review of the Construction Materials Reclamation Permit Application submitted to the Division on June 25, 2024. The decision reached by the Division is: Awaiting warranty. The amount of financial warranty set by the Division for this operation is $186,050.00. You must submit a financial warranty in this amount and a performance warranty in order for us to issue a permit. In the event you have requested a financial warranty form, we will provide you with the applicable form. If you have not, please select a type of financial warranty from Rule 4.3, and then contact us so that we can provide you with the appropriate warranty form. We have enclosed a performance warranty form with this letter for your use.

PLEASE NOTE THAT MINING OPERATIONS MAY NOT COMMENCE UNTIL A PERMIT HAS BEEN ISSUED BY THE DIVISION AFTER RECEIPT OF YOUR FINANCIAL AND PERFORMANCE WARRANTIES. A PERMIT CANNOT BE ISSUED UNTIL WE HAVE VERIFIED THE ADEQUACY OF YOUR FINANCIAL AND PERFORMANCE WARRANTIES.

M-2024-032: Approved Surety and Acreage	
Reclamation Liability (Required Surety):	$186,050.00
Approved Permit Acreage:	56.40
Approved Affected Acreage:	56.40

If you have any questions, please contact me by telephone at (720) 812-2002, or by email at Joel.renfro@state.co.us

Sincerely,

Joel Renfro

Joel Renfro
Environmental Protection Specialist

cc: Bill Schenderlein

COLORADO
Division of Reclamation, Mining and Safety
Department of Natural Resources

PERFORMANCE WARRANTY

Permittee/Operator: Connell Resources, Inc.
Operation known as: 5J Pit

Permit Number: M-2024-032

This form is approved by the Colorado Mined Land Reclamation Board ("Board") pursuant to C.R.S. 34-32-117 of the Colorado Mined Land Reclamation Act and C.R.S. 34-32.5-117 of the Colorado Land Reclamation Act for the Extraction of Construction Materials.

All parties are on Notice from this Document that:

The above listed Operator provides this warranty to the Board in conjunction with a reclamation Permit to conduct the above described mining operation on certain lands in Colorado. The "Affected Lands" are described in the above listed reclamation Permit, and include any Permit Amendment(s) approved by the Division of Reclamation Mining and Safety ("Division").

The Colorado Mined Land Reclamation Act, C.R.S. 34-32-101 et seq. ("Hard Rock Act"), and the Colorado Land Reclamation Act for the Extraction of Construction Materials, C.R.S. 34-32.5-101 et seq. ("Construction Materials Act"), both require a permit issued by the Board to include a written promise by the Operator to comply with all requirements of the Hard Rock and Construction Materials Acts (referred to herein together as "Acts").

Through the terms and conditions of this performance warranty and Permit, the Operator agrees to be bound by all requirements of the Acts and all Mineral Rules and Regulations of the Board for Hard Rock, Metal, and Designated Mining Operations (2 C.C.R. 407-1) and all Mineral Rules and Regulations of the Board for the Extraction of Construction Materials (2 C.C.R. 407-4) (referred to herein together as "Rules").

The Operator hereby provides the Board warranties of performance pursuant to C.R.S. 34-32-117(2), (3), and (4)/C.R.S. 34-32.5-117(2), (3), and (4), and promises the Board it will comply with all applicable requirements of the Acts and Rules.

The Operator hereby promises the Board it will comply with all of the terms of the reclamation Permit, including any Permit Amendment(s) approved by the Division. This performance warranty obligation of the Operator shall continue until the Operator's liability is released by the Board.

The Operator promises to be responsible for reclamation costs up to the amount established by the Board and incorporates its financial warranty to this performance warranty. The Operator agrees to maintain a financial warranty (or warranties) in good standing for the reclamation costs for the entire life of the Permit. The amount of the financial warranty shall be sufficient to assure the completion of reclamation of affected lands if the Division has to complete such reclamation due to forfeiture. If the Board determines the Operator is in default under this performance warranty and the Operator fails to cure such default, the Operator's financial warranty shall be subject to forfeiture pursuant to C.R.S. 34-32-118/34-32.5-118.

This performance warranty by the Operator is perpetual and shall remain in full force and effect until all obligations have been met and all associated financial warranty is released by the Board. Any release of liability in a succession of Operators shall comply with C.R.S. 34-32-119/34-32.5-119.

The provisions hereof shall bind and inure to the benefit of the parties hereto and their successors and assigns.

SIGNED, SEALED AND DATED this ________ day of ______________________, ________
(date) (month) (year)

Operator: Connell Resources, Inc.

Signature: ______________________________

Name: ______________________________

Title: ______________________________

NOTARIZATION OF OPERATOR'S ACKNOWLEDGEMENT

STATE OF ______________________)
) ss.
COUNTY OF ______________________)

The foregoing instrument was acknowledged before me this ________ day of ______________________, ________
(date) (month) (year)

by: ____________________ as ____________________ of Connell Resources, Inc.
(name) (title) (Operator)

Notary Public: ____________________

My Commission Expires ____________________

APPROVED:
State of Colorado
Mined Land Reclamation Board
Division of Reclamation, Mining and Safety

By: Michael A. Cunningham ______________________ Date Executed: ____________
Division Director

COST SUMMARY WORK

Task description: **Cost Summary**

Site: **5J Pit** Permit Action: New Permit Permit/Job#: M2024032

PROJECT IDENTIFICATION

Task #: 000 State: Colorado Abbreviation: None
Date: 10/15/2024 County: Larimer Filename: M032-000
User: JR2

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Aspect A - Doze active mine face to 3H:1V	DOZER	2	5.91	$3,820
002	Aspect A - Backfill pit side sloped to 3H:1V	DOZER	2	11.83	$7,641
003	Aspect A - Rough grade	DOZER	2	7.31	$4,722
004	Aspect A - Place growth medium	SCRAPER1	1	12.42	$22,710
005	Aspect A - Final grade	DOZER	2	7.31	$4,722
006	Aspect B - Scarify Pit floor	RIPPER	2	6.02	$4,166
007	Aspect B - Rough grade	DOZER	2	6.64	$4,292
008	Aspect B - Place growth medium	SCRAPER1	1	13.69	$25,033
009	Aspect B - Final grade	DOZER	2	8.06	$5,205
010	Aspect C - Place growth medium	SCRAPER1	1	10.02	$18,324
011	Aspect C - Final grade	DOZER	2	5.90	$3,809
012	Aspect D - Scarify employee areas	RIPPER	2	1.50	$1,041
013	Aspect D - Rough grade	DOZER	2	1.66	$1,073
014	Aspect D - Place growth medium	SCRAPER1	1	1.41	$2,580
015	Aspect D - Final grade	DOZER	2	1.66	$1,073
016	Seed all disturbed areas	REVEGE	1	48.30	$22,808
017	Re-seed 20% of disturbed areas	REVEGE	1	9.70	$4,545
018	Mob/Demob	MOBILIZE	1	5.60	$12,942
			SUBTOTALS:	**164.94**	**$150,506**

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	$3,040
Performance bond:	1.05	Total =	$1,580
Job superintendent:	82.47	Total =	$6,537
Profit:	10.00	Total =	$15,051
		TOTAL O & P =	$26,209
		CONTRACT AMOUNT (direct + O & P) =	$176,715

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		$8,836
CONTINGENCY:	0.00	Total =	$0

TOTAL INDIRECT COST = $35,544

TOTAL BOND AMOUNT (direct + indirect) = $186,050

BULLDOZER WORK

Task description: **Aspect A - Doze active mine face to 3H:1V**

Site: **5J Pit** Permit Action: New Permit Permit/Job#: M2024032

PROJECT IDENTIFICATION

Task #: 001 State: Colorado Abbreviation: None
Date: 10/15/2024 County: Larimer Filename: 001
User: JR2

Agency 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:

		Utilization %
Ownership Cost/Hour:	$173.32	NA
Operating Cost/Hour:	$109.71	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$40.04	NA

Total unit Cost/Hour: $323.07
Total Fleet Cost/Hour: **$646.13**

MATERIAL QUANTITIES

Initial Volume: 6,250
Swell factor: 1.125
Loose volume: **7,031** LCY

Source of estimated volume: Operator Estimate
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 50 feet
Unadjusted hourly production: 1,400.0 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: 10 %
Average site altitude: 5,410 feet

Material weight: 2,650 lbs/LCY

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

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:	1.000	(DOZ-OC)
Push gradient:	0.786	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4247

Adjusted unit production: 594.58 LCY/hr
Adjusted fleet production: **1189.16** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: $0.543/LCY

Total job time: **5.91** Hours
Total job cost: **$3,820**

BULLDOZER WORK

Task description: **Aspect A - Backfill pit side sloped to 3H:1V**

Site: **5J Pit** Permit Action: New Permit Permit/Job#: M2024032

PROJECT IDENTIFICATION

Task #: 002
Date: 10/15/2024
User: JR2
State: Colorado
County: Larimer
Abbreviation: None
Filename: M032-002

Agency 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:

		Utilization %
Ownership Cost/Hour:	$173.32	NA
Operating Cost/Hour:	$109.71	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$40.04	NA

Total unit Cost/Hour: $323.07
Total Fleet Cost/Hour: **$646.13**

MATERIAL QUANTITIES

Initial Volume: 12,500
Swell factor: 1.125
Loose volume: **14,063** LCY

Source of estimated volume: Operator Estimate
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 50 feet
Unadjusted hourly production: 1,400.0 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: 10 %
Average site altitude: 5,410 feet

Material weight: 2,650 lbs/LCY

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

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:	1.000	(DOZ-OC)
Push gradient:	0.786	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4247

Adjusted unit production: 594.58 LCY/hr
Adjusted fleet production: **1189.16** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: $0.543/LCY

Total job time: **11.83** Hours
Total job cost: **$7,641**

BULLDOZER WORK

Task description: **Aspect A - Rough grade**

Site: **5J Pit** Permit Action: New Permit Permit/Job#: M2024032

PROJECT IDENTIFICATION

Task #: 003 State: Colorado Abbreviation: None
Date: 10/15/2024 County: Larimer Filename: 003
User: JR2

Agency 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:

		Utilization %
Ownership Cost/Hour:	$173.32	NA
Operating Cost/Hour:	$109.71	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$40.04	NA

Total unit Cost/Hour: $323.07
Total Fleet Cost/Hour: **$646.13**

MATERIAL QUANTITIES

Initial Volume: 7,099
Swell factor: 1.125
Loose volume: **7,986** LCY

Source of estimated volume: Operator Estimate (8.8ac x 6in)
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 50 feet
Unadjusted hourly production: 1,400.0 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: 5 %
Average site altitude: 5,410 feet

Material weight: 2,650 lbs/LCY

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

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:	0.800	(FND-RF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3903

Adjusted unit production: 546.42 LCY/hr
Adjusted fleet production: **1092.84** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: $0.591/LCY

Total job time: **7.31** Hours
Total job cost: **$4,722**

SCRAPER TEAM WORK

Task description: **Aspect A - Place growth medium**

Site: **5J Pit** Permit Action: New Permit Permit/Job#: M2024032

PROJECT IDENTIFICATION

Task #: 004 State: Colorado Abbreviation: None
Date: 10/15/2024 County: Larimer Filename: M032-004
User: JR2

Agency or organization name: DRMS

HOURLY EQUIPMENT

COSTShift basis: 1 per day

	Equipment Description
-Scraper:	Cat 631G
-Dozer:	NA
Support Equipment -Load Area:	NA
-Dump Area:	Cat D8T - 8SU
Road Maintenance –Motor Grader:	NA
-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	100	NA	NA
Ownership cost/hour:	$442.19	NA	NA	$173.32	NA	NA
Operating cost/hour:	$252.89	NA	NA	$109.71	NA	NA
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	NA	$0.00	NA	NA
Ripper op. cost/hour:	NA	NA	NA	$0.00	NA	NA
Operator cost/hour:	$57.52	NA	NA	$40.04	NA	NA
Unit Subtotals:	$752.60	NA	NA	$323.07	NA	NA
Number of Units:	2	0	0	1	0	0
Group Subtotals:	Work:	$1,505.20	Support:	$323.07	Maint:	$0.00

Total work team cost/hour: **$1,828.27**

MATERIAL QUANTITIES

Initial volume: 14,197 CCY Swell factor: 1.215
Loose volume: **17,249** LCY

Source of estimated volume: Operator Estimate (8.8ac x 1ft)
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Scraper Bowl (volume) Basis:

Material weight: 1,600 lbs/LCY
Material description: Top Soil
Rated Payload: 81,600 pounds
Payload Capacity: 51.00 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: 0.80 Minutes
Maneuver and Spread Time: 0.70 Minutes

Job Condition Correction: Site Altitude: 5410 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, 1" tire penetration 4.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	300.00	5.00	4.00	9.00	733	0.43

Haul Time: **0.43** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	300.00	-5.00	4.00	-1.00	2920	0.15

Return Time: **0.15** minutes

Total Scraper team cycle time: **2.08** minutes
Adjusted for job conditions: 694.33 LCY/Hour
Selected Number of Scrapers: 2 Scraper(s)
Adjusted single scraper team (unit) hourly production: 1,388.65 LCY/Hour
Adjusted multiple scraper team (fleet) hourly production: **1,388.65** LCY/Hour

Unadjusted unit production/hour: 836.54 LCY/Hour
Optimal Number of Scrapers per push dozer: ____

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **12.42** Hours

Unit cost: $1.317 /LCY Total job cost: **$22,710**

BULLDOZER WORK

Task description: **Aspect A - Final grade**

Site: **5J Pit** Permit Action: New Permit Permit/Job#: M2024032

PROJECT IDENTIFICATION

Task #: 005 State: Colorado Abbreviation: None
Date: 10/15/2024 County: Larimer Filename: M032-005
User: JR2

Agency 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:

		Utilization %
Ownership Cost/Hour:	$173.32	NA
Operating Cost/Hour:	$109.71	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$40.04	NA

Total unit Cost/Hour: $323.07
Total Fleet Cost/Hour: **$646.13**

MATERIAL QUANTITIES

Initial Volume: 7,099
Swell factor: 1.125
Loose volume: **7,986** LCY

Source of estimated volume: Operator Estimate (8.8ac x 6in)
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 50 feet
Unadjusted hourly production: 1,400.0 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: 5 %
Average site altitude: 5,410 feet

Material weight: 2,650 lbs/LCY

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

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:	0.800	(FND-RF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3903

Adjusted unit production: 546.42 LCY/hr
Adjusted fleet production: **1092.84** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: $0.591/LCY

Total job time: **7.31** Hours
Total job cost: **$4,722**

BULLDOZER RIPPING WORK

Task description: **Aspect B - Scarify Pit floor**

Site: **5J Pit** Permit Action: New Permit Permit/Job#: M2024032

PROJECT IDENTIFICATION

Task #: 006 State: Colorado Abbreviation: None
Date: 10/15/2024 County: Larimer Filename: M032-006
User: JR2

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D8T - 8SU Horsepower: 310
Ripper Attachment: 3-Shank Ripper Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$173.32	NA
Operating Cost/Hour:	$109.71	100
Ripper Ownership Cost/Hour:	$14.53	NA
Ripper Operating Cost/Hour:	$7.95	100
Operator Cost/Hour:	$40.04	NA
Total Unit Cost/Hour:	$345.55	

Total Fleet Cost/Hour: **$691.09**

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 8.00 acres Rip Depth (ft): 2.00 Volume: 25,813 BCY or CCY

Source of estimated quantity: Operator Estimate

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth:	2.56	feet/pass
Average Ripping Width:	7.08	feet/pass
Average Ripping Length:	300.00	feet/pass
Average Dozer Speed:	88.00	feet/minute
Average Maneuver Time:	0.25	minutes/pass
Production per unit area:	0.800	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production:	0.800	Acres/hr
Site Altitude:	5,410	feet
Altitude Adj:	1.00	(CAT HB)
Job Efficiency:	0.83	(1 shift/day)
Net Correction:	0.83	multiplier

Adjusted Hourly Unit Production: 0.66 Acres/hr
Adjusted Hourly Fleet Production: **1.33** Acres/hr

JOB TIME AND COST

Fleet size: 2 Grader(s) Total job time: **6.03** Hours

Unit cost: $520.701 Per acre Total job cost: **$4,166**

BULLDOZER WORK

Task description: **Aspect B - Rough grade**

Site: **5J Pit** Permit Action: New Permit Permit/Job#: M2024032

PROJECT IDENTIFICATION

Task #: 007 State: Colorado Abbreviation: None
Date: 10/15/2024 County: Larimer Filename: M032-007
User: JR2

Agency 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:

		Utilization %
Ownership Cost/Hour:	$173.32	NA
Operating Cost/Hour:	$109.71	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$40.04	NA

Total unit Cost/Hour: $323.07
Total Fleet Cost/Hour: **$646.13**

MATERIAL QUANTITIES

Initial Volume: 6,453
Swell factor: 1.125
Loose volume: **7,260** LCY

Source of estimated volume: Operator Estimate (8ac x 6in)
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 50 feet
Unadjusted hourly production: 1,400.0 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: 5 %
Average site altitude: 5,410 feet

Material weight: 2,650 lbs/LCY

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

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:	0.800	(FND-RF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3903

Adjusted unit production: 546.42 LCY/hr
Adjusted fleet production: **1092.84** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: $0.591/LCY

Total job time: **6.64** Hours
Total job cost: **$4,292**

SCRAPER TEAM WORK

Task description: **Aspect B - Place growth medium**

Site: **5J Pit** Permit Action: New Permit Permit/Job#: M2024032

PROJECT IDENTIFICATION

Task #: 008 State: Colorado Abbreviation: None
Date: 10/15/2024 County: Larimer Filename: M032-008
User: JR2

Agency or organization name: DRMS

HOURLY EQUIPMENT

COSTShift basis: 1 per day

	Equipment Description
-Scraper:	Cat 631G
-Dozer:	NA
Support Equipment -Load Area:	NA
-Dump Area:	Cat D8T - 8SU
Road Maintenance –Motor Grader:	NA
-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	100	NA	NA
Ownership cost/hour:	$442.19	NA	NA	$173.32	NA	NA
Operating cost/hour:	$252.89	NA	NA	$109.71	NA	NA
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	NA	$0.00	NA	NA
Ripper op. cost/hour:	NA	NA	NA	$0.00	NA	NA
Operator cost/hour:	$57.52	NA	NA	$40.04	NA	NA
Unit Subtotals:	$752.60	NA	NA	$323.07	NA	NA
Number of Units:	2	0	0	1	0	0
Group Subtotals:	Work:	$1,505.20	Support:	$323.07	Maint:	$0.00

Total work team cost/hour: **$1,828.27**

MATERIAL QUANTITIES

Initial volume: 15,649 CCY Swell factor: 1.215
Loose volume: **19,014** LCY

Source of estimated volume: Operator Estimate (9.7ac x 1ft)
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Scraper Bowl (volume) Basis:

Material weight: 1,600 lbs/LCY
Material description: Top Soil
Rated Payload: 81,600 pounds
Payload Capacity: 51.00 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: 0.80 Minutes
Maneuver and Spread Time: 0.70 Minutes

Job Condition Correction: Site Altitude: 5410 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, 1" tire penetration 4.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	300.00	5.00	4.00	9.00	733	0.43

Haul Time: **0.43** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	300.00	-5.00	4.00	-1.00	2920	0.15

Return Time: **0.15** minutes

Total Scraper team cycle time: **2.08** minutes
Adjusted for job conditions: 694.33 LCY/Hour
Selected Number of Scrapers: 2 Scraper(s)
Adjusted single scraper team (unit) hourly production: 1,388.65 LCY/Hour
Adjusted multiple scraper team (fleet) hourly production: **1,388.65** LCY/Hour

Unadjusted unit production/hour: 836.54 LCY/Hour
Optimal Number of Scrapers per push dozer: ____

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **13.69** Hours

Unit cost: $1.317 /LCY Total job cost: **$25,033**

BULLDOZER WORK

Task description: **Aspect B - Final grade**

Site: **5J Pit** Permit Action: New Permit Permit/Job#: M2024032

PROJECT IDENTIFICATION

Task #: 009 State: Colorado Abbreviation: None
Date: 10/15/2024 County: Larimer Filename: M032-009
User: JR2

Agency 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:

		Utilization %
Ownership Cost/Hour:	$173.32	NA
Operating Cost/Hour:	$109.71	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$40.04	NA

Total unit Cost/Hour: $323.07
Total Fleet Cost/Hour: **$646.13**

MATERIAL QUANTITIES

Initial Volume: 7,825
Swell factor: 1.125
Loose volume: **8,803** LCY

Source of estimated volume: Operator Estimate (9.7ac x 6in)
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 50 feet
Unadjusted hourly production: 1,400.0 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: 5 %
Average site altitude: 5,410 feet

Material weight: 2,650 lbs/LCY

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

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:	0.800	(FND-RF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3903

Adjusted unit production: 546.42 LCY/hr
Adjusted fleet production: **1092.84** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: $0.591/LCY

Total job time: **8.06** Hours
Total job cost: **$5,205**

SCRAPER TEAM WORK

Task description: **Aspect C - Place growth medium**

Site: **5J Pit** Permit Action: New Permit Permit/Job#: M2024032

PROJECT IDENTIFICATION

Task #: 010 State: Colorado Abbreviation: None
Date: 10/15/2024 County: Larimer Filename: M032-010
User: JR2

Agency or organization name: DRMS

HOURLY EQUIPMENT

COSTShift basis: 1 per day

	Equipment Description
-Scraper:	Cat 631G
-Dozer:	NA
Support Equipment -Load Area:	NA
-Dump Area:	Cat D8T - 8SU
Road Maintenance –Motor Grader:	NA
-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	100	NA	NA
Ownership cost/hour:	$442.19	NA	NA	$173.32	NA	NA
Operating cost/hour:	$252.89	NA	NA	$109.71	NA	NA
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	NA	$0.00	NA	NA
Ripper op. cost/hour:	NA	NA	NA	$0.00	NA	NA
Operator cost/hour:	$57.52	NA	NA	$40.04	NA	NA
Unit Subtotals:	$752.60	NA	NA	$323.07	NA	NA
Number of Units:	2	0	0	1	0	0
Group Subtotals:	Work:	$1,505.20	Support:	$323.07	Maint:	$0.00

Total work team cost/hour: **$1,828.27**

MATERIAL QUANTITIES

Initial volume: 11,455 CCY Swell factor: 1.215
Loose volume: **13,918** LCY

Source of estimated volume: Operator Estimate (7.1ac x 1ft)
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Scraper Bowl (volume) Basis:

Material weight: 1,600 lbs/LCY
Material description: Top Soil
Rated Payload: 81,600 pounds
Payload Capacity: 51.00 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: 0.80 Minutes
Maneuver and Spread Time: 0.70 Minutes

Job Condition Correction: Site Altitude: 5410 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, 1" tire penetration 4.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	300.00	5.00	4.00	9.00	733	0.43

Haul Time: **0.43** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	300.00	-5.00	4.00	-1.00	2920	0.15

Return Time: **0.15** minutes

Total Scraper team cycle time: **2.08** minutes
Adjusted for job conditions: 694.33 LCY/Hour
Selected Number of Scrapers: 2 Scraper(s)
Adjusted single scraper team (unit) hourly production: 1,388.65 LCY/Hour
Adjusted multiple scraper team (fleet) hourly production: **1,388.65** LCY/Hour

Unadjusted unit production/hour: 836.54 LCY/Hour
Optimal Number of Scrapers per push dozer: ______

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **10.02** Hours

Unit cost: $1.317 /LCY Total job cost: **$18,324**

BULLDOZER WORK

Task description: **Aspect C - Final grade**

Site: **5J Pit** Permit Action: New Permit Permit/Job#: M2024032

PROJECT IDENTIFICATION

Task #: 011 State: Colorado Abbreviation: None
Date: 10/15/2024 County: Larimer Filename: M032-011
User: JR2

Agency 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:

		Utilization %
Ownership Cost/Hour:	$173.32	NA
Operating Cost/Hour:	$109.71	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$40.04	NA

Total unit Cost/Hour: $323.07
Total Fleet Cost/Hour: **$646.13**

MATERIAL QUANTITIES

Initial Volume: 5,727
Swell factor: 1.125
Loose volume: **6,443** LCY

Source of estimated volume: Operator Estimate (7.1ac x 6in)
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 50 feet
Unadjusted hourly production: 1,400.0 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: 5 %
Average site altitude: 5,410 feet

Material weight: 2,650 lbs/LCY

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

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:	0.800	(FND-RF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3903

Adjusted unit production: 546.42 LCY/hr
Adjusted fleet production: **1092.84** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: $0.591/LCY

Total job time: **5.90** Hours
Total job cost: **$3,809**

BULLDOZER RIPPING WORK

Task description: **Aspect D - Scarify employee areas**

Site: **5J Pit** Permit Action: New Permit Permit/Job#: M2024032

PROJECT IDENTIFICATION

Task #:	012	State:	Colorado	Abbreviation:	None
Date:	10/15/2024	County:	Larimer	Filename:	M032-012
User:	JR2				

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine:	Cat D8T - 8SU	Horsepower:	310
Ripper Attachment:	3-Shank Ripper	Shift Basis:	1 per day
		Data Source:	(CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$173.32	NA
Operating Cost/Hour:	$109.71	100
Ripper Ownership Cost/Hour:	$14.53	NA
Ripper Operating Cost/Hour:	$7.95	100
Operator Cost/Hour:	$40.04	NA
Total Unit Cost/Hour:	$345.55	
Total Fleet Cost/Hour:	**$691.09**	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic:	NA		Bank Volume:	NA	BCY	NA	
Area:	2.00	acres	Rip Depth (ft):	2.00	Volume:	6,453	BCY or CCY

Source of estimated quantity: Operator Estimate

HOURLY PRODUCTION

Seismic:

Seismic Velocity:	NA	feet/second

Area:

Average Ripping Depth:	2.56	feet/pass
Average Ripping Width:	7.08	feet/pass
Average Ripping Length:	300.00	feet/pass
Average Dozer Speed:	88.00	feet/minute
Average Maneuver Time:	0.25	minutes/pass
Production per unit area:	0.800	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production:	0.800	Acres/hr
Site Altitude:	5,410	feet
Altitude Adj:	1.00	(CAT HB)
Job Efficiency:	0.83	(1 shift/day)
Net Correction:	0.83	multiplier
Adjusted Hourly Unit Production:	0.66	Acres/hr
Adjusted Hourly Fleet Production:	**1.33**	Acres/hr

JOB TIME AND COST

Fleet size:	2	Grader(s)	Total job time:	**1.51**	Hours
Unit cost:	$520.701	Per acre	Total job cost:	**$1,041**	

BULLDOZER WORK

Task description: **Aspect D - Rough grade**

Site: **5J Pit** Permit Action: New Permit Permit/Job#: M2024032

PROJECT IDENTIFICATION

Task #: 013 State: Colorado Abbreviation: None
Date: 10/15/2024 County: Larimer Filename: M032-013
User: JR2

Agency 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:

		Utilization %
Ownership Cost/Hour:	$173.32	NA
Operating Cost/Hour:	$109.71	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$40.04	NA

Total unit Cost/Hour: $323.07
Total Fleet Cost/Hour: **$646.13**

MATERIAL QUANTITIES

Initial Volume: 1,613
Swell factor: 1.125
Loose volume: **1,815** LCY

Source of estimated volume: Operator Estimate (2ac x 6in)
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 50 feet
Unadjusted hourly production: 1,400.0 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: 5 %
Average site altitude: 5,410 feet

Material weight: 2,650 lbs/LCY

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

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:	0.800	(FND-RF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3903

Adjusted unit production: 546.42 LCY/hr
Adjusted fleet production: **1092.84** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: $0.591/LCY

Total job time: **1.66** Hours
Total job cost: **$1,073**

SCRAPER TEAM WORK

Task description: **Aspect D - Place growth medium**

Site: **5J Pit** Permit Action: New Permit Permit/Job#: M2024032

PROJECT IDENTIFICATION

Task #: 014 State: Colorado Abbreviation: None
Date: 10/15/2024 County: Larimer Filename: M032-014
User: JR2

Agency or organization name: DRMS

HOURLY EQUIPMENT

COSTShift basis: 1 per day

	Equipment Description
-Scraper:	Cat 631G
-Dozer:	NA
Support Equipment -Load Area:	NA
-Dump Area:	Cat D8T - 8SU
Road Maintenance –Motor Grader:	NA
-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	100	NA	NA
Ownership cost/hour:	$442.19	NA	NA	$173.32	NA	NA
Operating cost/hour:	$252.89	NA	NA	$109.71	NA	NA
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	NA	$0.00	NA	NA
Ripper op. cost/hour:	NA	NA	NA	$0.00	NA	NA
Operator cost/hour:	$57.52	NA	NA	$40.04	NA	NA
Unit Subtotals:	$752.60	NA	NA	$323.07	NA	NA
Number of Units:	2	0	0	1	0	0
Group Subtotals:	Work:	$1,505.20	Support:	$323.07	Maint:	$0.00

Total work team cost/hour: **$1,828.27**

MATERIAL QUANTITIES

Initial volume: 1,613 CCY Swell factor: 1.215
Loose volume: **1,960** LCY

Source of estimated volume: Operator Estimate (2ac x 1ft)
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Scraper Bowl (volume) Basis:

Material weight: 1,600 lbs/LCY
Material description: Top Soil
Rated Payload: 81,600 pounds
Payload Capacity: 51.00 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: 0.80 Minutes
Maneuver and Spread Time: 0.70 Minutes

Job Condition Correction: Site Altitude: 5410 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, 1" tire penetration 4.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	300.00	5.00	4.00	9.00	733	0.43

Haul Time: **0.43** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	300.00	-5.00	4.00	-1.00	2920	0.15

Return Time: **0.15** minutes

Total Scraper team cycle time: **2.08** minutes
Adjusted for job conditions: 694.33 LCY/Hour
Selected Number of Scrapers: 2 Scraper(s)
Adjusted single scraper team (unit) hourly production: 1,388.65 LCY/Hour
Adjusted multiple scraper team (fleet) hourly production: **1,388.65** LCY/Hour

Unadjusted unit production/hour: 836.54 LCY/Hour
Optimal Number of Scrapers per push dozer: ____

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **1.41** Hours

Unit cost: $1.317 /LCY Total job cost: **$2,580**

BULLDOZER WORK

Task description: **Aspect D - Final grade**

Site: **5J Pit** Permit Action: New Permit Permit/Job#: M2024032

PROJECT IDENTIFICATION

Task #: 015 State: Colorado Abbreviation: None
Date: 10/15/2024 County: Larimer Filename: M032-015
User: JR2

Agency 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:

		Utilization %
Ownership Cost/Hour:	$173.32	NA
Operating Cost/Hour:	$109.71	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$40.04	NA

Total unit Cost/Hour: $323.07
Total Fleet Cost/Hour: **$646.13**

MATERIAL QUANTITIES

Initial Volume: 1,613
Swell factor: 1.125
Loose volume: **1,815** LCY

Source of estimated volume: Operator Estimate (2ac x 6in)
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 50 feet
Unadjusted hourly production: 1,400.0 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: 5 %
Average site altitude: 5,410 feet

Material weight: 2,650 lbs/LCY

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

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:	0.800	(FND-RF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3903

Adjusted unit production: 546.42 LCY/hr
Adjusted fleet production: **1092.84** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: $0.591/LCY

Total job time: **1.66** Hours
Total job cost: **$1,073**

REVEGETATION WORK

Task description: **Seed all disturbed areas**

Site: **5J Pit** Permit Action: New Permit Permit/Job#: M2024032

PROJECT IDENTIFICATION

Task #: 016 State: Colorado Abbreviation: None
Date: 10/15/2024 County: Larimer Filename: M032-016
User: JR2

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)	$117.61
Weed control spraying (MEANS 31 31 16.13 3100)	$338.80
Total Tilling Cost/Acre	**$456.41**

SEEDING

Seed Mix	**Rate – PLS LBS / Acre**	**Seeds per SQ. FT**	**Cost /Acre**
Switchgrass - Nebraska 28	0.40	3.57	$4.45
Blue Grama - Native	0.45	7.35	$9.60
Sideoats Grama - El Reno	2.70	8.86	$65.95
Western Wheatgrass - Native	4.00	10.10	$36.02
Needlegrass, Green - Lodorm	2.00	8.31	$17.29
Totals Seed Mix	9.55	38.19	**$133.31**

Application

Description	Cost /Acre
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

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: 27.6

Estimated Failure Rate: 0%

*Selected Replanting Work Items: SEEDING

Cost /Acre: $826.36

Cost /Acre*: $369.95

Initial Job Cost: **$22,807.54**

Reseeding Job Cost: **$0.00**

Total Job Cost: **$22,808**

Job Hours: **48.30**

REVEGETATION WORK

Task description: **Re-seed 20% of disturbed areas**

Site: **5J Pit** Permit Action: New Permit Permit/Job#: M2024032

PROJECT IDENTIFICATION

Task #: 017 State: Colorado Abbreviation: None
Date: 10/15/2024 County: Larimer Filename: M032-017
User: JR2

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)	$117.61
Weed control spraying (MEANS 31 31 16.13 3100)	$338.80
Total Tilling Cost/Acre	**$456.41**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Switchgrass - Nebraska 28	0.40	3.57	$4.45
Blue Grama - Native	0.45	7.35	$9.60
Sideoats Grama - El Reno	2.70	8.86	$65.95
Western Wheatgrass - Native	4.00	10.10	$36.02
Needlegrass, Green - Lodorm	2.00	8.31	$17.29
Totals Seed Mix	9.55	38.19	**$133.31**

Application

Description	Cost /Acre
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

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: 5.5
Estimated Failure Rate: 0%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $826.36
Cost /Acre*: $369.95

Initial Job Cost: **$4,544.98**
Reseeding Job Cost: **$0.00**
Total Job Cost: **$4,545**
Job Hours: **9.70**

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: **Mob/Demob**

Site: **5J Pit** Permit Action: New Permit Permit/Job#: M2024032

PROJECT IDENTIFICATION

Task #: 018 State: Colorado Abbreviation: None
Date: 10/15/2024 County: Larimer Filename: M032-018
User: JR2

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:	$10.44	$22.18	$23.94
Operating Cost/Hour:	$26.48	$54.55	$55.65
Operator Cost/Hour:	$22.52	$22.52	$22.52
Helper Cost/Hour:	$0.00	$23.53	$23.53
Total Unit Cost/Hour:	$59.44	$122.78	$125.64

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	$187.85	$125.64	2	$626.98	$251.28	$500.00
Cat 631G	52.50	$442.19	$125.64	2	$1,135.66	$251.28	$500.00
Drill/Broadcast Seeder with Tractor	25.00	$41.02	$59.44	2	$200.92	$118.88	$500.00
				Subtotals:	**$1,963.56**	**$621.44**	**$1,500.00**

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 1 T. Crew	$24.60	1	$24.60	$24.60
		Subtotals:	**$24.60**	**$24.60**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	FORT COLLINS	
Total one-way travel distance:	16.00	miles
Average Travel Speed:	40.00	mph
Total Non-Roadable Mob/Demob Cost * '* two round trips with haul rig:	$12,922.24	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	$19.68	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.40	0.40
Return Time (Hours):	0.40	0.40
Loading Time (Hours):	1.00	NA
Unloading Time (Hours):	1.00	NA
Subtotals:	2.80	0.80

JOB TIME AND COST

Total job time: **5.60** Hours

Total job cost: **$12,942**