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

March 13, 2025

Kevin Peart
Holcim – WCR, Inc.
1687 Cole Blvd. Suite 300
Golden, CO 80401

RE: Daniels Sand Pit 2, Permit No. M-1973-007-SG;
Technical Revision (TR-11) Adequacy Review #2

Dear Mr. Peart,

On March 11, 2025 the Division of Reclamation, Mining and Safety (Division) received your adequacy response letter for TR-11 at the Daniels Sand Pit 2, M-1973-007-SG. The Division has reviewed the above referenced adequacy review response letter and material submitted. The following is a list of the adequacy review items from the Division' s first adequacy review. If additional information or revision is required, it will be noted. If an item is resolved, that will be indicated.

1. The map provided on page 99, after Fig. 3 '7 Year Planned Build Out 2' map, is illegible. Please provide a replacement map for this figure. ***Resolved.***
2. Have Factor of Safety analyses considered rapid drawn down stability calculations for the embankment? If so, please provide figures which illustrate this analysis. If not, please explain why rapid drawn down is not applicable to this project. ***Resolved.***
3. Has the dam raised study evaluated an embankment failure? If so, where, in what quantity, and to what elevation would an embankment failure expect to deposit water and or material? How would a failure impact Academy Blvd. specifically? Please discuss any plans on how the site might mitigate this risk or address it should the embankment fail. ***Resolved.***
4. In the initial permitting of this wash fines impoundment, possible effects on the Schlage lock pump & treat system were investigated. This investigation included reporting on possible groundwater mounding impacts to the lock system. It was reported that although possible mounding from the impoundment would increase the rate of flow of contaminated water to the system, that this would not negatively impact the system itself. Please provide information to ensure that the increased capacity of the impoundment will not have negative impacts on the Schlage pump & treat system. ***Resolved.***
5. Page 2 of the Dam Raise Study states that the current height of the embankment is 22.5 feet. Page 1 states that the proposed change is a 22.5 foot raise to the embankment. Is the Division correct in interpreting this to mean that the proposed dam raise would create an

embankment with a final height of 45 feet? Please also ensure that all figures included in the Dam Raise Study, specifically the cross sections on Figure 6 match this maximum embankment height. ***Resolved.***

6. Clarify for the Division the sequence of Figures in Appendix A labeled as Fig. 1 -3. Do these figures represent a construction sequence? Why is the extended embankment shown on Fig. 2 but not Fig. 3? ***Resolved.***
7. Currently, water within the wash fines pond impounds to the northeast and fines slurry is deposited into the pond through the western embankment. Will the location of impounding water shift with this embankment raise? If so, will the wash fines discharge point remain on the western embankment, or will this be permanently relocated? ***Resolved.***
8. Where will water collected by the embankment's blanket drain / toe drain be discharged to onsite? ***Resolved.***
9. Will there be any additional height raises to the N, E, or S sides of the wash fines pond? Or will earthwork on these slopes be confined to minimal regrade to meet the required 3:1 slopes? ***Resolved.***
10. Please provide narrative to explain to the Division how the site can ensure that enough material of the classified soil composition assumed in the slope stability analysis and soil strength properties is available onsite to construct the embankment as designed and ensure a high enough FOS. ***Resolved.***
11. **The Division has calculated an updated reclamation cost estimate for the Daniels Sand Pit 2. This estimate has been provided with this letter. The Division respectfully requests a response from Holcim- WCR, Inc. with any questions regarding the cost estimate or an acceptance of the Division's estimate.**

Please submit your response(s) to the above listed issue(s) by **March 21, 2025** in order to allow the Division sufficient time for review. If you cannot address the above issues by such date, please request an extension to the decision due date in order to ensure adequate time for the Division to review the materials. A decision due date of March 26, 2025 has been set. If any adequacy issues remain by the decision due date the Division may deny your request.

The Division will continue to review your Technical Revision and will contact you if additional information is needed.

If you require additional information, or have questions or concerns, please feel free to contact me at 720-868-7757 or hunter.ridley@state.co.us

Sincerely,
Hunter C. Ridley

Hunter Ridley

Environmental Protection Specialist
CC: Zach Trujillo, DRMS

COST SUMMARY WORK

Task description:

Site: **Daniels Sand Pit 2** Permit Action: TR11 Permit/Job#: M1973007SG

PROJECT IDENTIFICATION

Task #: 000 State: Colorado Abbreviation: None
Date: 3/12/2025 County: El Paso Filename: M007-000
User: HR1

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
E03	Forest/Shrub East Sediment Basin	REVEGE	1	80.00	$9,499
E16	Backfill Reconstruction-S.side E. Sed basin	SCRAPER1	1	49.47	$119,507
E17	Backfill Reconstruction-S.side New Sed basin	SCRAPER1	1	32.10	$77,548
E18	Backfill Reconstruction-S. & SE sides of Sed basin	SCRAPER1	1	48.67	$111,028
E19	Grade Embankment-W.side E. Sed basin (wash fines pond)	GRADER	1	5.09	$1,404
P09	Replace TS on Pit Floor	SCRAPER1	1	77.87	$182,665
P10	Seed Pit Floor	REVEGE	1	220.00	$81,792
P11	Replace TS on Pit Slopes	SCRAPER1	1	123.52	$289,757
P12	Seed Pit Slopes	REVEGE	1	200.00	$91,185
W01	Backfill West Sediment Basin	TRUCK1	1	80.83	$75,549
W02	Replace TS West Sediment Basin	TRUCK1	1	35.81	$39,388
W3A	Seed West Sediment Basin	REVEGE	1	40.00	$12,852
W3B	Forest/Shrub West Sediment Basin	REVEGE	1	40.00	$4,176
Z99	Mob / Demob Equipment	MOBILIZE	1	1.44	$9,469
		SUBTOTALS:		**1034.8**	**$1,105,819**

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	$22,338
Performance bond:	1.05	Total =	$11,611
Job superintendent:	517.40	Total =	$41,014
Profit:	10.00	Total =	$110,582
		TOTAL O & P =	$185,545
		CONTRACT AMOUNT (direct + O & P) =	$1,291,364

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	$500	Total =	$500
Engineering work and/or contract/bid preparation:	4.25	Total =	$54,883
Reclamation management and/or administration:	5.00		$64,568
CONTINGENCY:	0.00	Total =	$0
		TOTAL INDIRECT COST =	$305,496

TOTAL BOND AMOUNT (direct + indirect) = $1,411,315

REVEGETATION WORK

Task description: **Forest/Shrub East Sediment Basin**

Site: **Daniels Sand Pit 2** Permit Action: TR11 Permit/Job#: M1973007SG

PROJECT IDENTIFICATION

Task #: E03 State: Colorado Abbreviation: None
Date: 3/12/2025 County: El Paso Filename: E03
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
	$
Total Tilling Cost/Acre	**$0.00**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
			$
Totals Seed Mix	0.00	0.00	**$0.00**

Application

Description	Cost /Acre
	$

Total Seed Application Cost/Acre	**$0.00**

MULCHING and MISCELLANEOUS

Materials

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

Application

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

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
Cottonwood, Narrowleaf	45	Small potted, 4.00 inch diameter (MEANS)	$2.34	$0.00	$105.30
Willow, Sandbar	80	Tubling, 3 cu. in. container (MEANS)	$1.34	$0.00	$107.20
Totals Nursery Stock Cost / Acre					**$212.50**

JOB TIME AND COST

No. of Acres: 29.8
Estimated Failure Rate: 50%
*Selected Replanting Work Items: NURSERY

Cost /Acre: $212.50
Cost /Acre*: $212.50

Initial Job Cost: **$6,332.50**
Reseeding Job Cost: **$3,166.25**
Total Job Cost: **$9,499**
Job Hours: **80.00**

SCRAPER TEAM WORK

Task description: **Backfill Retruction-S.side E. Sed basin**

Site: **Daniels Sand Pit 2** Permit Action: TR11 Permit/Job#: M1973007SG

PROJECT IDENTIFICATION

Task #: E16 State: Colorado Abbreviation: None
Date: 3/12/2025 County: El Paso Filename: E16
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT

COSTShift basis: 1 per day

Equipment Description	
-Scraper:	Cat 623G
-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:	$265.74	NA	NA	$173.32	NA	NA
Operating cost/hour:	$194.31	NA	NA	$109.71	NA	NA
%Utilization-ripper:	NA	NA	NA	100	NA	NA
Ripper own. cost/hour:	NA	NA	NA	$14.53	NA	NA
Ripper op. cost/hour:	NA	NA	NA	$7.95	NA	NA
Operator cost/hour:	$57.52	NA	NA	$40.04	NA	NA
Unit Subtotals:	$517.57	NA	NA	$345.55	NA	NA
Number of Units:	4	0	0	1	0	0
Group Subtotals:	Work:	$2,070.28	Support:	$345.55	Maint:	$0.00

Total work team cost/hour: **$2,415.83**

MATERIAL QUANTITIES

Initial volume: 29,973 CCY Swell factor: 1.266
Loose volume: **37,940** LCY

Source of estimated volume: DRMS updated AM-03 Exhibit L
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Material weight: 2,700 lbs/LCY
Material description: Sand and clay - Loose
Rated Payload: 55,200 pounds
Payload Capacity: 20.44 LCY

Scraper Bowl (volume) Basis:

Struck Volume: 18.00 LCY
Heaped Volume: 23.00 LCY
Average Volume: 20.50 LCY
Adjusted Capacity: **20.44** LCY

Cycle Time:

Scraper Loading Time: 0.90 Minutes
Maneuver and Spread Time: 0.70 Minutes

Job Condition Correction: Site Altitude: 5800 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, 2" tire penetration 5.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2400.00	2.00	5.00	7.00	944	2.60

Haul Time: **2.60** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2400.00	-2.00	5.00	3.00	2666	1.11

Return Time: **1.11** minutes

Total Scraper team cycle time: **5.31** minutes
Adjusted for job conditions: 191.74 LCY/Hour
Selected Number of Scrapers: 4 Scraper(s)
Adjusted single scraper team (unit) hourly production: 766.96 LCY/Hour
Adjusted multiple scraper team (fleet) hourly production: **766.96** LCY/Hour

Unadjusted unit production/hour: 231.01 LCY/Hour
Optimal Number of Scrapers per push dozer:

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **49.47** Hours

Unit cost: $3.150 /LCY Total job cost: **$119,507**

SCRAPER TEAM WORK

Task description: **Backfill Retruction-S.side New Sed basin**

Site: **Daniels Sand Pit 2** Permit Action: TR11 Permit/Job#: M1973007SG

PROJECT IDENTIFICATION

Task #: E17 State: Colorado Abbreviation: None
Date: 3/12/2025 County: El Paso Filename: E17
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT

COSTShift basis: 1 per day

	Equipment Description
-Scraper:	Cat 623G
-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:	$265.74	NA	NA	$173.32	NA	NA
Operating cost/hour:	$194.31	NA	NA	$109.71	NA	NA
%Utilization-ripper:	NA	NA	NA	100	NA	NA
Ripper own. cost/hour:	NA	NA	NA	$14.53	NA	NA
Ripper op. cost/hour:	NA	NA	NA	$7.95	NA	NA
Operator cost/hour:	$57.52	NA	NA	$40.04	NA	NA
Unit Subtotals:	$517.57	NA	NA	$345.55	NA	NA
Number of Units:	4	0	0	1	0	0
Group Subtotals:	Work:	$2,070.28	Support:	$345.55	Maint:	$0.00

Total work team cost/hour: **$2,415.83**

MATERIAL QUANTITIES

Initial volume: 15,323 CCY Swell factor: 1.266
Loose volume: **19,396** LCY

Source of estimated volume: DRMS updated AM-03 Exhibit L
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Material weight: 2,700 lbs/LCY
Material description: Sand and clay - Loose
Rated Payload: 55,200 pounds
Payload Capacity: 20.44 LCY

Scraper Bowl (volume) Basis:

Struck Volume: 18.00 LCY
Heaped Volume: 23.00 LCY
Average Volume: 20.50 LCY
Adjusted Capacity: **20.44** LCY

Cycle Time:

Scraper Loading Time: 0.90 Minutes
Maneuver and Spread Time: 0.70 Minutes

Job Condition Correction: Site Altitude: 5800 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, 2" tire penetration 5.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3400.00	2.00	5.00	7.00	944	3.66

Haul Time: **3.66** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3400.00	-2.00	5.00	3.00	2666	1.48

Return Time: **1.48** minutes

Total Scraper team cycle time: **6.74** minutes
Adjusted for job conditions: 151.06 LCY/Hour
Selected Number of Scrapers: 4 Scraper(s)
Adjusted single scraper team (unit) hourly production: 604.23 LCY/Hour
Adjusted multiple scraper team (fleet) hourly production: **604.23** LCY/Hour

Unadjusted unit production/hour: 182.00 LCY/Hour
Optimal Number of Scrapers per push dozer:

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **32.10** Hours

Unit cost: $3.998 /LCY Total job cost: **$77,548**

SCRAPER TEAM WORK

Task description: **Backfill Retruction-S. & SE sides of Sed basin**

Site: **Daniels Sand Pit 2** Permit Action: TR11 Permit/Job#: M1973007SG

PROJECT IDENTIFICATION

Task #: E18 State: Colorado Abbreviation: None
Date: 3/12/2025 County: El Paso Filename: E18
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT

COSTShift basis: 1 per day

Equipment Description	
-Scraper:	Cat 623G
-Dozer:	NA
Support Equipment -Load Area:	NA
-Dump Area:	Cat D6T LGP
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:	$265.74	NA	NA	$99.72	NA	NA
Operating cost/hour:	$194.31	NA	NA	$71.22	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:	$517.57	NA	NA	$210.98	NA	NA
Number of Units:	4	0	0	1	0	0
Group Subtotals:	Work:	$2,070.28	Support:	$210.98	Maint:	$0.00

Total work team cost/hour: **$2,281.26**

MATERIAL QUANTITIES

Initial volume: 25,420 CCY Swell factor: 1.266
Loose volume: **32,177** LCY

Source of estimated volume: DRMS updated AM-03 Exhibit L
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Material weight: 2,700 lbs/LCY
Material description: Sand and clay - Loose
Rated Payload: 55,200 pounds
Payload Capacity: 20.44 LCY

Scraper Bowl (volume) Basis:

Struck Volume: 18.00 LCY
Heaped Volume: 23.00 LCY
Average Volume: 20.50 LCY
Adjusted Capacity: **20.44** LCY

Cycle Time:

Scraper Loading Time: 0.90 Minutes
Maneuver and Spread Time: 0.70 Minutes

Job Condition Correction: Site Altitude: 5800 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, 2" tire penetration 5.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3000.00	2.00	5.00	7.00	944	3.23

Haul Time: **3.23** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3000.00	-2.00	5.00	3.00	2666	1.33

Return Time: **1.33** minutes

Total Scraper team cycle time: **6.16** minutes
Adjusted for job conditions: 165.28 LCY/Hour
Selected Number of Scrapers: 4 Scraper(s)
Adjusted single scraper team (unit) hourly production: 661.13 LCY/Hour
Adjusted multiple scraper team (fleet) hourly production: **661.13** LCY/Hour

Unadjusted unit production/hour: 199.13 LCY/Hour
Optimal Number of Scrapers per push dozer:

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **48.67** Hours

Unit cost: $3.451 /LCY Total job cost: **$111,028**

MOTOR GRADER WORK

Task description: **Grade Embankment-W.side E. Sed basin (wash fines pond)**

Site: **Daniels Sand Pit 2** Permit Action: TR11 Permit/Job#: M1973007SG

PROJECT IDENTIFICATION

Task #: E19 State: Colorado Abbreviation: None
Date: 3/12/2025 County: El Paso Filename: E19
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: CAT 14M Horsepower: 259
Ripper Attachment: Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$129.81	NA
Operating Cost/Hour:	$89.13	100
Ripper Ownership Cost/Hour:	$0.00	NA
Ripper Operating Cost/Hour:	$0.00	
Operator Cost/Hour:	$56.70	NA
Total Unit Cost/Hour:	$275.64	
Total Fleet Cost/Hour:	**$275.64**	

MATERIAL QUANTITIES

Total Area to be graded or ripped: 10.00 acres

Source of estimated acreage: TR11 Dam Raise Study Grading Map Fig. 5 & Fig. 7

HOURLY PRODUCTION

Average Grader Speed: 1.50 mph
Selected Application: Finish grading (0-2.5 mph) - 1.5
Selected Blade Angle: 0 degrees
Effective Blade Length: 14.00 feet
Width of blade overlap per pass: 2.00 feet
Net grading or ripping width per pass: 12.00 feet
Unadjusted Hourly Unit Production: 2.1818 acres/hour

Job Condition Correction Factors Site Altitude: 5800 feet

		Source
Altitude Adj:	1.00	(CAT HB)
Job Efficiency:	0.90	(1sh/d, fav.)
Net Correction:	0.9000	multiplier

Adjusted Hourly Unit Production: 1.9636 acres/Hour
Adjusted Hourly Fleet Production: **1.9636** acres/Hour

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: **5.09** Hours

Unit cost: $140.37 per acre Total job cost: **$1,404**

SCRAPER TEAM WORK

Task description: **Replace TS on Pit Floor**

Site: **Daniels Sand Pit 2** Permit Action: TR11 Permit/Job#: M1973007SG

PROJECT IDENTIFICATION

Task #: P09 State: Colorado Abbreviation: None
Date: 3/12/2025 County: El Paso Filename: P09
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT

COSTShift basis: 1 per day

Equipment Description	
-Scraper:	Cat 623G
-Dozer:	NA
Support Equipment -Load Area:	NA
-Dump Area:	NA
Road Maintenance –Motor Grader:	CAT 14M
-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	NA	100	NA
Ownership cost/hour:	$265.74	NA	NA	NA	$129.81	NA
Operating cost/hour:	$194.31	NA	NA	NA	$89.13	NA
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	NA	NA	$0.00	NA
Ripper op. cost/hour:	NA	NA	NA	NA	$0.00	NA
Operator cost/hour:	$57.52	NA	NA	NA	$56.70	NA
Unit Subtotals:	$517.57	NA	NA	NA	$275.64	NA
Number of Units:	4	0	0	0	1	0
Group Subtotals:	Work:	$2,070.28	Support:	$0.00	Maint:	$275.64

Total work team cost/hour: **$2,345.92**

MATERIAL QUANTITIES

Initial volume: 59,209 CCY Swell factor: 1.215
Loose volume: **71,939** LCY

Source of estimated volume: DRMS updated AM-03 Exhibit L
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Material weight: 1,600 lbs/LCY
Material description: Top Soil
Rated Payload: 55,200 pounds
Payload Capacity: 34.50 LCY

Scraper Bowl (volume) Basis:

Struck Volume: 18.00 LCY
Heaped Volume: 23.00 LCY
Average Volume: 20.50 LCY
Adjusted Capacity: **20.50** LCY

Cycle Time:

Scraper Loading Time: 0.90 Minutes
Maneuver and Spread Time: 0.70 Minutes

Job Condition Correction: Site Altitude: 5800 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, 2" tire penetration 5.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2100.00	0.00	5.00	5.00	1292	1.70

Haul Time: **1.70** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2100.00	0.00	5.00	5.00	2359	1.12

Return Time: **1.12** minutes

Total Scraper team cycle time: **4.42** minutes
Adjusted for job conditions: 230.97 LCY/Hour
Selected Number of Scrapers: 4 Scraper(s)
Adjusted single scraper team (unit) hourly production: 923.89 LCY/Hour
Adjusted multiple scraper team (fleet) hourly production: **923.89** LCY/Hour

Unadjusted unit production/hour: 278.28 LCY/Hour
Optimal Number of Scrapers per push dozer:

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **77.87** Hours

Unit cost: $2.539 /LCY Total job cost: **$182,665**

REVEGETATION WORK

Task description: **Seed Pit Floor**

Site: **Daniels Sand Pit 2** Permit Action: TR11 Permit/Job#: M1973007SG

PROJECT IDENTIFICATION

Task #: P10 State: Colorado Abbreviation: None
Date: 3/12/2025 County: El Paso Filename: P10
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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Switchgrass - Blackwell	2.00	17.86	$26.44
Big Bluestem - Native	4.00	11.94	$62.43
Sand Lovegrass - Bend	0.50	17.22	$8.71
Blue Grama - Native	0.50	8.16	$10.66
Sand Bluestem - Garden Co.	4.00	10.38	$96.91
Pubescent Wheatgrass - Greenleaf	2.00	4.13	$9.52
Tall Wheatgrass - Jose	3.00	5.44	$17.24
Thickspike Wheatgrass - Critana	1.00	3.54	$8.15
		78.66	**$240.06**

Totals Seed Mix	17.00		

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: 110.1
Estimated Failure Rate: 25%
*Selected Replanting Work Items: TILLING,SEEDING

Cost /Acre: $594.31
Cost /Acre*: $594.31

Initial Job Cost: **$65,433.53**
Reseeding Job Cost: **$16,358.38**
Total Job Cost: **$81,792**
Job Hours: **220.00**

SCRAPER TEAM WORK

Task description: **Replace TS on Pit Slopes**

Site: **Daniels Sand Pit 2** Permit Action: TR11 Permit/Job#: M1973007SG

PROJECT IDENTIFICATION

Task #: P11 State: Colorado Abbreviation: None
Date: 3/12/2025 County: El Paso Filename: P11
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT

COSTShift basis: 1 per day

Equipment Description	
-Scraper:	Cat 623G
-Dozer:	NA
Support Equipment -Load Area:	NA
-Dump Area:	NA
Road Maintenance –Motor Grader:	CAT 14M
-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	NA	100	NA
Ownership cost/hour:	$265.74	NA	NA	NA	$129.81	NA
Operating cost/hour:	$194.31	NA	NA	NA	$89.13	NA
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	NA	NA	$0.00	NA
Ripper op. cost/hour:	NA	NA	NA	NA	$0.00	NA
Operator cost/hour:	$57.52	NA	NA	NA	$56.70	NA
Unit Subtotals:	$517.57	NA	NA	NA	$275.64	NA
Number of Units:	4	0	0	0	1	0
Group Subtotals:	Work:	$2,070.28	Support:	$0.00	Maint:	$275.64

Total work team cost/hour: **$2,345.92**

MATERIAL QUANTITIES

Initial volume: 78,327 CCY Swell factor: 1.215
Loose volume: **95,167** LCY

Source of estimated volume: DRMS updated AM-03 Exhibit L
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Material weight: 1,600 lbs/LCY
Material description: Top Soil
Rated Payload: 55,200 pounds
Payload Capacity: 34.50 LCY

Scraper Bowl (volume) Basis:

Struck Volume: 18.00 LCY
Heaped Volume: 23.00 LCY
Average Volume: 20.50 LCY
Adjusted Capacity: **20.50** LCY

Cycle Time:

Scraper Loading Time: 0.90 Minutes
Maneuver and Spread Time: 0.70 Minutes

Job Condition Correction: Site Altitude: 5800 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, 2" tire penetration 5.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2100.00	3.00	5.00	8.00	822	2.58

Haul Time: **2.58** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2100.00	0.00	5.00	5.00	2359	1.12

Return Time: **1.12** minutes

Total Scraper team cycle time: **5.30** minutes
Adjusted for job conditions: 192.62 LCY/Hour
Selected Number of Scrapers: 4 Scraper(s)
Adjusted single scraper team (unit) hourly production: 770.49 LCY/Hour
Adjusted multiple scraper team (fleet) hourly production: **770.49** LCY/Hour

Unadjusted unit production/hour: 232.08 LCY/Hour
Optimal Number of Scrapers per push dozer:

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **123.52** Hours

Unit cost: $3.045 /LCY Total job cost: **$289,757**

REVEGETATION WORK

Task description: **Seed Pit Slopes**

Site: **Daniels Sand Pit 2** Permit Action: TR11 Permit/Job#: M1973007SG

PROJECT IDENTIFICATION

Task #: P12 State: Colorado Abbreviation: None
Date: 3/12/2025 County: El Paso Filename: P12
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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Big Bluestem - Native	2.00	5.97	$31.21
Sand Lovegrass - Bend	0.50	17.22	$8.71
Blue Grama - Native	0.50	8.16	$10.66
Little Bluestem - Native	1.00	5.97	$15.39
Sideoats Grama - Butte	1.00	3.28	$24.16
Sand Bluestem - Garden Co.	6.00	15.56	$145.36
Pubescent Wheatgrass - Greenleaf	5.00	10.33	$23.80
Thickspike Wheatgrass - Critana	5.00	17.68	$40.74
Western Wheatgrass - Native	3.00	7.58	$27.02
Prairie Sandreed - Goshen	2.00	12.53	$34.05

Totals Seed Mix	26.00	104.28	**$361.10**

Application

Description	**Cost /Acre**
Broadcast seeding [DMG]	$272.56
Total Seed Application Cost/Acre	**$272.56**

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: 97.1
Estimated Failure Rate: 25%
*Selected Replanting Work Items: TILLING,SEEDING

Cost /Acre: $751.27
Cost /Acre*: $751.27

Initial Job Cost: **$72,948.32**
Reseeding Job Cost: **$18,237.08**
Total Job Cost: **$91,185**
Job Hours: **200.00**

TRUCK/LOADER TEAM WORK

Task description: **Backfill West Sediment Basin**

Site: **Daniels Sand Pit 2** Permit Action: TR11 Permit/Job#: M1973007SG

PROJECT IDENTIFICATION

Task #: W01 State: Colorado Abbreviation: None
Date: 3/12/2025 County: El Paso Filename: W01
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 740
-Loader:	CAT 980H
Support Equipment -Load Area:	NA
-Dump Area:	Cat D8T - 8SU
Road Maintenance –Motor Grader:	NA
-Water Truck:	NA

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	NA	100	NA	NA
Ownership cost/hour:	$108.25	$69.00	NA	$173.32	NA	NA
Operating cost/hour:	$79.54	$60.57	NA	$109.71	NA	NA
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	NA	$0.00	NA	NA
Ripper op. cost/hour:	NA	$0.00	NA	$0.00	NA	NA
Operator cost/hour:	$24.82	$56.84	NA	$40.04	NA	NA
Unit Subtotals:	$212.61	$186.41	NA	$323.07	NA	NA
Number of Units:	2	1	0	1	0	0
Group Subtotals:	Work:	$611.63	Support:	$323.07	Maint:	$0.00

Total work team cost/hour: **$934.70**

MATERIAL QUANTITIES

Initial volume: 45,496 CCY Swell factor: 1.000
Loose volume: **45,496** LCY

Source of estimated volume: AM-3, Exhibit L
Source of estimated swell factor: Cat Handbook
Material Purchase Cost: $0.00
Total Cost: $0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: 2,900 Pounds/LCY
Description: Sand and gravel - Dry
Rated Payload: 87,000 Pounds
Payload Capacity: 30.00 LCY

Truck Bed (volume) Basis:

Struck Volume:	24.20	LCY
Heaped Volume:	31.40	LCY
Average Volume:	27.80	LCY
Adjusted Volume:	30.00	LCY

Final Truck Volume Based on Number of Loader Passes: **29.25** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	7.500	LCY (heaped)
Bucket Fill Factor:	0.975	Sand and gravel (95% - 100%) 0.975
Adjusted Capacity:	**7.313**	LCY

Job Condition Corrections: Site Altitude (ft.): 5800 feet

	Truck	Loader	Source
Altitude Adj:	0.960	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.797**	**0.830**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 4 passes

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA
Selected Value within this Basic Rating: NA

Track Loaders – Material Description:

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.550 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Stockpile:	Conveyor or dozer piled 10 ft. high and up 0.00	0.000	(Cat HB)
Truck Ownership:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
	Net Cycle Time Adjustment:	-0.040	minutes
	Adjusted Loader Cycle Time:	**0.510**	minutes
	Net Load Time per Truck:	**1.630**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.60	Minutes	Adjusted for site altitude:	0.625	Minutes
Truck Load Time:	1.630	Minutes	Adjusted for site altitude:	1.630	Minutes
Truck Maneuver and Dump Time:	1.00	Minutes	Adjusted for site altitude:	1.042	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1500.00	0.00	5.00	5.00	1845	1.141

Haul Time: **1.141** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1500.00	0.00	5.00	5.00	3005	0.738

Return Time: **0.738** minutes
Total Truck Cycle Time: **5.176** minutes

Loading Tool unit Production 778.27 LCY/Hour Adjusted for job efficiency: 645.96 LCY/Hour

Truck Unit Production 339.09 LCY/Hour Adjusted for job efficiency: 281.44 LCY/Hour

Optimal No. of Trucks: 2 Truck(s) Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 562.88 LCY/Hour
Adjusted single truck/loader team production: 562.88 LCY/Hour
Adjusted multiple truck/loader team production: **562.88** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **80.83** Hours

Unit cost: $1.661 /LCY Total job cost: **$75,549**

TRUCK/LOADER TEAM WORK

Task description: **Replace TS West Sediment Basin**

Site: **Daniels Sand Pit 2** Permit Action: TR11 Permit/Job#: M1973007SG

PROJECT IDENTIFICATION

Task #: W02 State: Colorado Abbreviation: None
Date: 3/12/2025 County: El Paso Filename: W02
User: HR1

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Cat 740
-Loader:	CAT 980H
Support Equipment -Load Area:	NA
-Dump Area:	NA
Road Maintenance –Motor Grader:	CAT 14M
-Water Truck:	NA

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	NA	NA	100	NA
Ownership cost/hour:	$108.25	$69.00	NA	NA	$129.81	NA
Operating cost/hour:	$79.54	$60.57	NA	NA	$89.13	NA
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	$0.00	NA	NA	$0.00	NA
Ripper op. cost/hour:	NA	$0.00	NA	NA	$0.00	NA
Operator cost/hour:	$24.82	$56.84	NA	NA	$56.70	NA
Unit Subtotals:	$212.61	$186.41	NA	NA	$275.64	NA
Number of Units:	3	1	0	0	1	0
Group Subtotals:	Work:	$824.24	Support:	$0.00	Maint:	$275.64

Total work team cost/hour: **$1,099.88**

MATERIAL QUANTITIES

Initial volume: 13,955 CCY Swell factor: 1.429
Loose volume: **19,936** LCY

Source of estimated volume: AM-3, Exhibits C-2 & L
Source of estimated swell factor: Cat Handbook
Material Purchase Cost: $0.00
Total Cost: $0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: 1,600 Pounds/LCY
Description: Top Soil
Rated Payload: 87,000 Pounds
Payload Capacity: 54.38 LCY

Truck Bed (volume) Basis:

Struck Volume:	24.20	LCY
Heaped Volume:	31.40	LCY
Average Volume:	27.80	LCY
Adjusted Volume:	31.40	LCY

Final Truck Volume Based on Number of Loader Passes: **29.25** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	7.500	LCY (heaped)
Bucket Fill Factor:	0.975	Sand and gravel (95% - 100%) 0.975
Adjusted Capacity:	**7.313**	LCY

Job Condition Corrections: Site Altitude (ft.): 5800 feet

	Truck	Loader	Source
Altitude Adj:	0.960	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.797**	**0.830**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 4 passes

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA
Selected Value within this Basic Rating: NA

Track Loaders – Material Description:

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.550 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Stockpile:	Conveyor or dozer piled 10 ft. high and up 0.00	0.000	(Cat HB)
Truck Ownership:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
	Net Cycle Time Adjustment:	-0.040	minutes
	Adjusted Loader Cycle Time:	**0.510**	minutes
	Net Load Time per Truck:	**1.630**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.60	Minutes	Adjusted for site altitude:	0.625	Minutes
Truck Load Time:	1.630	Minutes	Adjusted for site altitude:	1.630	Minutes
Truck Maneuver and Dump Time:	1.00	Minutes	Adjusted for site altitude:	1.042	Minutes

Truck Travel (Haul & Return) Time: Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	5400.00	0.00	3.00	3.00	3005	2.589

Haul Time: **2.589** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	5400.00	0.00	3.00	3.00	3005	1.964

Return Time: **1.964** minutes
Total Truck Cycle Time: **7.850** minutes

Loading Tool unit Production 778.27 LCY/Hour Adjusted for job efficiency: 645.96 LCY/Hour

Truck Unit Production 223.58 LCY/Hour Adjusted for job efficiency: 185.57 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 556.71 LCY/Hour
Adjusted single truck/loader team production: 556.71 LCY/Hour
Adjusted multiple truck/loader team production: **556.71** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **35.81** Hours

Unit cost: $1.976 /LCY Total job cost: **$39,388**

REVEGETATION WORK

Task description: **Seed West Sediment Basin**

Site: **Daniels Sand Pit 2** Permit Action: TR11 Permit/Job#: M1973007SG

PROJECT IDENTIFICATION

Task #: W3A State: Colorado Abbreviation: None
Date: 3/12/2025 County: El Paso Filename: W3A
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)	$117.61
Total Tilling Cost/Acre	**$117.61**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Switchgrass - Blackwell	2.00	17.86	$26.44
Big Bluestem - Native	4.00	11.94	$62.43
Sand Lovegrass - Bend	0.50	17.22	$8.71
Blue Grama - Native	0.50	8.16	$10.66
Sand Bluestem - Garden Co.	4.00	10.38	$96.91
Pubescent Wheatgrass - Greenleaf	2.00	4.13	$9.52
Tall Wheatgrass - Jose	3.00	5.44	$17.24
Thickspike Wheatgrass - Critana	1.00	3.54	$8.15
		78.66	**$240.06**

Totals Seed Mix	17.00		

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: 17.3
Estimated Failure Rate: 25%
*Selected Replanting Work Items: TILLING,SEEDING

Cost /Acre: $594.31
Cost /Acre*: $594.31

Initial Job Cost: **$10,281.56**
Reseeding Job Cost: **$2,570.39**
Total Job Cost: **$12,852**
Job Hours: **40.00**

REVEGETATION WORK

Task description: **Forest/Shrub West Sediment Basin**

Site: **Daniels Sand Pit 2** Permit Action: TR11 Permit/Job#: M1973007SG

PROJECT IDENTIFICATION

Task #: W3B State: Colorado Abbreviation: None
Date: 3/12/2025 County: El Paso Filename: W3B
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
	$
Total Tilling Cost/Acre	**$0.00**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
			$
Totals Seed Mix	0.00	0.00	**$0.00**

Application

Description	Cost /Acre
	$

Total Seed Application Cost/Acre	**$0.00**

MULCHING and MISCELLANEOUS

Materials

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

Application

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

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
Cottonwood, Narrowleaf	45	Small potted, 4.00 inch diameter (MEANS)	$2.34	$0.00	$105.30
Willow, Sandbar	80	Tubling, 3 cu. in. container (MEANS)	$1.34	$0.00	$107.20
Totals Nursery Stock Cost / Acre					**$212.50**

JOB TIME AND COST

No. of Acres: 13.1
Estimated Failure Rate: 50%
*Selected Replanting Work Items: NURSERY

Cost /Acre: $212.50
Cost /Acre*: $212.50

Initial Job Cost: **$2,783.75**
Reseeding Job Cost: **$1,391.88**
Total Job Cost: **$4,176**
Job Hours: **40.00**

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: **Mob / Demob Equipment**

Site: **Daniels Sand Pit 2** Permit Action: TR11 Permit/Job#: M1973007SG

PROJECT IDENTIFICATION

Task #: Z99 State: Colorado Abbreviation: None
Date: 3/12/2025 County: El Paso Filename: Z99
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:	$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	47.71	$173.32	$122.78	1	$296.10	$122.78	$250.00
Cat 623G	41.35	$265.74	$122.78	4	$1,554.08	$491.12	$1,000.00
Cat 740	36.49	$108.25	$122.78	3	$693.09	$368.34	$750.00
CAT 14M	23.57	$129.81	$59.44	1	$189.25	$59.44	$250.00
CAT 980H	33.12	$69.00	$122.78	1	$191.78	$122.78	$250.00
Drill/Broadcast Seeder with Tractor	25.00	$41.02	$59.44	1	$100.46	$59.44	$250.00
Subtotals:					**$3,024.76**	**$1,223.90**	**$2,750.00**

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:	COLORADO SPRINGS	
Total one-way travel distance:	5.00	miles
Average Travel Speed:	45.00	mph

Total Non-Roadable Mob/Demob Cost * '* two round trips with haul rig:	$9,468.91
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	$0.00

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.11	0.11
Return Time (Hours):	0.11	0.11
Loading Time (Hours):	0.25	NA
Unloading Time (Hours):	0.25	NA
Subtotals:	0.72	0.22

JOB TIME AND COST

Total job time:	**1.44**	Hours
Total job cost:	**$9,469**	