

COST SUMMARY WORK

Task description: SO2 Bond Summary

Site: Riverview Resource

Permit Action: SO2 Bond Estimate

Permit/Job#: M1999098

PROJECT IDENTIFICATION

Task #: 201

State: Colorado

Abbreviation: None

Date: 2/19/2023

County: Weld

Filename: M098-201

User: PSH

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
202	Backfill Lake Sections Cell 3, 37.3 Ace, 25' Depth	SITEMAINT ENANCE	1	0.00	\$6,017,732
203	Backfill Wetland Sections Cell 1,3 and 5, 28.6 Ac, 10' Depth	SITEMAINT ENANCE	1	0.00	\$1,729,492
204	Cell 4 Slurry Wall Installation	SITEMAINT ENANCE	1	0.00	\$2,014,200
206	Revegetation and Weed Control - 150 Acres	REVEGE	1	0.00	\$255,126
207	Mob / Demob	MOBILIZE	1	5.14	\$17,498
<u>SUBTOTALS:</u>				5.14	\$10,034,048

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02

Total = \$202,688

Performance bond: 1.05

Total = \$105,358

Job superintendent: 2.57

Total = \$193

Profit: 10.00

Total = \$1,003,405

TOTAL O & P = \$1,311,643

CONTRACT AMOUNT (direct + O & P) = \$11,345,691

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: 0.00

\$0

CONTINGENCY: 0.00

Total = \$0

TOTAL INDIRECT COST = \$1,312,143

TOTAL BOND AMOUNT (direct + indirect) = \$11,346,191
\$11,300,000.00
(Rounded)

SITE MAINTENANCE

Task description: Backfill Lake Sections Cell 3, 37.3 Ace, 25' Depth

Site: Riverview Resource

Permit Action: SO2 Bond Estimate

Permit/Job#: M1999098

PROJECT IDENTIFICATION

Task #: 202

State: Colorado

Abbreviation: None

Date: 2/19/2023

County: Weld

Filename: M098-202

User: PSH

Agency or organization name: DRMS

UNIT COSTS

Maintenance Item	Hours per Year	Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Import Backfill Material	3000.00	USER PROVIDED ITEM	1,504,433.00	1	\$4.00	\$6,017,732.00

Job Hours: 0.00

Total Cost: \$6,017,732.00

SITE MAINTENANCE

Task description: Backfill Wetland Sections Cell 1,3 and 5, 28.6 Ac, 10' Depth

Site: Riverview Resource

Permit Action: SO2 Bond Estimate

Permit/Job#: M1999098

PROJECT IDENTIFICATION

Task #: 203

State: Colorado

Abbreviation: None

Date: 2/19/2023

County: Weld

Filename: M098-203

User: PSH

Agency or organization name: DRMS

UNIT COSTS

Maintenance Item	Hours per Year	Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Import Backfill Material	2400.00	USER PROVIDED ITEM	432,373.00	1	\$4.00	\$1,729,492.00

Job Hours: 0.00

Total Cost: \$1,729,492.00

SITE MAINTENANCE

Task description: Cell 4 Slurry Wall Installation

Site: Riverview Resource

Permit Action: SO2 Bond Estimate

Permit/Job#: M1999098

PROJECT IDENTIFICATION

Task #: 204

State: Colorado

Abbreviation: None

Date: 2/19/2023

County: Weld

Filename: M098-204

User: PSH

Agency or organization name: DRMS

UNIT COSTS

Maintenance Item	Hours per Year	Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Slurry Wall Install - \$373 per LF	1500.00	USER PROVIDED ITEM	5,400.00	1	\$373.00	\$2,014,200.00

Job Hours: 0.00

Total Cost: \$2,014,200.00

SCRAPER TEAM WORKTask description: Topsoil - 150 Acres, 6" DepthSite: Riverview ResourcePermit Action: S02 Bond EstimatePermit/Job#: M1999098**PROJECT IDENTIFICATION**Task #: 205State: ColoradoAbbreviation: NoneDate: 2/19/2023County: WeldFilename: M098-205User: PSHAgency or organization name: DRMS**HOURLY EQUIPMENT**COSTShift basis: 1 per day

Equipment Description	
-Scraper:	Cat 627G
-Dozer:	NA
Support Equipment -Load Area:	Cat D8T - 8SU
-Dump Area:	CAT 14M
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	100	100	NA	NA
Ownership cost/hour:	\$179.93	NA	\$124.85	\$114.80	NA	NA
Operating cost/hour:	\$231.04	NA	\$97.63	\$79.39	NA	NA
%Utilization-ripper:	NA	NA	50	NA	NA	NA
Ripper own. cost/hour:	NA	NA	\$13.10	\$0.00	NA	NA
Ripper op. cost/hour:	NA	NA	\$3.65	\$0.00	NA	NA
Operator cost/hour:	\$47.07	NA	\$40.04	\$46.87	NA	NA
Unit Subtotals:	\$458.04	NA	\$279.27	\$241.06	NA	NA
Number of Units:	3	0	1	1	0	0
Group Subtotals:	Work: \$1,374.12		Support: \$520.33		Maint:	\$0.00

Total work team cost/hour: **\$1,894.45****MATERIAL QUANTITIES**Initial volume: 121,000

CCY

Swell factor: 1.000Loose volume: **121,000**

LCY

Source of estimated volume: Permit FileSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION****Scraper Bowl (volume) Basis:**

Material weight:	<u>1,600 lbs/LCY</u>	Struck Volume:	<u>15.70</u>	LCY
Material description:	<u>Top Soil</u>	Heaped Volume:	<u>22.00</u>	LCY
Rated Payload:	<u>52,800 pounds</u>	Average Volume:	<u>18.85</u>	LCY
Payload Capacity:	<u>33.00 LCY</u>	Adjusted Capacity:	<u>18.85</u>	LCY

Cycle Time:Scraper Loading Time: 0.70 MinutesManeuver and Spread Time: 0.60 MinutesJob Condition Correction:

Site Altitude: 4700 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: Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2000.00	5.00	3.00	8.00	1381	1.49

Haul Time: 1.49 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2000.00	-5.00	3.00	-2.00	2938	0.73

Return Time: 0.73 minutesTotal Scraper team cycle time: 3.52 minutesAdjusted for job conditions: 266.68 LCY/HourSelected Number of Scrapers: 3 Scraper(s)Adjusted single scraper team (unit) hourly production: 800.05 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 800.05 LCY/HourUnadjusted unit production/hour: 321.31 LCY/Hour

Optimal Number of Scrapers per push dozer: _____

JOB TIME AND COSTFleet size: 1 Team(s)Total job time: 151.24 HoursUnit cost: \$2.368 /LCYTotal job cost: \$286,516

REVEGETATION WORKTask description: Revegetation and Weed Control - 150 AcresSite: Riverview ResourcePermit Action: SO2 Bond EstimatePermit/Job#: M1999098PROJECT IDENTIFICATIONTask #: 206State: ColoradoAbbreviation: NoneDate: 2/19/2023County: WeldFilename: M098-206User: PSHAgency or organization name: DRMSFERTILIZING**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
0-20-20, 4-8-12, 10-10-10	200.00	pound	\$0.23	\$46.00
			Total Fertilizer Materials Cost/Acre	\$46.00

Application

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	\$39.64
Total Fertilizer Application Cost/Acre	\$39.64

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$117.18
Total Tilling Cost/Acre	\$117.18

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Hachita	2.95	48.15	\$47.13
Indiangrass - Cheyenne	0.70	2.13	\$7.91
Big Bluestem - Native	0.70	2.09	\$8.27
Buffalograss - Cody	0.59	0.57	\$5.64
Switchgrass - Pathfinder	0.70	6.25	\$8.93
Sand Dropseed	0.23	27.46	\$2.24
Little Bluestem - Native	0.59	3.52	\$8.00
Sideoats Grama - Butte	2.36	7.75	\$21.24
Western Wheatgrass - Arriba	2.36	5.96	\$15.34
Needlegrass, Green - Lodorm	0.47	1.95	\$5.53
Spike Muhly	0.11	4.04	\$1.07

Totals Seed Mix	11.76	109.87	\$131.31
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Application

Description	Cost /Acre
	\$
Total Seed Application Cost/Acre	\$0.00

MULCHING and MISCELLANEOUS**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Hay, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$421.36	\$842.72
Total Mulch Materials Cost/Acre				\$842.72

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$73.00
Weed spray, truck, non-aquatic area, nox. [DMG]	\$62.72
Weed spray, truck, non-aquatic areas, ann. [DMG]	\$22.81
Total Mulch Application Cost/Acre	\$158.53

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: 150 Cost /Acre: \$1,335.38
 Estimated Failure Rate: 30% Cost /Acre*: \$1,218.20
 *Selected Replanting Work Items: FERTILIZING,SEEDING,MULCHING

Initial Job Cost: \$200,307.00
 Reseeding Job Cost: \$54,819.00
 Total Job Cost: \$255,126
 Job Hours: 0.00

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Mob / Demob**Site: **Riverview Resource**Permit Action: **SO2 Bond Estimate**Permit/Job#: **M1999098****PROJECT IDENTIFICATION**Task #: **207**State: **Colorado**Abbreviation: **None**Date: **2/19/2023**County: **Weld**Filename: **M098-207**User: **PSH**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:	\$15.25	\$23.06	\$37.58
Operating Cost/Hour:	\$25.26	\$30.83	\$51.41
Operator Cost/Hour:	\$27.71	\$27.71	\$27.71
Helper Cost/Hour:	\$0.00	\$20.22	\$20.22
Total Unit Cost/Hour:	\$68.22	\$101.82	\$136.92

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	\$137.95	\$136.92	2	\$549.74	\$273.84	\$500.00
Cat 627G	41.80	\$179.93	\$101.82	6	\$1,690.50	\$610.92	\$1,500.00
CAT 14M	23.57	\$114.80	\$68.22	2	\$366.04	\$136.44	\$500.00

Subtotals: **\$2,606.28** **\$1,021.20** **\$2,500.00****ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
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Subtotals: **\$0.00** **\$0.00**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>GREELEY, CO</u>	
Total one-way travel distance:	<u>10.00</u>	miles
Average Travel Speed:	<u>35.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$17,497.97</u>
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$0.00</u>
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.29	0.29
Return Time (Hours):	0.29	0.29
Loading Time (Hours):	1.00	NA
Unloading Time (Hours):	1.00	NA
Subtotals:	2.57	0.57

JOB TIME AND COST

Total job time:	<u>5.14</u>	Hours
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Total job cost:	<u>\$17,498</u>
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