

COST SUMMARY WORK

Task description: Updated post inspection in 2023

Site: Greeley 35th Ave Pit

Permit Action: Insp 2023

Permit/Job#: M1977036

PROJECT IDENTIFICATION

Task #: HCR

State: Colorado

Abbreviation: None

Date: 10/19/2023

County: Weld

Filename: M036-HCR

User: HR1

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
201	Final Slope Grading - Non West Cell - 153 Acres	DOZER	1	1,534.08	\$679,861
202	Import Topsoil	SITEMAINT ENANCE	1	0.00	\$511,200
203	Topsoil Placement - Non West Cell - 153 Acres	LOADER	2	1,555.74	\$356,982
204	Topsoil Final Grading - Non West Cell - 153 Acres	DOZER	1	109.49	\$48,117
205	Conveyor Removal - Non West Cell	DEMOLISH	1	80.00	\$71,669
206	Revegetation - 90.5 Acres - Upland	REVEGE	1	40.00	\$118,814
207	Revegetate - Transition Zone - 60.5 Acres	REVEGE	1	20.00	\$85,306
208	Mob/Demob	MOBILIZE	1	3.14	\$3,361
209	West Cell Slurry Wall Certification- 20% retained	SITEMAINT ENANCE	1	0.00	\$518,347
210	Install Slurry Wall - Non West Cell for SEO compliance	SITEMAINT ENANCE	1	0.00	\$2,244,318
<u>SUBTOTALS:</u>				3342.45	\$4,637,975

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02

Total = \$93,687

Performance bond: 1.05

Total = \$48,699

Job superintendent: 1,671.22

Total = \$108,763

Profit: 10.00

Total = \$463,798

TOTAL O & P = \$714,946

CONTRACT AMOUNT (direct + O & P) = \$5,352,921

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): \$500

Total = \$500

Engineering work and/or contract/bid preparation: 4.25

Total = \$227,499

Reclamation management and/or administration: 5.00

\$267,646

CONTINGENCY: 0.00

Total = \$0

TOTAL INDIRECT COST = \$1,210,592

TOTAL BOND AMOUNT (direct + indirect) = \$5,848,567

BULLDOZER WORKTask description: **Final Slope Grading - Non West Cell - 153 Acres**Site: **Greeley 35th Ave Pit**Permit Action: **Insp 2023**Permit/Job#: **M1977036****PROJECT IDENTIFICATION**

Task #: 201 State: Colorado Abbreviation: None
 Date: 11/6/2023 County: Weld Filename: 201
2:03:22 PM
 User: HR1

Agency or organization name: DRMS**HOURLY EQUIPMENT COST**

Basic Machine: Cat D8T - 8SU
 Horsepower: 310
 Blade Type: Semi-Universal
 Attachment: 3-shank ripper
 Shift Basis: 1 per day
 Data Source: (CRG)

Cost Breakdown:

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$241.38</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$143.92</u>	<u>100</u>
Ripper own. Cost/Hour:	<u>\$14.11</u>	<u>NA</u>
Ripper op. Cost/Hour:	<u>\$3.73</u>	<u>50</u>
Operator Cost/Hour:	<u>\$40.04</u>	<u>NA</u>

Total unit Cost/Hour: \$443.17
 Total Fleet Cost/Hour: \$443.17

MATERIAL QUANTITIES

Initial Volume: 550,000
 Swell factor: 1.000
 Loose volume: 550,000 LCY

Source of estimated volume: AM-02 Application
 Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 100 feet
 Unadjusted hourly production: 852.6 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: -5 %
 Average site altitude: 4,670 feet

Material weight: 4,050 lbs/LCYWeight description: Sand and clay - Compacted**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	<u>1.000</u>	<u>(EXCL.)</u>
Material consistency:	<u>1.000</u>	<u>(CAT HB)</u>
Dozing method:	<u>1.000</u>	<u>(GEN.)</u>

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.115	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.568	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4205

Adjusted unit production: 358.52 LCY/hr

Adjusted fleet production: **358.52** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$1.236/LCY

Total job time: **1,534.08** Hours

Total job cost: **\$679,861**

SITE MAINTENANCE

Task description: **Import Topsoil**

Site: **Greeley 35th Ave Pit**

Permit Action: AM-02

Permit/Job#: M1977036

PROJECT IDENTIFICATION

Task #: 202

State: Colorado

Abbreviation: None

Date: 1/9/2015

County: Weld

Filename: M036-202

User: PSH

Agency or organization name: DRMS

UNIT COSTS

Maintenance Item	Hours per Year	Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Import 51,120 CY Topsoil	40.00	USER PROVIDED ITEM	51,120.00	0	\$10.00	\$511,200.00

Job Hours: 0.00

Total Cost: \$511,200.00

WHEEL LOADER – LOAD AND CARRY WORKTask description: Topsoil Placement - Non West Cell - 153 AcresSite: Greeley 35th Ave Pit Permit Action: Insp 2023 Permit/Job#: M1977036**PROJECT IDENTIFICATION**

Task #: 203 State: Colorado Abbreviation: None
 Date: 11/6/2023 County: Weld Filename: 203
2:06:25 PM
 User: HR1

Agency or organization name: DRMS**HOURLY EQUIPMENT COST**

Basic Machine: CAT 938H Horsepower: 172
 Attachment 1: ROPS Cab Shift Basis: 1 per day
 Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$43.90	NA
Operating Cost/Hour:	\$34.86	100
Operator Cost/Hour:	\$35.97	NA
Total Unit Cost/Hour:	\$114.73	
Total Fleet Cost/Hour:	\$229.46	

MATERIAL QUANTITIES

Initial volume: 185,130 CCY Swell factor: 1.000
 Loose volume: 185,130 LCY

Source of estimated volume: AM-02 Application
 Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTIONLoader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.483 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	Dumped by truck 0.02	0.020	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(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 Basic Cycle Time:		0.443	minutes

Rolling Resistance – Road Conditions

Haul: Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0
 Return: Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0

Haul and Return Time

	Length (feet)	Grade Res. (%)	Rolling Res. (%)	Total Res. (%)	Travel Time (minutes)	Source
Haul Route:	1800	0.00	3.00	3.00	1.4131	(Cat HB)
Return Route:	1800	0.00	3.00	3.00	1.3271	(Cat HB)

Total Travel Time: 2.7402 minutes
 Total Cycle Time: 3.1827 minutes

Load Bucket Capacity

Rated Capacity: 3.90 LCY (heaped)
 Bucket Fill Factor: 0.975 Loose material - mixed moist aggregates (95-100%) 0.975
 Adjusted Capacity: 3.80 LCY

Job Condition Correction Factors

Site Altitude: 4670 feet

		Source
Altitude Adj:	<u>1.00</u>	(CAT HB)
Job Efficiency:	<u>0.83</u>	(1 shift/day)
Net Correction:	<u>0.83</u>	multiplier

Unadjusted Hourly Unit Production: 71.69 LCY/Hour
 Adjusted Hourly Unit Production: 59.50 LCY/Hour
 Adjusted Hourly Fleet Production: 119.00 LCY/Hour

JOB TIME AND COST

Fleet size: 2 Loader(s) Total job time: 1,555.75 Hours
 Unit cost: \$1.928 /LCY Total job cost: \$356,982

BULLDOZER WORKTask description: Topsoil Final Grading - Non West Cell - 153 AcresSite: Greeley 35th Ave PitPermit Action: Insp 2023Permit/Job#: M1977036**PROJECT IDENTIFICATION**Task #: 204State: ColoradoAbbreviation: NoneDate: 11/6/2023County: WeldFilename: 2042:04:36 PMUser: HR1Agency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D8T - 8SUHorsepower: 310Blade Type: Semi-UniversalAttachment: 3-shank ripperShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$241.38</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$143.92</u>	<u>100</u>
Ripper own. Cost/Hour:	<u>\$14.11</u>	<u>NA</u>
Ripper op. Cost/Hour:	<u>\$0.00</u>	<u>0</u>
Operator Cost/Hour:	<u>\$40.04</u>	<u>NA</u>

Total unit Cost/Hour: \$439.45Total Fleet Cost/Hour: **\$439.45****MATERIAL QUANTITIES**Initial Volume: 185,130Swell factor: 1.000Loose volume: **185,130 LCY**Source of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 55 feetUnadjusted hourly production: 1,323.4 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: -5 %Average site altitude: 4,670 feetMaterial weight: 1,600 lbs/LCYWeight description: Top Soil**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	<u>1.000</u>	<u>(EXCL.)</u>
Material consistency:	<u>1.200</u>	<u>(CAT HB)</u>
Dozing method:	<u>1.000</u>	<u>(GEN.)</u>

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.115	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.2776

Adjusted unit production: 1,690.78 LCY/hr

Adjusted fleet production: **1690.78** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.260/LCY

Total job time: **109.49** Hours

Total job cost: **\$48,117**

DEMOLITION WORK

Task description: Conveyor Removal - Non West Cell

Site: Greeley 35th Ave Pit

Permit Action: Insp 2023

Permit/Job#: M1977036

PROJECT IDENTIFICATION

Task #: 205

State: Colorado

Abbreviation: None

Date: 11/6/2023 2:02:46

County: Weld

Filename: 205

PM

User: HR1

Agency or organization name: DRMS

UNIT COSTS

Location adjustment: 94.70 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Conveyor Removal	4,300 feet	OBSOLETE-Conveyor, overland, including supports - 5 ft. W x 6 ft. H housing	4,300.00	LF	\$17.60	\$75,680.00

Job Hours: 80.00

Subtotal
(unadjusted): \$75,680.00

Total Cost
(adjusted for
location): \$71,668.96

REVEGETATION WORKTask description: Revegetation - 90.5 Acres - UplandSite: Greeley 35th Ave PitPermit Action: Insp 2023Permit/Job#: M1977036**PROJECT IDENTIFICATION**Task #: 206State: ColoradoAbbreviation: NoneDate: 11/6/2023County: WeldFilename: 2062:08:07 PMUser: HR1Agency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
0-20-20, 4-8-12, 10-10-10	40.00	pound	\$0.62	\$24.80
			Total Fertilizer Materials Cost/Acre	\$24.80

Application

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	\$41.82
Total Fertilizer Application Cost/Acre	\$41.82

TILLING

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

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Alkali Sacaton	0.10	3.90	\$2.85
Switchgrass - Pathfinder	0.67	5.98	\$8.54
Sand Dropseed	0.48	57.30	\$4.68
Mountain Brome - Bromar	1.74	2.80	\$6.61
Sideoats Grama - Butte	1.80	5.91	\$16.20
Western Wheatgrass - Arriba	1.74	4.39	\$11.31
Sweetvetch, Utah or Northern	1.02	0.46	\$76.50
Needle and Thread	1.29	3.41	\$53.99
Rose, Meadow	0.87	0.74	\$21.75

Globemallow, Scarlet (or copper)	0.25	2.83	\$33.88
Penstemon, Rocky Mountain	0.46	7.21	\$13.57
Totals Seed Mix	10.42	94.93	\$249.87

Application

Description	Cost /Acre
Drill Seeding (DRMS Survey Cost)	\$232.00
Total Seed Application Cost/Acre	\$232.00

MULCHING and MISCELLANEOUS**Materials**

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

Application

Description	Cost /Acre
Weed spray, truck, non-aquatic area, nox. [DMG]	\$62.72
Total Mulch Application Cost/Acre	\$62.72

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:	90.5	Cost /Acre:	\$1,062.83
Estimated Failure Rate:	25%	Cost /Acre*:	\$1,000.11
*Selected Replanting Work Items:	FERTILIZING,TILLING,SEEDING		
Initial Job Cost:	\$96,186.12		
Reseeding Job Cost:	\$22,627.49		
Total Job Cost:	\$118,814		
Job Hours:	40.00		

REVEGETATION WORKTask description: Revegetate - Transition Zone - 60.5 AcresSite: Greeley 35th Ave PitPermit Action: Insp 2023Permit/Job#: M1977036**PROJECT IDENTIFICATION**Task #: 207State: ColoradoAbbreviation: NoneDate: 11/6/2023County: WeldFilename: 2072:08:49 PMUser: HR1Agency 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
Weed control spraying (MEANS 31 31 16.13 3100)	\$338.80
Total Tilling Cost/Acre	\$338.80

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Switchgrass - Pathfinder	0.78	6.97	\$9.95
Sand Dropseed	0.03	3.58	\$0.29
Canada Wildrye	2.47	6.52	\$26.77
Sideoats Grama - Butte	1.24	4.07	\$11.16
Great Basin Wildrye - Magnar	1.34	5.44	\$15.48
Western Wheatgrass - Arriba	1.45	3.66	\$9.43
Vetch, American	5.81	2.63	\$580.56
Globemallow, Scarlet (or copper)	0.05	0.59	\$7.05

Totals Seed Mix	13.17	33.46	\$660.68
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Application

Description	Cost /Acre
Drill Seeding (DRMS Survey Cost)	\$232.00
Total Seed Application Cost/Acre	\$232.00

MULCHING and MISCELLANEOUS**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
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:	60.5	Cost /Acre:	\$1,231.48
Estimated Failure Rate:	20%	Cost /Acre*:	\$892.68
*Selected Replanting Work Items:	SEEDING		

Initial Job Cost:	\$74,504.54
Reseeding Job Cost:	\$10,801.43
Total Job Cost:	\$85,306
Job Hours:	20.00

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Mob/Demob**Site: **Greeley 35th Ave Pit**Permit Action: **Insp 2023**Permit/Job#: **M1977036****PROJECT IDENTIFICATION**

Task #: 208 State: Colorado Abbreviation: None
 Date: 11/6/2023 County: Weld Filename: 208
2:07:09 PM
 User: HR1

Agency or organization name: DRMS**EQUIPMENT TRANSPORT RIG COST**

Shift basis: 1 per day
 Cost Data Source: CRG Data

Truck Tractor Description: **GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED,
400 HP (2ND HALF, 2006)**Truck Trailer Description: **GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT
TRAILER (25T, 50T, AND 100T)****Cost Breakdown:**

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$20.26	\$36.04	\$47.05
Operating Cost/Hour:	\$39.51	\$76.08	\$82.85
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$82.29	\$158.17	\$175.95

NON ROADABLE EQUIPMENT:

Machine Description	Weight/ Unit (TONS)	Owner ship Cost/hr/ unit	Haul Rig Cost/hr/unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet	DOT Permit Cost/ fleet
Cat D8T - 8SU	47.71	\$241.38	\$158.17	1	\$399.55	\$158.17	\$500.00
CAT 938H	16.34	\$43.90	\$82.29	2	\$252.38	\$164.58	\$250.00

Subtotals: **\$651.93** **\$322.75** **\$750.00****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</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>\$3,360.82</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):	<u>0.29</u>	<u>0.29</u>
Return Time (Hours):	<u>0.29</u>	<u>0.29</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>1.57</u>	<u>0.57</u>

JOB TIME AND COST

Total job time:	<u>3.14</u>	Hours
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Total job cost:	<u>\$3,361</u>
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SITE MAINTENANCE

Task description: West Cell Slurry Wall Certification- 20% retained

Site: Greeley 35th Ave Pit

Permit Action: Insp 2023

Permit/Job#: M1977036

PROJECT IDENTIFICATION

Task #: 209

State: Colorado

Abbreviation: None

Date: 11/6/2023 2:10:18

County: Weld

Filename: 209

PM

User: HR1

Agency or organization name: DRMS

UNIT COSTS

Maintenance Item	Hours per Year	Menu Selection	Quantity	Unit	Unit Cost	Total Cost
West Cell Slurry Wall Construction Cost	40.00	USER PROVIDED ITEM	518,347.00	1	\$1.00	\$518,347.00

Job Hours: 0.00

Total Cost: \$518,347.00

SITE MAINTENANCE

Task description: Install Slurry Wall - Non West Cell for SEO compliance

Site: Greeley 35th Ave Pit

Permit Action: Insp 2023

Permit/Job#: M1977036

PROJECT IDENTIFICATION

Task #: 210

State: Colorado

Abbreviation: None

Date: 11/6/2023 2:10:44

County: Weld

Filename: 210

PM

User: HR1

Agency or organization name: DRMS

UNIT COSTS

Maintenance Item	Hours per Year	Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Install Slurry Wall at 4 remaining open water lakes	1.00	USER PROVIDED ITEM	748,106.00	1	\$3.00	\$2,244,318.00

Job Hours: 0.00

Total Cost: \$2,244,318.00