



COLORADO

Division of Reclamation,
Mining and Safety

Department of Natural Resources

1313 Sherman Street, Room 215
Denver, CO 80203

April 13, 2015

Mr. Gayle Lyman
Grand Junction Pipe & Supply Co.
556 Struthers Ave
Grand Junction, CO 81501

Re: Bradbury Pit, Permit No. M-1978-357, Financial Warranty Increase, Revision No. SI-2

Dear Mr. Lyman:

On April 13, 2015 the Division of Reclamation, Mining and Safety increased the current Financial Warranty for this permit to \$101,453.12, in accordance with Rule 4.2.1 of the Rules and Regulations. This is an increase of \$55,453.12 over the currently held amount of \$46,000.00.

The Division ordered amendment of the current Financial Warranty or submittal of a new Financial Warranty reflecting the increase, within 60 days from the date of this letter. If you wish to submit a different type of Financial Warranty, please contact Barbara Coria at (303) 866-3567 ext. 8148.

If you need additional information, please contact me at the Division of Reclamation, Mining and Safety, Grand Junction Field Office, 101 S. 3rd St., Suite 301, Grand Junction, Colorado 81501, telephone no. (970) 241-2042.

Sincerely,



Travis Marshall
Environmental Protection Specialist

Enclosure(s): Reclamation Cost Update SI-2

ec: Russ Means, DRMS
Barbara Coria, DRMS



COST SUMMARY WORK

Task description: Reclamation Cost Update

Site: Bradbury Pit Permit Action: Reclamation
Cost Update Permit/Job#: M1978357

PROJECT IDENTIFICATION

Task #: 001 State: Colorado Abbreviation: None
Date: 4/13/2015 County: Mesa Filename: M357-001
User: THM
Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
01a	Establish final grade	DOZER	1	15.05	\$3,148.00
02a	Ripp 25 acres prior to placing topsoil.	RIPPER	1	37.30	\$8,311.00
03a	Place 6" of topsoil over 33 acres	DOZER	1	61.87	\$12,937.00
04a	Revegetate 38 acres	REVEGE	1	24.00	\$50,314.00
05a	Mobilization	MOBILIZE	1	2.80	\$3,655.00
<u>SUBTOTALS:</u>				141.02	\$78,365

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02%	Total =	\$1,582.97
Performance bond:	1.05%	Total =	\$822.83
Job superintendent:	70.51 hrs	Total =	\$5,299.53
Profit:	10.00%	Total =	\$7,836.50
		TOTAL O & P =	\$15,541.83
		CONTRACT AMOUNT (direct + O & P) =	\$93,906.83

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	500.00	Total =	500.00
Engineering work and/or contract/bid preparation:	0.00%	Total =	\$0.00
Reclamation management and/or administration:	5.00%		\$4,695.34

CONTINGENCY: 3.00 Total = \$2,350.95

TOTAL INDIRECT COST = \$23,088.12

TOTAL BOND AMOUNT (direct + indirect) = **\$101,453.12**

BULLDOZER WORKTask description: Establish final gradeSite: Bradbury PitPermit Action: Reclamation Cost
UpdatePermit/Job#: M1978357**PROJECT IDENTIFICATION**Task #: 01A
Date: 4/9/2015
User: THMState: Colorado
County: MesaAbbreviation: None
Filename: M357-01aAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D8T - 8SU
Horsepower: 310
Blade Type: Semi-Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$62.67</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$107.59</u>	<u>100</u>
Ripper op. Cost/Hour:	<u>\$0.00</u>	<u>0</u>
Operator Cost/Hour:	<u>\$38.85</u>	<u>NA</u>

Total unit Cost/Hour: \$209.11
Total Fleet Cost/Hour: \$209.11**MATERIAL QUANTITIES**Initial Volume: 6,667
Swell factor: 1.330
Loose volume: 8,867 LCYSource of estimated volume: Division of Reclamation, Mining & Safety
Source of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 60 feet
Unadjusted hourly production: 1,246.9 LCY/hrMaterials consistency description: Compacted fill or embankment 0.9Average push gradient: -15 %
Average site altitude: 5,000 feetMaterial weight: 2,900 lbs/LCYWeight description: Decomposed rock - 50% Rock, 50% Earth**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	<u>0.750</u>	<u>(AVG.)</u>
Material consistency:	<u>0.900</u>	<u>(CAT HB))</u>
Dozing method:	<u>1.000</u>	<u>(GEN.)</u>
Visibility:	<u>1.000</u>	<u>(AVG.)</u>

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.329	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4724

Adjusted unit production: 589.04 LCY/hr

Adjusted fleet production: 589.04 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.355/LCY

Total job time: 15.05 Hours

Total job cost: \$3,148

BULLDOZER RIPPING WORK

Task description: Rip 25 acres prior to placing topsoil.

Site: Bradbury Pit

Permit Action: Reclamation Cost Update

Permit/Job#: M1978357

PROJECT IDENTIFICATION

Task #: 02A

State: Colorado

Abbreviation: None

Date: 4/13/2015

County: Mesa

Filename: M357-02a

User: THM

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D8T - 8SU
Ripper Attachment: 3-Shank Ripper

Horsepower: 310
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$69.05	NA
Operating Cost/Hour:	\$107.59	100
Ripper Operating Cost/Hour:	\$7.31	100
Operator Cost/Hour:	\$38.85	NA
Total Unit Cost/Hour:	\$222.80	
Total Fleet Cost/Hour:	\$222.80	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 25.00 acres Rip Depth (ft): 2.00 Volume: 80,667 BCY or CCY

Source of estimated quantity: Division of Reclamation Mining and Safety

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth: 2.56 mph
Average Ripping Width: 7.08 degrees
Average Ripping Length: 350.00 feet
Average Dozer Speed: 88.00 feet
Average Maneuver Time: 0.25 feet
Production per unit area: 0.807 acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.807 Acres/hr
Site Altitude: 5,000 feet
Altitude Adj: 1.00 (CAT HB)
Job Efficiency: 0.83 (1 shift/day)
Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.67 Acres/hr
Adjusted Hourly Fleet Production: 0.67 Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 37.30 Hours

Unit cost: \$332.455 Per acre Total job cost: \$8,311

BULLDOZER WORKTask description: Place 6" of topsoil/growth medium over 33 acres

Site: Bradbury Pit Permit Action: Reclamation Cost Update Permit/Job#: M1978357

PROJECT IDENTIFICATION

Task #: 03A State: Colorado Abbreviation: None
 Date: 4/13/2015 County: Mesa Filename: M357-03a
 User: THM

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:

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$62.67</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$107.59</u>	<u>100</u>
Ripper op. Cost/Hour:	<u>\$0.00</u>	<u>0</u>
Operator Cost/Hour:	<u>\$38.85</u>	<u>NA</u>

Total unit Cost/Hour: \$209.11
 Total Fleet Cost/Hour: \$209.11

MATERIAL QUANTITIES

Initial Volume: 26,620
 Swell factor: 1.000
 Loose volume: 26,620 LCY

Source of estimated volume: Division of Reclamation, Mining & Safety
 Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 120 feet
 Unadjusted hourly production: 751.6 LCY/hr

Materials consistency description: Loose stockpile 1.2

Average push gradient: 0 %
 Average site altitude: 5,000 feet

Material weight: 2,400 lbs/LCYWeight description: Clay and gravel - Dry**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	<u>0.750</u>	<u>(AVG.)</u>
Material consistency:	<u>1.200</u>	<u>(CAT HB)</u>
Dozing method:	<u>1.000</u>	<u>(GEN.)</u>
Visibility:	<u>1.000</u>	<u>(AVG.)</u>

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.958	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5725

Adjusted unit production: 430.29 LCY/hr

Adjusted fleet production: 430.29 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.486/LCY

Total job time: 61.87 Hours

Total job cost: \$12,937

REVEGETATION WORKTask description: Revegetate 38 acresSite: Bradbury PitPermit Action: Reclamation Cost
UpdatePermit/Job#: M1978357PROJECT IDENTIFICATIONTask #: 04AState: ColoradoAbbreviation: NoneDate: 4/13/2015County: MesaFilename: M357-04aUser: THMAgency or organization name: DRMSFERTILIZING**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)	\$98.01
Total Tilling Cost/Acre	\$98.01

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Paloma	2.00	6.47	\$17.42
Blue Grama - Native	0.75	12.24	\$7.76
Sand Dropseed	0.20	23.88	\$1.40
Galleta	2.00	7.30	\$50.40
Totals Seed Mix	4.95	49.89	\$76.98

Application

Description	Cost /Acre
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Drill seeding (DRMS Cost Data)	\$88.20
Total Seed Application Cost/Acre	\$88.20

MULCHING and MISCELLANEOUS**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost / Acre
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$265.00	\$530.00
Total Mulch Materials Cost/Acre				\$530.00

Application

Description	Cost / Acre
Crimping, with tractor {DMG survey data}	\$65.89
Power mulcher (MEANS 32 91 13.16 0250)	\$86.68
Total Mulch Application Cost/Acre	\$152.57

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:	38	Cost / Acre:	\$945.76
Estimated Failure Rate:	40%	Cost / Acre*:	\$945.76
*Selected Replanting Work Items:	TILLING, SEEDING, MULCHING		
Initial Job Cost:	\$35,938.88		
Reseeding Job Cost:	\$14,375.55		
Total Job Cost:	\$50,314		
Job Hours:	24.00		

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Mobilization**Site: **Bradbury Pit**Permit Action: **Reclamation Cost
Update**Permit/Job#: **M1978357****PROJECT IDENTIFICATION**Task #: **05A**State: **Colorado**Abbreviation: **None**Date: **4/13/2015**County: **Mesa**Filename: **M357-05a**User: **THM**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:	\$16.63	\$18.37	\$22.33
Operating Cost/Hour:	\$44.38	\$46.13	\$50.07
Operator Cost/Hour:	\$27.66	\$27.66	\$27.66
Helper Cost/Hour:	\$0.00	\$25.39	\$25.39
Total Unit Cost/Hour:	\$88.67	\$117.55	\$125.45

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	\$69.05	\$125.45	2	\$388.99	\$250.90	\$500.00
Drill/Broadcast Seeder with Tractor	25.00	\$39.59	\$88.67	1	\$128.26	\$88.67	\$250.00
Power Mulcher (Reinco M90)	6.00	\$7.03	\$88.67	1	\$95.70	\$88.67	\$250.00

Subtotals: **\$612.95** **\$428.24** **\$1,000.00****ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 3/4 T.	\$15.25	2	\$30.50	\$30.50

Subtotals: **\$30.50** **\$30.50**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	GRAND JUNCTION	
Total one-way travel distance:	10.00	miles
Average Travel Speed:	50.00	mph

Total Non-Roadable Mob/Demob Cost *	\$3,642.38
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	\$12.20
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.20	0.20
Return Time (Hours):	0.20	0.20
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	1.40	0.40

JOB TIME AND COST

Total job time:	2.80	Hours
Total job cost:	\$3,655	