



COLORADO

Division of Reclamation,
Mining and Safety

Department of Natural Resources

1313 Sherman Street, Room 215
Denver, CO 80203

August 26, 2014

Mr. Jack E. Paulson
White River Aggregates, Inc.
1107 E. Victory Way
Craig, CO 81625

Re: White River S & G Pit, Permit No. M-1991-009, Financial Warranty Increase, Revision No. SI-2, REVISED CALCULATIONS

Dear Mr. Paulson:

On July 2, 2014 the Division of Reclamation, Mining and Safety increased the current Financial Warranty for this permit to \$44,721.94, in accordance with Rule 4.2.1 of the Rules and Regulations. This original increase was \$25,228.94 over the currently held financial warranty. Due to more accurate figures provided by the operator a revised Reclamation Estimate in the amount of \$33,814.20 has been calculated. **Therefore the revised additional amount required to be placed with the Division is \$14,321.20.**

The Division ordered amendment of the current Financial Warranty or submittal of a new Financial Warranty reflecting the increase is due within 60 days from the date of the original Financial Warranty Increase notice sent to the operator on July 2, 2014. Therefore the due date for the increased financial warranty to be submitted to the Division in an approvable form is September 2, 2014. If you wish to submit a different type of Financial Warranty or have questions regarding modification of the existing financial warranty please contact Barbara Coria at (303) 866-3567 extension 8148.

If you have any questions regarding the figures in the cost estimate please contact me at (970) 241-2042.

Sincerely,

Travis Marshall
Environmental Protection Specialist

cc: Russ Means, DRMS
Barbara Coria, DRMS
Steve Baker, 3 B Enterprises

Enclosure(s): Updated Financial Reclamation Cost Estimate



COST SUMMARY WORK

Task description: Updated Final Reclamation Cost Estimate

Site: White River S & G Pit

Permit Action: SI-2

Permit/Job#: M1991009

PROJECT IDENTIFICATION

Task #: 001

State: Colorado

Abbreviation: None

Date: 7/2/2014

County: Rio Blanco

Filename: M009-001

User: THM

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
01a	Move material for grading of highwall	SCRAPER1	1	14.30	\$11,391.00
02a	Grading topsoil and backfill	DOZER	1	5.54	\$1,158.00
03a	Rip 6.0 acres of pit floor	RIPPER	1	8.88	\$1,979.00
04a	Revegetate 6.0 acres	REVEGE	1	16.00	\$6,926.00
05a	Mobilization	MOBILIZE	1	2.26	\$4,280.00
<u>SUBTOTALS:</u>				46.98	\$25,734

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02%

Total = \$519.83

Performance bond: 1.05%

Total = \$270.21

Job superintendent: 31.55 hrs

Total = \$2,371.30

Profit: 10.00%

Total = \$2,573.40

TOTAL O & P = \$5,734.74

CONTRACT AMOUNT (direct + O & P) = \$31,468.74

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): 0.00

Total = 0.00

Engineering work and/or contract/bid preparation: 0.00%

Total = \$0.00

Reclamation management and/or administration: 5.00%

\$1,573.44

CONTINGENCY: 3.00

Total = \$772.02

TOTAL INDIRECT COST = \$8,080.20

TOTAL BOND AMOUNT (direct + indirect) = \$33,814.20

SCRAPER TEAM WORKTask description: Move material for grading of highwallSite: White River S & G PitPermit Action: SI-2Permit/Job#: M1991009PROJECT IDENTIFICATIONTask #: 01AState: ColoradoAbbreviation: NoneDate: 7/2/2014County: Rio BlancoFilename: M009-01aUser: THMAgency or organization name: DRMSHOURLY EQUIPMENTCOSTShift basis: 1 per day

	Equipment Description
-Scraper:	Cat 627G w/push-pull
-Dozer:	Cat D8T - 8SU
Support Equipment -Load Area:	NA
-Dump Area:	NA
Road Maintenance -Motor Grader:	NA
-Water Truck:	NA

<u>Cost Breakdown:</u>	<u>Scraper Work Team</u>		<u>Support Equipment</u>		<u>Maintenance Equipment</u>	
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	NA	NA	NA	NA
Ownership cost/hour:	\$72.62	\$62.67	NA	NA	NA	NA
Operating cost/hour:	\$187.56	\$108.22	NA	NA	NA	NA
Ripper op. cost/hour:	NA	\$0.00	NA	NA	NA	NA
Operator cost/hour:	\$33.56	\$38.01	NA	NA	NA	NA
Unit Subtotals:	\$293.74	\$208.90	NA	NA	NA	NA
Number of Units:	2	1	0	0	0	0
Group Subtotals:	Work: \$796.38		Support:	\$0.00	Maint:	\$0.00

Total work team cost/hour: \$796.38MATERIAL QUANTITIESInitial volume: 11,000

CCY

Swell factor: 1.125Loose volume: 12,375

LCY

Source of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat HandbookHOURLY PRODUCTIONScraper Bowl (volume) Basis:

Material weight: 2,650 lbs/LCY
 Material description: Decomposed rock - 25% Rock, 75% Earth
 Rated Payload: 52,800 pounds
 Payload Capacity: 19.92 LCY

Struck Volume: 15.70 LCY
 Heaped Volume: 22.00 LCY
 Average Volume: 18.85 LCY
 Adjusted Capacity: 18.85 LCY

Cycle Time:Scraper Loading Time: 0.90 MinutesManeuver and Spread Time: 0.60 MinutesJob Condition Correction:

Site Altitude: 6200 feet

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.830	0.830	

Travel Time:Road Condition: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	200.00	20.00	5.00	25.00	406	0.50

Haul Time: 0.50 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	200.00	-20.00	5.00	-15.00	1749	0.17

Return Time: 0.17 minutesTotal Scraper team cycle time: 2.17 minutesAdjusted for job conditions: 865.19 LCY/HourSelected Number of Scrapers: 2 Scraper(s)Adjusted single scraper team (unit) hourly production: 865.19 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 865.19 LCY/HourUnadjusted unit production/hour: 1,042.40 LCY/Hour

Optimal Number of Scrapers per push dozer: _____

JOB TIME AND COSTFleet size: 1 Team(s)Total job time: 14.30 HoursUnit cost: \$0.920 /LCYTotal job cost: \$11,391

BULLDOZER WORKTask description: Grading topsoil and backfillSite: White River S & G PitPermit Action: SI-2Permit/Job#: M1991009**PROJECT IDENTIFICATION**Task #: 02AState: ColoradoAbbreviation: NoneDate: 7/2/2014County: Rio BlancoFilename: M009-02aUser: THMAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D8T - 8SUHorsepower: 310Blade Type: Semi-UniversalAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$62.67	NA
Operating Cost/Hour:	\$108.22	100
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$38.01	NA

Total unit Cost/Hour: \$208.90Total Fleet Cost/Hour: \$208.90**MATERIAL QUANTITIES**Initial Volume: 3,227Swell factor: 1.000Loose volume: 3,227 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 75 feetUnadjusted hourly production: 1,017.1 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: 15 %Average site altitude: 6,200 feetMaterial weight: 1,600 lbs/LCYWeight description: Top Soil**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(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:	0.666	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5723

Adjusted unit production: 582.09 LCY/hr

Adjusted fleet production: 582.09 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
 Unit cost: \$0.359/LCY

Total job time: 5.54 Hours
 Total job cost: \$1,158

BULLDOZER RIPPING WORK

Task description: Rip 6.0 acres of pit floor

Site: White River S & G Pit Permit Action: SI-2 Permit/Job#: M1991009

PROJECT IDENTIFICATION

Task #: 03A State: Colorado Abbreviation: None
Date: 7/2/2014 County: Rio Blanco Filename: M009-03a
User: THM

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:	<u>\$69.05</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$108.22</u>	<u>100</u>
Ripper Operating Cost/Hour:	<u>\$7.46</u>	<u>100</u>
Operator Cost/Hour:	<u>\$38.01</u>	<u>NA</u>
Total Unit Cost/Hour:	<u>\$222.73</u>	
Total Fleet Cost/Hour:	<u>\$222.73</u>	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 6.00 acres Rip Depth (ft): 1.50 Volume: 14,520 BCY or CCY

Source of estimated quantity: Previously accepted values

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth: 2.56 mph
Average Ripping Width: 7.08 degrees
Average Ripping Length: 400.00 feet
Average Dozer Speed: 88.00 feet
Average Maneuver Time: 0.25 feet
Production per unit area: 0.813 acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.813 Acres/hr
Site Altitude: 6,200 feet
Altitude Adj: 1.00 (CAT HB)
Job Efficiency: 0.83 (1 shift/day)
Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.68 Acres/hr
Adjusted Hourly Fleet Production: 0.68 Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 8.89 Hours

Unit cost: \$329.894 Per acre Total job cost: \$1,979

REVEGETATION WORKTask description: Revegetate 6.0 acresSite: White River S & G PitPermit Action: SI-2Permit/Job#: M1991009PROJECT IDENTIFICATIONTask #: 04AState: ColoradoAbbreviation: NoneDate: 7/2/2014County: Rio BlancoFilename: M009-04aUser: THMAgency or organization name: DRMSFERTILIZINGMaterials

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	2.50	8.09	\$21.78
Crested Wheatgrass - Ephraim	2.00	9.18	\$4.46
Russian Wildrye - Vinal	2.00	8.03	\$7.42
Streambank Wheatgrass - Sodar	2.20	7.17	\$9.26
Western Wheatgrass - Arriba	3.20	8.08	\$11.78
Totals Seed Mix	11.90	40.56	\$54.69

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: 6 Cost /Acre: \$923.47
 Estimated Failure Rate: 25% Cost /Acre*: \$923.47
 *Selected Replanting Work Items: TILLING,SEEDING,MULCHING
 Initial Job Cost: \$5,540.82
 Reseeding Job Cost: \$1,385.21
 Total Job Cost: \$6,926
 Job Hours: 16.00

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Mobilization**Site: **White River S & G Pit**Permit Action: **SI-2**Permit/Job#: **M1991009****PROJECT IDENTIFICATION**Task #: **05A**State: **Colorado**Abbreviation: **None**Date: **7/2/2014**County: **Rio Blanco**Filename: **M009-05a**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 627G w/push-pull	43.48	\$72.62	\$117.55	2	\$380.33	\$235.10	\$500.00
Cat D8T - 8SU	53.08	\$69.05	\$125.45	1	\$194.50	\$125.45	\$250.00
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: **\$798.79** **\$537.89** **\$1,250.00****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.	\$15.30	2	\$30.60	\$30.60

Subtotals: **\$30.60** **\$30.60**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region: MEEKER
 Total one-way travel distance: 2.00 miles
 Average Travel Speed: 30.00 mph

Total Non-Roadable Mob/Demob Cost * \$4,275.80
 '* two round trips with haul rig:
 Total Roadable Mob/Demob Cost ** \$4.08
 ** one round trip, no haul rig:

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.07	0.07
Return Time (Hours):	0.07	0.07
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	1.13	0.13

JOB TIME AND COST

Total job time: 2.27 Hours

Total job cost: \$4,280