

STATE OF COLORADO

DIVISION OF RECLAMATION, MINING AND SAFETY

Department of Natural Resources

1313 Sherman St., Room 215
Denver, Colorado 80203
Phone: (303) 866-3567
FAX: (303) 832-8106



John W. Hickenlooper
Governor

Mike King
Executive Director

Loretta Piñeda
Director

February 12, 2014

Mr. Richard Connell
Connell Resources, Inc.
7785 Highland Meadows Pkwy., Ste. 100
Fort Collins, CO 80528

Re: White River City Pit, Permit No. M-2006-084, Financial Warranty Increase, Revision No. SI-1

Dear Mr. Connell:

On February 12, 2014 the Division of Reclamation, Mining and Safety increased the current Financial Warranty for this permit to \$447,245.79, in accordance with Rule 4.2.1 of the Rules and Regulations. This is an increase of \$48,826.79.

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 to determine the applicable form.

If you have any questions, please contact me at (970) 241-2042.

Sincerely,

A handwritten signature in black ink, appearing to read "Travis Marshall".

Travis Marshall
Environmental Protection Specialist

Enclosure – Reclamation Cost Estimate Update, SI-1

COST SUMMARY WORK

Task description: Reclamation Cost Estimate

Site: White River City Pit

Permit Action: SI-1

Permit/Job#: M2006084

PROJECT IDENTIFICATION

Task #: 001

State: Colorado

Abbreviation: None

Date: 2/12/2014

County: Rio Blanco

Filename: M084-001

User: THM

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
01a	Dewatering of pit	PUMPING	1	897.95	\$44,763.00
02a	Construction of wetland shelf in Phase 3	DOZER	4	281.45	\$223,054.01
02b	Grading of pit slopes from 2H:1V to 3H:1V	DOZER	4	6.26	\$4,964.74
03a	Rip compacted areas prior to topsoiling	RIPPER	4	8.59	\$7,250.00
04a	Grading of pit slopes from 2H:1V to 3H:1V	DOZER	4	22.94	\$18,177.45
05a	Revegetate 11.8 acres with dry land seed mix	REVEGE	1	12.00	\$15,502.45
06a	Revegetate 11.4 acres with riparian seed mix	REVEGE	1	8.00	\$36,024.91
07a	Mobilization	MOBILIZE	1	3.77	\$7,603.71
<u>SUBTOTALS:</u>				1240.96	\$357,340.27

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02%
Performance bond: 1.05%
Job superintendent: 171.50 hrs
Profit: 10.00%

Total = \$7,218.27

Total = \$3,752.07

Total = \$11,217.82

Total = \$35,734.03

TOTAL O & P = \$57,922.19

CONTRACT AMOUNT (direct + O & P) = \$415,262.46

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%

\$20,763.12

CONTINGENCY: 3.00

Total = \$10,720.21

TOTAL INDIRECT COST = \$89,905.52

TOTAL BOND AMOUNT (direct + indirect) = \$447,245.79

PUMPING WORK

Task description: Dewatering of pit

Site: White River City Pit

Permit Action: SI-1

Permit/Job#: M2006084

PROJECT IDENTIFICATION

Task #: 01A

State: Colorado

Abbreviation: None

Date: 2/12/2014

County: Rio Blanco

Filename: M084-01a

User: THM

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

	Description	Quantity
Make and Model:	Centrifugal pump - 125M, 8 in.	1
Attachment 1:	Suction pipe - 8 in. diam., 25 ft.	1
Attachment 2:	Discharge pipe - 8 in. D., 25 ft.	1
Labor Unit 1:	Pump operator (same as 1st)	1
Horsepower:	70	
Shift Basis:	1 per day	
Weight:	1.50	
	(US Tons)	

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$8.40	NA
Operating Cost/Hour:	\$18.51	100
Operator Cost/Hour:	\$22.94	NA
Total Unit Cost/Hour:	\$49.85	
Total Fleet Cost/Hour:	\$49.85	

PUMPING QUANTITIES

Initial Pond Volume:	354.70		Conversion factor:	325850.5800
Final Pond Volume:	115,579,200.73	gallons		
Total Pond Inflow Surface Area:	1,000	Sq. ft.	Unit inflow rate in gph/sq. ft.:	0.0879
Total Pond Inflow Volume per Hour:	87.90	gallons		

Source of estimated volume: Previously excepted values

PUMPING TIME

Maximum Pump Capacity:	125,000	gph/pump
Estimated Suction Head:	15	feet
Estimated Discharge Head:	10	feet
Total Head:	25	feet
CPB Pump Capacity:	111,000	gph/pump
Site Altitude:	5,700	feet
Adjusted Pumping Capacity:	111,000	gph
Initial Unadjusted Pumping Time:	1,041.25	hours
Inflow during Initial Pumping:	91,526	gallons
Net Unadjusted Pumping Time:	1,042.08	Hours
Altitude Adjustment Factor:	0.9400	(3% rule)
Pump Efficiency Factor:	0.9167	(55 min./hr.)
Total Adjusted Pumping Time:	897.96	hours

JOB TIME AND COST

Total job time: 897.96 Hours

Unit cost: \$0.000387 /Gallon

Total job cost: \$44,763.00

BULLDOZER WORKTask description: Construction of wetland shelf in Phase 3Site: White River City PitPermit Action: SI-1Permit/Job#: M2006084PROJECT IDENTIFICATIONTask #: 02AState: ColoradoAbbreviation: NoneDate: 2/12/2014County: Rio BlancoFilename: M084-02aUser: THMAgency or organization name: DRMSHOURLY EQUIPMENT COSTBasic Machine: Cat D8T - 8SUHorsepower: 310Blade Type: Semi-UniversalAttachment: NAShift Basis: 1 per dayData Source: (CRG)Cost Breakdown:

		<u>Utilization %</u>
Ownership Cost/Hour:	\$56.69	NA
Operating Cost/Hour:	\$104.03	100
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$37.41	NA

Total unit Cost/Hour: \$198.13Total Fleet Cost/Hour: \$792.53MATERIAL QUANTITIESInitial Volume: 229,931Swell factor: 1.000Loose volume: 229,931 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat HandbookHOURLY PRODUCTIONAverage push distance: 250 feetUnadjusted hourly production: 377.8 LCY/hrMaterials consistency description: Partly consolidated stockpile 1.1Average push gradient: -5 %Average site altitude: 5,700 feetMaterial weight: 2,600 lbs/LCYWeight description: Clay and gravel - WetJob Condition Correction Factor

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.100	(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:	1.115	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.885	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5406

Adjusted unit production: 204.24 LCY/hr

Adjusted fleet production: **816.96 LCY/hr**

JOB TIME AND COST

Fleet size: 4 Dozer(s)
Unit cost: \$0.970/LCY

Total job time: **281.45 Hours**
Total job cost: **\$223,054.01**

BULLDOZER WORKTask description: Grading of pit slopes from 2H:1V to 3H:1VSite: White River City PitPermit Action: SI-1Permit/Job#: M2006084PROJECT IDENTIFICATIONTask #: 02BState: ColoradoAbbreviation: NoneDate: 2/12/2014County: Rio BlancoFilename: M084-02bUser: THMAgency or organization name: DRMSHOURLY EQUIPMENT COSTBasic Machine: Cat D8T - 8SUHorsepower: 310Blade Type: Semi-UniversalAttachment: NAShift Basis: 1 per dayData Source: (CRG)Cost Breakdown:

		<u>Utilization %</u>
Ownership Cost/Hour:	\$56.69	NA
Operating Cost/Hour:	\$104.03	100
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$37.41	NA

Total unit Cost/Hour: \$198.13Total Fleet Cost/Hour: \$792.53MATERIAL QUANTITIESInitial Volume: 8,454Swell factor: 1.000Loose volume: 8,454 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat HandbookHOURLY PRODUCTIONAverage push distance: 150 feetUnadjusted hourly production: 634.3 LCY/hrMaterials consistency description: Consolidated stockpile 1.0Average push gradient: -5 %Average site altitude: 5,700 feetMaterial weight: 2,400 lbs/LCYWeight description: Clay and gravel - DryJob Condition Correction Factor

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(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:	1.115	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.958	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5319

Adjusted unit production: 337.38 LCY/hr

Adjusted fleet production: 1349.52 LCY/hr

JOB TIME AND COST

Fleet size: 4 Dozer(s)
 Unit cost: \$0.587/LCY

Total job time: 6.26 Hours
 Total job cost: \$4,964.74

BULLDOZER RIPPING WORK

Task description: Rip compacted areas prior to topsoiling

Site: White River City Pit

Permit Action: SI-1

Permit/Job#: M2006084

PROJECT IDENTIFICATION

Task #: 03A

State: Colorado

Abbreviation: None

Date: 2/12/2014

County: Rio Blanco

Filename: M084-03a

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:	\$63.00	NA
Operating Cost/Hour:	\$104.03	100
Ripper Operating Cost/Hour:	\$6.53	100
Operator Cost/Hour:	\$37.41	NA
Total Unit Cost/Hour:	\$210.98	
Total Fleet Cost/Hour:	\$843.94	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 23.20 acres Rip Depth (ft): 2.00 Volume: 74,859 BCY or CCY

Source of estimated quantity: Data provided in AM-1

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: 5,700 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: 2.70 Acres/hr

JOB TIME AND COST

Fleet size: 4 Grader(s) Total job time: 8.59 Hours

Unit cost: \$312.490 Per acre Total job cost: \$7,250.00

BULLDOZER WORKTask description: Grading of pit slopes from 2H:1V to 3H:1VSite: White River City PitPermit Action: SI-1Permit/Job#: M2006084PROJECT IDENTIFICATIONTask #: 04AState: ColoradoAbbreviation: NoneDate: 2/12/2014County: Rio BlancoFilename: M084-04aUser: THMAgency or organization name: DRMSHOURLY EQUIPMENT COSTBasic Machine: Cat D8T - 8SUHorsepower: 310Blade Type: Semi-UniversalAttachment: NAShift Basis: 1 per dayData Source: (CRG)Cost Breakdown:

		<u>Utilization %</u>
Ownership Cost/Hour:	\$56.69	NA
Operating Cost/Hour:	\$104.03	100
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$37.41	NA

Total unit Cost/Hour: \$198.13Total Fleet Cost/Hour: \$792.53MATERIAL QUANTITIESInitial Volume: 18,392Swell factor: 1.000Loose volume: 18,392 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat HandbookHOURLY PRODUCTIONAverage push distance: 350 feetUnadjusted hourly production: 233.3 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: 0 %Average site altitude: 5,700 feetMaterial weight: 1,600 lbs/LCYWeight description: Top SoilJob 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:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.8593

Adjusted unit production: 200.47 LCY/hr

Adjusted fleet production: **801.88 LCY/hr**

JOB TIME AND COST

Fleet size: 4 Dozer(s)
 Unit cost: \$0.988/LCY

Total job time: **22.94 Hours**
 Total job cost: **\$18,177.45**

REVEGETATION WORKTask description: Revegetate 11.8 acres with dry land seed mixSite: White River City PitPermit Action: SI-1Permit/Job#: M2006084PROJECT IDENTIFICATIONTask #: 05AState: ColoradoAbbreviation: NoneDate: 2/12/2014County: Rio BlancoFilename: M084-05aUser: 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
Alkali Sacaton	0.50	19.51	\$11.41
Crested Wheatgrass - Fairway	1.50	6.89	\$3.63
Yellow Sweet Clover - Madrid	1.50	8.95	\$3.83
Galleta	3.00	10.95	\$75.60
Streambank Wheatgrass - Sodar	3.00	9.78	\$12.63
Thickspike Wheatgrass - Critana	3.00	10.61	\$15.51
Rabbitbrush, Rubber	0.25	3.72	\$9.15
Saltbush, Four Wing	0.25	0.34	\$2.68
Sumac, Smooth	0.25	0.28	\$7.38
		71.04	\$141.81

Totals Seed Mix	13.25		
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Application

Description	Cost /Acre
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: 11.8 Cost /Acre: \$1,010.59
 Estimated Failure Rate: 30% Cost /Acre*: \$1,010.59
 *Selected Replanting Work Items: TILLING,SEEDING,MULCHING

Initial Job Cost: \$11,924.96
 Reseeding Job Cost: \$3,577.49
 Total Job Cost: \$15,502.45
 Job Hours: 12.00

REVEGETATION WORKTask description: Revegetate 11.4 acres with riparian seed mixSite: White River City PitPermit Action: SI-1Permit/Job#: M2006084PROJECT IDENTIFICATIONTask #: 06AState: ColoradoAbbreviation: NoneDate: 2/12/2014County: Rio BlancoFilename: M084-06aUser: 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
Alkali Sacaton	2.00	78.05	\$45.62
Aquatic Sedge	2.00	52.90	\$469.94
Great Basin Wildrye - Magnar	3.00	12.19	\$22.47
Slender Wheatgrass - Native	6.00	21.90	\$13.50
Slender Wheatgrass - Pryor	6.00	21.90	\$18.54
Red Top	2.00	229.11	\$12.26
Reedgrass, Canadian (or Blue Joint)	1.00	102.85	\$203.10
Reedgrass, Northern - Native	1.00	102.85	\$137.92
Saltgrass, Inland	2.00	27.72	\$93.98
Timothy, Alpine - Native	2.00	59.69	\$54.14

Totals Seed Mix	27.00	709.16	\$1,071.47
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Application

Description	Cost /Acre
Hydro seeding (MEANS 32 92 19.14 0200)	\$847.24
Total Seed Application Cost/Acre	\$847.24

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
Power mulcher (MEANS 32 91 13.16 0250)	\$86.68
Total Mulch Application Cost/Acre	\$86.68

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: 11.4
 Estimated Failure Rate: 20%
 *Selected Replanting Work Items: TILLING,SEEDING,MULCHING

Cost /Acre: \$2,633.40

Cost /Acre*: \$2,633.40

Initial Job Cost: **\$30,020.76**
 Reseeding Job Cost: **\$6,004.15**
 Total Job Cost: **\$36,024.91**
 Job Hours: **8.00**

EQUIPMENT MOBILIZATION/DEMobilIZATIONTask description: **Mobilization**Site: **White River City Pit**Permit Action: **SI-1**Permit/Job#: **M2006084****PROJECT IDENTIFICATION**Task #: **07A**State: **Colorado**Abbreviation: **None**Date: **2/12/2014**County: **Rio Blanco**Filename: **M084-07a**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	\$63.00	\$125.45	4	\$753.82	\$501.80	\$1,000.00
Drill/Broadcast Seeder with Tractor	25.00	\$39.59	\$88.67	1	\$128.26	\$88.67	\$250.00
Hydroseeder with Tractor	28.00	\$65.89	\$117.55	1	\$183.44	\$117.55	\$250.00
Power Mulcher (Reinco M90)	6.00	\$7.03	\$88.67	1	\$95.70	\$88.67	\$250.00
Subtotals:					\$1,161.22	\$796.69	\$1,750.00

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.	\$15.34	3	\$46.02	\$46.02
Subtotals:			\$46.02	\$46.02

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>MEEKER</u>	
Total one-way travel distance:	<u>20.00</u>	miles
Average Travel Speed:	<u>45.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$7,562.80</u>
'* two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$40.91</u>
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>0.44</u>	<u>0.44</u>
Return Time (Hours):	<u>0.44</u>	<u>0.44</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>1.89</u>	<u>0.89</u>

JOB TIME AND COST

Total job time:	<u>3.78</u>	Hours
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Total job cost:	<u>\$7,603.71</u>
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