

March 15, 2017

Mike and Mardi Anson  
Moffat Limestone  
PO Box 363  
Craig, CO 81626



**COLORADO**  
Division of Reclamation,  
Mining and Safety  
Department of Natural Resources

1313 Sherman Street, Room 215  
Denver, CO 80203

***RE: Juniper Mountain Gravel, Permit No. M-2003-073, Technical Revision (TR-2 ) Approval***

Dear Mr. and Mrs. Anson:

On March 15, 2017 the Division of Reclamation, Mining and Safety (Division) approved the Technical Revision request (TR-2) submitted on February 9, 2017, addressing the following:

*Revise reclamation plan, Commit to spring 2017 reclamation, intermittent operator status*

The terms of the TR-2 approved by the Division are hereby incorporated into Permit No. M-2003-073. All other conditions and requirements of the permit remain in full force and effect.

The estimated liability amount of \$63,834.00 exceeds the \$ 43,721.00 Financial Warranty currently held for this site. If you have not already done so, please submit additional bond in the amount of \$20,113.00. The revision will not be final until the bond is approved by the Division.

***Therefore, pursuant to Section 34-32.5-117(4) of the Colorado Land Reclamation Act, adequate Financial Warranty must be submitted to the Division within 60 days of the mailing date of this letter.*** The additional amount needs to be accepted prior to **Monday, May 15, 2017**. Please review the enclosed figures as soon as possible and contact our office if any calculation errors are noted.

If you require additional information, or have questions or concerns, please feel free to contact me. Amy Yeldell at the Division of Reclamation, Mining and Safety, 1313 Sherman St., Room 215, Denver, CO 80203. Direct contact can be made by phone at 970-254-8511 or via email at amy.yeldell@state.co.us

Sincerely,

**Amy Yeldell**

Environmental Protection Specialist  
Department of Natural Resources  
Division of Reclamation, Mining and Safety  
Phone: (970) 254-8511  
Fax: (970) 241-1516

Ec: Russ Means, Senior EPS, Grand Junction DRMS



## COST SUMMARY WORK

Task description: TR-2 and Spring 2017 Reclamation Update

Site: Juniper Mountain Gravel

Permit Action: 2017 Update

Permit/Job#: M2003073

### PROJECT IDENTIFICATION

Task #: ACY

State: Colorado

Abbreviation: None

Date: 2/13/2017

County: Moffat

Filename: M073-ACY

User: ACY

Agency or organization name: DRMS

### TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
01a	Reduce highwall to 3H:1V grade (mid-point in mining)	DOZER	1	3.81	\$766.00
02a	Replace overburden on max 15 acre disturbance	SCRAPER1	1	40.05	\$9,538.00
03a	Replace topsoil over 15 acre max disturbance	SCRAPER1	1	19.94	\$4,749.00
04a	Grade replaced overburden and topsoil when necessary	DOZER	1	31.44	\$5,229.00
05a	Reveg disturbed areas	REVEGE	1	36.00	\$20,240.00
06a	Replace 1100 feet of four strand barb wire fence	SITEMAINT ENANCE	1	40.00	\$2,387.00
07a	Transport reclamation equipment to/from site	MOBILIZE	1	4.40	\$3,718.00
07b	Secondary seeding mobilization	MOBILIZE	1	4.40	\$1,062.00
<b><u>SUBTOTALS:</u></b>				<b>180.04</b>	<b>\$47,689</b>

### INDIRECT COSTS

#### OVERHEAD AND PROFIT:

Liability insurance: 2.02

Total = \$963.32

Performance bond: 1.05

Total = \$500.73

Job superintendent: 87.56

Total = \$6,396.26

Profit: 10.00

Total = \$4,768.90

TOTAL O & P = \$12,629.21

CONTRACT AMOUNT (direct + O & P) = \$60,318.21

#### 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

\$3,015.91

CONTINGENCY: 0.00

Total = \$0.00

TOTAL INDIRECT COST = \$16,145.12

TOTAL BOND AMOUNT (direct + indirect) = \$63,834.12

**TOTAL BOND AMOUNT (rounded) = \$63,834**

**BULLDOZER WORK**Task description: **Reduce highwall to 3H:1V grade (mid-point in mining)**Site: **Juniper Mountain Gravel**Permit Action: 2017 UpdatePermit/Job#: M2003073**PROJECT IDENTIFICATION**Task #: 01AState: ColoradoAbbreviation: NoneDate: 2/13/2017County: MoffatFilename: M073-01aUser: ACYAgency 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>\$83.81</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$66.17</u>	<u>100</u>
Ripper own. Cost/Hour:	<u>\$7.55</u>	<u>NA</u>
Ripper op. Cost/Hour:	<u>\$1.80</u>	<u>25</u>
Operator Cost/Hour:	<u>\$41.85</u>	<u>NA</u>

Total unit Cost/Hour: \$201.18Total Fleet Cost/Hour: **\$201.18****MATERIAL QUANTITIES**Initial Volume: 1,528Swell factor: 1.180Loose volume: **1,803 LCY**Source of estimated volume: Assume 1100'L x avg. 10'H highwall cut and fill to 3H:1VSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feetUnadjusted hourly production: 1,400.0 LCY/hrMaterials consistency description: Compacted fill or embankment 0.9Average push gradient: -15 %Average site altitude: 6,200 feetMaterial weight: 4,050 lbs/LCYWeight description: Sand and clay - Compacted**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:	1.000	(AVG.)
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:	0.568	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3383

Adjusted unit production: 473.62 LCY/hr

Adjusted fleet production: **473.62** LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)  
 Unit cost: \$0.425/LCY

Total job time: **3.81** Hours  
 Total job cost: **\$766**

**SCRAPER TEAM WORK**Task description: **Replace overburden on max 15 acre disturbance**Site: **Juniper Mountain Gravel**Permit Action: 2017 UpdatePermit/Job#: M2003073**PROJECT IDENTIFICATION**Task #: 02A  
Date: 2/13/2017  
User: ACYState: Colorado  
County: MoffatAbbreviation: None  
Filename: M073-02aAgency or organization name: DRMS**HOURLY EQUIPMENT**COSTShift basis: 1 per day

Equipment Description	
-Scraper:	Cat 631G
-Dozer:	NA
Support Equipment -Load Area:	NA
-Dump Area:	NA
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	NA	NA	NA	NA
Ownership cost/hour:	\$98.72	NA	NA	NA	NA	NA
Operating cost/hour:	\$108.19	NA	NA	NA	NA	NA
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	NA	NA	NA	NA
Ripper op. cost/hour:	NA	NA	NA	NA	NA	NA
Operator cost/hour:	\$31.26	NA	NA	NA	NA	NA
Unit Subtotals:	\$238.17	NA	NA	NA	NA	NA
Number of Units:	1	0	0	0	0	0
Group Subtotals:	Work: \$238.17		Support:	\$0.00	Maint:	\$0.00

Total work team cost/hour: **\$238.17****MATERIAL QUANTITIES**Initial volume: 24,200 CCY  
Loose volume: 24,200 LCYSwell factor: 1.000Source of estimated volume: Exhibit L  
Source of estimated swell factor: Cat Handbook**HOURLY PRODUCTION****Scraper Bowl (volume) Basis:**Material weight: 2,500 lbs/LCY  
Material description: Clay - Dry  
Rated Payload: 81,600 pounds  
Payload Capacity: 32.64 LCYStruck Volume: 24.00 LCY  
Heaped Volume: 34.00 LCY  
Average Volume: 29.00 LCY  
Adjusted Capacity: **29.00** LCY

Cycle Time:Scraper Loading Time: 0.80 MinutesManeuver and Spread Time: 0.70 MinutesJob Condition Correction:

Site Altitude: 6200 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: Soft, rutted dirt, no maintenance or water, 4" tire penetration 8.0Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	400.00	0.00	8.00	8.00	783	0.54

Haul Time: 0.54 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	400.00	0.00	8.00	8.00	1446	0.35

Return Time: 0.35 minutesTotal Scraper team cycle time: 2.39 minutesAdjusted for job conditions: 604.27 LCY/HourSelected Number of Scrapers: 1 Scraper(s)Adjusted single scraper team (unit) hourly production: 604.27 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 604.27 LCY/HourUnadjusted unit production/hour: 728.03 LCY/Hour

Optimal Number of Scrapers per push dozer: \_\_\_\_\_

**JOB TIME AND COST**Fleet size: 1 Team(s)Total job time: 40.05 HoursUnit cost: \$0.394 /LCYTotal job cost: \$9,538

**SCRAPER TEAM WORK**Task description: **Replace topsoil over 15 acre max disturbance**Site: **Juniper Mountain Gravel**Permit Action: 2017 UpdatePermit/Job#: M2003073**PROJECT IDENTIFICATION**Task #: 03A  
Date: 2/13/2017  
User: ACYState: Colorado  
County: MoffatAbbreviation: None  
Filename: M073-03aAgency or organization name: DRMS**HOURLY EQUIPMENT**COSTShift basis: 1 per day

Equipment Description	
-Scraper:	Cat 631G
-Dozer:	NA
Support Equipment -Load Area:	NA
-Dump Area:	NA
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	NA	NA	NA	NA
Ownership cost/hour:	\$98.72	NA	NA	NA	NA	NA
Operating cost/hour:	\$108.19	NA	NA	NA	NA	NA
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	NA	NA	NA	NA
Ripper op. cost/hour:	NA	NA	NA	NA	NA	NA
Operator cost/hour:	\$31.26	NA	NA	NA	NA	NA
Unit Subtotals:	\$238.17	NA	NA	NA	NA	NA
Number of Units:	1	0	0	0	0	0
Group Subtotals:	Work:	\$238.17	Support:	\$0.00	Maint:	\$0.00

Total work team cost/hour: **\$238.17****MATERIAL QUANTITIES**Initial volume: 12,100 CCY      Swell factor: 1.000  
Loose volume: 12,100 LCYSource of estimated volume: Assume 15 acres covered with 6" of soil  
Source of estimated swell factor: Cat Handbook**HOURLY PRODUCTION****Scraper Bowl (volume) Basis:**

Material weight:	<u>1,600 lbs/LCY</u>	Struck Volume:	<u>24.00</u>	LCY
Material description:	<u>Top Soil</u>	Heaped Volume:	<u>34.00</u>	LCY
Rated Payload:	<u>81,600 pounds</u>	Average Volume:	<u>29.00</u>	LCY
Payload Capacity:	<u>51.00 LCY</u>	Adjusted Capacity:	<u>29.00</u>	LCY

Cycle Time:Scraper Loading Time: 0.80 MinutesManeuver and Spread Time: 0.70 MinutesJob Condition Correction:

Site Altitude: 6200 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: Soft, rutted dirt, no maintenance or water, 4" tire penetration 8.0Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	400.00	0.00	8.00	8.00	783	0.53

Haul Time: 0.53 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	400.00	0.00	8.00	8.00	1446	0.35

Return Time: 0.35 minutesTotal Scraper team cycle time: 2.38 minutesAdjusted for job conditions: 606.81 LCY/HourSelected Number of Scrapers: 1 Scraper(s)Adjusted single scraper team (unit) hourly production: 606.81 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 606.81 LCY/HourUnadjusted unit production/hour: 731.09 LCY/Hour

Optimal Number of Scrapers per push dozer: \_\_\_\_\_

**JOB TIME AND COST**Fleet size: 1 Team(s)Total job time: 19.94 HoursUnit cost: \$0.392 /LCYTotal job cost: \$4,749

**BULLDOZER WORK**Task description: Grade replaced overburden and topsoil when necessarySite: Juniper Mountain GravelPermit Action: 2017 UpdatePermit/Job#: M2003073**PROJECT IDENTIFICATION**Task #: 04AState: ColoradoAbbreviation: NoneDate: 2/13/2017County: MoffatFilename: M073-04aUser: ACYAgency 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:	\$83.81	NA
Operating Cost/Hour:	\$33.09	50
Ripper own. Cost/Hour:	\$7.55	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.85	NA

Total unit Cost/Hour: \$166.29Total Fleet Cost/Hour: \$166.29**MATERIAL QUANTITIES**Initial Volume: 9,075Swell factor: 1.000Loose volume: 9,075 LCYSource of estimated volume: Assume 1/4 of material moved during shapingSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feetUnadjusted hourly production: 1,400.0 LCY/hrMaterials consistency description: Compacted fill or embankment 0.9Average push gradient: 0 %Average site altitude: 6,200 feetMaterial weight: 2,500 lbs/LCYWeight description: Clay - Dry**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(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:	0.920	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4123

Adjusted unit production: 577.22 LCY/hr

Adjusted fleet production: **577.22** LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)

Unit cost: \$0.288/LCY

Total job time: **31.44** Hours

Total job cost: **\$5,229**

**REVEGETATION WORK**Task description: Reveg disturbed areasSite: Juniper Mountain GravelPermit Action: 2017 UpdatePermit/Job#: M2003073**PROJECT IDENTIFICATION**Task #: 05AState: ColoradoAbbreviation: NoneDate: 2/13/2017County: MoffatFilename: M073-05aUser: ACYAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Mono-Ammonium phosphate (11-52-0)	150.00	pound	\$0.32	\$48.00
			<b>Total Fertilizer Materials Cost/Acre</b>	<b>\$48.00</b>

**Application**

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	\$144.62
<b>Total Fertilizer Application Cost/Acre</b>	<b>\$144.62</b>

**TILLING**

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$106.29
<b>Total Tilling Cost/Acre</b>	<b>\$106.29</b>

**SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Nespar	6.00	19.42	\$46.50
Sandberg Bluegrass - VNS	3.00	63.71	\$24.18
Thickspike Wheatgrass - Critana	5.50	19.44	\$31.57
Western Wheatgrass - Arriba	8.00	20.20	\$64.64
Prairie Junegrass	7.50	398.66	\$227.48
<b>Totals Seed Mix</b>	<b>30.00</b>	<b>521.43</b>	<b>\$394.37</b>

**Application**

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

**MULCHING and MISCELLANEOUS****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - 2,4D @ 1.0 pt/ac	1.00	ACRE	\$2.74	\$2.74
<b>Total Mulch Materials Cost/Acre</b>				<b>\$2.74</b>

**Application**

Description	Cost /Acre
Weed spray, truck, non-aquatic area, nox. [DMG]	\$71.50
<b>Total Mulch Application Cost/Acre</b>	<b>\$71.50</b>

**NURSERY STOCK PLANTING**

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
<b>Totals Nursery Stock Cost / Acre</b>					<b>\$0.00</b>

**JOB TIME AND COST**

No. of Acres: 15 Cost /Acre: \$999.52  
 Estimated Failure Rate: 35% Cost /Acre\*: \$999.52  
 \*Selected Replanting Work Items: FERTILIZING,TILLING,SEEDING,MU  
LCHING

Initial Job Cost: \$14,992.80  
 Reseeding Job Cost: \$5,247.48  
 Total Job Cost: \$20,240  
 Job Hours: 36.00

## SITE MAINTENANCE

Task description: Replace 1100 feet of four strand barb wire fence

Site: Juniper Mountain Gravel

Permit Action: 2017 Update

Permit/Job#: M2003073

### PROJECT IDENTIFICATION

Task #: 06A

State: Colorado

Abbreviation: None

Date: 2/13/2017

County: Moffat

Filename: M073-06a

User: ACY

Agency or organization name: DRMS

### UNIT COSTS

Maintenance Item	Hours per Year	Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Replace Fence	40.00	Fencing, barbed wire, - 4 strand	1,100.00	LF	\$2.17	\$2,387.00

Job Hours: 40.00

Total Cost: \$2,387.00

**EQUIPMENT MOBILIZATION/DEMOBILIZATION**Task description: Transport reclamation equipment to/from siteSite: Juniper Mountain GravelPermit Action: 2017 UpdatePermit/Job#: M2003073**PROJECT IDENTIFICATION**Task #: 07AState: ColoradoAbbreviation: NoneDate: 2/13/2017County: MoffatFilename: M073-07aUser: ACYAgency or organization name: DRMS**EQUIPMENT TRANSPORT RIG COST**Shift basis: 1 per dayCost Data Source: CRG DataTruck 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:**

<b>Available Rig Capacities</b>	<b>0-25 Tons</b>	<b>26-50 Tons</b>	<b>51+ Tons</b>
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	\$91.36	\$125.45	1	\$216.81	\$125.45	\$250.00
Cat 631G	52.50	\$80.91	\$125.45	1	\$206.36	\$125.45	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$39.59	\$88.67	1	\$128.26	\$88.67	\$250.00
Subtotals:					<b>\$551.43</b>	<b>\$339.57</b>	<b>\$750.00</b>

**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.	\$37.87	1	\$37.87	\$37.87
Subtotals:			<b>\$37.87</b>	<b>\$37.87</b>

**EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region:	<u>CRAIG CO</u>	
Total one-way travel distance:	<u>30.00</u>	miles
Average Travel Speed:	<u>50.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$3,672.06</u>
'* two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$45.44</u>
** one round trip, no haul rig:	

**Transportation Cycle Time:**

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>0.60</u>	<u>0.60</u>
Return Time (Hours):	<u>0.60</u>	<u>0.60</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>2.20</u>	<u>1.20</u>

**JOB TIME AND COST**

Total job time:	<u>4.40</u>	Hours
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Total job cost:	<u>\$3,718</u>
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**EQUIPMENT MOBILIZATION/DEMOBILIZATION**Task description: Secondary seeding mobilizationSite: Juniper Mountain GravelPermit Action: 2017 UpdatePermit/Job#: M2003073**PROJECT IDENTIFICATION**Task #: 07BState: ColoradoAbbreviation: NoneDate: 2/13/2017County: MoffatFilename: M073-07bUser: ACYAgency or organization name: DRMS**EQUIPMENT TRANSPORT RIG COST**Shift basis: 1 per dayCost Data Source: CRG DataTruck 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:**

<b>Available Rig Capacities</b>	<b>0-25 Tons</b>	<b>26-50 Tons</b>	<b>51+ Tons</b>
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
Drill/Broadcast Seeder with Tractor	25.00	\$39.59	\$88.67	1	\$128.26	\$88.67	\$250.00

Subtotals: **\$128.26** **\$88.67** **\$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.	\$37.87	1	\$37.87	\$37.87

Subtotals: **\$37.87** **\$37.87**

**EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region: CRAIG CO  
 Total one-way travel distance: 30.00 miles  
 Average Travel Speed: 50.00 mph

Total Non-Roadable Mob/Demob Cost \* \$1,016.84  
 \* two round trips with haul rig:  
 Total Roadable Mob/Demob Cost \*\* \$45.44  
 \*\* one round trip, no haul rig:

**Transportation Cycle Time:**

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.60	0.60
Return Time (Hours):	0.60	0.60
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	2.20	1.20

**JOB TIME AND COST**

Total job time: 4.40 Hours

Total job cost: \$1,062

March 15, 2017

Mike and Mardi Anson  
Moffat Limestone  
PO Box 363  
Craig, CO 81626



**COLORADO**  
Division of Reclamation,  
Mining and Safety  
Department of Natural Resources

1313 Sherman Street, Room 215  
Denver, CO 80203

***RE: Juniper Mountain Gravel, Permit No. M-2003-073, TR-2 Reclamation Cost Estimate***

Dear Mr. and Mrs. Anson:

This reclamation cost update was in response to the technical revision request (TR-2) which was submitted on February 9, 2017 and a previous site inspection conducted on September 21, 2016. There have been no surety increases since the permit issuance in 2004. It is Division policy to periodically update its costs to ensure that the Financial Warranty adequately, reflects the actual current cost of fulfilling the requirements of the approved reclamation plan.

Below is a table summarizing input values that have been updated in technical revision (TR-2). This table does not account for price changes resulting from inflation or other RS Means cost changes. Bond calculations are based on a combination of field observations and worst case scenario based on the approved reclamation permit.

Task	Form Used	Change	Justification
04a	Dozer	+	Total volume to be worked was updated. 25% of volume moved is 9075 CY not 7500 CY as originally factored
05a	Reveg	+	Increased seeding failure rate for site conditions 20% -> 35%
05a	Reveg	-	Removed mulching
05a	Reveg		Updated fertilizer mix, updated seed mix, one seed application all drill seed, chisel plow -> disk harrow
07b	Mob	+	Added secondary mobilization for seeding
	Project management	+	Added job superintendent @ 50% of task hours which is office policy

Please feel free to contact me with any further questions. Amy Yeldell at the Division of Reclamation, Mining and Safety, 1313 Sherman St., Room 215, Denver, CO 80203. Direct contact can be made by phone at 970-254-8511 or via email at [amy.yeldell@state.co.us](mailto:amy.yeldell@state.co.us)



Sincerely,



**Amy Yeldell**

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Ec:  
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