



## COLORADO

Division of Reclamation,  
Mining and Safety

Department of Natural Resources

1313 Sherman St. Room 215  
Denver, CO 80203

October 29, 2018

Mr. Matt Welte  
The Summit Pressed Brick and Tile Company  
PO Box 533  
Pueblo, CO 81002-0533

**Re: Calhan Clay Pit, Permit No. M-1993-080;  
Financial Warranty Increase, Revision No. SI-1**

Dear Mr. Welte:

On October 29, 2018 the Division of Reclamation, Mining and Safety increased the current Financial Warranty for this permit to \$43,890.00, in accordance with Rule 4.2.1 of the Rules and Regulations. This is an increase of \$24,690.00. The enclosed inspection report includes the revised financial warranty estimate.

The Division ordered amendment of the current Financial Warranty, or submittal of a new Financial Warranty reflecting the increase, must be received within 60 days from the date of this letter (**due December 28, 2018**). If you wish to submit a different type of Financial Warranty, please contact me such that I may send you the applicable form.

If you have any questions, please contact me.

Sincerely,

Timothy A. Cazier  
Environmental Protection Specialist

Enclosures

ec: Barbara J. Coria, DRMS

M-FW-14 tc1



## COST SUMMARY WORK

Task description: Cost Summary

Site: Calhan Clay Pit

Permit Action: 2018 Update

Permit/Job#: M1993080

### PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 8/20/2018

County: El Paso

Filename: M080-000

User: TC1

Agency or organization name: DRMS

### TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
010	Backfilling of cut, initial slope grading	DOZER	1	1.63	\$338.00
020	Spreading overburden on 3:1 slope, 0.5 acre	DOZER	1	6.64	\$1,436.00
030	Spread overburden on pit floor, 4.5 acre	SCRAPER1	1	22.45	\$5,314.00
040	Spreading topsoil on 3:1 slope, 0.5 acre	DOZER	1	2.71	\$562.00
050	Spread topsoil on pit floor, 4.5 acre	SCRAPER1	1	11.05	\$2,615.00
060	Rip stockpile areas and haul road, 5 acres	RIPPER	1	7.32	\$1,641.00
070	Seeding prepared site, 10 acres	REVEGE	1	30.00	\$18,272.00
080	Mobilize and demobilize equipment	MOBILIZE	1	3.62	\$3,912.00
<b><u>SUBTOTALS:</u></b>				<b>85.42</b>	<b>\$34,090</b>

### INDIRECT COSTS

#### OVERHEAD AND PROFIT:

Liability insurance: 2.02

Total = \$688.62

Performance bond: 1.05

Total = \$357.95

Job superintendent: 44.55

Total = \$3,254.38

Profit: 10.00

Total = \$3,409.00

TOTAL O & P = \$7,709.95

CONTRACT AMOUNT (direct + O & P) = \$41,799.95

#### 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

\$2,090.00

CONTINGENCY: 0.00

Total = \$0.00

TOTAL INDIRECT COST = \$9,799.95

TOTAL BOND AMOUNT (direct + indirect) = \$43,889.95

**ROUNDED TOTAL BOND AMOUNT (direct + indirect) = \$43,890.00**

**BULLDOZER WORK**Task description: **Backfilling of cut, initial slope grading**Site: **Calhan Clay Pit**Permit Action: **2018 Update**Permit/Job#: **M1993080****PROJECT IDENTIFICATION**Task #: **010**State: **Colorado**Abbreviation: **None**Date: **8/20/2018**County: **El Paso**Filename: **X10**User: **TC1**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:	\$93.62	NA
Operating Cost/Hour:	\$73.35	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$40.23	NA

Total unit Cost/Hour: **\$207.20**Total Fleet Cost/Hour: **\$207.20****MATERIAL QUANTITIES**Initial Volume: **1,000**Swell factor: **1.125**Loose volume: **1,125 LCY**Source of estimated volume: **Calc from SWMP berms, mining/recl plans / Google Earth dist.**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **100 feet**Unadjusted hourly production: **852.6 LCY/hr**Materials consistency description: **Compacted fill or embankment 0.9**Average push gradient: **-30 %**Average site altitude: **6,600 feet**Material weight: **2,550 lbs/LCY**Weight description: **Earth - Dry packed**

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:	1.000	(DOZ-OC)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.8091

Adjusted unit  
production: 689.84 LCY/hr

Adjusted fleet  
production: **689.84** LCY/hr

**JOB TIME AND COST**

Fleet size: 1 Dozer(s)

Unit cost: \$0.300/LCY

Total job time: **1.63** Hours

Total job cost: **\$338**

**BULLDOZER WORK**Task description: Spreading overburden on 3:1 slope, 0.5 acreSite: Calhan Clay PitPermit Action: 2018 UpdatePermit/Job#: M1993080**PROJECT IDENTIFICATION**Task #: 020State: ColoradoAbbreviation: NoneDate: 8/20/2018County: El PasoFilename: X20User: TC1Agency 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:	\$93.62	NA
Operating Cost/Hour:	\$73.35	100
Ripper own. Cost/Hour:	\$8.93	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$40.23	NA

Total unit Cost/Hour: \$216.13Total Fleet Cost/Hour: \$216.13**MATERIAL QUANTITIES**Initial Volume: 800Swell factor: 1.125Loose volume: 900 LCYSource of estimated volume: From Phs1 SWMP berms, mining/recl plans / Google Earth dist.Source of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 200 feetUnadjusted hourly production: 491.9 LCY/hrMaterials consistency description: Compacted fill or embankment 0.9Average push gradient: 20 %Average site altitude: 6,600 feetMaterial weight: 2,550 lbs/LCYWeight description: Earth - Dry packed

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:	1.000	(DOZ-OC)
Push gradient:	0.545	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.2754

Adjusted unit  
production: 135.47 LCY/hr

Adjusted fleet  
production: **135.47** LCY/hr

**JOB TIME AND COST**

Fleet size: 1 Dozer(s)

Unit cost: \$1.595/LCY

Total job time: **6.64** Hours

Total job cost: **\$1,436**

**SCRAPER TEAM WORK**Task description: Spread overburden on pit floor, 4.5 acreSite: Calhan Clay PitPermit Action: 2018 UpdatePermit/Job#: M1993080**PROJECT IDENTIFICATION**Task #: 030State: ColoradoAbbreviation: NoneDate: 8/20/2018County: El PasoFilename: X30User: TC1Agency or organization name: DRMS**HOURLY EQUIPMENT**COST Shift basis: 1 per day

Equipment Description	
-Scraper:	Cat 623G
-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:	\$95.05	NA	NA	NA	NA	NA
Operating cost/hour:	\$95.78	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:	\$45.84	NA	NA	NA	NA	NA
Unit Subtotals:	\$236.67	NA	NA	NA	NA	NA
Number of Units:	1	0	0	0	0	0
Group Subtotals:	Work:	\$236.67	Support:	\$0.00	Maint:	\$0.00

Total work team cost/hour: **\$236.67****MATERIAL QUANTITIES**Initial volume: 7,200

CCY

Swell factor: 1.125Loose volume: **8,100**

LCY

Source of estimated volume: Calc from mining/recl plansSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION****Scraper Bowl (volume) Basis:**

Material weight:	<u>2,550 lbs/LCY</u>	Struck Volume:	<u>18.00</u>	LCY
Material description:	<u>Earth - Dry packed</u>	Heaped Volume:	<u>23.00</u>	LCY
Rated Payload:	<u>55,200 pounds</u>	Average Volume:	<u>20.50</u>	LCY
Payload Capacity:	<u>21.65 LCY</u>	Adjusted Capacity:	<b><u>20.50</u></b>	LCY

Cycle Time:

Scraper Loading Time: 0.90 Minutes  
 Maneuver and Spread Time: 0.70 Minutes

Job Condition Correction:

Site Altitude: 6600 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: Rutted dirt, little maintenance, no water, 1" tire penetration 4.0Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	800.00	1.00	4.00	5.00	1292	0.72

Haul Time: 0.72 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	800.00	-1.00	4.00	3.00	2666	0.51

Return Time: 0.51 minutesTotal Scraper team cycle time: 2.83 minutesAdjusted for job conditions: 360.74 LCY/HourSelected Number of Scrapers: 1 Scraper(s)Adjusted single scraper team (unit) hourly production: 360.74 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 360.74 LCY/HourUnadjusted unit production/hour: 434.63 LCY/Hour

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

JOB TIME AND COSTFleet size: 1 Team(s)Total job time: 22.45 HoursUnit cost: \$0.656 /LCYTotal job cost: \$5,314

**BULLDOZER WORK**Task description: Spreading topsoil on 3:1 slope, 0.5 acreSite: Calhan Clay PitPermit Action: 2018 UpdatePermit/Job#: M1993080**PROJECT IDENTIFICATION**Task #: 040State: ColoradoAbbreviation: NoneDate: 8/20/2018County: El PasoFilename: X40User: TC1Agency 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:	\$93.62	NA
Operating Cost/Hour:	\$73.35	100
Ripper own.		
Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$40.23	NA

Total unit Cost/Hour: \$207.20Total Fleet Cost/Hour: \$207.20**MATERIAL QUANTITIES**Initial Volume: 400Swell factor: 1.115Loose volume: 446 LCYSource of estimated volume: From Phs1 SWMP berms, mining/recl plans / Google Earth dist.Source of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 200 feetUnadjusted hourly production: 491.9 LCY/hrMaterials consistency description: Compacted fill or embankment 0.9Average push gradient: 20 %Average site altitude: 6,600 feetMaterial weight: 2,100 lbs/LCYWeight description: Earth - Loam

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:	1.000	(DOZ-OC)
Push gradient:	0.545	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.095	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3343

Adjusted unit  
production: 164.44 LCY/hr  
Adjusted fleet  
production: **164.44** LCY/hr

**JOB TIME AND COST**

Fleet size: 1 Dozer(s)  
Unit cost: \$1.260/LCY

Total job time: **2.71** Hours  
Total job cost: **\$562**

**SCRAPER TEAM WORK**Task description: Spread topsoil on pit floor, 4.5 acreSite: Calhan Clay PitPermit Action: 2018 UpdatePermit/Job#: M1993080**PROJECT IDENTIFICATION**Task #: 050State: ColoradoAbbreviation: NoneDate: 8/20/2018County: El PasoFilename: X50User: TC1Agency or organization name: DRMS**HOURLY EQUIPMENT**COST Shift basis: 1 per day

Equipment Description	
-Scraper:	Cat 623G
-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:	\$95.05	NA	NA	NA	NA	NA
Operating cost/hour:	\$95.78	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:	\$45.84	NA	NA	NA	NA	NA
Unit Subtotals:	\$236.67	NA	NA	NA	NA	NA
Number of Units:	1	0	0	0	0	0
Group Subtotals:	Work:	\$236.67	Support:	\$0.00	Maint:	\$0.00

Total work team cost/hour: **\$236.67****MATERIAL QUANTITIES**Initial volume: 3,600

CCY

Swell factor: 1.115Loose volume: **4,014**

LCY

Source of estimated volume: Calc from mining/recl plansSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION****Scraper Bowl (volume) Basis:**

Material weight:	<u>2,100 lbs/LCY</u>	Struck Volume:	<u>18.00</u>	LCY
Material description:	<u>Earth - Loam</u>	Heaped Volume:	<u>23.00</u>	LCY
Rated Payload:	<u>55,200 pounds</u>	Average Volume:	<u>20.50</u>	LCY
Payload Capacity:	<u>26.29 LCY</u>	Adjusted Capacity:	<b><u>20.50</u></b>	LCY

Cycle Time:

Scraper Loading Time: 0.90 Minutes  
 Maneuver and Spread Time: 0.70 Minutes

Job Condition Correction:

Site Altitude: 6600 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: Rutted dirt, little maintenance, no water, 1" tire penetration 4.0Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	800.00	1.00	4.00	5.00	1292	0.70

Haul Time: 0.70 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	800.00	-1.00	4.00	3.00	2666	0.51

Return Time: 0.51 minutesTotal Scraper team cycle time: 2.81 minutesAdjusted for job conditions: 363.31 LCY/HourSelected Number of Scrapers: 1 Scraper(s)Adjusted single scraper team (unit) hourly production: 363.31 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 363.31 LCY/HourUnadjusted unit production/hour: 437.72 LCY/Hour

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

JOB TIME AND COSTFleet size: 1 Team(s)Total job time: 11.05 HoursUnit cost: \$0.651 /LCYTotal job cost: \$2,615

## BULLDOZER RIPPING WORK

Task description: Rip stockpile areas and haul road, 5 acres

Site: Calhan Clay Pit

Permit Action: 2018 Update

Permit/Job#: M1993080

### PROJECT IDENTIFICATION

Task #: 060

State: Colorado

Abbreviation: None

Date: 8/20/2018

County: El Paso

Filename: X60

User: TC1

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:	\$93.62	NA
Operating Cost/Hour:	\$73.35	100
Ripper Ownership Cost/Hour:	\$8.93	NA
Ripper Operating Cost/Hour:	\$7.78	100
Operator Cost/Hour:	\$40.23	NA
Total Unit Cost/Hour:	\$223.91	
Total Fleet Cost/Hour:	<b>\$223.91</b>	

### MATERIAL QUANTITIES

Selected estimating method: Area

#### Alternate Methods:

Seismic: NA

Bank Volume: NA

BCY NA

Area: 5.00 acres

Rip Depth (ft): 1.00

Volume: 8,067

BCY or CCY

Source of estimated quantity: Mining/recl plan in permit

### HOURLY PRODUCTION

#### Seismic:

Seismic Velocity: NA feet/second

#### Area:

Average Ripping Depth:	<u>2.56</u>	mph
Average Ripping Width:	<u>7.08</u>	degrees
Average Ripping Length:	<u>500.00</u>	feet
Average Dozer Speed:	<u>88.00</u>	feet
Average Maneuver Time:	<u>0.25</u>	feet
Production per unit area:	<u>0.822</u>	acres/hour

#### Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.822 Acres/hr

Site Altitude: 6,600 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: **7.33** Hours

Unit cost: \$328.183 Per acre Total job cost: **\$1,641**

**REVEGETATION WORK**Task description: Seeding prepared site, 10 acresSite: Calhan Clay PitPermit Action: 2018 UpdatePermit/Job#: M1993080**PROJECT IDENTIFICATION**Task #: 070State: ColoradoAbbreviation: NoneDate: 8/20/2018County: El PasoFilename: X70User: TC1Agency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
10-34-0, 18-46-0, 5-10-5	200.00	pound	\$0.34	\$68.00
			<b>Total Fertilizer Materials Cost/Acre</b>	<b>\$68.00</b>

**Application**

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	\$34.72
<b>Total Fertilizer Application Cost/Acre</b>	<b>\$34.72</b>

**TILLING**

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$106.29
Weed control spraying (MEANS 31 31 16.13 3100)	\$193.60
<b>Total Tilling Cost/Acre</b>	<b>\$299.89</b>

**SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Sideoats Grama - Vaughn	2.25	7.39	\$23.04
Smooth Brome - Manchar	2.60	8.65	\$11.34
Pubescent Wheatgrass - Luna	2.80	5.79	\$11.68
Western Wheatgrass - Barton	5.60	14.14	\$43.51
<b>Totals Seed Mix</b>	<b>13.25</b>	<b>35.97</b>	<b>\$89.56</b>

## Application

Description	Cost /Acre
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
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$288.00	\$576.00
<b>Total Mulch Materials Cost/Acre</b>				<b>\$576.00</b>

## Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$68.78
Power mulcher (MEANS 32 91 13.16 0350)	\$92.78
<b>Total Mulch Application Cost/Acre</b>	<b>\$161.56</b>

## 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:	<u>10</u>	Cost /Acre:	<u>\$1,461.73</u>
Estimated Failure Rate:	<u>25%</u>	Cost /Acre*:	<u>\$1,461.73</u>
*Selected Replanting Work Items:	<u>FERTILIZING,TILLING,SEEDING, MULCHING</u>		

Initial Job Cost:	<b>\$14,617.30</b>
Reseeding Job Cost:	<b>\$3,654.33</b>
Total Job Cost:	<b>\$18,272</b>
Job Hours:	<b>30.00</b>

**EQUIPMENT MOBILIZATION/DEMOBILIZATION**Task description: **Mobilize and demobilize equipment**Site: **Calhan Clay Pit**Permit Action: **2018 Update**Permit/Job#: **M1993080****PROJECT IDENTIFICATION**Task #: **080**State: **Colorado**Abbreviation: **None**Date: **8/20/2018**County: **El Paso**Filename: **M080-080**User: **TC1**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:**

<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	47.71	\$93.62	\$117.55	1	\$211.17	\$117.55	\$250.00
Cat 623G	41.35	\$95.05	\$117.55	1	\$212.60	\$117.55	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$15.54	\$88.67	1	\$104.21	\$88.67	\$250.00
Power Mulcher (Bowie LD-90)	6.00	\$8.33	\$88.67	1	\$97.00	\$88.67	\$250.00

Subtotals: **\$624.98** **\$412.44** **\$1,000.00****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>COLORADO SPRINGS</u>	
Total one-way travel distance:	<u>33.00</u>	miles
Average Travel Speed:	<u>40.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$3,911.74</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>0.83</u>	<u>0.83</u>
Return Time (Hours):	<u>0.83</u>	<u>0.83</u>
Loading Time (Hours):	<u>0.08</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.08</u>	<u>NA</u>
Subtotals:	<u>1.81</u>	<u>1.65</u>

**JOB TIME AND COST**

Total job time: 3.62 Hours

Total job cost: \$3,912