

## COST SUMMARY WORK

Task description: Cost Summary

Site: Upper Animas Sand and Gravel Pit

Permit Action: 2018 Update

Permit/Job#: M2005065

### PROJECT IDENTIFICATION

Task #: 000  
Date: 9/20/2018  
User: LJW

State: Colorado  
County: San Juan

Abbreviation: None  
Filename: M065-000

Agency or organization name: DRMS

### TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Pit 1 Highwall Reduction	DOZER	1	2.12	\$550.00
002	Pit 2 Assumed Highwall Reduction	DOZER	1	6.70	\$1,770.00
003	Rough Grade and Rip Pit 3 Area	DOZER	1	2.03	\$544.00
004	Pit 1 Topsoil Replacement	SCRAPER1	1	3.80	\$1,473.00
005	Pit 2 Topsoil Replacement	SCRAPER1	1	2.86	\$1,106.00
006	Pit 3 Topsoil Replacement	DOZER	1	2.54	\$661.00
007	Revegetate 2.7 Acres Affected Land	REVEGE	1	12.00	\$3,154.00
008	Haul reclamation equipment to and from job site	MOBILIZE	1	6.80	\$6,540.00
<b><u>SUBTOTALS:</u></b>				<b>38.85</b>	<b>\$15,798</b>

### INDIRECT COSTS

#### OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	\$319.12
Performance bond:	1.05	Total =	\$165.88
Job superintendent:	19.43	Total =	\$1,419.00
Profit:	10.00	Total =	\$1,579.80
		TOTAL O & P =	\$3,483.80
		CONTRACT AMOUNT (direct + O & P) =	\$19,281.80

#### 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		\$964.09
CONTINGENCY:		Total =	\$0.00

TOTAL INDIRECT COST = \$4,447.89

TOTAL BOND AMOUNT (direct + indirect) = \$20,245.89

**BULLDOZER WORK**Task description: Pit 1 Highwall ReductionSite: Upper Animas Sand and  
Gravel PitPermit Action: 2018 UpdatePermit/Job#: M2005065**PROJECT IDENTIFICATION**Task #: 002  
Date: 9/20/2018  
User: LJWState: Colorado  
County: San JuanAbbreviation: None  
Filename: M065-002Agency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D9T - 9SU  
Horsepower: 405  
Blade Type: Semi-Universal  
Attachment: 3-shank ripper  
Shift Basis: 1 per day  
Data Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$110.70</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$95.46</u>	<u>100</u>
Ripper own. Cost/Hour:	<u>\$12.36</u>	<u>NA</u>
Ripper op. Cost/Hour:	<u>\$0.00</u>	<u>0</u>
Operator Cost/Hour:	<u>\$41.52</u>	<u>NA</u>
Total unit Cost/Hour:	<u>\$260.05</u>	
Total Fleet Cost/Hour:	<u>\$260.05</u>	

**MATERIAL QUANTITIES**Initial Volume: 2,212  
Swell factor: 1.165  
Loose volume: 2,577 LCYSource of estimated volume: See scaled drawing in previous calculations  
Source of estimated swell  
factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feet  
Unadjusted hourly  
production: 2,110.5 LCY/hrMaterials consistency description: Partly consolidated stockpile 1.1Average push  
gradient: -15 %Average site altitude: 9,730 feetMaterial weight: 2,900 lbs/LCYWeight description: Decomposed rock - 50% Rock, 50% Earth

Job 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:	1.329	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5773

Adjusted unit  
production: 1,218.39 LCY/hr

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Adjusted fleet  
production: 1218.39 LCY/hr

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JOB TIME AND COST

Fleet size: 1 Dozer(s)

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Unit cost: \$0.213/LCY

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Total job time: 2.12 Hours

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Total job cost: \$550

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**BULLDOZER WORK**Task description: Pit 2 Assumed Highwall ReductionSite: Upper Animas Sand and  
Gravel PitPermit Action: 2018 UpdatePermit/Job#: M2005065**PROJECT IDENTIFICATION**Task #: 002State: ColoradoAbbreviation: NoneDate: 9/20/2018County: San JuanFilename: M065-002User: LJWAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D9T - 9SUHorsepower: 405Blade Type: Semi-UniversalAttachment: 3-shank ripperShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$110.70	NA
Operating Cost/Hour:	\$95.46	100
Ripper own. Cost/Hour:	\$12.36	NA
Ripper op. Cost/Hour:	\$3.94	50
Operator Cost/Hour:	\$41.52	NA
Total unit Cost/Hour:	\$263.98	
Total Fleet Cost/Hour:	\$263.98	

**MATERIAL QUANTITIES**Initial Volume: 7,152Swell factor: 1.250Loose volume: 8,940 LCYSource of estimated volume: See previous scaled drawingsSource of estimated swell  
factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feetUnadjusted hourly  
production: 2,110.5 LCY/hrMaterials consistency description: Partly consolidated stockpile 1.1Average push  
gradient: -15 %Average site altitude: 9,730 feetMaterial weight: 2,650 lbs/LCYWeight description: Decomposed rock - 25% Rock, 75% Earth

Job 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:	1.329	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.6319

Adjusted unit  
production: 1,333.62 LCY/hr

Adjusted fleet  
production: 1333.62 LCY/hr

**JOB TIME AND COST**

Fleet size: 1 Dozer(s)

Unit cost: \$0.198/LCY

Total job time: 6.70 Hours

Total job cost: \$1,770

**BULLDOZER WORK**Task description: Rough Grade and Rip Pit 3 AreaSite: Upper Animas Sand and  
Gravel PitPermit Action: 2018 UpdatePermit/Job#: M2005065**PROJECT IDENTIFICATION**Task #: 003  
Date: 9/20/2018  
User: LJWState: Colorado  
County: San JuanAbbreviation: None  
Filename: M065-003Agency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D9T - 9SU  
Horsepower: 405  
Blade Type: Semi-Universal  
Attachment: 3-shank ripper  
Shift Basis: 1 per day  
Data Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$110.70</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$95.46</u>	<u>100</u>
Ripper own. Cost/Hour:	<u>\$12.36</u>	<u>NA</u>
Ripper op. Cost/Hour:	<u>\$7.88</u>	<u>100</u>
Operator Cost/Hour:	<u>\$41.52</u>	<u>NA</u>
Total unit Cost/Hour:	<u>\$267.92</u>	
Total Fleet Cost/Hour:	<u>\$267.92</u>	

**MATERIAL QUANTITIES**Initial Volume: 1,333  
Swell factor: 1.250  
Loose volume: 1,667 LCYSource of estimated volume: (360' x 200' x 0.5'D) / 27 = 1333.33 cy  
Source of estimated swell  
factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feet  
Unadjusted hourly  
production: 2,110.5 LCY/hrMaterials consistency description: Compacted fill or embankment 0.9Average push  
gradient: 0 %  
Average site altitude: 9,730 feetMaterial weight: 2,650 lbs/LCYWeight description: Decomposed rock - 25% Rock, 75% Earth

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:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3890

Adjusted unit  
production: 820.98 LCY/hr

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Adjusted fleet  
production: 820.98 LCY/hr

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**JOB TIME AND COST**

Fleet size: 1 Dozer(s)

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Unit cost: \$0.326/LCY

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Total job time: 2.03 Hours

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Total job cost: \$544

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**SCRAPER TEAM WORK**Task description: Pit 1 Topsoil ReplacementSite: Upper Animas Sand and  
Gravel PitPermit Action: 2018 UpdatePermit/Job#: M2005065**PROJECT IDENTIFICATION**Task #: 004  
Date: 9/20/2018  
User: LJWState: Colorado  
County: San JuanAbbreviation: None  
Filename: M065-004Agency or organization name: DRMS**HOURLY EQUIPMENT**COSTShift basis: 1 per day

Equipment Description	
-Scraper:	Cat 613C Series 2
-Dozer:	Cat D9T - 9SU
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	100	NA	NA	NA	NA
Ownership cost/hour:	\$46.00	\$110.70	NA	NA	NA	NA
Operating cost/hour:	\$50.17	\$95.46	NA	NA	NA	NA
%Utilization-ripper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$12.36	NA	NA	NA	NA
Ripper op. cost/hour:	NA	\$0.00	NA	NA	NA	NA
Operator cost/hour:	\$31.05	\$41.52	NA	NA	NA	NA
Unit Subtotals:	\$127.22	\$260.05	NA	NA	NA	NA
Number of Units:	1	1	0	0	0	0
Group Subtotals:	Work: \$387.27		Support: \$0.00		Maint: \$0.00	

Total work team cost/hour: **\$387.27****MATERIAL QUANTITIES**Initial volume: 467 CCY      Swell factor: 1.250  
Loose volume: 583 LCYSource of estimated volume: See attached drawing, "Pit 1 Highwall Reduction..."  
Source of estimated swell factor: Cat Handbook**HOURLY PRODUCTION****Scraper Bowl (volume) Basis:**

Material weight:	<u>2,550 lbs/LCY</u>	Struck Volume:	<u>8.90</u>	LCY
Material description:	<u>Earth - Dry packed</u>	Heaped Volume:	<u>11.00</u>	LCY
Rated Payload:	<u>26,400 pounds</u>	Average Volume:	<u>9.95</u>	LCY
Payload Capacity:	<u>10.35 LCY</u>	Adjusted Capacity:	<u>9.95</u>	LCY



Cycle Time:Scraper Loading Time: 0.90 MinutesManeuver and Spread Time: 0.70 MinutesJob Condition Correction:

Site Altitude: 9730 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	1085.00	0.00	5.00	5.00	1228	0.96

Haul Time: 0.96 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1085.00	0.00	5.00	5.00	1915	0.67

Return Time: 0.67 minutesTotal Scraper team cycle time: 3.23 minutesAdjusted for job conditions: 153.41 LCY/HourSelected Number of Scrapers: 1 Scraper(s)Adjusted single scraper team (unit) hourly production: 153.41 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 153.41 LCY/HourUnadjusted unit production/hour: 184.83 LCY/Hour

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

**JOB TIME AND COST**Fleet size: 1 Team(s)Total job time: 3.80 HoursUnit cost: \$2.524 /LCYTotal job cost: \$1,473

**SCRAPER TEAM WORK**Task description: **Pit 2 Topsoil Replacement**Site: **Upper Animas Sand and  
Gravel Pit**Permit Action: **2018 Update**Permit/Job#: **M2005065****PROJECT IDENTIFICATION**Task #: **005**  
Date: **9/20/2018**  
User: **LJW**State: **Colorado**  
County: **San Juan**Abbreviation: **None**  
Filename: **M065-005**Agency or organization name: **DRMS****HOURLY EQUIPMENT**COSTShift basis: **1 per day**

Equipment Description	
-Scraper:	Cat 613C Series 2
-Dozer:	Cat D9T - 9SU
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	100	NA	NA	NA	NA
Ownership cost/hour:	\$46.00	\$110.70	NA	NA	NA	NA
Operating cost/hour:	\$50.17	\$95.46	NA	NA	NA	NA
%Utilization-ripper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$12.36	NA	NA	NA	NA
Ripper op. cost/hour:	NA	\$0.00	NA	NA	NA	NA
Operator cost/hour:	\$31.05	\$41.52	NA	NA	NA	NA
Unit Subtotals:	\$127.22	\$260.05	NA	NA	NA	NA
Number of Units:	1	1	0	0	0	0
Group Subtotals:	Work: \$387.27		Support: \$0.00		Maint: \$0.00	

Total work team cost/hour: **\$387.27****MATERIAL QUANTITIES**Initial volume: **400** CCY  
Loose volume: **500** LCYSwell factor: **1.250**Source of estimated volume: **See attached drawing, "Pit 2 Assumed Highwall Reduction..."**  
Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION****Scraper Bowl (volume) Basis:**Material weight: **2,550 lbs/LCY**  
Material description: **Earth - Dry packed**  
Rated Payload: **26,400 pounds**  
Payload Capacity: **10.35 LCY**Struck Volume: **8.90** LCY  
Heaped Volume: **11.00** LCY  
Average Volume: **9.95** LCY  
Adjusted Capacity: **9.95** LCY

Cycle Time:

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

Job Condition Correction:

Site Altitude: 9730 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, 1" tire penetration 4.0Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	865.00	0.00	4.00	4.00	1528	0.69

Haul Time: 0.69 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	865.00	0.00	4.00	4.00	2002	0.54

Return Time: 0.54 minutesTotal Scraper team cycle time: 2.83 minutesAdjusted for job conditions: 175.09 LCY/HourSelected Number of Scrapers: 1 Scraper(s)Adjusted single scraper team (unit) hourly production: 175.09 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 175.09 LCY/HourUnadjusted unit production/hour: 210.95 LCY/Hour

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

**JOB TIME AND COST**Fleet size: 1 Team(s)Total job time: 2.86 HoursUnit cost: \$2.212 /LCYTotal job cost: \$1,106

**BULLDOZER WORK**Task description: Pit 3 Topsoil ReplacementSite: Upper Animas Sand and  
Gravel PitPermit Action: 2018 UpdatePermit/Job#: M2005065**PROJECT IDENTIFICATION**Task #: 006  
Date: 9/20/2018  
User: LJWState: Colorado  
County: San JuanAbbreviation: None  
Filename: M065-006Agency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D9T - 9SU  
Horsepower: 405  
Blade Type: Semi-Universal  
Attachment: 3-shank ripper  
Shift Basis: 1 per day  
Data Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$110.70</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$95.46</u>	<u>100</u>
Ripper own. Cost/Hour:	<u>\$12.36</u>	<u>NA</u>
Ripper op. Cost/Hour:	<u>\$0.00</u>	<u>0</u>
Operator Cost/Hour:	<u>\$41.52</u>	<u>NA</u>
Total unit Cost/Hour:	<u>\$260.05</u>	
Total Fleet Cost/Hour:	<u>\$260.05</u>	

**MATERIAL QUANTITIES**Initial Volume: 1,333  
Swell factor: 1.250  
Loose volume: 1,667 LCYSource of estimated volume: (360' x 200' x 0.5'D) / 27 = 1333.33 cy  
Source of estimated swell  
factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 80 feet  
Unadjusted hourly  
production: 1,460.1 LCY/hrMaterials consistency description: Consolidated stockpile 1.0Average push  
gradient: 0 %  
Average site altitude: 9,730 feetMaterial weight: 2,550 lbs/LCYWeight description: Earth - Dry packed

Job 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	(SSD-AC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4492

Adjusted unit  
production: 655.88 LCY/hr

Adjusted fleet  
production: 655.88 LCY/hr

**JOB TIME AND COST**

Fleet size: 1 Dozer(s)

Unit cost: \$0.396/LCY

Total job time: 2.54 Hours

Total job cost: \$661

**REVEGETATION WORK**Task description: Revegetate 2.7 Acres Affected LandSite: Upper Animas Sand and  
Gravel PitPermit Action: 2018 UpdatePermit/Job#: M2005065**PROJECT IDENTIFICATION**Task #: 007  
Date: 9/20/2018  
User: LJWState: Colorado  
County: San JuanAbbreviation: None  
Filename: M065-007Agency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
0-20-20, 4-8-12, 10-10-10	40.00	pound	\$0.21	\$8.40
			<b>Total Fertilizer Materials Cost/Acre</b>	<b>\$8.40</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
Chisel plowing {DMG}	\$92.77
<b>Total Tilling Cost/Acre</b>	<b>\$92.77</b>

**SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Orchardgrass - Paiute	0.80	9.92	\$2.97
Mountain Brome - Bromar	3.80	6.11	\$16.91
Red Clover - Medium	0.40	2.48	\$5.46
Western Wheatgrass - Native	3.20	8.08	\$22.94
Timothy, Alpine - Native	0.40	11.94	\$9.90
Penstemon, Rocky Mountain	0.10	1.57	\$3.02
<b>Totals Seed Mix</b>	<b>8.70</b>	<b>40.09</b>	<b>\$61.20</b>

**Application**

Description	Cost /Acre
	\$0.00
<b>Total Seed Application Cost/Acre</b>	<b>\$0.00</b>

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

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Hay, 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
					\$
<b>Totals Nursery Stock Cost / Acre</b>					<b>\$0.00</b>

**JOB TIME AND COST**

No. of Acres:	2.7	Cost /Acre:	\$934.65
Estimated Failure Rate:	25%	Cost /Acre*:	\$934.65
*Selected Replanting Work Items:	FERTILIZING,TILLING,SEEDING,MU LCHING		
Initial Job Cost:	\$2,523.56		
Reseeding Job Cost:	\$630.89		
Total Job Cost:	\$3,154		
Job Hours:	12.00		

**EQUIPMENT MOBILIZATION/DEMobilIZATION**Task description: Haul reclamation equipment to and from job siteSite: Upper Animas Sand and  
Gravel PitPermit Action: 2018 UpdatePermit/Job#: M2005065**PROJECT IDENTIFICATION**

Task #: 008 State: Colorado Abbreviation: None  
 Date: 9/20/2018 County: San Juan Filename: M065-008  
 User: LJW

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 613C Series 2	18.61	\$46.00	\$88.67	1	\$134.67	\$88.67	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$15.54	\$88.67	1	\$104.21	\$88.67	\$500.00
Power Mulcher (Bowie LD-90)	6.00	\$8.33	\$88.67	1	\$97.00	\$88.67	\$500.00
Cat D9T - 9SU	66.13	\$123.06	\$125.45	1	\$248.51	\$125.45	\$250.00

Subtotals: **\$584.39** **\$391.46** **\$1,500.00**

**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.	\$12.23	1	\$12.23	\$12.23

Subtotals: **\$12.23** **\$12.23**



**EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region:	<u>DURANGO</u>	
Total one-way travel distance:	<u>60.00</u>	miles
Average Travel Speed:	<u>50.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$6,510.82</u>
'* two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$29.35</u>
** one round trip, no haul rig:	

**Transportation Cycle Time:**

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>1.20</u>	<u>1.20</u>
Return Time (Hours):	<u>1.20</u>	<u>1.20</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>3.40</u>	<u>2.40</u>

**JOB TIME AND COST**

Total job time:	<u>6.80</u>	Hours
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Total job cost:	<u>\$6,540</u>
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