



## COLORADO

Division of Reclamation,  
Mining and Safety

Department of Natural Resources

1313 Sherman Street, Room 215  
Denver, CO 80203

January 6, 2015

Mr. Todd Fisher  
LBCR, LLC  
1440 Blue Sage Ct.  
Boulder, CO 80305

**Re: Ignacio Pit, Permit No. M-1992-054, Technical Revision Approval, Revision No. TR-3**

Dear Mr. Fisher,

On January 5, 2015 the Division of Reclamation, Mining and Safety approved the Technical Revision application submitted to the Division on December 22, 2014, addressing the following:

*Increase disturbance from 20 acres to 40 acres.*

The terms of the Technical Revision No. 3 approved by the Division are hereby incorporated into this permit. All other conditions and requirements of Permit No. M-1992-054 remain in full force and effect.

The updated reclamation cost summary, enclosed herewith for your review, indicates that the required bond amount has increased. A copy has been sent to Mr. Jay Nielson at Crossfire Aggregate Services.

The updated estimated liability amount of \$117,893.26 exceeds the \$81,126.00 performance bond currently held. If you have not already done so, please submit additional bond in the amount of \$36,767.26. The revision will not be final until the bond is approved by the Division.

If you have any questions about the updated cost figures, I may be reached by phone at 970-247-5193, or by email at: [bob.oswald@state.co.us](mailto:bob.oswald@state.co.us). For all questions related to the bond itself, please contact Ms. Barbara Coria at the Division's Denver office: 303-866-3567 x 8148.

Sincerely,

Bob Oswald  
Environmental Protection Specialist

Cc: Jay Nielson, Crossfire Aggregates Services, LLC, 820 Airport Road, Durango, CO 81303  
Ec: Russ Means, DRMS, Grand Junction  
Barbara Coria, DRMS, Denver

(c:\15-01 docs\M1992054 TR-03 Appr/rco)



## COST SUMMARY WORK

Task description: Cost summary

Site: Ignacio Pit

Permit Action: TR-03

Permit/Job#: M1992054

### PROJECT IDENTIFICATION

Task #: 100

State: Colorado

Abbreviation: None

Date: 1/5/2015

County: La Plata

Filename: M054-100

User: RCO

Agency or organization name: DRMS

### TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
101	Reduce interior highwalls to 3:1	DOZER	1	2.55	\$669.00
102	Push overburden over graded areas	DOZER	1	73.68	\$19,323.00
103	Carry overburden to graded areas to spread	SCRAPER1	1	44.04	\$25,121.00
104	Spread topsoil over graded areas	DOZER	1	30.20	\$7,921.00
105	Rip compacted areas	RIPPER	1	41.01	\$11,122.00
106	Carry topsoil to graded areas to spread	SCRAPER1	1	24.83	\$14,163.00
107	Noxious weed control on 5 acres	REVEGE	1	10.00	\$1,452.00
108	Revegetate 40 acres of disturbance	REVEGE	1	30.00	\$10,540.00
109	Haul reclamation equipment to and from site	MOBILIZE	1	4.66	\$5,112.00
<b><u>SUBTOTALS:</u></b>				<b>260.97</b>	<b>\$95,423</b>

### INDIRECT COSTS

#### OVERHEAD AND PROFIT:

Liability insurance: 2.02%

Total = \$1,927.54

Performance bond: 1.05%

Total = \$1,001.94

Job superintendent: 52.00 hrs

Total = \$3,908.32

Profit: 10.00%

Total = \$9,542.30

TOTAL O & P = \$16,380.10

CONTRACT AMOUNT (direct + O & P) = \$111,803.10

#### 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%

\$5,590.16

CONTINGENCY: 0.00

Total = \$0.00

TOTAL INDIRECT COST = \$22,470.26

TOTAL BOND AMOUNT (direct + indirect) = \$117,893.26

**BULLDOZER WORK**Task description: Reduce interior highwalls to 3:1Site: Ignacio PitPermit Action: TR-03Permit/Job#: M1992054**PROJECT IDENTIFICATION**Task #: 101State: ColoradoAbbreviation: NoneDate: 1/5/2015County: La PlataFilename: M054-101User: RCOAgency 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:	\$81.10	NA
Operating Cost/Hour:	\$143.16	100
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$38.01	NA

Total unit Cost/Hour: \$262.26Total Fleet Cost/Hour: \$262.26**MATERIAL QUANTITIES**Initial Volume: 2,400Swell factor: 1.330Loose volume: 3,192 LCYSource of estimated volume: DRMS, 1200 LF vert highwall, 15 ft avg ht, from TR mapSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feetUnadjusted hourly production: 2,110.5 LCY/hrMaterials consistency description: Compacted fill or embankment 0.9Average push gradient: -25 %Average site altitude: 6,240 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:	0.900	(CAT HB))
Dozing method:	1.100	(50% SL)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)

Spoil pile:	0.800	(FND-RF)
Push gradient:	1.516	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5927

Adjusted unit production: 1,250.89 LCY/hr

Adjusted fleet production: **1250.89 LCY/hr**

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)

Unit cost: \$0.210/LCY

Total job time: **2.55 Hours**

Total job cost: **\$669**

**BULLDOZER WORK**Task description: Push overburden over graded areasSite: Ignacio PitPermit Action: TR-03Permit/Job#: M1992054**PROJECT IDENTIFICATION**Task #: 102State: ColoradoAbbreviation: NoneDate: 1/5/2015County: La PlataFilename: M054-102User: RCOAgency 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:	\$81.10	NA
Operating Cost/Hour:	\$143.16	100
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$38.01	NA

Total unit Cost/Hour: \$262.26Total Fleet Cost/Hour: \$262.26**MATERIAL QUANTITIES**Initial Volume: 48,400Swell factor: 1.000Loose volume: 48,400 LCYSource of estimated volume: DRMS, TR map, pit floors only, 1.5 ft deepSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 100 feetUnadjusted hourly production: 1,243.2 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: -5 %Average site altitude: 6,240 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:	1.200	(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:	1.115	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5284

Adjusted unit production: 656.91 LCY/hr  
Adjusted fleet production: 656.91 LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)  
Unit cost: \$0.399/LCY

Total job time: 73.68 Hours  
Total job cost: \$19,323

**SCRAPER TEAM WORK**Task description: Carry overburden to graded areas to spreadSite: Ignacio PitPermit Action: TR-03Permit/Job#: M1992054**PROJECT IDENTIFICATION**Task #: 103State: ColoradoAbbreviation: NoneDate: 1/5/2015County: La PlataFilename: M054-103User: RCOAgency 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

<b>Cost Breakdown:</b>	<b>Scraper Work Team</b>		<b>Support Equipment</b>		<b>Maintenance Equipment</b>	
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	NA	NA	NA	NA	NA
Ownership cost/hour:	\$80.91	NA	NA	NA	NA	NA
Operating cost/hour:	\$170.75	NA	NA	NA	NA	NA
Ripper op. cost/hour:	NA	NA	NA	NA	NA	NA
Operator cost/hour:	\$33.56	NA	NA	NA	NA	NA
Unit Subtotals:	\$285.22	NA	NA	NA	NA	NA
Number of Units:	2	0	0	0	0	0
Group Subtotals:	Work:	\$570.44	Support:	\$0.00	Maint:	\$0.00

Total work team cost/hour: \$570.44**MATERIAL QUANTITIES**Initial volume: 48,400

CCY

Swell factor: 1.000Loose volume: 48,400

LCY

Source of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Scraper Bowl (volume) Basis:

Material weight: 2,900 lbs/LCY  
 Material description: Decomposed rock - 50% Rock, 50% Earth  
 Rated Payload: 81,600 pounds  
 Payload Capacity: 28.14 LCY

Struck Volume: 24.00 LCY  
 Heaped Volume: 34.00 LCY  
 Average Volume: 29.00 LCY  
 Adjusted Capacity: 28.14 LCY

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

Site Altitude: 6240 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, 2" tire penetration 5.0Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	500.00	4.00	5.00	9.00	733	0.71

Haul Time: 0.71 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	500.00	-4.00	5.00	1.00	2937	0.34

Return Time: 0.34 minutesTotal Scraper team cycle time: 2.55 minutesAdjusted for job conditions: 549.52 LCY/HourSelected Number of Scrapers: 2 Scraper(s)Adjusted single scraper team (unit) hourly production: 1,099.03 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 1,099.03 LCY/HourUnadjusted unit production/hour: 662.07 LCY/HourOptimal Number of Scrapers per push dozer:           **JOB TIME AND COST**Fleet size: 1 Team(s)Total job time: 44.04 HoursUnit cost: \$0.519 /LCYTotal job cost: \$25,121



**BULLDOZER WORK**Task description: Spread topsoil over graded areasSite: Ignacio PitPermit Action: TR-03Permit/Job#: M1992054**PROJECT IDENTIFICATION**Task #: 104State: ColoradoAbbreviation: NoneDate: 1/5/2015County: La PlataFilename: M054-104User: RCOAgency 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:	<u>\$81.10</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$143.16</u>	<u>100</u>
Ripper op. Cost/Hour:	<u>\$0.00</u>	<u>0</u>
Operator Cost/Hour:	<u>\$38.01</u>	<u>NA</u>

Total unit Cost/Hour: \$262.26Total Fleet Cost/Hour: \$262.26**MATERIAL QUANTITIES**Initial Volume: 28,233Swell factor: 1.000Loose volume: 28,233 LCYSource of estimated volume: DRMS, TR map, 30 acres, 7 inch depthSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 100 feetUnadjusted hourly production: 1,243.2 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: 0 %Average site altitude: 6,240 feetMaterial weight: 1,600 lbs/LCYWeight description: Top Soil**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	<u>0.750</u>	<u>(AVG.)</u>
Material consistency:	<u>1.200</u>	<u>(CAT HB)</u>
Dozing method:	<u>1.000</u>	<u>(GEN.)</u>
Visibility:	<u>1.000</u>	<u>(AVG.)</u>
Job efficiency:	<u>0.830</u>	<u>(1 SHIFT/DAY)</u>

Spoil pile:	0.700	(FND-MF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.7519

Adjusted unit production: 934.76 LCY/hr

Adjusted fleet production: 934.76 LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)  
Unit cost: \$0.281/LCY

Total job time: 30.20 Hours  
Total job cost: \$7,921

Note: Assumes that limited amount of concurrent reclamation has occurred, including 10 acres of the 40-acre disturbed area already has topsoil spread on it.

## BULLDOZER RIPPING WORK

Task description: Rip compacted areas

Site: Ignacio Pit

Permit Action: TR-03

Permit/Job#: M1992054

### PROJECT IDENTIFICATION

Task #: 105

State: Colorado

Abbreviation: None

Date: 1/5/2015

County: La Plata

Filename: M054-105

User: RCO

Agency or organization name: DRMS

### HOURLY EQUIPMENT COST

Basic Machine: Cat D9T - 9SU

Ripper Attachment: 3-Shank Ripper

Horsepower: 405

Shift Basis: 1 per day

Data Source: (CRG)

#### Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	<u>\$81.10</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$143.16</u>	<u>100</u>
Ripper Operating Cost/Hour:	<u>\$8.91</u>	<u>100</u>
Operator Cost/Hour:	<u>\$38.01</u>	<u>NA</u>
Total Unit Cost/Hour:	<u>\$271.17</u>	
Total Fleet Cost/Hour:	<u>\$271.17</u>	

### MATERIAL QUANTITIES

Selected estimating method: Area

#### Alternate Methods:

Seismic: NA

Bank Volume: NA

BCY

NA

Area: 30.00 acres

Rip Depth (ft): 1.00

Volume:

48,400

BCY or CCY

Source of estimated quantity: 30 ac area, TR map and plan

### HOURLY PRODUCTION

#### Seismic:

Seismic Velocity: NA feet/second

#### Area:

Average Ripping Depth:	<u>2.63</u>	mph
Average Ripping Width:	<u>7.67</u>	degrees
Average Ripping Length:	<u>400.00</u>	feet
Average Dozer Speed:	<u>88.00</u>	feet
Average Maneuver Time:	<u>0.25</u>	feet
Production per unit area:	<u>0.881</u>	acres/hour

#### Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.881 Acres/hr

Site Altitude: 6,240 feet

Altitude Adj: 1.00 (CAT HB)

Job Efficiency: 0.83 (1 shift/day)

Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.73 Acres/hr

Adjusted Hourly Fleet Production: 0.73 Acres/hr

### JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 41.02 Hours

Unit cost: \$370.744 Per acre Total job cost: \$11,122

**SCRAPER TEAM WORK**Task description: Carry topsoil to graded areas to spreadSite: Ignacio PitPermit Action: TR-03Permit/Job#: M1992054**PROJECT IDENTIFICATION**Task #: 106State: ColoradoAbbreviation: NoneDate: 1/5/2015County: La PlataFilename: M054-106User: RCOAgency 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

<b><u>Cost Breakdown:</u></b>	<b><u>Scraper Work Team</u></b>		<b><u>Support Equipment</u></b>		<b><u>Maintenance Equipment</u></b>	
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	NA	NA	NA	NA	NA
Ownership cost/hour:	\$80.91	NA	NA	NA	NA	NA
Operating cost/hour:	\$170.75	NA	NA	NA	NA	NA
Ripper op. cost/hour:	NA	NA	NA	NA	NA	NA
Operator cost/hour:	\$33.56	NA	NA	NA	NA	NA
Unit Subtotals:	\$285.22	NA	NA	NA	NA	NA
Number of Units:	2	0	0	0	0	0
Group Subtotals:	Work:	\$570.44	Support:	\$0.00	Maint:	\$0.00

Total work team cost/hour: **\$570.44****MATERIAL QUANTITIES**Initial volume: 28,233

CCY

Swell factor: 1.000Loose volume: 28,233

LCY

Source of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**

Material weight: 1,600 lbs/LCY  
 Material description: Top Soil  
 Rated Payload: 81,600 pounds  
 Payload Capacity: 51.00 LCY

**Scraper Bowl (volume) Basis:**

Struck 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: 6240 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, 2" tire penetration 5.0Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	500.00	4.00	5.00	9.00	733	0.70

Haul Time: 0.70 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	500.00	-4.00	5.00	1.00	2937	0.34

Return Time: 0.34 minutesTotal Scraper team cycle time: 2.54 minutesAdjusted for job conditions: 568.58 LCY/HourSelected Number of Scrapers: 2 Scraper(s)Adjusted single scraper team (unit) hourly production: 1,137.17 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 1,137.17 LCY/HourUnadjusted unit production/hour: 685.04 LCY/HourOptimal Number of Scrapers per push dozer:           **JOB TIME AND COST**Fleet size: 1 Team(s) Total job time: 24.83 HoursUnit cost: \$0.502 /LCY Total job cost: \$14,163

**REVEGETATION WORK**Task description: Noxious weed control on 5 acresSite: Ignacio PitPermit Action: TR-03Permit/Job#: M1992054**PROJECT IDENTIFICATION**Task #: 107State: ColoradoAbbreviation: NoneDate: 1/5/2015County: La PlataFilename: M054-107User: RCOAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
			<b>Total Fertilizer Materials Cost/Acre</b>	<b>\$0.00</b>

**Application**

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

**TILLING**

Description	Cost /Acre
Weed control spraying (MEANS 31 31 16.13 3100)	\$145.20
<b>Total Tilling Cost/Acre</b>	<b>\$145.20</b>

**SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
			\$
<b>Totals Seed Mix</b>	<b>0.00</b>	<b>0.00</b>	<b>\$0.00</b>

**Application**

Description	Cost /Acre
	\$
	<b>\$0.00</b>

<b>Total Seed Application Cost/Acre</b>	
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**MULCHING and MISCELLANEOUS****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost / Acre
			\$	\$
<b>Total Mulch Materials Cost/Acre</b>				<b>\$0.00</b>

**Application**

Description	Cost / Acre
	\$
<b>Total Mulch Application Cost/Acre</b>	<b>\$0.00</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:	<u>5</u>	Cost / Acre:	<u>\$145.20</u>
Estimated Failure Rate:	<u>100%</u>	Cost / Acre*:	<u>\$145.20</u>
*Selected Replanting Work Items:	<u>TILLING</u>		

Initial Job Cost:	<u>\$726.00</u>
Reseeding Job Cost:	<u>\$726.00</u>
Total Job Cost:	<u>\$1,452</u>
Job Hours:	<u>10.00</u>

Note: This assumes costs for 2 sprayings.

**REVEGETATION WORK**Task description: Revegetate 40 acres of disturbanceSite: Ignacio PitPermit Action: TR-03Permit/Job#: M1992054**PROJECT IDENTIFICATION**Task #: 108State: ColoradoAbbreviation: NoneDate: 1/5/2015County: La PlataFilename: M054-108User: RCOAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
			<b>Total Fertilizer Materials Cost/Acre</b>	<b>\$0.00</b>

**Application**

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

**TILLING**

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$98.01
<b>Total Tilling Cost/Acre</b>	<b>\$98.01</b>

**SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Rye, Annual Tetraploid - Barmultra	0.40	1.74	\$0.59
Orchardgrass - Paiute	1.60	19.83	\$3.46
Crested Wheatgrass - Hy-Crest	1.20	5.51	\$2.87
Smooth Brome - Lincoln	2.00	6.66	\$2.66
Russian Wildrye - VNS	0.80	3.21	\$2.97
Pubescent Wheatgrass - VNS	2.00	4.13	\$3.94
<b>Totals Seed Mix</b>	<b>8.00</b>	<b>41.09</b>	<b>\$16.48</b>

**Application**

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Description	Cost /Acre
Drill seeding (DRMS Cost Data)	\$88.20
<b>Total Seed Application Cost/Acre</b>	<b>\$88.20</b>

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

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
<b>Total Mulch Materials Cost/Acre</b>				<b>\$0.00</b>

**Application**

Description	Cost /Acre
	\$
<b>Total Mulch Application Cost/Acre</b>	<b>\$0.00</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:	40	Cost /Acre:	\$202.69
Estimated Failure Rate:	30%	Cost /Acre*:	\$202.69
*Selected Replanting Work Items:	TILLING, SEEDING		
Initial Job Cost:	\$8,107.60		
Reseeding Job Cost:	\$2,432.28		
Total Job Cost:	\$10,540		
Job Hours:	30.00		

**EQUIPMENT MOBILIZATION/DEMOBILIZATION**Task description: Haul reclamation equipment to and from siteSite: Ignacio PitPermit Action: TR-03Permit/Job#: M1992054**PROJECT IDENTIFICATION**Task #: 109State: ColoradoAbbreviation: NoneDate: 1/5/2015County: La PlataFilename: M054-109User: RCOAgency 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 D9T - 9SU	66.13	\$81.10	\$125.45	1	\$206.55	\$125.45	\$250.00
Cat 631G	52.50	\$80.91	\$125.45	2	\$412.72	\$250.90	\$500.00
Drill/Broadcast Seeder with Tractor	25.00	\$39.59	\$88.67	1	\$128.26	\$88.67	\$250.00

Subtotals: **\$747.53** **\$465.02** **\$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>DURANGO</u>	
Total one-way travel distance:	<u>30.00</u>	miles
Average Travel Speed:	<u>45.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$5,111.79</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>0.67</u>	<u>0.67</u>
Return Time (Hours):	<u>0.67</u>	<u>0.67</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>2.33</u>	<u>1.33</u>

**JOB TIME AND COST**

Total job time:	<u>4.67</u>	Hours
Total job cost:	<u>\$5,112</u>	