

# STATE OF COLORADO

## DIVISION OF RECLAMATION, MINING AND SAFETY

Department of Natural Resources

1313 Sherman St., Room 215

Denver, Colorado 80203

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April 4, 2012

Louisiana Land and Gravel Company, LLC.

Dr. Michael DeJohn

P.O. Box 8419

Clinton, LA 70722

John W. Hickenlooper  
Governor

Mike King  
Executive Director

Loretta E. Piñeda  
Director

Ward Priestly

Hank Williams, Inc. dba Williams Construction Contractors

P.O. Box 704

Norwood, CO 81423

***Re: Angie Pit, Permit No. M-2000-049, Notice of Surety Increase, SI-01.***

Dear Mr. DeJohn and Priestly,

The Division of Reclamation, Mining, and Safety (Division) has conducted a normal review of the reclamation liability for the above referenced site. Based on the March 29, 2012 inspection staff notes two issues that affect the overall tasks associated with the reclamation liability. The current bond was calculated for 15 acres maximum disturbance in 2000 and 2008. Field observations and review of mine maps note the disturbance to be closer to 28.5. The second factor is the calculations did not take into account the approximately 3000 linear feet of highwall along the south and southeast section of Phase 1 that must be backfilled in order to establish 2.5:1 slopes as per the approved reclamation plans. For this reason, the Division recalculated the bond based on the current conditions and observations.

During the inspection it was discussed that concurrent reclamation could reduce the overall liability on the site. The backfilling of the slopes referenced above add approximately \$80,000.00 in overburden moving, grading, and topsoiling. It is more if the revegetation is included. While reclamation of the south permit highwall area is unlikely due to the location of the batch plant and settling ponds, approximately 2000 feet of highwall could be reclaimed which would reduce the liability by perhaps half. The location of the Gurley Ditch along the northeast boundary does not allow for cut and fill. So the highwall must be back filled which is very expensive.

If Louisiana Land and Gravel and Williams Construction wish to discuss areas to help reduce the increase and any future liability staff is willing to do so. However please note you must contact the Division within 30 days of this letter to appeal the decision of the increase.

In an effort to ensure the financial warranty remains adequate to reclaim this site per the requirements of the approved reclamation plan, the Division has updated the reclamation cost estimate (copy enclosed). Based on the current conditions noted above, the estimated reclamation liability is now \$156,330.00. This is an increase of \$101,437.00 from the current amount of \$54,893.00 held. Clearly, the site is under-bonded. **Therefore, pursuant to Section 34-32.5-117(4) of the Colorado Land Reclamation Act, adequate financial warranty must be submitted to DRMS within 60 days of the mailing date of this notice. The due date for submission and acceptance is June 4<sup>th</sup>, 2012.**

If you need additional information, please contact me at the Division of Reclamation, Mining, and Safety, Grand Junction Field Office, 101 S. 3rd St., Suite 301, Grand Junction, Colorado 81501, telephone no. 970.241.1117.

Sincerely,

A handwritten signature in blue ink, appearing to read "G. Russell Means", with a stylized flourish extending to the right.

G. Russell Means  
Environmental Protection Specialist

## COST SUMMARY WORK

Task description: \_\_\_\_\_

Site: Angie Pit

Permit Action: 2012 update

Permit/Job#: M2000049

### PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 4/4/2012

County: Montrose

Filename: M049-000

User: GRM

Agency or organization name: DRMS

### TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	backfill 3000 LF of highwall	SCRAPER1	2	68.12	\$76,784.95
003	rip pit floor for topsoil	RIPPER	1	28.41	\$7,572.00
004	demo scale and batch plant footers	DEMOLISH	1	8.00	\$373.45
006	grade topsoil on slopes	DOZER	1	3.73	\$975.16
007	spread topsoil over pit floor	SCRAPER1	2	2.82	\$3,177.55
008	grade topsoil on pit floor	GRADER	1	4.30	\$788.00
009	reveg 28.5 acres of affected area	REVEGE	1	40.00	\$21,960.32
010	mobilization to site	MOBILIZE	1	3.40	\$6,142.64
01b	grade back filled slopes	DOZER	1	9.47	\$2,471.75
02a	cut / fill working face	DOZER	1	12.10	\$3,160.40
<b><u>SUBTOTALS:</u></b>				<b>180.35</b>	<b>\$ \$123,406.22</b>

### INDIRECT COSTS

#### OVERHEAD AND PROFIT:

Liability insurance: 2.02  
Performance bond: 1.05  
Job superintendent: 90.18  
Profit: 10.00

Total = \$2,492.81

Total = \$1,295.77

Total = \$5,347.38

Total = \$12,340.62

TOTAL O & P = \$21,476.58

CONTRACT AMOUNT (direct + O & P) = \$144,882.80

#### 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

\$7,244.14

CONTINGENCY: 3.00

Total = \$3,702.19

TOTAL INDIRECT COST = \$32,922.91

**TOTAL BOND AMOUNT (direct + indirect) = \$156,330.00**

**SCRAPER TEAM WORK**Task description: Backfill 3000 LF of highwallSite: Angie PitPermit Action: 2012 updatePermit/Job#: M2000049**PROJECT IDENTIFICATION**Task #: 001State: ColoradoAbbreviation: NoneDate: 4/4/2012County: MontroseFilename: M049-001User: GRMAgency or organization name: DRMS**HOURLY EQUIPMENT**COSTShift basis: 1 per day

Equipment Description	
-Scraper:	Cat 651E
-Dozer:	NA
Support Equipment -Load Area:	NA
-Dump Area:	NA
Road Maintenance -Motor Grader:	NA
-Water Truck:	NA

<b><u>Cost Breakdown:</u></b>	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:	\$72.17	NA	NA	NA	NA	NA
Operating cost/hour:	\$184.68	NA	NA	NA	NA	NA
Ripper op. cost/hour:	NA	NA	NA	NA	NA	NA
Operator cost/hour:	\$24.95	NA	NA	NA	NA	NA
Unit Subtotals:	\$281.79	NA	NA	NA	NA	NA
Number of Units:	4	0	0	0	0	0
Group Subtotals:	Work:	\$1,127.16	Support:	\$0.00	Maint:	\$0.00

Total work team cost/hour: \$1,127.16**MATERIAL QUANTITIES**Initial volume: 100,000

CCY

Swell factor: 1.180Loose volume: 118,000

LCY

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

Material weight:	<u>2,400 lbs/LCY</u>	Struck Volume:	<u>32.00</u>	LCY
Material description:	<u>Clay and gravel - Dry</u>	Heaped Volume:	<u>44.00</u>	LCY
Rated Payload:	<u>104,000 pounds</u>	Average Volume:	<u>38.00</u>	LCY
Payload Capacity:	<u>43.33 LCY</u>	Adjusted Capacity:	<u>38.00</u>	LCY

Cycle Time:Scraper Loading Time: 1.00 MinutesManeuver and Spread Time: 0.60 MinutesJob Condition Correction:

Site Altitude: 6570 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	2000.00	2.00	4.00	6.00	1111	1.88

Haul Time: 1.88 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2000.00	-2.00	4.00	2.00	2989	0.89

Return Time: 0.89 minutesTotal Scraper team cycle time: 4.37 minutesAdjusted for job conditions: 433.04 LCY/HourSelected Number of Scrapers: 2 Scraper(s)Adjusted single scraper team (unit) hourly production: 866.09 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 1,732.17 LCY/HourUnadjusted unit production/hour: 521.74 LCY/HourOptimal Number of Scrapers per push dozer:           **JOB TIME AND COST**Fleet size: 2 Team(s)Total job time: 68.12 HoursUnit cost: \$0.651 /LCYTotal job cost: \$76,784.95

BULLDOZER WORKTask description: Grade back filled slopesSite: Angie PitPermit Action: 2012 updatePermit/Job#: M2000049PROJECT IDENTIFICATIONTask #: 01BState: ColoradoAbbreviation: NoneDate: 4/4/2012County: MontroseFilename: M049-01bUser: GRMAgency or organization name: DRMSHOURLY EQUIPMENT COSTBasic 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:	\$80.19	NA
Operating Cost/Hour:	\$140.68	100
Ripper op. Cost/Hour:	\$1.79	25
Operator Cost/Hour:	\$38.49	NA

Total unit Cost/Hour: \$261.15Total Fleet Cost/Hour: \$261.15MATERIAL QUANTITIESInitial Volume: 11,700Swell factor: 1.000Loose volume: 11,700 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat HandbookHOURLY PRODUCTIONAverage push distance: 90 feetUnadjusted hourly production: 1,351.7 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: -30 %Average site altitude: 6,570 feetMaterial weight: 3,250 lbs/LCYWeight description: Gravel - PitrunJob Condition Correction Factor

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.200	(CAT HB)
Dozing method:	1.200	(SLOT)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.708	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.9145

Adjusted unit production: 1,236.13 LCY/hr

Adjusted fleet production: 1236.13 LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)  
Unit cost: \$0.211/LCY

Total job time: 9.47 Hours  
Total job cost: \$2,471.75

BULLDOZER WORKTask description: Cut / fill working faceSite: Angie PitPermit Action: 2012 updatePermit/Job#: M2000049PROJECT IDENTIFICATIONTask #: 02AState: ColoradoAbbreviation: NoneDate: 4/4/2012County: MontroseFilename: M049-02aUser: GRMAgency or organization name: DRMSHOURLY EQUIPMENT COSTBasic 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:	\$80.19	NA
Operating Cost/Hour:	\$140.68	100
Ripper op. Cost/Hour:	\$1.79	25
Operator Cost/Hour:	\$38.49	NA

Total unit Cost/Hour: \$261.15Total Fleet Cost/Hour: \$261.15MATERIAL QUANTITIESInitial Volume: 4,167Swell factor: 1.120Loose volume: 4,667 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat HandbookHOURLY PRODUCTIONAverage push distance: 90 feetUnadjusted hourly production: 1,351.7 LCY/hrMaterials consistency description: Compacted fill or embankment 0.9Average push gradient: 15 %Average site altitude: 6,570 feetMaterial weight: 3,250 lbs/LCYWeight description: Gravel - PitrunJob Condition Correction Factor

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.200	(SLOT)



Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	0.666	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.708	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.2853

Adjusted unit production: 385.64 LCY/hr

Adjusted fleet production: **385.64 LCY/hr**

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)  
Unit cost: \$0.677/LCY

Total job time: **12.10 Hours**  
Total job cost: **\$3,160.40**

## BULLDOZER RIPPING WORK

Task description: Rip pit floor for topsoil

Site: Angie Pit Permit Action: 2012 update Permit/Job#: M2000049

### PROJECT IDENTIFICATION

Task #: 003 State: Colorado Abbreviation: None  
Date: 4/4/2012 County: Montrose Filename: M049-003  
User: GRM

Agency or organization name: DRMS

### HOURLY EQUIPMENT COST

Basic Machine: Cat D9T - 9SU Horsepower: 405  
Ripper Attachment: 3-Shank Ripper Shift Basis: 1 per day  
Data Source: (CRG)

#### Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	<u>\$80.19</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$140.68</u>	<u>100</u>
Ripper Operating Cost/Hour:	<u>\$7.17</u>	<u>100</u>
Operator Cost/Hour:	<u>\$38.49</u>	<u>NA</u>
Total Unit Cost/Hour:	<u>\$266.52</u>	
Total Fleet Cost/Hour:	<u>\$266.52</u>	

### MATERIAL QUANTITIES

Selected estimating method: Area

#### Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA  
Area: 21.00 acres Rip Depth (ft): 1.00 Volume: 33,880 BCY or CCY

Source of estimated quantity: Current affected acreage

### HOURLY PRODUCTION

#### Seismic:

Seismic Velocity: NA feet/second

#### Area:

Average Ripping Depth:	<u>2.63</u>	<u>mph</u>
Average Ripping Width:	<u>7.67</u>	<u>degrees</u>
Average Ripping Length:	<u>500.00</u>	<u>feet</u>
Average Dozer Speed:	<u>88.00</u>	<u>feet</u>
Average Maneuver Time:	<u>0.25</u>	<u>feet</u>
Production per unit area:	<u>0.891</u>	<u>acres/hour</u>

#### Job Condition Correction Factors

Unadjusted Hourly Unit Production:	<u>0.891</u>	<u>Acres/hr</u>
Site Altitude:	<u>6,570</u>	<u>feet</u>
Altitude Adj:	<u>1.00</u>	<u>(CAT HB)</u>
Job Efficiency:	<u>0.83</u>	<u>(1 shift/day)</u>
Net Correction:	<u>0.83</u>	<u>multiplier</u>
Adjusted Hourly Unit Production:	<u>0.74</u>	<u>Acres/hr</u>
Adjusted Hourly Fleet Production:	<u>0.74</u>	<u>Acres/hr</u>

### JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 28.41 Hours  
Unit cost: \$360.588 Per acre Total job cost: \$7,572.00

## DEMOLITION WORK

Task description: Demo scale and batch plant footers

Site: Angie Pit

Permit Action: 2012 update

Permit/Job#: M2000049

### PROJECT IDENTIFICATION

Task #: 004

State: Colorado

Abbreviation: None

Date: 4/4/2012

County: Montrose

Filename: M049-004

User: GRM

Agency or organization name: DRMS

### UNIT COSTS

Location adjustment: 96.90 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
scale house footers	2 X 10	Demo. and on-site disposal in existing pit, 1.0 ft. x 2 ft. - Max. 200 ft. push	20.00	LF	\$6.27	\$125.40
batch plant concrete supports	10X25	Demo. and on-site disposal in existing pit, 4 in. thick - Max. 50 ft. push	250.00	SF	\$1.04	\$260.00

Job Hours: 8.00

Subtotal  
(unadjusted): \$385.40

Total Cost  
(adjusted for location): \$373.45

BULLDOZER WORKTask description: Grade topsoil on slopesSite: Angie Pit Permit Action: 2012 update Permit/Job#: M2000049PROJECT IDENTIFICATION

Task #: 006 State: Colorado Abbreviation: None  
 Date: 4/4/2012 County: Montrose Filename: M049-006  
 User: GRM

Agency or organization name: DRMSHOURLY 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:	\$80.19	NA
Operating Cost/Hour:	\$140.68	100
Ripper op. Cost/Hour:	\$1.79	25
Operator Cost/Hour:	\$38.49	NA

Total unit Cost/Hour: \$261.15  
 Total Fleet Cost/Hour: \$261.15

MATERIAL QUANTITIES

Initial Volume: 2,925  
 Swell factor: 1.000  
 Loose volume: 2,925 LCY

Source of estimated volume: Division of Reclamation, Mining & Safety  
 Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 90 feet  
 Unadjusted hourly production: 1,351.7 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 15 %  
 Average site altitude: 6,570 feet

Material weight: 1,600 lbs/LCYWeight description: Top Soil

<u>Job Condition Correction Factor</u>		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.200	(SLOT)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	0.666	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5795

Adjusted unit production: 783.31 LCY/hr

Adjusted fleet production: 783.31 LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)  
Unit cost: \$0.333/LCY

Total job time: 3.73 Hours  
Total job cost: \$975.16

SCRAPER TEAM WORKTask description: Spread topsoil over pit floorSite: Angie PitPermit Action: 2012 updatePermit/Job#: M2000049PROJECT IDENTIFICATIONTask #: 007State: ColoradoAbbreviation: NoneDate: 4/4/2012County: MontroseFilename: M049-007User: GRMAgency or organization name: DRMSHOURLY EQUIPMENTCOSTShift basis: 1 per day

Equipment Description	
-Scraper:	Cat 651E
-Dozer:	NA
Support Equipment -Load Area:	NA
-Dump Area:	NA
Road Maintenance -Motor Grader:	NA
-Water Truck:	NA

<u>Cost Breakdown:</u>	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:	\$72.17	NA	NA	NA	NA	NA
Operating cost/hour:	\$184.68	NA	NA	NA	NA	NA
Ripper op. cost/hour:	NA	NA	NA	NA	NA	NA
Operator cost/hour:	\$24.95	NA	NA	NA	NA	NA
Unit Subtotals:	\$281.79	NA	NA	NA	NA	NA
Number of Units:	4	0	0	0	0	0
Group Subtotals:	Work:	\$1,127.16	Support:	\$0.00	Maint:	\$0.00

Total work team cost/hour: \$1,127.16MATERIAL QUANTITIESInitial volume: 8,570

CCY

Swell factor: 1.000Loose volume: 8,570

LCY

Source of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat HandbookHOURLY PRODUCTIONScraper Bowl (volume) Basis:

Material weight:	<u>1,600 lbs/LCY</u>	Struck Volume:	<u>32.00</u>	LCY
Material description:	<u>Top Soil</u>	Heaped Volume:	<u>44.00</u>	LCY
Rated Payload:	<u>104,000 pounds</u>	Average Volume:	<u>38.00</u>	LCY
Payload Capacity:	<u>65.00 LCY</u>	Adjusted Capacity:	<u>38.00</u>	LCY

Cycle Time:Scraper Loading Time: 1.00 MinutesManeuver and Spread Time: 0.60 MinutesJob Condition Correction:

Site Altitude: 6570 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	500.00	2.00	4.00	6.00	1111	0.50

Haul Time: 0.50 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	500.00	-2.00	4.00	2.00	2989	0.39

Return Time: 0.39 minutesTotal Scraper team cycle time: 2.49 minutesAdjusted for job conditions: 760.00 LCY/HourSelected Number of Scrapers: 2 Scraper(s)Adjusted single scraper team (unit) hourly production: 1,520.00 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 3,040.00 LCY/HourUnadjusted unit production/hour: 915.66 LCY/Hour

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

**JOB TIME AND COST**Fleet size: 2 Team(s)Total job time: 2.82 HoursUnit cost: \$0.371 /LCYTotal job cost: \$3,177.55

## MOTOR GRADER WORK

Task description: Grade topsoil on pit floor

Site: Angie Pit

Permit Action: 2012 update

Permit/Job#: M2000049

### PROJECT IDENTIFICATION

Task #: 008

State: Colorado

Abbreviation: None

Date: 4/4/2012

County: Montrose

Filename: M049-008

User: GRM

Agency or organization name: DRMS

### HOURLY EQUIPMENT COST

Basic Machine: CAT 16M  
Ripper Attachment: Multi-Shank Ripper

Horsepower: 297  
Shift Basis: 1 per day  
Data Source: (CRG)

#### Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$68.74	NA
Operating Cost/Hour:	\$89.71	100
Ripper Operating Cost/Hour:	\$0.32	10
Operator Cost/Hour:	\$24.47	NA
Total Unit Cost/Hour:	\$183.24	
Total Fleet Cost/Hour:	<b>\$186.17</b>	

### MATERIAL QUANTITIES

Total Area to be graded or ripped: 21.35 acres

Source of estimated acreage: Current conditions

### HOURLY PRODUCTION

Average Grader Speed: 3.25 mph  
Selected Application: Heavy blading (0-6 mph) - 3.25  
Selected Blade Angle: 0 degrees  
Effective Blade Length: 16.00 feet  
Width of blade overlap per pass: 2.00 feet  
Net grading or ripping width per pass: 14.00 feet  
Unadjusted Hourly Unit Production: 5.5152 acres/hour

#### Job Condition Correction Factors

Site Altitude: 6570 feet

Altitude Adj:	<u>1.00</u>	Source
Job Efficiency:	<u>0.90</u>	(CAT HB)
Net Correction:	<u>0.9000</u>	(1sh/d, fav.)
		multiplier

Adjusted Hourly Unit Production: 4.9636 acres/Hour  
Adjusted Hourly Fleet Production: 4.9636 acres/Hour

### JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 4.30 Hours

Unit cost: \$36.92 per acre Total job cost: \$788.00



REVEGETATION WORKTask description: Reveg 28.5 acres of affected areaSite: Angie PitPermit Action: 2012 updatePermit/Job#: M2000049PROJECT IDENTIFICATIONTask #: 009State: ColoradoAbbreviation: NoneDate: 4/4/2012County: MontroseFilename: M049-009User: GRMAgency or organization name: DRMSFERTILIZINGMaterials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
13-13-13, 19-9-0	200.00	pound	\$0.25	\$49.60
			<b>Total Fertilizer Materials Cost/Acre</b>	<b>\$49.60</b>

Application

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	\$50.09
<b>Total Fertilizer Application Cost/Acre</b>	<b>\$50.09</b>

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$92.35
<b>Total Tilling Cost/Acre</b>	<b>\$92.35</b>

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Hachita	0.50	8.16	\$5.21
Indian Ricegrass - Paloma	3.00	9.71	\$25.59
Intermediate Wheatgrass - Rush	2.00	4.27	\$4.38
Galleta	0.50	1.83	\$12.34
Tall Fescue - Fawn E.F.	2.00	10.42	\$2.28
<b>Totals Seed Mix</b>	<b>8.00</b>	<b>34.39</b>	<b>\$49.80</b>

**Application**

Description	Cost /Acre
Drill seeding {DMG}	\$90.11
<b>Total Seed Application Cost/Acre</b>	<b>\$90.11</b>

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

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - Curtail @ 4.0 pt/ac	1.00	ACRE	\$15.90	\$15.90
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	BALE	\$6.55	\$13.10
<b>Total Mulch Materials Cost/Acre</b>				<b>\$29.00</b>

**Application**

Description	Cost /Acre
Power mulcher (MEANS 32 91 13.16 0250)	\$79.71
Weed spray, hand, non-aquatic area, nox. [DMG]	\$175.77
<b>Total Mulch Application Cost/Acre</b>	<b>\$255.48</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:	28.5	Cost /Acre:	\$616.43
Estimated Failure Rate:	25%	Cost /Acre*:	\$616.43
*Selected Replanting Work Items:	FERTILIZING,TILLING,SEEDING,MULCHING		

Initial Job Cost:	\$17,568.26
Reseeding Job Cost:	\$4,392.06
Total Job Cost:	\$21,960.32
Job Hours:	40.00

**EQUIPMENT MOBILIZATION/DEMobilIZATION**Task description: Mobilization to siteSite: Angie Pit Permit Action: 2012 update Permit/Job#: M2000049**PROJECT IDENTIFICATION**

Task #: 010 State: Colorado Abbreviation: None  
 Date: 4/4/2012 County: Montrose Filename: M049-010  
 User: GRM

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
Water Tanker, 3,500 Gal.	6.25	\$10.97	\$88.67	1	\$99.64	\$88.67	\$0.00
Power Mulcher (Reinco M90)	6.00	\$7.03	\$88.67	1	\$95.70	\$88.67	\$0.00
Drill/Broadcast Seeder with Tractor	25.00	\$39.59	\$88.67	1	\$128.26	\$88.67	\$250.00
Cat D9T - 9SU	66.13	\$80.19	\$125.45	1	\$205.64	\$125.45	\$250.00
Cat 651E	67.38	\$72.17	\$125.45	2	\$395.24	\$250.90	\$500.00
CAT 16M	28.73	\$68.74	\$117.55	1	\$186.29	\$117.55	\$250.00

Subtotals: **\$1,110.77** **\$759.91** **\$1,250.00**

**ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Flatbed Truck, 4x2, 30K GVW	\$60.71	1	\$60.71	\$60.71
Fuel Tanker, 6x4, 210 HP	\$64.67	1	\$64.67	\$64.67
Light Duty Pickup, 4x4, 3/4 T.	\$34.08	1	\$34.08	\$34.08

Subtotals: **\$159.46** **\$159.46**

**EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region:	NATURITA	
Total one-way travel distance:	14.00	miles
Average Travel Speed:	40.00	mph

Total Non-Roadable Mob/Demob Cost *	\$6,031.02
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	\$111.62
** one round trip, no haul rig:	

**Transportation Cycle Time:**

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.35	0.35
Return Time (Hours):	0.35	0.35
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	1.70	0.70

**JOB TIME AND COST**

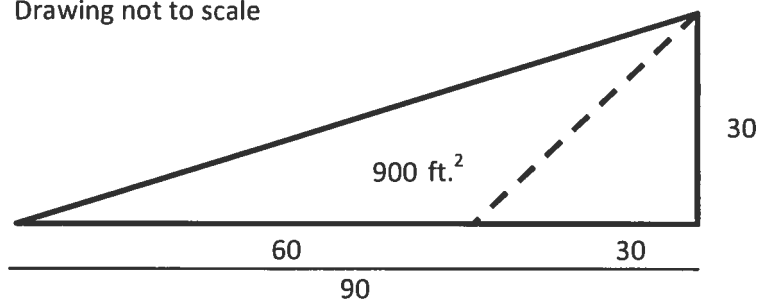
Total job time:	3.40	Hours
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Total job cost:	\$6,142.64
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### Highwall reduction - backfill

Highwall Height (ft.)	30	
Length of Highwall (lft.)	3000	
- - - - Initial Slope	1	H:1V
— Desired Slope	3	H:1V
Volume of material to be moved (ft. <sup>3</sup> )	<b>2,700,000</b>	
Volume of material to be moved (yd. <sup>3</sup> )	<b>100,000</b>	

All dimensions measured in feet  
Drawing not to scale

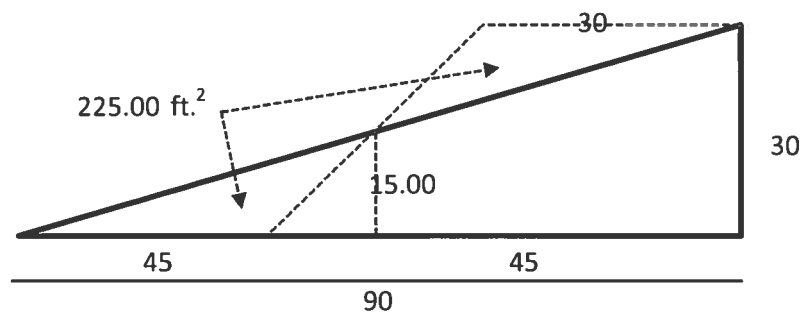


Northeast and South Highwalls 2012

### Highwall reduction - cut and fill

Highwall Height (ft.)	30
Length of Highwall (ft.)	500
Initial Slope	1 H:1V
Desired Slope	3 H:1V
Volume of material to be moved (ft. <sup>3</sup> )	<b>112,500</b>
Volume of material to be moved (yd. <sup>3</sup> )	<b>4,167</b>

All dimensions measured in feet  
Drawing not to scale



Northwest Working Face 2012

Topsoil/Overburden Volume (yd. <sup>3</sup> )	11495
Acreage	28.5
Thickness/Depth (in.)	3

Acreage disturbed 2012

Topsoil/Overburden Volume (yd. <sup>3</sup> )	2924.167
Acreage	7.25
Thickness/Depth (in.)	3

Topsoil for 7.25 acres of slope

Topsoil/Overburden Volume (yd. <sup>3</sup> )	8570.833
Acreage	21.25
Thickness/Depth (in.)	3

Topsoil for 21.25 acres of Pit Floor

Topsoil/Overburden Volume (yd. <sup>3</sup> )	11696.67
Acreage	7.25
Thickness/Depth (in.)	12

1 Foot grading of pit slope overburden