

STATE OF COLORADO

DIVISION OF RECLAMATION, MINING AND SAFETY

Department of Natural Resources

1313 Sherman St., Room 215

Denver, Colorado 80203

Phone: (303) 866-3567

FAX: (303) 832-8106



April 5, 2012

Joe Kraig
Pioneer Sand Company, Inc.
P.O. Box 7650
Colorado Springs, CO
80933

John W. Hickenlooper
Governor

Mike King
Executive Director

Loretta E. Piñeda
Director

RE: Fedinec Pit, Permit No. 1977-057, Reclamation Costs Update and Notice of Surety Increase SI-2

Dear Mr. Kraig:

In an effort to ensure the Financial Warranty for the above referenced site adequately reflects the actual current costs of fulfilling the requirements of the approved reclamation plan, the Colorado Division of Reclamation, Mining and Safety (Division) has updated the reclamation cost estimate (copy enclosed). ***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 **Tuesday, June 05, 2012**. Please review the enclosed figures as soon as possible and contact our office if any calculation errors are noted.

Staff calculations estimate the cost to reclaim the above referenced site to be \$19,300.00. This is an increase of \$3,800.00 over the \$15,500.00 currently held by the Division. This estimate is based on conditions observed during the March 27, 2012 inspection.

Please make arrangements with Barbara Coria at the Division of Reclamation, Mining and Safety Denver Office, phone no. 303.866.3567, ext. 8148 for submittal of the financial warranty. Any questions regarding completion, execution and/or submittal of financial warranty forms should also be directed to Barbara Coria.

If you require additional information, have questions or concerns, please contact me at the DRMS Grand Junction Field Office.

Pioneer Sand Company, Inc.

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April 5, 2012

Sincerely,

A handwritten signature in blue ink, appearing to read "Dustin Czupla", is written over the printed name.

Dustin Czupla

Environmental Protection Specialist

Department of Natural Resources

Division of Reclamation, Mining and Safety

101 South 3rd, Suite 301

Grand Junction, CO 81501

Phone: (970) 243-6299

Fax: (970) 241-1516

Cc:

Enc: Financial Warranty Cost Estimate

COST SUMMARY WORK

Task description: Reclamation Cost Update

Site: Fedinec Pit

Permit Action: 2012 March Review

Permit/Job#: M1977057

PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 4/5/2012

County: Moffat

Filename: M057-000

User: DMC

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
01a	Mobilize reclamation crew and equipment	MOBILIZE	1	2.93	\$2,941.31
02a	Reduce upper bench to a 3H:1V slope and rough finish grade	DOZER	1	1.96	\$391.16
03a	Reduce lower bench to a 3H:1V slope and rough finish grade	DOZER	1	0.63	\$126.26
04a	Rip benches	RIPPER	1	6.06	\$1,292.00
05a	Distribute topsoil over disturbed areas	LOADER	1	20.99	\$2,954.00
06a	Spread topsoil	DOZER	1	6.09	\$1,217.83
07a	Revegetate affected area	REVEGE	1	5.00	\$5,879.63
<u>SUBTOTALS:</u>				43.66	\$14,802.19

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02
Performance bond: 1.05
Job superintendent: 27.59
Profit: 10.00

Total = \$299.00

Total = \$155.42

Total = \$1,636.09

Total = \$1,480.22

TOTAL O & P = \$3,570.73

CONTRACT AMOUNT (direct + O & P) = \$18,372.92

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

\$918.65

CONTINGENCY: 0.00

Total = \$0.00

TOTAL INDIRECT COST = \$4,489.38

TOTAL BOND AMOUNT (direct + indirect) = \$19,300

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Mobilize reclamation crew and equipment**Site: **Fedinec Pit**Permit Action: **2012 March Review**Permit/Job#: **M1977057****PROJECT IDENTIFICATION**Task #: **01A**State: **Colorado**Abbreviation: **None**Date: **4/5/2012**County: **Moffat**Filename: **M057-01a**User: **DMC**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
Cat D8T - 8U	53.70	\$65.28	\$125.45	1	\$190.73	\$125.45	\$250.00
Cat 631G	52.50	\$75.63	\$125.45	1	\$201.08	\$125.45	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$39.59	\$88.67	1	\$128.26	\$88.67	\$250.00

Subtotals: **\$520.07** **\$339.57** **\$750.00****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>CRAIG</u>	
Total one-way travel distance:	<u>7.00</u>	miles
Average Travel Speed:	<u>30.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$2,941.31</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):	0.23	0.23
Return Time (Hours):	0.23	0.23
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	1.47	0.47

JOB TIME AND COST

Total job time:	<u>2.93</u>	Hours
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Total job cost:	<u>\$2,941.31</u>
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BULLDOZER WORKTask description: Reduce upper bench to a 3H:1V slope and rough finish gradeSite: Fedinec PitPermit Action: 2012 March ReviewPermit/Job#: M1977057**PROJECT IDENTIFICATION**Task #: 02AState: ColoradoAbbreviation: NoneDate: 4/5/2012County: MoffatFilename: M057-02aUser: DMCAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D8T - 8UHorsepower: 310Blade Type: UniversalAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$58.56	NA
Operating Cost/Hour:	\$102.84	100
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$38.49	NA

Total unit Cost/Hour: \$199.89Total Fleet Cost/Hour: \$199.89**MATERIAL QUANTITIES**Initial Volume: 917Swell factor: 1.165Loose volume: 1,068 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 75 feetUnadjusted hourly production: 1,155.6 LCY/hrMaterials consistency description: Compacted fill or embankment 0.9Average push gradient: -15 %Average site altitude: 6,800 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:	1.000	(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: 0.4724

Adjusted unit production: 545.91 LCY/hr

Adjusted fleet production: 545.91 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.366/LCY

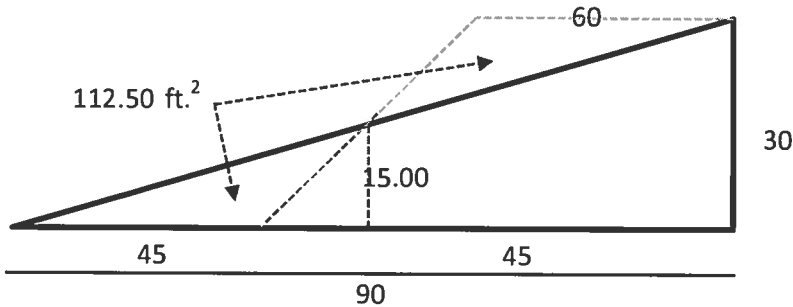
Total job time: 1.96 Hours

Total job cost: \$391.16

Highwall reduction - cut and fill

Highwall Height (ft.)	30.0
Length of Highwall (lft.)	220
Initial Slope	2.0 H:1V
Desired Slope	3 H:1V
Volume of material to be moved (ft. ³)	24,750
Volume of material to be moved (yd. ³)	917

All dimensions measured in feet
Drawing not to scale



BULLDOZER WORKTask description: Reduce lower bench to a 3H:1V slope and rough finish gradeSite: Fednec PitPermit Action: 2012 March ReviewPermit/Job#: M1977057**PROJECT IDENTIFICATION**Task #: 03A
Date: 4/5/2012
User: DMCState: Colorado
County: MoffatAbbreviation: None
Filename: M057-03aAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D8T - 8U
Horsepower: 310
Blade Type: Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$58.56	NA
Operating Cost/Hour:	\$102.84	100
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$38.49	NA

Total unit Cost/Hour: \$199.89
Total Fleet Cost/Hour: \$199.89**MATERIAL QUANTITIES**Initial Volume: 296
Swell factor: 1.165
Loose volume: 345 LCYSource of estimated volume: Division of Reclamation, Mining & Safety
Source of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 75 feet
Unadjusted hourly production: 1,155.6 LCY/hrMaterials consistency description: Compacted fill or embankment 0.9Average push gradient: -15 %
Average site altitude: 6,800 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:	1.000	(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: 0.4724

Adjusted unit production: 545.91 LCY/hr

Adjusted fleet production: 545.91 LCY/hr

JOB TIME AND COST



Fleet size: 1 Dozer(s)

Unit cost: \$0.366/LCY

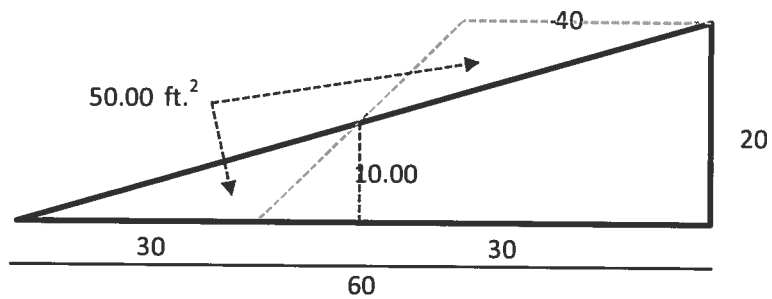
Total job time: 0.63 Hours

Total job cost: \$126.26

Highwall reduction - cut and fill

Highwall Height (ft.)	20.0	
Length of Highwall (lft.)	160	
 Initial Slope	2.0	H:1V
 Desired Slope	3	H:1V
Volume of material to be moved (ft. ³)	8,000	
Volume of material to be moved (yd. ³)	296	

All dimensions measured in feet
Drawing not to scale



BULLDOZER RIPPING WORK

Task description: Rip benches, stockpile areas and access roads

Site: Fedinec Pit

Permit Action: 2012 March Review

Permit/Job#: M1977057

PROJECT IDENTIFICATION

Task #: 04A

State: Colorado

Abbreviation: None

Date: 4/5/2012

County: Moffat

Filename: M057-04a

User: DMC

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D8T - 8U
Ripper Attachment: 3-Shank Ripper

Horsepower: 310

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$65.28	NA
Operating Cost/Hour:	\$102.84	100
Ripper Operating Cost/Hour:	\$6.49	100
Operator Cost/Hour:	\$38.49	NA
Total Unit Cost/Hour:	\$213.10	
Total Fleet Cost/Hour:	\$213.10	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 3.00 acres Rip Depth (ft): 2.00 Volume: 9,680 BCY or CCY

Source of estimated quantity: DRMS

HOURLY PRODUCTION

Seismic:

Seismic Velocity: NA feet/second

Area:

Average Ripping Depth: 2.56 mph
Average Ripping Width: 7.08 degrees
Average Ripping Length: 50.00 feet
Average Dozer Speed: 88.00 feet
Average Maneuver Time: 0.25 feet
Production per unit area: 0.596 acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.596 Acres/hr
Site Altitude: 6,800 feet
Altitude Adj: 1.00 (CAT HB)
Job Efficiency: 0.83 (1 shift/day)
Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.49 Acres/hr
Adjusted Hourly Fleet Production: 0.49 Acres/hr

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 6.06 Hours

Unit cost: \$430.813 Per acre Total job cost: \$1,292.00

WHEEL LOADER – LOAD AND CARRY WORKTask description: Distribute topsoil over disturbed areasSite: Fedinec PitPermit Action: 2012 March ReviewPermit/Job#: M1977057**PROJECT IDENTIFICATION**Task #: 05AState: ColoradoAbbreviation: NoneDate: 4/5/2012County: MoffatFilename: M057-05aUser: DMCAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: CAT 972HHorsepower: 287Attachment 1: ROPS CabShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		Utilization %
Ownership Cost/Hour:	\$36.70	NA
Operating Cost/Hour:	\$65.54	100
Operator Cost/Hour:	\$38.49	NA
Total Unit Cost/Hour:	\$140.73	
Total Fleet Cost/Hour:	\$140.73	

MATERIAL QUANTITIESInitial volume: 6,050

CCY

Swell factor: 1.000Loose volume: 6,050

LCY

Source of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Loader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.525 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material up to 1/8" diameter 0.02	0.020	(Cat HB)
Stockpile:	Conveyor or dozer piled 10 ft. high and up 0.00	0.000	(Cat HB)
Truck Ownership:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		-0.020	minutes
Adjusted Basic Cycle Time:		0.505	minutes

Rolling Resistance – Road ConditionsHaul: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0Return: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0**Haul and Return Time**

	Length (feet)	Grade Res. (%)	Rolling Res. (%)	Total Res. (%)	Travel Time (minutes)	Source
Haul Route:	250	0.00	5.00	5.00	0.2305	(Cat HB)
Return Route:	250	0.00	5.00	5.00	0.2080	(Cat HB)

Total Travel Time: 0.4385 minutes
 Total Cycle Time: 0.9435 minutes

Load Bucket Capacity

Rated Capacity: 5.60 LCY (heaped)
 Bucket Fill Factor: 0.975 Loose material - uniform aggregates to 1/8" (95-100%) 0.975
 Adjusted Capacity: 5.46 LCY

Job Condition Correction FactorsSite Altitude: 6800 feet

		Source
Altitude Adj:	<u>1.00</u>	(CAT HB)
Job Efficiency:	<u>0.83</u>	(1 shift/day)
Net Correction:	<u>0.83</u>	multiplier

Unadjusted Hourly Unit Production: 347.20 LCY/Hour
 Adjusted Hourly Unit Production: 288.18 LCY/Hour
 Adjusted Hourly Fleet Production: 288.18 LCY/Hour

JOB TIME AND COST

Fleet size: 1 Loader(s) Total job time: 20.99 Hours
 Unit cost: \$0.488 /LCY Total job cost: \$2,954.00

BULLDOZER WORKTask description: Spread topsoilSite: Fedinec PitPermit Action: 2012 March ReviewPermit/Job#: M1977057**PROJECT IDENTIFICATION**Task #: 06AState: ColoradoAbbreviation: NoneDate: 4/5/2012County: MoffatFilename: M057-06aUser: DMCAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D8T - 8UHorsepower: 310Blade Type: UniversalAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$58.56	NA
Operating Cost/Hour:	\$102.84	100
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$38.49	NA

Total unit Cost/Hour: \$199.89Total Fleet Cost/Hour: \$199.89**MATERIAL QUANTITIES**Initial Volume: 6,050Swell factor: 1.000Loose volume: 6,050 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 75 feetUnadjusted hourly production: 1,155.6 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: 0 %Average site altitude: 6,800 feetMaterial weight: 1,600 lbs/LCYWeight description: Top Soil**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:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.8593

Adjusted unit production: 993.01 LCY/hr

Adjusted fleet production: **993.01 LCY/hr**

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.201/LCY

Total job time: **6.09 Hours**

Total job cost: **\$1,217.83**

REVEGETATION WORKTask description: Revegetate affected areaSite: Fedinec PitPermit Action: 2012 March ReviewPermit/Job#: M1977057**PROJECT IDENTIFICATION**Task #: 07AState: ColoradoAbbreviation: NoneDate: 4/5/2012County: MoffatFilename: M057-07aUser: DMCAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
8-24-24, 10-15-15, 10-20-20	250.00	pound	\$0.30	\$75.00
Total Fertilizer Materials Cost/Acre				\$75.00

Application

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

TILLING

Description	Cost /Acre
Chisel plowing {DMG}	\$86.71
Weed control spraying (MEANS 31 31 16.13 3100)	\$145.20
Total Tilling Cost/Acre	\$231.91

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Crested Wheatgrass - Nordan	3.00	13.77	\$6.84
Intermediate Wheatgrass - Oahe	7.00	14.94	\$14.98
Pubescent Wheatgrass - Luna	7.00	14.46	\$15.33
Totals Seed Mix	17.00	43.18	\$37.15

Application

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

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost / Acre
Herbicide - 2,4D @ 2.0 pt/ac	1.00	ACRE	\$2.40	\$2.40
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$164.00	\$328.00
Total Mulch Materials Cost/Acre				\$330.40

Application

Description	Cost / Acre
Crimping, with tractor {DMG survey data}	\$65.89
Weed spray, truck, non-aquatic area, nox. [DMG]	\$60.19
Total Mulch Application Cost/Acre	\$126.08

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:	5	Cost /Acre:	\$940.74
Estimated Failure Rate:	25%	Cost /Acre*:	\$940.74
*Selected Replanting Work Items:	FERTILIZING, TILLING, SEEDING, MULCHING		
Initial Job Cost:	\$4,703.70		
Reseeding Job Cost:	\$1,175.93		
Total Job Cost:	\$5,879.63		
Job Hours:	5.00		