



COLORADO
**Division of Reclamation,
Mining and Safety**
Department of Natural Resources

July 30, 2021

Mr. Phillip Courtney
Rocky Mountain Materials and Asphalt, Inc.
c/o Martin Marietta Materials, Inc.
1627 Cole Boulevard, Suite 200
Lakewood, CO 80401

Re: Red Canyon Quarry, Permit No. M-1985-043, Technical Revision Approval, Revision No. TR-5

Dear Mr. Courtney:

On July 30, 2021 the Division of Reclamation, Mining and Safety approved the Technical Revision application submitted to the Division on July 22, 2021, addressing the following:

Revise the seed mix requested to accomplish the post-mining land use of wildlife habitat on fully reclaimed areas.

The terms of the Technical Revision No. 5 approved by the Division are hereby incorporated into Permit No. M-1985-043. All other conditions and requirements of Permit No. M-1985-043 remain in full force and effect. The revised liability amount exceeds the performance bond currently held (see below). Please submit additional bond in the amount of \$301,677.00. The revision will not be final until the bond is approved by the Division.

Bond Held:	\$334,000.00
Prior Liability:	\$334,000.00
Change in Liability:	\$301,677.00
Revised Liability:	\$635,677.00

If you have any questions, please contact me.

Sincerely,

Timothy A. Cazier, P.E.
Environmental Protection Specialist

Enclosure: Reclamation Cost Estimate

ec: Phil Courtney, Martin Marietta Materials
Jeff Thompson, DRMS
Sara Stevenson-Benn, DRMS



COST SUMMARY WORK

Task description: Cost Summary

Site: Red Canyon Quarry

Permit Action: TR-5 Update

Permit/Job#: M1985043

PROJECT IDENTIFICATION

Task #: 00B

State: Colorado

Abbreviation: None

Date: 7/23/2021

County: Fremont

Filename: M043-00B

User: TC1

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
01B	Replace Growth Media on Benches	TRUCK1	1	248.57	\$80,873
02B	Replace Growth Media on Pit Floor	SCRAPER1	1	240.02	\$190,835
03B	Reseed Quarry Benches	REVEGE	1	300.00	\$97,299
04B	Reseed Pit Floor	REVEGE	1	80.00	\$83,193
05B	Mob/demob Equipment	MOBILIZE	1	15.00	\$16,561
06B	Smooth Grade Growth Medium on Benches	DOZER	1	43.44	\$8,761
07B	Remove Scale	NA	1	40.00	\$3,000
08B	Remove Culverts	NA	1	40.00	\$2,000
<u>SUBTOTALS:</u>				1007.03	\$482,522

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02

Total = \$9,747

Performance bond: 1.05

Total = \$5,066

Job superintendent: 503.51

Total = \$36,268

Profit: 10.00

Total = \$48,252

TOTAL O & P = \$99,333

CONTRACT AMOUNT (direct + O & P) = \$581,855

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): \$0

Total = \$0

Engineering work and/or contract/bid preparation: 4.25

Total = \$24,729

Reclamation management and/or administration: 5.00

\$29,093

CONTINGENCY: 0.00

Total = \$0

TOTAL INDIRECT COST = \$153,155

TOTAL BOND AMOUNT (direct + indirect) = \$635,677

TRUCK/LOADER TEAM WORKTask description: **Replace Growth Media on Benches**Site: **Red Canyon Quarry**Permit Action: TR-5 UpdatePermit/Job#: M1985043**PROJECT IDENTIFICATION**Task #: 01BState: ColoradoAbbreviation: NoneDate: 7/23/2021County: FremontFilename: M043-01BUser: TC1Agency or organization name: DRMS**HOURLY EQUIPMENT COST**Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Generic 12-18 cy, 6x4
-Loader:	CAT 950H high lift
Support Equipment -Load Area:	NA
-Dump Area:	NA
Road Maintenance -Motor Grader:	NA
-Water Truck:	NA

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	85	NA	NA	NA	NA
Ownership cost/hour:	\$27.72	\$38.59	NA	NA	NA	NA
Operating cost/hour:	\$47.23	\$31.08	NA	NA	NA	NA
%Utilization-ripper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	NA	NA	NA	NA
Ripper op. cost/hour:	NA	\$0.00	NA	NA	NA	NA
Operator cost/hour:	\$32.54	\$40.71	NA	NA	NA	NA
Unit Subtotals:	\$107.49	\$110.37	NA	NA	NA	NA
Number of Units:	2	1	0	0	0	0
Group Subtotals:	Work: \$325.35		Support: \$0.00		Maint: \$0.00	

Total work team cost/hour: **\$325.35****MATERIAL QUANTITIES**Initial volume: 56,467

CCY

Swell factor: 1.215Loose volume: **68,607**

LCY

Source of estimated volume: 2001/AM-01 CIRCES WorksheetSource of estimated swell factor: Cat HandbookMaterial Purchase Cost: \$0.00Total Cost: \$0.00**HOURLY PRODUCTION****Truck Capacity:**Truck Payload (weight) Basis:Material weight: 3,300 Pounds/LCYDescription: Decomposed rock - 75% Rock, 25% EarthRated Payload: 50,300 PoundsPayload Capacity: 15.24 LCY

Truck Bed (volume) Basis:

Struck Volume:	12.00	LCY
Heaped Volume:	18.00	LCY
Average Volume:	15.00	LCY
Adjusted Volume:	15.24	LCY

Final Truck Volume Based on Number of Loader Passes: **11.93** LCY**Loading Tool Capacity**Bucket Size Class: NA

Rated Capacity:	4.300	LCY (heaped)
Bucket Fill Factor:	0.925	Loose material - 1/8" to 3/8" (90 - 95%) 0.925
Adjusted Capacity:	3.978	LCY

Job Condition Corrections:Site Altitude (ft.): 7200 feet

	Truck	Loader	Source
Altitude Adj:	1.000	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.830	0.830	

Loading Tool Cycle Time:Number of Loading Tool Passes Required to Fill
Truck: 3 passes**Excavators and Front Shovels:**

Machine Cycle Time vs. Job Condition Rating: NA
 Selected Value within this Basic Rating: NA
 Track Loaders – Material Description: _____

Cycle Time Elements (min.):Load: NA Maneuver: NA Dump: 0.100Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.500 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Mixed material 0.02	0.020	(Cat HB)
Stockpile:	Conveyor or dozer piled 10 ft. high and up 0.00	0.000	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders - 0.04	-0.040	(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:		-0.060	minutes
Adjusted Loader Cycle Time:		0.440	minutes
Net Load Time per Truck:		0.980	minutes

Truck Cycle Time:

Truck Exchange Time:	0.50	Minutes	Adjusted for site altitude:	0.500	Minutes
Truck Load Time:	0.980	Minutes	Adjusted for site altitude:	0.980	Minutes
Truck Maneuver and Dump Time:	0.90	Minutes	Adjusted for site altitude:	0.900	Minutes

Truck Travel (Haul & Return) Time:Road Condition: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	600.00	20.00	5.00	25.00	406	1.480

Haul Time: **1.480** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	600.00	-20.00	5.00	-15.00	1749	0.446

Return Time: **0.446** minutesTotal Truck Cycle Time: **4.306** minutes

Loading Tool unit

Production	<u>483.75</u>	LCY/Hour	Adjusted for job efficiency:	<u>401.51</u>	LCY/Hour
Truck Unit Production	<u>166.27</u>	LCY/Hour	Adjusted for job efficiency:	<u>138.00</u>	LCY/Hour

Optimal No. of Trucks:	<u>3</u>	Truck(s)	Selected Number of Trucks:	<u>2</u>	Truck(s)
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Adjusted hourly truck team production:	<u>276.00</u>	LCY/Hour
Adjusted single truck/loader team production:	<u>276.00</u>	LCY/Hour
Adjusted multiple truck/loader team production:	<u>276.00</u>	LCY/Hour

JOB TIME AND COST

Fleet size:	<u>1</u>	Team(s)	Total job time:	<u>248.57</u>	Hours
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Unit cost:	<u>\$1.179</u>	/LCY	Total job cost:	<u>\$80,873</u>
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SCRAPER TEAM WORKTask description: **Replace Growth Media on Pit Floor**Site: **Red Canyon Quarry**Permit Action: TR-5 UpdatePermit/Job#: M1985043**PROJECT IDENTIFICATION**Task #: 02BState: ColoradoAbbreviation: NoneDate: 7/23/2021County: FremontFilename: M043-02BUser: 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:	\$207.90	NA	NA	NA	NA	NA
Operating cost/hour:	\$158.74	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:	\$30.90	NA	NA	NA	NA	NA
Unit Subtotals:	\$397.54	NA	NA	NA	NA	NA
Number of Units:	2	0	0	0	0	0
Group Subtotals:	Work:	\$795.08	Support:	\$0.00	Maint:	\$0.00

Total work team cost/hour: **\$795.08****MATERIAL QUANTITIES**Initial volume: 121,000

CCY

Swell factor: 1.215Loose volume: **147,015**

LCY

Source of estimated volume: 2001 AM-01 CIRCES WorksheetSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION****Scraper Bowl (volume) Basis:**

Material weight: 3,300 lbs/LCY
 Material description: Decomposed rock - 75% Rock, 25% Earth
 Rated Payload: 55,200 pounds
 Payload Capacity: 16.73 LCY

Struck Volume: 18.00 LCY
 Heaped Volume: 23.00 LCY
 Average Volume: 20.50 LCY
 Adjusted Capacity: **16.73** LCY

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

Site Altitude: 7200 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	600.00	2.00	5.00	7.00	944	0.69

Haul Time: 0.69 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	600.00	-2.00	5.00	3.00	2666	0.43

Return Time: 0.43 minutesTotal Scraper team cycle time: 2.72 minutesAdjusted for job conditions: 306.26 LCY/HourSelected Number of Scrapers: 2 Scraper(s)Adjusted single scraper team (unit) hourly production: 612.51 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 612.51 LCY/HourUnadjusted unit production/hour: 368.98 LCY/Hour

Optimal Number of Scrapers per push dozer: _____

JOB TIME AND COSTFleet size: 1 Team(s)Total job time: 240.02 HoursUnit cost: \$1.298 /LCYTotal job cost: \$190,835

REVEGETATION WORKTask description: Reseed Quarry BenchesSite: Red Canyon QuarryPermit Action: TR-5 UpdatePermit/Job#: M1985043**PROJECT IDENTIFICATION**Task #: 03BState: ColoradoAbbreviation: NoneDate: 7/23/2021County: FremontFilename: M043-03BUser: TC1Agency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Ammonium nitrate, 33-0-0	110.00	pound	\$0.36	\$39.60
Triple superphosphate, 0-46-0	90.00	pound	\$0.46	\$41.40
			Total Fertilizer Materials Cost/Acre	\$81.00

Application

Description	Cost /Acre
Hand spread (MEANS 32 01 90.13 0100)	\$644.69
Total Fertilizer Application Cost/Acre	\$644.69

TILLING

Description	Cost /Acre
	\$
Total Tilling Cost/Acre	\$0.00

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Hachita	0.60	9.79	\$9.59
Arizona Fescue - Redondo	1.00	11.48	\$9.25
Indian Ricegrass - Native	1.60	5.18	\$10.40
Little Bluestem - Native	1.40	8.36	\$18.99
Sideoats Grama - Butte	1.80	5.91	\$16.20
Prairie Clover, White	1.20	10.17	\$47.70
Sideoats Grama - Vaughn	1.80	5.91	\$15.08
Western Wheatgrass - Arriba	3.20	8.08	\$20.80
Vetch, American	1.20	0.54	\$119.91
Needlegrass, Green - Lodorm	2.00	8.31	\$23.55

Prairie Junegrass	0.20	10.63	\$5.20
Winter Fat	1.00	2.55	\$20.50
Yarrow, Western	0.20	12.16	\$8.36
Totals Seed Mix	17.20	99.07	\$325.52

Application

Description	Cost /Acre
Broadcast seeding [DMG]	\$267.22
Total Seed Application Cost/Acre	\$267.22

MULCHING and MISCELLANEOUS

Materials

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

Application

Description	Cost /Acre
	\$
Total Mulch Application Cost/Acre	\$0.00

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
Pine, Ponderosa	236	Tubling, 3 cu. in. container (MEANS)	\$1.20	\$0.00	\$283.20
Totals Nursery Stock Cost / Acre					\$283.20

JOB TIME AND COST

No. of Acres:	<u>45</u>	Cost /Acre:	<u>\$1,601.63</u>
Estimated Failure Rate:	<u>35%</u>	Cost /Acre*:	<u>\$1,601.63</u>
*Selected Replanting Work Items:	<u>FERTILIZING,SEEDING,NURSERY</u>		
Initial Job Cost:	<u>\$72,073.35</u>		
Reseeding Job Cost:	<u>\$25,225.67</u>		
Total Job Cost:	<u>\$97,299</u>		
Job Hours:	300.00		

REVEGETATION WORKTask description: **Reseed Pit Floor**Site: **Red Canyon Quarry**Permit Action: **TR-5 Update**Permit/Job#: **M1985043****PROJECT IDENTIFICATION**Task #: **04B**State: **Colorado**Abbreviation: **None**Date: **7/23/2021**County: **Fremont**Filename: **M043-04B**User: **TC1**Agency or organization name: **DRMS****FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Ammonium nitrate, 33-0-0	110.00	pound	\$0.36	\$39.60
Triple superphosphate, 0-46-0	90.00	pound	\$0.46	\$41.40
			Total Fertilizer Materials Cost/Acre	\$81.00

Application

Description	Cost /Acre
Hand spread (MEANS 32 01 90.13 0100)	\$644.69
Total Fertilizer Application Cost/Acre	\$644.69

TILLING

Description	Cost /Acre
	\$
Total Tilling Cost/Acre	\$0.00

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Hachita	0.30	4.90	\$4.79
Arizona Fescue - Redondo	0.50	5.74	\$4.63
Indian Ricegrass - Native	0.80	2.59	\$5.20
Little Bluestem - Native	0.70	4.18	\$9.50
Sideoats Grama - Butte	0.90	2.95	\$8.10
Prairie Clover, White	0.60	5.08	\$23.85
Sideoats Grama - Vaughn	0.90	2.95	\$7.54
Western Wheatgrass - Arriba	1.60	4.04	\$10.40
Vetch, American	0.60	0.27	\$59.96
Needlegrass, Green - Lodorm	1.00	4.16	\$11.78

Prairie Junegrass	0.10	5.32	\$2.60
Winter Fat	0.50	1.27	\$10.25
Yarrow, Western	0.10	6.08	\$4.18
Totals Seed Mix	8.60	49.53	\$162.76

Application

Description	Cost /Acre
Drill Seeding (DRMS Survey Cost)	\$232.00
Total Seed Application Cost/Acre	\$232.00

MULCHING and MISCELLANEOUS**Materials**

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

Application

Description	Cost /Acre
	\$
Total Mulch Application Cost/Acre	\$0.00

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: 55 Cost /Acre: \$1,120.45
 Estimated Failure Rate: 35% Cost /Acre*: \$1,120.45
 *Selected Replanting Work Items: FERTILIZING,SEEDING

Initial Job Cost: **\$61,624.75**
 Reseeding Job Cost: **\$21,568.66**
 Total Job Cost: **\$83,193**
 Job Hours: **80.00**

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Mob/demob Equipment**Site: **Red Canyon Quarry**Permit Action: **TR-5 Update**Permit/Job#: **M1985043****PROJECT IDENTIFICATION**Task #: **05B**State: **Colorado**Abbreviation: **None**Date: **7/23/2021**County: **Fremont**Filename: **M043-05B**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:**

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$21.28	\$37.94	\$47.67
Operating Cost/Hour:	\$26.55	\$50.48	\$56.21
Operator Cost/Hour:	\$20.54	\$20.54	\$20.54
Helper Cost/Hour:	\$0.00	\$23.53	\$23.53
Total Unit Cost/Hour:	\$68.37	\$132.49	\$147.95

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 D7R DS XR Series II	32.01	\$81.02	\$132.49	1	\$213.51	\$132.49	\$250.00
Cat 623G	41.35	\$207.90	\$132.49	2	\$680.78	\$264.98	\$500.00
CAT 950H high lift	20.13	\$38.59	\$68.37	1	\$106.96	\$68.37	\$250.00
Subtotals:					\$1,001.25	\$465.84	\$1,000.00

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Generic 12-18 cy, 6x4	\$106.86	2	\$213.72	\$213.72
Drill/Broadcast Seeder with Tractor	\$16.28	1	\$16.28	\$16.28
Subtotals:			\$230.00	\$230.00

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	CAÑON CITY	
Total one-way travel distance:	30.00	miles
Average Travel Speed:	40.00	mph

Total Non-Roadable Mob/Demob Cost *	\$16,215.64
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 ** two round trips with haul rig:

Total Roadable Mob/Demob Cost **	\$345.00
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 ** one round trip, no haul rig:

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.75	0.75
Return Time (Hours):	0.75	0.75
Loading Time (Hours):	3.00	NA
Unloading Time (Hours):	3.00	NA
Subtotals:	7.50	1.50

JOB TIME AND COST

Total job time:	15.00	Hours
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Total job cost:	\$16,561
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BULLDOZER WORKTask description: **Smooth Grade Growth Medium on Benches**Site: **Red Canyon Quarry**Permit Action: **TR-5 Update**Permit/Job#: **M1985043****PROJECT IDENTIFICATION**Task #: **06B**State: **Colorado**Abbreviation: **None**Date: **7/23/2021**County: **Fremont**Filename: **M043-06B**User: **TC1**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D7R DS XR Series II**Horsepower: **240**Blade Type: **Semi-Universal**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$81.02	NA
Operating Cost/Hour:	\$79.33	100
Ripper own.		
Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: **\$201.65**Total Fleet Cost/Hour: **\$201.65****MATERIAL QUANTITIES**Initial Volume: **28,000**Swell factor: **1.000**Loose volume: **28,000 LCY**Source of estimated volume: **2001 AM-01 CIRCES Worksheet**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **100 feet**Unadjusted hourly production: **714.3 LCY/hr**Materials consistency description: **Loose stockpile 1.2**Average push gradient: **0 %**Average site altitude: **7,200 feet**Material weight: **1,600 lbs/LCY**Weight description: **Top Soil**

Job 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:	0.700	(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: 0.9023

Adjusted unit
production: 644.51 LCY/hr

Adjusted fleet
production: **644.51** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.313/LCY

Total job time: **43.44** Hours

Total job cost: **\$8,761**