

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



December 20, 2013

Ms. Kathy Stone
Stone Sand & Gravel, LLC
P.O. Box 1568
Cortez, CO 81321

Re: Wallace Pit, Permit No. M-1983-028, Conversion Approval, Revision No. CN-1

Dear Ms. Stone:

On December 20, 2013 the Division of Reclamation, Mining and Safety approved the Conversion application submitted to the Division on September 18, 2013, addressing the following:

Convert a 110c Permit to a 112c Permit, increasing permit acreage from 9.9 to 250 acres.

The terms of the Conversion No. 1 approved by the Division are hereby incorporated into Permit No. M-1983-028. All other conditions and requirements of Permit No. M-1983-028 remain in full force and effect.

The estimated liability amount of \$45,081.66 exceeds the \$21,514.00 performance bond currently held. If you have not already done so, please submit additional bond in the amount of \$23,567.66. The revision will not be final until the bond is approved by the Division.

If you have any questions, please contact me at (970) 259-5861.

Sincerely,

A handwritten signature in blue ink, appearing to read "Kate A. Pickford".

Kate A. Pickford
Environmental Protection Specialist

Enclosure

COST SUMMARY WORK

Task description: Conversion

Site: Wallace Pit

Permit Action: Conversion

Permit/Job#: M1983028

PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 12/19/2013

County: Montezuma

Filename: M028-000

User: KAP

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	reduce highwalls in old areas	DOZER	1	31.31	\$8,073.34
002	reduce highwalls in new areas	DOZER	1	16.48	\$4,249.13
003	Spread 4" topsoil in old areas	DOZER	1	14.30	\$3,686.81
004	Spread 6" topsoil in new areas	DOZER	1	23.99	\$6,187.11
005	Rip compacted areas	RIPPER	1	18.97	\$5,044.00
006	Revegetate	REVEGE	1	16.00	\$8,656.70
007	Mobilize/Demobilize	MOBILIZE	1	2.96	\$944.65
<u>SUBTOTALS:</u>				124.01	\$36,841.74

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 0.00%

Total = \$0.00

Performance bond: 0.00%

Total = \$0.00

Job superintendent: 62.01 hrs

Total = \$4,055.75

Profit: 10.00%

Total = \$3,684.17

TOTAL O & P = \$7,739.92

CONTRACT AMOUNT (direct + O & P) = \$44,581.66

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: 0.00%

\$0.00

CONTINGENCY: 0.00

Total = \$0.00

TOTAL INDIRECT COST = \$8,239.92

TOTAL BOND AMOUNT (direct + indirect) = \$45,081.66

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Mobilize/Demobilize**Site: **Wallace Pit**Permit Action: **Conversion**Permit/Job#: **M1983028****PROJECT IDENTIFICATION**Task #: **007**State: **Colorado**Abbreviation: **None**Date: **12/19/2013**County: **Montezuma**Filename: **M028-007**User: **KAP**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 D9T - 9SU	66.13	\$78.33	\$125.45	1	\$203.78	\$125.45	\$0.00
Drill/Broadcast Seeder with Tractor	25.00	\$39.59	\$88.67	1	\$128.26	\$88.67	\$0.00

Subtotals: **\$332.04** **\$214.12** **\$0.00****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.	\$38.36	1	\$38.36	\$38.36

Subtotals: **\$38.36** **\$38.36**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	CORTEZ	
Total one-way travel distance:	12.00	miles
Average Travel Speed:	50.00	mph

Total Non-Roadable Mob/Demob Cost *	\$926.24
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	\$18.41
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.24	0.24
Return Time (Hours):	0.24	0.24
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	1.48	0.48

JOB TIME AND COST

Total job time:	2.96	Hours
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Total job cost:	\$944.65
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REVEGETATION WORKTask description: RevegetateSite: Wallace PitPermit Action: ConversionPermit/Job#: M1983028PROJECT IDENTIFICATIONTask #: 006State: ColoradoAbbreviation: NoneDate: 12/19/2013County: MontezumaFilename: M028-006User: KAPAgency or organization name: DRMSFERTILIZING**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
10-34-0, 18-46-0, 5-10-5	100.00	pound	\$0.33	\$32.70
			Total Fertilizer Materials Cost/Acre	\$32.70

Application

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	\$52.71
Total Fertilizer Application Cost/Acre	\$52.71

TILLING

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

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Arizona Fescue - Redondo	2.60	29.84	\$28.68
Mountain Brome - Bromar	9.60	15.43	\$32.64
Slender Wheatgrass - Pryor	5.60	20.44	\$17.30
Western Wheatgrass - Arriba	8.00	20.20	\$29.44
Totals Seed Mix	25.80	85.91	\$108.06

Application

Description	Cost /Acre
Drill seeding (DRMS Cost Data)	\$88.20

Total Seed Application Cost/Acre	\$88.20
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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: 15.2 Cost /Acre: \$379.68
 Estimated Failure Rate: 50% Cost /Acre*: \$379.68
 *Selected Replanting Work Items: FERTILIZING,TILLING,SEEDING

Initial Job Cost: \$5,771.14
 Reseeding Job Cost: \$2,885.57
 Total Job Cost: \$8,656.70
 Job Hours: 16.00

BULLDOZER RIPPING WORK

Task description: Rip compacted areas

Site: Wallace Pit Permit Action: Conversion Permit/Job#: M1983028

PROJECT IDENTIFICATION

Task #: 005 State: Colorado Abbreviation: None
Date: 12/19/2013 County: Montezuma Filename: M028-005
User: KAP

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>\$78.33</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$142.13</u>	<u>100</u>
Ripper Operating Cost/Hour:	<u>\$7.96</u>	<u>100</u>
Operator Cost/Hour:	<u>\$37.41</u>	<u>NA</u>
Total Unit Cost/Hour:	<u>\$265.84</u>	
Total Fleet Cost/Hour:	<u>\$265.84</u>	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA
Area: 12.00 acres Rip Depth (ft): 1.50 Volume: 29,040 BCY or CCY

Source of estimated quantity: Reclamation Plan

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>100.00</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>0.762</u>	<u>acres/hour</u>

Job Condition Correction Factors

Unadjusted Hourly Unit Production:	<u>0.762</u>	<u>Acres/hr</u>
Site Altitude:	<u>7,500</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>0.63</u>	<u>Acres/hr</u>
Adjusted Hourly Fleet Production:	<u>0.63</u>	<u>Acres/hr</u>

JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 18.97 Hours

Unit cost: \$420.301 Per acre Total job cost: \$5,044.00

BULLDOZER WORKTask description: Spread 6" topsoil in new areasSite: Wallace PitPermit Action: ConversionPermit/Job#: M1983028PROJECT IDENTIFICATIONTask #: 004State: ColoradoAbbreviation: NoneDate: 12/19/2013County: MontezumaFilename: M028-004User: KAPAgency 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:	\$78.33	NA
Operating Cost/Hour:	\$142.13	100
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$37.41	NA

Total unit Cost/Hour: \$257.87Total Fleet Cost/Hour: \$257.87MATERIAL QUANTITIESInitial Volume: 10,648Swell factor: 1.125Loose volume: 11,979 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat HandbookHOURLY PRODUCTIONAverage push distance: 100 feetUnadjusted hourly production: 1,243.2 LCY/hrMaterials consistency description: Compacted fill or embankment 0.9Average push gradient: 5 %Average site altitude: 7,500 feetMaterial weight: 2,550 lbs/LCYWeight description: Earth - Dry packedJob 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:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4016

Adjusted unit production: 499.27 LCY/hr

Adjusted fleet production: 499.27 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.516/LCY

Total job time: 23.99 Hours

Total job cost: \$6,187.11

BULLDOZER WORKTask description: Spread 4" topsoil in old areasSite: Wallace PitPermit Action: ConversionPermit/Job#: M1983028PROJECT IDENTIFICATIONTask #: 003
Date: 12/19/2013
User: KAPState: Colorado
County: MontezumaAbbreviation: None
Filename: M028-003Agency or organization name: DRMSHOURLY EQUIPMENT COSTBasic 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:	\$78.33	NA
Operating Cost/Hour:	\$142.13	100
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$37.41	NA

Total unit Cost/Hour: \$257.87
Total Fleet Cost/Hour: \$257.87MATERIAL QUANTITIESInitial Volume: 6,345
Swell factor: 1.125
Loose volume: 7,138 LCYSource of estimated volume: Division of Reclamation, Mining & Safety
Source of estimated swell factor: Cat HandbookHOURLY PRODUCTIONAverage push distance: 100 feet
Unadjusted hourly production: 1,243.2 LCY/hrMaterials consistency description: Compacted fill or embankment 0.9Average push gradient: 5 %
Average site altitude: 7,500 feetMaterial weight: 2,550 lbs/LCYWeight description: Earth - Dry packedJob 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:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4016

Adjusted unit production: 499.27 LCY/hr

Adjusted fleet production: **499.27** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.516/LCY

Total job time: **14.30** Hours

Total job cost: **\$3,686.81**

BULLDOZER WORKTask description: Reduce highwalls in new areasSite: Wallace PitPermit Action: ConversionPermit/Job#: M1983028PROJECT IDENTIFICATIONTask #: 002State: ColoradoAbbreviation: NoneDate: 12/19/2013County: MontezumaFilename: M028-002User: KAPAgency 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:

		Utilization %
Ownership Cost/Hour:	\$78.33	NA
Operating Cost/Hour:	\$142.13	100
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$37.41	NA

Total unit Cost/Hour: \$257.87Total Fleet Cost/Hour: \$257.87MATERIAL QUANTITIESInitial Volume: 10,000Swell factor: 1.250Loose volume: 12,500 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat HandbookHOURLY PRODUCTIONAverage push distance: 100 feetUnadjusted hourly production: 1,243.2 LCY/hrMaterials consistency description: Compacted fill or embankment 0.9Average push gradient: -20 %Average site altitude: 7,500 feetMaterial weight: 2,650 lbs/LCYWeight description: Decomposed rock - 25% Rock, 75% EarthJob Condition Correction Factor

		Source
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:	1.426	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.6102

Adjusted unit production: 758.60 LCY/hr

Adjusted fleet production: 758.6 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.340/LCY

Total job time: 16.48 Hours
Total job cost: \$4,249.13

BULLDOZER WORKTask description: Reduce highwalls in old areasSite: Wallace PitPermit Action: ConversionPermit/Job#: M1983028PROJECT IDENTIFICATIONTask #: 001State: ColoradoAbbreviation: NoneDate: 12/19/2013County: MontezumaFilename: M028-001User: KAPAgency 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:	\$78.33	NA
Operating Cost/Hour:	\$142.13	100
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$37.41	NA

Total unit Cost/Hour: \$257.87Total Fleet Cost/Hour: \$257.87MATERIAL QUANTITIESInitial Volume: 19,000Swell factor: 1.250Loose volume: 23,750 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat HandbookHOURLY PRODUCTIONAverage push distance: 100 feetUnadjusted hourly production: 1,243.2 LCY/hrMaterials consistency description: Compacted fill or embankment 0.9Average push gradient: -20 %Average site altitude: 7,500 feetMaterial weight: 2,650 lbs/LCYWeight description: Decomposed rock - 25% Rock, 75% EarthJob 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:	1.426	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.6102

Adjusted unit production: 758.60 LCY/hr

Adjusted fleet production: 758.6 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.340/LCY

Total job time: 31.31 Hours
Total job cost: \$8,073.34