



COLORADO

Division of Reclamation,
Mining and Safety

Department of Natural Resources

1313 Sherman Street, Room 215
Denver, CO 80203

April 28, 2015

Mr. Jason Burkey
Oldcastle SW Group, Inc. dba United
Companies of Mesa County
2273 River Road
Grand Junction, CO 81502

Re: Cerise Mine, Permit No. M-2010-058, Technical Revision Approval, Revision No. TR-1

Dear Mr. Burkey:

On April 28, 2015 the Division of Reclamation, Mining and Safety approved the Technical Revision application submitted to the Division on March 19, 2015, addressing the following:

To reflect reduced ongoing disturbance and changes to facility layouts.

The terms of the Technical Revision No. 1 approved by the Division are hereby incorporated into Permit No. M-2010-058. All other conditions and requirements of Permit No. M-2010-058 remain in full force and effect.

The estimated liability amount of \$645,511.90 is less than the \$1,107,856.00 performance bond currently held. If you have not already done so, please revise the corporate surety with Fidelity and Deposit Company of Maryland.

If you have any questions, please contact me.

Sincerely,

Stephanie J. Mitchell
Environmental Protection Specialist

CC: Russ Means, DRMS
Barbara Coria, DRMS
Ben Langenfeld, Greg Lewicki and Associates, PLLC

Enclosure: TR01 Bond Calculation



COST SUMMARY WORK

Task description: _____

Site: Cerise Mine Permit Action: Technical Revision 01 Permit/Job#: M2010058

PROJECT IDENTIFICATION

Task #: 00 State: Colorado Abbreviation: None
Date: 4/28/2015 County: Garfield Filename: M058-00
User: SJM

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
01	Placement of reclamation fill	DOZER	2	448.71	\$227,707.00
02	Topsoil application	DOZER	2	29.65	\$15,048.00
03	Mobilize reclamation crew/equipment	MOBILIZE	1	2.88	\$4,788.00
04	Native seed mix	REVEGE	1	16.00	\$29,089.00
05	Placement of reclamation fill	SCRAPER1	1	489.48	\$287,562.00
06	Topsoil application	SCRAPER1	1	38.53	\$22,635.00
<u>SUBTOTALS:</u>				1025.25	\$586,829

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	0.00%	Total =	\$0.00
Performance bond:	0.00%	Total =	\$0.00
Job superintendent:	0.00 hrs	Total =	\$0.00
Profit:	10.00%	Total =	\$58,682.90
		TOTAL O & P =	\$58,682.90
		CONTRACT AMOUNT (direct + O & P) =	\$645,511.90

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:	0.00%		\$0.00

CONTINGENCY: 0.00 Total = \$0.00

TOTAL INDIRECT COST = \$58,682.90

TOTAL BOND AMOUNT (direct + indirect) = \$645,511.90

COST SUMMARY WORK

Task description: Total costs direct

Site: Cerise Mine

Permit Action: Technical
Revision 01

Permit/Job#: M2010058

PROJECT IDENTIFICATION

Task #: 00

State: Colorado

Abbreviation: None

Date: 4/28/2015

County: Garfield

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06	Topsoil application	SCRAPER1	1	38.53	\$22,635.00
<u>SUBTOTALS:</u>				1025.25	\$586,829

BULLDOZER WORKTask description: Placement of reclamation fillSite: Cerise MinePermit Action: Technical Revision 01Permit/Job#: M2010058**PROJECT IDENTIFICATION**Task #: 01State: ColoradoAbbreviation: NoneDate: 4/28/2015County: GarfieldFilename: M058-01User: SJMAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D9T - 9UHorsepower: 405Blade Type: UniversalAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$72.57	NA
Operating Cost/Hour:	\$143.16	100
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$38.01	NA

Total unit Cost/Hour: \$253.73Total Fleet Cost/Hour: \$507.47**MATERIAL QUANTITIES**Initial Volume: 375,096Swell factor: 1.000Loose volume: 375,096 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 135 feetUnadjusted hourly production: 1,044.4 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: 10 %Average site altitude: 6,300 feetMaterial weight: 2,700 lbs/LCYWeight description: Earth - Wet excavated**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:	0.786	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.852	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4002

Adjusted unit production: 417.97 LCY/hr

Adjusted fleet production: 835.94 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)

Unit cost: \$0.607/LCY

Total job time: 448.71 Hours

Total job cost: \$227,707

BULLDOZER WORKTask description: Topsoil applicationSite: Cerise MinePermit Action: Technical Revision 01Permit/Job#: M2010058**PROJECT IDENTIFICATION**Task #: 02State: ColoradoAbbreviation: NoneDate: 4/28/2015County: GarfieldFilename: M058-02User: SJMAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D9T - 9UHorsepower: 405Blade Type: UniversalAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$72.57	NA
Operating Cost/Hour:	\$143.16	100
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$38.01	NA

Total unit Cost/Hour: \$253.73Total Fleet Cost/Hour: \$507.47**MATERIAL QUANTITIES**Initial Volume: 29,525Swell factor: 1.000Loose volume: 29,525 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 200 feetUnadjusted hourly production: 737.1 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: 10 %Average site altitude: 6,300 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:	0.786	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.6754

Adjusted unit production: 497.84 LCY/hr

Adjusted fleet production: 995.68 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)

Unit cost: \$0.510/LCY

Total job time: 29.65 Hours

Total job cost: \$15,048

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: Mobilize reclamation crew/equipmentSite: Cerise MinePermit Action: Technical Revision 01Permit/Job#: M2010058**PROJECT IDENTIFICATION**Task #: 03
Date: 4/28/2015
User: SJMState: Colorado
County: GarfieldAbbreviation: None
Filename: M058-03Agency or organization name: DRMS**EQUIPMENT TRANSPORT RIG COST**Shift basis: 1 per day
Cost 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:**

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 627G w/push-pull	42.04	\$57.56	\$117.55	2	\$350.22	\$235.10	\$500.00
Cat D9R - 9U (2005)	61.26	\$49.19	\$125.45	2	\$349.27	\$250.90	\$500.00
Drill/Broadcast Seeder with Tractor	25.00	\$39.59	\$88.67	1	\$128.26	\$88.67	\$250.00

Subtotals: **\$827.75** **\$574.67** **\$1,250.00****ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 1 T. Crew	\$20.91	1	\$20.91	\$20.91

Subtotals: **\$20.91** **\$20.91**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	GLENWOOD SPRINGS	
Total one-way travel distance:	10.00	miles
Average Travel Speed:	45.00	mph

Total Non-Roadable Mob/Demob Cost *	\$4,778.80
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	\$9.29
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.22	0.22
Return Time (Hours):	0.22	0.22
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	1.44	0.44

JOB TIME AND COST

Total job time: 2.89 Hours

Total job cost: \$4,788

REVEGETATION WORKTask description: Native seed mixSite: Cerise MinePermit Action: Technical Revision 01Permit/Job#: M2010058PROJECT IDENTIFICATIONTask #: 04State: ColoradoAbbreviation: NoneDate: 4/28/2015County: GarfieldFilename: M058-04User: SJMAgency or organization name: DRMSFERTILIZING**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
0-20-20, 4-8-12, 10-10-10	40.00	pound	\$0.21	\$8.44
			Total Fertilizer Materials Cost/Acre	\$8.44

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
Bluebunch Wheatgrass - Secar	3.00	9.64	\$20.52
Blue Grama - Native	4.50	73.45	\$46.58
Indian Ricegrass - Native	3.00	9.71	\$20.22
Slender Wheatgrass - Native	7.50	27.38	\$16.88
Western Wheatgrass - Native	7.50	18.94	\$22.80
Needlegrass, Green - Lodorm	4.50	18.70	\$24.26
Totals Seed Mix	30.00	157.82	\$151.25

Application

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

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost / Acre
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$265.00	\$530.00
Total Mulch Materials Cost/Acre				\$530.00

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$65.89
Total Mulch Application Cost/Acre	\$65.89

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:	23.4	Cost /Acre:	\$994.50
Estimated Failure Rate:	25%	Cost /Acre*:	\$994.50
*Selected Replanting Work Items:	FERTILIZING,TILLING,SEEDING,MU LCHING		
Initial Job Cost:	\$23,271.30		
Reseeding Job Cost:	\$5,817.83		
Total Job Cost:	\$29,089		
Job Hours:	16.00		

SCRAPER TEAM WORKTask description: **Placement of reclamation fill**Site: **Cerise Mine**Permit Action: **Technical Revision 01**Permit/Job#: **M2010058****PROJECT IDENTIFICATION**Task #: **05**State: **Colorado**Abbreviation: **None**Date: **4/28/2015**County: **Garfield**Filename: **M058-05**User: **SJM**Agency or organization name: **DRMS****HOURLY EQUIPMENT**COSTShift basis: **1 per day**

Equipment Description	
-Scraper:	Cat 627G w/push-pull
-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:	\$72.62	NA	NA	NA	NA	NA
Operating cost/hour:	\$187.56	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:	\$293.74	NA	NA	NA	NA	NA
Number of Units:	2	0	0	0	0	0
Group Subtotals:	Work:	\$587.48	Support:	\$0.00	Maint:	\$0.00

Total work team cost/hour: **\$587.48****MATERIAL QUANTITIES**Initial volume: **138,904**

CCY

Swell factor: **1.000**Loose volume: **138,904**

LCY

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

Scraper Bowl (volume) Basis:

Material weight: **2,700 lbs/LCY**
 Material description: **Earth - Wet excavated**
 Rated Payload: **52,800 pounds**
 Payload Capacity: **19.56 LCY**

Struck Volume: **15.70** LCY
 Heaped Volume: **22.00** LCY
 Average Volume: **18.85** LCY
 Adjusted Capacity: **18.85** LCY

Cycle Time:

Scrapper Loading Time: 0.90 Minutes
 Maneuver and Spread Time: 0.60 Minutes

Job Condition Correction:

Site Altitude: 6300 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: Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	-4.00	3.00	-1.00	2938	0.41

Haul Time: 0.41 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	4.00	3.00	7.00	2555	0.54

Return Time: 0.54 minutes

Total Scraper team cycle time: 2.45 minutes
 Adjusted for job conditions: 766.31 LCY/Hour
 Selected Number of Scrapers: 2 Scraper(s)
 Adjusted single scraper team (unit) hourly production: 766.31 LCY/Hour
 Adjusted multiple scraper team (fleet) hourly production: 766.31 LCY/Hour

Unadjusted unit production/hour: 923.27 LCY/Hour
 Optimal Number of Scrapers per push dozer: _____

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: 181.26 Hours
 Unit cost: \$0.767 /LCY Total job cost: \$106,489

SCRAPER TEAM WORKTask description: **Placement of reclamation fill**Site: **Cerise Mine**Permit Action: **Technical Revision 01**Permit/Job#: **M2010058****PROJECT IDENTIFICATION**Task #: **05**State: **Colorado**Abbreviation: **None**Date: **4/28/2015**County: **Garfield**Filename: **M058-05**User: **SJM**Agency or organization name: **DRMS****HOURLY EQUIPMENT**COSTShift basis: **1 per day**

	Equipment Description
-Scraper:	Cat 627G w/push-pull
-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:	\$72.62	NA	NA	NA	NA	NA
Operating cost/hour:	\$187.56	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:	\$293.74	NA	NA	NA	NA	NA
Number of Units:	2	0	0	0	0	0
Group Subtotals:	Work: \$587.48		Support:	\$0.00	Maint:	\$0.00

Total work team cost/hour: **\$587.48****MATERIAL QUANTITIES**Initial volume: **375,096**

CCY

Swell factor: **1.000**Loose volume: **375,096**

LCY

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

Material weight: **2,700 lbs/LCY**
 Material description: **Earth - Wet excavated**
 Rated Payload: **52,800 pounds**
 Payload Capacity: **19.56 LCY**

Struck Volume: **15.70** LCY
 Heaped Volume: **22.00** LCY
 Average Volume: **18.85** LCY
 Adjusted Capacity: **18.85** LCY

Cycle Time:

Scrapper Loading Time: 0.90 Minutes
 Maneuver and Spread Time: 0.60 Minutes

Job Condition Correction:

Site Altitude: 6300 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: Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	-4.00	3.00	-1.00	2938	0.41

Haul Time: 0.41 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	4.00	3.00	7.00	2555	0.54

Return Time: 0.54 minutes

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 Selected Number of Scrapers: 2 Scraper(s)
 Adjusted single scraper team (unit) hourly production: 766.31 LCY/Hour
 Adjusted multiple scraper team (fleet) hourly production: 766.31 LCY/Hour

Unadjusted unit production/hour: 923.27 LCY/Hour
 Optimal Number of Scrapers per push dozer: _____

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: 489.48 Hours
 Unit cost: \$0.767 /LCY Total job cost: \$287,562