



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

October 20, 2021

Mr. Jim MacDonald  
Oldcastle SW Group, Inc.  
14802 W. 44th Ave.  
Golden, CO 80403

Mr. Jim MacDonald  
APC Southern Construction Co., LLC.  
14802 W. 44th Ave.  
Golden, CO 80403

**RE: Velarde Pit, Permit No. M2002-118, Financial Warranty Increase, Revision No. SI-3**

Dear Mr. MacDonald,

On October 19, 2021 the Division of Reclamation, Mining and Safety (DRMS) increased the current Financial Warranty for the Velarde Pit (M2002-118) to \$130,100.00, in accordance with Rule 4.2.1 of the Rules and Regulations. This is an increase of \$8,500.00.

The Division ordered amendment of the current Financial Warranty, or submittal of a new Financial Warranty reflecting the increase, is due within 60 days from the date of this letter, **December 19, 2021**. If the Financial Warranty is not posted within the 60 days the Succession of Operators Application (SO-2) will be denied and APC Southern Construction Company, LLC must post the increased amount or the Division will begin enforcement actions.

Please make arrangements with Sara Stevenson-Benn at the Division's Denver office for submittal of the financial warranty. Any other questions regarding completion, execution and/or submittal of financial warranty forms should also be directed to Sara. Her phone number is 303-866-3567 or by email at [sara.stevenson-benn@state.co.us](mailto:sara.stevenson-benn@state.co.us).

If you need additional information or have any questions, please contact me at Division of Reclamation, Mining and Safety, 1313 Sherman Street, Room 215, Denver, CO 80203, by telephone at **303-866-3567 x8114**, or by email at [patrick.lennberg@state.co.us](mailto:patrick.lennberg@state.co.us).

Sincerely,

Patrick Lennberg  
Environmental Protection Specialist

Enclosures: Financial Warranty Cost Estimate Summary



cc: Jared Ebert, DRMS  
Sara Stevenson-Benn, DRMS

ec: Jim MacDonald, APC Southern, [jmacdonald@apcsouthern.com](mailto:jmacdonald@apcsouthern.com)  
Clint Allen, Oldcastle SW Group Inc., [clint.allen@na.crh.com](mailto:clint.allen@na.crh.com)

**Enclosure**

## COST SUMMARY WORK

Task description: Cost Summary

Site: Velarde Pit

Permit Action: SO2

Permit/Job#: M2002118

### PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 10/19/2021

County: Huerfano

Filename: M118-000

User: JPL

Agency or organization name: DRMS

### TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Grade Pit Slopes to 3H:1V	DOZER	1	3.84	\$816
002	Replace overburden 1ft on 20 acres	SCRAPER1	1	36.19	\$28,311
003	Topsoil 30 acres with 0.5 ft	SCRAPER1	1	24.13	\$18,874
004	Rip 5 acres	RIPPER	1	7.98	\$1,731
005	Revegetation of 30 acres	REVEGE	1	30.00	\$44,239
006	Mob/Demob	MOBILIZE	1	3.20	\$5,087
<b><u>SUBTOTALS:</u></b>				<b>105.34</b>	<b>\$99,058</b>

### INDIRECT COSTS

#### OVERHEAD AND PROFIT:

Liability insurance: 2.02

Total = \$2,001

Performance bond: 1.05

Total = \$1,040

Job superintendent: 37.64

Total = \$2,711

Profit: 10.00

Total = \$9,906

TOTAL O & P = \$15,658

CONTRACT AMOUNT (direct + O & P) = \$114,716

#### LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): \$500

Total = \$500

Engineering work and/or contract/bid preparation: 8.00

Total = \$9,177

Reclamation management and/or administration: 5.00

\$5,736

CONTINGENCY: 0.00

Total = \$0

TOTAL INDIRECT COST = \$31,071

**TOTAL BOND AMOUNT (direct + indirect) = \$130,129**

**BULLDOZER WORK**Task description: **Grade Pit Slopes to 3H:1V**Site: **Velarde Pit**Permit Action: **SO2**Permit/Job#: **M2002118****PROJECT IDENTIFICATION**Task #: **001**State: **Colorado**Abbreviation: **None**Date: **10/19/2021**County: **Huerfano**Filename: **001**User: **JPL**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D7R DS XR Series II**Horsepower: **240**Blade Type: **Semi-Universal**Attachment: **3-shank ripper**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:	\$9.32	NA
Ripper op. Cost/Hour:	\$1.48	25
Operator Cost/Hour:	\$41.30	NA

Total unit Cost/Hour: **\$212.45**Total Fleet Cost/Hour: **\$212.45****MATERIAL QUANTITIES**Initial Volume: **2,200**Swell factor: **1.165**Loose volume: **2,563 LCY**Source of estimated volume: **DRMS est 20' depth ~750' highwall length 2H:1V**Source of estimated swell factor: **Cat Handbook**

factor:

**HOURLY PRODUCTION**Average push distance: **80 feet**Unadjusted hourly production: **826.1 LCY/hr**Materials consistency description: **Compacted fill or embankment 0.9**Average push gradient: **-25 %**Average site altitude: **6,100 feet**Material weight: **2,900 lbs/LCY**Weight description: **Decomposed rock - 50% Rock, 50% Earth****Job Condition Correction Factor**Operator Skill: **0.750****Source****(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:	1.000	(DOZ-OC)
Push gradient:	1.516	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.8082

Adjusted unit  
production: 667.65 LCY/hr

Adjusted fleet  
production: **667.65** LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)

Unit cost: \$0.318/LCY

Total job time: **3.84** Hours

Total job cost: **\$816**

**SCRAPER TEAM WORK**Task description: Replace overburden 1ft on 20 acresSite: Velarde PitPermit Action: SO2Permit/Job#: M2002118**PROJECT IDENTIFICATION**Task #: 002State: ColoradoAbbreviation: NoneDate: 10/19/2021County: HuerfanoFilename: 002User: JPLAgency or organization name: DRMS**HOURLY EQUIPMENT**COSTShift basis: 1 per day

Equipment Description	
-Scraper:	Cat 631G
-Dozer:	Cat D7R DS XR Series II
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	25	NA	NA	NA	NA
Ownership cost/hour:	\$147.77	\$81.02	NA	NA	NA	NA
Operating cost/hour:	\$141.36	\$19.83	NA	NA	NA	NA
%Utilization-ripper:	NA	NA	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:	\$30.90	\$41.30	NA	NA	NA	NA
Unit Subtotals:	\$320.03	\$142.15	NA	NA	NA	NA
Number of Units:	2	1	0	0	0	0
Group Subtotals:	Work:	\$782.21	Support:	\$0.00	Maint:	\$0.00

Total work team cost/hour: **\$782.21****MATERIAL QUANTITIES**Initial volume: 32,266

CCY

Swell factor: 1.125Loose volume: **36,299**

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>2,650 lbs/LCY</u>	Struck Volume:	<u>24.00</u>	LCY
Material description:	<u>Decomposed rock - 25% Rock, 75% Earth</u>	Heaped Volume:	<u>34.00</u>	LCY
Rated Payload:	<u>81,600 pounds</u>	Average Volume:	<u>29.00</u>	LCY
Payload Capacity:	<u>30.79 LCY</u>	Adjusted Capacity:	<b><u>29.00</u></b>	LCY

Cycle Time:Scraper Loading Time: 0.80 MinutesManeuver and Spread Time: 0.70 MinutesJob Condition Correction:

Site Altitude: 6100 feet

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.830	0.830	

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	800.00	2.00	5.00	7.00	962	0.88

Haul Time: 0.88 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	800.00	-2.00	5.00	3.00	2890	0.50

Return Time: 0.50 minutesTotal Scraper team cycle time: 2.88 minutesAdjusted for job conditions: 501.46 LCY/HourSelected Number of Scrapers: 2 Scraper(s)Adjusted single scraper team (unit) hourly production: 1,002.92 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 1,002.92 LCY/HourUnadjusted unit production/hour: 604.17 LCY/Hour

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

**JOB TIME AND COST**Fleet size: 1 Team(s)Total job time: 36.19 HoursUnit cost: \$0.780 /LCYTotal job cost: \$28,311



**SCRAPER TEAM WORK**Task description: Topsoil 30 acres with 0.5 ftSite: Velarde PitPermit Action: SO2Permit/Job#: M2002118**PROJECT IDENTIFICATION**Task #: 003State: ColoradoAbbreviation: NoneDate: 10/19/2021County: HuerfanoFilename: 003User: JPLAgency or organization name: DRMS**HOURLY EQUIPMENT**COSTShift basis: 1 per day

Equipment Description	
-Scraper:	Cat 631G
-Dozer:	Cat D7R DS XR Series II
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	25	NA	NA	NA	NA
Ownership cost/hour:	\$147.77	\$81.02	NA	NA	NA	NA
Operating cost/hour:	\$141.36	\$19.83	NA	NA	NA	NA
%Utilization-ripper:	NA	NA	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:	\$30.90	\$41.30	NA	NA	NA	NA
Unit Subtotals:	\$320.03	\$142.15	NA	NA	NA	NA
Number of Units:	2	1	0	0	0	0
Group Subtotals:	Work:	\$782.21	Support:	\$0.00	Maint:	\$0.00

Total work team cost/hour: **\$782.21****MATERIAL QUANTITIES**Initial volume: 21,511

CCY

Swell factor: 1.125Loose volume: **24,200**

LCY

Source of estimated volume: Volume to cover 30acres with 0.5'Source of estimated swell factor: Cat Handbook**HOURLY PRODUCTION****Scraper Bowl (volume) Basis:**

Material weight:	<u>2,650 lbs/LCY</u>	Struck Volume:	<u>24.00</u>	LCY
Material description:	<u>Decomposed rock - 25% Rock, 75% Earth</u>	Heaped Volume:	<u>34.00</u>	LCY
Rated Payload:	<u>81,600 pounds</u>	Average Volume:	<u>29.00</u>	LCY
Payload Capacity:	<u>30.79 LCY</u>	Adjusted Capacity:	<b><u>29.00</u></b>	LCY

Cycle Time:Scraper Loading Time: 0.80 MinutesManeuver and Spread Time: 0.70 MinutesJob Condition Correction:

Site Altitude: 6100 feet

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.830	0.830	

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	800.00	2.00	5.00	7.00	962	0.88

Haul Time: 0.88 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	800.00	-2.00	5.00	3.00	2890	0.50

Return Time: 0.50 minutesTotal Scraper team cycle time: 2.88 minutesAdjusted for job conditions: 501.46 LCY/HourSelected Number of Scrapers: 2 Scraper(s)Adjusted single scraper team (unit) hourly production: 1,002.92 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 1,002.92 LCY/HourUnadjusted unit production/hour: 604.17 LCY/Hour

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

**JOB TIME AND COST**Fleet size: 1 Team(s)Total job time: 24.13 HoursUnit cost: \$0.780 /LCYTotal job cost: \$18,874

## BULLDOZER RIPPING WORK

Task description: Rip 5 acres

Site: Velarde Pit

Permit Action: SO2

Permit/Job#: M2002118

### PROJECT IDENTIFICATION

Task #: 004

State: Colorado

Abbreviation: None

Date: 10/19/2021

County: Huerfano

Filename: 004

User: JPL

Agency or organization name: DRMS

### HOURLY EQUIPMENT COST

Basic Machine: Cat D7R DS XR Series II

Horsepower: 240

Ripper Attachment: 3-Shank Ripper

Shift Basis: 1 per day

Data Source: (CRG)

#### Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$81.02	NA
Operating Cost/Hour:	\$79.33	100
Ripper Ownership Cost/Hour:	\$9.32	NA
Ripper Operating Cost/Hour:	\$5.93	100
Operator Cost/Hour:	\$41.30	NA
Total Unit Cost/Hour:	\$216.90	
Total Fleet Cost/Hour:	<b>\$216.90</b>	

### MATERIAL QUANTITIES

Selected estimating method: Area

#### Alternate Methods:

Seismic: NA

Bank Volume: NA

BCY NA

Area: 5.00 acres

Rip Depth (ft): 1.50

Volume: 12,100

BCY or CCY

Source of estimated quantity: Exhibit L

### HOURLY PRODUCTION

#### Seismic:

Seismic Velocity: NA feet/second

#### Area:

Average Ripping Depth:	<u>2.45</u>	feet/pass
Average Ripping Width:	<u>6.50</u>	feet/pass
Average Ripping Length:	<u>500.00</u>	feet/pass
Average Dozer Speed:	<u>88.00</u>	feet/minute
Average Maneuver Time:	<u>0.25</u>	minutes/pass
Production per unit area:	<u>0.755</u>	acres/hour

#### Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.755 Acres/hr

Site Altitude: 6,100 feet

Altitude Adj: 1.00 (CAT HB)

Job Efficiency: 0.83 (1 shift/day)

Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.63 Acres/hr

Adjusted Hourly Fleet Production: **0.63** Acres/hr

### JOB TIME AND COST

Fleet size: 1 Grader(s)

Total job time: **7.98** Hours

Unit cost: \$346.276 Per acre

Total job cost: **\$1,731**



**REVEGETATION WORK**Task description: Revegetation of 30 acresSite: Velarde PitPermit Action: SO2Permit/Job#: M2002118**PROJECT IDENTIFICATION**Task #: 005State: ColoradoAbbreviation: NoneDate: 10/19/2021County: HuerfanoFilename: 005User: JPLAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Ammonium nitrate, 33-0-0	40.00	pound	\$0.36	\$14.40
Triple superphosphate, 0-46-0	40.00	pound	\$0.46	\$18.40
			<b>Total Fertilizer Materials Cost/Acre</b>	<b>\$32.80</b>

**Application**

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	\$38.77
<b>Total Fertilizer Application Cost/Acre</b>	<b>\$38.77</b>

**TILLING**

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$114.56
Weed control spraying (MEANS 31 31 16.13 3100)	\$290.40
<b>Total Tilling Cost/Acre</b>	<b>\$404.96</b>

**SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Hachita	1.00	16.32	\$15.98
Indian Ricegrass - Nespar	1.00	3.24	\$8.88
Sideoats Grama - Vaughn	1.00	3.28	\$8.38
Western Wheatgrass - Arriba	1.00	2.53	\$6.50
<b>Totals Seed Mix</b>	<b>4.00</b>	<b>25.37</b>	<b>\$39.73</b>

**Application**

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

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

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$307.02	\$614.04
<b>Total Mulch Materials Cost/Acre</b>				<b>\$614.04</b>

**Application**

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$71.57
<b>Total Mulch Application Cost/Acre</b>	<b>\$71.57</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: 30                      Cost /Acre: \$1,433.87  
 Estimated Failure Rate: 15%                      Cost /Acre\*: \$271.73  
 \*Selected Replanting Work Items: SEEDING

Initial Job Cost: **\$43,016.10**  
 Reseeding Job Cost: **\$1,222.79**  
 Total Job Cost: **\$44,239**  
 Job Hours: **30.00**

**EQUIPMENT MOBILIZATION/DEMOBILIZATION**Task description: **Mob/Demob**Site: **Velarde Pit**Permit Action: **SO2**Permit/Job#: **M2002118****PROJECT IDENTIFICATION**Task #: **006**State: **Colorado**Abbreviation: **None**Date: **10/19/2021**County: **Huerfano**Filename: **006**User: **JPL**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:**

<b>Available Rig Capacities</b>	<b>0-25 Tons</b>	<b>26-50 Tons</b>	<b>51+ Tons</b>
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 631G	52.50	\$147.77	\$147.95	2	\$591.44	\$295.90	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$7.98	\$68.37	2	\$152.70	\$136.74	\$250.00
Power Mulcher (Bowie LD-90)	6.00	\$14.98	\$68.37	1	\$83.35	\$68.37	\$250.00

Subtotals: **\$1,041.00** **\$633.50** **\$1,000.00****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: WALSENBURG  
 Total one-way travel distance: 15.00 miles  
 Average Travel Speed: 50.00 mph

Total Non-Roadable Mob/Demob Cost \* \$5,086.70  
 \*\* two round trips with haul rig:  
 Total Roadable Mob/Demob Cost \*\* \$0.00  
 \*\* one round trip, no haul rig:

**Transportation Cycle Time:**

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.30	0.30
Return Time (Hours):	0.30	0.30
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	1.60	0.60

**JOB TIME AND COST**

Total job time: 3.20 Hours

Total job cost: \$5,087