

January 19, 2016

John Raftopoulos
Rancho Greco Partnership
351 School St
Craig, CO 81625-3045



COLORADO

**Division of Reclamation,
Mining and Safety**

Department of Natural Resources

1313 Sherman Street, Room 215
Denver, CO 80203

***RE: Vermillion Creek Borrow Area, File No.M-2015-027, Construction Material Limited Impact
(110) Operation Reclamation Permit Application Decision Letter – Financial and
Performance Warranty Request***

Dear Mr. Raftopoulos:

On January 19, 2016, the Division of Reclamation, Mining and Safety (Division) approved the above noted permit application.

The amount of financial warranty set by the Division for this operation is an amount of (\$29,206.00). A financial warranty of the entire amount, as well as a performance warranty, must be submitted to the Division before a Reclamation Permit may be issued. Please select a type of financial warranty from those detailed in Rule 4.3. Once a financial warranty type is selected, please download the applicable financial warranty and performance warranty forms from the Division's website <http://mining.state.co.us/Mineral%20Forms.htm>. You may also contact the the Division to have copies of your selected warranty forms mailed to you.

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 and performance warranties. Any questions regarding completion, execution and/or submittal of financial and/or performance warranty forms should also be directed to Barbara Coria.

PLEASE NOTE THAT RECLAMATION OPERATIONS MAY NOT COMMENCE UNTIL A PERMIT HAS BEEN ISSUED BY THE DIVISION AFTER RECEIPT OF THE FINANCIAL AND PERFORMANCE WARRANTIES. A PERMIT WILL NOT BE ISSUED UNTIL THE ADEQUACY OF BOTH THE FINANCIAL WARRANTY AND PERFORMANCE WARRANTY ARE VERIFIED BY THE DIVISION.

If you require additional information, or have questions or concerns, please feel free to contact me. Amy Yeldell at the Division of Reclamation, Mining and Safety, 1313 Sherman St., Room 215, Denver, CO 80203. Direct contact can be made by phone at 970-254-8511 or via email at amy.yeldell@state.co.us

Sincerely,

Amy Yeldell

Environmental Protection Specialist
Department of Natural Resources
Division of Reclamation, Mining and Safety



Phone: (970) 254-8511
Fax: (970) 241-1516

Ec:
Financial Warranty Calculations

Cc:
Russ Means, Senior EPS / Field Office Supervisor, Grand Junction DRMS
Steve Baker, 3B Enterprises, Inc., Permitting Consultant
Jennifer Mailo, Little Snake River Field Office BLM

COST SUMMARY WORK

Task description: 110c Permit Application Reclamation Costs

Site: Vermillion Creek Borrow Area

Permit Action: 2015 App

Permit/Job#: M2015027

PROJECT IDENTIFICATION

Task #: 000 State: Colorado Abbreviation: None
Date: 12/10/2015 County: Moffat Filename: M027-000
User: ACY

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
01a	Bridge Removal-Demo and Disposal	DEMOLISH	1	8.00	\$3,291.44
02a	Grading HW in Phase 1	DOZER	1	2.79	\$612.00
03a	Placing topsoil in Phase 1	DOZER	1	2.93	\$613.00
04a	Phase 1 reveg	REVEGE	1	4.00	\$1,886.00
04b	Phase 1 remove silt fence	REVEGE	1	2.00	\$655.00
05a	Excavate new creek channel	EXCAVATE	1	4.54	\$433.00
06a	Backfill existing channel and grade Phase 2	DOZER	1	1.23	\$267.00
07a	Placing topsoil in Phase 2.95	DOZER	1	3.33	\$723.00
08a	Phase 2 reveg	REVEGE	1	8.00	\$4,122.00
08b	Phase 2 remove silt fence	REVEGE	1	3.00	\$1,027.00
09a	Initial Mob of reclamation crew and equipment	MOBILIZE	1	7.67	\$5,721.00
10a	Secondary mob of reclamation crew and equipment	MOBILIZE	1	7.67	\$2,722.00
<u>SUBTOTALS:</u>				55.16	\$22,072

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	\$445.85
Performance bond:	1.05	Total =	\$231.76
Job superintendent:	27.58	Total =	\$2,072.91
Profit:	10.00	Total =	\$2,207.20
		TOTAL O & P =	\$4,957.72
		CONTRACT AMOUNT (direct + O & P) =	\$27,029.72

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:	6.20		\$1,675.84

CONTINGENCY: 0.00 Total = \$0.00

TOTAL INDIRECT COST = \$7,133.56

TOTAL BOND AMOUNT (direct + indirect) = \$29,205.56

DEMOLITION WORK

Task description: Bridge Removal-Demo and Disposal

Site: Vermillion Creek Borrow Area

Permit Action: 2015 App

Permit/Job#: M2015027

PROJECT IDENTIFICATION

Task #: 01A
Date: 12/10/2015
User: ACY

State: Colorado
County: Moffat

Abbreviation: None
Filename: M027-01a

Agency or organization name: DRMS

UNIT COSTS

Location adjustment: 95.50 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Retaining wall around bridge Demo	2x 40'L x 10'H	Wall, concrete, demolition only, average reinforcing - 24 in. thick	400.00	SF	\$7.23	\$2,893.60
Steel Disposal	15"W X 25'L X1'H	Loading and 5 mile haul, salvage allowed - Steel frame structures	13.89	CY	\$9.48	\$131.68
Inert Material Disposal	1,767 cu.ft.	Push demolished materials/rubble/debris into pit - Max. 50 ft. push	65.00	CY	\$0.25	\$16.25
Busting concrete in steel bridge	15'W x 25'L	Floor, concrete, demolition only, average reinforcing - 4 in. thick	375.00	SF	\$1.08	\$405.00

Job Hours: 8.00

Subtotal
(unadjusted): \$3,446.53

Total Cost
(adjusted for location): \$3,291.44

BULLDOZER WORKTask description: Grading HW in Phase 1Site: Vermillion Creek Borrow AreaPermit Action: 2015 AppPermit/Job#: M2015027**PROJECT IDENTIFICATION**Task #: 02A
Date: 12/10/2015
User: ACYState: Colorado
County: MoffatAbbreviation: None
Filename: M027-02aAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D8T - 8SU
Horsepower: 310
Blade Type: Semi-Universal
Attachment: 3-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$69.05	NA
Operating Cost/Hour:	\$108.22	100
Ripper op. Cost/Hour:	\$3.73	50
Operator Cost/Hour:	\$38.01	NA

Total unit Cost/Hour: \$219.00
Total Fleet Cost/Hour: \$219.00**MATERIAL QUANTITIES**Initial Volume: 1,389
Swell factor: 1.230
Loose volume: 1,708 LCYSource of estimated volume: 300' L avg. 20'H @ 0.5:1 going to 3:1 mostly cut & fill
Source of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 100 feet
Unadjusted hourly production: 852.6 LCY/hrMaterials consistency description: Compacted fill or embankment 0.9Average push gradient: -15 %
Average site altitude: 5,430 feetMaterial weight: 2,100 lbs/LCYWeight description: Earth - Loam**Job 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:	1.329	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.095	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.7175

Adjusted unit production: 611.74 LCY/hr

Adjusted fleet production: **611.74** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)



Unit cost: \$0.358/LCY

Total job time: **2.79** Hours

Total job cost: **\$612**

Highwall reduction - cut and fill

Phase 1 HW grading

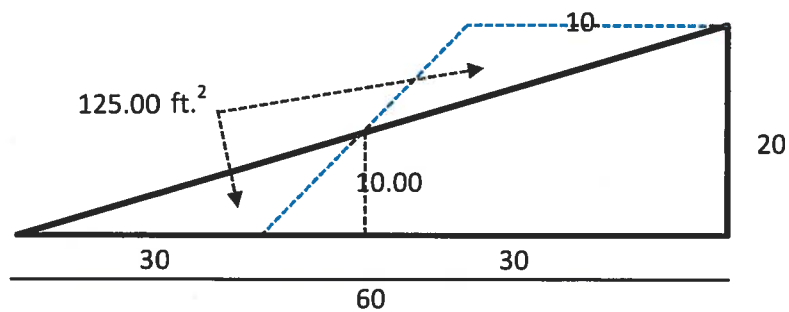
Highwall Height (ft.)	20.0
Length of Highwall (lft.)	300
 Initial Slope	0.5 H:1V
 Desired Slope	3 H:1V

Volume of material to be moved (ft.³) **37,500**

Volume of material to be moved (yd.³) **1,389**

All dimensions measured in feet

Drawing not to scale



BULLDOZER WORKTask description: Placing topsoil in Phase 1Site: Vermillion Creek Borrow Area

Permit Action:

2015 AppPermit/Job#: M2015027**PROJECT IDENTIFICATION**Task #: 03AState: ColoradoAbbreviation: NoneDate: 12/10/2015County: MoffatFilename: M027-03aUser: ACYAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D8T - 8SUHorsepower: 310Blade Type: Semi-UniversalAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$62.67	NA
Operating Cost/Hour:	\$108.22	100
Ripper op. Cost/Hour:	\$0.00	30
Operator Cost/Hour:	\$38.01	NA

Total unit Cost/Hour: \$208.90Total Fleet Cost/Hour: \$208.90**MATERIAL QUANTITIES**Initial Volume: 1,089Swell factor: 1.000Loose volume: 1,089 LCYSource of estimated volume: 6" of soil placed over 1.35 acSource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 100 feetUnadjusted hourly production: 852.6 LCY/hrMaterials consistency description: Loose stockpile 1.2Average push gradient: 15 %Average site altitude: 5,430 feetMaterial weight: 2,100 lbs/LCYWeight description: Earth - Loam**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:	0.666	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.095	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4358

Adjusted unit production: 371.56 LCY/hr

Adjusted fleet production: 371.56 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.562/LCY

Total job time: 2.93 Hours

Total job cost: \$613

REVEGETATION WORKTask description: Phase 1 revegSite: Vermillion Creek Borrow
AreaPermit Action: 2015 AppPermit/Job#: M2015027**PROJECT IDENTIFICATION**Task #: 04A
Date: 12/10/2015
User: ACYState: Colorado
County: MoffatAbbreviation: None
Filename: M027-04aAgency or organization name: DRMS**FERTILIZING****Materials**

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

Application

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

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
Alkali Sacaton	1.00	39.03	\$22.81
Western Wheatgrass - Rosanna	1.00	2.53	\$3.51
Globemallow, Scarlet (or copper)	0.50	5.66	\$70.24
Winter Fat	1.00	2.55	\$32.69
Basin Wildrye - Trailhead	2.00	8.13	\$13.10
Totals Seed Mix	5.50	57.89	\$142.35

Application

Description	Cost /Acre
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
Hay, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$265.00	\$530.00
Herbicide - Glyphosate (Journey)@ 1.0 pt/ac	1.00	ACRE	\$1.53	\$1.53
Total Mulch Materials Cost/Acre				\$531.53

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$65.89
Power mulcher (MEANS 32 91 13.16 0250)	\$86.68
Weed spray, truck, non-aquatic areas, ann. [DMG]	\$22.36
Total Mulch Application Cost/Acre	\$174.93

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: 1.35 Cost /Acre: \$1,035.02
 Estimated Failure Rate: 35% Cost /Acre*: \$1,035.02
 *Selected Replanting Work Items: TILLING,SEEDING,MULCHING
 Initial Job Cost: \$1,397.28
 Reseeding Job Cost: \$489.05
 Total Job Cost: \$1,886
 Job Hours: 4.00

REVEGETATION WORKTask description: Phase 1 remove silt fenceSite: Vermillion Creek Borrow
AreaPermit Action: 2015 AppPermit/Job#: M2015027**PROJECT IDENTIFICATION**Task #: 04B
Date: 1/13/2016
User: ACYState: Colorado
County: MoffatAbbreviation: None
Filename: M027-04bAgency or organization name: DRMS**FERTILIZING****Materials**

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

Application

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

TILLING

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

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
			\$
Totals Seed Mix	0.00	0.00	\$0.00

Application

Description	Cost /Acre

	\$
Total Seed Application Cost/Acre	\$0.00

MULCHING and MISCELLANEOUS**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Silt fence, ideal cond. (MEANS 31 25 14.16 1000)	1,090.00	LINEAR FOOT	\$0.60	\$654.00
Total Mulch Materials Cost/Acre				\$654.00

Application

Description	Cost /Acre
Silt fence, ideal cond. (MEANS 31 25 14.16 1000)	\$0.60
Total Mulch Application Cost/Acre	\$0.60

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:	1	Cost /Acre:	\$654.60
Estimated Failure Rate:	0%	Cost /Acre*:	\$0.00
*Selected Replanting Work Items:	NONE		
Initial Job Cost:	\$654.60		
Reseeding Job Cost:	\$0.00		
Total Job Cost:	\$655		
Job Hours:	2.00		

HYDRAULIC EXCAVATOR WORK

Task description: Excavate new creek channel

Site: Vermillion Creek Borrow Area

Permit Action: 2015 App

Permit/Job#: M2015027

PROJECT IDENTIFICATION

Task #: 05A
Date: 12/10/2015
User: ACY

State: Colorado
County: Moffat

Abbreviation: None
Filename: M027-05a

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat 319D L 8'-10" Stick
Attachment 1: ROPS Cab

Horsepower: 125
Weight (MT): 19.55
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$23.33	NA
Operating Cost/Hour:	\$43.79	100
Operator Cost/Hour:	\$28.17	NA
Total Unit Cost/Hour:	\$95.29	
Total Fleet Cost/Hour:	\$95.29	

MATERIAL QUANTITIES

Initial volume: 694 CCY Swell factor: 1.230
Loose volume: 854 LCY

Source of estimated volume: See attached
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Excavator Cycle Time (load bucket, swing loaded, dump bucket, swing empty):

Basic Job Condition Description: AVERAGE
Secondary Job Condition within Basic Description: AVERAGE
Cycle Time Value: 0.282 minutes

Load Bucket Capacity

Rated Capacity: 1.10 LCY (heaped) Bucket Size Class: Medium
Bucket Fill Factor: 1.050 Other - moist loam (100-110%) 1.050
Adjusted Capacity: 1.16 LCY

Job Condition Correction Factors

Site Altitude: 5430 feet

Altitude Adj:	<u>0.92</u>	Source
Job Efficiency:	<u>0.83</u>	(CAT HB)
Net Correction:	<u>0.76</u>	(1 shift/day)
		multiplier

Unadjusted Hourly Unit Production: 245.74 LCY/Hour
Adjusted Hourly Unit Production: 187.65 LCY/Hour
Adjusted Hourly Fleet Production: 187.65 LCY/Hour

JOB TIME AND COST

Fleet size: 1 Excavator Total job time: 4.55 Hours

Unit cost: \$0.508 /LCY Total job cost: \$433

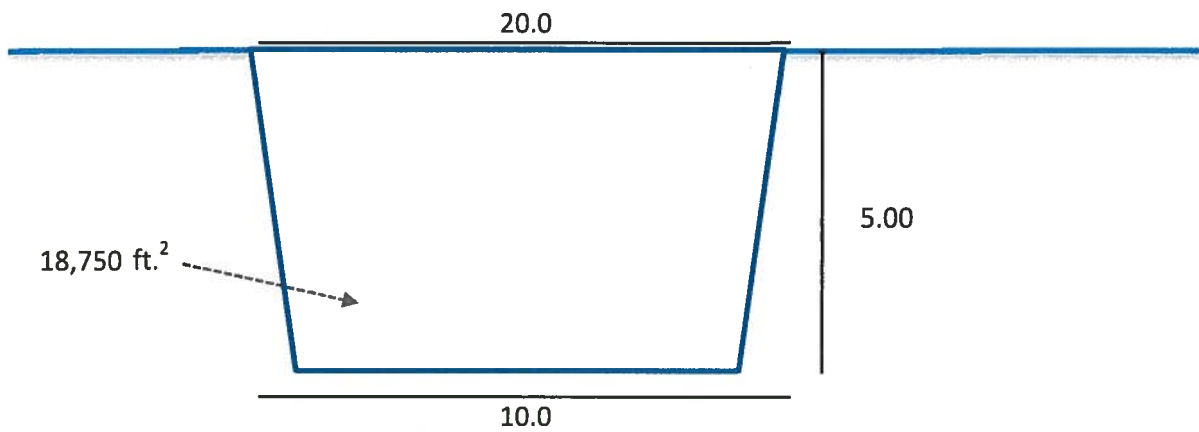
Trench Volume

Excavate new creek channel

Top Width of Trench (ft.)	20.0
Top Bottom of Trench (ft.)	10.0
Length of Highwall (lft.)	250
Trench Height (ft.)	5.0

Length of the original channel path
within the permitted boundary

Total volume of material to be moved (ft. ³)	18,750
Total Volume of material to be moved (yd. ³)	694



All dimensions measured in feet
Drawing not to scale

BULLDOZER WORKTask description: **Backfill existing channel and grade Phase 2**Site: **Vermillion Creek Borrow Area**Permit Action: 2015 AppPermit/Job#: M2015027**PROJECT IDENTIFICATION**Task #: 06A
Date: 12/10/2015
User: ACYState: Colorado
County: MoffatAbbreviation: None
Filename: M027-06aAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D8T - 8SU
Horsepower: 310
Blade Type: Semi-Universal
Attachment: 3-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$69.05</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$108.22</u>	<u>100</u>
Ripper op. Cost/Hour:	<u>\$2.24</u>	<u>30</u>
Operator Cost/Hour:	<u>\$38.01</u>	<u>NA</u>

Total unit Cost/Hour: \$217.51
Total Fleet Cost/Hour: \$217.51**MATERIAL QUANTITIES**Initial Volume: 750
Swell factor: 1.000
Loose volume: 750 LCYSource of estimated volume: See attached
Source of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 75 feet
Unadjusted hourly production: 1,017.1 LCY/hrMaterials consistency description: Partly consolidated stockpile 1.1Average push gradient: 0 %
Average site altitude: 5,430 feetMaterial weight: 2,100 lbs/LCYWeight description: Earth - Loam**Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	<u>0.750</u>	<u>(AVG.)</u>
Material consistency:	<u>1.100</u>	<u>(CAT HB)</u>
Dozing method:	<u>1.000</u>	<u>(GEN.)</u>
Visibility:	<u>1.000</u>	<u>(AVG.)</u>

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:	1.095	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5998

Adjusted unit production: 610.06 LCY/hr

Adjusted fleet production: 610.06 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.357/LCY

Total job time: 1.23 Hours

Total job cost: \$267

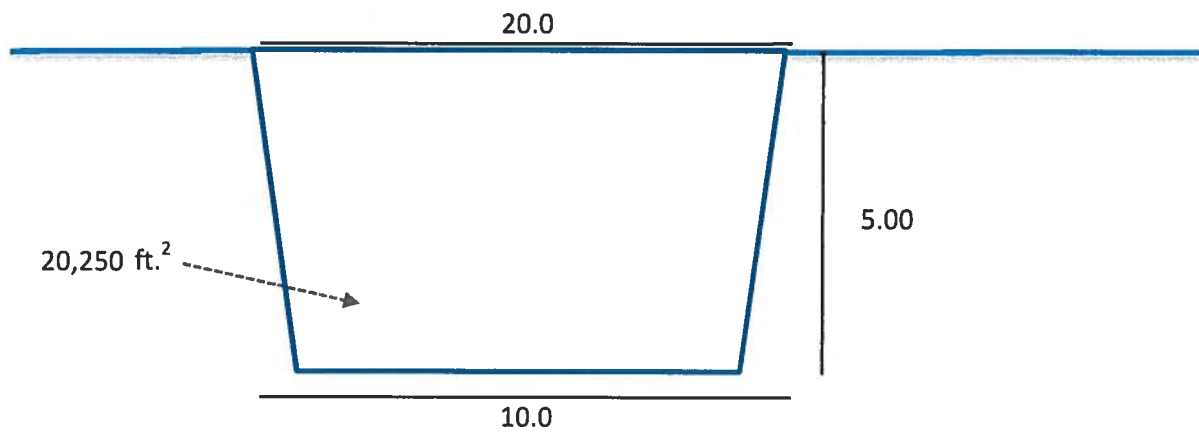
Trench Volume

Backfill excavated channel path

Top Width of Trench (ft.)	20.0
Top Bottom of Trench (ft.)	10.0
Length of Highwall (lft.)	270
Trench Height (ft.)	5.0

Length of the original channel path
within the permitted boundary

Total volume of material to be moved (ft. ³)	20,250
Total Volume of material to be moved (yd. ³)	750



All dimensions measured in feet
Drawing not to scale

BULLDOZER WORKTask description: **Placing topsoil in Phase 2.95**Site: **Vermillion Creek Borrow Area**Permit Action: **2015 App**Permit/Job#: **M2015027****PROJECT IDENTIFICATION**Task #: **07A**
Date: **12/10/2015**
User: **ACY**State: **Colorado**
County: **Moffat**Abbreviation: **None**
Filename: **M027-07a**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D8T - 8SU**
Horsepower: **310**
Blade Type: **Semi-Universal**
Attachment: **3-shank ripper**
Shift Basis: **1 per day**
Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$69.05</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$108.22</u>	<u>100</u>
Ripper op. Cost/Hour:	<u>\$2.24</u>	<u>30</u>
Operator Cost/Hour:	<u>\$38.01</u>	<u>NA</u>

Total unit Cost/Hour: **\$217.51**
Total Fleet Cost/Hour: **\$217.51****MATERIAL QUANTITIES**Initial Volume: **2,381**
Swell factor: **1.000**
Loose volume: **2,381 LCY**Source of estimated volume: **6" of soil placed over 2.95 ac**
Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **70 feet**
Unadjusted hourly production: **1,093.7 LCY/hr**Materials consistency description: **Loose stockpile 1.2**Average push gradient: **0 %**
Average site altitude: **5,430 feet**Material weight: **2,100 lbs/LCY**Weight description: **Earth - Loam****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	<u>0.750</u>	<u>(AVG.)</u>
Material consistency:	<u>1.200</u>	<u>(CAT HB)</u>
Dozing method:	<u>1.000</u>	<u>(GEN.)</u>
Visibility:	<u>1.000</u>	<u>(AVG.)</u>

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:	1.095	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.6544

Adjusted unit production: 715.72 LCY/hr

Adjusted fleet production: 715.72 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.304/LCY

Total job time: 3.33 Hours

Total job cost: \$723

REVEGETATION WORKTask description: Phase 2 revegSite: Vermillion Creek Borrow
AreaPermit Action: 2015 AppPermit/Job#: M2015027**PROJECT IDENTIFICATION**Task #: 08A
Date: 1/13/2016
User: ACYState: Colorado
County: MoffatAbbreviation: None
Filename: M027-08aAgency or organization name: DRMS**FERTILIZING****Materials**

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

Application

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

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
Alkali Sacaton	1.00	39.03	\$22.81
Western Wheatgrass - Rosanna	1.00	2.53	\$3.51
Globemallow, Scarlet (or copper)	0.50	5.66	\$70.24
Winter Fat	1.00	2.55	\$32.69
Basin Wildrye - Trailhead	2.00	8.13	\$13.10
Totals Seed Mix	5.50	57.89	\$142.35

Application

Description	Cost /Acre
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
Hay, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$265.00	\$530.00
Herbicide - Glyphosate (Journey)@ 1.0 pt/ac	1.00	ACRE	\$1.53	\$1.53
Total Mulch Materials Cost/Acre				\$531.53

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$65.89
Power mulcher (MEANS 32 91 13.16 0250)	\$86.68
Weed spray, truck, non-aquatic areas, ann. [DMG]	\$22.36
Total Mulch Application Cost/Acre	\$174.93

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: 2.95 Cost /Acre: \$1,035.02
 Estimated Failure Rate: 35% Cost /Acre*: \$1,035.02
 *Selected Replanting Work Items: TILLING,SEEDING,MULCHING

Initial Job Cost: \$3,053.31
 Reseeding Job Cost: \$1,068.66
 Total Job Cost: \$4,122
 Job Hours: 8.00

REVEGETATION WORKTask description: Phase 2 remove silt fenceSite: Vermillion Creek Borrow
AreaPermit Action: 2015 AppPermit/Job#: M2015027**PROJECT IDENTIFICATION**Task #: 08B
Date: 1/13/2016
User: ACYState: Colorado
County: MoffatAbbreviation: None
Filename: M027-08bAgency or organization name: DRMS**FERTILIZING****Materials**

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

Application

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

TILLING

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

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
			\$
Totals Seed Mix	0.00	0.00	\$0.00

Application

Description	Cost /Acre

	\$
Total Seed Application Cost/Acre	\$0.00

MULCHING and MISCELLANEOUS**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Silt fence, ideal cond. (MEANS 31 25 14.16 1000)	1,710.00	LINEAR FOOT	\$0.60	\$1,026.00
Total Mulch Materials Cost/Acre				\$1,026.00

Application

Description	Cost /Acre
Silt fence, ideal cond. (MEANS 31 25 14.16 1000)	\$0.60
Total Mulch Application Cost/Acre	\$0.60

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:	1	Cost /Acre:	\$1,026.60
Estimated Failure Rate:	0%	Cost /Acre*:	\$0.00
*Selected Replanting Work Items:	NONE		
Initial Job Cost:	\$1,026.60		
Reseeding Job Cost:	\$0.00		
Total Job Cost:	\$1,027		
Job Hours:	3.00		

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: Initial Mob of reclamation crew and equipmentSite: Vermillion Creek Borrow
AreaPermit Action: 2015 AppPermit/Job#: M2015027**PROJECT IDENTIFICATION**

Task #: 09A State: Colorado Abbreviation: None
 Date: 12/10/2015 County: Moffat Filename: M027-09a
 User: ACY

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 - 8SU	47.71	\$62.67	\$117.55	1	\$180.22	\$117.55	\$250.00
Cat 319D L 8'-10" Stick	21.50	\$23.33	\$88.67	1	\$112.00	\$88.67	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$39.59	\$88.67	1	\$128.26	\$88.67	\$250.00
Power Mulcher (Reinco M90)	6.00	\$7.03	\$88.67	1	\$95.70	\$88.67	\$250.00

Subtotals: **\$516.18** **\$383.56** **\$1,000.00**

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	\$48.06	1	\$48.06	\$48.06

Subtotals: **\$48.06** **\$48.06**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	CRAIG, CO	
Total one-way travel distance:	78.00	miles
Average Travel Speed:	55.00	mph

Total Non-Roadable Mob/Demob Cost *	\$5,584.35
'* two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	\$136.32
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	1.42	1.42
Return Time (Hours):	1.42	1.42
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	3.84	2.84

JOB TIME AND COST

Total job time:	7.67	Hours
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Total job cost:	\$5,721
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EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: Secondary mob of reclamation crew and equipmentSite: Vermillion Creek Borrow
AreaPermit Action: 2015 AppPermit/Job#: M2015027**PROJECT IDENTIFICATION**Task #: 10A
Date: 12/10/2015
User: ACYState: Colorado
County: MoffatAbbreviation: None
Filename: M027-10aAgency 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
Drill/Broadcast Seeder with Tractor	25.00	\$39.59	\$88.67	1	\$128.26	\$88.67	\$250.00
Power Mulcher (Reinco M90)	6.00	\$7.03	\$88.67	1	\$95.70	\$88.67	\$250.00
Subtotals:					\$223.96	\$177.34	\$500.00

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	\$48.06	1	\$48.06	\$48.06
Subtotals:			\$48.06	\$48.06

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	CRAIG, CO	
Total one-way travel distance:	78.00	miles
Average Travel Speed:	55.00	mph

Total Non-Roadable Mob/Demob Cost *	\$2,586.15
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* two round trips with haul rig:

Total Roadable Mob/Demob Cost **	\$136.32
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** one round trip, no haul rig:

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	1.42	1.42
Return Time (Hours):	1.42	1.42
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	3.84	2.84

JOB TIME AND COST

Total job time:	7.67	Hours
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Total job cost:	\$2,722
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