

September 6, 2016

Stacy Quick
Cross Mountain Ranch
PO Box 897
Craig, CO 81626



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

1313 Sherman Street, Room 215
Denver, CO 80203

RE: Kagie Gravel Pit, Permit No. M-1979-102, Reclamation Costs Update and Notice of Surety Increase (SI-2)

Dear Ms. Quick:

In an effort to ensure the Financial Warranty for the above referenced site adequately reflects the actual current costs of fulfilling the requirements of the approved reclamation plan, the Colorado Division of Reclamation, Mining and Safety (Division) has updated the reclamation cost estimate (copy enclosed).

Division calculations estimate the cost to reclaim the above referenced site to be \$24,159 rounded down from \$24,159.04. This is an increase of \$9959 over the \$14,200 currently required by the Division. It is noted that the Division currently holds \$14,247.50. This estimate is based on conditions observed during the August 17, 2016 inspection. ***Therefore, pursuant to Section 34-32.5-117(4) of the Colorado Land Reclamation Act, adequate Financial Warranty must be submitted to the Division within 60 days of the mailing date of this letter.*** The additional amount needs to be accepted prior to **Monday, November 07, 2016**. Please review the enclosed figures as soon as possible and contact our office if any calculation errors are noted.

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

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

Ec: Russ Means, Senior EPS, Grand Junction DRMS
Enc: Financial Warranty Cost Estimate



COST SUMMARY WORK

Task description: Updated post inspection 08-17-16

Site: Kagie Gravel Pit

Permit Action: 2016-08

Permit/Job#: M1979102

PROJECT IDENTIFICATION

Task #: ACY

State: Colorado

Abbreviation: None

Date: 8/31/2016

County: Routt

Filename: M102-ACY

User: ACY

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
01a	Highwall reduction	DOZER	1	6.51	\$1,304.00
02a	Topsoil distribution	DOZER	1	11.32	\$2,377.00
03a	Reveg disturbed areas	REVEGE	1	16.00	\$12,553.00
04a	Mobilize reclamation crew/equipment	MOBILIZE	1	6.57	\$4,115.00
<u>SUBTOTALS:</u>				40.4	\$20,349

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02
Performance bond: 1.05
Job superintendent: 0.00
Profit: 10.00

Total = \$411.05

Total = \$213.66

Total = \$0.00

Total = \$2,034.90

TOTAL O & P = \$2,659.61

CONTRACT AMOUNT (direct + O & P) = \$23,008.61

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: 5.00

\$1,150.43

CONTINGENCY: 0.00

Total = \$0.00

TOTAL INDIRECT COST = \$3,810.04

TOTAL BOND AMOUNT (direct + indirect) = \$24,159.04

BULLDOZER WORKTask description: **Highwall reduction**Site: **Kagie Gravel Pit** Permit Action: **2016-08** Permit/Job#: **M1979102****PROJECT IDENTIFICATION**

Task #: **01A** State: **Colorado** Abbreviation: **None**
 Date: **8/31/2016** County: **Routt** Filename: **M102-01a**
 User: **ACY**

Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**

Basic Machine: **Cat D8T - 8SU**
 Horsepower: **310**
 Blade Type: **Semi-Universal**
 Attachment: **NA**
 Shift Basis: **1 per day**
 Data Source: **(CRG)**

Cost Breakdown:

		<u>Utilization %</u>
Ownership Cost/Hour:	\$82.01	NA
Operating Cost/Hour:	\$79.23	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$38.89	NA

Total unit Cost/Hour: **\$200.13**
 Total Fleet Cost/Hour: **\$200.13**

MATERIAL QUANTITIES

Initial Volume: **4,097**
 Swell factor: **1.000**
 Loose volume: **4,097 LCY**

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

HOURLY PRODUCTION

Average push distance: **50 feet**
 Unadjusted hourly production: **1,400.0 LCY/hr**

Materials consistency description: **Consolidated stockpile 1.0**

Average push gradient: **0 %**
 Average site altitude: **8,000 feet**

Material weight: **2,550 lbs/LCY**Weight description: **Earth - Dry packed****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(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:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4492

Adjusted unit production: 628.88 LCY/hr

Adjusted fleet production: **628.88** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.318/LCY

Total job time: **6.51** Hours

Total job cost: **\$1,304**

BULLDOZER WORKTask description: Topsoil distributionSite: Kagie Gravel PitPermit Action: 2016-08Permit/Job#: M1979102**PROJECT IDENTIFICATION**Task #: 02AState: ColoradoAbbreviation: NoneDate: 8/31/2016County: RouttFilename: M102-02aUser: ACYAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D8T - 8SUHorsepower: 310Blade Type: Semi-UniversalAttachment: 3-shank ripperShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$82.01	NA
Operating Cost/Hour:	\$79.23	100
Ripper own. Cost/Hour:	\$8.40	NA
Ripper op. Cost/Hour:	\$1.41	25
Operator Cost/Hour:	\$38.89	NA

Total unit Cost/Hour: \$209.94Total Fleet Cost/Hour: **\$209.94****MATERIAL QUANTITIES**Initial Volume: 7,260Swell factor: 1.000Loose volume: **7,260** LCYSource of estimated volume: 9 ac at a depth of 6 inchesSource 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: 0 %Average site altitude: 8,000 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:	0.700	(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: 0.7519

Adjusted unit production: 641.07 LCY/hr

Adjusted fleet production: **641.07** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.327/LCY

Total job time: **11.32** Hours

Total job cost: **\$2,377**

REVEGETATION WORKTask description: Reveg disturbed areasSite: Kagie Gravel PitPermit Action: 2016-08Permit/Job#: M1979102**PROJECT IDENTIFICATION**Task #: 03AState: ColoradoAbbreviation: NoneDate: 8/31/2016County: RouttFilename: M102-03aUser: ACYAgency or organization name: DRMS**FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
6-6-6	40.00	pound	\$0.16	\$6.40
			Total Fertilizer Materials Cost/Acre	\$6.40

Application

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	\$21.34
Total Fertilizer Application Cost/Acre	\$21.34

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$107.59
Total Tilling Cost/Acre	\$107.59

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Big Bluegrass - Sherman	1.00	20.66	\$6.91
Crested Wheatgrass - Ephraim	4.50	20.66	\$10.04
Pubescent Wheatgrass - Luna	4.50	9.30	\$10.08
Tall Fescue - Fawn E.F.	2.00	10.42	\$2.32
Totals Seed Mix	12.00	61.04	\$29.35

Application

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

Total Seed Application Cost/Acre	\$232.00
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MULCHING and MISCELLANEOUS**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - 2,4D @ 1.0 pt/ac	1.00	ACRE	\$1.25	\$1.25
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$246.00	\$492.00
Total Mulch Materials Cost/Acre				\$493.25

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$66.02
Power mulcher (MEANS 32 91 13.16 0350)	\$97.14
Weed spray, truck, non-aquatic area, nox. [DMG]	\$62.72
Total Mulch Application Cost/Acre	\$225.88

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: 9 Cost /Acre: \$1,115.81
 Estimated Failure Rate: 25% Cost /Acre*: \$1,115.81
 *Selected Replanting Work Items: FERTILIZING,TILLING,SEEDING,MULCHING

Initial Job Cost: **\$10,042.29**
 Reseeding Job Cost: **\$2,510.57**
 Total Job Cost: **\$12,553**
 Job Hours: **16.00**

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Mobilize reclamation crew/equipment**Site: **Kagie Gravel Pit**Permit Action: 2016-08Permit/Job#: M1979102**PROJECT IDENTIFICATION**Task #: 04AState: ColoradoAbbreviation: NoneDate: 8/31/2016County: RouttFilename: M102-04aUser: ACYAgency or organization name: DRMS**EQUIPMENT TRANSPORT RIG COST**Shift basis: 1 per dayCost 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 D8T - 8SU	53.08	\$90.41	\$125.45	1	\$215.86	\$125.45	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$30.65	\$88.67	1	\$119.32	\$88.67	\$250.00
Power Mulcher (Reinco M90)	6.00	\$6.72	\$88.67	1	\$95.39	\$88.67	\$250.00

Subtotals: **\$430.57** **\$302.79** **\$750.00****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.	\$33.81	1	\$33.81	\$33.81

Subtotals: **\$33.81** **\$33.81**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:

STEAMBOAT
SPRINGSTotal one-way travel distance: 40.00 milesAverage Travel Speed: 35.00 mphTotal Non-Roadable Mob/Demob Cost * \$4,037.39

** two round trips with haul rig:

Total Roadable Mob/Demob Cost ** \$77.28

** one round trip, no haul rig:

Transportation Cycle Time:

	Non- Roadable Equipment	Roadable Equipment
Haul Time (Hours):	1.14	1.14
Return Time (Hours):	1.14	1.14
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	3.29	2.29

JOB TIME AND COSTTotal job time: 6.57 HoursTotal job cost: \$4,115