


**COLORADO**Division of Reclamation,  
Mining and Safety

Department of Natural Resources

**MINERALS PROGRAM INSPECTION REPORT****PHONE: (303) 866-3567**

The Division of Reclamation, Mining and Safety has conducted an inspection of the mining operation noted below. This report documents observations concerning compliance with the terms of the permit and applicable rules and regulations of the Mined Land Reclamation Board.

<b>MINE NAME:</b> Green Bros Pit No 2	<b>MINE/PROSPECTING ID#:</b> M-1995-030	<b>MINERAL:</b> Sand and gravel	<b>COUNTY:</b> Morgan
<b>INSPECTION TYPE:</b> Monitoring	<b>INSPECTOR(S):</b> Jared L. Ebert	<b>INSP. DATE:</b> January 12, 2017	<b>INSP. TIME:</b> 11:00
<b>OPERATOR:</b> McAtee Construction Company	<b>OPERATOR REPRESENTATIVE:</b> Kenny Lambert, Sterling Redi Mix	<b>TYPE OF OPERATION:</b> 112c - Construction Regular Operation	

<b>REASON FOR INSPECTION:</b> Normal I&E Program	<b>BOND CALCULATION TYPE:</b> Complete Bond	<b>BOND AMOUNT:</b> \$25,500.00
<b>DATE OF COMPLAINT:</b> NA	<b>POST INSP. CONTACTS:</b> None	<b>JOINT INSP. AGENCY:</b> None
<b>WEATHER:</b> Cloudy	<b>INSPECTOR'S SIGNATURE:</b> 	<b>SIGNATURE DATE:</b> January 18, 2017

**The following inspection topics were identified as having Problems or Possible Violations. OPERATORS SHOULD READ THE FOLLOWING PAGES CAREFULLY IN ORDER TO ASSURE COMPLIANCE WITH THE TERMS OF THE PERMIT AND APPLICABLE RULES AND REGULATIONS. If a Possible Violation is indicated, you will be notified under separate cover as to when the Mined Land Reclamation Board will consider possible enforcement action.**

**INSPECTION TOPIC:** Backfilling & Grading

**PROBLEM/POSSIBLE VIOLATION:** Problem: The operator has not marked and established the required 25 foot setback from the permit boundary as required by the approved permit. This is a problem at this time for failure to comply with the condition of the reclamation permit in accordance C.R.S. 34.32.5-109(2)(a).

**CORRECTIVE ACTIONS:** Please mark the required 25 foot setback from the northern permit boundary. Please provide the Division written notification when the setback has been marked along with photo documentation.

**CORRECTIVE ACTION DUE DATE:** 2/24/17

**INSPECTION TOPIC:** Signs & Markers

**PROBLEM/POSSIBLE VIOLATION:** Problem: The mine identification sign and affected area boundary markers were not observed per the requirements of Rule 3.1.12.

**CORRECTIVE ACTIONS:** The operator must post a sign at the entrance to the mine site which shall be clearly visible from the access road and specify the following; the name of the operator, indicate that a reclamation permit for the operation has been issued by the Colorado Mined Land Reclamation Board, and the permit number. The boundaries of the affected area must be marked by monuments or other markers that are clearly visible and adequate to delineate such boundaries.

**CORRECTIVE ACTION DUE DATE:** 2/24/17

## **OBSERVATIONS**

This was a normal monitoring inspection of the Green Brothers Pit #2; DRMS Permit No. M-1995-030, operated by McAtee Construction Company (McAtee). I, Jared Ebert of the Colorado Division of Reclamation, Mining and Safety (Division) conducted the inspection. Mr. Kenny Lambert, with Sterling Redi Mix/Green Brothers Redi Mix accompanied me during the inspection. The weather was cloudy, cool and windy at the time of the inspection. This is a 46.82 acre 112c mining operation.

### **Backfilling and Grading:**

Mining was not occurring at the time of the inspection. This is a dredging operation that has created a small open water gravel pit on the west side of the site. A shallow dry pit excavation is also located on the east side of the site. The surface area of the water of the western pit was estimated using Google Earth from a June 2016 aerial photograph. The surface area of the water was found to be about 2.75 acres and based on the site inspection, this estimate appears to be accurate. The side slopes of the western pond vary in angle, but on average appeared to be at a 2.5:1 horizontal to vertical ratio above and below the water line as far as could be seen from the shore. According to the approved permit, there should be an un-mined 25.0 foot setback from the permit boundary line to the top of the pit slope. From the top of the pit slopes, the pit is required to be graded to a 3:1 horizontal to vertical ratio both five feet above and ten feet below the water line. The western pit's northern shore is likely near the 25 foot setback. McAtee will need to establish and mark this 25 foot setback at the site in accordance with the approved permit.

The eastern pit is a shallow excavation with short gentle side slopes. This pit does not appear to have been active for a long time as vegetation such as trees and grasses have established in this area.

### **Financial Warranty:**

The reclamation cost estimate was last calculated in 2012 when the operator applied for a permit conversion (CN-01). In accordance with Rule 4.2.1(2), the Division has reviewed the estimated cost to reclaim the site and found that the current bond of \$25,500.00 is an inadequate amount. The Division calculated the cost to reclaim the affected area to be \$31,829.97. Attached for the Operator review, is a copy of the reclamation cost summary. **By February 1, 2017, the Division will issue a Surety Increase (SI) revision; please contact the Division prior to February 1, 2017 to discuss any questions regarding the cost estimate. When the SI is issued, the Operator will then have 60 days to submit the additional financial warranty.**

### **Hydrologic Balance:**

Based on the information provided with the CN-01 permit application, no more than 3.6 acres of water surface area will be opened until additional water has been purchased. At this time, it appears the surface water area is below this threshold.

### **Gen. Compliance with Mine Plan:**

The affected area is split into three different areas, the plant area, the Phase I mining area north of the Edward Gill Ditch and the proposed Phase II mining area south of the Edward Gill Ditch. A large stockpile of mined material is located at the plant site area along with a scale and scale house. The western and eastern pit areas discussed above are located within the Phase I mining area. A large berm of material is in place surrounding the exposed groundwater pond on the western side of the site. It appears this berm was recently created and is likely made up of some topsoil.

Off-site Damage:

The permit boundaries were not marked, so it is not clear if any off-site damage has occurred. Stockpiling and processing operations in the plant site and on the northwest side of the western pit are likely very near the northern permit boundary. Also it appears the operator has affected land in the plant site area very close to the western boundary. McAtee will need to mark their permit boundaries and take care not to affect land outside of the approved boundary.

Support Facilities On-site:

The operator has not constructed the proposed processing facilities at the site as discussed in the permit.

Signs and Markers:

The mine entrance sign was not found nor was the permit boundary marked. This issue is cited as a problem at the beginning of this report.

Topsoil:

Recently stripped material is stockpiled in a berm around the exposed groundwater pond on the western side of the affected area. If this material will remain in place for an extended period of time it will need to be stabilized with vegetative cover.

## **PHOTOGRAPHS**



**Figure 1. From the southwest corner of the west pit looking east.**



**Figure 2. From the southwest side of the western pit looking north east.**



Figure 3. From the southeast corner of the western pit looking north.



Figure 4. Plant site area.



Figure 5. North side of the eastern pit excavation looking south.

### GENERAL INSPECTION TOPICS

The following list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each

(AR) RECORDS----- <u>N</u>	(FN) FINANCIAL WARRANTY----- <u>Y</u>	(RD) ROADS----- <u>NA</u>
(HB) HYDROLOGIC BALANCE----- <u>Y</u>	(BG) BACKFILL & GRADING----- <u>PB</u>	(EX) EXPLOSIVES----- <u>N</u>
(PW) PROCESSING WASTE/TAILING---- <u>NA</u>	(SF) PROCESSING FACILITIES----- <u>Y</u>	(TS) TOPSOIL----- <u>Y</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>Y</u>	(FW) FISH & WILDLIFE----- <u>Y</u>	(RV) REVEGETATION---- <u>NA</u>
(SM) SIGNS AND MARKERS----- <u>PB</u>	(SP) STORM WATER MGT PLAN---- <u>NA</u>	(CI) COMPLETE INSP---- <u>NA</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>NA</u>	(SC) EROSION/SEDIMENTATION--- <u>Y</u>	(RS) RECL PLAN/COMP-- <u>NA</u>
(AT) ACID OR TOXIC MATERIALS----- <u>NA</u>	(OD) OFF-SITE DAMAGE----- <u>Y</u>	(ST) STIPULATIONS----- <u>NA</u>

Y = Inspected and found in compliance / N = Not inspected / NA = Not applicable to this operation / PB = Problem cited / PV = Possible violation cited

#### Inspection Contact Address

Darren Gebhart  
McAtee Construction Company  
P.O. Box 1908  
Sterling, CO 80751

Enclosure: January 18, 2017, CIRCES Cost Estimate.

CC: Kenny Lambert, Sterling Redi Mix *via e-mail*



## COST SUMMARY WORK

Task description: Cost Summary

Site: Green Bros Pit No 2 Permit Action: January 2017 Cost Permit/Job#: M1995030  
Estimate

### PROJECT IDENTIFICATION

Task #: 000 State: Colorado Abbreviation: None  
Date: 1/18/2017 County: Morgan Filename: \_\_\_\_\_  
User: JLE

Agency or organization name: DRMS

### TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Cut/Fill pond shoreline from 2.5H:1V to 3H:1V	DOZER	1	6.47	\$1,295.00
002	Grading and shaping	GRADER	1	11.64	\$1,302.00
003	Replacing topsoil over disturbed areas	DOZER	1	21.66	\$3,467.00
004	Ripping stockpile/plant area	RIPPER	1	12.36	\$2,648.00
005	Revegetating disturbed areas	REVEGE	1	6.55	\$14,740.00
006	Equipment Mobilization	MOBILIZE	1	1.20	\$1,386.00
<b><u>SUBTOTALS:</u></b>				<b>59.88</b>	<b>\$24,838</b>

### INDIRECT COSTS

#### OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	\$501.73
Performance bond:	1.05	Total =	\$260.80
Job superintendent:	29.94	Total =	\$2,229.93
Profit:	10.00	Total =	\$2,483.80

TOTAL O & P = \$5,476.26

CONTRACT AMOUNT (direct + O & P) = \$30,314.26

#### LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	<u>0.00</u>	Total =	<u>0.00</u>
Engineering work and/or contract/bid preparation:	<u>0.00</u>	Total =	<u>\$0.00</u>
Reclamation management and/or administration:	<u>5.00</u>		<u>\$1,515.71</u>

CONTINGENCY: 0.00 Total = \$0.00

TOTAL INDIRECT COST = \$6,991.97

**TOTAL BOND AMOUNT (direct + indirect) = \$31,829.97**



## BULLDOZER WORK

Task description: Cut/Fill pond shoreline from 2.5H:1V to 3H:1V

Site: Green Bros Pit No 2 Permit Action: January 2017 Cost Estimate

Permit/Job#: M1995030

### PROJECT IDENTIFICATION

Task #: 001 State: Colorado Abbreviation: None  
Date: 1/18/2017 County: Morgan Filename: 001  
User: JLE

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:	<u>\$82.01</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$79.23</u>	<u>100</u>
Ripper own. Cost/Hour:	<u>\$0.00</u>	<u>NA</u>
Ripper op. Cost/Hour:	<u>\$0.00</u>	<u>0</u>
Operator Cost/Hour:	<u>\$38.89</u>	<u>NA</u>
Total unit Cost/Hour:	<u>\$200.13</u>	
Total Fleet Cost/Hour:	<u><b>\$200.13</b></u>	

### MATERIAL QUANTITIES

Initial Volume: 3,438  
Swell factor: 1.124  
Loose volume: **3,862 LCY**

Source of estimated volume: Division of Reclamation, Mining & Safety  
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: Compacted fill or embankment 0.9

Average push gradient: 0 %  
Average site altitude: 4,248 feet

Material weight: 2,900 lbs/LCY

Weight description: Sand and gravel - Dry

Job Condition Correction Factor

Source

Operator Skill:	0.750	(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:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4265

Adjusted unit  
production: 597.10 LCY/hr

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Adjusted fleet  
production: **597.1** LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)

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Unit cost: \$0.335/LCY

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Total job time: **6.47** Hours

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Total job cost: **\$1,295**

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## MOTOR GRADER WORK

Task description: Grading and shaping

Site: Green Bros Pit No 2 Permit Action: January 2017 Cost Estimate Permit/Job#: M1995030

### PROJECT IDENTIFICATION

Task #: 002 State: Colorado Abbreviation: None  
Date: 1/18/2017 County: Morgan Filename: M030-002  
User: JLE

Agency or organization name: DRMS

### HOURLY EQUIPMENT COST

Basic Machine: CAT 140M Horsepower: 183  
Ripper Attachment: \_\_\_\_\_ Shift Basis: 1 per day  
Data Source: (CRG)

#### Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	<u>\$36.00</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$40.02</u>	<u>100</u>
Ripper Ownership Cost/Hour:	<u>\$0.00</u>	<u>NA</u>
Ripper Operating Cost/Hour:	<u>\$0.00</u>	
Operator Cost/Hour:	<u>\$35.83</u>	<u>NA</u>
Total Unit Cost/Hour:	<u>\$111.85</u>	
Total Fleet Cost/Hour:	<u>\$111.85</u>	

### MATERIAL QUANTITIES

Total Area to be graded or ripped: 16.00 acres  
Source of estimated acreage: Operator Provided

### HOURLY PRODUCTION

Average Grader Speed: 1.50 mph  
Selected Application: Finish grading (0-2.5 mph) - 1.5  
Selected Blade Angle: 30 degrees  
Effective Blade Length: 10.40 feet  
Width of blade overlap per pass: 2.00 feet  
Net grading or ripping width per pass: 8.40 feet  
Unadjusted Hourly Unit Production: 1.5273 acres/hour

#### Job Condition Correction Factors

Site Altitude: 4248 feet

		Source
Altitude Adj:	<u>1.00</u>	<u>(CAT HB)</u>
Job Efficiency:	<u>0.90</u>	<u>(1sh/d, fav.)</u>
Net Correction:	<u>0.9000</u>	<u>multiplier</u>

Adjusted Hourly Unit Production: 1.3745 acres/Hour  
Adjusted Hourly Fleet Production: 1.3745 acres/Hour

### JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: 11.64 Hours  
Unit cost: \$81.37 per acre Total job cost: \$1,302

## BULLDOZER WORK

Task description: Replacing topsoil over disturbed areas

Site: Green Bros Pit No 2 Permit Action: January 2017 Cost Estimate

Permit/Job#: M1995030

### **PROJECT IDENTIFICATION**

Task #: 003 State: Colorado Abbreviation: None  
Date: 1/18/2017 County: Morgan Filename: 003  
User: JLE

Agency or organization name: DRMS

### **HOURLY EQUIPMENT COST**

Basic Machine: Cat D8T - 8U  
Horsepower: 305  
Blade Type: Universal  
Attachment: NA  
Shift Basis: 1 per day  
Data Source: (CRG)

#### **Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$52.86	NA
Operating Cost/Hour:	\$68.35	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: \$160.10

Total Fleet Cost/Hour: \$160.10

### **MATERIAL QUANTITIES**

Initial Volume: 13,949  
Swell factor: 1.000  
Loose volume: 13,949 LCY

Source of estimated volume: Division of Reclamation, Mining & Safety

Source of estimated swell  
factor: Cat Handbook

### **HOURLY PRODUCTION**

Average push distance: 120 feet  
Unadjusted hourly  
production: 817.7 LCY/hr

Materials consistency  
description: Consolidated stockpile 1.0

Average push  
gradient: 0 %  
Average site altitude: 4,248 feet

Material weight: 1,600 lbs/LCY

Weight description: Top Soil

#### **Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(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:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.7877

Adjusted unit  
production: 644.10 LCY/hr  
Adjusted fleet  
production: **644.1** LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)  
Unit cost: \$0.249/LCY

Total job time: **21.66** Hours  
Total job cost: **\$3,467**

## BULLDOZER RIPPING WORK

Task description: Ripping stockpile/plant area

Site: Green Bros Pit No 2 Permit Action: January 2017 Cost Estimate Permit/Job#: M1995030

### PROJECT IDENTIFICATION

Task #: 004 State: Colorado Abbreviation: None  
Date: 1/18/2017 County: Morgan Filename: 004  
User: JLE

Agency or organization name: DRMS

### HOURLY EQUIPMENT COST

Basic Machine: Cat D8T - 8SU Horsepower: 310  
Ripper Attachment: 3-Shank Ripper Shift Basis: 1 per day  
Data Source: (CRG)

#### Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$82.01	NA
Operating Cost/Hour:	\$79.23	100
Ripper Ownership Cost/Hour:	\$8.40	NA
Ripper Operating Cost/Hour:	\$5.62	100
Operator Cost/Hour:	\$38.89	NA
Total Unit Cost/Hour:	\$214.15	
Total Fleet Cost/Hour:	<b>\$214.15</b>	

### MATERIAL QUANTITIES

Selected estimating method: Area

#### Alternate Methods:

Seismic: NA Bank Volume: NA BCY NA  
Area: 7.22 acres Rip Depth (ft): 2.00 Volume: 23,297 BCY or CCY

Source of estimated quantity: DRMS Estimate

### HOURLY PRODUCTION

#### Seismic:

Seismic Velocity: NA feet/second

#### Area:

Average Ripping Depth: 2.56 mph  
Average Ripping Width: 7.08 degrees  
Average Ripping Length: 100.00 feet  
Average Dozer Speed: 88.00 feet  
Average Maneuver Time: 0.25 feet  
Production per unit area: 0.703 acres/hour

#### Job Condition Correction Factors

Unadjusted Hourly Unit Production: 0.703 Acres/hr  
Site Altitude: 4,248 feet  
Altitude Adj: 1.00 (CAT HB)  
Job Efficiency: 0.83 (1 shift/day)  
Net Correction: 0.83 multiplier

Adjusted Hourly Unit Production: 0.58 Acres/hr  
Adjusted Hourly Fleet Production: **0.58** Acres/hr

### JOB TIME AND COST

Fleet size: 1 Grader(s) Total job time: **12.37** Hours

Unit cost:           \$366.793           Per acre

Total job cost:                   **\$2,648**



## REVEGETATION WORK

Task description: Revegetating disturbed areas

Site: Green Bros Pit No 2

Permit Action: January 2017 Cost Estimate

Permit/Job#: M1995030

### PROJECT IDENTIFICATION

Task #: 005 State: Colorado Abbreviation: None  
Date: 1/18/2017 County: Morgan Filename: 005  
User: JLE

Agency or organization name: DRMS

### FERTILIZING

#### Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
13-13-13, 19-9-0	40.00	pound	\$0.26	\$10.40
			<b>Total Fertilizer Materials Cost/Acre</b>	<b>\$10.40</b>

#### Application

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

### TILLING

Description	Cost /Acre
	\$
<b>Total Tilling Cost/Acre</b>	<b>\$0.00</b>

### SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Alkali Sacaton	0.50	19.51	\$11.43
Sideoats Grama - Vaughn	0.90	2.95	\$10.13
Western Wheatgrass - Arriba	6.40	16.16	\$23.62
Needlegrass, Green - Lodorm	2.00	8.31	\$10.80
<b>Totals Seed Mix</b>	<b>9.80</b>	<b>46.94</b>	<b>\$55.98</b>

#### Application

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

<b>Total Seed Application Cost/Acre</b>	<b>\$232.00</b>
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### **MULCHING and MISCELLANEOUS**

#### **Materials**

<b>Description</b>	<b>Units / Acre</b>	<b>Unit</b>	<b>Cost / Unit</b>	<b>Cost / Acre</b>
Herbicide - Rodeo @ 2.0 pt/ac	1.00	ACRE	\$6.72	\$6.72
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$246.00	\$492.00
<b>Total Mulch Materials Cost/Acre</b>				<b>\$498.72</b>

#### **Application**

<b>Description</b>	<b>Cost / Acre</b>
Crimping, with tractor {DMG survey data}	\$66.02
Weed spray, hand, aquatic area, nox. [DMG]	\$183.16
<b>Total Mulch Application Cost/Acre</b>	<b>\$249.18</b>

### **NURSERY STOCK PLANTING**

<b>Common Name</b>	<b>No / Acre</b>	<b>Type and Size</b>	<b>Planting Cost</b>	<b>Fertilizer Pellet Cost</b>	<b>Cost / Acre</b>
					\$
<b>Totals Nursery Stock Cost / Acre</b>					<b>\$0.00</b>

### **JOB TIME AND COST**

No. of Acres:	13.1	Cost /Acre:	\$1,067.62
Estimated Failure Rate:	20%	Cost /Acre*:	\$287.98
*Selected Replanting Work Items:	SEEDING		

Initial Job Cost:	<b>\$13,985.82</b>
Reseeding Job Cost:	<b>\$754.51</b>
Total Job Cost:	<b>\$14,740</b>
Job Hours:	<b>6.55</b>

## EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: Equipment Mobilization

Site: Green Bros Pit No 2

Permit Action: January 2017 Cost  
Estimate

Permit/Job#: M1995030

### PROJECT IDENTIFICATION

Task #: 006 State: Colorado Abbreviation: None  
Date: 1/18/2017 County: Morgan Filename: 006  
User: JLE

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	\$82.01	\$117.55	1	\$199.56	\$117.55	\$250.00
CAT 140M	16.68	\$36.00	\$88.67	1	\$124.67	\$88.67	\$250.00

Subtotals: **\$324.23** **\$206.22** **\$500.00**

### ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Water Tanker, 2,500 Gal.	\$56.19	1	\$56.19	\$56.19
Light Duty Pickup, 4x4, 3/4 T.	\$33.81	1	\$33.81	\$33.81

Subtotals: **\$90.00** **\$90.00**

**EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region:	<u>FORT MORGAN</u>	
Total one-way travel distance:	<u>2.00</u>	miles
Average Travel Speed:	<u>40.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$1,377.28</u>
'* two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$9.00</u>
** one round trip, no haul rig:	

**Transportation Cycle Time:**

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>0.05</u>	<u>0.05</u>
Return Time (Hours):	<u>0.05</u>	<u>0.05</u>
Loading Time (Hours):	<u>0.25</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.25</u>	<u>NA</u>
Subtotals:	<u>0.60</u>	<u>0.10</u>

**JOB TIME AND COST**

Total job time:	<u>1.20</u>	Hours
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Total job cost:	<u>\$1,386</u>
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