COLORADO DIVISION OF RECLAMATION, MINING AND SAFETY
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.

MINE NAME: Alma Placer Mine	**MINE/PROSPECTING ID#:** M-1985-029	**MINERAL:** Gold	**COUNTY:** Park
INSPECTION TYPE: Monitoring	**INSPECTOR(S):** Tom Kaldenbach	**INSP. DATE:** June 7, 2012	**INSP. TIME:** 16:00
OPERATOR: High Mountain Mining Co., LLC	**OPERATOR REPRESENTATIVE:** Steve Palmer	**TYPE OF OPERATION:** 112 - Hard Rock Regular Operation	

REASON FOR INSPECTION: Normal I&E Program	**BOND CALCULATION TYPE:** Complete Bond	**BOND AMOUNT:** $180,974.00
DATE OF COMPLAINT: NA	**POST INSP. CONTACTS:** None	**JOINT INSP. AGENCY:** None
WEATHER: Clear	**INSPECTOR'S SIGNATURE:** Tom Kaldenbach	**SIGNATURE DATE:** June 25, 2012

GENERAL INSPECTION TOPICS

This list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each. Problems were found during the inspection as noted below. Any person engaged in any mining operation shall notify the office of any failure or imminent failure, as soon as reasonably practicable after such person has knowledge of such condition or of any impoundment, embankment, or slope that poses a reasonable potential for danger to any persons or property or to the environment; or any environmental protection facility designed to contain or control chemicals or waste which are acid or toxic-forming, as identified in the permit.

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

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

OBSERVATIONS

This inspection was conducted by Tom Kaldenbach of DRMS. Steve Palmer represented the operator. The inspection focused on the gold operation part of the mine, as the gold operation recently changed ownership and a Succession of Operator was completed for the entire permit.

The ground was dry. Rock was being run through a crushing and screening processing plant in the gold operation, and concentrate from the plant was being run through a processing plant located inside the mine's processing plant/office building. Workers were seen in the office part of the gravel operation although no equipment was in operation on the gravel operation.

Backfilling and Grading:
A significant amount of backfilling, grading, and structure removal appeared to have been completed, compared to DRMS's previous inspection in 2009.

Financial Warranty:
The reclamation cost estimate for the gold operation was updated with this inspection and determined that there is a current deficit in the amount of bond on deposit of $121,273, as detailed below. This deficit is cited as a problem and must be corrected by August 23, 2012, by submitting the additional $121,273 of bond.

Bond on Deposit

Cash, High Mountain Mining Company, LLC	$106,899
Cash, Willits Company	$74,075
Total bond on deposit	$180,974

Bond Liability

Gold operation bond liability, including TR-08	$275,490
Less TR-08 amount not yet due	$96,701
Bond liability of gold operation without TR-08	$178,789
Gravel operation bond liability	$123,458
Total liability for permit without TR-08	$302,247

Bond Deficit

Bond Deficit (Total bond on deposit, minus Total liability for permit without TR-08)	($121,273)

The items in the reclamation cost estimate prepared with this inspection (see attached copy) are based on DRMS's reclamation cost estimate prepared for the December 18, 2009 inspection. If reclamation has been completed for any of those items, then the operator may request that those items be removed from the cost estimate by making a Surety Reduction Request following the process of Rule 4.14.1.

Hydrologic Balance:
Water used in processing in the gold operation is pumped from the South Platte River and circulated through a closed system of ponds, with no discharge to the river.

Sediment Control:
Berms were in place along the South Platte River for preventing runoff into the river.

Support Facilities On-site:
No hazardous chemicals are used on the mine. Grease and oil are stored outside the gold operation building within a containment barrier.

Signs and Markers:
A mine i.d. sign was not displayed at the entrance to the site from the Highway 9. The operator had a new i.d. sign in the gold operation building that was ready to be installed at the mine entrance. The lack of sign at the entrance is cited as a problem.
The operator shall post a sign at the entrance to the mine site as required by Rule 3.1.12(1) and provide to DRMS by July 24, 2012 a photograph showing the properly posted sign. The permit boundary was marked.

PHOTOGRAPHS

Photo 1 - Gold operation in foreground, gravel operation in background.

Photo 2 - Pond at gold operation crushing and screening plant.

Photo 3 - Lower pond of gold operation.

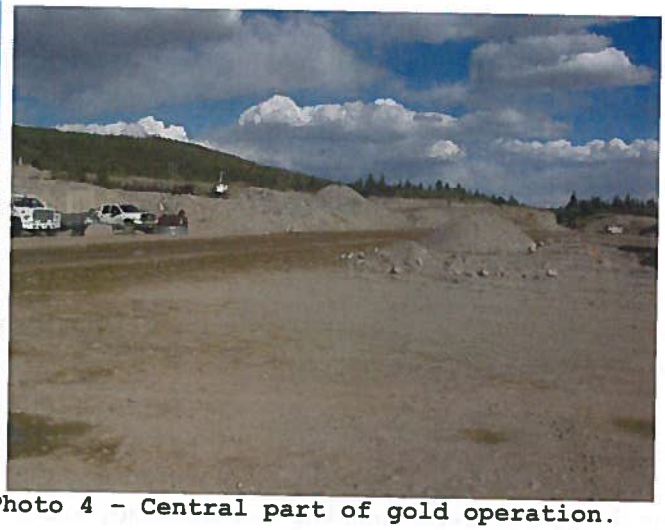

Photo 4 - Central part of gold operation.

Photo 5 - Pumphouse of gold operation next to South Platte River.

Photo 6 - Oil and grease storage area outside building in gold operations area.

Inspection Contact Address
Steve Palmer
High Mountain Mining Co., LLC
3040 S. Vallejo Street
Englewood, CO 80110

Enclosure

COST SUMMARY WORK

Task description: **Bond update - gold operation**

Site: **Alma Placer Mine** Permit Action: Inspection 6-7-12 Permit/Job#: M1985029

PROJECT IDENTIFICATION

Task #: 001 State: Colorado Abbreviation: None
Date: 6/24/2012 County: Park Filename: M029-001
User: TAK

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
002	Demolish structures	DEMOLISH	1	38.99	$150,527.45
003	Regrade 20 acres	DOZER	1	123.12	$26,233.02
004	Spread topsoil	TRUCK1	1	20.30	$14,331.88
005	Revegetate range areas in gold operation	REVEGE	1	40.00	$17,802.25
006	Revegetate wetland area in gold operation	REVEGE	1	3.00	$723.47
007	Revegetate range areas in gold operation with nursery stock	REVEGE	1	4.42	$983.56
008	Mobilize/de-mobilize for gold operation	MOBILIZE	1	7.20	$6,199.77
		SUBTOTALS:		**237.03**	**$ $216,801.40**

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	$4,379.39
Performance bond:	1.05	Total =	$2,276.41
Job superintendent:	118.51	Total =	$7,027.64
Profit:	10.00	Total =	$21,680.14
		TOTAL O & P =	$35,363.58
		CONTRACT AMOUNT (direct + O & P) =	$252,164.98

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	0.00	Total =	0.00
Engineering work and/or contract/bid preparation:	4.25	Total =	$10,717.01
Reclamation management and/or administration:	5.00		$12,608.25
CONTINGENCY:	0.00	Total =	$0.00
		TOTAL INDIRECT COST =	$58,688.84
		TOTAL BOND AMOUNT (direct + indirect) =	**$275,490.24**

DEMOLITION WORK

Task description: **Demolish structures**

Site: **Alma Placer Mine (Gold Facility)** Permit Action: Inspection 6-7-12 Permit/Job#: M1985029

PROJECT IDENTIFICATION

Task #: 002 State: Colorado Abbreviation: None
Date: 6/23/2012 County: Park Filename: M029-002
User: TAK

Agency or organization name: DRMS

UNIT COSTS **Location adjustment: 96.90 %**

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Processing building - infrastructure	376,000 cf	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 200 ft. push	376,000.00	CF	$0.16	$58,656.00
- footings	2 x 3 x3	Demo. and on-site disposal in existing pit, 2.0 ft. x 3 ft. - Max. 200 ft. push	25.00	LF	$18.82	$470.50
- floor	13,600	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 200 ft. push	13,600.00	SF	$1.57	$21,352.00
Office/small process plant building	50 ft x 50 ft	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 200 ft. push	50,000.00	CF	$0.16	$7,800.00
- Footings	1.5 x 2 ft	Demo. and on-site disposal in existing pit, 1.5 ft. x 2 ft. - Max. 200 ft. push	50.00	LF	$9.41	$470.50
- Slab	50 x 50	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 200 ft. push	2,500.00	SF	$1.57	$3,925.00
Storage tank	20000 gal	Liquid pickup - 5,000 gal. vacuum truck, double compartment	32.00	HR	$170.00	$5,440.00
Prep plant	60X50X1 story	Plant (1S) demo./off-site disposal in approved landfill - Max. 60 mile haul	36,000.00	CF	$1.27	$45,828.00
Pump house	10x10x1 story	Plant (1S) demo./off-site disposal in approved landfill - Max. 60 mile haul	800.00	CF	$1.27	$1,018.40
Conveyors	100x3	Conveyor, elevated, including supports - 5 ft. W x 6 ft. H housing	100.00	LF	$42.26	$4,226.00
Processing equipment	10x10x10	Plant (1S) demo./off-site disposal in approved landfill - Max. 60 mile haul	1,000.00	CF	$1.27	$1,273.00
Pipe removal	variable	Pipe, sewer/water - 12 in. diameter pipe	500.00	LF	$6.36	$3,181.55
Pipe loading	500 lf	Loading only, open areas	20.00	CY	$0.56	$11.14

		(unconfined) - Track loader				
Pipe hauling	500 lf	Hauling only, per mile, 12-18 CY truck - 30 mph average speed	100.00	MI	$0.51	$51.00
Pipe disposal	500 lf	Dump fees - Building construction materials.	20.00	CY	$82.00	$1,640.00

Job Hours: 38.99

Subtotal (unadjusted): $155,343.09

Total Cost (adjusted for location): $150,527.45

BULLDOZER WORK

Task description: **Regrade 20 acres**

Site: **Alma Placer Mine** Permit Action: Inspection 6-7-12 Permit/Job#: M1985029

PROJECT IDENTIFICATION

Task #: 003 State: Colorado Abbreviation: None
Date: 6/23/2012 County: Park Filename: M029-003
User: TAK

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:

		Utilization %
Ownership Cost/Hour:	$65.28	NA
Operating Cost/Hour:	$102.81	100
Ripper op. Cost/Hour:	$6.49	100
Operator Cost/Hour:	$38.49	NA

Total unit Cost/Hour: $213.07
Total Fleet Cost/Hour: **$213.07**

MATERIAL QUANTITIES

Initial Volume: 53,640
Swell factor: 1.250
Loose volume: **67,050** LCY

Source of estimated volume: Lewicki AM-04
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: 10,000 feet

Material weight: 2,650 lbs/LCY

Weight description: Decomposed rock - 25% Rock, 75% Earth

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(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:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3890

Adjusted unit production: 544.60 LCY/hr
Adjusted fleet production: **544.6** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.391/LCY

Total job time: **123.12** Hours
Total job cost: **$26,233.02**

TRUCK/LOADER TEAM WORK

Task description: **Spread topsoil**

Site: **Alma Placer Mine** Permit Action: Inspection 6-7-12 Permit/Job#: M1985029

PROJECT IDENTIFICATION

Task #: 004 State: Colorado Abbreviation: None
Date: 6/24/2012 County: Park Filename: M029-004
User: TAK

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Generic 15-18 cy, 6x4
-Loader:	CAT 980H high lift
Support Equipment -Load Area:	NA
-Dump Area:	Cat D8T - 8SU
Road Maintenance –Motor Grader:	CAT 135H
-Water Truck:	Water Tanker, 2,500 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	NA	100	100	100
Ownership cost/hour:	$18.42	$44.85	NA	$65.28	$16.48	$7.69
Operating cost/hour:	$73.87	$73.25	NA	$102.81	$36.59	$21.79
Ripper op. cost/hour:	NA	$0.00	NA	$6.49	$0.00	$0.00
Operator cost/hour:	$22.29	$38.67	NA	$38.49	$24.47	$0.00
Unit Subtotals:	$114.58	$156.78	NA	$213.07	$77.54	$29.48
Number of Units:	2	1	0	1	1	1
Group Subtotals:	Work:	$385.94	Support:	$213.07	Maint:	$107.02

Total work team cost/hour: **$706.03**

MATERIAL QUANTITIES

Initial volume: 9,438 CCY Swell factor: 1.000
Loose volume: **9,438** LCY

Source of estimated volume: Lewicki AM-04
Source of estimated swell factor: Cat Handbook
Material Purchase Cost: $0.00
Total Cost: $0.00

HOURLY PRODUCTION

Truck Capacity:
Truck Payload (weight) Basis:

Material weight: 1,600 Pounds/LCY
Description: Top Soil
Rated Payload: 63,980 Pounds
Payload Capacity: 39.99 LCY

Truck Bed (volume) Basis:

Struck Volume:	15.00	LCY
Heaped Volume:	18.00	LCY
Average Volume:	16.50	LCY
Adjusted Volume:	18.00	LCY

Final Truck Volume Based on Number of Loader Passes: **13.88** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	7.500	LCY (heaped)
Bucket Fill Factor:	0.925	Loose material - 1/8" to 3/8" (90 - 95%) 0.925
Adjusted Capacity:	**6.938**	LCY

Job Condition Corrections:

Site Altitude (ft.): 10000 feet

	Truck	Loader	Source
Altitude Adj:	0.970	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.805**	**0.830**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 2 passes

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA
Selected Value within this Basic Rating: NA
Track Loaders – Material Description:

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.550 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material up to 1/8" diameter 0.02	0.020	(Cat HB)
Stockpile:	Dumped by truck 0.02	0.020	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)
	Net Cycle Time Adjustment:	-0.040	minutes
	Adjusted Loader Cycle Time:	**0.510**	minutes
	Net Load Time per Truck:	**0.610**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.50	Minutes	Adjusted for site altitude:	0.515	Minutes
Truck Load Time:	0.610	Minutes	Adjusted for site altitude:	0.610	Minutes
Truck Maneuver and Dump Time:	0.90	Minutes	Adjusted for site altitude:	0.928	Minutes

Truck Travel (Haul & Return) Time: maintained 3.0 Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	0.50	3.00	3.50	2394	0.546

Haul Time: **0.546** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	-0.50	3.00	2.50	2960	0.373

Return Time: **0.373** minutes
Total Truck Cycle Time: **2.972** minutes

Loading Tool unit Production: 739.69 LCY/Hour — Adjusted for job efficiency: 613.95 LCY/Hour
Truck Unit Production: 280.09 LCY/Hour — Adjusted for job efficiency: 232.47 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) — Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 464.94 LCY/Hour
Adjusted single truck/loader team production: 464.94 LCY/Hour
Adjusted multiple truck/loader team production: **464.94** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) — Total job time: **20.30** Hours

Unit cost: $1.519 /LCY — Total job cost: **$14,331.88**

REVEGETATION WORK

Task description: **Revegetate range areas in gold operation**

Site: **Alma Placer Mine** Permit Action: Inspection 6-7-12 Permit/Job#: M1985029

PROJECT IDENTIFICATION

Task #: 005 State: Colorado Abbreviation: None
Date: 6/24/2012 County: Park Filename: M029-005
User: TAK

Agency 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
Subsoil scarification, (MEANS 32 91 13.23 3050)	$207.78
Weed control spraying (MEANS 31 31 16.13 3100)	$145.20
Total Tilling Cost/Acre	**$352.98**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Birdsfoot Trefoil - Empire	0.50	4.80	$4.09
Big Bluegrass - Sherman	1.00	20.66	$6.75
Mountain Brome - Bromar	6.00	9.64	$19.98
Red Clover - Medium	1.00	6.20	$1.81
White Dutch Clover - VNS	0.50	9.76	$1.80
Sheep Fescue - Bighorn	1.00	15.61	$3.00
Slender Wheatgrass - San Luis	4.00	14.60	$14.52
Needlegrass, Green - Lodorm	4.00	16.62	$21.12
Parry's Oatgrass	4.00	8.26	$95.44
Prairie Junegrass	0.30	15.95	$10.10

Timothy, Alpine - Native	0.50	14.92	$13.25
Bluebunch Wheatgrass - Goldar	2.00	6.43	$10.76
Totals Seed Mix	24.80	143.45	**$202.61**

Application

Description	Cost /Acre
Broadcast seeding [DMG]	$255.76
Total Seed Application Cost/Acre	**$255.76**

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	Cost /Acre
	$
Total Mulch Application Cost/Acre	**$0.00**

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: 20
Estimated Failure Rate: 25%
*Selected Replanting Work Items: TILLING,SEEDING

Cost /Acre: $811.35
Cost /Acre*: $811.35

Initial Job Cost: **$16,227.00**
Reseeding Job Cost: **$4,056.75**
Total Job Cost: **$20,283.75**
Job Hours: **40.00**

REVEGETATION WORK

Task description: **Revegetate wetland area in gold operation**

Site: **Alma Placer Mine** Permit Action: Inspection 6-7-12 Permit/Job#: M1985029

PROJECT IDENTIFICATION

Task #: 006 State: Colorado Abbreviation: None
Date: 6/24/2012 County: Park Filename: M029-006
User: TAK

Agency 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
Meadow Brome - Regar	12.00	11.02	$35.28
Streambank Wheatgrass - Sodar	5.00	16.30	$20.60
Needlegrass, Green - Lodorm	2.00	8.31	$10.56
Red Top	0.20	22.91	$1.20
Reedgrass, Canadian (or Blue Joint)	0.30	30.85	$59.64
Tufted Hairgrass	0.50	28.70	$5.40
Totals Seed Mix	20.00	118.09	**$132.68**

Application

Description	Cost /Acre
Broadcast seeding [DMG]	$255.76
Total Seed Application Cost/Acre	**$255.76**

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	Cost /Acre
	$
Total Mulch Application Cost/Acre	**$0.00**

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: 1.49
Estimated Failure Rate: 25%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $388.44
Cost /Acre*: $388.44

Initial Job Cost: **$578.78**
Reseeding Job Cost: **$144.69**
Total Job Cost: **$723.47**
Job Hours: **3.00**

REVEGETATION WORK

Task description: **Revegetate range areas in gold operation with nursery stock**

Site: **Alma Placer Mine** Permit Action: Inspection 6-7-12 Permit/Job#: M1985029

PROJECT IDENTIFICATION

Task #: 007 State: Colorado Abbreviation: None
Date: 6/24/2012 County: Park Filename: M029-007
User: TAK

Agency 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
Subsoil scarification, (MEANS 32 91 13.23 3050)	$207.78
Weed control spraying (MEANS 31 31 16.13 3100)	$145.20
Total Tilling Cost/Acre	**$352.98**

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
			$	$
Total Mulch Materials Cost/Acre				**$0.00**

Application

Description	Cost /Acre
	$
Total Mulch Application Cost/Acre	**$0.00**

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
Fir, Douglas	33	Tubling, 3 cu. in. container (MEANS)	$0.93	$0.00	$30.69
Pine, Lodgepole	33	Tubling, 3 cu. in. container (MEANS)	$0.93	$0.00	$30.69
Spruce, Blue	33	Tubling, 3 cu. in. container (MEANS)	$0.93	$0.00	$30.69
Totals Nursery Stock Cost / Acre					**$92.07**

JOB TIME AND COST

No. of Acres: 2.21
Estimated Failure Rate: 0%
*Selected Replanting Work Items: NONE

Cost /Acre: $445.05
Cost /Acre*: $0.00

Initial Job Cost: **$983.56**
Reseeding Job Cost: **$0.00**
Total Job Cost: **$983.56**
Job Hours: **4.42**

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: **Mobilize/de-mobilize for gold operation**

Site: **Alma Placer Mine** Permit Action: Inspection 6-17-12 Permit/Job#: M1985029

PROJECT IDENTIFICATION

Task #: 008 State: Colorado Abbreviation: None
Date: 6/24/2012 County: Park Filename: M029-008
User: TAK

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	53.08	$65.28	$125.45	1	$190.73	$125.45	$250.00
CAT 980H high lift	33.12	$44.85	$117.55	1	$162.40	$117.55	$250.00
Cat 769D	37.54	$43.04	$117.55	2	$321.18	$235.10	$250.00
				Subtotals:	**$674.31**	**$478.10**	**$750.00**

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.	$29.48	1	$29.48	$29.48
Cat 135 H	$69.69	1	$69.69	$69.69
		Subtotals:	**$99.17**	**$99.17**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	BRECKENRIDGE	
Total one-way travel distance:	20.00	miles
Average Travel Speed:	25.00	mph
Total Non-Roadable Mob/Demob Cost * '* two round trips with haul rig:	$6,041.10	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	$158.67	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.80	0.80
Return Time (Hours):	0.80	0.80
Loading Time (Hours):	1.00	NA
Unloading Time (Hours):	1.00	NA
Subtotals:	3.60	1.60

JOB TIME AND COST

Total job time:	**7.20**	Hours
Total job cost:	**$6,199.77**	

COST SUMMARY WORK

Task description: **Alma Placer - Gravel**

Site: **Alma Placer Mine** Permit Action: Inspection 060712 Permit/Job#: M1985029

PROJECT IDENTIFICATION

Task #: 501 State: Colorado Abbreviation: None
Date: 6/24/2012 County: Park Filename: M029-501
User: TAK

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
502	Demolish, remove, dispose all structures	DEMOLISH	1	0.00	$44,146.28
503	Regrade 23.1 acres	DOZER	1	76.89	$15,367.29
504	Spread topsoil	TRUCK1	1	20.04	$14,148.14
505	Revegetate (based on cost/acre from gold operation)	NA	1	46.20	$22,533.00
506	Mobilize and de-mobilize (covered under gold operation)	NA	1	0.00	$0.00
		SUBTOTALS:		**143.13**	**$ $96,194.71**

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	$1,943.13
Performance bond:	1.05	Total =	$1,010.04
Job superintendent:	71.46	Total =	$4,237.58
Profit:	10.00	Total =	$9,619.47
		TOTAL O & P =	$16,810.22
		CONTRACT AMOUNT (direct + O & P) =	$113,004.93

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	0.00	Total =	0.00
Engineering work and/or contract/bid preparation:	4.25	Total =	$4,802.71
Reclamation management and/or administration:	5.00		$5,650.25
CONTINGENCY:	0.00	Total =	$0.00
		TOTAL INDIRECT COST =	$27,263.18
		TOTAL BOND AMOUNT (direct + indirect) =	**$123,457.89**

DEMOLITION WORK

Task description: **Demolish, remove, dispose all structures**

Site: **Alma Placer Mine** Permit Action: Inspection 060712 Permit/Job#: M1985029

PROJECT IDENTIFICATION

Task #: 502 State: Colorado Abbreviation: None
Date: 6/24/2012 County: Park Filename: M029-502
User: TAK

Agency or organization name: DRMS

UNIT COSTS **Location adjustment: 96.90 %**

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Truck scale	See quantity	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	600.00	SF	$3.20	$1,920.00
Crusher	See quantity	Loading and 5 mile haul, salvage allowed - Steel frame structures	125.00	CY	$8.78	$1,097.50
Wash plant	See quantity	Loading and 5 mile haul, salvage allowed - Steel frame structures	125.00	CY	$8.78	$1,097.50
Screen plant	See quantity	Loading and 5 mile haul, salvage allowed - Steel frame structures	125.00	CY	$8.78	$1,097.50
Employee trailers	See quantity	Loading and 5 mile haul, salvage allowed - Steel frame structures	250.00	CY	$8.78	$2,195.00
Lab trailer	See quantity	Loading and 5 mile haul, salvage allowed - Steel frame structures	95.00	CY	$8.78	$834.10
Asphalt plant	See quantity	Loading and 5 mile haul, salvage allowed - Steel frame structures	3,000.00	CY	$8.78	$26,340.00
Conveyors	5x6x200	Conveyor, elevated, including supports - 5 ft. W x 6 ft. H housing	200.00	LF	$42.26	$8,452.00
Fuel removal	N/A	Liquid pickup - 5,000 gal. vacuum truck, double compartment	10.00	HR	$170.00	$1,700.00
Pipe	500 lf	Pipe, corrugated metal (CMP) - 8 in. diameter pipe	500.00	LF	$1.65	$825.00

Job Hours: 0.00 **Subtotal (unadjusted):** $45,558.60 **Total Cost (adjusted for location):** $44,146.28

BULLDOZER WORK

Task description: **Regrade 23.1 acres**

Site: **Alma Placer Mine** Permit Action: Inspection 060712 Permit/Job#: M1985029

PROJECT IDENTIFICATION

Task #: 503 State: Colorado Abbreviation: None
Date: 6/24/2012 County: Park Filename: M029-503
User: TAK

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:

		Utilization %
Ownership Cost/Hour:	$58.56	NA
Operating Cost/Hour:	$102.81	100
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.49	NA

Total unit Cost/Hour: $199.86
Total Fleet Cost/Hour: **$199.86**

MATERIAL QUANTITIES

Initial Volume: 33,500
Swell factor: 1.250
Loose volume: **41,875** 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: 10,000 feet

Material weight: 2,650 lbs/LCY

Weight description: Decomposed rock - 25% Rock, 75% Earth

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(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:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3890

Adjusted unit production: 544.60 LCY/hr
Adjusted fleet production: **544.6** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $0.367/LCY

Total job time: **76.89** Hours
Total job cost: **$15,367.29**

TRUCK/LOADER TEAM WORK

Task description: **Spread topsoil**

Site: **Alma Placer Mine - Gravel** Permit Action: Inspection 060712 Permit/Job#: M1985029

PROJECT IDENTIFICATION

Task #: 504 State: Colorado Abbreviation: None
Date: 6/24/2012 County: Park Filename: M029-504
User: TAK

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Shift basis: 1 per day

	Equipment Description
Truck Loader Team -Truck:	Generic 15-18 cy, 6x4
-Loader:	CAT 980H high lift
Support Equipment -Load Area:	NA
-Dump Area:	Cat D8T - 8SU
Road Maintenance –Motor Grader:	CAT 135H
-Water Truck:	Water Tanker, 2,500 Gal.

Cost Breakdown:

	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	NA	100	100	100
Ownership cost/hour:	$18.42	$44.85	NA	$65.28	$16.48	$7.69
Operating cost/hour:	$73.87	$73.25	NA	$102.81	$36.59	$21.79
Ripper op. cost/hour:	NA	$0.00	NA	$6.49	$0.00	$0.00
Operator cost/hour:	$22.29	$38.67	NA	$38.49	$24.47	$0.00
Unit Subtotals:	$114.58	$156.78	NA	$213.07	$77.54	$29.48
Number of Units:	2	1	0	1	1	1
Group Subtotals:	Work:	$385.94	Support:	$213.07	Maint:	$107.02

Total work team cost/hour: **$706.03**

MATERIAL QUANTITIES

Initial volume: 9,317 CCY Swell factor: 1.000
Loose volume: **9,317** LCY

Source of estimated volume: Lewicki AM-04
Source of estimated swell factor: Cat Handbook
Material Purchase Cost: $0.00
Total Cost: $0.00

HOURLY PRODUCTION

Truck Capacity:
Truck Payload (weight) Basis:

Material weight: 1,600 Pounds/LCY
Description: Top Soil
Rated Payload: 63,980 Pounds
Payload Capacity: 39.99 LCY

Truck Bed (volume) Basis:

Struck Volume:	15.00	LCY
Heaped Volume:	18.00	LCY
Average Volume:	16.50	LCY
Adjusted Volume:	18.00	LCY

Final Truck Volume Based on Number of Loader Passes: **13.88** LCY

Loading Tool Capacity

Bucket Size Class: NA

Rated Capacity:	7.500	LCY (heaped)
Bucket Fill Factor:	0.925	Loose material - 1/8" to 3/8" (90 - 95%) 0.925
Adjusted Capacity:	**6.938**	LCY

Job Condition Corrections:

Site Altitude (ft.): 10000 feet

	Truck	Loader	Source
Altitude Adj:	0.970	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	**0.805**	**0.830**	

Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fill Truck: 2 passes

Excavators and Front Shovels:

Machine Cycle Time vs. Job Condition Rating: NA
Selected Value within this Basic Rating: NA

Track Loaders – Material Description:

Cycle Time Elements (min.):

Load: NA Maneuver: NA Dump: 0.100

Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, maneuver): 0.550 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Material up to 1/8" diameter 0.02	0.020	(Cat HB)
Stockpile:	Dumped by truck 0.02	0.020	(Cat HB)
Truck Ownership:	Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	Nominal target 0.00	0.000	(Cat HB)

Net Cycle Time Adjustment:	-0.040	minutes
Adjusted Loader Cycle Time:	**0.510**	minutes
Net Load Time per Truck:	**0.610**	minutes

Truck Cycle Time:

Truck Exchange Time:	0.50	Minutes	Adjusted for site altitude:	0.515	Minutes
Truck Load Time:	0.610	Minutes	Adjusted for site altitude:	0.610	Minutes
Truck Maneuver and Dump Time:	0.90	Minutes	Adjusted for site altitude:	0.928	Minutes

Truck Travel (Haul & Return) Time: maintained 3.0 Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	0.50	3.00	3.50	2394	0.546

Haul Time: **0.546** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	-0.50	3.00	2.50	2960	0.373

Return Time: **0.373** minutes
Total Truck Cycle Time: **2.972** minutes

Loading Tool unit Production: 739.69 LCY/Hour — Adjusted for job efficiency: 613.95 LCY/Hour
Truck Unit Production: 280.09 LCY/Hour — Adjusted for job efficiency: 232.47 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) — Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 464.94 LCY/Hour
Adjusted single truck/loader team production: 464.94 LCY/Hour
Adjusted multiple truck/loader team production: **464.94** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) — Total job time: **20.04** Hours

Unit cost: $1.519 /LCY — Total job cost: **$14,148.14**