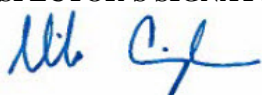




MINERALS PROGRAM INSPECTION REPORT
PHONE: (303) 866-3567

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: Emerald Vista Estate	MINE/PROSPECTING ID#: M-1994-006	MINERAL: Sand and Gravel	COUNTY: Las Animas
INSPECTION TYPE: Monitoring	INSPECTOR(S): Michael A. Cunningham	INSP. DATE: January 26, 2017	INSP. TIME: 10:00
OPERATOR: Leone Sand Gravel LLC	OPERATOR REPRESENTATIVE: Frank Leone Jr.	TYPE OF OPERATION: 110c - Construction Limited Impact	
REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: Complete Bond	BOND AMOUNT: \$15,000.00	
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None	
WEATHER: Clear	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: February 14, 2017	

GENERAL INSPECTION TOPICS

This list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each. No problems or possible violations were noted during the inspection. The mine operation was found to be in full compliance with Mineral Rules and Regulations of the Colorado Mined Land Reclamation Board for the Extraction of Construction Materials and/or for Hard Rock, Metal and Designated Mining Operations. 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----- <u>N</u>	(FN) FINANCIAL WARRANTY----- <u>Y</u>	(RD) ROADS----- <u>N</u>
(HB) HYDROLOGIC BALANCE----- <u>Y</u>	(BG) BACKFILL & GRADING----- <u>Y</u>	(EX) EXPLOSIVES----- <u>NA</u>
(PW) PROCESSING WASTE/TAILING---- <u>NA</u>	(SF) PROCESSING FACILITIES----- <u>NA</u>	(TS) TOPSOIL----- <u>Y</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>Y</u>	(FW) FISH & WILDLIFE----- <u>N</u>	(RV) REVEGETATION---- <u>N</u>
(SM) SIGNS AND MARKERS----- <u>Y</u>	(SP) STORM WATER MGT PLAN---- <u>Y</u>	(CI) COMPLETE INSP---- <u>Y</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>Y</u>	(SC) EROSION/SEDIMENTATION--- <u>Y</u>	(RS) RECL PLAN/COMP-- <u>N</u>
(AT) ACID OR TOXIC MATERIALS----- <u>NA</u>	(OD) OFF-SITE DAMAGE----- <u>N</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

OBSERVATIONS

The inspection was conducted by Michael Cunningham of the Division of Reclamation, Mining and Safety (Division). Frank Leone Jr. was present on behalf of the Operator. The Emerald Vista Estate mine is located 4 miles east of Trinidad, Colorado in Las Animas County. The site operates under a 110 Construction Materials Reclamation Permit and is permitted for 9.4 acres of disturbance. The post-mining land use is residential.

Gen. Compliance With Mine Plan:

The Operator has mined most of the deposit at the Emerald Vista Estate mine. The remaining material is located along the northeastern side of the permit area. There is an existing highwall from which the Operator is removing material. The highwall is approximately 15 ft. in height and 300 ft. in length. The Division observed a fuel tank on site, which was empty. According to the Operator, fuel is trucked in daily for equipment and the fuel tank is not being used. The Operator was informed that adequate secondary containment would be necessary to use the fuel tank in the future.

Backfilling and Grading:

The Operator was in the process of using dozers to reduce the west half of the northern pit wall to a grade of 3H:1V. The Operator submitted photographs of the completed earthwork following the inspection.

Topsoil:

Topsoil and overburden have been salvaged and stockpiled into berms along the southern permit boundary. The berms also serve as stormwater control and prevent surface water from leaving the site. The stockpiles are stable and did not show any signs of erosion.

Financial Warranty:

The Division currently holds a financial warranty in the amount of \$15,000.00, which is the original amount posted for reclamation liability in 1994. As required by Rule 4.2.1(1), all financial warranties shall be set and maintained at a level which reflects the actual current cost of fulfilling the requirements of the Reclamation Plan. The Division recalculated the financial warranty (copy enclosed) as a part of the monitoring inspection and determined the amount required to fulfill the requirements of the Reclamation Plan is \$30,275.00. The Operator is encouraged to review the enclosed financial warranty calculation and notify the Division of any errors within two weeks of the mailing date of this inspection report. Pursuant to Rule 4.2.1(2), in the event the Division determines that the financial warranty is insufficient to perform reclamation, the Permittee shall have up to 60 days to post the additional financial warranty from the date of written notice from the Division. The Division will send written notice of the financial warranty increase two weeks from the mailing date of this inspection report.

Signs and Markers:

The permit sign was posted at the site entrance and the boundary of the affected land was clearly delineated by Rule 3.1.12(1) and (2).

PHOTOGRAPHS



1. Permit sign at site entrance.



2. Highwall in active mining area.



3. Topsoil berm on south permit boundary.



4. Grading of northern highwall.

Inspection Contact Address

Frank Leone Jr.
Leone Sand Gravel LLC
2400 East Main Street
Trinidad, CO 81082

Enclosure: Financial Warranty Calculation

CC: Wally Erickson

COST SUMMARY WORK

Task description: Cost Summary

Site: Emerald Vista Estate

Permit Action: 2017 Bond Calculation

Permit/Job#: M1994006

PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 2/14/2017

County: Las Animas

Filename: M006-000

User: MAC

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Reduce highwalls	DOZER	1	17.88	\$2,504.00
002	Replace overburden	SCRAPER1	1	35.24	\$9,467.00
003	Replace topsoil	SCRAPER1	1	19.16	\$5,147.00
004	Revegetating disturbed areas	REVEGE	1	8.00	\$5,605.00
005	Equipment Mobilization/Demobilization	MOBILIZE	1	2.57	\$2,775.00
<u>SUBTOTALS:</u>				82.85	\$25,498

INDIRECT COSTS

OVERHEAD AND PROFIT:

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

Total = \$515.06
Total = \$267.73
Total = \$0.00
Total = \$2,549.80

TOTAL O & P = \$3,332.59

CONTRACT AMOUNT (direct + O & P) = \$28,830.59

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): 0.00
Engineering work and/or contract/bid preparation: 0.00
Reclamation management and/or administration: 5.00

Total = 0.00
Total = \$0.00
Total = \$1,441.53

CONTINGENCY: 0.00

Total = \$0.00

TOTAL INDIRECT COST = \$4,774.12

TOTAL BOND AMOUNT (direct + indirect) = \$30,272.12

TOTAL BOND AMOUNT (rounded up) = \$30,275.00

BULLDOZER WORKTask description: Reduce highwallsSite: Emerald Vista EstatePermit Action: 2017 Bond CalculationPermit/Job#: M1994006**PROJECT IDENTIFICATION**Task #: 001State: ColoradoAbbreviation: NoneDate: 2/14/2017County: Las AnimasFilename: M006-001User: MACAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D6T LGPHorsepower: 200Blade Type: StraightAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$49.71	NA
Operating Cost/Hour:	\$51.50	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: \$140.10Total Fleet Cost/Hour: \$140.10**MATERIAL QUANTITIES**Initial Volume: 3,750Swell factor: 1.250Loose volume: 4,688 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feetUnadjusted hourly production: 444.6 LCY/hrMaterials consistency description: Compacted fill or embankment 0.9Average push gradient: -25 %Average site altitude: 6,200 feetMaterial weight: 2,650 lbs/LCYWeight description: Decomposed rock - 25% Rock, 75% Earth**Job Condition Correction Factor**

		<u>Source</u>
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:	1.516	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5898

Adjusted unit production: 262.23 LCY/hr

Adjusted fleet production: 262.23 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.534/LCY

Total job time: 17.88 Hours

Total job cost: \$2,504

SCRAPER TEAM WORKTask description: Replace overburdenSite: Emerald Vista EstatePermit Action: 2017 Bond CalculationPermit/Job#: M1994006**PROJECT IDENTIFICATION**Task #: 002State: ColoradoAbbreviation: NoneDate: 2/14/2017County: Las AnimasFilename: M006-002User: MACAgency or organization name: DRMS**HOURLY EQUIPMENT**COSTShift basis: 1 per day

	Equipment Description
-Scraper:	Cat 631G
-Dozer:	NA
Support Equipment -Load Area:	NA
-Dump Area:	NA
Road Maintenance -Motor Grader:	NA
-Water Truck:	NA

Cost Breakdown:**Scraper Work Team****Support Equipment****Maintenance Equipment**

	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	NA	NA	NA	NA	NA
Ownership cost/hour:	\$104.50	NA	NA	NA	NA	NA
Operating cost/hour:	\$129.95	NA	NA	NA	NA	NA
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	NA	NA	NA	NA
Ripper op. cost/hour:	NA	NA	NA	NA	NA	NA
Operator cost/hour:	\$34.24	NA	NA	NA	NA	NA
Unit Subtotals:	\$268.69	NA	NA	NA	NA	NA
Number of Units:	1	0	0	0	0	0
Group Subtotals:	Work: \$268.69		Support:	\$0.00	Maint:	\$0.00

Total work team cost/hour: **\$268.69****MATERIAL QUANTITIES**Initial volume: 15,230

CCY

Swell factor: 1.125Loose volume: 17,134

LCY

Source of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION****Scraper Bowl (volume) Basis:**

Material weight: 2,650 lbs/LCY
 Material description: Decomposed rock - 25% Rock, 75% Earth
 Rated Payload: 81,600 pounds
 Payload Capacity: 30.79 LCY

Struck Volume: 24.00 LCY
 Heaped Volume: 34.00 LCY
 Average Volume: 29.00 LCY
 Adjusted Capacity: 29.00 LCY

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

Site Altitude: 6200 feet

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

Travel Time:Road Condition: Rutted dirt, little maintenance, no water, 1" tire penetration 4.0Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	500.00	-15.00	4.00	-11.00	1182	0.60

Haul Time: 0.60 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	500.00	15.00	4.00	19.00	582	0.87

Return Time: 0.87 minutesTotal Scraper team cycle time: 2.97 minutesAdjusted for job conditions: 486.26 LCY/HourSelected Number of Scrapers: 1 Scraper(s)Adjusted single scraper team (unit) hourly production: 486.26 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 486.26 LCY/HourUnadjusted unit production/hour: 585.86 LCY/HourOptimal Number of Scrapers per push dozer: **JOB TIME AND COST**Fleet size: 1 Team(s)Total job time: 35.24 HoursUnit cost: \$0.553 /LCYTotal job cost: \$9,467

SCRAPER TEAM WORKTask description: Replace topsoilSite: Emerald Vista EstatePermit Action: 2017 Bond CalculationPermit/Job#: M1994006**PROJECT IDENTIFICATION**Task #: 003State: ColoradoAbbreviation: NoneDate: 2/14/2017County: Las AnimasFilename: M006-003User: MACAgency or organization name: DRMS**HOURLY EQUIPMENT**COSTShift basis: 1 per day

	Equipment Description
-Scraper:	Cat 631G
-Dozer:	NA
Support Equipment -Load Area:	NA
-Dump Area:	NA
Road Maintenance -Motor Grader:	NA
-Water Truck:	NA

<u>Cost Breakdown:</u>	<u>Scraper Work Team</u>		<u>Support Equipment</u>		<u>Maintenance Equipment</u>	
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	NA	NA	NA	NA	NA
Ownership cost/hour:	\$104.50	NA	NA	NA	NA	NA
Operating cost/hour:	\$129.95	NA	NA	NA	NA	NA
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	NA	NA	NA	NA
Ripper op. cost/hour:	NA	NA	NA	NA	NA	NA
Operator cost/hour:	\$34.24	NA	NA	NA	NA	NA
Unit Subtotals:	\$268.69	NA	NA	NA	NA	NA
Number of Units:	1	0	0	0	0	0
Group Subtotals:	Work: \$268.69		Support: \$0.00		Maint: \$0.00	

Total work team cost/hour: **\$268.69****MATERIAL QUANTITIES**Initial volume: 7,615

CCY

Swell factor: 1.215Loose volume: 9,252

LCY

Source of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION****Scraper Bowl (volume) Basis:**

Material weight:	<u>1,600 lbs/LCY</u>	Struck Volume:	<u>24.00</u>	LCY
Material description:	<u>Top Soil</u>	Heaped Volume:	<u>34.00</u>	LCY
Rated Payload:	<u>81,600 pounds</u>	Average Volume:	<u>29.00</u>	LCY
Payload Capacity:	<u>51.00 LCY</u>	Adjusted Capacity:	<u>29.00</u>	LCY

Cycle Time:

Scraper Loading Time: 0.80 Minutes
 Maneuver and Spread Time: 0.70 Minutes

Job Condition Correction:

Site Altitude: 6200 feet

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

Travel Time:Road Condition: Very hard, smooth, asphalt or concrete, no tire penetration 1.2Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	500.00	-15.00	1.20	-13.80	879	0.80

Haul Time: 0.80 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	500.00	15.00	1.20	16.20	747	0.69

Return Time: 0.69 minutesTotal Scraper team cycle time: 2.99 minutesAdjusted for job conditions: 483.01 LCY/HourSelected Number of Scrapers: 1 Scraper(s)Adjusted single scraper team (unit) hourly production: 483.01 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 483.01 LCY/HourUnadjusted unit production/hour: 581.94 LCY/HourOptimal Number of Scrapers per push dozer: **JOB TIME AND COST**Fleet size: 1 Team(s)Total job time: 19.16 HoursUnit cost: \$0.556 /LCYTotal job cost: \$5,147

REVEGETATION WORKTask description: Revegetating disturbed areasSite: Emerald Vista EstatePermit Action: 2017 Bond CalculationPermit/Job#: M1994006**PROJECT IDENTIFICATION**Task #: 004State: ColoradoAbbreviation: NoneDate: 2/14/2017County: Las AnimasFilename: M006-004User: MACAgency 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)	\$107.59
Total Tilling Cost/Acre	\$107.59

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Hachita	3.00	48.97	\$32.01
Sideoats Grama - Butte	4.50	14.77	\$50.22
Western Wheatgrass - Arriba	8.00	20.20	\$29.52
Needlegrass, Green - Lodorm	1.00	4.16	\$5.40
Totals Seed Mix	16.50	88.10	\$117.15

Application

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

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
					\$
Totals Nursery Stock Cost / Acre					\$0.00

JOB TIME AND COST

No. of Acres:	9.44	Cost /Acre:	\$456.74
Estimated Failure Rate:	30%	Cost /Acre*:	\$456.74
*Selected Replanting Work Items: <u>TILLING,SEEDING</u>			
Initial Job Cost:	\$4,311.63		
Reseeding Job Cost:	\$1,293.49		
Total Job Cost:	\$5,605		
Job Hours:	8.00		

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: Equipment Mobilization/DemobilizationSite: Emerald Vista EstatePermit Action: 2017 Bond CalculationPermit/Job#: M1994006**PROJECT IDENTIFICATION**Task #: 005State: ColoradoAbbreviation: NoneDate: 2/14/2017County: Las AnimasFilename: M006-005User: MACAgency 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
Drill/Broadcast Seeder with Tractor	25.00	\$30.65	\$88.67	1	\$119.32	\$88.67	\$250.00
Cat D6T LGP	26.87	\$49.71	\$117.55	1	\$167.26	\$117.55	\$250.00
Cat 631G	52.50	\$104.50	\$125.45	1	\$229.95	\$125.45	\$250.00

Subtotals: **\$516.53** **\$331.67** **\$750.00****ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
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Subtotals: **\$0.00** **\$0.00**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region: TRINIDAD
 Total one-way travel distance: 5.00 miles
 Average Travel Speed: 35.00 mph

Total Non-Roadable Mob/Demob Cost * \$2,775.40
 ** two round trips with haul rig:
 Total Roadable Mob/Demob Cost ** \$0.00
 ** one round trip, no haul rig:

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.14	0.14
Return Time (Hours):	0.14	0.14
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	1.29	0.29

JOB TIME AND COST

Total job time: 2.57 Hours

Total job cost: \$2,775