




**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> Blair Mesa Pit	<b>MINE/PROSPECTING ID#:</b> M-1996-082	<b>MINERAL:</b> Sand and gravel and material for construc	<b>COUNTY:</b> Rio Blanco
<b>INSPECTION TYPE:</b> Monitoring	<b>INSPECTOR(S):</b> Travis H. Marshall	<b>INSP. DATE:</b> March 28, 2017	<b>INSP. TIME:</b> 12:15
<b>OPERATOR:</b> Oldcastle SW Group, Inc. dba United Compai County	<b>OPERATOR REPRESENTATIVE:</b> NA	<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> \$114,211.72	
<b>DATE OF COMPLAINT:</b> NA	<b>POST INSP. CONTACTS:</b> None	<b>JOINT INSP. AGENCY:</b> None	
<b>WEATHER:</b> Raining	<b>INSPECTOR'S SIGNATURE:</b> 	<b>SIGNATURE DATE:</b> April 3, 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>Y</u>	(FN) FINANCIAL WARRANTY----- <u>Y</u>	(RD) ROADS----- <u>Y</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>Y</u>	(RV) REVEGETATION---- <u>NA</u>
(SM) SIGNS AND MARKERS----- <u>Y</u>	(SP) STORM WATER MGT PLAN---- <u>NA</u>	(CI) COMPLETE INSP---- <u>N</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

### OBSERVATIONS

This inspection was conducted as part of the normal monitoring program established by the Colorado Division of Reclamation, Mining and Safety (Division). The Blair Mesa Pit is located approximately 27 miles east of Rangely, Colorado north of State Highway 64. The site is a 112c operation with 40 permitted acres, only 20.6 acres is allowed to be affected. No company representative from United was present during the inspection.

A sign located at the main entrance and permit area boundaries were observed and in compliance with Rule 3.1.12.

The site was inactive during the inspection. Various stockpiles of construction material were observed throughout the process area as well as a loader for loading construction materials for customers. The perimeter of the permit area was walked and no evidence of offsite damage was observed.

It appeared that the operation was in compliance with the approved mine plan. No problems or possible violations were observed during the inspection.

In an effort to ensure that the financial warranty remains adequate to reclaim the site per the requirements of the approved reclamation plan, DRMS has updated the reclamation cost estimate (copy enclosed). Therefore pursuant to Sections 34-32.5-117(4) of the Colorado Land Reclamation Act, adequate financial warranty must be submitted to the DRMS within 60 days of the mailing date of this report. **Please review the enclosed figures as soon as possible and contact our office if any calculation errors are noted.**

Photos that show the conditions observed during the March 28, 2017 inspection are included at the end of this report.

Responses to this inspection report should be directed to Travis Marshall at the Division of Reclamation, Mining and Safety, Grand Junction Field Office, 101 South 3<sup>rd</sup> Street, Room 301, Grand Junction, Colorado 81501, phone no. 970-241-2042.

**PHOTOGRAPHS**



PERMIT #: M-1996-082  
INSPECTOR'S INITIALS: THM  
INSPECTION DATE: March 28, 2017

**Inspection Contact Address**

Jason Burkey  
Oldcastle SW Group, Inc.  
2273 River Road  
Grand Junction, CO 81502

**BULLDOZER WORK**Task description: Highwall ReductionSite: Blair Mesa PitPermit Action: SI-02Permit/Job#: M1996082**PROJECT IDENTIFICATION**Task #: 01AState: ColoradoAbbreviation: NoneDate: 4/3/2017County: Rio BlancoFilename: 01aUser: THMAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: Cat D7R DS Series II LGPHorsepower: 240Blade Type: StraightAttachment: NAShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$60.88	NA
Operating Cost/Hour:	\$61.14	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.85	NA

Total unit Cost/Hour: \$163.87Total Fleet Cost/Hour: \$163.87**MATERIAL QUANTITIES**Initial Volume: 3,811Swell factor: 1.180Loose volume: 4,497 LCYSource of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Average push distance: 50 feetUnadjusted hourly production: 800.0 LCY/hrMaterials consistency description: Compacted fill or embankment 0.9Average push gradient: -15 %Average site altitude: 5,600 feetMaterial weight: 2,400 lbs/LCYWeight description: Clay and gravel - Dry**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:	1.329	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.958	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5706

Adjusted unit production: 456.48 LCY/hr

Adjusted fleet production: 456.48 LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)

Unit cost: \$0.359/LCY

Total job time: 9.85 Hours

Total job cost: \$1,614

**SCRAPER TEAM WORK**Task description: **Spread Topsoil**Site: **Blair Mesa Pit**Permit Action: **SI-02**Permit/Job#: **M1996082****PROJECT IDENTIFICATION**Task #: **02A**State: **Colorado**Abbreviation: **None**Date: **4/3/2017**County: **Rio Blanco**Filename: **02a**User: **THM**Agency or organization name: **DRMS****HOURLY EQUIPMENT**COSTShift basis: **1 per day**

	Equipment Description
-Scraper:	Cat 637G
-Dozer:	Cat D7R DS XR Series II
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	100	NA	NA	NA	NA
Ownership cost/hour:	\$143.40	\$52.99	NA	NA	NA	NA
Operating cost/hour:	\$153.53	\$48.22	NA	NA	NA	NA
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	NA	NA	NA	NA
Ripper op. cost/hour:	NA	\$0.00	NA	NA	NA	NA
Operator cost/hour:	\$31.26	\$41.85	NA	NA	NA	NA
Unit Subtotals:	\$328.19	\$143.06	NA	NA	NA	NA
Number of Units:	4	1	0	0	0	0
Group Subtotals:	Work:	\$1,455.82	Support:	\$0.00	Maint:	\$0.00

Total work team cost/hour: **\$1,455.82****MATERIAL QUANTITIES**Initial volume: **32,266**

CCY

Swell factor: **1.000**Loose volume: **32,266**

LCY

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

Material weight: **1,600 lbs/LCY**  
 Material description: **Top Soil**  
 Rated Payload: **81,600 pounds**  
 Payload Capacity: **51.00 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 Minutes  
 Maneuver and Spread Time: 0.60 Minutes

Job Condition Correction:

Site Altitude: 5600 feet

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

Travel Time:Road Condition: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	800.00	5.00	5.00	10.00	922	0.89

Haul Time: 0.89 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	800.00	-5.00	5.00	0.00	2965	0.37

Return Time: 0.37 minutes

Total Scraper team cycle time: 2.66 minutes  
 Adjusted for job conditions: 542.93 LCY/Hour  
 Selected Number of Scrapers: 2 Scraper(s)  
 Adjusted single scraper team (unit) hourly production: 1,085.86 LCY/Hour  
 Adjusted multiple scraper team (fleet) hourly production: 2,171.73 LCY/Hour

Unadjusted unit production/hour: 654.14 LCY/Hour

Optimal Number of Scrapers per push dozer: \_\_\_\_\_

JOB TIME AND COSTFleet size: 2 Team(s) Total job time: 14.86 HoursUnit cost: \$0.670 /LCY Total job cost: \$21,630



**REVEGETATION WORK**Task description: Revegetate 40 acresSite: Blair Mesa PitPermit Action: SI-02Permit/Job#: M1996082**PROJECT IDENTIFICATION**Task #: 03AState: ColoradoAbbreviation: NoneDate: 4/3/2017County: Rio BlancoFilename: 03aUser: THMAgency or organization name: DRMS**FERTILIZING****Materials**

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

**Application**

Description	Cost / Acre
	\$
<b>Total Fertilizer Application Cost/Acre</b>	<b>\$0.00</b>

**TILLING**

Description	Cost / Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$106.29
Weed control spraying (MEANS 31 31 16.13 3100)	\$242.00
<b>Total Tilling Cost/Acre</b>	<b>\$348.29</b>

**SEEDING**

Seed Mix	Rate -- PLS LBS / Acre	Seeds per SQ. FT	Cost / Acre
Indian Ricegrass - Nespar	1.30	4.21	\$10.08
Bluebunch Wheatgrass - Secar	1.40	4.50	\$10.74
Bottlebrush Squirreltail	0.70	3.09	\$16.45
Western Wheatgrass - Arriba	6.40	16.16	\$51.71
Needle and Thread	1.50	3.96	\$62.25
Sagebrush, Mountain or Big	0.10	5.28	\$1.98
Saltbush, Four Wing	0.50	0.69	\$6.25
Winter Fat	0.50	1.27	\$10.25

<b>Totals Seed Mix</b>	12.40	39.16	<b>\$169.70</b>
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**Application**

Description	Cost /Acre
	\$0.00
<b>Total Seed Application Cost/Acre</b>	<b>\$0.00</b>

**MULCHING and MISCELLANEOUS****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
	5.00		\$0.00	\$0.00
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$261.00	\$522.00
<b>Total Mulch Materials Cost/Acre</b>				<b>\$522.00</b>

**Application**

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$66.02
Power mulcher (MEANS 32 91 13.16 0350)	\$99.32
Weed spray, truck, non-aquatic area, nox. [DMG]	\$71.50
<b>Total Mulch Application Cost/Acre</b>	<b>\$236.84</b>

**NURSERY STOCK PLANTING**

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

**JOB TIME AND COST**

No. of Acres:	40	Cost /Acre:	\$1,276.83
Estimated Failure Rate:	40%	Cost /Acre*:	\$1,276.83
*Selected Replanting Work Items:	FERTILIZING,TILLING,SEEDING,MU LCHING		
Initial Job Cost:	\$51,073.20		
Reseeding Job Cost:	\$20,429.28		
Total Job Cost:	\$71,502		
Job Hours:	32.00		

**EQUIPMENT MOBILIZATION/DEMobilIZATION**Task description: MobilizationSite: Blair Mesa PitPermit Action: 04aPermit/Job#: M1996082**PROJECT IDENTIFICATION**Task #: 04AState: ColoradoAbbreviation: NoneDate: 4/3/2017County: Rio BlancoFilename: 04aUser: THMAgency 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:**

<b>Available Rig Capacities</b>	<b>0-25 Tons</b>	<b>26-50 Tons</b>	<b>51+ Tons</b>
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 D7R DS Series II - 7SU	31.25	\$43.55	\$117.55	1	\$161.10	\$117.55	\$250.00
Cat 637G	57.38	\$80.72	\$125.45	2	\$412.33	\$250.90	\$500.00
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: **\$797.39** **\$545.79** **\$1,250.00****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.	\$12.41	1	\$12.41	\$12.41

Subtotals: **\$12.41** **\$12.41**

**EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region:	<u>RANGELY</u>	
Total one-way travel distance:	<u>27.00</u>	miles
Average Travel Speed:	<u>27.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$6,781.14</u>
'* two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$24.82</u>
** one round trip, no haul rig:	

**Transportation Cycle Time:**

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>1.00</u>	<u>1.00</u>
Return Time (Hours):	<u>1.00</u>	<u>1.00</u>
Loading Time (Hours):	<u>0.50</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.50</u>	<u>NA</u>
Subtotals:	<u>3.00</u>	<u>2.00</u>

**JOB TIME AND COST**

Total job time:	<u>6.00</u>	Hours
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Total job cost:	<u>\$6,806</u>
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## COST SUMMARY WORK

Task description: \_\_\_\_\_

Site: Blair Mesa Pit

Permit Action: SI-02

Permit/Job#: M1996082

### PROJECT IDENTIFICATION

Task #: 001

State: Colorado

Abbreviation: None

Date: 4/3/2017

County: Rio Blanco

Filename: M082-001

User: THM

Agency or organization name: DRMS

### TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
01a	Highwall Reduction	DOZER	1	9.85	\$1,614.00
02a	Spread Topsoil	SCRAPER1	2	14.86	\$21,630.00
03a	Revegetate 40 acres	REVEGE	1	32.00	\$71,502.00
04a	Mobilization	MOBILIZE	1	6.00	\$6,806.00
<b><u>SUBTOTALS:</u></b>				<b>62.71</b>	<b>\$101,552</b>

### INDIRECT COSTS

#### OVERHEAD AND PROFIT:

Liability insurance: 2.02  
Performance bond: 1.05  
Job superintendent: 31.36  
Profit: 10.00

Total = \$2,051.35

Total = \$1,066.30

Total = \$2,290.48

Total = \$10,155.20

TOTAL O & P = \$15,563.33

CONTRACT AMOUNT (direct + O & P) = \$117,115.33

#### 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: 5.00

\$5,855.77

CONTINGENCY: 3.00

Total = \$3,046.56

TOTAL INDIRECT COST = \$24,965.66

**TOTAL BOND AMOUNT (direct + indirect) = \$126,517.66**