


**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> Solberg Pit	<b>MINE/PROSPECTING ID#:</b> M-1981-044	<b>MINERAL:</b> Sand and gravel	<b>COUNTY:</b> El Paso
<b>INSPECTION TYPE:</b> Monitoring	<b>INSPECTOR(S):</b> Timothy A. Cazier	<b>INSP. DATE:</b> August 25, 2016	<b>INSP. TIME:</b> 10:30
<b>OPERATOR:</b> Solberg Gravel LLC	<b>OPERATOR REPRESENTATIVE:</b> Wayne Brantley & Jason Ulmer	<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> \$72,635.00
<b>DATE OF COMPLAINT:</b> NA	<b>POST INSP. CONTACTS:</b> None	<b>JOINT INSP. AGENCY:</b> None
<b>WEATHER:</b> Clear	<b>INSPECTOR'S SIGNATURE:</b> 	<b>SIGNATURE DATE:</b> October 24, 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:** Financial Warranty

**PROBLEM/POSSIBLE VIOLATION:** Problem: The financial warranty is not adequate to reclaim the site in accordance with the approved reclamation plan. This is a failure to maintain the proper financial warranty amount to complete reclamation of the affected lands pursuant to C.R.S. 34-32.5-117(4)(b) of the Act.

**CORRECTIVE ACTIONS:** The operator shall submit adequate financial warranty, as determined by the Division. The Division will be sending a separate surety increase notice to the operator regarding the increase of the financial warranty. The operator will have 60 days from the date on the surety increase notice to post the additional financial warranty.

**CORRECTIVE ACTION DUE DATE:** 12/26/17

**INSPECTION TOPIC:** Gen. Compliance With Mine Plan

**PROBLEM/POSSIBLE VIOLATION:** Problem: The current mine plan needs to be updated and clarified pursuant to C.R.S. 34-32.5-112 (1)(c)(VI). The operator must provide sufficient information to describe or identify how the operator intends to conduct the operation, primarily to update the extent of the maximum allowed disturbed area at a given time.

**CORRECTIVE ACTIONS:** The operator shall submit a Technical Revision, with the required \$216 revision fee, to update and clarify the current approved mine plan to reflect existing and proposed activities by the corrective action date.

**CORRECTIVE ACTION DUE DATE:** 12/26/17

## **OBSERVATIONS**

This inspection was conducted as part of the regular monitoring program. The Permittee (Solberg Gravel) was represented by Messrs. Wayne Brantley and Jason Ulmer during the inspection. The Solberg Pit is accessed from Curtis Rd just south of Garrett Rd (approximately 3 miles east and 1.5 miles south of Falcon. This is a 112c sand and gravel mine. It was operating at the time of the inspection.

Availability of Records: Annual fees are paid through April 2017. The previous inspection was on March 14, 2012. The approved post-mine land use is rangeland. There are no open infractions. The most recent revision (AM-02) was in 2007 to add 140.66 acres and when the last bond was estimated by the Division.

Backfilling and Grading: Sufficient backfill material appeared to be available, primarily as pushing down undisturbed material from the crest. At the time of the inspection, sufficient buffer between the active highwalls and the permit boundary was available to accomplish slope flattening to 3H:1V in this manner. The area to the south where site representatives indicated wash fines were disposed (see **Photo 1**) will need to be graded to drain prior to release from reclamation liability.

Complete Inspection: The entire permit area was inspected. No problems were observed during the inspection. However, subsequent review of the approved permit indicates more land was disturbed (Approximately 83.5 acres) than is allowed under the approved permit (AM-02 allows no more than 25 acres be disturbed at one time). This is discussed in more detail under "Gen. Compliance with Mine Plan" below.

Excess Spoil and Dev. Waste: No overburden piles were observed.

Financial Warranty: The Division holds a \$72,635.00 bond. The disturbed area at the time of the inspection was approximately 84 acres. **The bond is deemed inadequate and cited as a problem on page 1 of this report.** A task for demolishing the scale house is added as a new task. A revised reclamation cost summary is included in this report as **Attachment A**.

Fish and Wildlife: No impact to wildlife was observed.

Hydrologic Balance: Some stormwater was observed in the pit (see **Photo 2**) and water/mud was observed in the wash ponds (see **Photo 3**). No exposed groundwater was observed.

Gen. Compliance with Mine Plan: The operation has exceeded its approved maximum disturbed area. Amendment 2 allows no more than 25 acres of disturbance at one time. Google Earth imagery from November 2, 2015 (see **Post Inspection Map 2**) indicates approximately 83.5 acres are disturbed and another 10.5 acres (along the north boundary) are fairly well vegetated. However the Division has no record of having received an acreage release or surety adjustment for this northern area of the permit. As such, approximately 94 acres are considered disturbed area. AM-02 further delineates the types of disturbance as being either "major", "moderate", or "minor" (which the Division no longer recognizes) with no more than: 5 acres of major disturbance, 12 acres of moderate disturbance, and 8 acres of minor disturbance at one time. **The 83.5 acres of 2015 disturbance is cited as a problem on page 1 of this report.** Highwalls were estimated to vary between 10 and 20 feet in height (see **Photo 4**) and stable for the most part.

Off-site Damage: A map was created using Google Earth and overlaying Exhibit C from AM-02 (see **Post Inspection Map**). This map indicates all the disturbance is within the permit area.

Processing Waste: Site representatives indicated squeegee is sold off. However, wash fines were being placed south of the active pit in an area estimated to be approximately 6 acres in 2015.

Roads: Site representatives indicated the haul roads are dust controlled as necessary. The material is relatively sandy and is not likely to be tracked offsite.

Reclamation Success: The north slope of the pit area (~10.5 acres) was not seeded according to site representatives, but is apparently self-reclaimed (see **Photo 5**). This is the only area of the pit that might be considered for any reclamation credit at the time of the inspection.

Revegetation: Again, the north slope appeared to have fairly well established vegetation (see **Photo 5**). No noxious weeds were observed.

Sediment Control: No significant erosion problems were observed and no BMPs were needed at the time of the inspection.

Support Facilities On-site: Screens, loaders and conveyors (see **Photo 6**) were observed during the inspection.

Signs and Markers: The permit sign was properly posted (see **Photo 7**) and the boundary near the active pit was delineated with barbed wire fence (see **Photo 8**).

Permit Stipulations: There are no permit stipulations. Site representatives indicated the power lines along the south and east permit boundaries were added a year to a year and a half prior to the inspection. A review of Google Earth historic images indicates the power line was added after October 2011 and before November 2015. The Permittee should get structures agreements with the utility company before the affected area gets within 200 feet of the power line.

Storm Water MGT Plan: Site representatives stated the site has two discharge points and the stormwater management plan is kept in the North Park Office. No oil or fuel spills were observed.

Topsoil: Site representatives stated topsoil was being stripped and salvaged for reclamation.

## **PHOTOGRAPHS**



Photo 1. Area to south where wash fines were disposed (looking NE).



Photo 2. Stormwater observed in the pit.



**PHOTOGRAPHS (cont.)**



Photo 3. Wash ponds (looking south).



Photo 4. Typical higwalls (west end, looking SW).



**PHOTOGRAPHS (cont.)**



Photo 5. North slope of the pit area (looking east).



Photo 6. Processing equipment (pit center, looking SW from scale house).



**PHOTOGRAPHS (cont.)**



Photo 7. Permit sign (near entrance).



Photo 8. Barbed wire fence (looking Easton south side – note powerline in background).

**GENERAL INSPECTION TOPICS**

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

(AR) RECORDS----- <u>Y</u>	(FN) FINANCIAL WARRANTY----- <b>PB</b>	(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>Y</u>	(SF) PROCESSING FACILITIES----- <u>Y</u>	(TS) TOPSOIL----- <u>Y</u>
(MP) GENL MINE PLAN COMPLIANCE- <b>PB</b>	(FW) FISH & WILDLIFE----- <u>Y</u>	(RV) REVEGETATION---- <u>Y</u>
(SM) SIGNS AND MARKERS----- <u>Y</u>	(SP) STORM WATER MGT PLAN---- <u>NA</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>Y</u>
(AT) ACID OR TOXIC MATERIALS----- <u>NA</u>	(OD) OFF-SITE DAMAGE----- <u>Y</u>	(ST) STIPULATIONS----- <u>Y</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**

Robert Solberg  
Solberg Gravel LLC  
13745 Garrett Rd  
Peyton, CO 80831

Enclosures





ec: DRMS file  
Julie Sevier, Pioneer Sand  
Wayne Brantley, Pioneer Sand



# M-1981-044 Post Inspection Map

11/2/2015 Satellite Imagery  
Affected area boundary based on AM-02 Exhibit C Overlay

## Legend

-  Dist. Area M-81-44 (11/2/15)
-  M-1981-044 Aff. Area Bndry
-  Reclaimed? Area M-81-44
-  Solberg Pit

~10.5 acres

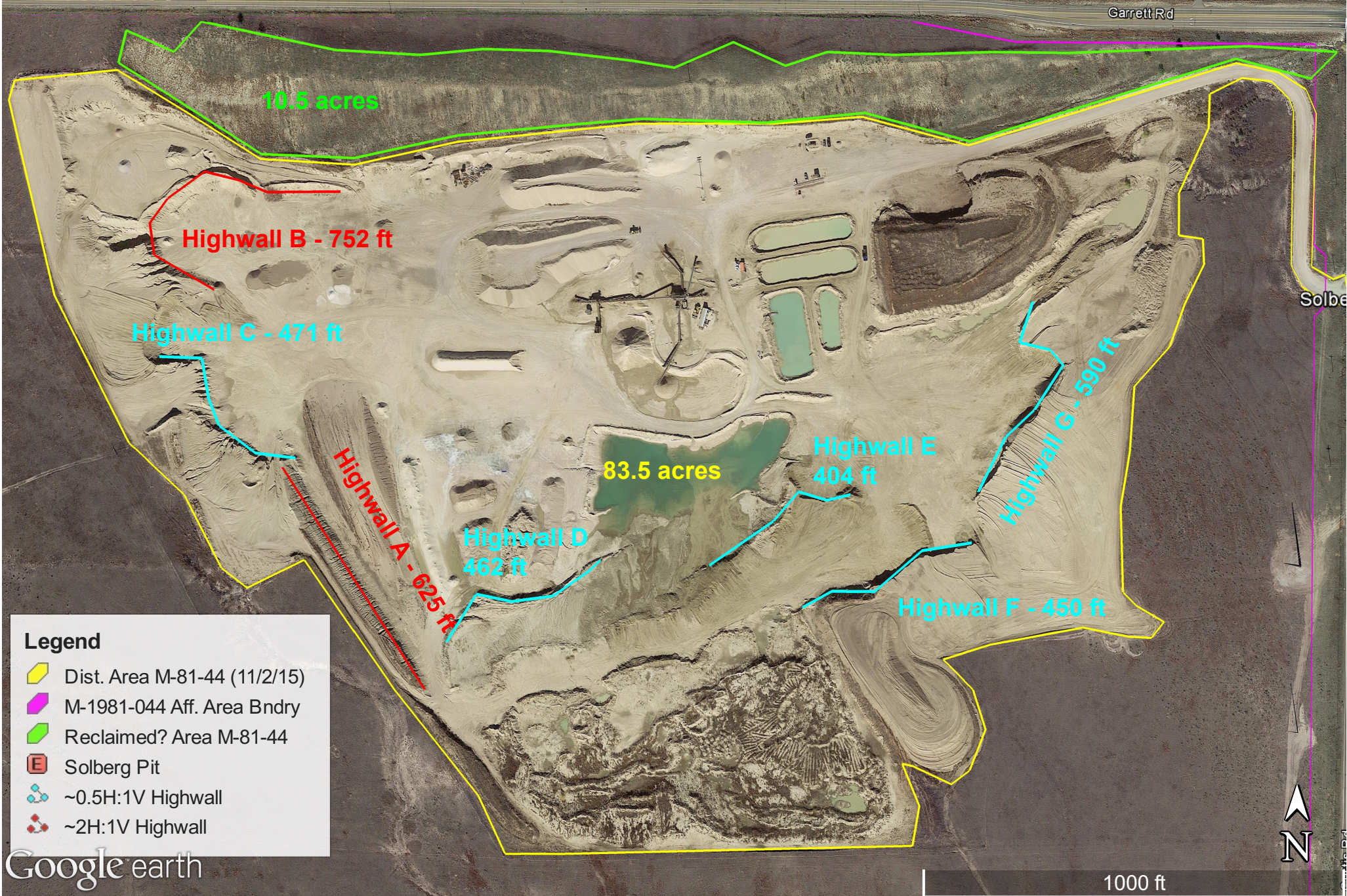
Solberg Pit





# M-1981-044 Post Inspection Map 2

11/2/2015 Satellite Imagery  
Affected area boundary based on AM-02 Exhibit C Overlay





# ATTACHMENT A

## COST SUMMARY WORK

Task description: Cost Summary

Site: Solberg Pit

Permit Action: 2017 Update

Permit/Job#: M1981044

### PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 10/24/2017

County: El Paso

Filename: M044-000

User: TC1

Agency or organization name: DRMS

### TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
010	Knock down 2H:1V Highwalls	DOZER	1	0.81	\$155.00
011	Knock down 0.5H:1V Highwalls	DOZER	1	6.15	\$1,172.00
012	Regrade Approx. 80 acres Disturbed Area	NA	1	120.00	\$24,631.00
020	Place 6" Topsoil over disturbed area	SCRAPER1	1	14.61	\$11,335.00
030	Revegetate 83.5 Acres	REVEGE	1	120.00	\$102,004.00
035	Demo Scale House	DEMOLISH	1	2.00	\$265.00
040	Mob/Demob	MOBILIZE	1	1.57	\$3,790.00
<b><u>SUBTOTALS:</u></b>				<b>265.14</b>	<b>\$143,352</b>

### INDIRECT COSTS

#### OVERHEAD AND PROFIT:

Liability insurance: 2.02

Total = \$2,895.71

Performance bond: 1.05

Total = \$1,505.20

Job superintendent: 63.48

Total = \$4,637.21

Profit: 10.00

Total = \$14,335.20

TOTAL O & P = \$23,373.32

CONTRACT AMOUNT (direct + O & P) = \$166,725.32

#### 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

\$8,336.27

CONTINGENCY: 0.00

Total = \$0.00

TOTAL INDIRECT COST = \$31,709.59

TOTAL BOND AMOUNT (direct + indirect) = **\$175,061.59**

**ROUNDED TOTAL BOND AMOUNT (direct + indirect) = \$175,100.00**

**BULLDOZER WORK**Task description: **Knock down 2H:1V Highwalls**Site: **Solberg Pit** Permit Action: **2017 Update** Permit/Job#: **M1981044****PROJECT IDENTIFICATION**

Task #: **010** State: **Colorado** Abbreviation: **None**  
 Date: **10/20/2017** County: **El Paso** Filename: **M044-010**  
 User: **TC1**

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:	\$83.81	NA
Operating Cost/Hour:	\$66.17	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$40.52	NA

Total unit Cost/Hour: **\$190.50**  
 Total Fleet Cost/Hour: **\$190.50**

**MATERIAL QUANTITIES**

Initial Volume: **797**  
 Swell factor: **1.060**  
 Loose volume: **845 LCY**

Source of estimated volume: **Task 010.1 Spreadsheet**  
 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: **-25 %**  
 Average site altitude: **6,650 feet**

Material weight: **2,900 lbs/LCY**Weight description: **Sand and gravel - Dry****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.100	(50% SL)
Visibility:	1.000	(AVG.)



Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.516	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.7409

Adjusted unit production: 1,037.26 LCY/hr

Adjusted fleet production: **1037.26** LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)

Unit cost: \$0.184/LCY

Total job time: **0.81** Hours

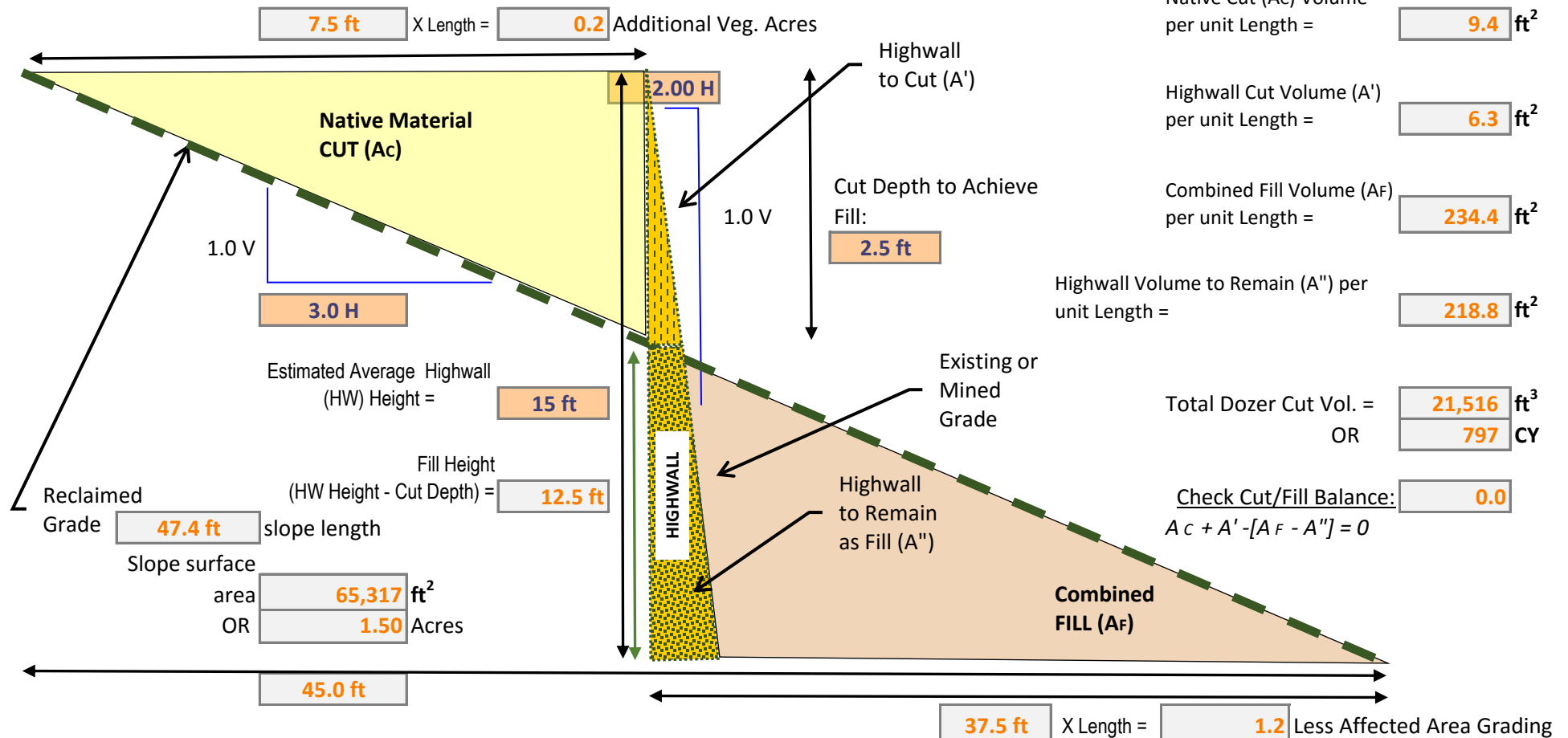
Total job cost: **\$155**

## Task # 010.1 2H:1V Highwall Backfill Volume Estimate

PROJECT: Solberg Pit  
 PERMIT No.: M-1981-044  
 HIGHWALL LOCATION: West End Highwalls (~2H:1V)

### LEGEND

Input
Result



### HIGHWALL CUT - FILL VOLUME ESTIMATE

**BULLDOZER WORK**Task description: **Knock down 0.5H:1V Highwalls**Site: **Solberg Pit** Permit Action: **2017 Update** Permit/Job#: **M1981044****PROJECT IDENTIFICATION**

Task #: **011** State: **Colorado** Abbreviation: **None**  
 Date: **10/20/2017** County: **El Paso** Filename: **M044-011**  
 User: **TC1**

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:	\$83.81	NA
Operating Cost/Hour:	\$66.17	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$40.52	NA

Total unit Cost/Hour: **\$190.50**  
 Total Fleet Cost/Hour: **\$190.50**

**MATERIAL QUANTITIES**

Initial Volume: **6,018**  
 Swell factor: **1.060**  
 Loose volume: **6,379 LCY**

Source of estimated volume: **Task 011.1 Spreadsheet**  
 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: **-25 %**  
 Average site altitude: **6,650 feet**

Material weight: **2,900 lbs/LCY**Weight description: **Sand and gravel - Dry****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.100	(50% SL)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.516	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.7409

Adjusted unit production: 1,037.26 LCY/hr

Adjusted fleet production: **1037.26** LCY/hr

### **JOB TIME AND COST**

Fleet size: 1 Dozer(s)

Unit cost: \$0.184/LCY

Total job time: **6.15** Hours

Total job cost: **\$1,172**

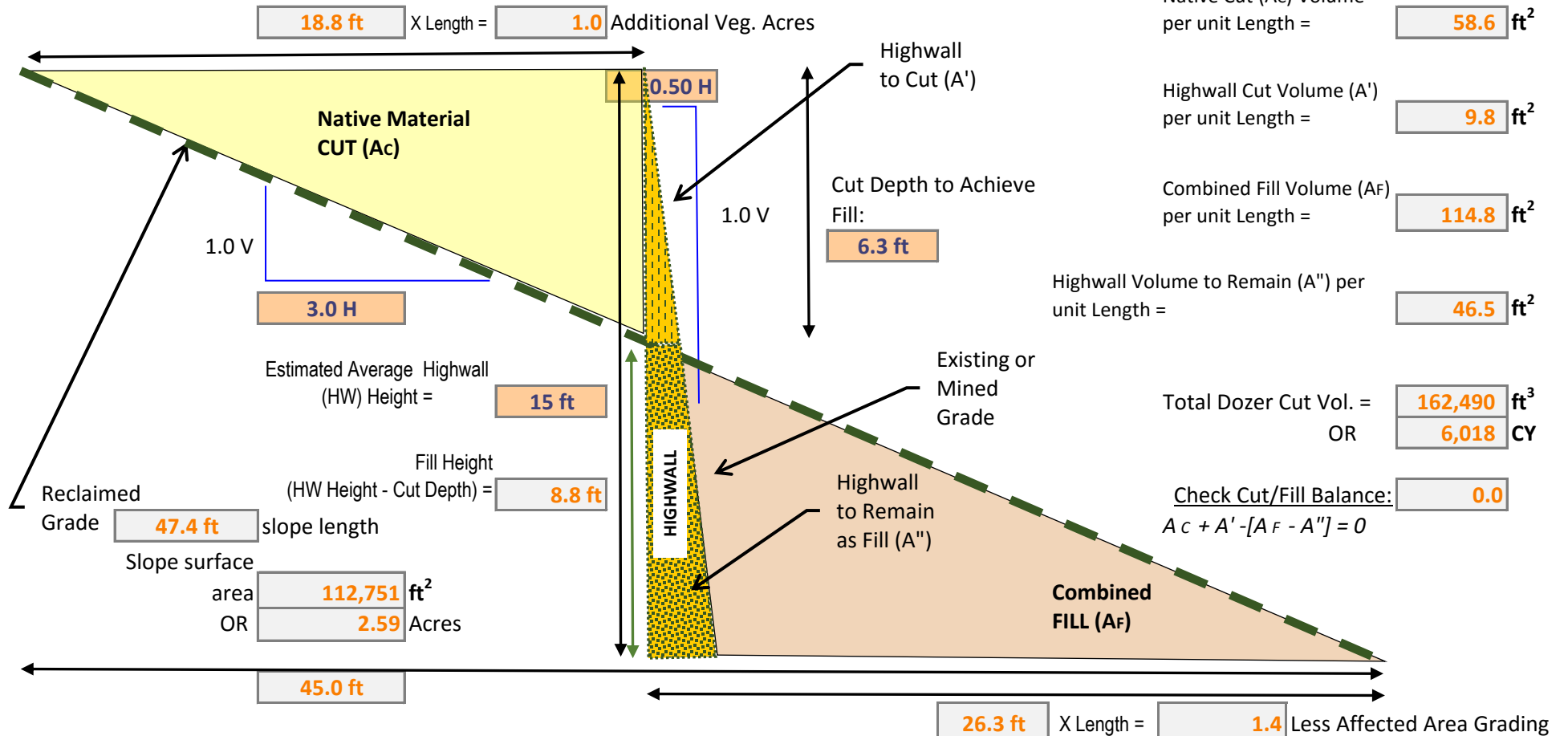


## Task # 011.1 0.5H:1V Highwall Backfill Volume Estimate

PROJECT: Solberg Pit  
 PERMIT No.: M-1981-044  
 HIGHWALL LOCATION: Steep Highwalls (~0.5H:1V)

### LEGEND

Input
Result



### HIGHWALL CUT - FILL VOLUME ESTIMATE

**DOZERGRADER WORK**Task description: **Regrade Approx. 80 acres Disturbed Area**Site: **Solberg Pit** Permit Action: 2017 Update Permit/Job#: M1981044**PROJECT IDENTIFICATION**

Task #:	<u>012</u>	State:	<u>Colorado</u>	Abbreviation:	<u>None</u>
Date:	<u>10/20/2017</u>	County:	<u>El Paso</u>	Filename:	<u>M044-012</u>
User:	<u>TC1</u>				

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

Basic Machine:	<u>Cat D8T - 8SU</u>
Horsepower:	<u></u>
Blade Type:	<u></u>
Attachment:	<u>3-shank ripper</u>
Shift Basis:	<u>1 per day</u>
Data Source:	<u></u>

**Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$83.81</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$66.17</u>	<u>100</u>
Ripper own. Cost/Hour:	<u>\$7.55</u>	<u>NA</u>
Ripper op. Cost/Hour:	<u>\$7.21</u>	<u>100</u>
Operator Cost/Hour:	<u>\$40.52</u>	<u>NA</u>

Total unit Cost/Hour:	<u>\$205.26</u>
Total Fleet Cost/Hour:	<b><u>\$205.26</u></b>

**JOB TIME AND COST**

Fleet size:	<u>1 Dozer(s)</u>
Unit cost:	<u>\$205.26/LCY</u>

Total job time:	<b><u>120.00 Hours *</u></b>
Total job cost:	<b><u>\$24,631</u></b>

*\* Hours based on time to rip 83.5 acres using a multishank ripper with a Cat D8T – 8SU dozer*

**SCRAPER TEAM WORK**Task description: **Place 6" Topsoil over disturbed area**Site: **Solberg Pit**Permit Action: 2017 UpdatePermit/Job#: M1981044**PROJECT IDENTIFICATION**Task #: 020State: ColoradoAbbreviation: NoneDate: 10/20/2017County: El PasoFilename: M044-020User: TC1Agency or organization name: DRMS**HOURLY EQUIPMENT**COSTShift basis: 1 per day

Equipment Description	
-Scraper:	Cat 623G
-Dozer:	NA
Support Equipment -Load Area:	Cat D8T - 8SU
-Dump Area:	CAT 14M
Road Maintenance -Motor Grader:	NA
-Water Truck:	Water Tanker, 2,500 Gal.

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

	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	NA	100	100	NA	100
Ownership cost/hour:	\$84.05	NA	\$83.81	\$54.68	NA	\$7.88
Operating cost/hour:	\$85.92	NA	\$66.17	\$46.99	NA	\$14.74
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	\$0.00	\$0.00	NA	\$0.00
Ripper op. cost/hour:	NA	NA	\$0.00	\$0.00	NA	\$0.00
Operator cost/hour:	\$41.46	NA	\$40.52	\$38.16	NA	\$0.00
Unit Subtotals:	\$211.43	NA	\$190.50	\$139.83	NA	\$22.62
Number of Units:	2	0	1	1	0	1
Group Subtotals:	Work: \$422.86		Support: \$330.33		Maint: \$22.62	

Total work team cost/hour: **\$775.81****MATERIAL QUANTITIES**Initial volume: 6,736

CCY

Swell factor: 1.429Loose volume: **9,623**

LCY

Source of estimated volume: 83.5 acres x 6"Source of estimated swell factor: Cat Handbook**HOURLY PRODUCTION****Scraper Bowl (volume) Basis:**

Material weight:	<u>1,600 lbs/LCY</u>	Struck Volume:	<u>18.00</u>	LCY
Material description:	<u>Top Soil</u>	Heaped Volume:	<u>23.00</u>	LCY
Rated Payload:	<u>55,200 pounds</u>	Average Volume:	<u>20.50</u>	LCY
Payload Capacity:	<u>34.50 LCY</u>	Adjusted Capacity:	<b><u>20.50</u></b>	LCY

Cycle Time:Scraper Loading Time: 0.90 MinutesManeuver and Spread Time: 0.70 MinutesJob Condition Correction:

Site Altitude: 6650 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, 2" tire penetration 5.0Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	0.00	5.00	5.00	1292	0.84

Haul Time: 0.84 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	0.00	5.00	5.00	2359	0.66

Return Time: 0.66 minutesTotal Scraper team cycle time: 3.10 minutesAdjusted for job conditions: 329.32 LCY/HourSelected Number of Scrapers: 2 Scraper(s)Adjusted single scraper team (unit) hourly production: 658.65 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 658.65 LCY/HourUnadjusted unit production/hour: 396.77 LCY/Hour

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

**JOB TIME AND COST**Fleet size: 1 Team(s)Total job time: 14.61 HoursUnit cost: \$1.178 /LCYTotal job cost: \$11,335



**REVEGETATION WORK**Task description: Revegetate 83.5 AcresSite: Solberg PitPermit Action: 2017 UpdatePermit/Job#: M1981044**PROJECT IDENTIFICATION**Task #: 030State: ColoradoAbbreviation: NoneDate: 10/20/2017County: El PasoFilename: M044-030User: TC1Agency 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
Blue Grama - Native	1.00	16.32	\$14.50
Little Bluestem - Native	2.00	11.94	\$31.50
Sideoats Grama - Vaughn	4.00	13.13	\$40.00
Intermediate Wheatgrass - Rush	5.00	10.67	\$18.75
Western Wheatgrass - Native	6.00	15.15	\$42.00
Needlegrass, Green - Lodorm	3.00	12.47	\$14.61
Regreen Hybrid	15.00	3.79	\$72.75
<b>Totals Seed Mix</b>	<b>36.00</b>	<b>83.47</b>	<b>\$234.11</b>

**Application**

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

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

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

**Application**

Description	Cost /Acre
	\$
<b>Total Mulch Application Cost/Acre</b>	<b>\$0.00</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: 83.5                      Cost /Acre: \$814.40  
 Estimated Failure Rate: 50%                      Cost /Acre\*: \$814.40  
 \*Selected Replanting Work Items: TILLING,SEEDING

Initial Job Cost: **\$68,002.40**  
 Reseeding Job Cost: **\$34,001.20**  
 Total Job Cost: **\$102,004**  
 Job Hours: **120.00**

## DEMOLITION WORK

Task description: Demo Scale House

Site: Solberg Pit

Permit Action: 2017 Update

Permit/Job#: M1981044

### PROJECT IDENTIFICATION

Task #: 035

State: Colorado

Abbreviation: None

Date: 10/24/2017

County: El Paso

Filename: M044-035

User: TC1

Agency or organization name: DRMS

### UNIT COSTS

Location adjustment: 93.10 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Scale House	14 ft x 8 ft x 8 ft	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 50 ft. push	896.00	CF	\$0.17	\$155.90
Scale House Foundation	18 ft x 12 ft	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 50 ft. push	216.00	SF	\$0.60	\$128.74

Job Hours: 2.00

Subtotal  
(unadjusted): \$284.64

Total Cost  
(adjusted for  
location): \$265.00

**EQUIPMENT MOBILIZATION/DEMOBILIZATION**Task description: **Mob/Demob**Site: **Solberg Pit**Permit Action: **2017 Update**Permit/Job#: **M1981044****PROJECT IDENTIFICATION**Task #: **040**State: **Colorado**Abbreviation: **None**Date: **10/24/2017**County: **El Paso**Filename: **M044-040**User: **TC1**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:**

<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 D8T - 8SU	53.08	\$91.36	\$125.45	1	\$216.81	\$125.45	\$250.00
Cat 623G	41.35	\$84.05	\$117.55	2	\$403.20	\$235.10	\$500.00
CAT 14M	23.57	\$54.68	\$88.67	1	\$143.35	\$88.67	\$250.00
CAT 450E	9.80	\$20.08	\$88.67	1	\$108.75	\$88.67	\$250.00

Subtotals: **\$872.11** **\$537.89** **\$1,250.00****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.	\$22.62	1	\$22.62	\$22.62
Drill/Broadcast Seeder with Tractor	\$30.89	1	\$30.89	\$30.89

Subtotals: **\$53.51** **\$53.51**

**EQUIPMENT HAUL DISTANCE and Time**

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

Total Non-Roadable Mob/Demob Cost \* \$3,774.97  
 \* two round trips with haul rig:  
 Total Roadable Mob/Demob Cost \*\* \$15.29  
 \*\* 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):	0.25	NA
Unloading Time (Hours):	0.25	NA
Subtotals:	0.79	0.29

**JOB TIME AND COST**

Total job time: 1.57 Hours

Total job cost: \$3,790