



COLORADO
Division of Reclamation,
Mining and Safety
Department of Natural Resources

August 9, 2022

Amy Veek
GCC Rio Grande, Inc.
3372 Lime Road
Pueblo, CO 81004

**Re: Salt Canyon Project, Permit No. M-1997-064, Technical Revision (TR-3);
Second Adequacy Review**

Dear Ms. Veek:

The Division of Reclamation, Mining and Safety (DRMS) received your response to our June 22, 2022 Preliminary Adequacy Review (PAR) letter on August 1, 2022.

The submittal was called complete for the purpose of filing on May 31, 2022. The current **decision date for TR-3 is August 12, 2022**. Please be advised that if you are unable to satisfactorily address any concerns identified in this review before the decision date, **it will be your responsibility to request an extension of the review period**. If there are outstanding issues that have not been adequately addressed prior to the end of the review period, and no extension has been requested, the Division may deny this Technical Revision.

The following comments are based on the DRMS review of your August 1st response:

- 1) Rule Reference: No response is necessary.
- 2) General Mining Information: The response was adequate.
- 3) Active Mine Highwall: The response was adequate.
- 4) Highwall 115 Visual Buffer: The DRMS accepts GCC Rio Grande's commitment to to complete and submit a separate Technical Revision to the DRMS to include an updated Reclamation Plan Map (Exhibit F) and Exhibit C maps C-2 and C-3 related to finalizing the reclamation plan for the Highway 115 visual buffer. We also accept your commitment to ensuring that no mining or additional disturbance within the Phase 8 boundary will occur until DRMS has reviewed and approved an updated contouring plan for this area. No further response is necessary at this time.
- 5) Surface Water Management Reclamation: The response was adequate.
- 6) Blasting Plan: The response was partially adequate:



- a. Limits on airblast – The response was adequate. ,
 - b. Locations of blast monitoring – There was an apparent error in the location of the proposed blast monitoring. The coordinates provided (38.11628 N, 104.60611 W) appear to be due east of the mining operation at GCC's Pueblo Cement Plant and Limestone Quarry. Please double check the proposed seismograph location to be sure it is in close vicinity to the Salt Canyon Project and provide appropriate coordinates.
- 7) Updated Reclamation Cost estimate: Based on your responses to the PAR, the DRMS developed a reclamation cost estimate for your updated mine plan. Please review the attached cost estimate. If GCC is in agreement with the revised estimate, the DRMS will issue a surety increase letter after the approval of this technical revision.

If you have any questions or need further information, please contact me at (303)866-3567 x8169.

Sincerely,



Timothy A. Cazier, P.E.
Environmental Protection Specialist

Enclosure: Bond Estimate

cc: Michael Cunningham, DRMS
DRMS file

COST SUMMARY WORK

Task description: Cost Summary

Site: Salt Canyon Project

Permit Action: TR3 Update

Permit/Job#: M1997064

PROJECT IDENTIFICATION

Task #: 000

State: Colorado

Abbreviation: None

Date: 8/9/2022

County: Fremont

Filename: M064-000

User: TC1

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Recontour 2,500 Foot highwall to 3:1	DOZER	1	3.89	\$1,026
002	Spread 9" subsoil & 2" topsoil	SCRAPER1	1	97.90	\$41,710
003	Reveg 40 acres per Original Permit (SCS sheet)	REVEGE	1	0.00	\$97,723
004	Deconstruct Stormwater Berm	DOZER	1	0.61	\$161
005	Mob/Demob Equipment	MOBILIZE	1	3.30	\$3,370
<u>SUBTOTALS:</u>				105.7	\$143,990

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02

Total = \$2,909

Performance bond: 1.05

Total = \$1,512

Job superintendent: 52.85

Total = \$3,971

Profit: 10.00

Total = \$14,399

TOTAL O & P = \$22,790

CONTRACT AMOUNT (direct + O & P) = \$166,780

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): \$0

Total = \$0

Engineering work and/or contract/bid preparation: 4.25

Total = \$7,088

Reclamation management and/or administration: 5.00

\$8,339

CONTINGENCY: 0.00

Total = \$0

TOTAL INDIRECT COST = \$38,217

TOTAL BOND AMOUNT (direct + indirect) = \$182,207

BULLDOZER WORKTask description: **Recontour 2,500 Foot highwall to 3:1**Site: **Salt Canyon Project**Permit Action: **TR3 Update**Permit/Job#: **M1997064****PROJECT IDENTIFICATION**Task #: **001**
Date: **8/9/2022**
User: **TC1**State: **Colorado**
County: **Fremont**Abbreviation: **None**
Filename: **M064-001**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:	\$124.85	NA
Operating Cost/Hour:	\$97.63	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.30	NA
Total unit Cost/Hour:	\$263.78	
Total Fleet Cost/Hour:	\$263.78	

MATERIAL QUANTITIESInitial Volume: **3,161**
Swell factor: **1.250**
Loose volume: **3,951 LCY**Source of estimated volume: **TR3 / Task #001.1**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: **-15 %**
Average site altitude: **6,250 feet**Material weight: **2,550 lbs/LCY**Weight description: **Earth - Dry packed**

Job Condition Correction Factor

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.200	(SLOT)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	1.329	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.7253

Adjusted unit
production: 1,015.42 LCY/hr
Adjusted fleet
production: **1015.42** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.260/LCY

Total job time: **3.89** Hours
Total job cost: **\$1,026**

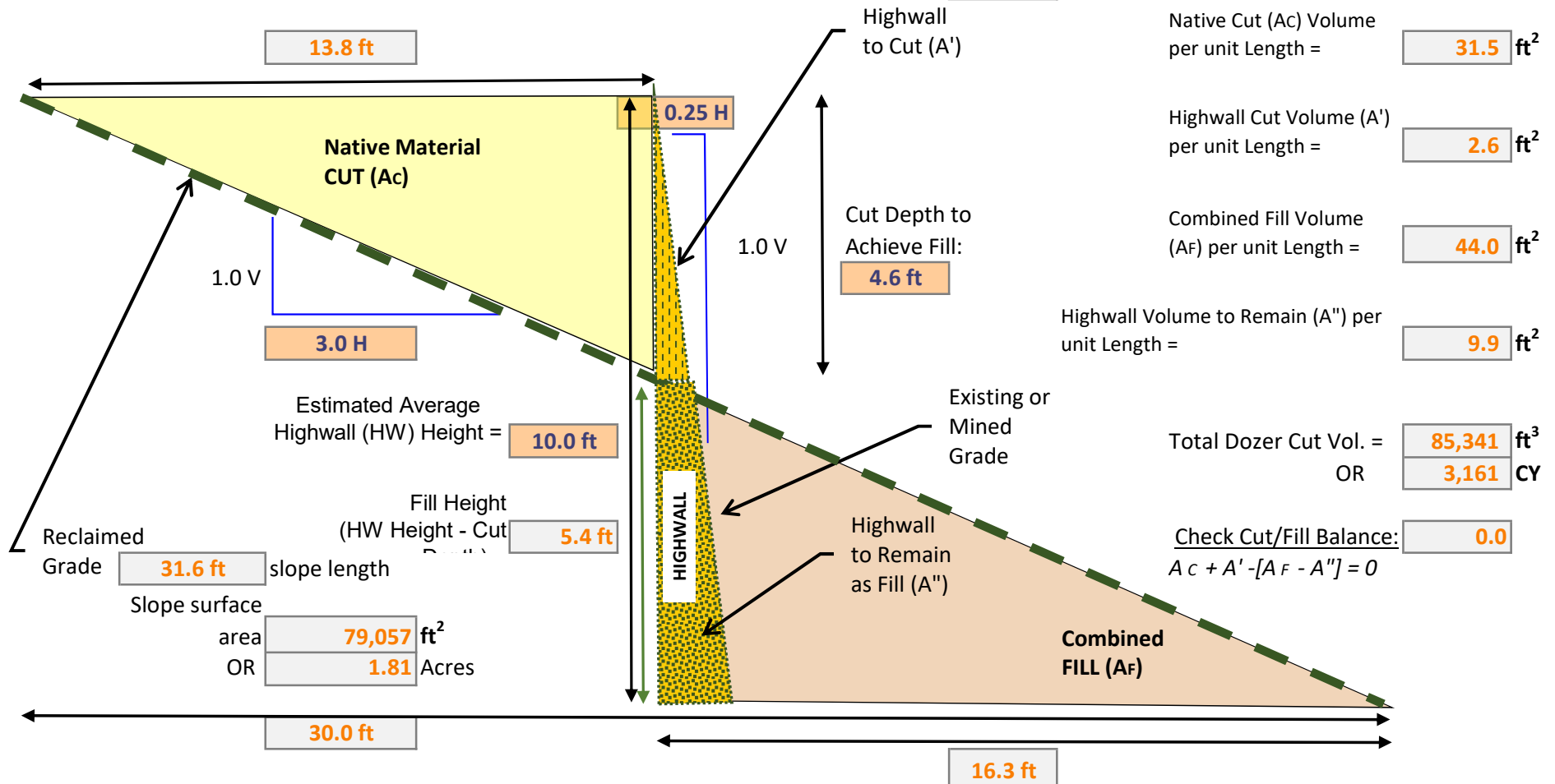
Task # 001.1 Production Highwall Cut/Fill Volume Estimate

PROJECT: Salt Canyon Project
 PERMIT No.: M-1997-064
 HIGHWALL LOCATION: 2500 feet Length of Production Highwall

LEGEND

Input

Result



HIGHWALL CUT - FILL VOLUME ESTIMATE

SCRAPER TEAM WORKTask description: Spread 9" subsoil & 2" topsoilSite: Salt Canyon ProjectPermit Action: TR3 UpdatePermit/Job#: M1997064**PROJECT IDENTIFICATION**Task #: 002State: ColoradoAbbreviation: NoneDate: 8/9/2022County: FremontFilename: M064-002User: TC1Agency 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:	\$200.41	NA	NA	NA	NA	NA
Operating cost/hour:	\$194.76	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:	\$30.90	NA	NA	NA	NA	NA
Unit Subtotals:	\$426.07	NA	NA	NA	NA	NA
Number of Units:	1	0	0	0	0	0
Group Subtotals:	Work: \$426.07		Support:	\$0.00	Maint:	\$0.00

Total work team cost/hour: **\$426.07****MATERIAL QUANTITIES**Initial volume: 59,155

CCY

Swell factor: 1.000Loose volume: **59,155**

LCY

Source of estimated volume: TR-2: 9" subsoil+2" topsoil over 40 acresSource 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: 6250 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	400.00	-3.00	5.00	2.00	2806	0.54

Haul Time: 0.54 minutesReturn Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	400.00	3.00	5.00	8.00	1446	0.35

Return Time: 0.35 minutesTotal Scraper team cycle time: 2.39 minutesAdjusted for job conditions: 604.27 LCY/HourSelected Number of Scrapers: 1 Scraper(s)Adjusted single scraper team (unit) hourly production: 604.27 LCY/HourAdjusted multiple scraper team (fleet) hourly production: 604.27 LCY/HourUnadjusted unit production/hour: 728.03 LCY/Hour

Optimal Number of Scrapers per push dozer: _____

JOB TIME AND COSTFleet size: 1 Team(s)Total job time: 97.90 HoursUnit cost: \$0.705 /LCYTotal job cost: \$41,710

REVEGETATION WORKTask description: Reveg 40 acres per Original Permit (SCS sheet)Site: Salt Canyon ProjectPermit Action: TR3 UpdatePermit/Job#: M1997064PROJECT IDENTIFICATIONTask #: 003State: ColoradoAbbreviation: NoneDate: 8/9/2022County: FremontFilename: M064-003User: TC1Agency or organization name: DRMSFERTILIZING**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Manure, 43.56 tons/ac.	0.18	acre	\$2,063.06	\$378.78
			Total Fertilizer Materials Cost/Acre	\$378.78

Application

Description	Cost /Acre
Manure, tractor spreader (MEANS 32 91 13.23 4450)	\$71.00
Total Fertilizer Application Cost/Acre	\$71.00

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$117.18
Total Tilling Cost/Acre	\$117.18

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Indian Ricegrass - Nespar	12.00	38.84	\$106.50
Big Bluestem - Native	7.00	20.89	\$82.72
Blue Grama - Lovington	3.00	48.97	\$47.93
Sideoats Grama - Vaughn	9.00	29.55	\$75.38
Western Wheatgrass - Arriba	16.00	40.40	\$104.00
Rose, Wood's	0.20	0.00	\$4.10
Sagebrush, Louisiana or Prairie	0.25	25.20	\$33.38
Totals Seed Mix	47.45	203.85	\$453.99

Application

Description	Cost /Acre
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
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$421.36	\$842.72
Total Mulch Materials Cost/Acre				\$842.72

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$73.00
Total Mulch Application Cost/Acre	\$73.00

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:	40	Cost /Acre:	\$2,168.67
Estimated Failure Rate:	40%	Cost /Acre*:	\$685.99
*Selected Replanting Work Items:	SEEDING		
Initial Job Cost:	\$86,746.80		
Reseeding Job Cost:	\$10,975.84		
Total Job Cost:	\$97,723		
Job Hours:	0.00		

BULLDOZER WORKTask description: **Deconstruct Stormwater Berm**Site: **Salt Canyon Project**Permit Action: **TR3 Update**Permit/Job#: **M1997064****PROJECT IDENTIFICATION**Task #: **004**State: **Colorado**Abbreviation: **None**Date: **8/9/2022**County: **Fremont**Filename: **M064-004**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:	\$124.85	NA
Operating Cost/Hour:	\$97.63	100
Ripper own. Cost/Hour:	\$0.00	NA
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$41.30	NA
Total unit Cost/Hour:	\$263.78	
Total Fleet Cost/Hour:	\$263.78	

MATERIAL QUANTITIESInitial Volume: **333**Swell factor: **1.000**Loose volume: **333 LCY**Source of estimated volume: **2' x 3' x 3,000' => 333CY**Source of estimated swell
factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **100 feet**Unadjusted hourly
production: **852.6 LCY/hr**Materials consistency description: **Partly consolidated stockpile 1.1**Average push
gradient: **0 %**Average site altitude: **6,250 feet**Material weight: **2,650 lbs/LCY**Weight description: **Decomposed rock - 25% Rock, 75% Earth**

Job Condition Correction Factor

		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	1.100	(CAT HB)
Dozing method:	1.200	(SLOT)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.6419

Adjusted unit
production: 547.28 LCY/hr

Adjusted fleet
production: **547.28** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)

Unit cost: \$0.482/LCY

Total job time: **0.61** Hours

Total job cost: **\$161**

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: **Mob/Demob Equipment**Site: **Salt Canyon Project**Permit Action: **TR3 Update**Permit/Job#: **M1997064****PROJECT IDENTIFICATION**Task #: **005**State: **Colorado**Abbreviation: **None**Date: **8/9/2022**County: **Fremont**Filename: **M064-005**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:**

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$15.25	\$23.06	\$37.58
Operating Cost/Hour:	\$25.26	\$30.83	\$51.41
Operator Cost/Hour:	\$27.71	\$27.71	\$27.71
Helper Cost/Hour:	\$0.00	\$20.22	\$20.22
Total Unit Cost/Hour:	\$68.22	\$101.82	\$136.92

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	\$137.95	\$136.92	1	\$274.87	\$136.92	\$250.00
Cat 631G	52.50	\$200.41	\$136.92	1	\$337.33	\$136.92	\$250.00
Drill/Broadcast Seeder with Tractor	25.00	\$6.25	\$68.22	1	\$74.47	\$68.22	\$250.00

Subtotals: **\$686.67** **\$342.06** **\$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:	<u>COLORADO SPRINGS</u>	
Total one-way travel distance:	<u>23.00</u>	miles
Average Travel Speed:	<u>40.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$3,369.71</u>
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	<u>\$0.00</u>
** one round trip, no haul rig:	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>0.58</u>	<u>0.58</u>
Return Time (Hours):	<u>0.58</u>	<u>0.58</u>
Loading Time (Hours):	<u>0.25</u>	<u>NA</u>
Unloading Time (Hours):	<u>0.25</u>	<u>NA</u>
Subtotals:	<u>1.65</u>	<u>1.15</u>

JOB TIME AND COST

Total job time:	<u>3.30</u>	Hours
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Total job cost:	<u>\$3,370</u>
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