

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 1<sup>st</sup> response:

- 1) <u>Rule Reference</u>: No response is necessary.
- 2) <u>General Mining Information</u>: The response was adequate.
- 3) <u>Active Mine Highwall</u>: The response was adequate.
- 4) <u>Highwall 115 Visual Buffer</u>: 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) <u>Surface Water Management Reclamation</u>: The response was adequate.
- 6) <u>Blasting Plan</u>: 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) <u>Updated Reclamation Cost estimate</u>: 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.

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

Enclosure: Bond Estimate

ec: Michael Cunningham, DRMS DRMS file

## COST SUMMARY WORK

Abbreviation: None
Filename: M064-000
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Task	Description	Used	Size	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>SUBTO</u>	DTALS:	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): Engineering work and/or contract/bid preparation:	<u>\$0</u> 4.25	Total =	\$0 \$7,088
Reclamation management and/or administration:	5.00		\$8,339
CONTINGENCY:	0.00	Total =	\$0
		TOTAL INDIRECT COST =	\$38,217
			¢102 207

TOTAL BOND AMOUNT (direct + indirect) = <u>\$182,207</u>

## BULLDOZER WORK

Bit: Sut Caryon Project Permit Action: TR 3 Update Permit Jobbs: M1997064     PROJECT IDENTIFICATION   Task #: 001 State: Colorado Mofel-001   Date: \$892022 County: Fremont Pilename: M064-001   Date: \$892022 County: Demostation nume: Demostation nume: Mofel-001   Date: \$892022 County: Fremont Pilename: M064-001   Demostation nume: DRMS   HOTELY FOULPMENT COST   Basic Machine: Cal DBT - 88U   Hasic Machine: State addition   Source of costHour: \$124.85   Name Na   Operating CostHour: \$263.78   Total unit CostHour: \$263.78   Swelf Ricetric: 1.250   Swelf Ricetric: 1.250   Swelf Ricetric: Cal Handbook   Swelf Ricetric: Cal Handbook   Swere of estimated swell: Cal Handbook   Swere of estimated swell: Cal Handbook   Materials consistency description: Compacted fill or embankment 0.9	Task description:	Recontour 2,500 Foot highwa	all to 3:1		
Tusk #:       001       State:       County:       Fremont       Abbreviation:       None         Date:       8902022       County:       Fremont       Filename:       M064-001         Agency or organization name:       DRMS         DIMMS         HOLEX COLENT:         Basic Machine:       Cat D8T - 85U         Horsepowe:       310         Blade Type:       Semi-Universal         Attachment:       NA         Shift Basis:       1 per day         Data Scoree:       (CRG)         Ownership Cost/Hour:       \$124.85         Mathemet:       NA         Shift Basis:       1 per day         Data Cost/Hour:       \$124.85         Operating Cost/Hour:       \$124.85         Cost/Hour:       \$30.00         Ripper op.       \$0.00         Ripper op. Cost/Hour:       \$41.30         Cost/Hour:       \$263.78         Total Infector:       3.951 LCY         Source of stimated volume:       3.951 LCY         Source of stimated volume:       3.951 LCY         Cat Handbook       1.400.0 LCY/hr         Indujusted hourly:       1.400.0 LCY/hr         undujusted h	Site: Salt Canyon Project	Permit Action:	TR3 Update	Permit/Jo	b#: <u>M1997064</u>
Date: $\frac{8970222}{TC1}$ County: $\overline{\text{Tremont}}$ Filename: $\overline{\text{M064-001}}$ Agency or organization name:       DRMS <b>COURLY EQUIPMENT COST</b> Basic Machine:       Cat D8T - 8SU         Horsepower:       310         Blade Type:       Semi-Universal         Attachment:       NA         Shift Basis:       1 per day         Data Source:       (CRG)         Cost Breakdown:       S00.00         Ownership Cost/Hour:       \$124.85         NA       NA         Ripper own.       \$0.00         CostHeaddown:       S0.00         Operating Cost/Hour:       \$41.30         NA       Statistics         Total unit Cost/Hour:       \$263.78         Total Unit Cost/Hour:       \$263.78         Data Source of estimated volume:       3.161         Swell factor:       1.250         Lose volume:       3.951 LCY         Source of estimated volume:       TR3 / Task #001.1         Source of estimated swell       Cat Handbook         factor:       1.400.01 LCY/hr         production:       Materials consistency description:         Compacted fill or embankment 0.9 </th <th>PROJECT IDENTIFIC</th> <th>ATION</th> <th></th> <th></th> <th></th>	PROJECT IDENTIFIC	ATION			
User:       TCI         Agency or organization name:       DRMS         HOURLY EOUIPMENT COST         Basic Machine:       Cat D8T - 8SU         Horsepowe::       310         Blade Type:       Semi-Universal         Attachment:       NA         Shift Basis:       1 per day         Data Source:       (CGG)         Cost Breakdowai       Utilization %         Ownership Cost/Hour:       \$124.85         NA       Shift Basis:         Operating Cost/Hour:       \$124.85         Na       Store Source         CostHour:       \$0.00         NA       CostHour:         CostHour:       \$0.00         CostHour:       \$263.78         Total Unit CostHour:       \$263.78         Total Unit CostHour:       \$263.78         Dotal unit CostHour:       \$263.78         Source of estimated swell       Cat Handbook         factor       1.20         Source of estimated swell       Cat Handbook         factor:       Cat Handbook         Materials consistency description:       Compacted fill or embankment 0.9         Average push       15 %         gradient:       6,250 feet	Task #: 001	State: Colorado		Abbreviation:	None
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factor:				<u> </u>	
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Material weight: 2,550 lbs/LCY	gradient:				
	Average site altitude:	6,250 feet			
Weight description: Earth - Dry packed	Material weight:	2,550 lbs/LCY			
	Weight description:	Earth - Dry packed			

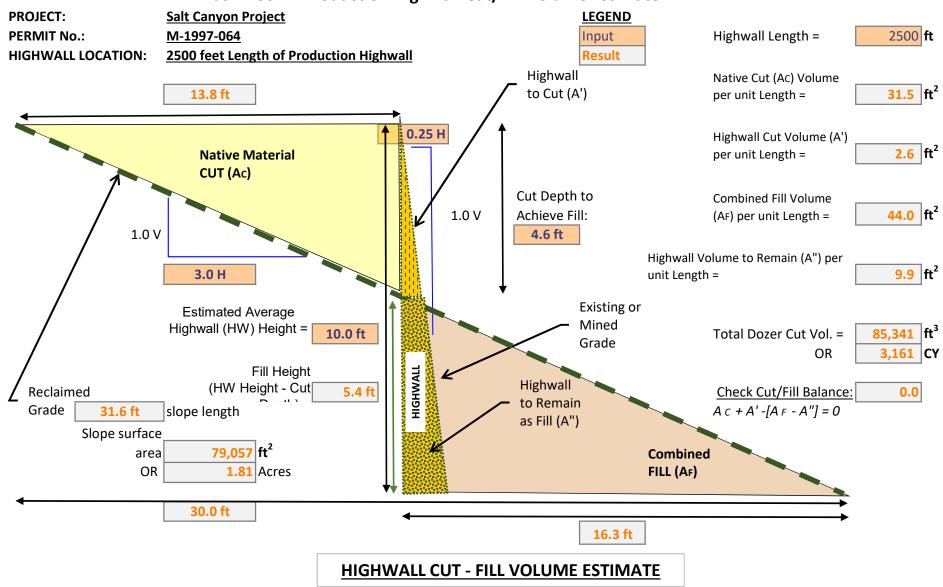
Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.200	(SLOT)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	1.329	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902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

Ne	et correction:	0.7253
Adjusted unit production:	1,0	015.42 LCY/hr
Adjusted fleet production:	10	15.42 LCY/hr

### JOB TIME AND COST

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

Total job time:	<b>3.89</b> Hours
Total job cost:	\$1,026



# Task # 001.1 Production Highwall Cut/Fill Volume Estimate

C:\Users\TC1\Documents\Projects\\_Fremont\M-97-64 Salt Canyon\TR03\M-97-64\_TR3\_HighwallBackfillCalculatorV3.xlsx // Prod Highwall CutFill-Pushd

Page 1 of 2

# SCRAPER TEAM WORK

"Wutilization-machine:       100       NA       NA       NA       NA         "Wutilization-machine:       100       NA       NA       NA       NA         Ownership cost/hour:       \$200.41       NA       NA       NA       NA         Operating cost/hour:       \$194.76       NA       NA       NA       NA         "Wutilization-ripper:       NA       NA       NA       NA       NA         "Wutilization-ripper:       NA       NA       NA       NA       NA         "Wutilization-ripper:       NA       NA       NA       NA       NA         "Ripper own.cost/hour:       NA       NA       NA       NA       NA         Ripper op.cost/hour:       NA       NA       NA       NA       NA         Operator cost/hour:       \$30.90       NA       NA       NA       NA         Unit Subtotals:       \$426.07       NA       NA       NA       NA         Number of Units:       1       0       0       0       0         Group Subtotals:       Work:       \$426.07       Support:       \$0.00       Maint:       \$0         Total work team cost/hour:       \$59,155       LCY	Task #:       002       State:       Colorado       Abbreviation:       None         Date:       899/2022       County:       Fremont       Filename:       M064-002         Agency or organization name:       DRMS         Agency or organization name:       DRMS         Controlspan="2">CostShift basis:       1 per day         DOZE:       NA         Support Equipment Description         -Scraper:       Cat 631G         -Dozer:       NA         Support Equipment -Load Area:       NA         -Dough rea:       Na         -Dough rea: <td< th=""><th>Site: <u>Salt Canyon Proj</u></th><th></th><th>mit Action:</th><th>TR3 Update</th><th> P</th><th>ermit/Job#: <u>M</u></th><th>1997064</th></td<>	Site: <u>Salt Canyon Proj</u>		mit Action:	TR3 Update	P	ermit/Job#: <u>M</u>	1997064
HURLY EQUIPMENT         Equipment Description         -Scraper: Cat 631G         -Dozer: NA         Support Equipment -Load Area: NA         -Dunp Area: NA         Road Maintenance -Motor Grader: NA         -Water Truck: NA         -Water Support Equipment       Maintenance Equipment         %Utilization-machine: 100       NA       NA         Operating cost/hour: \$200.41       NA       NA         Na       NA       NA       NA         Na       NA       NA       NA         Operating cost/hour: \$194.76       NA       NA       NA         Na       NA       NA       NA       NA         Ripper own. cost/hour: N	BURLY EQUIPMENT         Equipment Description         Scraper: Cat 631G         -Dozer: NA         Support Equipment -Load Area         No       Na         Bound Area:       NA         Oump Area:       NA         Water Truck:       NA         Cost Breakdown:       Scraper Work Team       Support Equipment       Maintenance Equip         Gost Breakdown:       Scraper Work Team       Support Equipment       Maintenance Equip         %duitilization-machine:       100       NA       NA       NA         Ownership cost/hour:       \$200.41       NA       NA       NA         Operating cost/hour:       \$194.76       NA       NA       NA       NA         Operating cost/hour:       \$194.76       NA       NA       NA       NA         Ripper own. cost/hour:       NA       NA       NA       NA       NA         Operating cost/hour:       NA       NA       NA       NA       NA         Multization-ripper:       NA       NA       NA       NA       NA       NA         Rate Ost/hour:       NA       NA       NA       NA       NA       NA	Task #: 002 Date: 8/9/20	State:					-002
Equipment Description         Support Equipment - Load Area       NA         -Dozer:       NA         -Dozer:       NA         Operation of the term of the term of	Equipment Description         - Scraper:         NA       NA         Support Equipment - Load Area:       NA         -Water Truck:       NA         Ownership cost/hour:       Scraper         Dozer       Load Area         Ownership cost/hour:       \$200.41         NA       NA         Operating cost/hour:       \$194.76         NA       NA         NA       NA         NA       NA         Operating cost/hour:       NA         NA       NA	Agency or o	rganization name: <u>DR</u>	MS				
-Scraper:       -Dazer:       NA         -Dourp Area:       NA         -Dump Area:       NA         -Dump Area:       NA         -Bourp Area:       NA         -Bourp Area:       NA         -Bourp Area:       NA         -Water Truck:       NA         -Water Truck:       NA         Oost Breakdown:       Scraper Work Team       Support Equipment       Maintenance Equipment         Valuation-machine:       100       NA       NA       NA         Ownership cost/hour:       \$200.41       NA       NA       NA         Ownership cost/hour:       \$200.41       NA       NA       NA         Ownership cost/hour:       \$194.76       NA       NA       NA         Operating cost/hour:       NA       NA       NA       NA         Ripper own. cost/hour:       NA       NA       NA       NA         Number of Units:       1       0       0       0       0         Group Subtotals:       \$426.07       NA       NA       NA       S0         Total work team cost/hour:       \$10       0       0       0       0         Loose volume:       \$9,155       <	-Scraper:       -Dozer:       NA         -Dupport Equipment:       NA         -Dump Area:       NA         -Road Maintenance -Motor Grader:       NA         -Water Truck:       NA	HOURLY EQUIP	<u>MENT</u>		COSTS	Shift basis: <u>1 per</u>	<u>day</u>	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	-Dozer:       NA         Support Equipment -Load Area:       NA         -Dump Area:       NA         Road Maintenance -Motor Grader:       NA         -Water Truck:       Support Equipment         -Water Truck:       NA         -Water Truck:       NA         -Water Truck:       Support Equipment         -Water Avain A       NA							
Support Equipment -Load Area: -Dump Area:       NA         Road Maintenance -Motor Grader:       NA	Support Equipment -Load Area: -Dump Area:       NA         Road Maintenance -Motor Grader:       NA		-		G			
Image: Dump Area:       NA         Road Maintenance -Motor Grader:       NA         -Water Truck:       NA         -Water Truck:       NA         Cost Breakdown:       Scraper         Scraper       Dozer         Load Area       Dump Area         Motor Grader       Water         %Utilization-machine:       100         NA       NA         Ownership cost/hour:       \$200.41         NA       NA         Maintenance Equipment       Maintenance Equipment         Motor Grader       Water         %Utilization-machine:       100         Na       NA         Operating cost/hour:       \$194.76         NA       NA       NA         Na       NA         Ripper own. cost/hour:       NA         NA       NA         Na       NA         Na       NA         Number of Units:       1         0       0         0       0         0       0         0       0         0       0         0       0         0       0         0	Image: Control of the second secon	Suppor						
-Water Truck:NACost Breakdown:Scraper Work TeamSupport EquipmentMaintenance Equipment%Utilization-machine:100NANANANANA0wnership cost/hour:\$200.41NANANANANA0wnership cost/hour:\$200.41NANANANANA0perating cost/hour:\$194.76NANANANANA%Utilization-ripper:NANANANANANA%utilization-ripper:NANANANANA%utilization-ripper:NANANANANA%utilization-ripper:NANANANANA%utilization-ripper:NANANANANA%utilization-ripper:NANANANANA%utilization-ripper:NANANANANARipper own.cost/hour:NANANANANARipper op. cost/hour:\$30.90NANANANAOperator cost/hour:\$30.90NANANANANumber of Units:10000Group Subtotals:Work:\$426.07Support:\$0.00Maint:\$0Total work team cost/hour:\$9,155CCYSwell factor:1.000	-Water Truck: NA         Cost Breakdown:       Scraper Work Team       Support Equipment       Maintenance Equip         %Utilization-machine:       100       NA       NA       NA       NA         %Utilization-machine:       100       NA       NA       NA       NA         Ownership cost/hour:       \$200.41       NA       NA       NA       NA         Operating cost/hour:       \$194.76       NA       NA       NA       NA         %Utilization-ripper:       NA       NA       NA       NA       NA         %utilization-ripper:       NA       NA       NA       NA       NA         %utilization-ripper:       NA       NA       NA       NA       NA         Ripper own. cost/hour:       NA       NA       NA       NA       NA         Querator cost/hour:       \$30.90       NA       NA       NA       NA         Unit Subtotals:       \$426.07       Nupport:       \$0.00       0       0         Group Subtotals:       Work:       \$426.07       Support:       \$0.00       Maint:       \$0         Lose volume:       59,155       CCY       Swell factor:       1.000	Suppor	1 1					
Cost Breakdown:       Scraper       Work Team       Support Equipment       Maintenance Equipment         %Utilization-machine:       100       NA       NA       NA       NA         %Utilization-machine:       100       NA       NA       NA       NA         Ownership cost/hour:       \$200.41       NA       NA       NA       NA         Operating cost/hour:       \$194.76       NA       NA       NA       NA         %Utilization-ripper:       NA       NA       NA       NA       NA         %Utilization-ripper:       NA       NA       NA       NA       NA         %upper own. cost/hour:       NA       NA       NA       NA       NA         Ripper own. cost/hour:       NA       NA       NA       NA       NA         Operator cost/hour:       \$30.90       NA       NA       NA       NA         Unit Subtotals:       \$426.07       Na       NA       NA       NA         Number of Units:       1       0       0       0       0       0         Total work team cost/hour:       \$9,155       LCY       Source of estimated volume:       TR-2: 9" subsoil+2" topsoil over 40 acres       Source of estimated swell factor:	Cost Breakdown:Suraper Work TeamSupport EquipmentMaintenance EquipCost Breakdown:ScraperDozerLoad AreaDump AreaMotor GraderWater%Utilization-machine:100NANANANANAOwnership cost/hour:\$200.41NANANANAOperating cost/hour:\$194.76NANANANA%Utilization-ripper:NANANANANA%utilization-ripper:NANANANANA%utilization-ripper:NANANANANA%utilization-ripper:NANANANANA%utilization-ripper:NANANANANA%utilization-ripper:NANANANANARipper own. cost/hour:NANANANANARipper op. cost/hour:NANANANANAOperator cost/hour:\$30.90NANANANAUnit Subtotals:\$426.07NANANANANumber of Units:100000Group Subtotals:Work:\$426.07Support:\$0.00Maint:\$0Loose volume:59,155LCYSwell factor:1.000LOYLoose volume:59,155LCYSwell factor:1.000LCYMaterial weight:2,650 lbs/LCYStruck Volume:3	Road Mai	ntenance – Motor Grader:	NA				
Scraper         Dozer         Load Area         Dump Area         Motor Grader         Water           %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           %Utilization-ripper:         NA         NA         NA         NA         NA         NA           %Utilization-ripper:         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           Number of Units:         1         0         0         0         0         0           Group Subtotals:         Work:         \$426.07         Support:         \$0.00         Maint:         \$0           Lose volume: <u>59,155</u>	Scraper         Dozer         Load Area         Dump Area         Motor Grader         Water           %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           Operating cost/hour:         \$194.76         NA         NA         NA         NA         NA           %Utilization-ripper:         NA         NA         NA         NA         NA         NA           %Utilization-ripper:         NA         NA         NA         NA         NA         NA           Ripper own. 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         0           Group Subtotals:         Work:		-Water Truck:	NA				
ScraperDozerLoad AreaDump AreaMotor GraderWater%Utilization-machine:100NANANANAOwnership cost/hour:\$200.41NANANANAOperating cost/hour:\$194.76NANANANA%Utilization-ripper:NANANANANA%Utilization-ripper:NANANANANA%Utilization-ripper:NANANANANA%Utilization-ripper:NANANANANA%Utilization-ripper:NANANANANA%Utilization-ripper:NANANANANA%Utilization-ripper:NANANANANARipper op. cost/hour:NANANANANAQperator cost/hour:\$30.90NANANANAOperator cost/hour:\$30.90NANANANAUnit Subtotals:\$426.07NANANANANumber of Units:10000Group Subtotals:Work:\$426.07Support:\$0.00Maint:\$0Total work team cost/hour:\$9,155CCYSwell factor:1.000	Scraper         Dozer         Load Area         Dump Area         Motor Grader         Water           %Utilization-machine:         100         NA         NA         NA         NA         NA         NA           Ownership cost/hour:         \$200.41         NA         NA         NA         NA         NA         NA           Operating cost/hour:         \$194.76         NA         NA         NA         NA         NA           %Utilization-ripper:         NA         NA         NA         NA         NA         NA           %Utilization-ripper:         NA         NA         NA         NA         NA         NA           %Utilization-ripper:         NA         NA         NA         NA         NA         NA           Ripper own. cost/hour:         NA         NA         NA         NA         NA         NA           Operator cost/hour:         \$30.90         NA         NA         NA         NA         NA           Number of Units:         1         0         0         0         0         0           Group Subtotals:         Work:         \$426.07         Support:         \$0.00         Main::         \$0           Loose volume: </td <td>Cost Breakdown:</td> <td>Scraper Work Tean</td> <td>n</td> <td>Support Equ</td> <td>ipment</td> <td>Maintenan</td> <td>ce Equipmen</td>	Cost Breakdown:	Scraper Work Tean	n	Support Equ	ipment	Maintenan	ce Equipmen
Ownership cost/hour:\$200.41NANANANAOperating cost/hour:\$194.76NANANANA%Utilization-ripper:NANANANANA%Utilization-ripper:NANANANANARipper own. cost/hour:NANANANANARipper op. cost/hour:NANANANANAOperator cost/hour:\$30.90NANANANAOperator cost/hour:\$30.90NANANANAUnit Subtotals:\$426.07NANANANANumber of Units:10000Group Subtotals:Work:\$426.07Support:\$0.00Maint:\$0Total work team cost/hour:\$9,155CCYSwell factor:1.0001.000Loose volume:59,155LCYSwell factor:1.000CSource of estimated volume:TR-2: 9" subsoil+2" topsoil over 40 acresCat HandbookHOURLY PRODUCTIONMaterial weight:2,650 lbs/LCYStruck Volume:24.00LCYMaterial weight:2,650 lbs/LCYBecomposed rock - 25% Rock, 75% EarthStruck Volume:24.00LCY	Ownership cost/hour:\$200.41NANANANAOperating cost/hour:\$194.76NANANANA%Utilization-ripper:NANANANANA%Utilization-ripper:NANANANANARipper own. cost/hour:NANANANANARipper op. cost/hour:NANANANANAOperator cost/hour:\$30.90NANANANAOperator cost/hour:\$30.90NANANANAUnit Subtals:\$426.07NANANANANumber of Units:10000Group Subtals:Work:\$426.07Support:\$0.00Maint:\$0Total work team cost/hour:\$9,155LCYLCYSource of estimated volume:TR-2: 9" subsoil+2" topsoil over 40 acresSource of estimated swell factor:Cat HandbookCat HandbookLCYHOURLY PRODUCTIONMaterial weight:2,650 lbs/LCYStruck Volume:24.00LCYMaterial weight:2,650 lbs/LCYStruck Volume:34.00LCYTok EarthTock PoolLCYHeaped Volume:34.00LCYRated Payload:81,600 poundsAverage Volume:29.00LCY		*					Water Tr
Ownership cost/hour:\$200.41NANANANAOperating cost/hour:\$194.76NANANANA%Utilization-ripper:NANANANANA%Utilization-ripper:NANANANANARipper own. cost/hour:NANANANANARipper op. cost/hour:NANANANANAOperator cost/hour:\$30.90NANANANAOperator cost/hour:\$30.90NANANANAUnit Subtotals:\$426.07NANANANANumber of Units:10000Group Subtotals:Work:\$426.07Support:\$0.00Maint:\$0Total work team cost/hour:\$9,155CCYSwell factor:1.0001.000Loose volume:59,155LCYSwell factor:1.000CSource of estimated volume:TR-2: 9" subsoil+2" topsoil over 40 acresCat HandbookHOURLY PRODUCTIONMaterial weight:2,650 lbs/LCYStruck Volume:24.00LCYMaterial weight:2,650 lbs/LCYBecomposed rock - 25% Rock, 75% EarthStruck Volume:24.00LCY	Ownership cost/hour:\$200.41NANANANAOperating cost/hour:\$194.76NANANANA%Utilization-ripper:NANANANANA%Utilization-ripper:NANANANANARipper own. cost/hour:NANANANANARipper op. cost/hour:NANANANANAOperator cost/hour:\$30.90NANANANAOperator cost/hour:\$30.90NANANANAUnit Subtals:\$426.07NANANANANumber of Units:10000Group Subtals:Work:\$426.07Support:\$0.00Maint:\$0Total work team cost/hour:\$9,155LCYLCYSource of estimated volume:TR-2: 9" subsoil+2" topsoil over 40 acresSource of estimated swell factor:Cat HandbookCat HandbookLCYHOURLY PRODUCTIONMaterial weight:2,650 lbs/LCYStruck Volume:24.00LCYMaterial weight:2,650 lbs/LCYStruck Volume:34.00LCYTok EarthTock PoolLCYHeaped Volume:34.00LCYRated Payload:81,600 poundsAverage Volume:29.00LCY	%Utilization-machine:	100	NA	NA	NA	NA	
Operating cost/hour:       \$194.76       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         Operator cost/hour:       \$30.90       NA       NA       NA       NA         Unit Subtotals:       \$426.07       NA       NA       NA       NA         Number of Units:       1       0       0       0       0         Group Subtotals:       Work:       \$426.07       Support:       \$0.00       Maint:       \$0         Total work team cost/hour:       \$426.07       Support:       \$0.00       Maint:       \$0         Loose volume:       59,155       LCY       LCY       Source of estimated volume:       TR-2: 9" subsoil+2" topsoil over 40 acres       Source       Cat Handbook         HOURLY PRODUCTION       Struck Volume:       24.00       LCY       Heaped Volume:       34.00       LCY         <	Operating cost/hour:\$194.76NANANANA%Utilization-ripper:NANANANANARipper own. cost/hour:NANANANANARipper op. cost/hour:NANANANANAOperator cost/hour:\$30.90NANANANAOperator cost/hour:\$30.90NANANANAUnit Subtotals:\$426.07NANANANANumber of Units:10000Group Subtotals:Work:\$426.07Support:\$0.00Maint:\$0Total work team cost/hour:\$9,155CCYSwell factor:1.0001.000Loose volume:59,155LCYSource of estimated volume:TR-2: 9" subsoil+2" topsoil over 40 acresSource of estimated swell factor:Cat HandbookCat HandbookEcraper Bowl (volume) Basis:Material weight:2,650 lbs/LCYStruck Volume:34.00LCYMaterial description:Decomposed rock - 25% Rock, 75% Earth Rated Payload:Struck Volume:24.00LCYNaterial description:81,600 poundsAverage Volume:29.00LCY							
%Utilization-ripper:       NA       NA       NA       NA       NA         Ripper own. cost/hour:       NA       NA       NA       NA       NA         Ripper op. cost/hour:       NA       NA       NA       NA       NA         Operator cost/hour:       \$30.90       NA       NA       NA       NA         Operator cost/hour:       \$30.90       NA       NA       NA       NA         Unit Subtotals:       \$426.07       NA       NA       NA       NA         Number of Units:       1       0       0       0       0         Group Subtotals:       Work:       \$426.07       Support:       \$0.00       Maint:       \$0         Total work team cost/hour:       \$426.07       Support:       \$0.00       Maint:       \$0         Total work team cost/hour:       \$59,155       CCY       Swell factor:       1.000	%Utilization-ripper:       NA       NA       NA       NA       NA       NA       NA         Ripper own. cost/hour:       NA       NA       NA       NA       NA       NA       NA         Ripper op. cost/hour:       NA       NA       NA       NA       NA       NA       NA         Operator cost/hour:       \$30.90       NA       NA       NA       NA       NA         Unit Subtotals:       \$426.07       NA       NA       NA       NA         Number of Units:       1       0       0       0       0         Group Subtotals:       Work:       \$426.07       Support:       \$0.00       Maint:       \$0         Total work team cost/hour:       \$426.07       Support:       \$0.00       Maint:       \$0         Loose volume:	•						
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         Total work team cost/hour:       \$426.07       Support:       \$0.00       Maint:       \$0         MATERIAL QUANTITIES       Initial volume:       59,155       CCY       Swell factor:       1.000	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         Number of Units:       1       0       0       0       0         Group Subtotals:       Work:       \$426.07       Support:       \$0.00       Maint:       \$0         Total work team cost/hour:       \$426.07       Support:       \$0.00       Maint:       \$0         MATERIAL QUANTITIES       Initial volume:       59,155       CCY       Swell factor:       1.000         Loose volume:       59,155       LCY       Source of estimated volume:       TR-2: 9" subsoil+2" topsoil over 40 acres       Source         Source of estimated swell factor:       Cat Handbook       Cat Handbook       Earth       Earth       Struck Volume:       24.00       LCY         Material weight:       2,650 lbs/LCY       Basis:       Struck Volume:       34.00       LCY         Material description:       Decomposed rock - 25% Rock, 75% Earth       Average Volume:       24.00       LCY		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         Total work team cost/hour:       \$426.07       Support:       \$0.00       Maint:       \$0         Total work team cost/hour:       \$426.07       Support:       \$0.00       Maint:       \$0         MATERIAL QUANTITIES	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         Total work team cost/hour:       \$426.07       Support:       \$0.00       Maint:       \$0         MATERIAL QUANTITIES       Initial volume:       59,155       CCY       Swell factor:       1.000         Loose volume:       59,155       LCY       Swell factor:       1.000	Ripper own. cost/hour:	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         Total work team cost/hour:       \$426.07       Support:       \$0.00       Maint:       \$0         MATERIAL QUANTIFIES       Initial volume:       59,155       CCY       Swell factor:       1.000       Initial volume:       59,155       LCY         Source of estimated volume:       TR-2: 9" subsoil+2" topsoil over 40 acres       Source of estimated swell factor:       Cat Handbook         HOURLY PRODUCTION       Scraper Bowl (volume) Basis:       LCY       Material weight:       2,650 lbs/LCY       Struck Volume:       24.00       LCY         Material description:       Decomposed rock - 25% Rock, 75% Earth       Struck Volume:       34.00       LCY	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         Group Subtotals:       Work:       \$426.07       Support:       \$0.00       Maint:       \$0         MATERIAL QUANTITIES       Initial volume:       59,155       CCY       Swell factor:       1.000       Initial volume:       59,155       CCY         Source of estimated volume:       TR-2: 9" subsoil+2" topsoil over 40 acres       Cat Handbook       Cat Handbook         HOURLY PRODUCTION       Scraper Bowl (volume) Basis:       Struck Volume:       24.00       LCY         Material weight:       2,650 lbs/LCY       Becomposed rock - 25% Rock,       Struck Volume:       24.00       LCY         Material description:       Decomposed rock - 25% Rock,       Heaped Volume:       34.00       LCY         Rated Payload:       81,600 pounds       Average Volume:       29.00       LCY	Ripper op. cost/hour:	NA	NA	NA	NA	NA	
Number of Units:       1       0       0       0       0       0         Group Subtotals:       Work:       \$426.07       Support:       \$0.00       Maint:       \$0         Total work team cost/hour:       \$426.07       Support:       \$0.00       Maint:       \$0         MATERIAL QUANTITIES       Initial volume:       59,155       CCY       Swell factor:       1.000	Number of Units:       1       0       0       0       0       0         Group Subtotals:       Work:       \$426.07       Support:       \$0.00       Maint:       \$0         Total work team cost/hour:       \$426.07       Support:       \$0.00       Maint:       \$0         MATERIAL QUANTITIES       Initial volume:       59,155       CCY       Swell factor:       1.000	Operator cost/hour:	\$30.90	NA	NA	NA	NA	
Group Subtotals:       Work:       \$426.07       Support:       \$0.00       Maint:       \$0         Total work team cost/hour:       \$426.07         MATERIAL QUANTITIES         Initial volume:       59,155       CCY       Swell factor:       1.000         Loose volume:       59,155       LCY       Swell factor:       1.000         Source of estimated volume:       TR-2: 9" subsoil+2" topsoil over 40 acres       50         Source of estimated swell factor:       Cat Handbook       Cat Handbook         HOURLY PRODUCTION       Scraper Bowl (volume) Basis:       Struck Volume:       24.00       LCY         Material weight:       2,650 lbs/LCY       Struck Volume:       24.00       LCY         Material description:       Decomposed rock - 25% Rock,       Struck Volume:       34.00       LCY	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:       1.000         Loose volume:       59,155       LCY       Swell factor:       1.000         Source of estimated volume:       TR-2: 9" subsoil+2" topsoil over 40 acres       Cat Handbook         HOURLY PRODUCTION       Scraper Bowl (volume) Basis:       Scraper Bowl (volume) Basis:         Material weight:       2,650 lbs/LCY       Struck Volume:       24.00       LCY         Material description:       Decomposed rock - 25% Rock,       Average Volume:       34.00       LCY         Material description:       Decomposed rock - 25% Rock,       Average Volume:       29.00       LCY	Unit Subtotals:	\$426.07	NA	NA	NA	NA	
Total work team cost/hour: \$426.07         MATERIAL QUANTITIES         Initial volume:       59,155         Loose volume:       59,155         Source of estimated volume:       TR-2: 9" subsoil+2" topsoil over 40 acres         Source 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	Total work team cost/hour: \$426.07         MATERIAL QUANTITIES         Initial volume: 59,155       CCY       Swell factor: 1.000         Loose volume: 59,155       LCY         Source of estimated volume: TR-2: 9" subsoil+2" topsoil over 40 acres         Source of estimated swell factor: Cat Handbook         HOURLY PRODUCTION         Material weight: 2,650 lbs/LCY         Material description: Decomposed rock - 25% Rock, Rated Payload: 81,600 pounds	Number of Units:	1	0	0	0	0	
MATERIAL QUANTITIES         Initial volume:       59,155       CCY       Swell factor:       1.000         Loose volume:       59,155       LCY         Source of estimated volume:       TR-2: 9" subsoil+2" topsoil over 40 acres         Source of estimated swell factor:       Cat Handbook         HOURLY PRODUCTION         Material weight:       2,650 lbs/LCY       Struck Volume:       24.00       LCY         Material description:       Decomposed rock - 25% Rock, 75% Earth       Struck Volume:       24.00       LCY	MATERIAL QUANTITIES         Initial volume:       59,155       CCY       Swell factor:       1.000         Loose volume:       59,155       LCY         Source of estimated volume:       TR-2: 9" subsoil+2" topsoil over 40 acres         Source of estimated swell factor:       Cat Handbook         HOURLY PRODUCTION         Material weight:       2,650 lbs/LCY       Struck Volume:       24.00       LCY         Material description:       Decomposed rock - 25% Rock,       Heaped Volume:       34.00       LCY         Rated Payload:       81,600 pounds       Average Volume:       29.00       LCY	Group Subtotals:	Work: \$42	26.07	Support:	\$0.00	Maint:	\$0.00
Source of estimated swell factor: Cat Handbook         Interview of estimated swell factor: Cat Handbook         Scraper Bowl (volume) Basis:         Scraper Bowl (volume) Basis:         Material weight:       2,650 lbs/LCY       Struck Volume:       24.00       LCY         Material description:       Decomposed rock - 25% Rock, 75% Earth       Struck Volume:       34.00       LCY	Image: Source of estimated swell factor: Cat Handbook         Image: Cat Handbook         Image: Source of estimated swell factor: Cat Handbook         Image: Source of estimated swell factor: Cat Handbook         Image: Source of estimated swell factor: Cat Handbook         Image: Struck Volume: Basis:         Material weight:       2,650 lbs/LCY       Struck Volume: 24.00       LCY         Material description:       Decomposed rock - 25% Rock,       Heaped Volume: 34.00       LCY         Rated Payload:       81,600 pounds       Average Volume: 29.00       LCY	MATERIAL QUA Initial volume:	<u>NTITIES</u> 59,155		Swell fac	tor: <u>1.000</u>		
Material weight:       2,650 lbs/LCY       Struck Volume:       24.00       LCY         Material description:       Decomposed rock - 25% Rock, 75% Earth       Struck Volume:       34.00       LCY	Material weight:       2,650 lbs/LCY       Struck Volume:       24.00       LCY         Material description:       Decomposed rock - 25% Rock,       Heaped Volume:       34.00       LCY         Rated Payload:       81,600 pounds       Average Volume:       29.00       LCY					soil over 40 acres		
Material weight:2,650 lbs/LCYStruck Volume:24.00LCYMaterial description:Decomposed rock - 25% Rock, 75% EarthStruck Volume:34.00LCY	Material weight: Material description:2,650 lbs/LCY Decomposed rock - 25% Rock, 75% EarthStruck Volume: Heaped Volume:24.00 34.00LCY LCYRated Payload:81,600 poundsAverage Volume:29.00LCY	HOURLY PRODU	CTION					
Material weight:2,650 lbs/LCYStruck Volume:24.00LCYMaterial description:Decomposed rock - 25% Rock, 75% EarthStruck Volume:34.00LCY	Material weight: Material description:2,650 lbs/LCY Decomposed rock - 25% Rock, 75% EarthStruck Volume: Heaped Volume:24.00 34.00LCY LCYRated Payload:81,600 poundsAverage Volume:29.00LCY				<u>Scr</u> aper E	<u>Bowl (volu</u> me) Ba	usis:	
Material description:Decomposed rock - 25% Rock, 75% EarthHeaped Volume:34.00LCY	Material description:Decomposed rock - 25% Rock, 75% EarthHeaped Volume:34.00LCYRated Payload:81,600 poundsAverage Volume:29.00LCY	Material weight	2.650 lbs/LCY		-			CY
Rated Payload: 81 600 pounds Average Volume: 29 00 ICV		Material description:	Decomposed rock - 25% 75% Earth	% Rock,	Heaped	Volume: 34.00	1	LCY
	Payload Capacity: <u>30.79 LC1</u> Adjusted Capacity: <u>29.00</u> LCY							

# Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

	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: <u>Rutted dirt, little maintenance, no water, 2" tire penetration 5.0</u>

Haul 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 minutes

#### Return 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	minutes
Total Scraper team cycle time:	2.39	minutes
Adjusted for job conditions:	604.27	LCY/Hour
Selected Number of Scrapers:	1	Scraper(s)
Adjusted single scraper team (unit) hourly production:	604.27	LCY/Hour
Adjusted multiple scraper team (fleet) hourly production:	604.27	LCY/Hour
Unadjusted unit production/hour: 728.03 I CV/Hour		

Unadjusted unit production/hour: 728.03 LCY/Hour Optimal Number of Scrapers per push dozer:

#### JOB TIME AND COST

Fleet size:	1	Team(s)	Total job time:	97.90	Hours
Unit cost:	\$0.705	/LCY	Total job cost:	\$41,710	

<u>0.80</u> Minutes 0.70 Minutes

Site Altitude: 6250 feet

# **REVEGETATION WORK**

Task description:		Reveg 40 acres per Original	Permit (SCS sheet	)	
Site: Salt Car	nyon Project	Permit Action:	TR3 Update	Permit/Jol	o#: <u>M1997064</u>
<b>PROJECT</b>	<b>IDENTIFIC</b>	CATION			
Task #:	003	State: Colorado		Abbreviation:	None
Date:	8/9/2022	County: Fremont		Filename:	M064-003
User:	TC1			_	
	gency or organi	zation name: DRMS			

## **FERTILIZING**

#### 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/Ac	re \$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 Drill Seeding (DRMS Survey Cost)		<b>Cost /Acre</b> \$232.00
Dim Seeding (Dicivis Survey Cost)	Total Seed Application Cost/Acre	

### **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
	<b>Total Mulch Application Cost/Acre</b>	\$73.00

## **NURSERY STOCK PLANTING**

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
	\$0.00				
	Ψ0•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

Page 1 of 2

## BULLDOZER WORK

: Salt Canyon Project	t Per	mit Action: 7	R3 Update	Permit/Iol	b#: M1997064
Salt Canyon Project				1 011110 301	<u></u>
PROJECT IDENTIF	<b>TICATION</b>				
Task #: 004	State:	Colorado		Abbreviation:	None
Date: 8/9/2022	County:	Fremont		Filename:	M064-004
User: TC1					
Agency or orga	anization name: DR	IMS			
HOURLY EQUIPMI	ENT COST				
Basic Machine: C	at D8T - 8SU				
	10				
	emi-Universal				
Attachment: N					
	per day				
	CRG)				
	,				
<u>Cost Breakdown</u> :		1	I Itilization 0/		
Ownership Cost/Hour:		\$124.85	<u>Utilization %</u> NA		
Operating Cost/Hour:		\$124.83	100		
Ripper own.			100		
Cost/Hour:		\$0.00	NA		
Ripper op. Cost/Hour:		\$0.00	0		
	•	Ψ <b>0.00</b>	v		
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour:	\$263.78 <b>\$263.78</b>	\$41.30	NA		
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       33:         Swell factor:       1.0         Loose volume:       33:	\$263.78 <b>\$263.78</b> <b>FITIES</b> 3 000 <b>3</b> LCY				
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: <u>33:</u> Swell factor: <u>1.0</u>	\$263.78 <b>\$263.78</b> <b>TITIES</b> 3 000 <b>3</b> LCY lume: _2' x 3' x 2				
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       33:         Swell factor:       1.0         Loose volume:       33:         Source of estimated volume:       33:	\$263.78 <b>\$263.78</b> <b>FITIES</b> 3 000 <b>3</b> LCY lume: 2' x 3' x 2 rell Cat Hand				
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       33:         Swell factor:       1.0         Loose volume:       33:         Source of estimated voi       Source of estimated sw         factor:       1	$ \begin{array}{r} \$263.78 \\ \hline \$263.78 \\ \hline \hline ITTIES \\ 3 \\ 000 \\ \hline 3 LCY \\ lume: \\ 2' x 3' x 2 \\ Cat Hand \\ \hline TION \\ \hline \end{array} $	 3,000' => 333C book			
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       33:         Swell factor:       1.0         Loose volume:       33:         Source of estimated volume:       33:         Source of estimated swell factor:       100         HOURLY PRODUCT       Average push distance:         Unadjusted hourly       100	$ \begin{array}{r} & \$263.78 \\ \hline \$263.78 \\ \hline \$263.78 \\ \hline \\ $	 3,000' => 333C book	 ?Y		
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       33.         Swell factor:       1.0         Loose volume:       33.         Source of estimated vol       Source of estimated sw         factor:       HOURLY PRODUCT         Average push distance:       Unadjusted hourly         production:       Materials consistency of	$ \begin{array}{r} & \$263.78 \\ \hline \$263.78 \\ \hline \$263.78 \\ \hline \\ $		 ?Y		
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       33.         Swell factor:       1.0         Loose volume:       33.         Source of estimated vol       Source of estimated sw         factor:       HOURLY PRODUCT         Average push distance:       Unadjusted hourly         production:       Materials consistency of	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		 ?Y		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: <u>333</u> Swell factor: <u>1.0</u> Loose volume: <u>333</u> Source of estimated vo Source of estimated sw factor: HOURLY PRODUC' Average push distance: Unadjusted hourly production: Materials consistency of Average push gradient:	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		 ?Y		

\_\_\_\_

Job Condition Correction Factor		Source
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:	<b>0.61</b> Hours
Total job cost:	\$161

# EQUIPMENT MOBILIZATION/DEMOBILIZATION

Та	ask description:	Mo	b/Demob Equipn	nent				
e: _	Salt Canyon Pr	oject	Permit	Action: TR3 U	Update	1	Permit/Job#:	M1997064
<u>PR</u>	OJECT IDEN	TIFICATI	<u>ON</u>					
	Task #: 005		State: Co	olorado		Abbre	viation: N	one
	Date: 8/9/2	2022		emont		Fi	lename: M	1064-005
	User: TC1		•					
	Agency of	r organization	name: DRMS					
<u>EQ</u>	UIPMENT T	RANSPOR'	<u>T RIG COST</u>					
						Shift ba	1	r day
					(	Cost Data Sour	rce: CRG	Data
	Truck	Tractor Desci	ription GENE	RIC ON-HIGH	WAY TRI	ICK TRACTO	DR 6X4 DIE	SEL POWERED,
	Trach					(2ND HALF,		SEE TO WEIGED,
	Truck	Trailer Desci	ription: G	ENERIC FOLD				OLIIPMENT
	Truck	Trailer Deser				(25T, 50T, AN		QUILINEI
				-	iu iiddic	(201,001,11	(2 1001)	
Cos	st Breakdown:							
A	vailable Rig Ca	pacities	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		
		Cost/Hour:	\$27.71	\$27.71	\$2	27.71		
	Helper	Cost/Hour:	\$0.00	\$20.22	\$2	20.22		
	Total Unit	Cost/Hour:	\$68.22	\$101.82	\$1	36.92		
NC	)N ROADABI	<b>LE EQUIPN</b>	IENT:					
				II ID'	E1 4		Return Trip	DOT Permit
	Iachine	Weight/	Owner ship	Haul Rig	Fleet	Haul Trip	Cost/hr/ fle	
	Description	Unit (TONS)	Cost/hr/ unit	Cost/hr/uni	Size	Cost/hr/		
	DOT OOL	(TONS)	¢127.05	t	1	fleet	¢126.02	¢250.00
	at D8T - 8SU	53.08	\$137.95	\$136.92 \$126.92	1	\$274.87 \$227.22	\$136.92 \$126.02	\$250.00
	at 631G rill/Broadcast	52.50 25.00	\$200.41 \$6.25	\$136.92 \$68.22	1	\$337.33 \$74.47	\$136.92 \$68.22	\$250.00 \$250.00
	eeder with	25.00	\$0.23	\$08.22	1	\$/4.4/	\$08.22	\$230.00
0								
T	ractor							

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
		Subtotals:	\$0.00	\$0.00

## **EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region: Total one-way travel distance: Average Travel Speed:	COLORADO SPRINGS 23.00 40.00	miles mph
Total Non-Roadable Mob/Demob Cost * '* two round trips with haul rig:	\$3,369.71	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	\$0.00	-

Transportation Cycle Time:

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

### JOB TIME AND COST

Total job time: **3.30** Hours

Total job cost: **\$3,370**