

July 11, 2025

Roy McClung Natural Soda LLC 3200 CR 31 Rifle, CO 81650

# RE: Nahcolite Project, Permit No. M-1983-194, TR-51 Reclamation Cost Estimate-Changes to Bond V3

Dear Mr. McClung:

This reclamation cost update was in response to the technical revision request (TR-51) which was submitted on March 18, 2025. The Division is mandated to recalculate the reclamation cost estimate to ensure that the Financial Warranty adequately, reflects the actual current cost of fulfilling the requirements of the approved reclamation plan.

Below is a table summarizing input values that have been updated with technical revision (TR-51) as compared to previous technical revision (TR-50) calculation. This table does not account for price changes resulting from inflation or other RS Means cost changes. The 2025 prices have been applied to the V2 calc previously provided.

Task	Form Used	Change	Justification
01a	Demo	+	Adjust pipeline amount. Previous total was 36,668 LF. Avg size 10". New pipe total 43,218 LF of pipe.  Updated Demo Hours based on RSMeans Production Data. Min 5550 Hrs.
02a	Borehole	+	Add wells 19H-1V and 19H-IR-E Removed 14H-RI-E (14H-R), 15H-1, and 17H-I 86076 LF to be P&A @ 100LF/Hr = 861Hrs
03a	Dozer	+	No Changes
03b	Ripper	+	No Changes



03c	Dozer	+	No Changes
03d	Reveg	+	No Changes
04a	Dozer	+	No Changes
04b	Ripper	+	No Changes
04c	Dozer	+	No Changes
04d	Reveg	+	No Changes
05a	Dozer	-	Adjust pad grading from 54 ac to 50.9 ac (Disturbed + Interim Rec) based on Well Pad & Road Acreage spreadsheet dated 4/3/2025.  50.9 ac @ 24" = 164,237 CY
05b	Dozer	-	Adjust topsoiling pads from 54 ac to 50.9 ac (Disturbed + Interim Rec) based on Well Pad & Road Acreage spreadsheet dated 4/3/2025.
			50.9 ac @ 6" = 41,059 CY
05c	Reveg	+	Adjust pad reveg from 54 ac to 50.9 ac (Disturbed + Interim Rec) based on Well Pad & Road Acreage spreadsheet dated 4/3/2025.
06a	Ripper	+	Adjust ripping roads from 4 ac to 4.828 ac (Disturbed + Interim Rec) based on Well Pad & Road Acreage spreadsheet dated 4/3/25.
06b	Dozer	+	Adjust topsoiling roads from 4 ac to 4.828 ac (Disturbed + Interim Rec) based on Well Pad & Road Acreage spreadsheet dated 4/3/2025.  4.828 ac @ 6" = 3,895 CY
06c	Reveg	+	Adjust road reveg from 4 ac to 4.828 ac (Disturbed + Interim Rec) based on Well Pad & Road Acreage spreadsheet dated 4/3/2025.
07a	Mob	+	Update equipment used for Demo
07b	Mob	+	No Changes
Indire	ct	+	Adjust total job hours

Per policy I wanted to send this out for review prior to issuance. Please look it over and let me know if there are errors or concerns. If no response is received by **Monday, July 14, 2025** then I'll approve TR-51 the on July 15, 2025. TR-51 will result in a total required bond amount of **\$6,023,901**, which is <u>an increase of \$1,557,476</u> over the \$4,466,425 currently held. Additionally, the Decision Due Date may be extended if additional review time is required.

Please feel free to contact me with any further questions.

Sincerely,

Amy Yeldell

**Environmental Protection Specialist** 

Amy Geldell

# COST SUMMARY WORK

Task description: TR-51  e: Nahcolite Project		TR-51 Update Per	mit Action:	TR-51	Permit/Jol	b#: M1983194
	<u>IDENTIFI</u>					
Task #:	ACY	State:	Colorado		Abbreviation:	None
Data	4/7/2025	County:	Rio Blanco		Filename:	M194-ACY
Date:						

# TASK LIST (DIRECT COSTS)

Task		Form	Fleet	Task	
	Description	Used	Size	Hours	Cost
01a	Demo of Plant, pipelines, powerlines and parking	DEMOLISH	1	5,500.00	\$3,121,396
	lot				
02a	Borehole P&A	BOREHOLE	1	861.00	\$817,073
03a	Regrade Process Ponds	DOZER	2	178.19	\$116,917
03b	Decompact Process Pond	RIPPER	2	6.85	\$4,830
03c	Topsoil Process Pond	DOZER	2	14.06	\$9,225
03d	Reveg Process Pond	REVEGE	1	28.50	\$61,687
04a	Regrade Plant Area	DOZER	2	23.69	\$15,544
04b	Decompact Plant Area	RIPPER	2	7.02	\$4,951
04c	Topsoil Plant Area	DOZER	2	7.58	\$4,976
04d	Reveg Plant Area	REVEGE	1	12.30	\$26,623
05a	Regrade Well Pads	DOZER	2	183.42	\$120,348
05b	Topsoil Well Pads	DOZER	2	37.67	\$24,713
05c	Reveg Well Pads	REVEGE	1	66.00	\$165,256
06a	Decompact Roads	RIPPER	2	3.87	\$2,735
06b	Topsoil roads	DOZER	2	2.98	\$1,954
06c	Reveg Roads	REVEGE	1	7.00	\$15,681
07a	Initial Mobilization	MOBILIZE	1	8.00	\$18,102
07b	Secondary Mobilization	MOBILIZE	1	8.00	\$2,858
		6956.13	\$4,534,869		

#### **INDIRECT COSTS**

#### **OVERHEAD AND PROFIT:**

 Liability insurance:
 2.02
 Total =
 \$91,604

 Performance bond:
 1.05
 Total =
 \$47,616

 Job superintendent:
 3,478.07
 Total =
 \$261,307

 Profit:
 10.00
 Total =
 \$453,487

10.00 Total =  $\frac{\$453,487}{\text{TOTAL O & P}}$ 

CONTRACT AMOUNT (direct + O & P) =  $\frac{$5,388,883}{}$ 

#### LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): \$500 Total = \$500

Engineering work and/or contract/bid preparation: 4.25 Total = \$229,028

Reclamation management and/or administration: 5.00 \$269,444

CONTINGENCY: 3.00 Total = \$136,046

TOTAL INDIRECT COST = \$1,489,032

TOTAL BOND AMOUNT (direct + indirect) = \$6,023,901

# **DEMOLITION WORK**

Site:	Nahcolite Project		Permit Action:	TR-51	Permit/.	Job#: <u>M1983194</u>
OJEC	CT IDENTIFICATIO	<u>DN</u>				
Γask #:	01A	State:	Colorado		Abbreviation:	None
Date:	7/11/2025	County:	Rio Blanco		Filename:	M194-01a
	12:18:37 PM				_	
User:	ACY					

### **UNIT COSTS**

### Location adjustment: 95.50 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	<b>Total Cost</b>
NSI Plant	200'L x 227'W x 42.5'H	Plant (3S) demo./off-site disposal in approved landfill - Max. 30 mile haul	1,929,500.00	CF	\$1.09	\$2,105,856.30
Product Storage Dome	95'L x 95'W x 50'H	Plant (3S) demo./off-site disposal in approved landfill - Max. 30 mile haul	451,250.00	CF	\$1.09	\$492,494.25
Removal of NSI Plant Slab	200'L x 227'W x 8"	Demo. and on-site disposal in excavated pit, 8 in. thick - Max. 200 ft. push	45,400.00	SF	\$1.72	\$78,142.48
Removal of Storage Dome Slab	95'L x 95'W x8"	Demo. and on-site disposal in excavated pit, 8 in. thick - Max. 200 ft. push	9,025.00	SF	\$1.72	\$15,533.83
Scale Building	108'W x 18'L x 10'H	Plant (1S) demo./off-site disposal in approved landfill - Max. 30 mile haul	19,440.00	CF	\$1.06	\$20,635.56
Removal of Scale Building Slab	108'W x 18'L x 8"	Demo. and on-site disposal in excavated pit, 8 in. thick - Max. 200 ft. push	1,944.00	SF	\$1.72	\$3,346.01
Tank Farm	30'W x 50'H	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	5.00	EA	\$760.00	\$3,800.00
Removal of Flagpole/Monument	70 SqFt	USER PROVIDED ITEM	70.00	Ft^2	\$5.00	\$350.00
Demolition of Screening and Magnet System	6'W x 18'L x 10'H	Plant (3S) demo./off-site disposal in approved landfill - Max. 30 mile haul	1,080.00	CF	\$1.09	\$1,178.71
Pipelines averaged to 10" diam	43218 LF	Pipe, steel, welded connections - 10 in. diameter pipe	43,218.00	LF	\$12.66	\$547,139.88

				<b>Total Cost</b>	
		Subtotal		(adjusted for	
Job Hours:	5,500.00	(unadjusted):	\$3,268,477.02	location):	\$3,121,395.55

### **BOREHOLE SEALING WORK**

	Task description:	Borenole P&A			
Site.	Nahcolite Project	Permit Action:	TR-51	Permit/Ioh#	M1083104

### **PROJECT IDENTIFICATION**

Date: 7/11/2025 County: Rio Blanco Filename: M194-0	-02

User: ACY

Agency or organization name: DRMS

# **UNIT COSTS**

Borehole	Sealing/Item Method						
Description		Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
89-1	Portland cement grout - 4 in. (labor, equip, materials)	4	1627	1,627.00	LF	\$8.20	\$13,341.40
89-2	Portland cement grout - 4 in. (labor, equip, materials)	4	1417	1,417.00	LF	\$8.20	\$11,619.40
89-3	Portland cement grout - 4 in. (labor, equip, materials)	4	347	347.00	LF	\$8.20	\$2,845.40
90-3	Portland cement grout - 4 in. (labor, equip, materials)	4	1627	1,627.00	LF	\$8.20	\$13,341.40
90-4	Portland cement grout - 4 in. (labor, equip, materials)	4	1417	1,417.00	LF	\$8.20	\$11,619.40
BG-4	Portland cement grout - 4 in. (labor, equip, materials)	4	1627	1,627.00	LF	\$8.20	\$13,341.40
DS-3	Portland cement grout - 4 in. (labor, equip, materials)	4	1876	1,876.00	LF	\$8.20	\$15,383.20
IRI-1	Portland cement grout - 4 in. (labor, equip, materials)	4	347	347.00	LF	\$8.20	\$2,845.40
IRI-4	Portland cement grout - 4 in. (labor, equip, materials)	4	1417	1,417.00	LF	\$8.20	\$11,619.40
IRI-5	Portland cement grout - 4 in. (labor, equip, materials)	4.1	347	347.00	LF	\$8.20	\$2,845.40
IRI-6	Portland cement grout - 4 in. (labor, equip, materials)	4	1627	1,627.00	LF	\$8.20	\$13,341.40
IRI-7	Portland cement grout - 4 in. (labor, equip, materials)	4	1876	1,876.00	LF	\$8.20	\$15,383.20
12H-I	Portland cement grout - 8 in. (labor, equip, materials)	7	2100	2,100.00	LF	\$10.12	\$21,252.00
12H-I Bridge Plug	PVC plug - 8 in. diameter borehole	7	1	1.00	EA	\$89.31	\$89.31

12H-R	Portland cement grout - 8 in. (labor, equip, materials)	7	2100	2,100.00	LF	\$10.12	\$21,252.00
12H-R Bridge Plug	PVC plug - 8 in. diameter borehole	7	1	1.00	EA	\$89.31	\$89.31
BG-6	Portland cement grout - 4 in. (labor, equip, materials)	4	1639	1,639.00	LF	\$8.20	\$13,439.80
WSW-2	Portland cement grout - 8 in. (labor, equip, materials)	7	1460	1,460.00	LF	\$10.12	\$14,775.20
13H-RI-E (13H-R)	Portland cement grout - 8 in. (labor, equip, materials)	7	2100	2,100.00	LF	\$10.12	\$21,252.00
13H-RI-E Bridge Plug	PVC plug - 8 in. diameter borehole	7	1	1.00	EA	\$89.31	\$89.31
WSW-3	Portland cement grout - 8 in. (labor, equip, materials)	7	1420	1,420.00	LF	\$10.12	\$14,370.40
WSW-4	Portland cement grout - 8 in. (labor, equip, materials)	7	1431	1,431.00	LF	\$10.12	\$14,481.72
DS-8 (I, Phase 1)	Portland cement grout - 4 in. (labor, equip, materials)	4	1882	1,882.00	LF	\$8.20	\$15,432.40
AG-1 (J, Phase 1)	Portland cement grout - 4 in. (labor, equip, materials)	4	1487	1,487.00	LF	\$8.20	\$12,193.40
BG-7 (K, Phase 1)	Portland cement grout - 4 in. (labor, equip, materials)	4	1593	1,593.00	LF	\$8.20	\$13,062.60
DS-9 (M, Phase 1)	Portland cement grout - 4 in. (labor, equip, materials)	4	1917	1,917.00	LF	\$8.20	\$15,719.40
DS-7	Portland cement grout - 4 in. (labor, equip, materials)	4	1897	1,897.00	LF	\$8.20	\$15,555.40
O-GWM-A (O, Phase 2)	Portland cement grout - 8 in. (labor, equip, materials)	7	1294	1,294.00	LF	\$10.12	\$13,095.28
DS-6	Portland cement grout - 4 in. (labor, equip, materials)	4	1882	1,882.00	LF	\$8.20	\$15,432.40
IRI-11	Portland cement grout - 4 in. (labor, equip, materials)	4	1550	1,550.00	LF	\$8.20	\$12,710.00
15H-RI (15H-R)	Portland cement grout - 8 in. (labor, equip, materials)	6.4	1960	1,960.00	LF	\$10.12	\$19,835.20
15H-RI Bridge Plug	PVC plug - 6 in. diameter borehole	6.4	1	1.00	EA	\$65.19	\$65.19
16H-I	Portland cement grout - 8 in. (labor, equip, materials)	6.4	1960	1,960.00	LF	\$10.12	\$19,835.20
16H-I Bridge Plug	PVC plug - 6 in. diameter borehole	6.4	1	1.00	EA	\$65.19	\$65.19
17H-R	Portland cement grout - 10 in. (labor, equip,	9	2000	2,000.00	LF	\$11.60	\$23,190.00

	materials)						
17H-R Bridge	PVC plug - 10 in.	9	1	1.00	EA	\$122.34	\$122.34
Plug	diameter borehole		1	1.00	LA	Ψ122.54	Ψ122.34
12H-IR	Portland cement grout -	9	2100	2,100.00	LF	\$11.60	\$24,349.50
1211 110	10 in. (labor, equip,		2100	2,100.00	Li	ψ11.00	Ψ24,547.50
	materials)						
12H-IRBridge	PVC plug - 10 in.	9	1	1.00	EA	\$122.34	\$122.34
Plug	diameter borehole		1	1.00	22.1	Ψ122.31	Ψ122.31
13H-IR	Portland cement grout -	9	2100	2,100.00	LF	\$11.60	\$24,349.50
1011 111	10 in. (labor, equip,		2100	2,100.00		Ψ11.00	Ψ2 1,0 1,0 10
	materials)						
13H-IR Bridge	PVC plug - 10 in.	9	1	1.00	EA	\$122.34	\$122.34
Plug	diameter borehole					, , , , , ,	, , , , , , , , , , , , , , , , , , , ,
15H-SSMW	Portland cement grout - 4	4	1760	1,760.00	LF	\$8.20	\$14,432.00
	in. (labor, equip,					7	, , , , , , , , , , , , , , , , , , , ,
	materials)						
17H-SSMW	Portland cement grout - 4	4	1720	1,720.00	LF	\$8.20	\$14,104.00
	in. (labor, equip,			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			, ,
	materials)						
DS-10	Portland cement grout - 4	4	1882	1,882.00	LF	\$8.20	\$15,432.40
	in. (labor, equip,						
	materials)						
14H-1V	Portland cement grout -	8.9	1945	1,945.00	LF	\$11.60	\$22,552.28
	10 in. (labor, equip,						
	materials)						
14H-1V Bridge	PVC plug - 10 in.	8.9	1	1.00	EA	\$122.34	\$122.34
Plug	diameter borehole						
15H-1V	Portland cement grout -	8.9	1898	1,898.00	LF	\$11.60	\$22,007.31
	10 in. (labor, equip,						
	materials)						
16H-1V	Portland cement grout -	8.9	1976	1,976.00	LF	\$11.60	\$22,911.72
	10 in. (labor, equip,						
	materials)						
17H-1V	Portland cement grout -	8.9	2100	2,100.00	LF	\$11.60	\$24,349.50
	10 in. (labor, equip,						
	materials)						
15H-IR-E	Portland cement grout -	8.9	2135	2,135.00	LF	\$11.60	\$24,755.33
	10 in. (labor, equip,						
	materials)						
15H-IR-E Bridge	PVC plug - 10 in.	8.9	1	1.00	EA	\$122.34	\$122.34
Plug	diameter borehole		1	1			<b>** * **</b> ** ** ** ** ** ** ** ** ** ** *
16H-IR-E	Portland cement grout -	8.9	2131	2,131.00	LF	\$11.60	\$24,708.95
	10 in. (labor, equip,						
144 10 5 5 11	materials)	0.0	1	1.00	T	Φ122.2.1	ф122.24
16H-IR-E Bridge	PVC plug - 10 in.	8.9	1	1.00	EA	\$122.34	\$122.34
Plug	diameter borehole	0.0	2126	2 120 00	1.5	<b>411.50</b>	Φ <b>2.4.7</b> 00.11
17H-IR-E	Portland cement grout -	8.9	2138	2,138.00	LF	\$11.60	\$24,790.11
	10 in. (labor, equip,						
17H ID E D.: 4	materials)	8.9	1	1.00	T: A	¢122.24	¢122.24
17H-IR-E Bridge	PVC plug - 10 in.	8.9	1	1.00	EA	\$122.34	\$122.34
Plug	diameter borehole	4	1677	1 677 00	LF	\$9.20	¢12.751.40
BG-11	Portland cement grout - 4	4	10//	1,677.00	Lr	\$8.20	\$13,751.40
	in. (labor, equip, materials)						
PA-1	Portland cement grout - 4	4	490	490.00	LF	\$8.20	\$4,018.00
гA-1	_	4	490	490.00	LF	φο.20	φ4,016.00
	in. (labor, equip, materials)						
AG-2	Portland cement grout - 4	4	1230	1,230.00	LF	\$8.20	\$10,086.00
AU-2	1 ornana cement grout - 4	4	1230	1,430.00	ட்	φο. <b>∠</b> U	\$10,000.00

Borehole Worksheet Cont'd Task # TTT Page 4 of 4

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	in. (labor, equip, materials)						
BG-10	Portland cement grout - 4 in. (labor, equip, materials)	4	1420	1,420.00	LF	\$8.20	\$11,644.00
17H-E SSMW	Portland cement grout - 4 in. (labor, equip, materials)	4	1828	1,828.00	LF	\$8.20	\$14,989.60
18H-1V	Portland cement grout - 10 in. (labor, equip, materials)	8.9	1972	172.00	LF	\$11.60	\$1,994.34
18H-1V Bridge Plug	PVC plug - 10 in. diameter borehole	8.9	1	1.00	EA	\$122.34	\$122.34
18H-IR-W	Portland cement grout - 10 in. (labor, equip, materials)	8.9	2278	2,278.00	LF	\$11.60	\$26,413.41
18H-IR-W Bridge Plug	PVC plug - 10 in. diameter borehole	8.9	1	1.00	EA	\$122.34	\$122.34
19H-1V	Portland cement grout - 10 in. (labor, equip, materials)	8.9	2200	2,200.00	LF	\$11.60	\$25,509.00
19H-1V Bridge Plug	PVC plug - 10 in. diameter borehole	8.9	1	1.00	EA	\$122.34	\$122.34
19H-IR-E	Portland cement grout - 10 in. (labor, equip, materials)	8.9	2050	2,050.00	LF	\$11.60	\$23,769.75
19H-IR-EBridge Plug	PVC plug - 10 in. diameter borehole	8.9	1	1.00	EA	\$122.34	\$122.34

Job Hours:	861.00	Total Cost:	\$817,073.00
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# **BULLDOZER WORK**

Task description:	Regrade Process	Ponds			
: Nahcolite Project	Perr	mit Action:	TR-51	_ Permit/Job#:	M1983194
PROJECT IDENTII	FICATION				
Task #: 03A Date: 7/11/2025 12:25:38 I User: ACY	•	Colorado Rio Blanco		Abbreviation: Filename:	None M194-03a
Agency or orga	anization name: DR	RMS			
HOURLY EQUIPM	ENT COST				
Horsepower: 31 Blade Type: Se Attachment: N Shift Basis: 1	emi-Universal A per day CRG)	\$179.60 \$110.45 \$0.00	Utilization % NA 100 NA		
Ripper own. Cost/Hour: Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$38.02	NA	<del></del>	
Swell factor: 1.1	147				
Source of estimated volume	ume: No chang	es from TR-50 book	<u> </u>		
HOURLY PRODUC	<u>CTION</u>				
Average push distance: Unadjusted hourly produ	175 feet 562.2 LCY/	hr	<u></u>		
Materials consistency de	escription: Compa	cted fill or eml	oankment 0.9		
Average push gradient: Average site altitude:	0 % 6,600 feet				
Material weight:	2,100 lbs/LCY				
Weight description:	Earth - Loam				
Job Condition Correctio	on Factor		Source		
Operator	r Skill: 0.	750	(AVG.)		
Material consis		900	(CAT HB))		
Dozing m	nethod: 1.	000	(GEN.)		

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.600	(FND-SF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.095	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3681

Adjusted unit production: 206.95 LCY/hr
Adjusted fleet production: 413.9 LCY/hr

### **JOB TIME AND COST**

Fleet size: 2 Dozer(s)
Unit cost: \$1.585/LCY

Total job time: 178.19 Hours
Total job cost: \$116,917

# **BULLDOZER RIPPING WORK**

Site: Nahcolite Project Permit Action: TR-51 Permit/Job#: M19  PROJECT IDENTIFICATION  Task #: 03B State: Colorado Abbreviation: None Date: 7/11/2025 County: Rio Blanco Filename: M194  1:05:59 PM User: ACY  Agency or organization name: DRMS  HOURLY EQUIPMENT COST  Basic Machine: Cat D8T - 8SU Horsepower: 310 Ripper Attachment: 3-Shank Ripper Shift Basis: 1 per day Data Source: (CRG)  Cost Breakdown:  Utilization %	
Task #: 03B State: Colorado Abbreviation: None Date: 7/11/2025 County: Rio Blanco Filename: M194  1:05:59 PM User: ACY  Agency or organization name: DRMS  HOURLY EQUIPMENT COST  Basic Machine: Cat D8T - 8SU Horsepower: 310 Ripper Attachment: 3-Shank Ripper Shift Basis: 1 per day Data Source: (CRG)	
Date: 7/11/2025 County: Rio Blanco Filename: M194 1:05:59 PM User: ACY  Agency or organization name: DRMS  HOURLY EQUIPMENT COST  Basic Machine: Cat D8T - 8SU Horsepower: 310 Ripper Attachment: 3-Shank Ripper Shift Basis: 1 per day Data Source: (CRG)  Cost Breakdown:	
1:05:59 PM User: ACY  Agency or organization name: DRMS  HOURLY EQUIPMENT COST  Basic Machine: Cat D8T - 8SU Horsepower: 310 Ripper Attachment: 3-Shank Ripper Shift Basis: 1 per day Data Source: (CRG)  Cost Breakdown:	4-03b
Agency or organization name: DRMS  HOURLY EQUIPMENT COST  Basic Machine: Cat D8T - 8SU Horsepower: 310 Ripper Attachment: 3-Shank Ripper Shift Basis: 1 per day Data Source: (CRG)  Cost Breakdown:	
HOURLY EQUIPMENT COST  Basic Machine: Cat D8T - 8SU Horsepower: 310 Ripper Attachment: 3-Shank Ripper Shift Basis: 1 per day Data Source: (CRG)  Cost Breakdown:	
Basic Machine: Cat D8T - 8SU Horsepower: 310 Ripper Attachment: 3-Shank Ripper Shift Basis: 1 per day Data Source: (CRG)	
Ripper Attachment: 3-Shank Ripper Shift Basis: 1 per day Data Source: (CRG)	
Cost Breakdown: (CRG)	
Utilization %	
Ownership Cost/Hour: \$179.60 NA	
Operating Cost/Hour: \$110.45 100	
Ripper Ownership Cost/Hour: \$15.28 NA Ripper Operating Cost/Hour: \$9.14 100	
Operator Cost/Hour: \$9.14 100  NA	
Total Unit Cost/Hour: \$352.49	
Total Fleet Cost/Hour: \$704.97	
MATERIAL QUANTITIES Selected estimating method: Area  Alternate Methods:	<del></del>
Seismic: NA Bank Volume: NA BCY NA Area: 8.00 acres Rip Depth (ft): 2.00 Volume: 25,813	BCY or CC
• • • • • • • • • • • • • • • • • • • •	Beroree
Source of estimated quantity: TR-42	
HOURLY PRODUCTION	
Seismic:	
Seismic Velocity: NA feet/second	
Area:	
Average Ripping Depth: 2.56 feet/pass	
Average Ripping Width: 7.08 feet/pass	
Average Ripping Length: 100.00 feet/pass	
Average Dozer Speed: 88.00 feet/minute  Average Maneuver Time: 0.25 minutes/pass	
Production per unit area: 0.703 acres/hour	
Job Condition Correction Factors	
Unadjusted Hourly Unit Production: 0.703 Acres/hr	
Site Altitude: 6,600 feet	
Altitude Adj: 1.00 (CAT HB)	
Job Efficiency: 0.83 (1 shift/day)	
Net Correction: 0.83 multiplier	
Adjusted Hourly Unit Production: 0.58 Acres/hr	
Adjusted Hourly Fleet Production: 1.17 Acres/hr	
· ———	
Adjusted Hourly Fleet Production: 1.17 Acres/hr	Hours

### **BULLDOZER WORK**

Task description: Topsoil Process Pond	
: Nahcolite Project Permit Action:	TR-51 Permit/Job#: <u>M1983194</u>
PROJECT IDENTIFICATION	
Task #: 03C State: Colorado	Abbreviation: None
Date: 7/11/2025 County: Rio Blanc	
12:28:47 PM	
User: ACY	
Agency or organization name: DRMS	
HOURLY EQUIPMENT COST	
Basic Machine: Cat D8T - 8SU	
Horsepower: 310	<del></del>
Blade Type: Semi-Universal	<del>_</del>
Attachment: NA	<del></del>
Shift Basis: 1 per day	
Data Source: (CRG)	<del></del>
	<del></del>
<u>Cost Breakdown</u> :	Utilization %
Ownership Cost/Hour: \$179.60	NA
Operating Cost/Hour: \$110.45	100
Ripper own. Cost/Hour: \$0.00	NA
Ripper own. Cost/Hour: \$0.00	0
Operator Cost/Hour: \$38.02	
Operator Cosymour.	NA
MATERIAL QUANTITIES Initial Volume: 15,327	
Swell factor: 1.000	
Loose volume: 15,327 LCY	
Source of estimated volume: 19 ac @ 6" depth	
Source of estimated swell factor: Cat Handbook	
<b>HOURLY PRODUCTION</b>	
Average push distance: 150 feet	
Unadjusted hourly production: 634.3 LCY/hr	
Materials consistency description: Loose stockpile 1.	2
Average push gradient: 0 %	
Average site altitude: 6,600 feet	
Material weight: 1,600 lbs/LCY	
Weight description: Top Soil	
Job Condition Correction Factor	Source
Operator Skill: 0.750	(AVG.)
Material consistency: 1.200	(CAT HB)
Dozing method: 1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.8593

Adjusted unit production: 545.05 LCY/hr
Adjusted fleet production: 1090.1 LCY/hr

### **JOB TIME AND COST**

Fleet size: 2 Dozer(s)
Unit cost: \$0.602/LCY

Total job time: 14.06 Hours
Total job cost: \$9,225

# **REVEGETATION WORK**

Nahcolite	e Project	Per	rmit Action: TR-51	Permit/Jol	o#: <u>M1983194</u>
ROJECT	<u>IDENTIFIC</u>	<u>ATION</u>			
Task #:	03D	State:	Colorado	Abbreviation:	None
Date:	7/11/2025	County:	Rio Blanco	Filename:	M194-03d
	1:16:04 PM				
	ACY				

# **FERTILIZING**

#### Materials

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

Application

Description		Cost /Acre
		\$
	Total Fertilizer Application Cost/Acre	\$0.00

# **TILLING**

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$114.13
Weed control spraying (MEANS 31 31 16.13 3100)	\$338.80
Total Tilling Cost/Acre	\$452.93

### **SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Alkali Sacaton	0.10	3.90	\$2.98
Crested Wheatgrass - Ephraim	4.00	18.37	\$22.49
Blue Wildrye - Arlington or Elkton	1.50	5.17	\$17.25
Russian Wildrye - Bozoisky	1.50	6.03	\$17.01
Hard Fescue - Discovery	1.00	12.97	\$4.54
Pubescent Wheatgrass - Luna	1.50	3.10	\$7.69
Yellow Sweet Clover - Madrid	0.50	2.98	\$2.32
Tall Wheatgrass - Jose	1.80	3.26	\$10.59

Thickspike Wheatgrass - Critana	4.30	15.20	\$35.88
Sweetvetch, Utah or Northern	0.10	0.05	\$9.17
Western Wheatgrass - Barton	1.50	3.79	\$14.43
Yarrow, Western	0.20	12.16	\$9.88
Totals Seed Mix	18.00	86.97	\$154.22

**Application** 

Description		Cost /Acre
Drill Seeding (DRMS Survey Cost)		\$242.30
	<b>Total Seed Application Cost/Acre</b>	\$242.30

#### **MULCHING and MISCELLANEOUS**

#### Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - 2,4D @ 1.0 pt/ac	2.00	ACRE	\$4.44	\$8.88
Straw, delivered	2.00	TON	\$504.56	\$1,009.12
<b>Total Mulch Materials Cost/Acre</b>				\$1,018.00

**Application** 

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$239.35
Power mulcher (MEANS 32 91 13.16 0350)		\$141.57
Weed spray, truck, non-aquatic area, nox. [DMG]		\$249.08
	<b>Total Mulch Application Cost/Acre</b>	\$630.00

#### **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:
 19
 Cost /Acre:
 \$2,497.45

 Estimated Failure Rate:
 30%
 Cost /Acre\*:
 \$2,497.45

\*Selected Replanting Work Items: TILLING,SEEDING,MULCHING

Initial Job Cost: \$47,451.55

Reseeding Job Cost: \$14,235.47

Total Job Cost: \$61,687

Job Hours: 28.50

# **BULLDOZER WORK**

Nahcolite Project	Po	ermit Action: _	TR-51	_ Permit/Job#:	M1983194
PROJECT IDENT	<u>IFICATION</u>				
Task #: 04A	State	: Colorado		Abbreviation:	None
Date: $\frac{0.471}{7/11/202}$				Filename:	M194-04a
12:31:11	•			_	
User: ACY					
Agency or or	rganization name:I	ORMS			
HOURLY EQUIPM	MENT COST				
Basic Machine:	Cat D8T - 8SU				
	310		_		
	Semi-Universal		=		
	NA		_		
_	1 per day		_		
Data Source:	(CRG)		_		
Cost Breakdown:					
			<u>Utilization %</u>		
Ownership Cost/Hou		\$179.60	NA		
Operating Cost/Hou		\$110.45	100		
Ripper own. Cost/Hou		\$0.00	NA .		
Ripper op. Cost/Hou		\$0.00	0		
Operator Cost/Hou	ır:	\$38.02	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour:					
MATERIAL QUA	\$656.13 NTITIES				
MATERIAL QUA Initial Volume: 1	**************************************				
MATERIAL QUANTINITIAL Volume: Swell factor: 1	**************************************				
MATERIAL QUANTINITIAL TOTAL TO	\$656.13 NTITIES 3,229 .115 4,750 LCY				
Total Fleet Cost/Hour:  MATERIAL QUA  Initial Volume: 1 Swell factor: 1 Loose volume: 1 Source of estimated vo	**************************************				
MATERIAL QUANTINITIAL TOTAL TO	**************************************				
Total Fleet Cost/Hour:  MATERIAL QUA  Initial Volume: 1 Swell factor: 1 Loose volume: 1 Source of estimated vo	**************************************				
MATERIAL QUANT Initial Volume: 1: Swell factor: 1 Loose volume: 1. Source of estimated volume of estimated swell factor of estimated swell factor. Source of estimated swell factor of estimated swell f	**************************************				
MATERIAL QUANT Initial Volume: 1 Swell factor: 1 Loose volume: 1 Source of estimated volume Source of estimated volume Source of estimated swell states and states are supported by the states of the states are supported by the	\$656.13	ndbook			
MATERIAL QUANTERIAL QU	\$656.13	ndbook	ıbankment 0.9		
Initial Volume: 1. Swell factor: 1. Loose volume: 1. Source of estimated vo Source of estimated sw.  HOURLY PRODU  Average push distance Unadjusted hourly pro	\$656.13	ndbook Y/hr	abankment 0.9		
MATERIAL QUANTINITIES IN THE INTERIAL QUANTINITIES INTERIAL QUANTINITI	\$656.13	ndbook Y/hr	abankment 0.9		
Total Fleet Cost/Hour:  MATERIAL QUAD  Initial Volume: 1:     Swell factor: 1     Loose volume: 1:     Source of estimated volumes of estimated swell factor of estimated swell factor.  HOURLY PRODUCTION of the control of the contro	\$656.13	ndbook Y/hr	abankment 0.9		
MATERIAL QUANTINIAN Initial Volume: Swell factor: Loose volume: Source of estimated volume of estimated swell factors of estimated swell factors of estimated swell factors.  HOURLY PRODU  Average push distance Unadjusted hourly product of the factor of t	\$656.13   NTITIES	ndbook Y/hr	abankment 0.9		
MATERIAL QUANTINITIES IN THE PROPERTY OF THE P	Section   Sect	Y/hr pacted fill or en	Source		
MATERIAL QUANTINITIES IN THE PROPERTY OF THE P	Section   Sect	ndbook Y/hr			

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.095	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4908

Adjusted unit production: 311.31 LCY/hr
Adjusted fleet production: 622.62 LCY/hr

### **JOB TIME AND COST**

Fleet size: 2 Dozer(s)
Unit cost: \$1.054/LCY

Total job time: 23.69 Hours
Total job cost: \$15,544

# **BULLDOZER RIPPING WORK**

	Task description:	Decompact Plant	Area					
Site:	Nahcolite Project	Perr	mit Action: _	TR-51	P	Permit/Job#	: <u>M1983</u> 1	194
	PROJECT IDENT	<u>IFICATION</u>						
	Task #: 04B	State:	Colorado		Abb	reviation:	None	
	Date: 7/11/202 1:10:17	•	Rio Blanco	1		Filename:	M194-04	łb
	User: ACY							
		rganization name: <u>DR</u>	MS					
	HOURLY EQUIP	MENT COST						
	Basic Mach				Horsepower:		310	
	Ripper Attachm	nent: 3-Shank Ripper			Shift Basis:		per day	
					Data Source:	(	CRG)	
	Cost Breakdown:			I.				
	0	unanshin Cast/Haym		\$179.60	Utilization %			
				\$179.00	NA 100	=		
				¢15 20	NA	_		
				¢0.14	100	_		
		Operator Cost/Hour:		\$38.02	NA	=		
	To	otal Unit Cost/Hour:		\$352.49				
	To	tal Fleet Cost/Hour:	\$704	.97				
	MATERIAL QUA		Cala	atad actimatina	mathad. Ana			
	Alternate Methods:	<u> </u>	Sele	cted estimating	g method: Are	а		
. • •		D1	X7 - 1	NT A	DCV		NTA	
eismic: Area:	NA 8.20		Volume: _ Depth (ft):	NA 2.00	BCY BCY	26,459	NA	BCY or CC
Aica.		-	•	2.00	volume	20,437		DCT of CC
	Sou	irce of estimated quantit	y: <u>TR-42</u>					
	<b>HOURLY PRODU</b>	<u>ICTION</u>						
	Seismic:							
		Seismic Velo	city:	NA	feet/sec	cond		
	Area:							
		Average Ripping De	epth:	2.56	feet/pas	SS		
		Average Ripping W		7.08	feet/pas	SS		
		Average Ripping Len		100.00	feet/pas			
		Average Dozer Sp		88.00	feet/mi			
		Average Maneuver T Production per unit a		0.25 0.703	minutes acres/h	•		
	Job Condition Correct	•		0.703		oui		
			tion.	0.702	A amag/k			
	Unadjus	sted Hourly Unit Product			Acres/h	ır		
			ude:	6,600 1.00	feet (CATI	ID)		
			Adj: ncy:		(CAT I) (1 shift			
		Net Correct		0.83	multipl	•		
		Adjusted Hourly Unit	<del></del>	0.58	Acres/hr			
		Adjusted Hourly Fleet		1.17	Acres/hr			
	JOB TIME AND C							
	Fleet size:	2 Grader(s)		Total job tim	ne:	7.02	Но	ours
	Unit acat:	502 720 Pag 200-		Total ich	at. d	64,951		
	Unit cost: \$6	603.739 Per acre		Total job co	ວເ. 🐧	<b>フ+,</b> フフ1		

# **BULLDOZER WORK**

Task description:	Topsoil Plant Area			
: Nahcolite Project	Permit Action:	R-51	Permit/Job#:	M1983194
PROJECT IDENTIFI	<u>CATION</u>			
Task #: 04C Date: 7/11/2025 12:47:41 PM User: ACY	State: Colorado County: Rio Blanco		Abbreviation: Filename:	None M194-04c
Agency or organ	ization name: DRMS			
HOURLY EQUIPME				
Basic Machine: Cat 310 Horsepower: 310 Blade Type: Sem Attachment: NA	i-Universal			
Cost Breakdown:	<u> </u>	Utilization %		
Ownership Cost/Hour: Operating Cost/Hour:	\$179.60 \$110.45	NA 100		
Ripper own. Cost/Hour:	\$0.00	NA		
Ripper op. Cost/Hour: Operator Cost/Hour:	\$0.00 \$38.02	0 NA		
MATERIAL QUANTI Initial Volume: 6,615 Swell factor: 1.000				
Source of estimated volum				
Source of estimated swell				
Average push distance: Unadjusted hourly product	150 feet	_		
Materials consistency desc	eription: Loose stockpile 1.2			
Average push gradient: Average site altitude:	0 % 6,600 feet			
Material weight:	1,600 lbs/LCY			
Weight description:	Top Soil			
Job Condition Correction Coperator S	kill: 0.750	Source (AVG.)		
Material consiste	· ·	(CAT HB)		

Visibility:	0.800	(POOR)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.6875

Adjusted unit production: 436.08 LCY/hr
Adjusted fleet production: 872.16 LCY/hr

### **JOB TIME AND COST**

Fleet size: 2 Dozer(s)
Unit cost: \$0.752/LCY

Total job time: 7.58 Hours
Total job cost: \$4,976

# **REVEGETATION WORK**

Nahcolite	e Project	Per	rmit Action: TR-51	Permit/Jol	o#: <u>M1983194</u>
ROJECT	<u>IDENTIFIC</u>	ATION			
Task #:	04D	State:	Colorado	Abbreviation:	None
Date:	7/11/2025	County:	Rio Blanco	Filename:	M194-04d
	1:23:36 PM				
User:	ACY				

# **FERTILIZING**

#### Materials

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

Application

Description	Cost /Acre
	\$
Total Foutilines Application Cont/A one	
Total Fertilizer Application Cost/Acre	\$0.00

# **TILLING**

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$114.13
Weed control spraying (MEANS 31 31 16.13 3100)	\$338.80
Total Tilling Cost/Acre	\$452.93

### **SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Alkali Sacaton	0.10	3.90	\$2.98
Crested Wheatgrass - Ephraim	4.00	18.37	\$22.49
Blue Wildrye - Arlington or Elkton	1.50	5.17	\$17.25
Russian Wildrye - Bozoisky	1.50	6.03	\$17.01
Hard Fescue - Discovery	1.00	12.97	\$4.54
Pubescent Wheatgrass - Luna	1.50	3.10	\$7.69
Yellow Sweet Clover - Madrid	0.50	2.98	\$2.32
Tall Wheatgrass - Jose	1.80	3.26	\$10.59

Thickspike Wheatgrass - Critana	4.30	15.20	\$35.88
Sweetvetch, Utah or Northern	0.10	0.05	\$9.17
Western Wheatgrass - Barton	1.50	3.79	\$14.43
Yarrow, Western	0.20	12.16	\$9.88
Totals Seed Mix	18.00	86.97	\$154.22

**Application** 

Description		Cost /Acre
Drill Seeding (DRMS Survey Cost)		\$242.30
	<b>Total Seed Application Cost/Acre</b>	\$242.30

#### **MULCHING and MISCELLANEOUS**

#### Materials

B 14	Units /	<b>T</b> T •4	Cost / Unit	Cost /Acre
Description	Acre	Unit	Cost / Cilit	Cost /Acre
Herbicide - 2,4D @ 1.0 pt/ac	2.00	ACRE	\$4.44	\$8.88
Straw, delivered	2.00	TON	\$504.56	\$1,009.12
Total Mulch Materials Cost/Acre				\$1,018.00

**Application** 

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$239.35
Power mulcher (MEANS 32 91 13.16 0350)		\$141.57
Weed spray, truck, non-aquatic area, nox. [DMG]		\$249.08
	T . 137 13 1 1 1 1 0 0 1 1	
	Total Mulch Application Cost/Acre	\$630.00

#### **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:
 8.2
 Cost /Acre:
 \$2,497.45

 Estimated Failure Rate:
 30%
 Cost /Acre\*:
 \$2,497.45

\*Selected Replanting Work Items: \_\_TILLING,SEEDING,MULCHING

Initial Job Cost: \$20,479.09

Reseeding Job Cost: \$6,143.73

Total Job Cost: \$26,623

12.30

# **BULLDOZER WORK**

Naha-14- B					
Nahcolite Project	Per	mit Action: _T	R-51	Permit/Job#:	M1983194
PROJECT IDENT	<u>IFICATION</u>				
Task #: 05A	State:	Colorado		Abbreviation:	None
Date: $\frac{0.5 \text{ A}}{7/11/20\%}$	-	Rio Blanco	<del></del>	Filename:	M194-05a
12:53:12		1110 2111110		2 11011411101	1.117. 004
User: ACY				_	
Agency or or	rganization name:DI	RMS			
HOURLY EQUIP	MENT COST				
Basic Machine:	Cat D8T - 8SU				
<del>-</del>	310				
	Semi-Universal				
	NA				
Shift Basis:	1 per day				
	(CRG)				
Cost Breakdown:					
			<b>Utilization</b> %		
Ownership Cost/Hou	ır:	\$179.60	NA		
Operating Cost/Hou		\$110.45	100		
Ripper own. Cost/Hou		\$0.00	NA		
Ripper op. Cost/Hou	ır:	\$0.00	0		
Operator Cost/Hou	ır:	\$38.02	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour			_		
Total Fleet Cost/Hour  MATERIAL QUA	\$656.13 NTITIES		<u> </u>		
MATERIAL QUA Initial Volume: 1	\$656.13 NTITIES 64,237	_	_		
MATERIAL QUA  Initial Volume: 1 Swell factor: 1	\$656.13 NTITIES 64,237 .115				
MATERIAL QUA  Initial Volume: 1 Swell factor: 1 Loose volume: 1	\$656.13 NTITIES 64,237 .115 83,124 LCY	f nada grada 24	" donth		
MATERIAL QUA  Initial Volume: 1 Swell factor: 1	**************************************	f pads grade 24	" depth		
MATERIAL QUA  Initial Volume: 1 Swell factor: 1 Loose volume: 1 Source of estimated volumes of estimated systems.	**************************************		" depth		
MATERIAL QUA  Initial Volume: 1 Swell factor: 1 Loose volume: 1 Source of estimated volumes of estimated swell factors of estimated swell factors.	**************************************		" depth		
MATERIAL QUA  Initial Volume: 1 Swell factor: 1 Loose volume: 1 Source of estimated volumes of estimated systems.	\$656.13  NTITIES  64,237 .115 83,124 LCY  olume: 50.9 ac o Cat Hand  UCTION  e: 75 feet	lbook	" depth		
Total Fleet Cost/Hour  MATERIAL QUA  Initial Volume: 1 Swell factor: 1 Loose volume: 1 Source of estimated volume of estimated swell factors.  HOURLY PRODU	\$656.13	lbook			
MATERIAL QUA  Initial Volume: 1 Swell factor: 1 Loose volume: 1 Source of estimated volume of estimated solume of estimated solume.  HOURLY PRODU	\$656.13	lbook Y/hr			
MATERIAL QUA  Initial Volume: 1 Swell factor: 1 Loose volume: 1 Source of estimated volume of estimated swell factor.  HOURLY PRODU  Average push distance Unadjusted hourly products	\$656.13	lbook Y/hr			
MATERIAL QUA  Initial Volume: 1 Swell factor: 1 Loose volume: 1 Source of estimated volume of estimated swell factors  HOURLY PRODU  Average push distance Unadjusted hourly production of the p	\$656.13	lbook Y/hr			
MATERIAL QUA  Initial Volume: 1 Swell factor: 1 Loose volume: 1 Source of estimated versure of estimated sw.  HOURLY PRODU  Average push distance Unadjusted hourly product of the standard service of	\$656.13	lbook Y/hr			
MATERIAL QUA  Initial Volume: 1 Swell factor: 1 Loose volume: 1 Source of estimated volumes of estimated swell factors of estimated swell factors.  HOURLY PRODU  Average push distance Unadjusted hourly product of the factor of	\$656.13	Y/hr acted fill or emb	ankment 0.9		
MATERIAL QUA  Initial Volume: 1 Swell factor: 1 Loose volume: 1 Source of estimated volumes of estimated swell factors of estimated swell factors.  HOURLY PRODU  Average push distance Unadjusted hourly product of the factor of	\$656.13	lbook Y/hr	ankment 0.9		

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.095	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4908

Adjusted unit production: 499.19 LCY/hr
Adjusted fleet production: 998.38 LCY/hr

### **JOB TIME AND COST**

Fleet size: 2 Dozer(s)
Unit cost: \$0.657/LCY

Total job time: 183.42 Hours
Total job cost: \$120,348\$

### **BULLDOZER WORK**

Task description: Topsoil Well Pads			
: Nahcolite Project Permit Action:	<u>Percentage</u> Percentage	ermit/Job#:	M1983194
PROJECT IDENTIFICATION			
Task #: 05B State: Colorado	Abbr	reviation: N	Vone
Date: 7/11/2025 County: Rio Blanco			/1194-05b
12:55:45 PM			
User: ACY			
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)			
<u>Cost Breakdown</u> :	Utilization %		
Ownership Cost/Hour: \$179.60	NA		
Ownership Cost/Hour: \$179.60 Operating Cost/Hour: \$110.45	100		
Ripper own. Cost/Hour: \$0.00	NA		
Ripper own. Cost/Hour: \$0.00  Ripper op. Cost/Hour: \$0.00	0		
Operator Cost/Hour: \$38.02			
Operator Cost/Hour.	NA		
MATERIAL QUANTITIES Initial Volume: 41,059			
Swell factor: 1.000			
Loose volume: 41,059 LCY			
Source of estimated volume: 50.9 ac @ 6" depth			
Source of estimated swell factor: Cat Handbook			
<b>HOURLY PRODUCTION</b>			
Average push distance: 150 feet			
Unadjusted hourly production: 634.3 LCY/hr	<u> </u>		
Materials consistency description: Loose stockpile 1.2			
Average push gradient: 0 %			
Average site altitude: 6,600 feet			
Material weight: 1,600 lbs/LCY			
Weight description: Top Soil			
Job Condition Correction Factor	Source		
Operator Skill: 0.750	(AVG.)		
Material consistency: 1.200	(CAT HB)		
Dozing method: 1.000	(GEN.)		

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.8593

Adjusted unit production: 545.05 LCY/hr
Adjusted fleet production: 1090.1 LCY/hr

### **JOB TIME AND COST**

Fleet size: 2 Dozer(s)
Unit cost: \$0.602/LCY

Total job time: 37.67 Hours
Total job cost: \$24,713

# **REVEGETATION WORK**

te: Nahcolite Project		Pe	rmit Action: TR-51	Permit/Job#: M1983194		
PROJECT	IDENTIFIC	<b>ATION</b>				
Task #:	05C	State:	Colorado	Abbreviation:	None	
Date:	7/11/2025	County:	Rio Blanco	Filename:	M194-05c	
	1:27:49 PM					
			•			

# **FERTILIZING**

#### Materials

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

Application

Description		Cost /Acre
		\$
	Total Fertilizer Application Cost/Acre	\$0.00

# **TILLING**

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$114.13
Weed control spraying (MEANS 31 31 16.13 3100)	\$338.80
Total Tilling Cost/Acre	\$452.93

### **SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Alkali Sacaton	0.10	3.90	\$2.98
Crested Wheatgrass - Ephraim	4.00	18.37	\$22.49
Blue Wildrye - Arlington or Elkton	1.50	5.17	\$17.25
Russian Wildrye - Bozoisky	1.50	6.03	\$17.01
Hard Fescue - Discovery	1.00	12.97	\$4.54
Pubescent Wheatgrass - Luna	1.50	3.10	\$7.69
Yellow Sweet Clover - Madrid	0.50	2.98	\$2.32
Tall Wheatgrass - Jose	1.80	3.26	\$10.59

Thickspike Wheatgrass - Critana	4.30	15.20	\$35.88
Sweetvetch, Utah or Northern Western Wheatgrass - Barton	0.10 1.50	0.05 3.79	\$9.17 \$14.43
Yarrow, Western	0.20	12.16	\$9.88
Totals Seed Mix	18.00	86.97	\$154.22

**Application** 

Description	Cost /Acre
Drill Seeding (DRMS Survey Cost)	\$242.30
Total Seed Application Cos	st/Acre \$242.30

#### **MULCHING and MISCELLANEOUS**

#### Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - 2,4D @ 1.0 pt/ac	2.00	ACRE	\$4.44	\$8.88
Straw, delivered	2.00	TON	\$504.56	\$1,009.12
Total Mulch Materials Cost/Acre				\$1,018.00

**Application** 

Description		Cost /Acre
		\$
	Total Mulch Application Cost/Acre	\$

### **NURSERY STOCK PLANTING**

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

#### **JOB TIME AND COST**

Cost /Acre: \$2,497.45 Cost /Acre\*: \$2,497.45 No. of Acres: 50.9

Estimated Failure Rate: \_ 30%

\*Selected Replanting Work Items: <u>TILLING,SEEDING,MULCHING</u>

Initial Job Cost: \$127,120.21 Reseeding Job Cost: \$38,136.06 Total Job Cost: **\$165,256** Job Hours: **66.00** 

# **BULLDOZER RIPPING WORK**

	Task description:	Decompact Road	ls					
Site	Nahcolite Project	Perr	mit Action: _	TR-51	I	Permit/Job#:	: <u>M1983</u>	194
	PROJECT IDENT	<u>IFICATION</u>						
	Task #: 06A	State:	Colorado		Abl	oreviation:	None	
	Date: $\frac{7}{11/20}$	County:	Rio Blanco			Filename:	M194-0	6a
	1:12:37	PM						
	User: ACY							
	Agency or or	rganization name: DR	RMS					
	HOURLY EQUIP	MENT COST						
	Basic Mach			<u></u>	Horsepower:		310	
	Ripper Attachm	nent: 3-Shank Ripper		_	Shift Basis:		per day	
					Data Source:	(	CRG)	
	Cost Breakdown:							
		~ ~-		<b>*1=</b> 0 10	Utilization %			
		vnership Cost/Hour:		\$179.60	NA 100	_		
				\$110.45 \$15.28	100 NA	_		
				¢0.14	100	_		
		Operator Cost/Hour:		\$38.02	NA	_		
		otal Unit Cost/Hour:		\$352.49		<del></del>		
	То	tal Fleet Cost/Hour:	\$704	07				
			φ/υ <del>-</del>	.91				
	MATERIAL QUA	<u>NTITIES</u>	Sele	cted estimating	g method: Are	ea		
	Alternate Methods:							
eismic:	NA	Banl	k Volume:	NA	BCY		NA	
Area:	4.82	acres Rip I	Depth (ft):	2.00	Volume:	15,553		BCY or CC
	Sou	arce of estimated quantit	y: TR-51 l	D&A Provided	Table			
	HOURLY PRODU	CTION	-					
		CHON						
	Seismic:	C	.•.	NIA	C /	1		
		Seismic Velo	city:	NA	feet/se	cond		
	Area:							
		Average Ripping De			feet/pa			
		Average Ripping Wi			feet/pa			
		Average Ripping Lei Average Dozer Sp		150.00 88.00	feet/pa feet/mi			
		Average Maneuver T		0.25	minute			
		Production per unit a		0.748	acres/h			
	Job Condition Correct	ion Factors						
		sted Hourly Unit Produc	tion:	0.748	Acres/	hr		
	Onacju	•	ude:		feet			
			ade Adj:		(CAT	HB)		
			ncy:		(1 shift			
		Net Correct		0.83	multip	•		
		Adjusted Hourly Unit	Production:	0.62	Acres/hr			
		Adjusted Hourly Fleet		1.24	Acres/hr			
	JOB TIME AND C			<del></del>				
	Fleet size:	2 Grader(s)		Total job tim	ne:	3.88	П	ours
	FICCUSIZE.	Z Grauer(s)		rotai jou tilli			п	Ju15
	Unit cost: \$5	667.449 Per acre		Total job co	st:	\$2,735		

### **BULLDOZER WORK**

Task description: Topsoil	roads			
: Nahcolite Project	Permit Action:	ΓR-51	Permit/Job#:	M1983194
PROJECT IDENTIFICATION	<u>1</u>			
Task #: 06B	State: Colorado		Abbreviation:	None
	County: Rio Blanco		Filename:	M194-06b
12:58:39 PM	·			
User: ACY			_	
Agency or organization na	me: DRMS			
HOURLY EQUIPMENT COS	<u>T</u>			
Basic Machine: Cat D8T - 8SU	Ţ			
Horsepower: 310	<u> </u>	=		
Blade Type: Semi-Universa	a1	=		
Attachment: NA	uı	=		
Shift Basis: 1 per day		=		
Data Source: (CRG)		=		
		=		
<u>Cost Breakdown</u> :	ı			
		<u>Utilization %</u>		
Ownership Cost/Hour:	\$179.60	NA		
Operating Cost/Hour:	\$110.45	100		
Ripper own. Cost/Hour:	\$0.00	NA		
Ripper op. Cost/Hour:	\$0.00	0		
Operator Cost/Hour:	\$38.02	NA		
MATERIAL QUANTITIES  Initial Volume: 3,895 Swell factor: 1.000				
Loose volume: 3,895 LCY				
Source of estimated volume:	4.828 ac @ 6" depth			
Source of estimated swell factor:	Cat Handbook			
HOURLY PRODUCTION				
Average push distance: 15	50 feet			
Unadjusted hourly production: 63	34.3 LCY/hr			
Materials consistency description:	Loose stockpile 1.2			
Average push gradient: 0 %				
Average site altitude: 6,600 fee	et			
Material weight: 1,600 lbs	s/LCY		_	
Weight description: Top Soil				
Job Condition Correction Factor	0.000	Source		
Operator Skill:	0.900	(AB.AVG.)		
Material consistency:	1.200	(CAT HB)		
Dozing method:	1.000	(GEN.)		

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.0312

Adjusted unit production: 654.09 LCY/hr
Adjusted fleet production: 1308.18 LCY/hr

### **JOB TIME AND COST**

Fleet size: 2 Dozer(s)
Unit cost: \$0.502/LCY

Total job time: 2.98 Hours
Total job cost: \$1,954

# **REVEGETATION WORK**

e: Nahcolite Project		hcolite Project Permit Action: TR-51		Permit/Job#: M1983194	
	<u>IDENTIFIC</u>			411	N
Task #:	06C	State:	Colorado	Abbreviation:	None
Date:	7/11/2025	County:	Rio Blanco	Filename:	M194-06c
	1:32:39 PM				

# **FERTILIZING**

#### Materials

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

Application

Description		Cost /Acre
		\$
Tot	al Fertilizer Application Cost/Acre	\$0.00

# **TILLING**

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$114.13
Weed control spraying (MEANS 31 31 16.13 3100)	\$338.80
Total Tilling Cost/Acre	\$452.93

### **SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Alkali Sacaton	0.10	3.90	\$2.98
Crested Wheatgrass - Ephraim	4.00	18.37	\$22.49
Blue Wildrye - Arlington or Elkton	1.50	5.17	\$17.25
Russian Wildrye - Bozoisky	1.50	6.03	\$17.01
Hard Fescue - Discovery	1.00	12.97	\$4.54
Pubescent Wheatgrass - Luna	1.50	3.10	\$7.69
Yellow Sweet Clover - Madrid	0.50	2.98	\$2.32
Tall Wheatgrass - Jose	1.80	3.26	\$10.59

		\$
Totals Seed Mix		\$

**Application** 

Description	Cost /Acre
	\$
Total Seed Application Cost/Acre	\$

#### **MULCHING and MISCELLANEOUS**

#### Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - 2,4D @ 1.0 pt/ac	2.00	ACRE	\$4.44	\$8.88
Straw, delivered	2.00	TON	\$504.56	\$1,009.12
Total Mulch Materials Cost/Acre				\$1,018.00

**Application** 

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$239.35
Power mulcher (MEANS 32 91 13.16 0350)		\$141.57
Weed spray, truck, non-aquatic area, nox. [DMG]		\$249.08
	<b>Total Mulch Application Cost/Acre</b>	\$630.00

#### **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:
 4.83
 Cost /Acre:
 \$2,497.45

 Estimated Failure Rate:
 30%
 Cost /Acre\*:
 \$2,497.45

\*Selected Replanting Work Items: TILLING, SEEDING, MULCHING

Initial Job Cost: \$12,062.68

Reseeding Job Cost: \$3,618.81

Total Job Cost: \$15,681

7.00

#### **EQUIPMENT MOBILIZATION/DEMOBILIZATION**

Task descri	ption:	Initial Mobilizat	ion		
Site: Nahcolit	e Project	Pe	rmit Action: TR-51	Permit/Joba	#: <u>M1983194</u>
<u>PROJECT</u>	IDENTIFIC	<u>CATION</u>			
Task #:	07A	State:	Colorado	Abbreviation:	None
Date:	7/11/2025	County:	Rio Blanco	Filename:	M194-07a

User: 1:36:02 PM ACY

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:	\$21.47	\$38.32	\$48.96
Operating Cost/Hour:	\$31.47	\$60.11	\$65.86
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$22.25	\$22.25
Total Unit Cost/Hour:	\$75.46	\$143.20	\$159.59

#### **NON ROADABLE EQUIPMENT:**

Machine	Weight/	Owner ship	Haul Rig	Fleet	Haul Trip	Return Trip	DOT Permit
Description	Unit	Cost/hr/ unit	Cost/hr/uni	Size	Cost/hr/	Cost/hr/ fleet	Cost/ fleet
	(TONS)		t		fleet		
Cat D8T - 8SU	53.08	\$194.88	\$159.59	2	\$708.94	\$319.18	\$500.00
Drill/Broadcast	25.00	\$5.99	\$75.46	1	\$81.45	\$75.46	\$250.00
Seeder with							
Tractor							
Power Mulcher	6.00	\$29.91	\$75.46	1	\$105.37	\$75.46	\$250.00
(Bowie LD-90)							
Grove RT650E,	28.74	\$182.06	\$143.20	1	\$325.26	\$143.20	\$250.00
105', 45.4 MT							
Broderson IC-200-	8.68	\$88.70	\$75.46	1	\$164.16	\$75.46	\$250.00
2F, 45', 13.6MT							
Cat 320D L 9'-6"	23.70	\$60.46	\$75.46	1	\$135.92	\$75.46	\$250.00
Stick							
Cat 315D L 8'-6"	19.05	\$56.38	\$75.46	1	\$131.84	\$75.46	\$250.00
Stick							
CAT 963D	22.29	\$90.84	\$75.46	1	\$166.30	\$75.46	\$250.00

Subtotals: \$1,819.24 \$915.14 \$2,250.00

#### **ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 3/4 T.	\$66.24	1	\$66.24	\$66.24
Generic 12-18 cy, 6x4	\$111.97	3	\$335.91	\$335.91
Light Duty Pickup, 4x4, 1 T.	\$135.59	1	\$135.59	\$135.59
Crew				
Flatbed Truck, 4x2, 30K GVW	\$49.11	1	\$49.11	\$49.11

Subtotals: \$586.85 \$586.85

#### **EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region:

Total one-way travel distance:

Average Travel Speed:

RIFLE

60.00

miles

40.00

mph

**Transportation Cycle Time:** 

Non-	
Roadable	Roadable
Equipment	Equipment
1.50	1.50
1.50	1.50
0.50	NA
0.50	NA
4.00	3.00
	Roadable Equipment 1.50 1.50 0.50 0.50

#### **JOB TIME AND COST**

Total job time:	8.00	Hours
Total job cost:	\$18 102	

#### **EQUIPMENT MOBILIZATION/DEMOBILIZATION**

Site:	Nahcolite Project	Permit Action:	TR-51	Permit/Job#:	M1983194
	-	·		•	

#### **PROJECT IDENTIFICATION**

Task description:

Task #:07BState:ColoradoAbbreviation:NoneDate:4/14/2025County:Rio BlancoFilename:M194-07b

Date: 4/14/2025 County: Rio Blanco 8:46:08 AM

User: ACY

**Secondary Mobilization** 

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>	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$21.47	\$38.32	\$48.96
Operating Cost/Hour:	\$31.47	\$60.11	\$65.86
Operator Cost/Hour:	\$22.52	\$22.52	\$22.52
Helper Cost/Hour:	\$0.00	\$22.25	\$22.25
Total Unit Cost/Hour:	\$75.46	\$143.20	\$159.59

#### **NON ROADABLE EQUIPMENT:**

Machine	Weight/	Owner ship	Haul Rig	Fleet	Haul Trip	Return Trip	DOT Permit
Description	Unit	Cost/hr/ unit	Cost/hr/uni	Size	Cost/hr/	Cost/hr/ fleet	Cost/ fleet
	(TONS)		t		fleet		
Drill/Broadcast	25.00	\$5.99	\$75.46	1	\$81.45	\$75.46	\$250.00
Seeder with							
Tractor							
Power Mulcher	6.00	\$29.91	\$75.46	1	\$105.37	\$75.46	\$250.00
(Bowie LD-90)							

Subtotals: \$186.82 \$150.92 \$500.00

#### **ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 3/4 T.	\$66.24	1	\$66.24	\$66.24
Light Duty Pickup, 4x4, 1 T.	\$135.59	1	\$135.59	\$135.59
Crew				

Subtotals:	\$201.83	\$201.83
Simplorate	3/411.0.3	3/4/1.0.3

#### **EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region:

Total one-way travel distance:

Average Travel Speed:

RIFLE

miles

40.00

mph

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

\$2,386.86

\$605.49

#### **Transportation Cycle Time:**

	Non-	
	Roadable	Roadable
	Equipment	Equipment
Haul Time (Hours):	1.50	1.50
Return Time (Hours):	1.50	1.50
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	4.00	3.00

#### **JOB TIME AND COST**

Total job cost: 8.00 Hours

Total job cost: \$2,992