April 14, 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 V2

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.

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. See attached
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
Indirect		+	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 **Wednesday, April 16, 2025** then I'll approve TR-51 the on April 17, 2025. TR-51 will result in a total required bond amount of **$5,715,747**, which is an increase of $1,249,322 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

Amy Yeldell
Environmental Protection Specialist

COST SUMMARY WORK

Task description: **TR-51 Update**

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

PROJECT IDENTIFICATION

Task #: ACY State: Colorado Abbreviation: None
Date: 4/14/2025 County: Rio Blanco Filename: M194-ACY
User: ACY

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
01a	Demo of Plant, pipelines, powerlines and parking lot	DEMOLISH	1	5,500.00	$2,867,662
02	Borehole P&A	BOREHOLE	1	861.00	$858,361
03a	Regrade Process Ponds	DOZER	2	178.19	$114,619
03b	Decompact Process Pond	RIPPER	2	6.85	$4,715
03c	Topsoil Process Pond	DOZER	2	14.06	$9,044
03d	Reveg Process Pond	REVEGE	1	28.50	$53,435
04a	Regrade Plant Area	DOZER	2	23.69	$15,239
04b	Decompact Plant Area	RIPPER	2	7.02	$4,833
04c	Topsoil Plant Area	DOZER	2	7.58	$4,879
04d	Reveg Plant Area	REVEGE	1	12.30	$23,062
05a	Regrade Well Pads	DOZER	2	183.42	$117,982
05b	Topsoil Well Pads	DOZER	2	37.67	$24,228
05c	Reveg Well Pads	REVEGE	1	66.00	$143,150
06a	Decompact Roads	RIPPER	2	3.87	$2,670
06b	Topsoil roads	DOZER	2	2.98	$1,915
06c	Reveg Roads	REVEGE	1	7.00	$13,584
07a	Initial Mobilization	MOBILIZE	1	8.00	$16,656
07b	Secondary Mobilization	MOBILIZE	1	8.00	$2,858
			SUBTOTALS:	**6956.13**	**$4,278,892**

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	$86,434
Performance bond:	1.05	Total =	$44,928
Job superintendent:	3,478.06	Total =	$275,706
Profit:	10.00	Total =	$427,889
		TOTAL O & P =	$834,957
		CONTRACT AMOUNT (direct + O & P) =	$5,113,849

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	$500	Total =	$500
Engineering work and/or contract/bid preparation:	4.25	Total =	$217,339
Reclamation management and/or administration:	5.00		$255,692
CONTINGENCY:	3.00	Total =	$128,367
		TOTAL INDIRECT COST =	$1,436,855
		TOTAL BOND AMOUNT (direct + indirect) =	**$5,715,747**

DEMOLITION WORK

Task description: **Demo of Plant, pipelines, powerlines and parking lot**

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

PROJECT IDENTIFICATION

Task #:	01A	State:	Colorado	Abbreviation:	None
Date:	4/14/2025 8:29:28 AM	County:	Rio Blanco	Filename:	M194-01a
User:	ACY				

Agency or organization name: DRMS

UNIT COSTS **Location adjustment: 95.50 %**

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
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	$0.99	$1,910,012.05
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	$0.99	$446,692.38
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	$1.65	$75,046.20
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	$1.65	$14,918.33
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	$0.96	$18,697.39
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	$1.65	$3,213.43
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	$0.99	$1,069.09
Pipelines averaged to 10" diam	43218 LF	Pipe, steel, welded connections - 10 in. diameter pipe	43,218.00	LF	$12.24	$528,988.32

Job Hours: **5,500.00** **Subtotal (unadjusted)**: **$3,002,787.19** **Total Cost (adjusted for location)**: **$2,867,661.77**

BOREHOLE SEALING WORK

Task description: **Borehole P&A**

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

PROJECT IDENTIFICATION

Task #: 02
Date: 4/14/2025
User: ACY

State: Colorado
County: Rio Blanco

Abbreviation: None
Filename: M194-02

Agency or organization name: DRMS

UNIT COSTS

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
89-1	Portland cement grout - 4 in. (labor, equip, materials)	4	1627	1,627.00	LF	$8.71	$14,176.38
89-2	Portland cement grout - 4 in. (labor, equip, materials)	4	1417	1,417.00	LF	$8.71	$12,346.60
89-3	Portland cement grout - 4 in. (labor, equip, materials)	4	347	347.00	LF	$8.71	$3,023.48
90-3	Portland cement grout - 4 in. (labor, equip, materials)	4	1627	1,627.00	LF	$8.71	$14,176.38
90-4	Portland cement grout - 4 in. (labor, equip, materials)	4	1417	1,417.00	LF	$8.71	$12,346.60
BG-4	Portland cement grout - 4 in. (labor, equip, materials)	4	1627	1,627.00	LF	$8.71	$14,176.38
DS-3	Portland cement grout - 4 in. (labor, equip, materials)	4	1876	1,876.00	LF	$8.71	$16,345.96
IRI-1	Portland cement grout - 4 in. (labor, equip, materials)	4	347	347.00	LF	$8.71	$3,023.48
IRI-4	Portland cement grout - 4 in. (labor, equip, materials)	4	1417	1,417.00	LF	$8.71	$12,346.60
IRI-5	Portland cement grout - 4 in. (labor, equip, materials)	4.1	347	347.00	LF	$8.71	$3,023.48
IRI-6	Portland cement grout - 4 in. (labor, equip, materials)	4	1627	1,627.00	LF	$8.71	$14,176.38
IRI-7	Portland cement grout - 4 in. (labor, equip, materials)	4	1876	1,876.00	LF	$8.71	$16,345.96
12H-I	Portland cement grout - 8 in. (labor, equip, materials)	7	2100	2,100.00	LF	$10.60	$22,265.67
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	$10.60	$22,265.67
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	$8.71	$14,280.93
WSW-2	Portland cement grout - 8 in. (labor, equip, materials)	7	1460	1,460.00	LF	$10.60	$15,479.94
13H-RI-E (13H-R)	Portland cement grout - 8 in. (labor, equip, materials)	7	2100	2,100.00	LF	$10.60	$22,265.67
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	$10.60	$15,055.83

WSW-4	Portland cement grout - 8 in. (labor, equip, materials)	7	1431	1,431.00	LF	$10.60	$15,172.46
DS-8 (I, Phase 1)	Portland cement grout - 4 in. (labor, equip, materials)	4	1882	1,882.00	LF	$8.71	$16,398.24
AG-1 (J, Phase 1)	Portland cement grout - 4 in. (labor, equip, materials)	4	1487	1,487.00	LF	$8.71	$12,956.53
BG-7 (K, Phase 1)	Portland cement grout - 4 in. (labor, equip, materials)	4	1593	1,593.00	LF	$8.71	$13,880.13
DS-9 (M, Phase 1)	Portland cement grout - 4 in. (labor, equip, materials)	4	1917	1,917.00	LF	$8.71	$16,703.20
DS-7	Portland cement grout - 4 in. (labor, equip, materials)	4	1897	1,897.00	LF	$8.71	$16,528.94
O-GWM-A (O, Phase 2)	Portland cement grout - 8 in. (labor, equip, materials)	7	1294	1,294.00	LF	$10.60	$13,719.89
DS-6	Portland cement grout - 4 in. (labor, equip, materials)	4	1882	1,882.00	LF	$8.71	$16,398.24
IRI-11	Portland cement grout - 4 in. (labor, equip, materials)	4	1550	1,550.00	LF	$8.71	$13,505.46
15H-RI (15H-R)	Portland cement grout - 8 in. (labor, equip, materials)	6.4	1960	1,960.00	LF	$10.60	$20,781.29
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	$10.60	$20,781.29
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, materials)	9	2000	2,000.00	LF	$12.05	$24,101.00
17H-R Bridge Plug	PVC plug - 10 in. diameter borehole	9	1	1.00	EA	$122.34	$122.34
12H-IR	Portland cement grout - 10 in. (labor, equip, materials)	9	2100	2,100.00	LF	$12.05	$25,306.05
12H-IRBridge Plug	PVC plug - 10 in. diameter borehole	9	1	1.00	EA	$122.34	$122.34
13H-IR	Portland cement grout - 10 in. (labor, equip, materials)	9	2100	2,100.00	LF	$12.05	$25,306.05
13H-IR Bridge Plug	PVC plug - 10 in. diameter borehole	9	1	1.00	EA	$122.34	$122.34
15H-SSMW	Portland cement grout - 4 in. (labor, equip, materials)	4	1760	1,760.00	LF	$8.71	$15,335.23
17H-SSMW	Portland cement grout - 4 in. (labor, equip, materials)	4	1720	1,720.00	LF	$8.71	$14,986.70
DS-10	Portland cement grout - 4 in. (labor, equip, materials)	4	1882	1,882.00	LF	$8.71	$16,398.24
14H-1V	Portland cement grout - 10 in. (labor, equip, materials)	8.9	1945	1,945.00	LF	$12.05	$23,438.22
14H-1V Bridge Plug	PVC plug - 10 in. diameter borehole	8.9	1	1.00	EA	$122.34	$122.34
15H-1V	Portland cement grout - 10 in. (labor, equip, materials)	8.9	1898	1,898.00	LF	$12.05	$22,871.85
16H-1V	Portland cement grout - 10 in. (labor, equip, materials)	8.9	1976	1,976.00	LF	$12.05	$23,811.79
17H-1V	Portland cement grout - 10 in. (labor, equip, materials)	8.9	2100	2,100.00	LF	$12.05	$25,306.05
15H-IR-E	Portland cement grout - 10 in. (labor, equip, materials)	8.9	2135	2,135.00	LF	$12.05	$25,727.82
15H-IR-E Bridge Plug	PVC plug - 10 in. diameter borehole	8.9	1	1.00	EA	$122.34	$122.34

16H-IR-E	Portland cement grout - 10 in. (labor, equip, materials)	8.9	2131	2,131.00	LF	$12.05	$25,679.62
16H-IR-E Bridge Plug	PVC plug - 10 in. diameter borehole	8.9	1	1.00	EA	$122.34	$122.34
17H-IR-E	Portland cement grout - 10 in. (labor, equip, materials)	8.9	2138	2,138.00	LF	$12.05	$25,763.97
17H-IR-E Bridge Plug	PVC plug - 10 in. diameter borehole	8.9	1	1.00	EA	$122.34	$122.34
BG-11	Portland cement grout - 4 in. (labor, equip, materials)	4	1677	1,677.00	LF	$8.71	$14,612.04
PA-1	Portland cement grout - 4 in. (labor, equip, materials)	4	490	490.00	LF	$8.71	$4,269.47
AG-2	Portland cement grout - 4 in. (labor, equip, materials)	4	1230	1,230.00	LF	$8.71	$10,717.24
BG-10	Portland cement grout - 4 in. (labor, equip, materials)	4	1420	1,420.00	LF	$8.71	$12,372.74
17H-E SSMW	Portland cement grout - 4 in. (labor, equip, materials)	4	1828	1,828.00	LF	$8.71	$15,927.73
18H-1V	Portland cement grout - 10 in. (labor, equip, materials)	8.9	1972	172.00	LF	$12.05	$2,072.69
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	$12.05	$27,451.04
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	$12.05	$26,511.10
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	$12.05	$24,703.53
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**: **$858,361.00**

BULLDOZER WORK

Task description: **Regrade Process Ponds**

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

PROJECT IDENTIFICATION

Task #: 03A
Date: 4/14/2025 8:30:57 AM
User: ACY
State: Colorado
County: Rio Blanco
Abbreviation: None
Filename: M194-03a

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D8T - 8SU
Horsepower: 310
Blade Type: Semi-Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$173.32	NA
Operating Cost/Hour:	$109.71	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $321.62
Total Fleet Cost/Hour: **$643.23**

MATERIAL QUANTITIES

Initial Volume: 66,147
Swell factor: 1.115
Loose volume: **73,754** LCY

Source of estimated volume: No changes from TR-50
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 175 feet
Unadjusted hourly production: 562.2 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 0 %
Average site altitude: 6,600 feet

Material weight: 2,100 lbs/LCY

Weight description: Earth - Loam

Job Condition Correction Factor

		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.600	(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: $1.554/LCY

Total job time: **178.19** Hours

Total job cost: **$114,619**

BULLDOZER RIPPING WORK

Task description: **Decompact Process Pond**

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

PROJECT IDENTIFICATION

Task #:	03B	State:	Colorado	Abbreviation:	None
Date:	4/14/2025 8:53:01 AM	County:	Rio Blanco	Filename:	M194-03b
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 %
Ownership Cost/Hour:	$173.32	NA
Operating Cost/Hour:	$109.71	100
Ripper Ownership Cost/Hour:	$14.53	NA
Ripper Operating Cost/Hour:	$7.95	100
Operator Cost/Hour:	$38.59	NA
Total Unit Cost/Hour:	$344.10	

Total Fleet Cost/Hour: **$688.19**

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic:	NA		Bank Volume:	NA	BCY	NA	
Area:	8.00	acres	Rip Depth (ft):	2.00	Volume:	25,813	BCY or CCY

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

JOB TIME AND COST

Fleet size:	2	Grader(s)	Total job time:	**6.85**	Hours
Unit cost:	$589.369	Per acre	Total job cost:	**$4,715**	

BULLDOZER WORK

Task description: **Topsoil Process Pond**

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

PROJECT IDENTIFICATION

Task #:	03C	State:	Colorado	Abbreviation:	None
Date:	4/14/2025 8:34:19 AM	County:	Rio Blanco	Filename:	M194-03c
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)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$173.32	NA
Operating Cost/Hour:	$109.71	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $321.62

Total Fleet Cost/Hour: **$643.23**

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

HOURLY PRODUCTION

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: $0.590/LCY

Total job time: **14.06** Hours

Total job cost: **$9,044**

REVEGETATION WORK

Task description: **Reveg Process Pond**

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

PROJECT IDENTIFICATION

Task #: 03D
Date: 4/14/2025 8:47:26 AM
User: ACY
State: Colorado
County: Rio Blanco
Abbreviation: None
Filename: M194-03d

Agency or organization name: DRMS

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)	$117.61
Weed control spraying (MEANS 31 31 16.13 3100)	$338.80
Total Tilling Cost/Acre	**$456.41**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Alkali Sacaton	0.10	3.90	$2.91
Crested Wheatgrass - Ephraim	4.00	18.37	$21.97
Blue Wildrye - Arlington or Elkton	1.50	5.17	$16.84
Russian Wildrye - Bozoisky	1.50	6.03	$16.61
Hard Fescue - Discovery	1.00	12.97	$4.44
Pubescent Wheatgrass - Luna	1.50	3.10	$7.51
Yellow Sweet Clover - Madrid	0.50	2.98	$2.26
Tall Wheatgrass - Jose	1.80	3.26	$10.35

Thickspike Wheatgrass - Critana	4.30	15.20	$35.04
Sweetvetch, Utah or Northern	0.10	0.05	$8.95
Western Wheatgrass - Barton	1.50	3.79	$14.09
Yarrow, Western	0.20	12.16	$9.65
Totals Seed Mix	18.00	86.97	**$150.62**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
Herbicide - 2,4D @ 1.0 pt/ac	2.00	ACRE	$4.13	$8.25
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	$492.78	$985.56
Total Mulch Materials Cost/Acre				**$993.81**

Application

Description	**Cost /Acre**
Crimping, with tractor {DMG survey data}	$85.37
Power mulcher (MEANS 32 91 13.16 0350)	$157.25
Weed spray, truck, non-aquatic area, nox. [DMG]	$83.26
Total Mulch Application Cost/Acre	**$325.89**

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: $2,163.37
Estimated Failure Rate: 30% Cost /Acre*: $2,163.37
*Selected Replanting Work Items: TILLING,SEEDING,MULCHING

Initial Job Cost: **$41,104.03**
Reseeding Job Cost: **$12,331.21**
Total Job Cost: **$53,435**
Job Hours: **28.50**

BULLDOZER WORK

Task description: **Regrade Plant Area**

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

PROJECT IDENTIFICATION

Task #: 04A
Date: 4/14/2025 8:35:33 AM
User: ACY

State: Colorado
County: Rio Blanco

Abbreviation: None
Filename: M194-04a

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D8T - 8SU
Horsepower: 310
Blade Type: Semi-Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$173.32	NA
Operating Cost/Hour:	$109.71	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $321.62
Total Fleet Cost/Hour: **$643.23**

MATERIAL QUANTITIES

Initial Volume: 13,229
Swell factor: 1.115
Loose volume: **14,750** LCY

Source of estimated volume: 8.2 ac @ 12"
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 150 feet
Unadjusted hourly production: 634.3 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 0 %
Average site altitude: 6,600 feet

Material weight: 2,100 lbs/LCY

Weight description: Earth - Loam

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(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: $1.033/LCY

Total job time: **23.69** Hours

Total job cost: **$15,239**

BULLDOZER RIPPING WORK

Task description: **Decompact Plant Area**

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

PROJECT IDENTIFICATION

Task #:	04B	State:	Colorado	Abbreviation:	None
Date:	4/14/2025 8:56:52 AM	County:	Rio Blanco	Filename:	M194-04b
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 %
Ownership Cost/Hour:	$173.32	NA
Operating Cost/Hour:	$109.71	100
Ripper Ownership Cost/Hour:	$14.53	NA
Ripper Operating Cost/Hour:	$7.95	100
Operator Cost/Hour:	$38.59	NA
Total Unit Cost/Hour:	$344.10	
Total Fleet Cost/Hour:	**$688.19**	

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic:	NA		Bank Volume:	NA	BCY	NA	
Area:	8.20	acres	Rip Depth (ft):	2.00	Volume:	26,459	BCY or CCY

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

JOB TIME AND COST

Fleet size:	2	Grader(s)	Total job time:	**7.02**	Hours
Unit cost:	$589.369	Per acre	Total job cost:	**$4,833**	

BULLDOZER WORK

Task description: **Topsoil Plant Area**

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

PROJECT IDENTIFICATION

Task #: 04C
Date: 4/14/2025 8:36:50 AM
User: ACY
State: Colorado
County: Rio Blanco
Abbreviation: None
Filename: M194-04c

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D8T - 8SU
Horsepower: 310
Blade Type: Semi-Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$173.32	NA
Operating Cost/Hour:	$109.71	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $321.62
Total Fleet Cost/Hour: **$643.23**

MATERIAL QUANTITIES

Initial Volume: 6,615
Swell factor: 1.000
Loose volume: **6,615** LCY

Source of estimated volume: 8.2 ac @ 6" depth
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

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:	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: $0.738/LCY

Total job time: **7.58** Hours
Total job cost: **$4,879**

REVEGETATION WORK

Task description: **Reveg Plant Area**

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

PROJECT IDENTIFICATION

Task #: 04D
Date: 4/14/2025 8:48:44 AM
User: ACY
State: Colorado
County: Rio Blanco
Abbreviation: None
Filename: M194-04d

Agency or organization name: DRMS

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)	$117.61
Weed control spraying (MEANS 31 31 16.13 3100)	$338.80
Total Tilling Cost/Acre	**$456.41**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Alkali Sacaton	0.10	3.90	$2.91
Crested Wheatgrass - Ephraim	4.00	18.37	$21.97
Blue Wildrye - Arlington or Elkton	1.50	5.17	$16.84
Russian Wildrye - Bozoisky	1.50	6.03	$16.61
Hard Fescue - Discovery	1.00	12.97	$4.44
Pubescent Wheatgrass - Luna	1.50	3.10	$7.51
Yellow Sweet Clover - Madrid	0.50	2.98	$2.26
Tall Wheatgrass - Jose	1.80	3.26	$10.35

Thickspike Wheatgrass - Critana	4.30	15.20	$35.04
Sweetvetch, Utah or Northern	0.10	0.05	$8.95
Western Wheatgrass - Barton	1.50	3.79	$14.09
Yarrow, Western	0.20	12.16	$9.65
Totals Seed Mix	18.00	86.97	**$150.62**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
Herbicide - 2,4D @ 1.0 pt/ac	2.00	ACRE	$4.13	$8.25
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	$492.78	$985.56
Total Mulch Materials Cost/Acre				**$993.81**

Application

Description	**Cost /Acre**
Crimping, with tractor {DMG survey data}	$85.37
Power mulcher (MEANS 32 91 13.16 0350)	$157.25
Weed spray, truck, non-aquatic area, nox. [DMG]	$83.26
Total Mulch Application Cost/Acre	**$325.89**

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: $2,163.37
Estimated Failure Rate: 30%
Cost /Acre*: $2,163.37
*Selected Replanting Work Items: TILLING,SEEDING,MULCHING

Initial Job Cost: **$17,739.63**
Reseeding Job Cost: **$5,321.89**
Total Job Cost: **$23,062**
Job Hours: **12.30**

BULLDOZER WORK

Task description: **Regrade Well Pads**

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

PROJECT IDENTIFICATION

Task #:	05A	State:	Colorado	Abbreviation:	None
Date:	4/14/2025 8:38:16 AM	County:	Rio Blanco	Filename:	M194-05a
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)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$173.32	NA
Operating Cost/Hour:	$109.71	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $321.62
Total Fleet Cost/Hour: **$643.23**

MATERIAL QUANTITIES

Initial Volume: 164,237
Swell factor: 1.115
Loose volume: **183,124** LCY

Source of estimated volume: 50.9 ac of pads grade 24" depth
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 75 feet
Unadjusted hourly production: 1,017.1 LCY/hr

Materials consistency description: Compacted fill or embankment 0.9

Average push gradient: 0 %
Average site altitude: 6,600 feet

Material weight: 2,100 lbs/LCY

Weight description: Earth - Loam

Job Condition Correction Factor

		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(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: $0.644/LCY

Total job time: **183.42** Hours
Total job cost: **$117,982**

BULLDOZER WORK

Task description: **Topsoil Well Pads**

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

PROJECT IDENTIFICATION

Task #: 05B
Date: 4/14/2025 8:39:14 AM
User: ACY

State: Colorado
County: Rio Blanco

Abbreviation: None
Filename: M194-05b

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D8T - 8SU
Horsepower: 310
Blade Type: Semi-Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$173.32	NA
Operating Cost/Hour:	$109.71	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $321.62
Total Fleet Cost/Hour: **$643.23**

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

HOURLY PRODUCTION

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: $0.590/LCY

Total job time: **37.67** Hours
Total job cost: **$24,228**

REVEGETATION WORK

Task description: **Reveg Well Pads**

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

PROJECT IDENTIFICATION

Task #: 05C
Date: 4/14/2025 8:50:13 AM
User: ACY
State: Colorado
County: Rio Blanco
Abbreviation: None
Filename: M194-05c

Agency or organization name: DRMS

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)	$117.61
Weed control spraying (MEANS 31 31 16.13 3100)	$338.80
Total Tilling Cost/Acre	**$456.41**

SEEDING

Seed Mix	**Rate – PLS LBS / Acre**	**Seeds per SQ. FT**	**Cost /Acre**
Alkali Sacaton	0.10	3.90	$2.91
Crested Wheatgrass - Ephraim	4.00	18.37	$21.97
Blue Wildrye - Arlington or Elkton	1.50	5.17	$16.84
Russian Wildrye - Bozoisky	1.50	6.03	$16.61
Hard Fescue - Discovery	1.00	12.97	$4.44
Pubescent Wheatgrass - Luna	1.50	3.10	$7.51
Yellow Sweet Clover - Madrid	0.50	2.98	$2.26
Tall Wheatgrass - Jose	1.80	3.26	$10.35

Thickspike Wheatgrass - Critana	4.30	15.20	$35.04
Sweetvetch, Utah or Northern	0.10	0.05	$8.95
Western Wheatgrass - Barton	1.50	3.79	$14.09
Yarrow, Western	0.20	12.16	$9.65
Totals Seed Mix	18.00	86.97	**$150.62**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$236.64
Total Seed Application Cost/Acre	**$236.64**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
Herbicide - 2,4D @ 1.0 pt/ac	2.00	ACRE	$4.13	$8.25
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	$492.78	$985.56
Total Mulch Materials Cost/Acre				**$993.81**

Application

Description	**Cost /Acre**
Crimping, with tractor {DMG survey data}	$85.37
Power mulcher (MEANS 32 91 13.16 0350)	$157.25
Weed spray, truck, non-aquatic area, nox. [DMG]	$83.26
Total Mulch Application Cost/Acre	**$325.89**

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: 50.9 Cost /Acre: $2,163.37

Estimated Failure Rate: 30% Cost /Acre*: $2,163.37

*Selected Replanting Work Items: TILLING,SEEDING,MULCHING

Initial Job Cost: **$110,115.53**

Reseeding Job Cost: **$33,034.66**

Total Job Cost: **$143,150**

Job Hours: **66.00**

BULLDOZER RIPPING WORK

Task description: **Decompact Roads**

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

PROJECT IDENTIFICATION

Task #:	06A	State:	Colorado	Abbreviation:	None
Date:	4/14/2025 8:57:37 AM	County:	Rio Blanco	Filename:	M194-06a
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 %
Ownership Cost/Hour:	$173.32	NA
Operating Cost/Hour:	$109.71	100
Ripper Ownership Cost/Hour:	$14.53	NA
Ripper Operating Cost/Hour:	$7.95	100
Operator Cost/Hour:	$38.59	NA
Total Unit Cost/Hour:	$344.10	

Total Fleet Cost/Hour: **$688.19**

MATERIAL QUANTITIES

Selected estimating method: Area

Alternate Methods:

Seismic:	NA		Bank Volume:	NA	BCY	NA	
Area:	4.82	acres	Rip Depth (ft):	2.00	Volume:	15,553	BCY or CCY

Source of estimated quantity: TR-51 D&A Provided Table

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:	150.00	feet/pass
Average Dozer Speed:	88.00	feet/minute
Average Maneuver Time:	0.25	minutes/pass
Production per unit area:	0.748	acres/hour

Job Condition Correction Factors

Unadjusted Hourly Unit Production:	0.748	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:	0.62	Acres/hr
Adjusted Hourly Fleet Production:	**1.24**	Acres/hr

JOB TIME AND COST

Fleet size:	2	Grader(s)	Total job time:	**3.88**	Hours
Unit cost:	$553.942	Per acre	Total job cost:	**$2,670**	

BULLDOZER WORK

Task description: **Topsoil roads**

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

PROJECT IDENTIFICATION

Task #: 06B
Date: 4/14/2025 8:40:12 AM
User: ACY
State: Colorado
County: Rio Blanco
Abbreviation: None
Filename: M194-06b

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D8T - 8SU
Horsepower: 310
Blade Type: Semi-Universal
Attachment: NA
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$173.32	NA
Operating Cost/Hour:	$109.71	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$38.59	NA

Total unit Cost/Hour: $321.62
Total Fleet Cost/Hour: **$643.23**

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: 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:	0.900	(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: $0.492/LCY

Total job time: **2.98** Hours
Total job cost: **$1,915**

REVEGETATION WORK

Task description: **Reveg Roads**

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

PROJECT IDENTIFICATION

Task #: 06C State: Colorado Abbreviation: None
Date: 4/14/2025 8:51:56 AM County: Rio Blanco Filename: M194-06c
User: ACY

Agency or organization name: DRMS

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)	$117.61
Weed control spraying (MEANS 31 31 16.13 3100)	$338.80
Total Tilling Cost/Acre	**$456.41**

SEEDING

Seed Mix	**Rate – PLS LBS / Acre**	**Seeds per SQ. FT**	**Cost /Acre**
			$
Totals Seed Mix			**$**

Application

Description	**Cost /Acre**

	$
Total Seed Application Cost/Acre	**$**

MULTCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - 2,4D @ 1.0 pt/ac	2.00	ACRE	$4.13	$8.25
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	$492.78	$985.56
Total Mulch Materials Cost/Acre				**$993.81**

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	$85.37
	$
Total Mulch Application Cost/Acre	**$**

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
Estimated Failure Rate: 30%
*Selected Replanting Work Items: TILLING,SEEDING,MULCHING

Cost /Acre: $2,163.37
Cost /Acre*: $2,163.37

Initial Job Cost: **$10,449.08**
Reseeding Job Cost: **$3,134.72**
Total Job Cost: **$13,584**
Job Hours: **7.00**

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: **Initial Mobilization**

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

PROJECT IDENTIFICATION

Task #:	07A	State:	Colorado	Abbreviation:	None
Date:	4/14/2025 8:42:03 AM	County:	Rio Blanco	Filename:	M194-07a
User:	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:	$10.44	$22.18	$23.94
Operating Cost/Hour:	$26.48	$54.55	$55.65
Operator Cost/Hour:	$22.52	$22.52	$22.52
Helper Cost/Hour:	$0.00	$23.53	$23.53
Total Unit Cost/Hour:	$59.44	$122.78	$125.64

NON ROADABLE EQUIPMENT:

Machine Description	Weight/ Unit (TONS)	Owner ship Cost/hr/ unit	Haul Rig Cost/hr/unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet	DOT Permit Cost/ fleet
Cat D8T - 8SU	53.08	$187.85	$125.64	2	$626.98	$251.28	$500.00
Drill/Broadcast Seeder with Tractor	25.00	$41.02	$59.44	1	$100.46	$59.44	$250.00
Power Mulcher (Bowie LD-90)	6.00	$27.21	$59.44	1	$86.65	$59.44	$250.00
Grove RT650E, 105', 45.4 MT	28.74	$189.03	$122.78	1	$311.81	$122.78	$250.00
Broderson IC-200-2F, 45', 13.6MT	8.68	$82.02	$59.44	1	$141.46	$59.44	$250.00
Cat 320D L 9'-6" Stick	23.70	$56.67	$59.44	1	$116.11	$59.44	$250.00
Cat 315D L 8'-6" Stick	19.05	$56.25	$59.44	1	$115.69	$59.44	$250.00
CAT 963D	22.29	$83.68	$59.44	1	$143.12	$59.44	$250.00
				Subtotals:	**$1,642.28**	**$730.70**	**$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.	$57.91	1	$57.91	$57.91
Generic 12-18 cy, 6x4	$115.19	3	$345.57	$345.57
Light Duty Pickup, 4x4, 1 T. Crew	$130.54	1	$130.54	$130.54
Flatbed Truck, 4x2, 30K GVW	$50.30	1	$50.30	$50.30
		Subtotals:	**$584.32**	**$584.32**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	RIFLE	
Total one-way travel distance:	60.00	miles
Average Travel Speed:	40.00	mph
Total Non-Roadable Mob/Demob Cost * '* two round trips with haul rig:	$14,903.50	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	$1,752.96	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable 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 time:	**8.00**	Hours
Total job cost:	**$16,656**	

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: **Secondary Mobilization**

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

PROJECT IDENTIFICATION

Task #: 07B
Date: 4/14/2025 8:46:08 AM
User: ACY
State: Colorado
County: Rio Blanco
Abbreviation: None
Filename: M194-07b

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:	$10.44	$22.18	$23.94
Operating Cost/Hour:	$26.48	$54.55	$55.65
Operator Cost/Hour:	$22.52	$22.52	$22.52
Helper Cost/Hour:	$0.00	$23.53	$23.53
Total Unit Cost/Hour:	$59.44	$122.78	$125.64

NON ROADABLE EQUIPMENT:

Machine Description	Weight/ Unit (TONS)	Owner ship Cost/hr/ unit	Haul Rig Cost/hr/unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet	DOT Permit Cost/ fleet
Drill/Broadcast Seeder with Tractor	25.00	$41.02	$59.44	1	$100.46	$59.44	$250.00
Power Mulcher (Bowie LD-90)	6.00	$27.21	$59.44	1	$86.65	$59.44	$250.00
				Subtotals:	**$187.11**	**$118.88**	**$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.	$57.91	1	$57.91	$57.91
Light Duty Pickup, 4x4, 1 T. Crew	$130.54	1	$130.54	$130.54
		Subtotals:	**$188.45**	**$188.45**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	RIFLE	
Total one-way travel distance:	60.00	miles
Average Travel Speed:	40.00	mph
Total Non-Roadable Mob/Demob Cost * ‘* two round trips with haul rig:	$2,292.19	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	$565.35	

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable 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 time:	**8.00**	Hours
Total job cost:	**$2,858**	