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

1313 Sherman Street, Room 215
Denver, CO 80203

October 7, 2019

Kirk Daehling
Natural Soda LLC
3200 CR 31
Rifle, CO 81650

RE: Nacholite Project, Permit No. M-1983-194, Technical Revision (TR-44) Approval

Dear Mr. Daehling:

On October 7, 2019 the Division of Reclamation, Mining, and Safety (Division) approved the Technical Revision request (TR-44) submitted on October 1, 2019, addressing the following:

Updating bonding figures in support of a future surety Reduction Request.

The terms of the TR-44 approved by the Division are hereby incorporated into Permit No. M-1983-194. All other conditions and requirements of the permit remain in full force and effect.

If you require additional information, or have questions or concerns, please feel free to contact me. Amy Yeldell at the Division of Reclamation, Mining and Safety, 1313 Sherman St., Room 215, Denver, CO 80203. Direct contact can be made by phone at 303-866-3567 Ext 8183 or via email at amy.yeldell@state.co.us

Sincerely,

Amy Yeldell

Amy Yeldell
Environmental Protection Specialist

Enclosures:
TR-44 Reclamation Cost Estimate
TR-44 Reclamation Cost Estimate- Changes to Bond

EC:
Travis Marshall, Senior EPS, Grand Junction DRMS
Paul Daggett, White River Field Office BLM
Gerry Deschaine, Natural Soda EH&S Manager
Jerry Daub, Consultant

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RE: Nacholite Project, Permit No. M-1983-194, TR-44 Reclamation Cost Estimate-Changes to Bond

Dear Mr. Daehling:

This reclamation cost update was in response to the technical revision request (TR-44) which was submitted on October 1, 2019 and a site inspection conducted on October 3, 2019. 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-44) as compared to previous technical revision (TR-43). This table does not account for price changes resulting from inflation or other RS Means cost changes. On July 1, 2019 the Division implemented it's second of four incremental increases.

Task	Form Used	Change	Justification
01a	Demo	-	Updated existing building dimensions Removed TR-36 features no longer to be constructed Updated pipeline inventory based on email average of 34,948 LF of 10". Removed electrical infrastructure to be removed by WREA Job task hours adjusted to reflect less work
02a	Borehole		Updated names accordingly
05a	Dozer	-	Updated per D&A Repose 46 ac of pads requiring reclamation (Disturbed and Interim Reclamation) 46 ac @ 24" (148,427 CY)

05b	Dozer	-	46 ac of pads @ 6" depth (37,527 CY)
05c	Reveg	-	Reveg 46 ac, updated seeding cost
Indirect			Overall job task hours decreased, less superintendent hours Higher engineering and reclamation % of contract based on $2,500,000

Please feel free to contact me with any further questions. Amy Yeldell at the Division of Reclamation, Mining and Safety, 1313 Sherman St., Room 215, Denver, CO 80203. Direct contact can be made by phone at 303-866-3567 Ext 8183 or via email at amy.yeldell@state.co.us

Sincerely,

Amy Yeldell
Environmental Protection Specialist

COST SUMMARY WORK

Task description: **TR-44 Updates**

Site: **Nahcolite Project** Permit Action: TR-44 Permit/Job#: M1983194

PROJECT IDENTIFICATION

Task #: ACY State: Colorado Abbreviation: None
Date: 10/1/2019 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	80.00	$1,913,936
02a	Borehole P&A	BOREHOLE	1	610.00	$600,185
03a	Regrade Process Ponds	DOZER	2	133.65	$60,772
03b	Decompact Process Pond	RIPPER	2	6.85	$3,373
03c	Topsoil Process Pond	DOZER	2	14.06	$6,394
03d	Reveg Process Pond	REVEGE	1	28.50	$36,353
04a	Regrade Plant Area	DOZER	2	23.69	$10,773
04b	Decompact Plant Area	RIPPER	2	7.02	$3,457
04c	Topsoil Plant Area	DOZER	2	6.07	$2,759
04d	Reveg Plant Area	REVEGE	1	12.30	$15,689
05a	Regrade Well Pads	DOZER	2	165.76	$75,377
05b	Topsoil Well Pads	DOZER	2	34.04	$15,479
05c	Reveg Well Pads	REVEGE	1	73.50	$88,014
06a	Decompact Roads	RIPPER	2	4.82	$2,378
06b	Topsoil roads	DOZER	2	4.44	$2,019
06c	Reveg Roads	REVEGE	1	9.00	$11,480
12a	Initial Mobilization	MOBILIZE	1	8.00	$14,500
12b	Secondary Mobilization	MOBILIZE	1	8.00	$2,422
		SUBTOTALS:		**1229.7**	**$2,865,360**

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	$57,880
Performance bond:	1.05	Total =	$30,086
Job superintendent:	614.85	Total =	$42,664
Profit:	10.00	Total =	$286,536
		TOTAL O & P =	$417,167
		CONTRACT AMOUNT (direct + O & P) =	$3,282,527

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	$500	Total =	$500
Engineering work and/or contract/bid preparation:	5.23	Total =	$171,676
Reclamation management and/or administration:	4.00		$131,301
CONTINGENCY:	3.00	Total =	$85,961
		TOTAL INDIRECT COST =	$806,605
		TOTAL BOND AMOUNT (direct + indirect) =	**$3,671,965**

DEMOLITION WORK

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

Site: **Nahcolite Project** Permit Action: TR-44 Permit/Job#: M1983194

PROJECT IDENTIFICATION

Task #: 01A State: Colorado Abbreviation: None
Date: 10/1/2019 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	$0.71	$1,371,681.55
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	$0.71	$320,793.63
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	$1.25	$56,532.08
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	$1.25	$11,237.93
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	$0.72	$13,919.04
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	$1.25	$2,420.67
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	$0.71	$767.77
Pipelines averaged to 10" diam	34,948 LF	Pipe, steel, welded connections - 10 in. diameter pipe	34,948.00	LF	$6.37	$222,618.76

Job Hours: **80.00** **Subtotal (unadjusted):** **$2,004,121.43** **Total Cost (adjusted for location):** **$1,913,935.97**

BOREHOLE SEALING WORK

Task description: **Borehole P&A**

Site: **Nahcolite Project** Permit Action: TR-44 Permit/Job#: M1983194

PROJECT IDENTIFICATION

Task #: 02A State: Colorado Abbreviation: None
Date: 10/1/2019 County: Rio Blanco Filename: M194-02a
User: ACY

Agency or organization name: DRMS

UNIT COSTS

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
3M-TDR	Portland cement grout - 4 in. (labor, equip, materials)	4	1876	1,876.00	LF	$5.00	$9,376.25
89-1	Portland cement grout - 4 in. (labor, equip, materials)	4	1627	1,627.00	LF	$5.00	$8,131.75
89-2	Portland cement grout - 4 in. (labor, equip, materials)	4	1417	1,417.00	LF	$5.00	$7,082.17
89-3	Portland cement grout - 4 in. (labor, equip, materials)	4	347	347.00	LF	$5.00	$1,734.31
90-1	Portland cement grout - 8 in. (labor, equip, materials)	8.9	1417	1,417.00	LF	$6.29	$8,915.76
90-3	Portland cement grout - 4 in. (labor, equip, materials)	4	1627	1,627.00	LF	$5.00	$8,131.75
90-4	Portland cement grout - 4 in. (labor, equip, materials)	4	1417	1,417.00	LF	$5.00	$7,082.17
BG-1	Portland cement grout - 4 in. (labor, equip, materials)	4	1627	1,627.00	LF	$5.00	$8,131.75
BG-4	Portland cement grout - 4 in. (labor, equip, materials)	4	1627	1,627.00	LF	$5.00	$8,131.75
DS-2	Portland cement grout - 4 in. (labor, equip, materials)	4	1876	1,876.00	LF	$5.00	$9,376.25
DS-3	Portland cement grout - 4 in. (labor, equip, materials)	4	1876	1,876.00	LF	$5.00	$9,376.25
EX-2	Portland cement grout - 4 in. (labor, equip, materials)	4	1876	1,876.00	LF	$5.00	$9,376.25
IRI-1	Portland cement grout - 4 in. (labor, equip, materials)	4	347	347.00	LF	$5.00	$1,734.31
IRI-4	Portland cement grout - 4 in. (labor, equip, materials)	4	1417	1,417.00	LF	$5.00	$7,082.17

IRI-5	Portland cement grout - 4 in. (labor, equip, materials)	4.1	347	347.00	LF	$5.00	$1,734.31
IRI-6	Portland cement grout - 4 in. (labor, equip, materials)	4	1627	1,627.00	LF	$5.00	$8,131.75
IRI-7	Portland cement grout - 4 in. (labor, equip, materials)	4	1876	1,876.00	LF	$5.00	$9,376.25
IRI-8	Portland cement grout - 4 in. (labor, equip, materials)	4	347	347.00	LF	$5.00	$1,734.31
12H-I	Portland cement grout - 8 in. (labor, equip, materials)	7	2100	2,100.00	LF	$6.29	$13,213.20
12H-I Bridge Plug	PVC plug - 8 in. diameter borehole	7	1	1.00	EA	$80.77	$80.77
12H-R	Portland cement grout - 8 in. (labor, equip, materials)	7	2100	2,100.00	LF	$6.29	$13,213.20
12H-R Bridge Plug	PVC plug - 8 in. diameter borehole	7	1	1.00	EA	$80.77	$80.77
10H-I	Portland cement grout - 8 in. (labor, equip, materials)	7	1935	1,935.00	LF	$6.29	$12,175.02
10H-I Bridge Plug	PVC plug - 8 in. diameter borehole	7	1	1.00	EA	$80.77	$80.77
10H-R	Portland cement grout - 8 in. (labor, equip, materials)	7	1935	1,935.00	LF	$6.29	$12,175.02
10H-R Bridge Plug	PVC plug - 8 in. diameter borehole	7	1	1.00	EA	$80.77	$80.77
BG-5	Portland cement grout - 4 in. (labor, equip, materials)	4	1645	1,645.00	LF	$5.00	$8,221.71
BG-5 (DS-5)	Portland cement grout - 4 in. (labor, equip, materials)	4	1902	1,902.00	LF	$5.00	$9,506.20
BG-6	Portland cement grout - 4 in. (labor, equip, materials)	4	1639	1,639.00	LF	$5.00	$8,191.72
WSW-2	Portland cement grout - 8 in. (labor, equip, materials)	7	1460	1,460.00	LF	$6.29	$9,186.32
DVPW-1(A)	Portland cement grout - 6 in. (labor, equip, materials)	6.4	1900	1,900.00	LF	$5.67	$10,773.00
DVPW-1(A) Bridge Plug	PVC plug - 6 in. diameter borehole	6.4	1	1.00	EA	$58.97	$58.97
DVPW-1(B)	Portland cement grout - 6 in. (labor, equip, materials)	6.4	1900	1,900.00	LF	$5.67	$10,773.00
DVPW-1(B) Bridge Plug	PVC plug - 6 in. diameter borehole	6.4	1	1.00	EA	$58.97	$58.97
10H-IV	Portland cement grout - 8 in. (labor, equip, materials)	7	1950	1,950.00	LF	$6.29	$12,269.40
13H-RI-E (13H-R)	Portland cement grout - 8	7	2100	2,100.00	LF	$6.29	$13,213.20

	in. (labor, equip, materials)						
13H-RI-E Bridge Plug	PVC plug - 8 in. diameter borehole	7	1	1.00	EA	$80.77	$80.77
14H-I	Portland cement grout - 8 in. (labor, equip, materials)	7	2050	2,050.00	LF	$6.29	$12,898.60
14H-I Bridge Plug	PVC plug - 8 in. diameter borehole	7	1	1.00	EA	$80.77	$80.77
14H-RI-E (14H-R)	Portland cement grout - 8 in. (labor, equip, materials)	7	2110	2,110.00	LF	$6.29	$13,276.12
14H-RI-E Bridge Plug	PVC plug - 8 in. diameter borehole	7	1	1.00	EA	$80.77	$80.77
WSW-3	Portland cement grout - 8 in. (labor, equip, materials)	7	1420	1,420.00	LF	$6.29	$8,934.64
WSW-4	Portland cement grout - 8 in. (labor, equip, materials)	7	1431	1,431.00	LF	$6.29	$9,003.85
DS-8 (I, Phase 1)	Portland cement grout - 4 in. (labor, equip, materials)	4	1882	1,882.00	LF	$5.00	$9,406.24
AG-1 (J, Phase 1)	Portland cement grout - 4 in. (labor, equip, materials)	4	1487	1,487.00	LF	$5.00	$7,432.03
BG-7 (K, Phase 1)	Portland cement grout - 4 in. (labor, equip, materials)	4	1593	1,593.00	LF	$5.00	$7,961.81
DS-9 (M, Phase 1)	Portland cement grout - 4 in. (labor, equip, materials)	4	1917	1,917.00	LF	$5.00	$9,581.17
DS-7	Portland cement grout - 4 in. (labor, equip, materials)	4	1897	1,897.00	LF	$5.00	$9,481.21
O-GWM-A (O, Phase 2)	Portland cement grout - 8 in. (labor, equip, materials)	7	1294	1,294.00	LF	$6.29	$8,141.85
DS-6	Portland cement grout - 4 in. (labor, equip, materials)	4	1882	1,882.00	LF	$5.00	$9,406.24
IRI-9	Portland cement grout - 4 in. (labor, equip, materials)	4	1710	1,710.00	LF	$5.00	$8,546.58
IRI-11	Portland cement grout - 4 in. (labor, equip, materials)	4	1550	1,550.00	LF	$5.00	$7,746.90
15H-I	Portland cement grout - 6 in. (labor, equip, materials)	6.4	1960	1,960.00	LF	$5.67	$11,113.20
15H-1 Bridge Plug	PVC plug - 6 in. diameter borehole	6.4	1	1.00	EA	$58.97	$58.97
15H-RI (15H-R)	Portland cement grout - 6 in. (labor, equip, materials)	6.4	1960	1,960.00	LF	$5.67	$11,113.20
15H-RI Bridge Plug	PVC plug - 6 in. diameter borehole	6.4	1	1.00	EA	$58.97	$58.97
16H-I	Portland cement grout - 6	6.4	1960	1,960.00	LF	$5.67	$11,113.20

	in. (labor, equip, materials)						
16H-I Bridge Plug	PVC plug - 6 in. diameter borehole	6.4	1	1.00	EA	$58.97	$58.97
16H-R	Portland cement grout - 8 in. (labor, equip, materials)	8.9	1960	1,960.00	LF	$6.29	$12,332.32
16H-R Bridge Plug	PVC plug - 8 in. diameter borehole	8.9	1	1.00	EA	$80.77	$80.77
17H-I	Portland cement grout - 6 in. (labor, equip, materials)	6.4	1960	1,960.00	LF	$5.67	$11,113.20
17H-I Bridge Plug	PVC plug - 6 in. diameter borehole	6.4	1	1.00	EA	$58.97	$58.97
17H-R	Portland cement grout - 10 in. (labor, equip, materials)	9	2000	2,000.00	LF	$7.14	$14,288.20
17H-R Bridge Plug	PVC plug - 10 in. diameter borehole	9	1	1.00	EA	$110.66	$110.66
12H-IR	Portland cement grout - 10 in. (labor, equip, materials)	9	2100	2,100.00	LF	$7.14	$15,002.61
12H-IRBridge Plug	PVC plug - 10 in. diameter borehole	9	1	1.00	EA	$110.66	$110.66
13H-IR	Portland cement grout - 10 in. (labor, equip, materials)	9	2100	2,100.00	LF	$7.14	$15,002.61
13H-IR Bridge Plug	PVC plug - 10 in. diameter borehole	9	1	1.00	EA	$110.66	$110.66
15H-SSMW	Portland cement grout - 4 in. (labor, equip, materials)	4	1760	1,760.00	LF	$5.00	$8,796.48
17H-SSMW	Portland cement grout - 4 in. (labor, equip, materials)	4	1720	1,720.00	LF	$5.00	$8,596.56
DS-10	Portland cement grout - 4 in. (labor, equip, materials)	4	1882	1,882.00	LF	$5.00	$9,406.24
14H-1V	Portland cement grout - 8 in. (labor, equip, materials)	8.9	2130	2,130.00	LF	$6.29	$13,401.96
14H-1V Bridge Plug	PVC plug - 8 in. diameter borehole	8.9	1	1.00	EA	$80.77	$80.77
15H-1V	Portland cement grout - 8 in. (labor, equip, materials)	8.9	1898	1,898.00	LF	$6.29	$11,942.22
16H-1V	Portland cement grout - 8 in. (labor, equip, materials)	8.9	1976	1,976.00	LF	$6.29	$12,432.99
17H-1V	Portland cement grout - 8 in. (labor, equip, materials)	8.9	2100	2,100.00	LF	$6.29	$13,213.20
15H-IR-E	Portland cement grout - 8 in. (labor, equip, materials)	8.9	2135	2,135.00	LF	$6.29	$13,433.42
15H-IR-E Bridge Plug	PVC plug - 8 in. diameter borehole	8.9	1	1.00	EA	$80.77	$80.77
16H-IR-E	Portland cement grout - 8	8.9	2131	2,131.00	LF	$6.29	$13,408.25

	in. (labor, equip, materials)						
16H-IR-E Bridge Plug	PVC plug - 8 in. diameter borehole	8.9	1	1.00	EA	$80.77	$80.77
17H-IR-E	Portland cement grout - 8 in. (labor, equip, materials)	8.9	2138	2,138.00	LF	$6.29	$13,452.30
17H-IR-E Bridge Plug	PVC plug - 8 in. diameter borehole	8.9	1	1.00	EA	$80.77	$80.77

Job Hours: **610.00** **Total Cost**: **$600,185.00**

BULLDOZER WORK

Task description: **Regrade Well Pads**

Site: **Nahcolite Project** Permit Action: TR-44 Permit/Job#: M1983194

PROJECT IDENTIFICATION

Task #:	05A	State:	Colorado	Abbreviation:	None
Date:	10/1/2019	County:	Rio Blanco	Filename:	M194-04a
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:	$103.86	NA
Operating Cost/Hour:	$82.26	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$41.24	NA

Total unit Cost/Hour: $227.36
Total Fleet Cost/Hour: **$454.72**

MATERIAL QUANTITIES

Initial Volume:	148,427
Swell factor:	1.115
Loose volume:	**165,496** LCY

Source of estimated volume: 46 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: $0.455/LCY

Total job time: **165.76** Hours
Total job cost: **$75,377**

BULLDOZER WORK

Task description: **Topsoil Well Pads**

Site: **Nahcolite Project** Permit Action: TR-44 Permit/Job#: M1983194

PROJECT IDENTIFICATION

Task #: 05B State: Colorado Abbreviation: None
Date: 10/1/2019 County: Rio Blanco Filename: M194-05b
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:	$103.86	NA
Operating Cost/Hour:	$82.26	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$41.24	NA

Total unit Cost/Hour: $227.36
Total Fleet Cost/Hour: **$454.72**

MATERIAL QUANTITIES

Initial Volume: 37,107
Swell factor: 1.000
Loose volume: **37,107** LCY

Source of estimated volume: 46 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: $0.417/LCY

Total job time: **34.04** Hours
Total job cost: **$15,479**

REVEGETATION WORK

Task description: **Reveg Well Pads**

Site: **Nahcolite Project** Permit Action: TR-44 Permit/Job#: M1983194

PROJECT IDENTIFICATION

Task #: 05C State: Colorado Abbreviation: None
Date: 10/1/2019 County: Rio Blanco Filename: M194-05c
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)	$101.93
Weed control spraying (MEANS 31 31 16.13 3100)	$193.60
Total Tilling Cost/Acre	**$295.53**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Alkali Sacaton	0.10	3.90	$2.85
Crested Wheatgrass - Ephraim	4.00	18.37	$17.30
Blue Wildrye - Arlington or Elkton	1.50	5.17	$9.99
Russian Wildrye - Bozoisky	1.50	6.03	$9.72
Hard Fescue - Discovery	1.00	12.97	$2.93
Pubescent Wheatgrass - Luna	1.50	3.10	$5.10
Yellow Sweet Clover - Madrid	0.50	2.98	$1.41
Tall Wheatgrass - Jose	1.80	3.26	$6.08
Thickspike Wheatgrass - Critana	4.30	15.20	$29.56

Sweetvetch, Utah or Northern	0.10	0.05	$7.50
Western Wheatgrass - Barton	1.50	3.79	$10.50
Yarrow, Western	0.20	12.16	$8.36
Totals Seed Mix	18.00	86.97	**$111.29**

Application

Description	**Cost /Acre**
Drill Seeding (DRMS Survey Cost)	$232.00
Total Seed Application Cost/Acre	**$232.00**

MULCHING and MISCELLANEOUS

Materials

Description	**Units / Acre**	**Unit**	**Cost / Unit**	**Cost /Acre**
Herbicide - 2,4D @ 1.0 pt/ac	2.00	ACRE	$2.74	$5.48
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	$295.00	$590.00
Total Mulch Materials Cost/Acre				**$595.48**

Application

Description	**Cost /Acre**
Crimping, with tractor {DMG survey data}	$70.17
Power mulcher (MEANS 32 91 13.16 0350)	$95.83
Weed spray, truck, non-aquatic area, nox. [DMG]	$71.50
Total Mulch Application Cost/Acre	**$237.50**

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: 46 Cost /Acre: $1,471.80
Estimated Failure Rate: 30% Cost /Acre*: $1,471.80
*Selected Replanting Work Items: TILLING,SEEDING,MULCHING

Initial Job Cost: **$67,702.80**
Reseeding Job Cost: **$20,310.84**
Total Job Cost: **$88,014**
Job Hours: **73.50**

STATE OF COLORADO

Yeldell - DNR, Amy <amy.yeldell@state.co.us>

Re: NS TR 44

1 message

Daub, Gerald <gjdaub@daubandassociates.com> Wed, Oct 2, 2019 at 10:33 AM
To: "Yeldell - DNR, Amy" <amy.yeldell@state.co.us>
Cc: Randy Dean <randy.dean@daubandassociates.com>, "Johnson, Liz" <ljohnson@daubandassociates.com>

Amy:
As a result of this exercise there was a 250' reduction in the total NS pipeline footage.
Here are the NS pipeline numbers:
16 inch – 9,200 feet

12 inch – 7,000 feet

8 inch – 7,500 feet

6 inch – 11,248 feet

Regards,
Jerry

Jerry Daub, PG, CPG
Daub & Associates, Inc.
1985 1/2 South Broadway
Grand Junction, CO 81507

http://www.daubandassociates.com
(970) 254-1224 (phone)
(970) 242-8438 (fax)
(970) 216-1010 (cell)
gjdaub@daubandassociates.com

On Tue, Oct 1, 2019 at 11:32 AM Yeldell - DNR, Amy <amy.yeldell@state.co.us> wrote:

> Can I please get the piping totals that resulted in the average of 35,198 LF of 10"
>
> --

Amy Yeldell
Environmental Protection Specialist
Minerals Program, Grand Junction Field Office

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

P 303-866-3567 Ext:8183 | F 303-832-8106

101 S. 3rd St., Suite 301, Grand Junction, CO 81501

amy.yeldell@state.co.us | www.mining.state.co.us

On Mon, Sep 30, 2019 at 2:55 PM Daub, Gerald <gjdaub@daubandassociates.com> wrote:

> Amy:
> Thanks for meeting with us last week. Attached please find the TR 44 that I have sent to your Denver office via FedEx for delivery tomorrow. We would appreciate anything you could do to expedite this process and the ability to request the surety reduction as quickly as possible as well Thank you.
>
> Regards,
> Jerry
>
> _____
> Jerry Daub, PG, CPG
> Daub & Associates, Inc.
> 1985 1/2 South Broadway
> Grand Junction, CO 81507
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