COST SUMMARY WORK

Task description:	2024 Reclamation Cost Estimate	
Site: Climax Mine	Permit Action: 2024-06	Permit/Job#: <u>M1977493</u>
PROJECT IDENTI	FICATION .	
Task #: ACY	State: Colorado	Abbreviation: None
Date: 6/10/20	24 County: Lake	Filename: M493-ACY

TASK LIST (DIRECT COSTS)

Agency or organization name: DRMS

User: ACY

		Form	Fleet	T. 1	
Task	Description	Used	Size	Task Hours	Cost
Task	Description	Oscu	SIZC	Hours	Cost
Open Pit					
B1001	Open Pit - Haul Overburden (waste rock removal)	TRUCK1	3	2,163.03	\$13,553,910
B1002	Open Pit - Grade Overburden	DOZER	8	947.20	\$3,735,023
B1003	Open Pit - Haul Topsoil	TRUCK1	1	81.02	\$122,400
B1004	Open Pit - Grade Topsoil	DOZER	1	52.83	\$16,992
B1005	Open Pit - Finish Grading	GRADER	1	8.90	\$1,351
B2001	Open Pit - Hydrologic Protection	NA	1	41.00	\$221,510
B4001	Open Pit - Signs	NA	1	41.00	\$7,218
Mine Mill		1	Í	1	i
C1001	Mine Mill Complex - Grading	DOZER	4	646.87	\$1,275,386
C1002	Mine Mill Complex - Haul Topsoil	TRUCK1	3	726.45	\$2,555,593
C1003	Mine Mill Complex - Grade Topsoil	DOZER	_ 4	587.67	\$488,415
C1004	Mine Mill Complex - Haul Bedding Material	TRUCK1	1	84.73	\$93,703
C1005	Mine Mill Complex - Finish Grading	GRADER	1	233.55	\$35,421
C1006	Mine Mill Complex - Rip Compacted Surfaces	RIPPER	3	133.65	\$89,106
C2001	Mine Mill Complex - Hydrologic Protection	NA	1	2,552.00	\$3,444,046
C3001	Reveg - Mine Mill Complex - Alpine	REVEGE	1	265.10	\$454,111
C4001	Disposal of Reagents	NA	1	213.00	\$91,459
North 40		I	ı	1	Ι .
D1001	North 40 OSF - Grading	DOZER	4	741.97	\$1,462,883
D1002	North 40 OSF - Haul Topsoil SE	TRUCK1	3	584.46	\$1,682,566
D1003	North 40 OSF - Grade Topsoil	DOZER	4	323.67	\$269,000
D1004	North 40 OSF - Haul Topsoil Area L	TRUCK1	3	63.05	\$181,501
D1005	North 40 OSF - Grade Topsoil	DOZER	2	78.56	\$32,645
D1006	North 40 OSF - Haul Bedding Material	TRUCK1	1	56.70	\$62,702
D1007	North 40 OSF - Finish Grading	GRADER	1	106.88	\$16,210
D2001	North 40 OSF - Hydrologic Protection	NA	1	2,416.00	\$12,140,848
D3001	North 40 OSF - Reveg - Alpine	REVEGE	1	258.50	\$801,552
McNulty (I	ı	1	Ι .
E1001	McNulty OSF - Grading	DOZER	8	4,722.52	\$18,622,060
E1002	McNulty OSF - Finish Grading	GRADER	2	335.49	\$101,762
E1003	McNulty OSF - Haul Topsoil McNulty	TRUCK1	2	415.34	\$871,749
E1004	McNulty OSF - Grade Topsoil	DOZER	_ 2	375.16	\$241,314
E1005	McNulty OSF - Haul Topsoil L Stockpile	TRUCK1	3	589.81	\$1,697,962
E1006	McNulty OSF - Grade Topsoil L	DOZER	2	710.32	\$456,899

Tarl	Description	Form	Fleet	Task	Cost
Task	Description The Control of the Contr	Used	Size	Hours	Cost
E1007	McNulty OSF - Haul Topsoil N Stockpile	TRUCK1	$\frac{3}{2}$	989.33	\$3,480,411
E1008	McNulty OSF - Grade Topsoil N	DOZER	2	2,161.88	\$1,390,590
E1009	McNulty OSF - Haul Bedding Material	TRUCK1	$\frac{1}{2}$	114.85	\$175,941
E1010	McNulty OSF - Haul Road Grading	DOZER	5	151.91	\$244,288
E1011	McNulty OSF -Roads - Ripping	RIPPER	_ 2	43.25	\$19,226
E2001	McNulty OSF - Hydrologic Protection	NA	1	4,690.00	\$20,072,509
E3001	North 40 OSF - Reveg - Alpine	REVEGE	1	751.30	\$2,409,944
Tenmile	TSF				
F1001	Tenmile TSF - Hauling Topsoil 30	TRUCK1	3	425.23	\$1,224,175
F1002	Tenmile TSF - Topsoil Grading 30	DOZER	5	327.95	\$527,365
F1003	Tenmile TSF - Hauling Topsoil 36	TRUCK1	3	170.40	\$381,646
F1004	Tenmile TSF - Topsoil Grading 36	DOZER	2	369.64	\$237,764
F1005	Tenmile TSF - Hauling Topsoil 33	TRUCK1	3	891.90	\$3,707,635
F1006	Tenmile TSF - Topsoil Grading 33	DOZER	4	936.04	\$1,204,182
F1007	Tenmile TSF - Hauling Topsoil 17	TRUCK1	3	312.65	\$900,076
F1008	Tenmile TSF - Topsoil Grading 17	DOZER	3	448.46	\$432,693
F1009	Tenmile TSF - Hauling Topsoil 25, 26, 27, 17	TRUCK1	1	2.62	\$4,564
F1010	Tenmile TSF - Topsoil Grading 25, 26, 27, 17	DOZER	1	3.70	\$1,189
F1011	Tenmile OSF - Haul Bedding Material	TRUCK1	2	46.65	\$97,920
F1012	Tenmile OSF - Roads - Ripping	RIPPER	1	11.64	\$2,588
F2001	Tenmile TSF - Hydrologic Protection	NA	1	2,932.00	\$7,922,709
F3001	Tenmile TSF- Reveg - Upland	REVEGE	$\frac{1}{1}$	687.50	\$1,415,451
F3002	Tenmile TSF - Reveg - Trees	REVEGE	$\frac{1}{1}$	22.80	\$28,112
3 Dam					
3 Dam H1001	3 Dam - Haul Topsoil	TRUCK1	2	120.13	\$296,746
H1002	3 Dam - Topsoil Grading	DOZER	2	88.70	\$36,860
H1003	3 Dam - Haul Bedding Material	TRUCK1	1	19.72	\$20,732
H2001	3 Dam - Hydrologic Protection	NA	1	530.00	\$569,843
H3001	3 Dam - Reveg - Upland	REVEGE	1		
		KE VEGE	1	31.90	\$120,981
Dand Sh	on	REVEGE	1	31.90	
			1		\$120,981
I1001	Pond Shop - Grading	DOZER	1 1 1	15.99	\$120,981 \$5,144
I1002	Pond Shop - Grading Pond Shop - Hauling Topsoil	DOZER TRUCK1	1	15.99 1.38	\$120,981 \$5,144 \$1,050
I1001 I1002 I1003	Pond Shop - Grading	DOZER		15.99	\$120,981 \$5,144
I1001 I1002 I1003 I3001	Pond Shop - Grading Pond Shop - Hauling Topsoil Pond Shop - Topsoil Grading Pond Shop - Reveg - Upland	DOZER TRUCK1 DOZER	1 1	15.99 1.38 1.63	\$120,981 \$5,144 \$1,050 \$338
I1001 I1002 I1003 I3001 Mayflow	Pond Shop - Grading Pond Shop - Hauling Topsoil Pond Shop - Topsoil Grading Pond Shop - Reveg - Upland Ver TSF	DOZER TRUCK1 DOZER REVEGE	1 1 1	15.99 1.38 1.63 2.00	\$120,981 \$5,144 \$1,050 \$338 \$1,649
I1001 I1002 I1003 I3001 Mayflow J1001	Pond Shop - Grading Pond Shop - Hauling Topsoil Pond Shop - Topsoil Grading Pond Shop - Reveg - Upland ver TSF Mayflower TSF - Haul Topsoil	DOZER TRUCK1 DOZER REVEGE	1 1 1 1	15.99 1.38 1.63 2.00	\$120,981 \$5,144 \$1,050 \$338 \$1,649 \$3,876,230
I1001 I1002 I1003 I3001 Mayflow J1001 J1002	Pond Shop - Grading Pond Shop - Hauling Topsoil Pond Shop - Topsoil Grading Pond Shop - Reveg - Upland Ver TSF Mayflower TSF - Haul Topsoil Mayflower TSF - Grade Topsoil	DOZER TRUCK1 DOZER REVEGE TRUCK1 DOZER	1 1 1 1 6 5	15.99 1.38 1.63 2.00 983.67 1,368.22	\$120,981 \$5,144 \$1,050 \$338 \$1,649 \$3,876,230 \$2,200,210
I1001 I1002 I1003 I3001 Mayflow J1001 J1002 J1003	Pond Shop - Grading Pond Shop - Hauling Topsoil Pond Shop - Topsoil Grading Pond Shop - Reveg - Upland Ver TSF Mayflower TSF - Haul Topsoil Mayflower TSF - Grade Topsoil Mayflower TSF - Haul Topsoil 33	DOZER TRUCK1 DOZER REVEGE TRUCK1 DOZER TRUCK1	1 1 1 1 6 5 3	15.99 1.38 1.63 2.00 983.67 1,368.22 160.36	\$120,981 \$5,144 \$1,050 \$338 \$1,649 \$3,876,230 \$2,200,210 \$461,663
I1001 I1002 I1003 I3001 Mayflow J1001 J1002 J1003 J1004	Pond Shop - Grading Pond Shop - Hauling Topsoil Pond Shop - Topsoil Grading Pond Shop - Reveg - Upland Ver TSF Mayflower TSF - Haul Topsoil Mayflower TSF - Grade Topsoil Mayflower TSF - Haul Topsoil 33 Mayflower TSF - Grade Topsoil 33	DOZER TRUCK1 DOZER REVEGE TRUCK1 DOZER TRUCK1 DOZER TRUCK1 DOZER	1 1 1 1 6 5 3 2	15.99 1.38 1.63 2.00 983.67 1,368.22 160.36 347.88	\$120,981 \$5,144 \$1,050 \$338 \$1,649 \$3,876,230 \$2,200,210 \$461,663 \$223,766
I1001 I1002 I1003 I3001 Mayflow J1001 J1002 J1003 J1004 J1005	Pond Shop - Grading Pond Shop - Hauling Topsoil Pond Shop - Topsoil Grading Pond Shop - Reveg - Upland Ver TSF Mayflower TSF - Haul Topsoil Mayflower TSF - Grade Topsoil Mayflower TSF - Haul Topsoil 33 Mayflower TSF - Grade Topsoil 33 Mayflower TSF - Haul Topsoil 30 Mayflower TSF - Haul Topsoil 30 Pool	DOZER TRUCK1 DOZER REVEGE TRUCK1 DOZER TRUCK1 DOZER TRUCK1 TRUCK1	1 1 1 1 6 5 3 2 3	15.99 1.38 1.63 2.00 983.67 1,368.22 160.36 347.88 420.03	\$120,981 \$5,144 \$1,050 \$338 \$1,649 \$3,876,230 \$2,200,210 \$461,663 \$223,766 \$1,477,626
I1001 I1002 I1003 I3001 Mayflow J1001 J1002 J1003 J1004 J1005 J1006	Pond Shop - Grading Pond Shop - Hauling Topsoil Pond Shop - Topsoil Grading Pond Shop - Reveg - Upland Ver TSF Mayflower TSF - Haul Topsoil Mayflower TSF - Grade Topsoil Mayflower TSF - Haul Topsoil 33 Mayflower TSF - Grade Topsoil 33 Mayflower TSF - Haul Topsoil 30 Pool Mayflower TSF - Grade Topsoil 30 Pool	DOZER TRUCK1 DOZER REVEGE TRUCK1 DOZER TRUCK1 DOZER TRUCK1 DOZER TRUCK1 DOZER	1 1 1 1 6 5 3 2 3 5	15.99 1.38 1.63 2.00 983.67 1,368.22 160.36 347.88 420.03 364.47	\$120,981 \$5,144 \$1,050 \$338 \$1,649 \$3,876,230 \$2,200,210 \$461,663 \$223,766 \$1,477,626 \$586,088
I1001 I1002 I1003 I3001 Mayflow J1001 J1002 J1003 J1004 J1005 J1006 J1007	Pond Shop - Grading Pond Shop - Hauling Topsoil Pond Shop - Topsoil Grading Pond Shop - Reveg - Upland Ver TSF Mayflower TSF - Haul Topsoil Mayflower TSF - Grade Topsoil Mayflower TSF - Haul Topsoil 33 Mayflower TSF - Grade Topsoil 33 Mayflower TSF - Haul Topsoil 30 Mayflower TSF - Haul Topsoil 30 Pool Mayflower TSF - Grade Topsoil 30 Pool Mayflower TSF - Haul Topsoil 30 Pool Mayflower TSF - Haul Topsoil 16	DOZER TRUCK1 DOZER REVEGE TRUCK1 DOZER TRUCK1 DOZER TRUCK1 DOZER TRUCK1 DOZER TRUCK1 TRUCK1	1 1 1 1 6 5 3 2 3 5 2	15.99 1.38 1.63 2.00 983.67 1,368.22 160.36 347.88 420.03 364.47 430.50	\$120,981 \$5,144 \$1,050 \$338 \$1,649 \$3,876,230 \$2,200,210 \$461,663 \$223,766 \$1,477,626 \$586,088 \$903,572
I1001 I1002 I1003 I3001 Mayflow J1001 J1002 J1003 J1004 J1005 J1006 J1007 J1008	Pond Shop - Grading Pond Shop - Hauling Topsoil Pond Shop - Topsoil Grading Pond Shop - Reveg - Upland Ver TSF Mayflower TSF - Haul Topsoil Mayflower TSF - Grade Topsoil Mayflower TSF - Haul Topsoil 33 Mayflower TSF - Grade Topsoil 33 Mayflower TSF - Haul Topsoil 30 Pool Mayflower TSF - Grade Topsoil 30 Pool Mayflower TSF - Grade Topsoil 30 Pool Mayflower TSF - Haul Topsoil 16 Mayflower TSF - Grade Topsoil 16	DOZER TRUCK1 DOZER REVEGE TRUCK1 DOZER TRUCK1 DOZER TRUCK1 DOZER TRUCK1 DOZER TRUCK1 DOZER TRUCK1 DOZER	1 1 1 1 6 5 3 2 3 5 2 2 2	15.99 1.38 1.63 2.00 983.67 1,368.22 160.36 347.88 420.03 364.47 430.50 622.59	\$120,981 \$5,144 \$1,050 \$338 \$1,649 \$3,876,230 \$2,200,210 \$461,663 \$223,766 \$1,477,626 \$586,088 \$903,572 \$400,471
I1001 I1002 I1003 I3001 Mayflow J1001 J1002 J1003 J1004 J1005 J1006 J1007 J1008 J1009	Pond Shop - Grading Pond Shop - Hauling Topsoil Pond Shop - Topsoil Grading Pond Shop - Reveg - Upland Ver TSF Mayflower TSF - Haul Topsoil Mayflower TSF - Grade Topsoil Mayflower TSF - Haul Topsoil 33 Mayflower TSF - Grade Topsoil 33 Mayflower TSF - Haul Topsoil 30 Pool Mayflower TSF - Grade Topsoil 30 Pool Mayflower TSF - Haul Topsoil 16 Mayflower TSF - Grade Topsoil 16 Mayflower TSF - Grade Topsoil 16 Mayflower TSF - Haul Topsoil 16 Mayflower TSF - Haul Topsoil 30 Temp Sludge	DOZER TRUCK1 DOZER REVEGE TRUCK1 DOZER TRUCK1 DOZER TRUCK1 DOZER TRUCK1 DOZER TRUCK1 DOZER TRUCK1 TRUCK1 TRUCK1 TRUCK1	1 1 1 1 6 5 3 2 3 5 2 2 1	15.99 1.38 1.63 2.00 983.67 1,368.22 160.36 347.88 420.03 364.47 430.50 622.59 330.40	\$120,981 \$5,144 \$1,050 \$338 \$1,649 \$3,876,230 \$2,200,210 \$461,663 \$223,766 \$1,477,626 \$586,088 \$903,572 \$400,471 \$435,769
I1001 I1002 I1003 I3001 Mayflow J1001 J1002 J1003 J1004 J1005	Pond Shop - Grading Pond Shop - Hauling Topsoil Pond Shop - Topsoil Grading Pond Shop - Reveg - Upland Ver TSF Mayflower TSF - Haul Topsoil Mayflower TSF - Grade Topsoil Mayflower TSF - Haul Topsoil 33 Mayflower TSF - Grade Topsoil 33 Mayflower TSF - Haul Topsoil 30 Pool Mayflower TSF - Grade Topsoil 30 Pool Mayflower TSF - Grade Topsoil 30 Pool Mayflower TSF - Haul Topsoil 16 Mayflower TSF - Grade Topsoil 16	DOZER TRUCK1 DOZER REVEGE TRUCK1 DOZER TRUCK1 DOZER TRUCK1 DOZER TRUCK1 DOZER TRUCK1 DOZER TRUCK1 DOZER	1 1 1 1 6 5 3 2 3 5 2 2 2	15.99 1.38 1.63 2.00 983.67 1,368.22 160.36 347.88 420.03 364.47 430.50 622.59	\$120,981 \$5,144 \$1,050 \$338 \$1,649 \$3,876,230 \$2,200,210 \$461,663 \$223,766 \$1,477,626 \$586,088 \$903,572 \$400,471

		Form	Fleet	Task	
Task	Description	Used	Size	Hours	Cost
J1012	Mayflower TSF - Haul Bedding Material	TRUCK1	3	48.85	\$137,972
J1013	Mayflower TSF - Roads - Ripping	RIPPER	2	24.12	\$10,722
J2001	Mayflower TSF - Hydrologic Protection	NA	1	3,394.00	\$12,175,620
J3001	Mayflower TSF - Reveg - Upland	REVEGE	1	771.10	\$1,587,570
J3002	Mayflower TSF - Reveg - Trees	REVEGE	1	25.20	\$31,072
J3003	Mayflower Pool/Sludge Cell - Reveg - Upland	REVEGE	1	201.30	\$399,199
J3004	Mayflower Pool/Sludge Cell - Reveg - Trees	REVEGE	$\frac{1}{1}$	6.00	\$7,398
	1			0.00	
Mayflow	er Seepage Collection				
L1001	Mayflower Seepage Bldg - Grading	DOZER	1	293.90	\$94,523
L1002	Mayflower Seepage Bldg - Haul Topsoil	TRUCK1	1	7.61	\$5,805
L1003	Mayflower Seepage Bldg - Grade Topsoil	DOZER	1	9.14	\$1,900
L1004	Mayflower TSF - Grading	GRADER	1	0.98	\$150
L3001	Mayflower Seepage Collection Bldgs - Reveg - Upland	REVEGE	1	1.10	\$2,265
					_
Robinson			i		
M1001	Robinson TSF - Haul Fill material 28	TRUCK1	2	413.32	\$1,395,811
M1002	Robinson TSF - Grade Fill Material 28	DOZER	2	481.61	\$309,789
M1003	Robinson TSF - Haul Topsoil 30	TRUCK1	4	677.38	\$3,055,602
M1004	Robinson TSF - Grade Topsoil 30	DOZER	4	979.62	\$1,260,247
M1005	Robinson TSF - Haul Topsoil 35	TRUCK1	5	280.50	\$946,321
M1006	Robinson TSF - Grade Topsoil 35	DOZER	2	968.71	\$623,107
M1007	Robinson TSF - Haul Bedding Material	TRUCK1	2	36.36	\$74,323
M1008	Robinson TSF - Roads - Ripping	RIPPER	1	9.98	\$2,218
M2001	Robinson TSF - Hydrologic Protection	NA	1	2,165.00	\$2,616,398
M3001	Robinson TSF - Reveg - Upland	REVEGE	1	502.70	\$1,034,978
M3002	Robinson TSF - Reveg - Trees	REVEGE	1	16.80	\$20,714
1 Dam	1.D W.15 1100	TD LIGHT	1.		Φ.5.2.4
N1001	1 Dam - Haul Topsoil 22	TRUCK1	1	0.70	\$734
N1002	1 Dam - Grade Topsoil 22	DOZER	1	0.63	\$202
N1003	1 Dam - Haul Topsoil 24	TRUCK1	1	2.56	\$2,687
N1004	1 Dam - Grade Topsoil 24	DOZER	1	2.31	\$743
N1005	1 Dam - Haul Topsoil 28	TRUCK1	_ 3	356.17	\$1,233,491
N1006	1 Dam - Grade Topsoil 28	DOZER	_ 2	470.74	\$302,794
N1007	1 Dam - Haul Bedding Material	TRUCK1	2	20.49	\$50,626
N2001	1 Dam - Hydrologic Protection	NA	1	1,118.00	\$1,200,709
N3001	1 Dam - Reveg - Upland	REVEGE	1	139.70	\$529,812
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Roads	D 1 H 1T T MN 14 OCE	TDI ICIZ 1	1 2	101.00	¢407 107
O1001	Roads - Haul Topsoil - McNulty OSF	TRUCK1	$\frac{3}{4}$	181.89	\$486,107
O1002	Roads - Grade Topsoil - McNulty OSF	DOZER	$\frac{4}{2}$	146.94	\$122,123
O1003	Roads - Haul Topsoil - Tenmile	TRUCK1	$\frac{2}{2}$	38.58	\$89,450
O1004	Roads - Grade Topsoil - Tenmile	DOZER	2	40.79	\$16,952
O1005	Roads - Haul Topsoil - Robinson TSF	TRUCK1	$\frac{1}{2}$	51.26	\$78,864
O1006	Roads - Grade Topsoil - Robinson TSF	DOZER	$\frac{2}{2}$	33.99	\$14,126
O1007	Roads - Haul Topsoil - Robinson Lake	TRUCK1	$\frac{2}{2}$	76.68	\$210,453
O1008	Roads - Grade Topsoil - Robinson Lake	DOZER	$\frac{2}{2}$	101.98	\$42,379
O1009	Roads - Haul Topsoil - Mayflower	TRUCK1	2	122.26	\$387,659
O1010	Roads - Grade Topsoil - Mayflower	DOZER	2	161.47	\$67,100
O3001	Roads - Robinson Lake - Reveg - Hydric	REVEGE	1	21.00	\$37,355
O3002	Roads - McNulty OSF - Reveg - Alpine	REVEGE	1	58.00	\$183,480

Task	Description	Form Used	Fleet Size	Task Hours	Cost
O3003	Roads - Mayflower Tenmile Robinson TSF - Reveg -	REVEGE	1	48.00	\$95,118
	Upland				_
Robinson	lake				
P1001	Robinson Lake - Haul Temp Platforms In	TRUCK1	2	50.43	\$128,315
P1002	Robinson Lake - Grade Temp Platforms In	DOZER	3	117.91	\$74,118
P1003	Robinson TSF - Haul Bedding Material	TRUCK1	1	25.19	\$29,156
P1004	Robinson Lake - Haul Topsoil 28	TRUCK1	3	132.81	\$408,958
P1005	Robinson Lake - Grade Topsoil 28	DOZER	3	170.03	\$164,057
P1006	Robinson Lake - Haul Sludge Removal	TRUCK1	3	661.92	\$2,038,272
P1007	Robinson Lake - Spread Sludge Removal	DOZER	5	1,015.32	\$1,632,715
P1008	Robinson Lake - Haul Temp Platforms Out	TRUCK1	2	46.23	\$157,026
P1009	Robinson Lake - Grade Temp Platforms Out	DOZER	3	117.91	\$74,118
P1010	Robinson Lake - Roads - Ripping	RIPPER	2	14.36	\$6,386
2001	Robinson Lake - Hydrologic Protection	NA	1	656.00	\$765,669
23001	Robinson Lake - Reveg - Hydric	REVEGE	1	47.30	\$39,165
P4001	Robinson Lake - Pre-Excavation Work & Water Mgmt	NA	1	1,087.00	\$519,326
P4002	Robinson Lake - Finish Work	NA	1	270.00	\$129,000
		-	1		<u>.</u> . ,
5 Dam Q1001	5 Dam - Haul Topsoil	TRUCK1	3	201.49	\$440,261
Q1002	5 Dam - Grade Topsoil	DOZER	1	452.89	\$145,657
21002	5 Dam - Haul Bedding Material	TRUCK1	1	20.49	\$38,997
Q2001	5 Dam - Hydrologic Protection	NA	1	877.00	\$1,232,537
Q2001 Q3001	5 Dam - Reveg - Upland	REVEGE	1	67.10	\$254,477
25001	5 Dain - Reveg - Opiand	RE VEGE	1 1	07.10	Ψ23π,π//
Sealing O R4001		MINIEGEAL	1	834.00	\$38,989
R4001 R4002	Seal Underground Openings Abandon Monitoring Wells	MINESEAL BOREHOLE	1 1	20.40	\$38,989 \$18,750
		BOREHOLE	1	20.40	\$10,730
<mark>Water T</mark> r S4001	Impacted Water Treatment	NA	1	20,800.00	\$37,123,901
34001	impacted water freatment	NA	1	20,800.00	\$57,125,901
	nce and Monitoring	1	1 .	1	
J 4001	Tailings Stewardship	NA	1	100.00	\$3,000,000
J 4002	Operations and Maintenance first 10-year period	NA	1	45,000.00	\$3,696,300
J 4003	Operations and Maintenance second 10-year period	NA	1	27,000.00	\$2,217,780
J 4004	Operations and Maintenance first 10-year period	NA	1	13,500.00	\$1,108,890
J 4 005	Water Quality Monitoring for 30 Years	NA	1	3,000.00	\$523,511
Demolitio		T	Ι .	1	
X4001	Demolition of Structures	DEMOLISH	1	24,875.00	\$11,813,597
X4002	Demolition of Linear	DEMOLISH	1	367.00	\$1,275,930
Mobilizat	ion				
Z0001	Initial Mobilization	MOBILIZE	1	38.40	\$1,177,781
Z0002	Reveg Failure Mobilization	MOBILIZE	1	38.40	\$24,092
Z0003	Initial Mobilization	MOBILIZE	1	38.40	\$94,231
		<u>SUBT</u>	TOTALS:	201120.92	\$224,151,830

INDIRECT COSTS

OVERHEAD AND PROFIT:

 Liability insurance:
 2.02
 Total =
 \$4,527,867

 Performance bond:
 1.05
 Total =
 \$2,353,594

 Job superintendent:
 100,560.46
 Total =
 \$7,971,428

Profit: 10.00 Total = \$22,415,183

TOTAL O & P = \$37,268,072

CONTRACT AMOUNT (direct + O & P) = \$261,419,902

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

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

Engineering work and/or contract/bid preparation: 2.00 Total = \$5,228,398

Reclamation management and/or administration: 3.00 \$7,842,597

CONTINGENCY: 3.00 Total = \$6,724,555

TOTAL INDIRECT COST = \$57,064,122

TOTAL BOND AMOUNT (direct + indirect) = \$281,215,952

TRUCK/LOADER TEAM WORK

Task description: Open Pit - Ha	aul Overburden (waste rock ren	moval)	
te: Climax Mine	Permit Action: 2024-06	Permit/Job#:	M1977493
PROJECT IDENTIFICATION			
Task #: <u>B1001</u> Stat	te: Colorado	Abbreviation:	None
Date: 6/13/2024 Count	ty: Lake	Filename:	M493-B1001
User: ACY			
Agency or organization name:	DRMS		
	DRMS Equipment Description	Shift basis: 1 per day	<u> </u>
Agency or organization name: _	Equipment Description	- • •	
Agency or organization name: HOURLY EQUIPMENT COST Truck Loader Team -Tr	Equipment Description	- • •	<u>'</u>
Agency or organization name: HOURLY EQUIPMENT COST Truck Loader Team -Tr	Equipment Description ruck: Cat 740 CAT 966H high lift	- • •	[
Agency or organization name:	Equipment Description ruck: Cat 740 CAT 966H high lift Area: Cat D9T - 9SU NA	- • •	
Agency or organization name: HOURLY EQUIPMENT COST Truck Loader Team -Tr -Loa Support Equipment -Load A	Equipment Description ruck: Cat 740 ader: CAT 966H high lift Area: Cat D9T - 9SU Area: NA	On .	

Cost Breakdown:	Truck/Loa	ader Team	Support l	Equipment	Maintenan	ce Equipment
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	100	100
Ownership cost/hour:	\$108.25	\$57.78	\$253.16	NA	\$69.16	\$51.70
Operating cost/hour:	\$79.54	\$46.25	\$164.35	NA	\$54.74	\$50.22
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$25.24	\$36.85	\$38.59	NA	\$27.76	\$21.12
Unit Subtotals:	\$213.03	\$140.88	\$456.10	NA	\$151.66	\$123.04
Number of Units:	24	3	1	0	1	1
Group Subtotals:	Work:	\$5,535.36	Support:	\$456.10	Maint:	\$274.70

Total work team cost/hour: \$6,266.16

MATERIAL QUANTITIES

Initial volume: 2,354,000 **CCY** Swell factor: 1.320

Loose volume: 3,107,280 LCY

> Source of estimated volume: TR-37

Source of estimated swell factor: Cat Handbook

> Material Purchase Cost: \$0.00

Total Cost: \$0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: 2,800 Pounds/LCY

Description: Granite - Broken Rated Payload: 87,000 Pounds Payload Capacity: 31.07 LCY

Truck Travel (Haul & Return) Time:

maintained 3.0

Truck Bed (volume) Basis:						
Struck Volume:	24.20	LCY				
Heaped Volume:	31.40	LCY				
Average Volume: _		LCY				
Adjusted Volume:	31.07	LCY				
Fina	l Truck Volume	Based on Number of	Loader Passes:	27.50	LCY	
Loading Tool Capacity						
Rated Capacity:	5.000	LCY (heaped)	Buck	tet Size Class: N	A	_
Bucket Fill Factor:	1.100	Other - rock/dirt	mixtures (100	-120%) 1.100		-
Adjusted Capacity:	5.500	LCY	inixtures (100	12070) 1.100		_
Job Condition Corrections	:	Sit	e Altitude (ft.): <u>1</u>	2000 feet		
	Truck	Loader	Source			
Altitude Adj:	0.600	1.000	(CAT HB)		
Job Efficiency:	0.830	0.830	(CAT HB)		
Net Correction:	0.498	0.830				
rect Correction.	0.470	0.050				
Loading Tool Cycle Time:	Number Number	of Loading Tool Pas	ses Required to I	Fill Truck:		oasses
Excavators and Front Shove	els:					
Machine Cycle Time v	vs. Job Condition within this Basic					
Science value	within this Dasic	raing. Inn				
Track Loaders –	- Material Descri	<u> </u>		<u></u>		
Track Loaders – Cycle Time Elements (min.)		<u> </u>				
Cycle Time Elements (min.)	:	ption:		D 0.100		
	:	<u> </u>		Dump: 0.100)	
Cycle Time Elements (min.)	: M	ption: aneuver: NA	ne (load, dump, n	·) .500 minu	utes
Cycle Time Elements (min.) Load: NA Wheel and Track Loaders	: M	ption: aneuver: NA	ne (load, dump, n	naneuver):0		utes
Cycle Time Elements (min.) Load: NA	: M	ption: aneuver: NA sic Loader Cycle Tin	ne (load, dump, n	·	.500 min	utes
Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors	- Unadjusted Ba Mixed materia	aneuver: NA sic Loader Cycle Tin al 0.02 dozer piled 10 ft. higl	n and up 0.00	naneuver): 0 Factor (min.) 0.020 0.000	.500 minu	utes
Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership:	- Unadjusted Bar Mixed materia Conveyor or o	ption: aneuver: NA sic Loader Cycle Tin al 0.02 dozer piled 10 ft. high nership of trucks and	n and up 0.00	Factor (min.) 0.020 0.000 -0.040	Source (Cat HB) (Cat HB) (Cat HB)	utes
Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	- Unadjusted Bar Mixed materia Conveyor or o Common own Constant oper	aneuver: NA sic Loader Cycle Tin al 0.02 dozer piled 10 ft. high rership of trucks and ration -0.04	n and up 0.00	Factor (min.) 0.020 0.000 -0.040 -0.040	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership:	- Unadjusted Bar Mixed materia Conveyor or o	aneuver: NA sic Loader Cycle Tin al 0.02 dozer piled 10 ft. high ership of trucks and ration -0.04 et 0.00	n and up 0.00 loaders -0.04	naneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	- Unadjusted Bar Mixed materia Conveyor or o Common own Constant oper	aneuver: NA sic Loader Cycle Tin al 0.02 dozer piled 10 ft. high ership of trucks and ration -0.04 et 0.00 Net Cycle Tim	n and up 0.00 loaders -0.04 e Adjustment:	naneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	utes
Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	- Unadjusted Bar Mixed materia Conveyor or o Common own Constant oper	aneuver: NA sic Loader Cycle Tin al 0.02 dozer piled 10 ft. high ership of trucks and ration -0.04 et 0.00 Net Cycle Tim Adjusted Loade	and up 0.00 loaders -0.04 e Adjustment:	naneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	utes
Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	- Unadjusted Bar Mixed materia Conveyor or o Common own Constant oper	aneuver: NA sic Loader Cycle Tin al 0.02 dozer piled 10 ft. high ership of trucks and ration -0.04 et 0.00 Net Cycle Tim Adjusted Loade	n and up 0.00 loaders -0.04 e Adjustment:	naneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	utes
Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	- Unadjusted Bar Mixed materia Conveyor or o Common own Constant oper	aneuver: NA sic Loader Cycle Tin al 0.02 dozer piled 10 ft. high ership of trucks and ration -0.04 et 0.00 Net Cycle Tim Adjusted Loade	and up 0.00 loaders -0.04 e Adjustment:	naneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	utes
Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time: Truck Exchange Time	Mixed materia Conveyor or of Common own Constant oper Nominal target	aneuver: NA sic Loader Cycle Tin al 0.02 dozer piled 10 ft. high ership of trucks and eation -0.04 et 0.00 Net Cycle Tim Adjusted Loade Net Load Ti Minutes	and up 0.00 loaders -0.04 e Adjustment: er Cycle Time: me per Truck: _	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 1.860	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	utes
Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time:	- Unadjusted Bar Mixed materia Conveyor or Common own Constant open Nominal target	aneuver: NA sic Loader Cycle Tin al 0.02 dozer piled 10 ft. high ership of trucks and ration -0.04 et 0.00 Net Cycle Tim Adjusted Loade Net Load Ti	and up 0.00 loaders -0.04 e Adjustment: er Cycle Time: _ me per Truck: Adjusted Adjusted	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 1.860	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	15840.00	-8.50	3.00	-5.50	2721	6.001

Haul Time: **6.001** minutes Return Route: Travel Haul Distance Grade (%) Roll. Res Total Res Velocity Seg# Time (Ft) (%) (%) (fpm) (min) 15840.00 3.00 11.50 8.50 1444 11.032

Return Time: 11.032 minutes
Total Truck Cycle Time: 21.560 minutes

Loading Tool unit

Production Truck Unit Production

Truck Unit Production

76.53 LCY/Hour Adjusted for job efficiency: 478.85 LCY/Hour Adjusted for job efficiency: 63.52 LCY/Hour Optimal No. of Trucks: 8 Truck(s)

Selected Number of Trucks: 8 Truck(s)

Adjusted hourly truck team production: 508.17 LCY/Hour Adjusted single truck/loader team production: 478.85 LCY/Hour Adjusted multiple truck/loader team production: 1,436.54 LCY/Hour

JOB TIME AND COST

 Fleet size:
 3
 Team(s)
 Total job time:
 2,163.03
 Hours

 Unit cost:
 \$4.362
 /LCY
 Total job cost:
 \$13,553,910

BULLDOZER WORK

Task description:	Open P	Pit - Grade Overbur	den		
e: Climax Mine		Permit Action	: _2024-06	Permit/Job#:	M1977493
PROJECT IDEN	NTIFICATION	<u>N</u>			
Task #: B100	2.	State: Colorado	n	Abbreviation:	None
Date: $\frac{B100}{6/13/2}$		County: Lake	<u> </u>	Filename:	M493-B1002
User: ACY		County. <u>Lake</u>			111/3 11002
Agency or	r organization na	me: DRMS			
HOURLY EQUI	PMENT COS	<u> T</u>			
Basic Machine:	Cat D10T - 10	OSU			
Horsepower:	574				
Blade Type:	Semi-Univers	al			
Attachment:	NA				
Shift Basis:	1 per day				
Data Source:	(CRG)				
Cost Breakdown:					
			<u>Utilization</u>	<u>1 %</u>	
Ownership Cost/H		\$257.39			
Operating Cost/H		\$196.93			
Ripper own. Cost/H		\$0.00			
Ripper op. Cost/H		\$0.00			
Operator Cost/H	lour:	\$38.59	NA		
Total unit Cost/Hou	···· \$402.01				
Total Fleet Cost/Hot		NA			
Total Fleet Cost/110	iu1. φ3,943.2	24			
MATERIAL QU	JANTITIES				
Initial Volume:	3,060,200				
Swell factor:	1.000				
Loose volume:	3,060,200 LCY	7			
Loose volume.	3,000,200 LC 1	<u> </u>			
Source of estimated	_	TR-37			
Source of estimated	l swell factor: _	Cat Handbook			
HOURLY PROI	<u>DUCTION</u>				
Average push distar	nce: 2	50 feet			
Unadjusted hourly p	production: 7	54.3 LCY/hr			
Materials consisten	cy description:	Loose stockpile 1	.2		
Average push gradi Average site altitud		eet			
Material weight:		s/LCY			
Weight description:	Granite	- Broken			
Job Condition Corre		0.770	Sou		
	erator Skill:	0.750	(AV		
	onsistency:	1.200	(CAT	,	
Dozi	ng method:	1.000	(GE		
	Visibility:	1.000	(AV	'G.)	

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	1.000	(CAT HB)
Altitude:	0.970	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5354

Adjusted unit production: 403.85 LCY/hr
Adjusted fleet production: 3230.8 LCY/hr

JOB TIME AND COST

Fleet size: 8 Dozer(s)
Unit cost: \$1.221/LCY

Total job time: 947.20 Hours
Total job cost: \$3,735,023

TRUCK/LOADER TEAM WORK

Climax Mine Permi	t Action: 2024-06	Permit/Job#:	M1977493
PROJECT IDENTIFICATION			
Task #: B1003 State:	Colorado	Abbreviation:	None
Date: 8/19/2024 County:	Lake	Filename:	M493-B1003
User: ACY			
Agency or organization name:DRM HOURLY EQUIPMENT COST	1S	Shift basis: 1 per day	
Agency or organization name:DRM HOURLY EQUIPMENT COST	IS Equipment Description	Shift basis: 1 per day	
		Shift basis: 1 per day	
HOURLY EQUIPMENT COST	Equipment Description	Shift basis: 1 per day	
HOURLY EQUIPMENT COST Truck Loader Team -Truck:	Equipment Description Cat 740	Shift basis: 1 per day	
Truck Loader Team -Truck: -Loader: Support Equipment -Load Area: -Dump Area:	Equipment Description Cat 740 CAT 966H high lift	Shift basis: 1 per day	
Truck Loader Team -Truck: -Loader: Support Equipment -Load Area:	Equipment Description Cat 740 CAT 966H high lift Cat D9T - 9SU	Shift basis: 1 per day	

Cost Breakdown:	Truck/Loader Team		Support l	Equipment	Maintenance Equipment		
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck	
%Utilization-machine:	100	100	100	NA	100	100	
Ownership cost/hour:	\$108.25	\$57.78	\$253.16	NA	\$69.16	\$51.70	
Operating cost/hour:	\$79.54	\$46.25	\$164.35	NA	\$54.74	\$50.22	
%Utilization-riper:	NA	0	NA	NA	NA	NA	
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00	
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00	
Operator cost/hour:	\$25.24	\$36.85	\$38.59	NA	\$27.76	\$21.12	
Unit Subtotals:	\$213.03	\$140.88	\$456.10	NA	\$151.66	\$123.04	
Number of Units:	3	1	1	0	1	1	
Group Subtotals:	Work:	\$779.97	Support:	\$456.10	Maint:	\$274.70	

Total work team cost/hour: \$1,510.77

MATERIAL QUANTITIES

Initial volume: 27,000 CCY Swell factor: 1.215

Loose volume: 32,805 LCY

Source of estimated volume: TR-37

Source of estimated swell factor: Cat Handbook

Material Purchase Cost: \$0.00

Total Cost: \$0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: 1,600 Pounds/LCY
Description: Top Soil

Rated Payload: 87,000 Pounds Payload Capacity: 54.38 LCY

Truck Travel (Haul & Return) Time:

T. 1 D. 1 (.1) D						
Truck Bed (volume) Basis: Struck Volume:	24.20 I	LCY				
Heaped Volume:		LCY				
Average Volume:		LCY				
Adjusted Volume:		LCY				
<u> </u>		Based on Number of Loa	nder Passes:	31.50	LCY	
Loading Tool Capacity						
Loading Tool Capacity			Buck	ket Size Class: 1	NA	
Rated Capacity:	5.000	LCY (heaped)				_
Bucket Fill Factor:	1.050	Other - moist loam	(100-1	10%) 1.050		=
Adjusted Capacity: _	5.250	LCY				
Job Condition Corrections	<u>L</u>	Site A	ltitude (ft.): <u>1</u>	12000 feet		
	Truck	Loader	Source			
Altitude Adj:	0.600	1.000	(CAT HB	5)		
Job Efficiency:	0.830	0.830	(CAT HB	5)		
Net Correction:	0.498	0.830				
Loading Tool Cycle Time: Excavators and Front Shove		of Loading Tool Passes	Required to l	Fill Truck:	6	passes
Machine Cycle Time v Selected Value						
Track Loaders –	Material Descri	ption:				
Cycle Time Elements (min.):						
Load: NA	Ma	aneuver: NA		Dump: 0.10	00	
Wheel and Track Loaders -	Unadjusted Bas	sic Loader Cycle Time (l	oad, dump, n	naneuver):	0.500 min	utes
Cycle Time Factors				Factor (min.)	Source	
Material:	Mixed materia			0.020	(Cat HB)	_
Stockpile:	Dumped by tr			0.020	(Cat HB)	_
Truck Ownership:		ership of trucks and load	lers -0.04	-0.040	(Cat HB)	_
Operation:	Constant opera			-0.040	(Cat HB)	_
Dump Target:	Nominal targe		1:	0.000	(Cat HB)	_
		Net Cycle Time A Adjusted Loader C	_	-0.040	minutes minutes	
		Net Load Time		0.460 2.400	minutes	
Truck Cycle Time:						
Truck Exchange Time	: 0.60	Minutes	Adjusted	for site altitude:	1.000	Minute
Truck Load Time	: 2.400	Minutes	Adjusted	for site altitude:	2.400	Minute
ick Maneuver and Dump Time	: 1.00	Minutes	Adjusted	for site altitude:	1.667	Minute
		_		-		_

maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	7022.00	-7.30	3.00	-4.30	3005	2.409

Haul Time: 2.409 minutes Return Route: Travel Haul Distance Grade (%) Roll. Res Total Res Velocity Seg# Time (Ft) (%) (%) (fpm) (min) 7022.00 3.00 10.30 7.30 1736 4.147

Return Time: 4.147 minutes
Total Truck Cycle Time: 11.623 minutes

Loading Tool unit

Production Truck Unit Production

Truck Unit Production

162.61 LCY/Hour Adjusted for job efficiency: 461.38 LCY/Hour Adjusted for job efficiency: 134.97 LCY/Hour Optimal No. of Trucks: 3 Truck(s)

Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 404.91 LCY/Hour Adjusted single truck/loader team production: 404.91 LCY/Hour Adjusted multiple truck/loader team production: 404.91 LCY/Hour

JOB TIME AND COST

 Fleet size:
 1
 Team(s)
 Total job time:
 81.02
 Hours

 Unit cost:
 \$3.731
 /LCY
 Total job cost:
 \$122,400

BULLDOZER WORK

Task description:	Open Pit - Grade Topsoil			
e: Climax Mine	Permit Action:	2024-06	Permit/Job#:	M1977493
PROJECT IDENTIF	<u>ICATION</u>			
Task #: B1004	State: Colorado		Abbreviation:	None
Date: 8/19/2024	County: Lake		Filename:	M493-B1004
User: ACY			_	
Agency or organ	nization name: DRMS			
HOURLY EQUIPME	ENT COST			
	: D8T - 8SU			
Horsepower: 310				
	ni-Universal	<u> </u>		
Attachment: NA		<u>—</u>		
Shift Basis: 1 p	er day	<u> </u>		
Data Source: (CF	RG)			
Cost Breakdown:				
		<u>Utilization %</u>		
Ownership Cost/Hour:	\$173.32	NA 100		
Operating Cost/Hour:	\$109.71	100		
Ripper own. Cost/Hour: Ripper op. Cost/Hour:	\$0.00 \$0.00	NA 0		
Operator Cost/Hour:	\$38.59	NA		
-		1171		
Total unit Cost/Hour:	\$321.62			
Total Fleet Cost/Hour:	\$321.62			
MATERIAL QUANT	TTIES			
•				
Initial Volume: 32,4	-			
Swell factor: 1.00 Loose volume: 32,4	00 LCY			
Loose volume. <u>32,4</u>	00 LC 1			
Source of estimated volume	·			
Source of estimated swell	I factor: Cat Handbook			
HOURLY PRODUCT	ΓΙΟΝ			
Average push distance:	150 feet			
Unadjusted hourly produc				
Materials consistency des	scription: Loose stockpile 1.2			
Average push gradient: Average site altitude:	0 % 12,000 feet			
Material weight:	1,600 lbs/LCY			
Weight description:	Top Soil			
Job Condition Correction		Source		
Operator		(AVG.)		
Material consist		(CAT HB)		
Dozing me		(GEN.)		
Visib	oility: 1.000	(AVG.)		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.9668

Adjusted unit production: 613.24 LCY/hr
Adjusted fleet production: 613.24 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.524/LCY

Total job time: 52.83 Hours
Total job cost: \$16,992

MOTOR GRADER WORK

Task description:	Open Pit - Finis	h Grading				
: Climax Mine	Per	mit Action:	2024-06	Per	mit/Job#:	M1977493
PROJECT IDEN	<u>TIFICATION</u>					
Task #: B1005	State:	Colorado		Abbre	eviation:	None
Date: 8/19/2		Summit			lename:	M493-B1005
User: ACY	<u> </u>				•	
Agency or	organization name: Di	RMS				
HOURLY EQUII	PMENT COST					
Basic Mac				Horsepower:		158
Ripper Attach	ment:			Shift Basis:		er day
				Data Source: _	((CRG)
Cost Breakdown:			I			
	1: 0 ///		000.10	Utilization %		
	Ownership Cost/Hour:		\$69.16 \$54.74	NA 100		
	Operating Cost/Hour: _ Ownership Cost/Hour:		\$54.74	100 NA		
	Operating Cost/Hour:		\$0.00	INM		
Кірреі	Operator Cost/Hour:		\$27.76	NA		
5	Fotal Unit Cost/Hour:		\$151.66			
7		φ 1 =	1.66			
1	Cotal Fleet Cost/Hour:	\$15	1.66			
MATERIAL QUA	<u>ANTITIES</u>					
Total A	Area to be graded or rippo	ed: 9.00				acres
		-		7		
3	ource of estimated acrea	ge: Climax	x Estimate TR-3	/		
HOURLY PROD	<u>UCTION</u>					
	Average Grader S	peed:	1.50	mph		
	Selected Applica			grading (0-2.5 mpl	h) - 1.5	
	Selected Blade A		45	degrees		
	Effective Blade Le		8.50	feet		
	idth of blade overlap per		2.00	feet		
	ling or ripping width per usted Hourly Unit Produc		6.50 1.1818	feet acres/hou	1.5	
v	•					
Job Condition Corre	ction Factors		Sit	te Altitude: <u>12000</u>	feet	
A 1/2/ 3 A	4:. 0.05	Source				
Altitude Ad Job Efficienc		(CAT HI (1sh/d, fa				
Net Correctio	•	multiplier				
inei Collectio	 -	-				
	Adjusted Hourly Unit		1.0105	acres/Hour		
	Adjusted Hourly Fleet	Production:	1.0105	acres/Hour		
JOB TIME AND	COST					
Fleet size:	1 Grader(s)		Total job time	: 8.91		Hours
TT-'-	¢150.00		Trade 1 1 - 1		_	
Unit cost:	\$150.09 per acre		Total job cost	: \$1,351	L	

Construct Water Conveyances

				Cost/Unit	Total Cost	
Task #	Area	Description	Task Type	Quant Unit	Key Assumptions	
	Open Pit	Pit Dewatering System	30" Corrugated HDPE Installed	2,800 LF \$ 79.11	\$ 221,510 41 hrs	
B2001	Open Pit	Hydrologic Protection			\$ 221,510	

Fence Installation & Safety Signs

Task #	Description	Task	Length	Unit	Cost/L	Length ¹	Tot	al Task Cost	Total hrs Notes
	Signs		41	Ea	\$	74.25	\$	3,044.25	41 RS Mean s10 14 53.20 0600
	Posts		41	Ea	\$	66.61	\$	2,731.01	41 RS Mean s10 14 53.20 1500
	Total Equipment		41	Hr	\$	15.00	\$	615.00	41 CMC #4
	Total Labor		41	Hr	\$	20.18	\$	827.38	41 CMC #4
B4001	Open Pit - Signs		•				\$	7,217.64	41

BULLDOZER WORK

Task description	on:	Mine Mill Complex - Grading								
e: Climax Min	ne		Permit Action:	2024-06	Permit/Job#:	M1977493				
PROJECT I	DENTIFI	CATION								
Task #: (C1001	S	tate: Colorado		Abbreviation:	None				
	5/13/2024	Cou	ınty: Lake		Filename:	M493-C1001				
User:A	ACY									
Agen	cy or organ	nization name:	DRMS							
HOURLY E	QUIPME	NT COST								
Basic Mach	ine: Cat	D10T - 10SU		<u></u>						
Horsepov				<u></u>						
Blade Ty		ni-Universal		<u> </u>						
Attachm		1								
Shift Ba		er day		<u> </u>						
Data Sou	rce: (CR	(G)		<u> </u>						
Cost Breakdow	<u>vn</u> :									
				<u>Utilization %</u>						
Ownership Co			\$257.39	NA						
Operating Co			\$196.93	100						
Ripper own. Co			\$0.00	NA						
Ripper op. Co			\$0.00	0						
()maratar ()	ost/Hour		\$38.59	NA						
Operator Co Total unit Cost Total Fleet Cos	/Hour:	\$492.91 \$1,971.62								
Total unit Cost Total Fleet Cos MATERIAL Initial Volum	t/Hour: st/Hour: <u>QUANT</u> ne: _ 950,(\$1,971.62 ITIES 000								
Total unit Cost Total Fleet Cos MATERIAL	t/Hour: st/Hour: • QUANT ne: 950,0 or: 1.320	\$1,971.62 ITIES 000								
Total unit Cost Total Fleet Cos MATERIAL Initial Volum Swell factor	t/Hour: st/Hour: . QUANT ne: 950,0 or: 1.320 ne: 1,254 nated volur	\$1,971.62 ITIES 000 1,000 LCY ne:TR								
Total unit Cost Total Fleet Cos MATERIAL Initial Volum Swell facto Loose volum Source of estin	t/Hour: st/Hour: A QUANT ne: 950,0 or: 1.320 ne: 1,254 nated volumented swell	\$1,971.62 ITIES 000 0 4,000 LCY ne: TR factor: Cat	-37							
Total unit Cost Total Fleet Cos MATERIAL Initial Volum Swell facto Loose volum Source of estin Source of estin	t/Hour: st/Hour: L QUANT ne: 950,0 or: 1.320 ne: 1,254 nated volumeted swell RODUCT distance:	\$1,971.62 ITIES 000 1,000 LCY ne: TR factor: Cat	-37 Handbook							
Total unit Cost Total Fleet Cos MATERIAL Initial Volum Swell facto Loose volum Source of estin Source of estin HOURLY Pl Average push of	t/Hour: st/Hour: st/Hour: L QUANT ne: 950,0 or: 1.320 ne: 1,254 nated volumented swell RODUCT distance: urly product	\$1,971.62 ITIES 000 4,000 LCY ne: TR factor: Cat CION 250 fe 754.3	-37 Handbook							
Total unit Cost Total Fleet Cos MATERIAL Initial Volum Swell facto Loose volum Source of estin Source of estin HOURLY Pl Average push of Unadjusted hou	t/Hour: st/Hour: st/Hour: L QUANT ne: 950,0 or: 1.320 ne: 1,254 nated volur nated swell RODUCT distance: urly product istency des gradient:	\$1,971.62 ITIES 000 4,000 LCY ne: TR factor: Cat CION 250 fe 754.3	-37 Handbook							
Total unit Cost Total Fleet Cost MATERIAL Initial Volum Swell facto Loose volum Source of estin Source of estin HOURLY Pl Average push of Unadjusted hou Materials consi	t/Hour: st/Hour: st/Hour: A QUANT ne: 950,0 or: 1.320 ne: 1,254 nated volur nated swell RODUCT distance: urly product istency des gradient: ltitude:	\$1,971.62 ITIES 000 1,000 LCY ne: TR factor: Cat CION 250 fe ction: 754.3 cription: L	-37 Handbook eet LCY/hr .oose stockpile 1.2							
Total unit Cost Total Fleet Cost MATERIAL Initial Volum Swell facto Loose volum Source of estin Source of estin HOURLY Pl Average push of Unadjusted hor Materials const Average push g Average site al	t/Hour: st/Hour: st/Hour: A QUANT ne: 950,0 or: 1.320 ne: 1,254 nated volumented swell RODUCT distance: urly product istency des gradient: ltitude: nt:	\$1,971.62 ITIES 000 1,000 LCY ne: TR factor: Cat CION 250 fe 754.3 cription: L 0 % 11,300 feet	-37 Handbook eet LCY/hr .oose stockpile 1.2							
Total unit Cost Total Fleet Cost MATERIAL Initial Volum Swell facto Loose volum Source of estin Source of estin HOURLY Pl Average push of Unadjusted hou Materials considerable and the state of t	t/Hour: st/Hour: st/H	\$1,971.62 ITIES 000 4,000 LCY ne: TR factor: Cat CION 250 fc 754.3 cription: L 0 % 11,300 feet 2,800 lbs/LC Granite - Bro	-37 Handbook eet LCY/hr .oose stockpile 1.2	Source						
Total unit Cost Total Fleet Cost MATERIAL Initial Volum Swell facto Loose volum Source of estin Source of estin HOURLY Pl Average push of Unadjusted hou Materials consist Average push of Average site al Material weight Weight descript Job Condition of	t/Hour: st/Hour: st/H	\$1,971.62 ITIES 000 0 4,000 LCY ne:TR factor: _Cat CION ction: _250 fc 754.3 cription: _L 0 %11,300 feet2,800 lbs/LC Granite - Bro Factor Skill:	-37 Handbook eet LCY/hr .oose stockpile 1.2 CY oken 0.750	Source (AVG.)						
Total unit Cost Total Fleet Cost MATERIAL Initial Volum Swell facto Loose volum Source of estin Source of estin HOURLY Pl Average push of Unadjusted hor Materials consist Average push of Average site al Material weight Weight descript Job Condition Material	t/Hour: st/Hour: st/H	\$1,971.62 ITIES 000 4,000 LCY ne:	-37 Handbook eet LCY/hr .oose stockpile 1.2	Source						

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	1.000	(CAT HB)
Altitude:	0.970	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.6425

Adjusted unit production: 484.64 LCY/hr
Adjusted fleet production: 1938.56 LCY/hr

JOB TIME AND COST

Fleet size: 4 Dozer(s)
Unit cost: \$1.017/LCY

TRUCK/LOADER TEAM WORK

Task description: Min	ne Mill Compl	ex - Haul Topsoil		
e: Climax Mine	Perm	nit Action: 2024-06	Permit/Job#:	M1977493
PROJECT IDENTIFICAT	<u>ION</u>			
Task #: C1002 Date: 6/12/2024 User: ACY	State: _ County: _	Colorado Lake	Abbreviation: Filename:	None M493-C1002
Agency or organizatio HOURLY EQUIPMENT O		MS	Shift basis: 1 per day	
		Equipment Description		
Truck Loade	r Team -Truck: -Loader:	Cat 740		
Support Equipme	ent -Load Area: -Dump Area:	Cat D6T LGP		
Road Maintenance -		CAT 12M		
Cost Breakdown: Truc	k/Loader Team	, ,	mont Maint	enance Equipmen

Cost Breakdown:	Truck/Loa	Truck/Loader Team		Equipment	Maintenance Equipment		
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck	
%Utilization-machine:	100	100	100	NA	100	100	
Ownership cost/hour:	\$108.25	\$57.78	\$99.72	NA	\$69.16	\$73.42	
Operating cost/hour:	\$79.54	\$46.25	\$71.22	NA	\$54.74	\$83.21	
%Utilization-riper:	NA	0	NA	NA	NA	NA	
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00	
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00	
Operator cost/hour:	\$25.24	\$36.85	\$38.59	NA	\$27.76	\$21.12	
Unit Subtotals:	\$213.03	\$140.88	\$209.53	NA	\$151.66	\$177.75	
Number of Units:	12	3	1	0	1	1	
Group Subtotals:	Work:	\$2,979.00	Support:	\$209.53	Maint:	\$329.41	

Total work team cost/hour: \$3,517.94

MATERIAL QUANTITIES

CCY Swell factor: 1.215 Initial volume:

Loose volume: 945,270 LCY

> Source of estimated volume: TR-37

Source of estimated swell factor: Cat Handbook

> Material Purchase Cost: \$0.00

Total Cost: \$0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: 1,600 Pounds/LCY Top Soil Description:

Rated Payload: 87,000 Pounds Payload Capacity: 54.38 LCY

Truck Travel (Haul & Return) Time:

maintained 3.0

Truck Bed (volume) Basis: Struck Volume:	24.20 LC	CY				
Heaped Volume:	31.40 LC					
Average Volume:	27.80 LC	CY				
Adjusted Volume:	31.40 LC	CY				
Final 7	Fruck Volume Ba	sed on Number of	Loader Passes:	31.50	LCY	
Loading Tool Capacity						
			Buck	tet Size Class: N	JA .	_
Rated Capacity:	5.000	LCY (heaped)				-
Bucket Fill Factor:	1.050	Moist loam or sa	ndy clay (100%	- 110%) 1.050		<u>-</u>
Adjusted Capacity:	5.250	LCY				
<u>Job Condition Corrections:</u>		Site	Altitude (ft.): 1	1300 feet		
	Truck	Loader	Source			
Altitude Adj:	0.600	1.000	(CAT HB			
Job Efficiency:	0.830	0.830	(CAT HB)		
Net Correction:	0.498	0.830				
	.				_	
Loading Tool Cycle Time:	Number of	Loading Tool Pass	ses Required to I	fill Truck:	I	asses
Excavators and Front Shovels	<u>:</u>					
Machine Cycle Time vs.	Job Condition R	tating: NA				
Selected Value w	ithin this Basic R	lating: NA				
Two ols I and awa N	Astorial Descripti					
Track Loaders – N	rateriai Descripti	ЮП:				
Cycle Time Elements (min.):	nateriai Descripti					
	-	euver: NA		Dump: _ 0.10	0	
Cycle Time Elements (min.): Load: NA	Man	euver: NA		·		
Cycle Time Elements (min.):	Man	euver: NA	e (load, dump, n	·	0 0.500 minu	ntes
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - U Cycle Time Factors	Man Unadjusted Basic	euver: <u>NA</u> Loader Cycle Tim	e (load, dump, n	naneuver):(Factor (min.)	0.500 minu Source	ites
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - U Cycle Time Factors Material:	Man Unadjusted Basic Mixed material (euver: NA Loader Cycle Tim 0.02		naneuver):(Factor (min.) 0.020	Source (Cat HB)	ites -
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - U Cycle Time Factors Material: Stockpile:	Man Unadjusted Basic Mixed material (Conveyor or doz	euver: NA Loader Cycle Tim 0.02 zer piled 10 ft. high	and up 0.00	naneuver): (Factor (min.) 0.020 0.000	Source (Cat HB) (Cat HB)	ites - -
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - U Cycle Time Factors Material: Stockpile: Truck Ownership:	Man Unadjusted Basic Mixed material of Conveyor or doz Common owner	euver: NA Loader Cycle Tim 0.02 ver piled 10 ft. high ship of trucks and I	and up 0.00	Factor (min.) 0.020 0.000 -0.040	Source (Cat HB) (Cat HB) (Cat HB)	ntes - - -
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - U Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Man Unadjusted Basic Mixed material (Conveyor or doz Common owner Constant operati	Loader Cycle Tim 0.02 ver piled 10 ft. high ship of trucks and 1 on -0.04	and up 0.00	Factor (min.) 0.020 0.000 -0.040 -0.040	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)	ites
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - U Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Man Unadjusted Basic Mixed material of Conveyor or doz Common owner	euver: NA Loader Cycle Tim 0.02 ver piled 10 ft. high ship of trucks and 1 on -0.04 0.00	and up 0.00 oaders -0.04	naneuver):	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	ites - - - -
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - U Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Man Unadjusted Basic Mixed material (Conveyor or doz Common owner Constant operati	Loader Cycle Tim 0.02 ter piled 10 ft. high ship of trucks and 1 on -0.04 0.00 Net Cycle Time	and up 0.00 oaders -0.04	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060	Source (Cat HB) minutes	ites - - - -
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - U Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Man Unadjusted Basic Mixed material (Conveyor or doz Common owner Constant operati	Loader Cycle Tim 0.02 ver piled 10 ft. high ship of trucks and I on -0.04 0.00 Net Cycle Time Adjusted Loader	and up 0.00 oaders -0.04	naneuver):	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	ites - - - - -
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - U Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Man Unadjusted Basic Mixed material (Conveyor or doz Common owner Constant operati	Loader Cycle Tim 0.02 ver piled 10 ft. high ship of trucks and I on -0.04 0.00 Net Cycle Time Adjusted Loader	and up 0.00 oaders -0.04 e Adjustment: Cycle Time:	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	ites
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - U Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	Man Unadjusted Basic Mixed material (Conveyor or doz Common owner Constant operati	euver: NA Loader Cycle Tim 0.02 zer piled 10 ft. high ship of trucks and I on -0.04 0.00 Net Cycle Time Adjusted Loader	and up 0.00 paders -0.04 e Adjustment: Cycle Time: ne per Truck:	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	ites
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - U Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time:	Man Unadjusted Basic Mixed material (Conveyor or doz Common owner Constant operati Nominal target (euver: NA Loader Cycle Tim 0.02 zer piled 10 ft. high ship of trucks and I on -0.04 0.00 Net Cycle Time Adjusted Loader Net Load Tin	and up 0.00 paders -0.04 Adjustment: Cycle Time: me per Truck: Adjusted	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 2.300	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	- - - -

CIRCES Cost Estimating Software

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	10666.00	-6.40	3.00	-3.40	3005	3.659

Haul Time: 3.659 minutes

Return Route:

rectarii re	rate.					
Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	10666.00	6.40	3.00	9.40	1862	5.841

Return Time: 5.841 minutes
Total Truck Cycle Time: 14.467 minutes

Loading Tool unit

Production 572.73 LCY/Hour Adjusted for job efficiency: 475.36 LCY/Hour Truck Unit Production 130.65 LCY/Hour Adjusted for job efficiency: 108.44 LCY/Hour

Optimal No. of Trucks: 4 Truck(s) Selected Number of Trucks: 4 Truck(s)

Adjusted hourly truck team production: 433.74 LCY/Hour Adjusted single truck/loader team production: 433.74 LCY/Hour Adjusted multiple truck/loader team production: 1,301.23 LCY/Hour

JOB TIME AND COST

Fleet size: 3 Team(s) Total job time: **726.45** Hours

Unit cost: \$2.704 /LCY Total job cost: \$2,555,593

BULLDOZER WORK

Task description:	Willie IV	Iill Complex - Grade	торооп		
: Climax Mine		Permit Action:	2024-06	Permit/Job#:	M1977493
PROJECT IDEN	TIFICATION	<u>N</u>			
Task #: <u>C1003</u>	3	State: Colorado		Abbreviation:	None
Date: 6/13/2	2024	County: Lake		Filename:	M493-C1003
User: ACY					
Agency or	organization na	me: DRMS			
HOURLY EQUI	PMENT COS	<u>T</u>			
Basic Machine:	Cat D7R DS 2	KR Series II	<u></u>		
Horsepower: Blade Type:	240 Semi-Univers	a1	<u></u>		
Attachment:	NA	ai .	<u>—</u>		
Shift Basis:	1 per day		<u>—</u>		
Data Source:	(CRG)				
Cost Breakdown:			T.		
O was the Control		¢00.24	<u>Utilization %</u>		
Ownership Cost/H Operating Cost/H		\$90.24 \$78.95	NA 100		
Ripper own. Cost/H		\$0.00	NA		
Ripper op. Cost/H		\$0.00	0		
Operator Cost/H	our:	\$38.59	NA		
Total unit Cost/Hou	r: \$207.78				
Total Fleet Cost/Hor					
MATERIAL QU. Initial Volume:	ANTITIES 933,600				
Swell factor:					
-	1.000 933.600 LCY				
Loose volume: Source of estimated Source of estimated	933,600 LCY volume:	TR-37 Cat Handbook			
Loose volume: Source of estimated	933,600 LCY volume: swell factor:				
Loose volume:	volume: _swell factor:				
Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distant	volume: _swell factor:	Cat Handbook 00 feet	2		
Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distan Unadjusted hourly p	volume: swell factor: OUCTION ace: oroduction: ey description: ent: 0 %	Cat Handbook 00 feet 10.8 LCY/hr Loose stockpile 1.2			
Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distant Unadjusted hourly p Materials consistence Average push gradie	volume: swell factor: OUCTION ace: oroduction: ey description: ent: 0 %	Cat Handbook 00 feet 10.8 LCY/hr Loose stockpile 1.2	2		
Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distant Unadjusted hourly p Materials consistence Average push gradie Average site altitude	933,600 LCY volume: swell factor: DUCTION ace: 20 production: 4 extraction: 0 % extraction: 11,300 fm	Cat Handbook 00 feet 10.8 LCY/hr Loose stockpile 1.2	<u> </u>		
Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distant Unadjusted hourly p Materials consistence Average push gradie Average site altitude Material weight: Weight description: Job Condition Corre	933,600 LCY volume: swell factor: DUCTION ace: 20 production: 4 extraction: 11,300 fm 1,600 lb Top Soil extraction Factor Factor	Cat Handbook 00 feet 10.8 LCY/hr Loose stockpile 1.2 eet s/LCY	Source		
Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distant Unadjusted hourly p Materials consistence Average push gradie Average site altitude Material weight: Weight description: Job Condition Correct Open	933,600 LCY volume: swell factor: DUCTION ace: 20 production: 4 extraction: 11,300 f 1,600 lb Top Soil extion Factor rator Skill:	Cat Handbook 00 feet 10.8 LCY/hr Loose stockpile 1.2 eet 0.750	Source (AVG.)		
Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distant Unadjusted hourly p Materials consistence Average push gradie Average site altitude Material weight: Weight description: Job Condition Corre Open Material co	933,600 LCY volume: swell factor: DUCTION ace: 20 production: 4 extraction: 11,300 f 1,600 lb Top Soil extion Factor rator Skill:	Cat Handbook 00 feet 10.8 LCY/hr Loose stockpile 1.2 eet s/LCY	Source		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.9668

Adjusted unit production: 397.16 LCY/hr
Adjusted fleet production: 1588.64 LCY/hr

JOB TIME AND COST

Fleet size: 4 Dozer(s)
Unit cost: \$0.523/LCY

Total job time: 587.67 Hours
Total job cost: \$488,415

TRUCK/LOADER TEAM WORK

Site: Climax Mine		Permit	Action	: 2024-06		Permit/Job#: M	1977493
PROJECT IDEN	TIFICATION	[
Task #: C1004 Date: 8/19/2 User: ACY			Colorad ake	0	Ab	breviation: No M4	ne 193-C1004
Agency or	organization nar	ne: DRMS	S				
HOURLY EQUI	PMENT COST	Γ			Shift bas	is: <u>1 per day</u>	
-		_	Ec	uipment Descri			
Г	Truck Loader Tea	 	Cat 7	40	I		
Sunn	ort Equipment -I	-Loader:		966H high lift 6T LGP			
		ump Area:	NA NA	or Loi			
Road M	aintenance – Mot	H-	CAT		G 1		
	- W 2	iter Truck:	water	Tanker, 7,000	Gal.		
Cost Breakdown:	Truck/Loa	ader Team		Support I	Equipment	Maintenan	ce Equipment
	Truck	Loader		Load Area	Dump Area	Motor Grader	Water Truck
% Utilization-machine:	100	-	100	100	NA	100	100
Ownership cost/hour:	\$108.25	\$57	7.78	\$99.72	NA	\$69.16	\$73.42
Operating cost/hour:	\$79.54	\$46	5.25	\$71.22	NA	\$54.74	\$83.21
%Utilization-riper:	NA	Φ0	0	NA ************************************	NA	NA	NA
Ripper own. cost/hour:	NA		0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA		0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$25.24	\$36		\$38.59	NA	\$27.76	\$21.12
Unit Subtotals:	\$213.03	\$140		\$209.53	NA 0	\$151.66	\$177.75
Number of Units: Group Subtotals:	Work:	\$566.94	1	Support:	\$209.53	1 Maint:	\$329.41
				Support.	Ψ207.33	Want.	ψ327.71
Total work team cos	st/hour: \$1,105.	88					
MATERIAL QU	ANTITIES						
Initial volume			CCY	Swall	factor: 1.000		
Loose volume			LCY	Swell	1.000 <u>1.000</u>		
So	urce of estimated	volume	TR-37				
20	of estimated swe			ndbook			
	Material Purch		\$0.00				
	To	otal Cost:	\$0.00				
HOURLY PRO							

Pounds/LCY

Pounds

LCY

Material weight:

Rated Payload: Payload Capacity:

Description:

2,600

87,000

33.46

Limestone - Broken

CIRCES Cost Estimating Software

Struck Volume:	24.20 I	LCY				
Heaped Volume:		LCY				
Average Volume:		LCY				
Adjusted Volume:	31.40 I	LCY				
Final '	Truck Volume	Based on Number of	Loader Passes:	28.88	LCY	
Loading Tool Capacity						
		1	Buck	et Size Class: N	A	_
Rated Capacity:	5.000	LCY (heaped)				=
Bucket Fill Factor:	0.825		vg. blasted (75 -	90%) 0.825		_
Adjusted Capacity:	4.125	LCY				
Job Condition Corrections:	<u>-</u>	Sit	te Altitude (ft.): 1	1300 feet		
	Truck	Loader	Source			
Altitude Adj:	0.600	1.000	(CAT HB)			
Job Efficiency:	0.830	0.830	(CAT HB))		
Net Correction:	0.498	0.830				
	,					
Loading Tool Cycle Time:		of Loading Tool Pas	sses Required to F	fill Truck:		oasses
Excavators and Front Shovel	s:					
Machine Cycle Time vs Selected Value w	s. Job Condition					
•	s. Job Condition within this Basic	Rating: NA				
Selected Value w	s. Job Condition within this Basic	Rating: NA				
Selected Value w Track Loaders – I	s. Job Condition vithin this Basic Material Descri	Rating: NA		Dump: 0.100)	
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA	s. Job Condition vithin this Basic Material Descri	Rating: NA ption: naneuver: NA		·		
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders -	s. Job Condition vithin this Basic Material Descri	Rating: NA ption: naneuver: NA	ne (load, dump, m	·) .500 min	utes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors	s. Job Condition vithin this Basic Material Descrip Ma Ma Unadjusted Bas	Rating: NA ption: NA aneuver: NA sic Loader Cycle Tin	ne (load, dump, m	naneuver): 0. Factor (min.)	.500 min	utes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material:	s. Job Condition within this Basic Material Descrip Material Descrip Material Material Material Mixed materia	Rating: NA ption: Anneuver: NA sic Loader Cycle Tin		raneuver): 0.000 Factor (min.) 0.020	Source (Cat HB)	utes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile:	s. Job Condition vithin this Basic Material Descri	Rating: NA ption: Anneuver: NA sic Loader Cycle Tin al 0.02 lozer piled 10 ft. high	n and up 0.00	Factor (min.) 0.020 0.000	Source (Cat HB) (Cat HB)	utes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership:	Material Description Conveyor or description	Rating: NA ption: NA naneuver: NA sic Loader Cycle Tin 1 0.02 ozer piled 10 ft. high ership of trucks and	n and up 0.00	Factor (min.) 0.020 0.000 -0.040	Source (Cat HB) (Cat HB) (Cat HB)	utes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Material Description Mixed Material Description Conveyor or description Constant operation	Rating: NA ption: NA sic Loader Cycle Tin 1 0.02 lozer piled 10 ft. high ership of trucks and ation -0.04	n and up 0.00	Factor (min.) 0.020 0.000 -0.040 -0.040	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership:	Material Description Conveyor or description	Rating: NA ption: Anneuver: NA sic Loader Cycle Tin al 0.02 lozer piled 10 ft. high ership of trucks and ation -0.04 t 0.00	n and up 0.00 loaders -0.04	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	Source (Cat HB)	utes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Material Description Mixed Material Description Conveyor or description Constant operation	Rating: NA ption: Anneuver: NA sic Loader Cycle Tin al 0.02 lozer piled 10 ft. high ership of trucks and ation -0.04 t 0.00 Net Cycle Tim	n and up 0.00 loaders -0.04	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	utes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Material Description Mixed Material Description Conveyor or description Constant operation	Rating: NA ption: Anneuver: NA sic Loader Cycle Tin al 0.02 lozer piled 10 ft. high ership of trucks and ation -0.04 t 0.00 Net Cycle Tim Adjusted Loade	n and up 0.00 loaders -0.04	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	Source (Cat HB)	utes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	Material Description Mixed Material Description Conveyor or description Constant operation	Rating: NA ption: Anneuver: NA sic Loader Cycle Tin al 0.02 lozer piled 10 ft. high ership of trucks and ation -0.04 t 0.00 Net Cycle Tim Adjusted Loade	n and up 0.00 loaders -0.04 le Adjustment: er Cycle Time:	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	utes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Material Description Mixed material Conveyor or description Conveyor or description Constant operation Nominal targetics	Rating: NA ption: Anneuver: NA sic Loader Cycle Tin al 0.02 lozer piled 10 ft. high ership of trucks and ation -0.04 t 0.00 Net Cycle Tim Adjusted Loade	n and up 0.00 loaders -0.04 lee Adjustment: er Cycle Time: time per Truck:	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time:	Material Description Mixed material Conveyor or description Common own Constant operation Nominal targetics (1.60)	Rating: NA ption: Anneuver: NA sic Loader Cycle Tin al 0.02 lozer piled 10 ft. high ership of trucks and ation -0.04 t 0.00 Net Cycle Tim Adjusted Loade Net Load Ti	n and up 0.00 loaders -0.04 lee Adjustment: er Cycle Time: ime per Truck: Adjusted	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 2.740	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	utes _ _ Min _ Min

<u>Truck Travel (Haul & Return) Time:</u> Road Condition: <u>Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0</u>

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4910.00	-2.40	3.00	0.60	3005	1.926

Haul Time: 1.926 minutes

Return Route:

recturn re	rate.					
Seg#	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4910.00	2.40	3.00	5.40	3005	1.895

Return Time: 1.895 minutes
Total Truck Cycle Time: 9.228 minutes

Loading Tool unit

Production 463.24 LCY/Hour Adjusted for job efficiency: 384.49 LCY/Hour Truck Unit Production

_____187.75 LCY/Hour Adjusted for job efficiency: ____155.83 LCY/Hour

Optimal No. of Trucks: _____ 2 Truck(s) Selected Number of Trucks: ____ 2 Truck(s)

Adjusted hourly truck team production: 311.67 LCY/Hour Adjusted single truck/loader team production: 311.67 LCY/Hour Adjusted multiple truck/loader team production: 311.67 LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **84.73** Hours

Unit cost: \$3.548 /LCY Total job cost: **\$93,703**

MOTOR GRADER WORK

Task description:	Mine Mill Comp	lex - Finish	Grading			
: Climax Mine	Peri	mit Action:	2024-06	Per	mit/Job#:	M1977493
PROJECT IDENT	<u>IFICATION</u>					
Task #: C1005	State:	Colorado		Abbre	eviation:	None
Date: 9/9/2024		Summit			lename:	M493-C1005
User: ACY						
A gency or or	ganization name: DF	RMS				
Agency of of	gamzation name. <u>Dr</u>	CIVIS				
HOURLY EQUIPM	MENT COST					
Basic Mach	ine: CAT 12M		<u></u>	Horsepower:		158
Ripper Attachm	ent:			Shift Basis:		er day
				Data Source:	(0	CRG)
Cost Breakdown:						
_				Utilization %		
	nership Cost/Hour:		\$69.16	NA 100		
	perating Cost/Hour:		\$54.74	100		
	nership Cost/Hour:		\$0.00 \$0.00	NA		
	perating Cost/Hour: Operator Cost/Hour:		\$0.00	NA		
	operator Cost/Hour:		\$151.66	IVA		
Tot	tal Fleet Cost/Hour:	\$151	1.66			
MATERIAL QUAN	NTITIES					
	ea to be graded or rippe	d: 236.00				acres
				-		acres
Sou	irce of estimated acreag	ge: Climax	Estimate TR-3	7		
HOURLY PRODU	<u>CTION</u>					
	Average Grader Sp	eed:	1.50	mph		
	Selected Applica			grading (0-2.5 mpl	n) - 1.5	
	Selected Blade Ar		45	degrees		
	Effective Blade Ler		8.50	feet		
	th of blade overlap per j		2.00	feet		
	ng or ripping width per j		6.50	feet		
Unadjus	ted Hourly Unit Produc	tion:	1.1818	acres/hou	ır	
Job Condition Correcti	on Factors		Sit	te Altitude: <u>11300</u>	feet	
	i .	Source				
Altitude Adj:		(CAT HE				
Job Efficiency:		(1sh/d, fav				
Net Correction:	0.8550	multiplier				
	Adjusted Hourly Unit	Production:	1.0105	acres/Hour		
	Adjusted Hourly Fleet	Production:	1.0105	acres/Hour		
JOB TIME AND C	OST					
Fleet size:	1 Grader(s)		Total job time	: 233.56	S	Hours
1 1001 5120.	Grader(s)		Tom job mile		<u>*</u>	110015
Unit cost: \$	150.09 per acre		Total job cost	: \$35,42	1	

BULLDOZER RIPPING WORK

	Task description:	<u>Mir</u>	ne Mill Complex - Rip Co	mpacted Surf	aces			
Site:	Climax Mine		Permit Action:	2024-06	Pe	ermit/Job#	: <u>M19774</u>	.93
	PROJECT IDI	ENTIFICAT	ION					
	Task #: C10	006	State: Colorado		Abb	reviation:	None	
		/2024	County: Lake			Filename:	M493-C1	1006
	User: AC	CY	•					
	Agency	or organization	n name: DRMS					
	HOURLY EQ	UIPMENT C	OST					
	Basic 1	Machine: Ca	at D7R DS Series II LGP		Horsepower:		240	
	Ripper Att		Shank Ripper		Shift Basis:	1	per day	
					Data Source:	(CRG)	
	Cost Breakdown:	<u>.</u>						
					Utilization %			
		Ownership C		\$90.24	NA			
		Operating C		\$78.95	100			
		er Ownership C		\$9.25	NA 100	.		
	Ripp	per Operating C		\$5.20	100	:		
		Operator C Total Unit C		\$38.59 \$222.23	NA	=		
		Total Ullit C		·				
		Total Fleet C	Cost/Hour: \$66 0	6.68				
	MATERIAL C	<u>UANTITIES</u>	Sele Sele	ected estimating	g method: Area	ı		
	Alternate Method	<u>ls:</u>						
Seismic:	NA		Bank Volume:	NA	BCY		NA	
Area:	241.00	acres	Rip Depth (ft):			388,813	IVA	BCY or CC
ı ırcu.	211.00					500,015		Der or ce
			imated quantity: TR-37					
	HOURLY PRO	<u>ODUCTION</u>						
	Seismic:							
			Seismic Velocity:	NA	feet/sec	ond		
	Area:							
		Avera	ge Ripping Depth:	2.45	feet/pas	S		
		Avera	ge Ripping Width:	6.50	feet/pas			
			ge Ripping Length:	250.00	feet/pas			
			rage Dozer Speed:	88.00	feet/mir			
			e Maneuver Time:	0.25	minutes			
			ction per unit area:	0.724	acres/ho	our		
	Job Condition Co	orrection Factor	<u>'S</u>					
	Un	adjusted Hourl	y Unit Production:	0.724	Acres/h	r		
			Site Altitude:	11,300	feet			
			Altitude Adj:	1.00	(CAT H			
			Job Efficiency:	0.83	(1 shift/			
			Net Correction:	0.83	multipli	er		
			d Hourly Unit Production: Hourly Fleet Production:	0.60 1.80	Acres/hr Acres/hr			
	JOB TIME AN	· ·		1.00	1 10100/111			
	Fleet size:	3	Grader(s)	Total job tin	me: 1	33.66	Но	urs
	Unit cost:	\$369.738	Per acre	Total job co		89.106		

Construct Water Conveyances

						Cos	t/Unit	To	tal Cost	
Task #		Area	Description	Task Type	Quant Unit					Key Assumptions
	110.9	Mill Mine Complex	Clean Water Surface Channel	Excavate diversion/spillway	26840 CY	\$	3.66	\$	98,234	10,110" LF install
	110.9	Mill Mine Complex	Clean Water Surface Channel-Riprap	Rip Rap Armoring	12021 CY	\$	74.40	\$	894,362	
	110.9	Mill Mine Complex	Beding for Riprap	Drain Rock	14387 CY	\$	73.88	\$	1,062,912	
	110.12	Mine Mill Complex	Impacted Water Pipeline	30" Corrugated HDPE Installed	11,500 LF	\$	78.33	\$	900,795	
	110.13	Mine Mill Complex	Impacted Water Collection Drains	Excvate Diversion/Spillway	4,800 CY	\$	3.66	\$	17,568	
		Mine Mill Complex	Geotextiles		16,755 SY	\$	2.35	\$	39,374	
		Mine Mill Complex	Collection Drain Gravel	Drain Rock	4,800 CY	\$	73.88	\$	354,624	
		Mine Mill Complex	Collection Drain Pipe	Perforated Pipe	4,800 LF	\$	15.87	\$	76,176	
C2001		Mine Mill Complex	Hydrologic Protection					\$	3,444,046	

REVEGETATION WORK

Task description:	Reveg - Mine Mi	ill Complex - Alpin	e		
Climax Mine	Permit Action: 2024-06 Permit/Job#:			: <u>M1977493</u>	
ROJECT IDENTIF	ICATION				
Task #: C3001 Date: 6/10/2024 User: ACY	State: County:	Colorado Lake		_	None M493-C3001
Agency or orga	nization name: DR	MS			
I aterials				1	T
Description		Units / Acre	Unit	Cost / Unit	Cost /Acre
				\$	\$
				Total Fertilizer Materials Cost/Acre	\$0.00
pplication					
Description					Cost /Acre
•					\$
		Total	Fertilizer A	application Cost/Acre	\$0.00
TILLING					
Description					Cost /Acre
Disc harrowing, 6" de	eep (MEANS 32 91 13	3.23 6100)			\$117.61
			To	otal Tilling Cost/Acre	\$117.61

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Alpine Bluegrass	0.22	5.05	\$5.26
Alpine Fescue	0.65	19.40	\$11.75
Cinquefoil, Slender	0.03	2.92	\$14.72
Currant, Wax	0.20	0.69	\$13.87
Rocky Mountain Fescue	0.34	5.46	\$3.67
Lupine, Silver	0.35	0.21	\$41.85
Slender Wheatgrass - Native	1.37	5.00	\$9.68
Thurber's Fescue	0.09	0.93	\$7.06
Flax, Lewis Blue	0.43	2.85	\$18.19
Timothy, Alpine - Native	0.17	5.07	\$6.66

Tufted Hairgrass	0.17	9.76	\$4.84
Yarrow, White	0.05	3.18	\$3.67
Totals Seed Mix	4.07	60.52	\$141.23

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
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$492.78	\$985.56
Total Mulch Materials Cost/Acre				\$985.56

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$85.37
Power mulcher (MEANS 32 91 13.16 0350)		\$157.25
	Total Mulch Application Cost/Acre	\$242.63

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: \$1,723.67 Cost /Acre*: \$1,606.06 No. of Acres: 241

Estimated Failure Rate: 10%

*Selected Replanting Work Items: SEEDING,MULCHING

Initial Job Cost: \$415,404.47
Reseeding Job Cost: \$38,706.05

Total Job Cost: **\$454,111** Job Hours: **265.10**

Disposal of Reagents

C4001

Assumptions

Reagents will be removed prior to closure.

Tasks

Disposal of reagents

Timing

LOM

Total Costs \$91,459

Calculations

Specific Tasks	Work Type	Area	Description	Quantity	Units	Cost	/Unit	Total Cost	Commen
Hydrocal 60	Trucking			pounds	100,795	\$	0.02	\$ 2,016	
Hydrocal 60	Restocking			lump sum	7,000	\$	1.00	\$ 7,000	
Tergitol NP -4	Trucking			pounds	1,415	\$	0.02	\$ 28	
Tergitol NP -4	Restocking			lump sum	98	\$	1.00	\$ 98	
Froth Pro 509	Trucking			pounds	91,548	\$	0.02	\$ 1,831	
Froth Pro 509	Restocking			lump sum	6,358	\$	1.00	\$ 6,358	
CorsiTech FrothPro 327	Trucking			pounds	5,906	\$	0.02	\$ 118	
CorsiTech FrothPro 327	Restocking			lump sum	410	\$	1.00	\$ 410	
Orfom D8	Trucking			pounds	107,615	\$	0.02	\$ 2,152	
Orfom D8	Restocking			lump sum	7,474	\$	1.00	\$ 7,474	
Nokes	Trucking			pounds	205,720	\$	0.02	\$ 4,114	
Nokes	Restocking			lump sum	14,287	\$	1.00	\$ 14,287	
FloatSil [™] (sodium silicate)	Trucking			pounds	45,724	\$	0.02	\$ 914	
FloatSil [™] (sodium silicate)	Restocking			lump sum	3,175	\$	1.00	\$ 3,175	
Lime	Trucking			pounds	450000	\$	0.02	\$ 9,000	
Lime	Restocking			lump sum	31,251	\$	1.00	\$ 31,251	
Polymer Ventures DAF-30	Trucking			pounds	8250	\$	0.02	\$ 165	
Polymer Ventures DAF-30	Restocking			lump sum	573	\$	1.00	\$ 573	
Nalco 7561	Trucking			pounds	24,651	\$	0.02	\$ 493	
Nalco 7561	Restocking			lump sum	1,712	\$	1.00	\$ 1,712	

Total Cost
TOTAL COSTS
\$ 91,459

Notes: Quantities assumed from storage capacity Table T-A-1 TR 28. Gallons converted to pounds using specific gravity from SDS. Disosal cost estimated based on email estimated of \$0.02/pound trucking cost plus 25% restocking fee from Univar Solutions (July 29, 2024)

AR#4 17) Task hours associated with disposal (trucking and restocking).

Climax has assumed 22 T/truck load, 9 hours per trip, total weight of reagents is 521 tons, 213 hours

Exhibit L

BULLDOZER WORK

Task description:	North 40 OSF - Grading			
e: Climax Mine	Permit Action:	2024-06	Permit/Job#:	M1977493
PROJECT IDENTIF	<u>ICATION</u>			
Task #: D1001	State: Colorado		Abbreviation:	None
Date: 6/13/2024	County: Lake		Filename:	M493-D1001
User: ACY				
Agency or orga	nization name: DRMS			
HOURLY EQUIPME	ENT COST			
	t D10T - 10SU			
Horsepower: 574				
	ni-Universal	<u> </u>		
Attachment: NA				
Shift Basis: 1 p	er day			
Data Source: (CI	RG)			
Cost Breakdown:				
		<u>Utilization %</u>		
Ownership Cost/Hour:	\$257.39	NA 100		
Operating Cost/Hour:	\$196.93	100		
Ripper own. Cost/Hour:	\$0.00	NA O		
Ripper op. Cost/Hour:	\$0.00 \$38.59	0		
Operator Cost/Hour:	\$38.39	NA		
Total unit Cost/Hour:	\$492.91			
Total Fleet Cost/Hour:	\$1,971.62			
MATERIAL OHANG				
MATERIAL QUANT				
	9,000			
Swell factor: 1.00				
Loose volume: 1,91	9,000 LCY			
Source of estimated volu	me: TR-37			
Source of estimated swel	l factor: Cat Handbook			
HOURLY PRODUCT	ΓΙΟΝ			
	250 feet			
Average push distance: Unadjusted hourly produ				
Materials consistency des	·			
•	-			
Average push gradient: Average site altitude:	-30 % 11,500 feet			
Material weight:	2,800 lbs/LCY		_	
Weight description:	Granite - Broken			
Job Condition Correction	Factor	Source		
Operator		(AVG.)		
Material consist		(CAT HB)		
Dozing me		(GEN.)		
Visit	oility: 1.000	(AVG.)		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	1.601	(CAT HB)
Altitude:	0.970	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.8572

Adjusted unit production: 646.59 LCY/hr
Adjusted fleet production: 2586.36 LCY/hr

JOB TIME AND COST

Fleet size: 4 Dozer(s)
Unit cost: \$0.762/LCY

Total job time: **741.97** Hours **741.98 1,462,883**

Climax Mine Permi	t Action: 2024-06	Permit/Job#:	M1977493
PROJECT IDENTIFICATION			
Task #: D1002 State:	Colorado	Abbreviation:	None
Date: 6/12/2024 County:	Lake	Filename:	M493-D1002
User: ACY		_	
Agency or organization name: <u>DRM</u> HOURLY EQUIPMENT COST	1S	Shift basis: 1 per day	
	Equipment Description	Shift basis: 1 per day	
		Shift basis: 1 per day	
HOURLY EQUIPMENT COST	Equipment Description	Shift basis: 1 per day	
HOURLY EQUIPMENT COST Truck Loader Team -Truck:	Equipment Description Cat 740	Shift basis: 1 per day	
Truck Loader Team -Truck: -Loader: Support Equipment -Load Area: -Dump Area:	Equipment Description Cat 740 CAT 966H high lift	Shift basis: 1 per day	
Truck Loader Team -Truck: -Loader: Support Equipment -Load Area:	Equipment Description Cat 740 CAT 966H high lift Cat D6T LGP	Shift basis: 1 per day	

Cost Breakdown:	Truck/Loa	ader Team	Support I	Equipment	Maintenan	ce Equipment
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	100	100
Ownership cost/hour:	\$108.25	\$57.78	\$99.72	NA	\$69.16	\$73.42
Operating cost/hour:	\$79.54	\$46.25	\$71.22	NA	\$54.74	\$83.21
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$25.24	\$36.85	\$38.59	NA	\$27.76	\$21.12
Unit Subtotals:	\$213.03	\$140.88	\$209.53	NA	\$151.66	\$177.75
Number of Units:	9	3	1	0	1	1
Group Subtotals:	Work:	\$2,339.91	Support:	\$209.53	Maint:	\$329.41

Total work team cost/hour: \$2,878.85

MATERIAL QUANTITIES

Initial volume: 686,000 CCY Swell factor: 1.215

Loose volume: 833,490 LCY

Source of estimated volume: TR-37

Source of estimated swell factor: Cat Handbook

Material Purchase Cost: \$0.00

cnase Cost: \$0.00

Total Cost: \$0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: 1,600 Pounds/LCY
Description: Top Soil

Rated Payload: 87,000 Pounds
Payload Capacity: 54.38 LCY

Truck Bed (volume) Basis Struck Volume:	24.20	LCY					
Heaped Volume:	31.40	LCY					
Average Volume:	27.80	LCY					
Adjusted Volume:	31.40	LCY					
Fi	nal Truck Vol	lume Based	l on Number of	f Loader Passes:	31.50	LCY	
Loading Tool Capacity							
				Buck	tet Size Class: N	ÍΑ	
Rated Capacity			CY (heaped)				_
Bucket Fill Factor	-			andy clay (100%	- 110%) 1.050		_
Adjusted Capacity	5.25	0 L	CY				
Job Condition Correction	ons:		Si	te Altitude (ft.): 1	1500 feet		
	Truck		Loader	Source			
Altitude Adj:	0.600		1.000	(CAT HB	,		
Job Efficiency:	0.830		0.830	(CAT HB)		
Net Correction:	0.498		0.830				
Loading Tool Cycle Tin	<u>1e:</u> Nu	mber of Lo	ading Tool Pas	sses Required to I	Fill Truck:	6	passes
Loading Tool Cycle Tin Excavators and Front Sho		mber of Lo	oading Tool Pas	sses Required to I	Fill Truck:	6	passes
Excavators and Front Sho	ovels:		_	sses Required to I	Fill Truck:	6	passes
Excavators and Front Sho Machine Cycle Tim	ovels:	dition Ratir	ng: NA	sses Required to I	Fill Truck:	6	passes
Excavators and Front Sho Machine Cycle Tim Selected Val	ovels: e vs. Job Con ue within this	dition Ratir Basic Ratir	ng: NA			6]	passes
Excavators and Front Sho Machine Cycle Tim	ovels: e vs. Job Con ue within this s – Material D	dition Ratir Basic Ratir	ng: NA	sses Required to I		6	passes
Excavators and Front Sho Machine Cycle Tim Selected Val Track Loader	ovels: e vs. Job Con ue within this s – Material D	dition Ratir Basic Ratir	ng: NA NA				passes
Excavators and Front Sho Machine Cycle Tim Selected Val Track Loader Cycle Time Elements (mi Load: NA	ovels: e vs. Job Con ue within this s – Material Γ n.):	dition Ratir Basic Ratir Description: Maneuv	ng: NA NA NA NA		Dump: 0.100)	
Excavators and Front Sho Machine Cycle Tim Selected Vala Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade	ovels: e vs. Job Con ue within this s – Material E n.): rs - Unadjuste	dition Ratir Basic Ratir Description: Maneuv	ng: NA NA NA NA		Dump: 0.100) .500 min	
Excavators and Front Sho Machine Cycle Tim Selected Val Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Facto	ovels: e vs. Job Con ue within this s – Material E n.): rs - Unadjuste	dition Ratir Basic Ratir Description: Maneuv ed Basic Lo	ng: NA ng: NA rer: NA pader Cycle Tir		Dump: 0.100 naneuver): 0 Factor (min.)) .500 min Source	
Excavators and Front Sho Machine Cycle Tim Selected Vala Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade	e vs. Job Conue within this s – Material En.): rs - Unadjusters	dition Ratin Basic Ratin Description: Maneuv ed Basic Lo	ng: NA ng: NA rer: NA pader Cycle Tir	ne (load, dump, n	Dump: 0.100 naneuver): 0 Factor (min.) 0.020) .500 min	
Excavators and Front Sho Machine Cycle Tim Selected Val Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Facto Materia	e vs. Job Conue within this s – Material En.): rs - Unadjusters l: Mixed me: Conveyor	dition Ratin Basic Ratin Description: Maneuv ed Basic Lo naterial 0.02 or or dozer	ng: NA ng: NA rer: NA pader Cycle Tin	ne (load, dump, n	Dump: 0.100 naneuver): 0 Factor (min.)) min Source (Cat HB)	
Excavators and Front Sho Machine Cycle Tim Selected Val Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Facto Materia Stockpil	e vs. Job Con ue within this s – Material E n.): rs - Unadjuste rs l: Mixed m e: Conveyo p: Common	dition Ratin Basic Ratin Description: Maneuv ed Basic Lo naterial 0.02 or or dozer	ng: NA ng: NA rer: NA reader Cycle Time 2 piled 10 ft. high	ne (load, dump, n	Dump: 0.100 naneuver): 0 Factor (min.) 0.020 0.000	Source (Cat HB) (Cat HB)	
Excavators and Front Sho Machine Cycle Tim Selected Vala Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loader Cycle Time Factor Materia Stockpile Truck Ownershi	e vs. Job Conue within this s – Material En.): rs - Unadjusters l: Mixed me: Conveyop: Common	dition Ratin Basic Ratin Description: Maneuv ed Basic Lo naterial 0.02 or or dozer j n ownership t operation target 0.00	ng: NA ng: NA ng: NA rer: NA pader Cycle Tin 2 piled 10 ft. higi o of trucks and -0.04	me (load, dump, n h and up 0.00 loaders -0.04	Dump: 0.100 naneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	Source (Cat HB) (Cat HB) (Cat HB)	
Excavators and Front Sho Machine Cycle Tim Selected Vali Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Facto Materia Stockpil Truck Ownershi Operation	e vs. Job Conue within this s – Material En.): rs - Unadjusters l: Mixed me: Conveyop: Common	dition Ratin Basic Ratin Description: Maneuv ed Basic Lo naterial 0.02 or or dozer in ownership toperation target 0.00	ng: NA ng: NA ng: NA rer: NA pader Cycle Tin 2 piled 10 ft. higi o of trucks and -0.04) Net Cycle Tim	ne (load, dump, n h and up 0.00 loaders -0.04	Dump: 0.100 naneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	
Excavators and Front Sho Machine Cycle Tim Selected Vali Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Facto Materia Stockpil Truck Ownershi Operation	e vs. Job Conue within this s – Material En.): rs - Unadjusters l: Mixed me: Conveyop: Common	dition Ratin Basic Ratin Description: Maneuv ed Basic Lo naterial 0.02 or or dozer in ownership toperation target 0.00	ng: NA ng: NA ng: NA ng: NA nader Cycle Tir 2 piled 10 ft. high 2 of trucks and -0.04 Net Cycle Tir Adjusted Loade	ne (load, dump, n h and up 0.00 loaders -0.04 ne Adjustment: er Cycle Time:	Dump: 0.100 naneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	
Excavators and Front Sho Machine Cycle Tim Selected Vali Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Facto Materia Stockpil Truck Ownershi Operation	e vs. Job Conue within this s – Material En.): rs - Unadjusters l: Mixed me: Conveyop: Common	dition Ratin Basic Ratin Description: Maneuv ed Basic Lo naterial 0.02 or or dozer in ownership toperation target 0.00	ng: NA ng: NA ng: NA ng: NA nader Cycle Tir 2 piled 10 ft. high 2 of trucks and -0.04 Net Cycle Tir Adjusted Loade	ne (load, dump, n h and up 0.00 loaders -0.04	Dump: 0.100 naneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	
Excavators and Front Sho Machine Cycle Tim Selected Vali Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Facto Materia Stockpil Truck Ownershi Operation	e vs. Job Conue within this s – Material En.): rs - Unadjusters l: Mixed me: Conveyop: Common	dition Ratin Basic Ratin Description: Maneuv ed Basic Lo naterial 0.02 or or dozer in ownership toperation target 0.00	ng: NA ng: NA ng: NA ng: NA nader Cycle Tir 2 piled 10 ft. high 2 of trucks and -0.04 Net Cycle Tir Adjusted Loade	ne (load, dump, n h and up 0.00 loaders -0.04 ne Adjustment: er Cycle Time:	Dump: 0.100 naneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	
Excavators and Front Sho Machine Cycle Tim Selected Val Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Facto Materia Stockpil Truck Ownershi Operatio Dump Targe	e vs. Job Conue within this s – Material En.): rs - Unadjusters l: Mixed me: Conveyon: Common: Constant	dition Ratin Basic Ratin Description: Maneuv ed Basic Lo naterial 0.02 or or dozer j n ownership t operation target 0.00	ng: NA ng: NA ng: NA ng: NA nader Cycle Tir 2 piled 10 ft. high 2 of trucks and -0.04 Net Cycle Tir Adjusted Loade	ne (load, dump, n h and up 0.00 loaders -0.04 ne Adjustment: er Cycle Time: ime per Truck:	Dump: 0.100 naneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	utes
Excavators and Front Sho Machine Cycle Tim Selected Vali Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Facto Materia Stockpil Truck Ownershi Operation Dump Targe	e vs. Job Conue within this s – Material En.): rs - Unadjusters l: Mixed me: Conveyore: Common Constant Nominal	dition Ratin Basic Ratin Description: Maneuv ed Basic Lo naterial 0.02 or or dozer jan ownership toperation target 0.00	ng: NA ng: NA ng: NA rer: NA pader Cycle Tin 2 piled 10 ft. high 2 of trucks and -0.04) Net Cycle Tin Adjusted Load Net Load T	me (load, dump, n h and up 0.00 loaders -0.04 me Adjustment: er Cycle Time: ime per Truck: Adjusted	Dump: 0.100 naneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 2.300	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	utes — — — —

<u>Truck Travel (Haul & Return) Time:</u> Road Condition: <u>Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0</u>

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	6600.00	-3.40	3.00	-0.40	3005	2.264

Haul Time: 2.264 minutes

Return Route:

recturn re	rate.					
Seg#	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	6600.00	3.40	3.00	6.40	2742	2.650

Return Time: 2.650 minutes
Total Truck Cycle Time: 9.881 minutes

Loading Tool unit

Production _____572.73 LCY/Hour Adjusted for job efficiency: ____475.36 LCY/Hour

Truck Unit Production
191.28 LCY/Hour

Adjusted for job efficiency: ____158.76 ___ LCY/Hour

Optimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 476.29 LCY/Hour Adjusted single truck/loader team production: 475.36 LCY/Hour Adjusted multiple truck/loader team production: 1,426.09 LCY/Hour

JOB TIME AND COST

Fleet size: 3 Team(s) Total job time: 584.46 Hours

Unit cost: \$2.019 /LCY Total job cost: **\$1,682,566**

BULLDOZER WORK

Task description:	North 40 OSF - Grade Tops	oil		
e: Climax Mine	Permit Action:	2024-06	Permit/Job#:	M1977493
PROJECT IDENTIFIC	CATION			
Task #: D1003	State: Colorado		Abbreviation:	None
Date: 6/13/2024	County: Lake		Filename:	M493-D1003
User: ACY			-	
Agency or organi	zation name: DRMS			
HOURLY EQUIPMEN	NT COST			
	D7R DS XR Series II	<u></u>		
Horsepower: 240	• • • • • •			
• • • • • • • • • • • • • • • • • • • •	i-Universal	<u> </u>		
Attachment: NA Shift Basis: 1 per	r day			
Shift Basis: 1 per Data Source: (CRO				
	<u> </u>	<u> </u>		
Cost Breakdown:		1		
	400.4	<u>Utilization %</u>		
Ownership Cost/Hour:	\$90.24	NA 100		
Operating Cost/Hour:	\$78.95	100		
Ripper own. Cost/Hour:	\$0.00	NA O		
Ripper op. Cost/Hour:	\$0.00	0		
Operator Cost/Hour:	\$38.59	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour:	\$207.78 \$831.10			
MATERIAL QUANTI	TIES			
Initial Volume: 823,2	00			
Swell factor: 1.000	-			
	00 LCY			
Source of estimated volum				
Source of estimated swell i	factor: Cat Handbook			
HOURLY PRODUCT	<u>ION</u>			
Average push distance:	200 feet			
Unadjusted hourly product	ion: 410.8 LCY/hr			
Materials consistency desc	ription: Loose stockpile 1.2)		
Average push gradient: Average site altitude:	-30 % 11,500 feet			
Material weight:	1,600 lbs/LCY		_	
Weight description:	Top Soil			
Job Condition Correction I	- actor_	<u>Source</u>		
Operator S		(AVG.)		
Material consister		(CAT HB)		
Dozing meth		(GEN.)		
Visibil	lity: 1.000	(AVG.)		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.5478

Adjusted unit production: 635.84 LCY/hr
Adjusted fleet production: 2543.36 LCY/hr

JOB TIME AND COST

Fleet size: 4 Dozer(s)
Unit cost: \$0.327/LCY

Total job time: 323.67 Hours Total job cost: \$\frac{323.67 \text{ Hours}}{\$269,000}\$

Task description:	North 4	0 OSF - Haul T	opsoil Area L			
Site: Climax Mine		Permit Act	ion: 2024-06		Permit/Job#: M	1977493
PROJECT IDE	NTIFICATION	<u>I</u>				
Task #: D100 Date: 6/12/ User: ACY	2024	State: Color County: Lake	rado	Ab	breviation: No M4	ne 193-D1004
Agency o	r organization na	me: DRMS				
HOURLY EQU	IPMENT COS	<u>r</u>		Shift bas	is: <u>1 per day</u>	
			Equipment Descri	ption		
,	Truck Loader Tea		t 740			
			AT 966H high lift			
Supp	oort Equipment -I		t D6T LGP			
Pond N	ם- Saintenance –Mot	ump Area: NA	AT 12M			
Roau IV			ater Tanker, 7,000	Gal		
	,,,	ter Truck.	ater ranker, 7,000	- Cui.		
Cost Breakdown:	Truck/Lo	ader Team	Support 1	Equipment	Maintenar	ce Equipment
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	100	100
Ownership cost/hour:	\$108.25	\$57.78	\$99.72	NA	\$69.16	\$73.42
Operating cost/hour:	\$79.54	\$46.25	\$71.22	NA	\$54.74	\$83.21
%Utilization-riper:	NA	0	NA	NA	NA	NA

Total work team cost/hour: \$2,878.85

MATERIAL QUANTITIES

Initial volume: 74,000 CCY Swell factor: 1.215

\$0.00

\$0.00

\$36.85

\$140.88

\$2,339.91

3

Loose volume: **89,910** LCY

Source of estimated volume: TR-37

NA

NA

\$25.24

\$213.03

Work:

Source of estimated swell factor: Cat Handbook

Material Purchase Cost: \$0.00

Total Cost: \$0.00

\$0.00

\$0.00

\$38.59

\$209.53

Support:

NA

NA

NA

NA

\$209.53

0

\$0.00

\$0.00

\$27.76

\$151.66

Maint:

1

\$0.00

\$0.00

\$21.12

\$177.75

\$329.41

1

HOURLY PRODUCTION

Truck Capacity:

Ripper own. cost/hour:

Ripper op. cost/hour:

Operator cost/hour:

Unit Subtotals:

Number of Units:

Group Subtotals:

Truck Payload (weight) Basis:

Material weight: 1,600 Pounds/LCY

Description: Top Soil

Rated Payload: 87,000 Pounds

Rated Payload: 87,000 Pound
Payload Capacity: 54.38 LCY

Struck Volume:	24.20	LCY				
Heaped Volume:	31.40	LCY				
Average Volume:	27.80	LCY				
Adjusted Volume:	31.40	LCY				
Fina	l Truck Volume	e Based on Number o	of Loader Passes:	31.50	LCY	
Loading Tool Capacity						
			Buc	ket Size Class: N	IA.	_
Rated Capacity:	5.000	LCY (heaped)				_
Bucket Fill Factor:	1.050	Moist loam or	sandy clay (100%	- 110%) 1.050		_
Adjusted Capacity:	5.250	LCY				
Job Condition Corrections	S <u>:</u>	S	Site Altitude (ft.):	11500 feet		
	Truck	Loader	Source			
Altitude Adj:	0.600	1.000	(CAT HE	3)		
Job Efficiency:	0.830	0.830	(CAT HE	3)		
Net Correction:	0.498	0.830				
Excavators and Front Shove Machine Cycle Time	vs. Job Condition		1	Fill Truck:	6 1	passes
Machine Cycle Time	vs. Job Condition within this Bas	ic Rating: NA	•		<u> </u>	passes
Machine Cycle Time Selected Value Track Loaders -	vs. Job Condition within this Base-Material Desc	ic Rating: NA			<u> </u>	passes
Machine Cycle Time Selected Value Track Loaders -	vs. Job Condition within this Base - Material Desc	ic Rating: NA		Dump:0.100		passes
Machine Cycle Time Selected Value Track Loaders - Cycle Time Elements (min.)	vs. Job Condition within this Base Material Descent Material Descent Material Descent	ription: Maneuver: NA		Dump: 0.100		
Machine Cycle Time Selected Value Track Loaders - Cycle Time Elements (min.) Load: NA	vs. Job Condition within this Base Material Descent Material Desc	ription: Maneuver: NA asic Loader Cycle T		Dump: 0.100	0	
Machine Cycle Time Selected Value Track Loaders - Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material:	vs. Job Condition within this Base - Material Descent: - Unadjusted Box - Mixed material Mixed material Descent - Mixed	ription: Maneuver: NA asic Loader Cycle T	ime (load, dump, 1	Dump: 0.100 maneuver): 0.100 Factor (min.) 0.020	0.500 min Source (Cat HB)	
Machine Cycle Time Selected Value Track Loaders - Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile:	vs. Job Condition within this Base - Material Descent: - Unadjusted B Mixed material Conveyor or	ic Rating: NA ription: NA Maneuver: NA asic Loader Cycle Total 0.02 dozer piled 10 ft. hi	ime (load, dump, 1	Dump: 0.100 maneuver): 0 Factor (min.) 0.020 0.000	0.500 min Source (Cat HB) (Cat HB)	
Machine Cycle Time Selected Value Track Loaders - Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership:	vs. Job Condition within this Base - Material Descent: - Unadjusted B Mixed material Conveyor or Common ow	Maneuver: NA asic Loader Cycle Trial 0.02 dozer piled 10 ft. hivnership of trucks an	ime (load, dump, 1	Dump: 0.100 maneuver): 0 Factor (min.) 0.020 0.000 -0.040	0.500 min Source (Cat HB) (Cat HB) (Cat HB)	
Machine Cycle Time Selected Value Track Loaders - Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	ws. Job Condition within this Base - Material Descent: - Unadjusted B Mixed material Conveyor or Common ow Constant open	Maneuver: NA asic Loader Cycle T rial 0.02 dozer piled 10 ft. hi vnership of trucks an eration -0.04	ime (load, dump, 1	Dump: 0.100 maneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040	0.500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)	
Machine Cycle Time Selected Value Track Loaders - Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership:	vs. Job Condition within this Base - Material Descent: - Unadjusted B Mixed material Conveyor or Common ow	Maneuver: NA asic Loader Cycle T rial 0.02 dozer piled 10 ft. hi vnership of trucks an eration -0.04 get 0.00	ime (load, dump, 1 gh and up 0.00 d loaders -0.04	Dump: 0.100 maneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	
Machine Cycle Time Selected Value Track Loaders - Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	ws. Job Condition within this Base - Material Descent: - Unadjusted B Mixed material Conveyor or Common ow Constant open	Maneuver: NA ription: NA Maneuver: NA asic Loader Cycle T rial 0.02 dozer piled 10 ft. hi vnership of trucks an eration -0.04 get 0.00 Net Cycle Ti	gh and up 0.00 d loaders -0.04	Dump: 0.100 maneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060	Source (Cat HB) minutes	
Machine Cycle Time Selected Value Track Loaders - Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	ws. Job Condition within this Base - Material Descent: - Unadjusted B Mixed material Conveyor or Common ow Constant open	Maneuver: NA Asic Loader Cycle To dozer piled 10 ft. his vinership of trucks an eration -0.04 get 0.00 Net Cycle Ti Adjusted Loader	ime (load, dump, 1 gh and up 0.00 d loaders -0.04	Dump: 0.100 maneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	
Machine Cycle Time Selected Value Track Loaders - Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	ws. Job Condition within this Base - Material Descent: - Unadjusted B Mixed material Conveyor or Common ow Constant open	Maneuver: NA Asic Loader Cycle To dozer piled 10 ft. his vinership of trucks an eration -0.04 get 0.00 Net Cycle Ti Adjusted Loader	gh and up 0.00 d loaders -0.04 me Adjustment: der Cycle Time:	Dump: 0.100 maneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	
Machine Cycle Time Selected Value Track Loaders - Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	ws. Job Condition within this Base Material Description: - Unadjusted B Mixed material Conveyor or Common ow Constant open Nominal targets.	Maneuver: NA Maneuver: NA asic Loader Cycle To rial 0.02 dozer piled 10 ft. hi vnership of trucks an eration -0.04 get 0.00 Net Cycle Ti Adjusted Load Net Load	gh and up 0.00 d loaders -0.04 me Adjustment: der Cycle Time: Time per Truck:	Dump: 0.100 maneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 2.300	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	utes
Machine Cycle Time Selected Value Track Loaders - Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time: Truck Exchange Tim	ws. Job Condition within this Basternal Description: - Material Description: - Unadjusted B Mixed maternal Conveyor or Common ow Constant open Nominal targets: - Unadjusted B	Maneuver: NA asic Loader Cycle Total 0.02 redozer piled 10 ft. historership of trucks and eration -0.04 get 0.00 Net Cycle Ti Adjusted Load Net Load	gh and up 0.00 d loaders -0.04 me Adjustment: der Cycle Time: Fime per Truck:	Dump: 0.100 maneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 2.300 for site altitude:	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes 1.000	utes
Machine Cycle Time Selected Value Track Loaders - Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	ws. Job Condition within this Base - Material Description: - Unadjusted B - Mixed material Conveyor or Common ow Constant open Nominal targeters - 0.60 e: 0.60 e: 2.300	Maneuver: NA Maneuver: NA asic Loader Cycle To rial 0.02 dozer piled 10 ft. hi vnership of trucks an eration -0.04 get 0.00 Net Cycle Ti Adjusted Load Net Load	gh and up 0.00 d loaders -0.04 me Adjustment: der Cycle Time: Time per Truck: Adjusted Adjusted	Dump: 0.100 maneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 2.300	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	utes

<u>Truck Travel (Haul & Return) Time:</u> Road Condition: <u>Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0</u>

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	5280.00	1.20	3.00	4.20	2421	2.913

Haul Time: **2.913** minutes

Return Route:

 rectarii re	rate.					
Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	5280.00	-1.20	3.00	1.80	3005	1.899

Return Time: 1.899 minutes
Total Truck Cycle Time: 9.779 minutes

Loading Tool unit

Production _____ 572.73 ___ LCY/Hour Adjusted for job efficiency: _____ 475.36 ___ LCY/Hour Truck Unit Production

____193.28 LCY/Hour Adjusted for job efficiency: ____160.42 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 481.26 LCY/Hour Adjusted single truck/loader team production: 475.36 LCY/Hour Adjusted multiple truck/loader team production: 1,426.09 LCY/Hour

JOB TIME AND COST

Fleet size: _____3 ____ Team(s) Total job time: _____63.05 ____ Hours

Unit cost: \$2.019 /LCY Total job cost: \$181,501

BULLDOZER WORK

Task description:	North 40 OSF -	Grade Tops	oil		
Climax Mine	Per	mit Action:	2024-06	Permit/Job#:	M1977493
PROJECT IDENTIF	<u>ICATION</u>				
Task #: D1005	State:	Colorado		Abbreviation:	None
Date: 6/13/2024	County:	Lake		Filename:	M493-D1005
User: ACY				_	111.70 21000
Agency or organ	—— nization name: Dl	RMS			
HOURLY EQUIPME		ш			
Basic Machine: Cat Horsepower: 240	D7R DS XR Series	11	<u>—</u>		
	ni-Universal				
Attachment: NA			<u> </u>		
	er day		<u> </u>		
Data Source: (CF	(G)				
Cost Breakdown:					
O		¢00.24	<u>Utilization %</u>		
Ownership Cost/Hour: Operating Cost/Hour:		\$90.24 \$78.95	NA 100		
Ripper own. Cost/Hour:		\$0.00	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$38.59	NA		
The state of the s	Φ207.70				
Total unit Cost/Hour: Total Fleet Cost/Hour:	\$207.78 \$415.55				
MATERIAL QUANT Initial Volume: 88,80 Swell factor: 1.000	00				
Loose volume: 88,8	00 LCY				
Source of estimated volumes Source of estimated swell		lbook			
HOURLY PRODUCT	<u> TION</u>				
Average push distance:	200 feet	· //			
Unadjusted hourly produc					
Materials consistency des	cription: Loose	stockpile 1.2			
Average push gradient: Average site altitude:	-30 % 11,500 feet	<u></u>			
Material weight:	1,600 lbs/LCY			_	
Weight description:	Top Soil				
Job Condition Correction			Source		
Operator S		.750	(AVG.)		
Material consists		.200	(CAT HB)		
Dozing me		.000	(GEN.)		
Visib	111ty: <u> </u>	.000	(AVG.)		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.3758

Adjusted unit production: 565.18 LCY/hr
Adjusted fleet production: 1130.36 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: \$0.368/LCY

Total job time: 78.56 Hours
Total job cost: \$32,645

Task	descrip	tion:	North 4	10 OSF - H	Iaul Be	lding Material					
ite: Cl	limax M	Iine		Pern	nit Actio	on: 2024-06			Permit/Job#:	M19774	193
<u>PRC</u>	<u> </u>	IDE	NTIFICATION	<u>1</u>							
Ta	ask #:	D100)6	State:	Colora	ıdo		Ab	breviation:	None	
	Date:	6/13/	2024	County:	Lake				Filename:	M493-D	1006
	User:	ACY	,				_		_		
HOU	<u>URLY</u>	<u>EQU</u>	IPMENT COS	<u>T</u>]	Equipment Desc	ription	Shift bas	sis: 1 per day		
			Truck Loader Te	am -Truck			прион				
				-Loader		Γ 966H high lift					
		Sup	oort Equipment -l	Load Area:	Cat	D6T LGP					
				ump Area							
	I	Road M	Iaintenance –Mo			Γ 12M					
			-W	ater Truck	: Wat	er Tanker, 7,000	Gal.				
Cost	Break	down:	Truck/Lo	ader Team	1	Support	Equipme	nt	Mainte	enance Eq	
			Truck	Loader		Load Area	Dump	Area	Motor Grad	ler Wa	ter Truck

Cost Breakdown:	Truck/Loa	ader Team	Support l	Equipment	Maintenan	ce Equipment
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	100	100
Ownership cost/hour:	\$108.25	\$57.78	\$99.72	NA	\$69.16	\$73.42
Operating cost/hour:	\$79.54	\$46.25	\$71.22	NA	\$54.74	\$83.21
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$25.24	\$36.85	\$38.59	NA	\$27.76	\$21.12
Unit Subtotals:	\$213.03	\$140.88	\$209.53	NA	\$151.66	\$177.75
Number of Units:	2	1	1	0	1	1
Group Subtotals:	Work:	\$566.94	Support:	\$209.53	Maint:	\$329.41

Total work team cost/hour: \$1,105.88

MATERIAL QUANTITIES

Initial volume: 21,800 CCY Swell factor: 1.000

Loose volume: 21,800 LCY

Source of estimated volume: TR-37

Source of estimated swell factor: Cat Handbook

Material Purchase Cost: \$0.00

Total Cost: \$0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: 2,600 Pounds/LCY
Description: Limestone - Broken

Rated Payload: 87,000 Pounds Payload Capacity: 33.46 LCY

Truck Bed (volume) Basis:						
Struck Volume:	24.20	LCY				
Heaped Volume:	31.40	LCY				
Average Volume:	27.80	LCY				
Adjusted Volume:	31.40	LCY				
Final	Truck Volume	Based on Number of I	Loader Passes:	28.88	LCY	
Loading Tool Capacity						
Data I Come in	5,000	I CW (b 1)	Buck	tet Size Class: N.	A	_
Rated Capacity: _ Bucket Fill Factor:	5.000 0.825	LCY (heaped) Blasted rock - av	a blooted (75	000/ \ 0.925		_
Adjusted Capacity:	4.125	LCY	g. blasted (75 -	90%) 0.823		_
Adjusted Capacity.	4.125					
Job Condition Corrections:		Site	Altitude (ft.): 1	1500 feet		
	Truck	Loader	Source			
Altitude Adj:	0.600	1.000	(CAT HB			
Job Efficiency:	0.830	0.830	(CAT HB)		
Net Correction:	0.498	0.830				
Loading Tool Cycle Time:	Normale and	of Looding Tool Dag	D 1 to I	7:11 T1	7	
		of Loading Tool Pass	es Required to F	fill Truck:	7	passes
Excavators and Front Shove	<u>ls:</u>					
Machine Cycle Time v Selected Value v						
Track Loaders –	Material Descri	ption:				
Cycle Time Elements (min.):						
Load: NA	M	aneuver: NA		Dump: 0.100	1	
Wheel and Track Loaders -	Unadjusted Ba	sic Loader Cycle Time	e (load, dump, n	naneuver): 0.	500 min	utes
Cycle Time Factors	j	Ž		Factor (min.)	Source	
Material:	Mixed materia	al 0.02		0.020	(Cat HB)	
Stockpile:	Conveyor or o	lozer piled 10 ft. high	and up 0.00	0.000	(Cat HB)	_
Truck Ownership:	Common own	ership of trucks and lo	oaders -0.04	-0.040	(Cat HB)	_
Operation:	Constant oper			-0.040	(Cat HB)	
Dump Target:	Nominal targe			0.000	(Cat HB)	
		Net Cycle Time	_	-0.060	minutes	
		Adjusted Loader	-	0.440	minutes	
		Net Load Tin	ne per Truck: _	2.740	minutes	
Truck Cycle Time:						
Truck Exchange Time	: 0.60	Minutes	Adjusted	for site altitude:	1.000	Minu
Truck Load Time	: 2.740	Minutes	Adjusted	for site altitude:	2.740	Minu
k Maneuver and Dump Time	: 1.00	Minutes	Adjusted	for site altitude:	1.667	Minu

<u>Truck Travel (Haul & Return) Time:</u> Road Condition: <u>Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0</u>

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2112.00	-4.40	3.00	-1.40	3005	0.769

Haul Time: 0.769 minutes Return Route: Travel Haul Distance Grade (%) Roll. Res Total Res Velocity Seg# Time (Ft) (%) (%) (fpm) (min) 7.40 2112.00 4.40 3.00 2470 1.067

Return Time: 1.067 minutes
Total Truck Cycle Time: 7.243 minutes

Loading Tool unit

Production Production
Truck Unit Production

239.21 LCY/Hour Adjusted for job efficiency: 384.49 LCY/Hour

Adjusted for job efficiency: 198.54 LCY/Hour

Optimal No. of Trucks: 2 Truck(s)

Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 397.08 LCY/Hour Adjusted single truck/loader team production: 384.49 LCY/Hour Adjusted multiple truck/loader team production: 384.49 LCY/Hour

JOB TIME AND COST

 Fleet size:
 1
 Team(s)
 Total job time:
 56.70
 Hours

 Unit cost:
 \$2.876
 /LCY
 Total job cost:
 \$62,702

MOTOR GRADER WORK

Task description:	North 40 OSF - I	Finish Gradi	ng			
: Climax Mine	Peri	mit Action:	2024-06	Per	mit/Job#:	M1977493
PROJECT IDENT	IFICATION					
Task #: D1007	State:	Colorado		Abbre	viation:	None
Date: 6/17/202		Summit			lename:	M493-D1007
User: ACY					=	
A gency or or	ganization name: DR	RMS				
Agency of of	gamzation name. Dr	CIVIS				
HOURLY EQUIPM	MENT COST					
Basic Machi	ine: CAT 12M			Horsepower:	1	58
Ripper Attachme	ent:			Shift Basis:	1 pe	er day
				Data Source:	(C	RG)
Cost Breakdown:						
				Utilization %		
	nership Cost/Hour:		\$69.16	NA 100		
	perating Cost/Hour:		\$54.74	100		
	rnership Cost/Hour:		\$0.00 \$0.00	NA		
	perating Cost/Hour: Operator Cost/Hour:		\$0.00	NA		
	tal Unit Cost/Hour:		\$151.66	11/17		
Tot	al Fleet Cost/Hour:	\$151	1.66			
MATERIAL QUAN	NTITIES					
	ea to be graded or rippe	d: 108.00				noros
						acres
Sou	irce of estimated acreag	ge: Climax	Estimate TR-3	7		
HOURLY PRODU	CTION					
	Average Grader Sp	reed:	1.50	mph		
	Selected Applica			grading (0-2.5 mpl	n) - 1.5	
	Selected Blade Ar		45	degrees	1,0	
	Effective Blade Ler		8.50	feet		
	th of blade overlap per p		2.00	feet		
	ng or ripping width per p		6.50	feet		
Unadjus	ted Hourly Unit Produc	tion:	1.1818	acres/hou	ır	
Job Condition Correcti	on Factors		Sit	e Altitude: <u>11500</u>	feet	
		Source				
Altitude Adj:		(CAT HE				
Job Efficiency:		(1sh/d, fav	/ <u>.)</u>			
Net Correction:	0.8550	multiplier				
	Adjusted Hourly Unit	Production:	1.0105	acres/Hour		
	Adjusted Hourly Fleet		1.0105	acres/Hour		
10D my 55 155 5	OCT					
JOB TIME AND C						
Fleet size:	1 Grader(s)		Total job time:	106.88	<u> </u>	Hours
Unit cost: \$1	150.09 per acre		Total job cost:	\$16,210	0	

	Construct Water Conveyances									
						Cos	t/Unit	То	tal Cost	
ask #		Area	Description	Task Type	Quant Unit					Key Assumptions
	108.8	North 40 OSF	Clean Water Channel	Excavate diversion/spillway	22,100 CY	\$	3.66	\$	80,886	
	108.8	North 40 OSF	Rip Rap	Rip Rap Armoring	9,900 CY	\$	74.40	\$	736,560	
	108.8	North 40 OSF	Bedding for Riprap Placed	Drain Rock	11,900 CY	\$	73.88	\$	879,172	
		North 40 OSF	Impacted Water Pipeline	30" Corrugated HDPE Installed	3,200 LF	\$	78.33	\$	250,656	
	108.11	North 40 OSF	Impacted Water Drain	Excvate Diversion/Spillway	4,100 CY	\$	3.66	\$	15,006	
	108.13	North 40 OSF	Drain Gravel	Drain Rock	4,100 CY	\$	73.88	\$	302,908	
	108.11	North 40 OSF	Geotextiles	Geotextiles	14,312 SY	\$	2.35	\$	33,633	
	108.13	North 40 OSF	Drain Pipes	Perforated Pipe	4,100 LF	\$	15.87	\$	65,067	
	108.11	North 40 OSF	Downdrops	Excvate Diversion/Spillway	9,500 CY	\$	3.66	\$	34,770	
	108.13	North 40 OSF	ACB	ACB	151,100 SF	\$	63.70	\$	9,625,070	
	108.11	North 40 OSF	Outslope Channels	Excvate Diversion/Spillway	32,000 CY	\$	3.66	\$	117,120	
2001		North 40 OSF	Hydrologic Protection					\$	12,140,848	

REVEGETATION WORK

Task description:	North 40 OSF - Reveg	- Alpine				
Climax Mine	Permit Ac	etion: 2024	-06	Pe	rmit/Job#	: <u>M1977493</u>
PROJECT IDENTIF Task #: D3001 Date: 6/10/2024 User: ACY	State: Color			_ Abbrevi _ File		None M493-D3001
Agency or orga	anization name: DRMS					
ERTILIZING						
Description		Units / Acre	Unit	Cost / U	nit	Cost /Acre
				\$		\$
					ertilizer aterials ost/Acre	\$0.00
						\$
		Total	Fertilizer A	Application Co	st/Acre	\$0.00
TILLING		Total	Fertilizer A	Application Co	ost/Acre	\$0.00
TILLING Description		Total	Fertilizer A	Application Co	ost/Acre	Cost /Acre
		Total	Fertilizer A	Application Co	ost/Acre	
		Total		Application Co		Cost /Acre
Description		Total				Cost /Acre
Description		Total	To	Rate –	eeds	Cost /Acre
SEEDING		Total	Te	Rate – PLS So LBS / F Acre 0.44 10	eeds	Cost /Acre \$ \$0.00

Currant, Wax

Lupine, Silver

Thurber's Fescue

Flax, Lewis Blue

Rocky Mountain Fescue

Slender Wheatgrass - Native

\$27.75

\$7.33

\$83.69

\$19.36

\$14.13

\$36.38

1.38

0.41

10.93

10.00

1.86

5.70

0.40

0.68

0.70

2.74

0.18

0.86

Timothy, Alpine - Native	0.34	10.15	\$13.32
Tufted Hairgrass	0.34	19.51	\$9.68
Yarrow, White	0.10	6.36	\$7.34
Totals Seed Mix	8.14	121.05	\$282.45

Application

Description		Cost /Acre
Hydro seeding (MEANS 32 92 19.14 0200)		\$1,359.07
	Total Seed Application Cost/Acre	\$1,359.07

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Hydromulch tackifier, >15 ac. {Materials Only}	1.00	ACRE	\$1,459.26	\$1,459.26
Total Mulch Materials Cost/Acre				\$1,459.26

Application

Description		Cost /Acre
NA-mulch application incl. with hydroseeding		\$0.00
	Total Mulch Application Cost/Acre	\$0.00

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre			
					\$			
		Totals 1	Nursery Stoc	k Cost / Acre	\$0.00			

JOB TIME AND COST

Cost /Acre: \$3,100.78 Cost /Acre*: \$3,100.78 No. of Acres: 235

Estimated Failure Rate: 10%

*Selected Replanting Work Items: SEEDING,MULCHING

Initial Job Cost: **\$728,683.30**Reseeding Job Cost: **\$72,868.33**

Total Job Cost: **\$801,552**

Job Hours: **258.50**

BULLDOZER WORK

Task description:	McNulty OSF - 0	Grading			
ite: Climax Mine	Peri	mit Action: _	2024-06	Permit/Job#:	M1977493
PROJECT IDENTIF	<u>ICATION</u>				
Task #: <u>E1001</u>	State:	Colorado		Abbreviation:	None
Date: 6/17/2024	County:	Lake		Filename:	M493-E1001
User: ACY					
Agency or orga	inization name: <u>DR</u>	RMS			
HOURLY EQUIPM	ENT COST				
Basic Machine: Ca	at D10T - 10SU				
Horsepower: 57	4		_		
• • • • • • • • • • • • • • • • • • • •	mi-Universal				
Attachment: NA			<u> </u>		
	per day		<u> </u>		
Data Source: (C	RG)		_		
Cost Breakdown:					
			<u>Utilization %</u>		
Ownership Cost/Hour:		\$257.39	NA		
Operating Cost/Hour:		\$196.93	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: Total Fleet Cost/Hour: MATERIAL QUANT	\$492.91 \$3,943.24				
•	53,000				
Swell factor: 1.32		 ;			
	21 3,960 LCY				
Source of estimated volu Source of estimated swe		book			
HOURLY PRODUC	TION				
Average push distance: Unadjusted hourly produ	250 feet 754.3 LCY/	'hr			
Materials consistency de	escription: Rock, p	poorly ripped	or blasted 0.6		
Average push gradient: Average site altitude:	-30 % 11,800 feet				
Material weight:	2,800 lbs/LCY				
Weight description:	Granite - Broken				
Job Condition Correction Operator		750	Source (AVG.)		
Material consis		600	(CAT HB)		
Dozing me		000	(GEN.)		
		000	(AVG.)		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	1.601	(CAT HB)
Altitude:	0.970	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4286

Adjusted unit production: 323.29 LCY/hr
Adjusted fleet production: 2586.32 LCY/hr

JOB TIME AND COST

Fleet size: 8 Dozer(s)
Unit cost: \$1.525/LCY

Total job time: 4,722.52 Hours
Total job cost: \$18,622,060

MOTOR GRADER WORK

Task description:	McNulty OSF - Fin	ish Gradi	ng		
e: Climax Mine	Permit	Action:	2024-06	Permit/Jo	b#: M1977493
PROJECT IDENTI	<u>IFICATION</u>				
Task #: E1002 Date: 6/17/202 User: ACY		Colorado Summit		Abbreviation Filename	
Agency or or	ganization name: <u>DRM</u>	S			
HOURLY EQUIPM	MENT COST				
Basic Mach Ripper Attachme			_ _	Horsepower: Shift Basis: Data Source:	158 1 per day (CRG)
Cost Breakdown:					
	nership Cost/Hour:		\$69.16 \$54.74	Utilization % NA 100	
Ripper Ow Ripper Op	nership Cost/Hour:		\$0.00 \$0.00	NA	
	perator Cost/Hour:tal Unit Cost/Hour:		\$27.76 \$151.66	NA	
	al Fleet Cost/Hour:	\$303	<u> </u>		
	ea to be graded or ripped:	678.00			acres
Sou	arce of estimated acreage:	Climax	Estimate TR-3	7	
HOURLY PRODU	<u>CTION</u>				
	Average Grader Spee		1.50	mph	
	Selected Application Selected Blade Angl		Finish §	grading (0-2.5 mph) - 1.5 degrees	<u>i</u>
	Effective Blade Lengt		8.50	feet	
Widt	h of blade overlap per pas		2.00	feet	
	g or ripping width per pas		6.50	feet	
Unadjus	ted Hourly Unit Production	n:	1.1818	acres/hour	
Job Condition Correcti	on Factors		Si	te Altitude: 11800 feet	
Altitude Adj:	0.05	Source (CAT HB	`		
Job Efficiency:		(CAT HB (1sh/d, fav			
Net Correction:		multiplier	<u>·) </u>		
	Adjusted Hourly Unit Pro		1.0105 2.0209	acres/Hour acres/Hour	
JOB TIME AND C	<u>ost</u>				
Fleet size:	2 Grader(s)		Total job time	335.49	Hours
Unit cost: \$1	150.09 per acre		Total job cost	\$101,762	

Task description:	McNult	y OSF - Haul Toj	psoil McNulty			
Site: Climax Mine		Permit Action	on: 2024-06		Permit/Job#: N	И1977493
PROJECT IDEN	NTIFICATION	[
Task #: E100	3	State: Colora	ado	Ab	breviation: N	one
Date: 6/12/	2024	County: Lake			Filename: M	I493-E1003
User: ACY						
Agency of	r organization nar	ne: DRMS				
HOURLY EQU	IPMENT COS	r		Shift boo	is: 1 per day	
HOURET EQUI	II WENT COS.				is. I per day	
	D 1 T 1 TD		Equipment Descri	ption		
	Fruck Loader Tea					
-Loader: CAT 966H high lift Support Equipment -Load Area: Cat D6T LGP						
Supp		ump Area: NA	Doi Loi			
Road M	Iaintenance –Mot	1	Γ 12M			
	-Wa	ter Truck: Wat	ter Tanker, 7,000	Gal.		
Cost Breakdown:		ader Team		Equipment		nce Equipment
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	100	100
Ownership cost/hour:	\$108.25	\$57.78	\$99.72	NA	\$69.16	\$73.42
Operating cost/hour:	\$79.54	\$46.25	\$71.22	NA	\$54.74	\$83.21
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour	\$25.24	\$36.85	\$38.59	NA	\$27.76	\$21.12

\$209.53

Support:

NA

\$209.53

0

\$151.66

Maint:

1

\$177.75

\$329.41

Total work team cost/hour: \$2,098.88

MATERIAL QUANTITIES

Unit Subtotals:

Number of Units:

Group Subtotals:

Initial volume: 325,000 CCY Swell factor: 1.215

\$140.88

\$1,559.94

Loose volume: 394,875 LCY

\$213.03

Work:

Source of estimated volume: Division of Reclamation, Mining & Safety

Source of estimated swell factor: Cat Handbook

Material Purchase Cost: \$0.00

Total Cost: \$0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: 1,600 Pounds/LCY
Description: Top Soil

Rated Payload: 87,000 Pounds
Payload Capacity: 54.38 LCY

Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Factor Materia Stockpile Truck Ownership Operation Dump Targe Truck Cycle Time: Truck Exchange Ti	rs - Unadjusted B rs l: Mixed mate e: Conveyor or c: Common ov n: Constant op t: Nominal tar	Maneuver: NA Pasic Loader Cycle Tin Parial 0.02 Endozer piled 10 ft. high Venership of trucks and eration -0.04 get 0.00 Net Cycle Tin Adjusted Loade	h and up 0.00 loaders -0.04 ne Adjustment: er Cycle Time: ime per Truck: _	Dump: 0.100 naneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 2.300 for site altitude: for site altitude:	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes 1.000 2.300	utes Min
Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Factor Materia Stockpile Truck Ownership Operation Dump Targe	rs - Unadjusted B I: Mixed mate c: Conveyor or c: Common ov n: Constant op t: Nominal tar	Maneuver: NA Pasic Loader Cycle Tin rial 0.02 r dozer piled 10 ft. high vnership of trucks and eration -0.04 get 0.00 Net Cycle Tim Adjusted Loade Net Load Ti	ne (load, dump, ne h and up 0.00 loaders -0.04 loaders -0.	Dump: 0.100 maneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 2.300	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	— — — —
Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Factor Materia Stockpile Truck Ownership Operation Dump Targe	rs - Unadjusted B I: Mixed mate e: Conveyor or o: Common ov n: Constant op	Maneuver: NA Pasic Loader Cycle Tin Parial 0.02 Endozer piled 10 ft. high Venership of trucks and eration -0.04 get 0.00 Net Cycle Tin Adjusted Loade	ne (load, dump, ne h and up 0.00 loaders -0.04 loaders -0.	Dump: 0.100 naneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	utes
Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Factor Materia Stockpile Truck Ownership	rs - Unadjusted B I: Mixed mate e: Conveyor or o: Common ov n: Constant op	Maneuver: NA Pasic Loader Cycle Tin Parial 0.02 Endozer piled 10 ft. high Venership of trucks and eration -0.04 get 0.00 Net Cycle Tin Adjusted Loade	ne (load, dump, ne h and up 0.00 loaders -0.04 loaders -0.	Dump: 0.100 naneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	utes
Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Factor Materia Stockpile Truck Ownership	rs - Unadjusted B I: Mixed mate e: Conveyor or o: Common ov n: Constant op	Maneuver: NA Sasic Loader Cycle Tin rial 0.02 r dozer piled 10 ft. high vnership of trucks and eration -0.04 get 0.00 Net Cycle Tim	ne (load, dump, no hand up 0.00 loaders -0.04	Dump: 0.100 naneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	utes
Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Factor Materia Stockpile Truck Ownership	rs - Unadjusted B I: Mixed mate e: Conveyor or o: Common ov n: Constant op	Maneuver: NA Basic Loader Cycle Tin rial 0.02 r dozer piled 10 ft. high vnership of trucks and eration -0.04 get 0.00	ne (load, dump, r h and up 0.00 loaders -0.04	Dump: 0.100 naneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Factor Materia Stockpile Truck Ownership	rs - Unadjusted B I: Mixed mate e: Conveyor or o: Common ov n: Constant op	Maneuver: NA Basic Loader Cycle Tin rial 0.02 dozer piled 10 ft. high vnership of trucks and eration -0.04	ne (load, dump, n	Dump: 0.100 naneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Factor Materia Stockpile	rs - Unadjusted B rs	Maneuver: NA Sasic Loader Cycle Tin rial 0.02 r dozer piled 10 ft. high	ne (load, dump, n	Dump: 0.100 naneuver): 0. Factor (min.) 0.020 0.000	Source (Cat HB) (Cat HB)	utes
Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Factor Materia	rs - Unadjusted B	Maneuver: NA Basic Loader Cycle Tin	ne (load, dump, n	Dump: 0.100 naneuver): 0. Factor (min.) 0.020	500 minu Source (Cat HB)	utes
Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Factor	n.): Irs - Unadjusted B	Maneuver: NA Basic Loader Cycle Tin		Dump: 0.100 naneuver): 0. Factor (min.)	.500 minu	utes
Cycle Time Elements (mi Load: NA Wheel and Track Loade	n.): I rs - Unadjusted B	Maneuver: NA		Dump: 0.100	.500 minu	utes
Cycle Time Elements (mi Load: NA	n.):	Maneuver: NA		Dump: 0.100		utes
Cycle Time Elements (mi	n.):	-				
Track Loader	s – Material Desc	трион:				
Machine Cycle Tim Selected Valu	e vs. Job Conditions this Bas					
Excavators and Front Sho						
Loading Tool Cycle Tin	ne: Numb	er of Loading Tool Pas	sses Required to l	Fill Truck:	6 p	passes
Net Correction:	0.498	0.830				
JOD Efficiency:	0.630	0.830	(CAT HB	<u>') </u>		
Altitude Adj: Job Efficiency:	0.600 0.830	1.000 0.830	(CAT HB	_		
	Truck	Loader	Source			
Job Condition Correction	ns:	Si	te Altitude (ft.): 1	11800 feet		
Adjusted Capacity	5.250	LCY	•	·		_
Bucket Fill Factor			andy clay (100%	- 110%) 1.050		_
Rated Capacity	5.000	LCY (heaped)	Buci			
Loading 1001 Capacity			Ruck	cet Size Class: N	Δ	
Loading Tool Capacity	nai Truck voium	e Based on Number of	Loadel Fasses.	31.50	LC1	
E;	nal Truak Valum	e Based on Number of	F London Daggag	31.50	LCY	
	31.40	LCY				
Adjusted Volume:	27.80	LCY				
Average Volume: Adjusted Volume:		LCY				
	24.20 31.40	LCY				

<u>Truck Travel (Haul & Return) Time:</u> Road Condition: <u>Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0</u>

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4910.00	1.80	3.00	4.80	1845	2.958

Haul Time: 2.958 minutes

Return Route:

Ttotalli Ito	rate.					
Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4910.00	-1.80	3.00	1.20	3706	1.535

Return Time: 1.535 minutes
Total Truck Cycle Time: 9.460 minutes

Loading Tool unit

Production 572.73 LCY/Hour Adjusted for job efficiency: 475.36 LCY/Hour

Truck Unit Production

199.80 LCY/Hour Adjusted for job efficiency: 165.83 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 497.49 LCY/Hour Adjusted single truck/loader team production: 475.36 LCY/Hour Adjusted multiple truck/loader team production: 950.73 LCY/Hour

JOB TIME AND COST

Fleet size: 2 Team(s) Total job time: 415.34 Hours

Unit cost: \$2.208 /LCY Total job cost: **\$871,749**

BULLDOZER WORK

Task description:	McNulty C	SF - Grade Tops	oil		
e: Climax Mine		Permit Action:	2024-06	Permit/Job#:	M1977493
PROJECT IDENT	<u>IFICATION</u>				
Task #: E1004	S	State: Colorado		Abbreviation:	None
Date: 6/13/202	24 Co	unty: Lake		Filename:	M493-E1004
User: ACY					
Agency or or	rganization name:	DRMS			
HOURLY EQUIPM	MENT COST				
Basic Machine:	Cat D8T - 8SU				
<u> </u>	310				
-	Semi-Universal				
	NA 1 dans		<u> </u>		
	1 per day (CRG)		<u> </u>		
_	(CKU)		<u> </u>		
Cost Breakdown:			TT. 11		
Ournarchin Cast/II		\$173.32	<u>Utilization %</u> NA		
Ownership Cost/Hou Operating Cost/Hou		\$173.32	100		
Ripper own. Cost/Hou		\$0.00	NA		
Ripper op. Cost/Hou		\$0.00	0		
Operator Cost/Hou	-	\$38.59	NA		
•	-	Ψ30.57	IVA		
Total unit Cost/Hour:	\$321.62				
Total Fleet Cost/Hour:	\$643.23		<u></u>		
MATERIAL QUA	NTITIES				
Initial Volume: 3	90,000				
	.000				
	90,000 LCY				
C	-1 TD	27			
Source of estimated vo		-37 t Handbook			
Source of estimated sv	ven factor. <u>Ca</u>	Панционк			
HOURLY PRODU	CTION				
Average push distance					
Unadjusted hourly pro	duction: <u>377.8</u>	LCY/hr			
Materials consistency	description: I	Loose stockpile 1.2			
Average push gradient Average site altitude:	t:30 % 				
Material weight:	_1,600 lbs/L0	CY		_	
Weight description:	Top Soil				
Job Condition Correct		. ==-	Source		
	or Skill:	0.750	(AVG.)		
Material cons		1.200	(CAT HB)		
	method:	1.000	(GEN.)		
V	isibility:	1.000	(AVG.)		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.3758

Adjusted unit production: 519.78 LCY/hr
Adjusted fleet production: 1039.56 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: \$0.619/LCY

Total job time: 375.16 Hours
Total job cost: \$241,314

Task description: McNulty OSF - Haul Topsoil L Stockpile								
Site: Climax Mine		Permit Action	on: 2024-06	1	Permit/Job#: M	1977493		
PROJECT IDE	PROJECT IDENTIFICATION							
Task #: <u>E100</u>		State: Colora	ado	Ab	breviation: No			
Date: 6/12/		County: <u>Lake</u>			Filename: M4	93-E1005		
User: ACY								
Agency o	r organization nan	ne: DRMS						
HOURLY EQU	IPMENT COST	<u>C</u>		Shift bas	is: <u>1 per day</u>			
			Equipment Descri	ption				
,	Truck Loader Tea							
	T T		Γ 966H high lift					
Supp	port Equipment -L	imp Area: Cat NA	D6T LGP					
Road M	Iaintenance –Moto		Γ 12M					
11044			ter Tanker, 7,000	Gal.				
		-						
Cost Breakdown:		ader Team		Equipment		ce Equipment		
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck		
%Utilization-machine:	100	100	100	NA	100	100		
Ownership cost/hour:	\$108.25	\$57.78	\$99.72	NA	\$69.16	\$73.42		
Operating cost/hour:	\$79.54	\$46.25	\$71.22	NA	\$54.74	\$83.21		
%Utilization-riper:	NA	0	NA	NA	NA	NA		

%Utilization-machine:	100	100	100	NA	100	100
Ownership cost/hour:	\$108.25	\$57.78	\$99.72	NA	\$69.16	\$73.42
Operating cost/hour:	\$79.54	\$46.25	\$71.22	NA	\$54.74	\$83.21
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$25.24	\$36.85	\$38.59	NA	\$27.76	\$21.12
Unit Subtotals:	\$213.03	\$140.88	\$209.53	NA	\$151.66	\$177.75
Number of Units:	9	3	1	0	1	1
Group Subtotals:	Work:	\$2,339.91	Support:	\$209.53	Maint:	\$329.41

Total work team cost/hour: \$2,878.85

MATERIAL QUANTITIES

Initial volume: 692,277 **CCY** Swell factor: 1.215

Loose volume: 841,117 LCY

> Source of estimated volume: TR-37

Source of estimated swell factor: Cat Handbook

> Material Purchase Cost: \$0.00

\$0.00 Total Cost:

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: 1,600 Pounds/LCY Description: Top Soil

Rated Payload: 87,000 Pounds Payload Capacity: 54.38 LCY

Truck Travel (Haul & Return) Time:

maintained 3.0

T 1 D 1 (1) D '						
Truck Bed (volume) Basis: Struck Volume:	24.20 Le	CY				
Heaped Volume:		CY				
Average Volume:		CY				
Adjusted Volume:		CY				
		ased on Number of	I oader Passes:	31.50	LCY	
Loading Tool Capacity	Truck Volume B	asea on rannoer or	Louder 1 asses.		Le i	
Loading 1001 Capacity			Buck	tet Size Class: N	ΙA	
Rated Capacity:	5.000	LCY (heaped)				_
Bucket Fill Factor:	1.050	Moist loam or sa	ndy clay (100%	- 110%) 1.050		_
Adjusted Capacity: _	5.250	LCY				
Job Condition Corrections:	<u>-</u>	Site	e Altitude (ft.): <u>1</u>	<u>1800</u> feet		
	Truck	Loader	Source			
Altitude Adj:	0.600	1.000	(CAT HB)		
Job Efficiency:	0.830	0.830	(CAT HB			
Net Correction:	0.498	0.830				
Loading Tool Cycle Time:	Number o	of Loading Tool Pass	ses Required to l	Fill Truck:	6 1	oasses
Excavators and Front Shovel		Loading 10011 as	ses required to i	m rruck.		Jasses
•		D!				
Machine Cycle Time von Selected Value Value von Selected Value Value von Selected Value von Selected Value von Selected Value v	s. Job Condition I within this Basic I					
Track Loaders -	Material Descrip	tion:				
Cycle Time Elements (min.):						
Load: NA	Maı	neuver: NA		Dump: 0.100)	
Wheel and Track Loaders -	Unadjusted Basi	c Loader Cycle Tim	e (load, dump, n	naneuver):0	0.500 min	utes
Cycle Time Factors				Factor (min.)	Source	
Material:	Mixed material	0.02		0.020	(Cat HB)	_
Stockpile:		zer piled 10 ft. high		0.000	(Cat HB)	_
Truck Ownership:		rship of trucks and l	oaders -0.04	-0.040	(Cat HB)	_
Operation:	Constant operat			-0.040	(Cat HB)	_
Dump Target:	Nominal target		A 11	0.000	(Cat HB)	_
		Net Cycle Time	-	-0.060	_ minutes	
		Adjusted Loade Net Load Ti	ne per Truck:	0.440 2.300	_ minutes minutes	
Truck Cycle Time:			_		_	
Truck Exchange Time	: 0.60	Minutes	Adjusted	for site altitude:	1.000	Minute
Truck Load Time		Minutes	·	for site altitude:	2.300	– Minute
ack Maneuver and Dump Time		Minutes	· ·	for site altitude:	1.667	_ Minute
-			•	=		_

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3326.00	1.40	3.00	4.40	2421	2.256

Haul Time: 2.256 minutes

Return Route:

Ttotalli Ito	rate.					
Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3326.00	-1.40	3.00	1.60	3005	1.245

Return Time: 1.245 minutes
Total Truck Cycle Time: 8.468 minutes

Loading Tool unit

Production _____ 572.73 ___ LCY/Hour Adjusted for job efficiency: _____ 475.36 ___ LCY/Hour Truck Unit Production

_______ LCY/Hour Adjusted for job efficiency: ______ 185.26 LCY/Hour

Optimal No. of Trucks: _____ 3 ___ Truck(s) Selected Number of Trucks: ____ 3 ___ Truck(s)

Adjusted hourly truck team production: 555.77 LCY/Hour Adjusted single truck/loader team production: 475.36 LCY/Hour Adjusted multiple truck/loader team production: 1,426.09 LCY/Hour

JOB TIME AND COST

Fleet size: _____3 Team(s) Total job time: _____589.81 Hours

Unit cost: \$2.019 /LCY Total job cost: **\$1,697,962**

BULLDOZER WORK

Task description:	McNulty O	SF - Grade Tops	oil L		
e: Climax Mine		Permit Action:	2024-06	Permit/Job#:	M1977493
PROJECT IDENT	<u>IFICATION</u>				
Task #: E1006	S	tate: Colorado		Abbreviation:	None
Date: 6/13/202	4 Cou	inty: Lake		Filename:	M493-E1006
User: ACY					
Agency or or	ganization name:	DRMS			
HOURLY EQUIPM	MENT COST				
	Cat D8T - 8SU		<u> </u>		
<u> </u>	310				
-	Semi-Universal				
	NA l per day		<u> </u>		
	(CRG)		<u></u>		
			<u> </u>		
Cost Breakdown:			Utilization %		
Ownership Cost/Hou	r·	\$173.32	NA		
Operating Cost/Hou		\$109.71	100		
Ripper own. Cost/Hou		\$0.00	NA		
Ripper op. Cost/Hou	r:	\$0.00	0		
Operator Cost/Hou	r:	\$38.59	NA		
Total't Coat/Harm	\$221.62				
Total unit Cost/Hour: Total Fleet Cost/Hour:	\$321.62 \$643.23				
Total Fleet Cost/Hour.	φ υ43.23				
MATERIAL QUAN	STITIES				
•					
	30,732				
	000				
Loose volume: 83	30,732 LCY				
Source of estimated vo	olume: TR-	-37			
Source of estimated sw	vell factor: Cat	Handbook			
HOURLY PRODU	<u>CTION</u>				
Average push distance					
Unadjusted hourly pro-	duction: <u>377.8</u>	LCY/hr			
Materials consistency	description: <u>L</u>	oose stockpile 1.2			
Average push gradient Average site altitude:	: -30 % 11,800 feet				
Material weight:	_1,600 lbs/LC	ZY			
Weight description:	Top Soil				
Job Condition Correcti			Source		
	or Skill:	0.750	(AVG.)		
Material cons		1.200	(CAT HB)		
Dozing i		1.000	(GEN.)		
Vi	sibility:	1.000	(AVG.)		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.5478

Adjusted unit production: 584.76 LCY/hr
Adjusted fleet production: 1169.52 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: \$0.550/LCY

Total job time: 710.32 Hours \$456,899

-	Task description: McNulty OSF - Ha		aul Topsoil N St	tockpile			
Site:	e: Climax Mine Permit		it Action: 2024	4-06	Permit/Job#:	M1977493	
<u>]</u>	<u>PROJECT</u>	DENTIFIC	<u>'ATION</u>				
	Task #:	E1007	State:	Colorado		Abbreviation:	None
	Date:	6/12/2024	County:	Lake		Filename:	M493-E1007
	User:	ACY					
<u>]</u>	Agency or organization name: DRM HOURLY EQUIPMENT COST			Shif	t basis: <u>1 per day</u>		
_		Tmiola I a	oader Team -Truck:	Cat 740	i Description		
		TIUCK LC	-Loader:	CAT 966H hi	gh lift		
		Support Faui	pment -Load Area:	Cat D6T LGF			
		Support Equi	-Dump Area:	NA			
	Road Maintenance – Motor Grader:		CAT 12M				
			-Water Truck:	Water Tanker	, 7,000 Gal.		
	Cost Break	down:	Fruck/Loader Team	S	Support Equipment	Mainte	enance Equipment

Cost Breakdown:	Truck/Loa	Truck/Loader Team		Support Equipment		Maintenance Equipment	
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck	
%Utilization-machine:	100	100	100	NA	100	100	
Ownership cost/hour:	\$108.25	\$57.78	\$99.72	NA	\$69.16	\$73.42	
Operating cost/hour:	\$79.54	\$46.25	\$71.22	NA	\$54.74	\$83.21	
%Utilization-riper:	NA	0	NA	NA	NA	NA	
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00	
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00	
Operator cost/hour:	\$25.24	\$36.85	\$38.59	NA	\$27.76	\$21.12	
Unit Subtotals:	\$213.03	\$140.88	\$209.53	NA	\$151.66	\$177.75	
Number of Units:	12	3	1	0	1	1	
Group Subtotals:	Work:	\$2,979.00	Support:	\$209.53	Maint:	\$329.41	

Total work team cost/hour: \$3,517.94

MATERIAL QUANTITIES

Initial volume: <u>1,169,723</u> CCY Swell factor: 1.215

Loose volume: 1,421,213 LCY

> Source of estimated volume: TR-37

Source of estimated swell factor: Cat Handbook

> Material Purchase Cost: \$0.00

> > Total Cost: \$0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: 1,600 Pounds/LCY Top Soil Description:

87,000 Rated Payload: Pounds Payload Capacity: 54.38 LCY

Truck Bed (volume) Basis: Struck Volume:	24.20 L	CY				
Heaped Volume:		CY				
Average Volume:		CY				
Adjusted Volume:	31.40 L	CY				
Final	Truck Volume B	Based on Number of	f Loader Passes:	27.50	LCY	
Loading Tool Capacity						
			Buck	et Size Class: N	A	_
Rated Capacity:	5.000	LCY (heaped)				<u>_</u> ,
Bucket Fill Factor:	1.100		t mixtures (100-	120%) 1.100		_
Adjusted Capacity: _	5.500	LCY				
Job Condition Corrections:	<u>-</u>	Si	te Altitude (ft.): 1	1800 feet		
	Truck	Loader	Source			
Altitude Adj:	0.600	1.000	(CAT HB))		
Job Efficiency:	0.830	0.830	(CAT HB))		
Net Correction:	0.498	0.830				
Loading Tool Cycle Time	Number (of Loading Tool Pa	sses Required to F	ill Truck:	5 r	naccec
Loading Tool Cycle Time: Excavators and Front Shove		of Loading Tool Pa	sses Required to F	ill Truck:		passes
Excavators and Front Shove	<u>ls:</u>	-	sses Required to F	ill Truck:	<u>5</u> p	passes
Excavators and Front Shove Machine Cycle Time v	<u>ls:</u>	Rating: NA	sses Required to F	ill Truck:		passes
Excavators and Front Shove Machine Cycle Time v	ls: s. Job Condition within this Basic	Rating: NA NA NA		ill Truck:	<u>5</u> r	passes
Excavators and Front Shove Machine Cycle Time v Selected Value	ls: s. Job Condition within this Basic Material Descrip	Rating: NA NA NA			<u>5</u> r	passes
Excavators and Front Shove Machine Cycle Time v Selected Value v Track Loaders –	ls: s. Job Condition within this Basic Material Descrip	Rating: NA NA NA				passes
Excavators and Front Shove Machine Cycle Time v Selected Value v Track Loaders – Cycle Time Elements (min.):	ls: s. Job Condition within this Basic Material Descrip Ma	Rating: NA		Dump: 0.100		
Excavators and Front Shove Machine Cycle Time v Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA	ls: s. Job Condition within this Basic Material Descrip Ma: Unadjusted Basi	Rating: NA Rating: NA otion: NA neuver: NA ic Loader Cycle Tir		Dump: 0.100		
Excavators and Front Shove Machine Cycle Time v Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material:	ls: s. Job Condition within this Basic Material Descrip Ma Unadjusted Basi	Rating: NA Rating: NA NA otion: NA neuver: NA ic Loader Cycle Tir	ne (load, dump, n	Dump: 0.100 naneuver): 0. Factor (min.) 0.020	.500 minu Source (Cat HB)	
Excavators and Front Shove Machine Cycle Time v Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile:	ls: s. Job Condition within this Basic Material Descrip Ma: Unadjusted Basic Mixed material Conveyor or do	Rating: NA Rating: NA ption: NA neuver: NA ic Loader Cycle Tir	ne (load, dump, n	Dump: 0.100 naneuver): 0. Factor (min.) 0.020 0.000	.500 minu Source (Cat HB) (Cat HB)	
Excavators and Front Shove Machine Cycle Time v Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership:	ls: s. Job Condition within this Basic Material Descrip Ma: Unadjusted Basic Mixed material Conveyor or do Common owne	Rating: NA Rating: NA Potion: NA Include: N	ne (load, dump, n	Dump: 0.100 naneuver): 0. Factor (min.) 0.020 0.000 -0.040	Source (Cat HB) (Cat HB) (Cat HB)	
Excavators and Front Shove Machine Cycle Time v Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	ls: s. Job Condition within this Basic Material Descrip Material Descrip Material Descrip Material Descrip Material Descrip Constant opera	Rating: NA Rating: NA Pation: NA Rating: NA	ne (load, dump, n	Dump: 0.100 naneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)	
Excavators and Front Shove Machine Cycle Time v Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership:	ls: s. Job Condition within this Basic Material Descrip Ma: Unadjusted Basic Mixed material Conveyor or do Common owne	Rating: NA Rating: NA Potion: NA Include: N	ne (load, dump, m	Dump: 0.100 naneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	Source (Cat HB) (Cat HB)	
Excavators and Front Shove Machine Cycle Time v Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	ls: s. Job Condition within this Basic Material Descrip Material Descrip Material Descrip Material Descrip Material Descrip Constant opera	Rating: NA Rating: NA NA Potion: NA Include: NA Includ	ne (load, dump, mh and up 0.00 loaders -0.04	Dump: 0.100 naneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	
Excavators and Front Shove Machine Cycle Time v Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	ls: s. Job Condition within this Basic Material Descrip Material Descrip Material Descrip Material Descrip Material Descrip Constant opera	Rating: NA Rating: NA NA Potion: NA Include Cycle Tire 1 0.02 Descripted 10 ft. highership of trucks and tion -0.04 1 0.00 Net Cycle Tire Adjusted Load	ne (load, dump, n h and up 0.00 loaders -0.04 ne Adjustment: er Cycle Time:	Dump: 0.100 naneuver): 0. Factor (min.) 0.020 0.000 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	
Excavators and Front Shove Machine Cycle Time v Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	ls: s. Job Condition within this Basic Material Descrip Material Descrip Material Descrip Material Descrip Material Descrip Constant opera	Rating: NA Rating: NA NA Potion: NA Include Cycle Tire 1 0.02 Descripted 10 ft. highership of trucks and tion -0.04 1 0.00 Net Cycle Tire Adjusted Load	ne (load, dump, mh and up 0.00 loaders -0.04	Dump: 0.100 naneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	
Excavators and Front Shove Machine Cycle Time v Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time:	ls: s. Job Condition within this Basic Material Descrip Material Descrip Material Descrip Material Descrip Material Descrip Conadjusted Basic Descrip Mixed material Conveyor or do Common owner Constant operation Nominal target	Rating: NA Rating: NA NA Potion: NA Include Cycle Tire 1 0.02 Descripted 10 ft. highership of trucks and attion -0.04 1 0.00 Net Cycle Tire Adjusted Load Net Load T	ne (load, dump, n h and up 0.00 loaders -0.04 ne Adjustment: er Cycle Time: ime per Truck:	Dump: 0.100 naneuver): 0. Factor (min.) 0.020 0.000 -0.040 0.000 -0.060 0.440 1.860	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	utes
Excavators and Front Shove Machine Cycle Time v Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	ls: s. Job Condition within this Basic Material Descrip Material Descrip Material Descrip Material Descrip Material Descrip Material Descrip Conadjusted Basic Descrip Mixed material Conveyor or do Common owner Constant opera Nominal target Constant Opera Description of the Constant opera Nominal target	Rating: NA Rating: NA NA Potion: NA Include Cycle Tire 1 0.02 Descripted 10 ft. highership of trucks and tion -0.04 1 0.00 Net Cycle Tire Adjusted Load	ne (load, dump, m h and up 0.00 loaders -0.04 ne Adjustment: er Cycle Time: ime per Truck: Adjusted	Dump: 0.100 naneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 1.860 for site altitude:	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes 1.000	
Excavators and Front Shove Machine Cycle Time v Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time:	ls: s. Job Condition within this Basic Material Descrip Material Descrip Material Descrip Material Descrip Material Descrip Material Descrip Constant Descrip Common Owner Constant Opera Nominal target 1 0.60	Rating: NA Rating: NA NA Potion: NA Include Cycle Tire 1 0.02 Descripted 10 ft. highership of trucks and attion -0.04 1 0.00 Net Cycle Tire Adjusted Load Net Load T	ne (load, dump, m h and up 0.00 loaders -0.04 ne Adjustment: er Cycle Time: ime per Truck: Adjusted	Dump: 0.100 naneuver): 0. Factor (min.) 0.020 0.000 -0.040 0.000 -0.060 0.440 1.860	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	utes

<u>Truck Travel (Haul & Return) Time:</u> Road Condition: <u>Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0</u>

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3643.00	8.90	3.00	11.90	764	4.834

Haul Time: 4.834 minutes

Return Route:

Retain Route.						
Seg#	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3643.00	-8.90	3.00	-5.90	3706	1.013

Return Time: 1.013 minutes
Total Truck Cycle Time: 10.374 minutes

Loading Tool unit

Production 576.92 LCY/Hour Adjusted for job efficiency: 478.85 LCY/Hour

Truck Unit Production

159.06 LCY/Hour Adjusted for job efficiency: 132.02 LCY/Hour

Optimal No. of Trucks: 4 Truck(s) Selected Number of Trucks: 4 Truck(s)

Adjusted hourly truck team production: 528.07 LCY/Hour Adjusted single truck/loader team production: 478.85 LCY/Hour Adjusted multiple truck/loader team production: 1,436.54 LCY/Hour

JOB TIME AND COST

Fleet size: 3 Team(s) Total job time: 989.33 Hours

Unit cost: \$2.449 /LCY Total job cost: \$3,480,411

BULLDOZER WORK

Task description:	McNulty 6	OSF - Grade Tops	oil N		
: Climax Mine		Permit Action:	2024-06	Permit/Job#:	M1977493
PROJECT IDEN	NTIFICATION				
Task #: E100	8	State: Colorado		Abbreviation:	None
Date: $\frac{-6/13}{}$		ounty: Lake		Filename:	M493-E1008
User: ACY				-	
Agency or	r organization name	e: DRMS			
HOURLY EQUI	IPMENT COST				
Basic Machine:	Cat D8T - 8SU				
Horsepower:	310				
Blade Type:	Semi-Universal				
Attachment:	NA				
Shift Basis:	1 per day		<u></u>		
Data Source:	(CRG)				
Cost Breakdown:					
			<u>Utilization %</u>		
Ownership Cost/H		\$173.32	NA		
Operating Cost/F		\$109.71	100		
Ripper own. Cost/H		\$0.00	NA		
Ripper op. Cost/F		\$0.00	0		
Operator Cost/F	lour:	\$38.59	NA		
Total unit Cost/Hou	ır: \$321.62				
Total Fleet Cost/Ho					
1014111001 0030110	φοιοίο				
MATERIAL QU	JANTITIES				
Initial Valuma	1,403,668				
Initial Volume: Swell factor:	1,403,668				
Loose volume:	1,403,668 LCY				
-	,				
Source of estimated		R-37			
Source of estimated	swell factor: Ca	at Handbook			
HOURLY PROI	<u>DUCTION</u>				
Average push dista	nce: 250	feet			
Unadjusted hourly		8 LCY/hr			
Materials consisten	cy description:	Loose stockpile 1.2			
Average push gradi Average site altitud		<u>t</u>			
Material weight:	1,600 lbs/L	CY			
Weight description	: Top Soil				
Job Condition Corr	ection Factor		Source		
	erator Skill:	0.750	(AVG.)		
Material c	onsistency:	1.200	(CAT HB)		
Dozi	ng 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: 324.64 LCY/hr
Adjusted fleet production: 649.28 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: \$0.991/LCY

Total job time: **2,161.88** Hours **1,390,590**

Task description: McNulty OSF - Haul Bedding Material										
Site: Climax Mine		Permit Action: 2024-06			Permit/Job#: M	1977493				
PROJECT IDENTIFICATION										
						ne				
· · · · · · · · · · · · · · · · · · ·					Filename: M4	93-E1009				
User: ACY										
Agency or organization name: DRMS										
HOURLY EQUIPMENT COST Shift basis: 1 per day										
			Equipment Descri	ption						
Truck Loader Team -Truck: Cat 740										
-Loader: CAT 966H high lift										
Support Equipment -Load Area: Cat D6T LGP -Dump Area: NA										
Road Maintenance – Motor Grader: CAT 12M										
-Water Truck: Water Tanker, 7,000 Gal.										
										
Cost Breakdown:			Support Equipment		Maintenance Equipment					
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck				
%Utilization-machine:	100	100	100	NA	100	100				
Ownership cost/hour:	\$108.25	\$57.78	\$99.72	NA	\$69.16	\$73.42				
Operating cost/hour:	\$79.54	\$46.25	\$71.22	NA	\$54.74	\$83.21				
%Utilization-riper:	NA	0	NA	NA	NA	NA				

%Utilization-machine:	100	100	100	NA	100	100
Ownership cost/hour:	\$108.25	\$57.78	\$99.72	NA	\$69.16	\$73.42
Operating cost/hour:	\$79.54	\$46.25	\$71.22	NA	\$54.74	\$83.21
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$25.24	\$36.85	\$38.59	NA	\$27.76	\$21.12
Unit Subtotals:	\$213.03	\$140.88	\$209.53	NA	\$151.66	\$177.75
Number of Units:	4	1	1	0	1	1
Group Subtotals:	Work:	\$993.00	Support:	\$209.53	Maint:	\$329.41

Total work team cost/hour: \$1,531.94

MATERIAL QUANTITIES

Initial volume: 42,096 CCY Swell factor: 1.000

Loose volume: 42,096 LCY

Source of estimated volume: TR-37

Source of estimated swell factor: Cat Handbook

Material Purchase Cost: \$0.00

rchase Cost: \$0.00 Total Cost: \$0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: 2,600 Pounds/LCY
Description: Limestone - Broken

Rated Payload: 87,000 Pounds
Payload Capacity: 33.46 LCY

Truck Bed (volume) Basi Struck Volume:		4.20 L	.CY				
Heaped Volume:			.CY				
Average Volume:			.CY				
Adjusted Volume:			.CY				
v							
F	inal Truc	ck Volume B	Based on Number	r of Loader Passes:	28.88	LCY	
Loading Tool Capacity							
				Buc	ket Size Class:	NA	
Rated Capacity	·:	5.000	LCY (heaped	1)	-		
Bucket Fill Factor		0.825		- avg. blasted (75	- 90%) 0.825		
Adjusted Capacity	':	4.125	LCY				_
Job Condition Correcti	ons:			Site Altitude (ft.):	11800 feet		
		uck	Loader	Source	<u>_</u>		
Altitude Adj:		600	1.000	(CAT HE			
Job Efficiency:		830	0.830	(CAT HE			
				(0100 100	- /		
Net Correction:	0.	498	0.830				
Loading Tool Cycle Tin Excavators and Front Sh		Number of	of Loading Tool	Passes Required to	Fill Truck:	7	passes
Excavators and Front Sh Machine Cycle Tin	ovels: ne vs. Jo ue withi	b Condition in this Basic	Rating: NA NA NA	Passes Required to		7	passes
Excavators and Front Sh Machine Cycle Tin Selected Va	ovels: ne vs. Jo ue withi	b Condition in this Basic	Rating: NA NA NA			7	passes
Excavators and Front Sh Machine Cycle Tin Selected Va Track Loade	ovels: ne vs. Jo ue withi	b Condition in this Basic erial Descrip	Rating: NA NA NA			7	passes
Excavators and Front Sh Machine Cycle Tin Selected Va Track Loade Cycle Time Elements (m	ovels: ne vs. Jo ue withi rs – Mate in.):	b Condition in this Basic erial Descrip Ma	Rating: NA Rating: NA otion: NA		Dump: 0.1	100	passes
Excavators and Front Sh Machine Cycle Tin Selected Va Track Loade Cycle Time Elements (m Load: NA	ovels: ne vs. Jo ue withi rs – Mat in.): ers - Una	b Condition in this Basic erial Descrip Ma	Rating: NA Rating: NA otion: NA		Dump: 0.1	100 0.500 mir	
Excavators and Front Sh Machine Cycle Tin Selected Va Track Loade Cycle Time Elements (m Load: NA Wheel and Track Loade	ovels: ne vs. Jo ue withi rs – Mate in.): ers - Una ors nl: Mi	b Condition in this Basic erial Descrip Ma adjusted Basi	Rating: NA Rating: NA otion: NA ineuver: NA ic Loader Cycle 7	Time (load, dump, 1	Dump: 0.1	100 0.500 mir	
Excavators and Front Sh Machine Cycle Tin Selected Va Track Loade Cycle Time Elements (m Load: NA Wheel and Track Loade Cycle Time Factor Materi Stockpi	ovels: ne vs. Jo ue withi rs – Mate in.): ers - Una ors ne vs. Mile: Co	b Condition in this Basic erial Descrip Ma adjusted Basic ixed material onveyor or do	Rating: NA Rating: NA otion: NA ic Loader Cycle 7 10.02 ozer piled 10 ft. h	Time (load, dump, 1	Dump: 0.1 maneuver): Factor (min.) 0.020 0.000	0.500 min Source (Cat HB) (Cat HB)	
Excavators and Front Sh Machine Cycle Tin Selected Va Track Loade Cycle Time Elements (m Load: NA Wheel and Track Loade Cycle Time Facto Materi Stockpi Truck Ownersh	ovels: ne vs. Jo ue withi rs – Mate in.): ers - Una ors al: Mi e: Co p: Co	b Condition in this Basic erial Descrip Ma adjusted Basic ixed material onveyor or dommon owners.	Rating: NA Rating: NA otion: NA ic Loader Cycle 7 10.02 ozer piled 10 ft. hership of trucks a	Time (load, dump, 1	Dump: 0.1 maneuver): Factor (min.) 0.020 0.000 -0.040	0.500 min Source (Cat HB) (Cat HB) (Cat HB)	
Excavators and Front Sh Machine Cycle Tin Selected Va Track Loade Cycle Time Elements (m Load: NA Wheel and Track Loade Cycle Time Facto Materi Stockpi Truck Ownershi Operation	ovels: ne vs. Jo ue withins – Mate in.): ers - Una ers – al: Mi e: Co p: Co n: Co	b Condition in this Basic erial Descrip Ma adjusted Basic ixed material onveyor or do ommon owne	Rating: NA Rating: NA Potion: NA Include: NA Rating: NA Include: NA	Time (load, dump, 1	Dump: 0.1 maneuver): Factor (min.) 0.020 0.000 -0.040 -0.040	0.500 min	
Excavators and Front Sh Machine Cycle Tin Selected Va Track Loade Cycle Time Elements (m Load: NA Wheel and Track Loade Cycle Time Facto Materi Stockpi Truck Ownersh	ovels: ne vs. Jo ue withins – Mate in.): ers - Una ers – al: Mi e: Co p: Co n: Co	b Condition in this Basic erial Descrip Ma adjusted Basic ixed material onveyor or dommon owners.	Rating: NA Rating: NA Potion: NA Inneuver: NA It Loader Cycle To the control of the control of trucks a lation -0.04 It 0.00	Time (load, dump, 1	Dump:0.1 maneuver): Factor (min.)	0.500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	
Excavators and Front Sh Machine Cycle Tin Selected Va Track Loade Cycle Time Elements (m Load: NA Wheel and Track Loade Cycle Time Facto Materi Stockpi Truck Ownershi Operation	ovels: ne vs. Jo ue withins – Mate in.): ers - Una ers – al: Mi e: Co p: Co n: Co	b Condition in this Basic erial Descrip Ma adjusted Basic ixed material onveyor or do ommon owne	Rating: NA Rating: NA NA otion: NA ic Loader Cycle 7 10.02 ozer piled 10 ft. hership of trucks a attion -0.04 to 0.00 Net Cycle 7	Time (load, dump, rangh and up 0.00 nd loaders -0.04	Dump: 0.1 maneuver): Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060	0.500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	
Excavators and Front Sh Machine Cycle Tin Selected Va Track Loade Cycle Time Elements (m Load: NA Wheel and Track Loade Cycle Time Facto Materi Stockpi Truck Ownershi Operation	ovels: ne vs. Jo ue withins – Mate in.): ers - Una ers – al: Mi e: Co p: Co n: Co	b Condition in this Basic erial Descrip Ma adjusted Basic ixed material onveyor or do ommon owne	Rating: NA Rating: NA Potion: NA Include: N	Time (load, dump, 1	Dump:0.1 maneuver): Factor (min.)	0.500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	
Excavators and Front Sh Machine Cycle Tim Selected Val Track Loade Cycle Time Elements (m Load: NA Wheel and Track Loade Cycle Time Factor Materic Stockpi Truck Ownershi Operatio Dump Targ	ovels: ne vs. Jo ue withins – Mate in.): ers - Una ers – al: Mi e: Co p: Co n: Co	b Condition in this Basic erial Descrip Ma adjusted Basic ixed material onveyor or do ommon owne	Rating: NA Rating: NA Potion: NA Include: N	Time (load, dump, 1) nigh and up 0.00 nd loaders -0.04 Fime Adjustment: nader Cycle Time:	Dump: 0.1 maneuver): Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	0.500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	
Excavators and Front Sh Machine Cycle Tim Selected Va Track Loade Cycle Time Elements (m Load: NA Wheel and Track Loade Cycle Time Facto Materi Stockpi Truck Ownershi Operatio Dump Targ	ovels: ne vs. Jo ue withi rs – Mate in.): ers - Una ors al: Mi e: Co p: Co n: Co et: No	b Condition in this Basic erial Descrip Ma adjusted Basic existence of the control of the contr	Rating: NA Rating: NA NA otion: NA ic Loader Cycle of the control of trucks a stion -0.04 to 0.00 Net Cycle of Adjusted Loader Net Loader Net Loader NA Net Loader NA N	Time (load, dump, 1) nigh and up 0.00 nd loaders -0.04 Fime Adjustment: ader Cycle Time: I Time per Truck:	Dump: 0.1 maneuver): Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 2.740	0.500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	nutes
Excavators and Front Sh Machine Cycle Tim Selected Va Track Loade Cycle Time Elements (m Load: NA Wheel and Track Loade Cycle Time Facto Materi Stockpi Truck Ownershi Operatio Dump Targ Truck Cycle Time: Truck Exchange T	ovels: ne vs. Jo ue withins – Mate in.): ers - Una ers – Una ers – Co p: Co n: Co et: No	b Condition in this Basic erial Descrip Ma adjusted Basic existed material proveyor or dominated operation of the constant operation operation of the constant operation oper	Rating: NA Rating: NA Potion: NA Inneuver: NA It Loader Cycle To the control of trucks a lation -0.04 It 0.00 Net Cycle To Adjusted Lo Net Load Minutes	Time (load, dump, 1) nigh and up 0.00 nd loaders -0.04 Time Adjustment: ader Cycle Time: d Time per Truck:	Dump:	0.500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes minutes	nutes
Excavators and Front Sh Machine Cycle Tim Selected Va Track Loade Cycle Time Elements (m Load: NA Wheel and Track Loade Cycle Time Facto Materi Stockpi Truck Ownershi Operatio Dump Targ	ovels: ne vs. Jo ue withi rs – Mate in.): ers - Una ers ne vs. Jo ue withi rs – Mate in.): ers - Una ers - Una ers ne vs. Jo ue withi	b Condition in this Basic erial Descrip Ma adjusted Basic existence of the control of the contr	Rating: NA Rating: NA NA otion: NA ic Loader Cycle of the control of trucks a stion -0.04 to 0.00 Net Cycle of Adjusted Loader Net Loader Net Loader NA Net Loader NA N	Time (load, dump, range) and up 0.00 and loaders -0.04 and range of the control o	Dump: 0.1 maneuver): Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 2.740	0.500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes 1.000 2.740	nutes

<u>Truck Travel (Haul & Return) Time:</u> Road Condition: <u>Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0</u>

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	12566.00	-4.90	3.00	-1.90	3005	4.311

Haul Time: **4.311** minutes Return Route: Travel Haul Distance Grade (%) Roll. Res Total Res Velocity Seg# Time (Ft) (%) (%) (fpm) (min) 12566.00 4.90 3.00 7.90 2155 5.975

Return Time: 5.975 minutes
Total Truck Cycle Time: 15.693 minutes

Loading Tool unit

Production 463.24 LCY/Hour Adjusted for job efficiency: 384.49 LCY/Hour Truck Unit Production 110.40 LCY/Hour Adjusted for job efficiency: 91.63 LCY/Hour

Optimal No. of Trucks: 4 Truck(s) Selected Number of Trucks: 4 Truck(s)

Adjusted hourly truck team production: 366.53 LCY/Hour Adjusted single truck/loader team production: 366.53 LCY/Hour Adjusted multiple truck/loader team production: 366.53 LCY/Hour

JOB TIME AND COST

 Fleet size:
 1
 Team(s)
 Total job time:
 114.85
 Hours

 Unit cost:
 \$4.180
 /LCY
 Total job cost:
 \$175,941

BULLDOZER WORK

Task description	n:	McNulty OSF -	Haul Road (Grading		
e: _Climax Min	ie	Pe	rmit Action:	2024-06	Permit/Job#:	M1977493
PROJECT I	DENTIF!	<u>ICATION</u>				
Task #: H	E1010	State:	Colorado		Abbreviation:	None
	5/17/2024	County:			Filename:	M493-E1010
	ACY				<u>-</u>	
Agen	cy or orgai	nization name:D	PRMS			
HOURLY E	QUIPME	ENT COST				
Basic Mach		t D8T - 8SU				
Horsepov				<u></u>		
Blade Ty		ni-Universal		<u>—</u>		
Attachme				<u> </u>		
Shift Ba Data Sou		er day				
Data Sou	ice. (Cr	(0)		<u></u>		
Cost Breakdow	<u>/n</u> :					
			#150.00	<u>Utilization %</u>		
Ownership Co			\$173.32	NA 100		
Operating Co			\$109.71 \$0.00	100 NA		
Ripper own. Co			\$0.00	NA 0		
Operator C			\$38.59			
Operator Co	JSt/Hour:		\$38.39	NA		
Total unit Cost	/Hour:	\$321.62				
Total Fleet Cos	st/Hour:	\$1,608.08				
						
MATERIAL	OUANT	ITIES				
Initial Volum						
Swell factor						
Loose volum	ie: <u>/9,2</u>	00 LCY				
Source of estin	nated volui	me: TR-37				
Source of estin	nated swell	l factor: Cat Han	dbook			
HOURLY P	RODUC'	<u>ΓΙΟΝ</u>				
A viama da miliah i	distance	250 foot				
Average push of Unadjusted hor		$\frac{250 \text{ feet}}{377.8 \text{ LCY}}$	//br			
· ·	• •					
Materials consi	•		poorly ripped	l or blasted 0.6		
Average push g Average site al		0 % 11,800 feet				
Material weigh	ıt:	2,800 lbs/LCY				
Weight descrip	tion:	Granite - Broken				
Job Condition	<u>Correction</u>	Factor		Source		
	Operator :		0.750	(AVG.)		
	ial consiste		0.600	(CAT HB)		
1	Dozing me		1.000	(GEN.)		
	Visit	oility:	1.000	(AVG.)		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.2760

Adjusted unit production: 104.27 LCY/hr
Adjusted fleet production: 521.35 LCY/hr

JOB TIME AND COST

Fleet size: 5 Dozer(s)
Unit cost: \$3.084/LCY

Total job time: 151.91 Hours
Total job cost: \$244,288

BULLDOZER RIPPING WORK

	Task description:	McN	lulty OSF -Roads - Rippi	ing				
Site:	Climax Mine		Permit Action:	2024-06	Permi	t/Job#:	M197749	93
	PROJECT IDI	ENTIFICATI	<u>ON</u>					
	Task #: E10	011	State: Colorado		Abbrevia	tion:	None	
		7/2024	County: Lake		Filen	_	M493-E1	011
	User: AC	CY	· -			_		
	Agency	or organization	name: DRMS					
	HOURLY EQ	UIPMENT CO	<u>OST</u>					
	Basic 1	Machine: Cat	D7R DS Series II LGP		Horsepower:	2	240	
	Ripper Att	achment: 3-S	hank Ripper	<u> </u>	Shift Basis:	1 pe	er day	
					Data Source:	(C	CRG)	
	Cost Breakdown:	<u>.</u>						
					Utilization %			
		Ownership Co		\$90.24	NA NA			
	Dinn	Operating Co		\$78.95 \$9.25	100 NA			
		er Ownership Co per Operating Co		¢5.20	NA 100			
	Кірі	Operator Co		\$38.59	NA			
		Total Unit Co	·	\$222.23				
		Total Fleet Co	ost/Hour: \$44 4	1.45				
	MATERIAL (<u> </u>					
			Sele	cted estimating	method: Area			
	Alternate Method	<u>1S:</u>						
Seismic:	NA 52.00		Bank Volume:	NA 1.00	BCY 92.90		NA	BCY or CCY
Area:	52.00	acres	1 1 1 7	1.00	Volume:83,89	93		BC 1 or CC 1
		Source of estin	nated quantity: TR-37					
	HOURLY PRO	<u>ODUCTION</u>						
	Seismic:							
		;	Seismic Velocity:	NA	feet/second			
	Area:							
			ge Ripping Depth:	2.45	feet/pass			
			e Ripping Width:	6.50	feet/pass			
		_	Ripping Length:	250.00	feet/pass			
			age Dozer Speed:	88.00	feet/minute			
		_	Maneuver Time:tion per unit area:	0.25 0.724	minutes/pass acres/hour	8		
	Joh Condition Co		•	0.724	acres/fiour			
	Job Condition Co			0.73:	. ~			
	Un	adjusted Hourly	Unit Production:	0.724	Acres/hr			
			Site Altitude:	11,800	feet			
			Altitude Adj:	1.00	(CAT HB)			
			Job Efficiency: Net Correction:	0.83	(1 shift/day) multiplier			
			Hourly Unit Production:	0.60	Acres/hr			
		· ·	Hourly Fleet Production:	1.20	Acres/hr			
	JOB TIME AN	ND COST						
	Fleet size:	2	Grader(s)	Total job time	e: 43.26	<u> </u>	Но	ırs
	Unit cost:	\$369.738	Per acre	Total job cos	st: \$19,2 2	6		
			=	J = = = 0.0				

	Construct Water Conveyances									
	Cost/Unit Total Cost									
Task #		Area	Description	Task Type	Quant Unit					Key Assumptions
	109.16	McNulty OSF	Outslope Channels	Excavate diversion/spillway	92,897 CY	\$	3.66	\$	340,003	Vegetated bench channels every 55 ft
			Clean Water Surface Channel	Excvate Diversion/Spillway	42,784 CY	\$	3.66	\$	156,589	
	109.1	McNulty OSF	Rip Rap	Rip Rap Armoring	19,163 CY	\$	74.40	\$	1,425,727	Above Mcnulty to open channel to ESC
	109.1	McNulty OSF	Bedding for Riprap Placed	Drain Rock	22,934 CY	\$	73.88	\$	1,694,364	Above Mcnulty to open channel to ESC
	109.13	McNulty OSF	Impacted Water Pipeline	30" Corrugated HDPE Installed	1,300 LF	\$	78.33	\$	101,829	
	109.14	McNulty OSF	Impacted Water Collection Drains	Excvate Diversion/Spillway	3,400 CY	\$	3.66	\$	12,444	
		McNulty OSF	Geotextiles		11,868 SY	\$	2.35	\$	27,890	
		McNulty OSF	Drain Rock	Drain Rock	3,400 CY	\$	73.88	\$	251,192	
		McNulty OSF	Impacted Water Drain Pipe	Perforated Pipe	3,400 LF	\$	15.87	\$	53,958	
		McNulty OSF	Downdrops	Excvate Diversion/Spillway	15,411 CY	\$	3.66	\$	56,404	
	109.15	McNulty OSF	ACB		245,088 SF	\$	63.70	\$	15,612,106	
		McNulty OSF	Outslope Channels	Excvate Diversion/Spillway	92,897 CY	\$	3.66	\$	340,003	
E2001		McNulty OSF	Hydrologic Protection					\$	20,072,509	

REVEGETATION WORK

: Climax Mine	Permit A	eg - Alpine Action:2024	-06	Permit/Job#	: <u>M1977493</u>
PROJECT IDENTIFIC	ATION				
Task #: <u>E3001</u>		lorado			None
Date: 8/19/2024 User: ACY	County: La	ke		Filename:	M493-E3001
Agency or organiz	ration name: <u>DRMS</u>				
FERTILIZING					
Materials		Units /			
Description		Acre	Unit	Cost / Unit	Cost /Acre
				\$	\$
				Total Fertilizer Materials Cost/Acre	\$0.00
Application Description					Cost /Acre
Description					\$
		Total	l Fertilizer A	Application Cost/Acre	\$0.00
<u> </u>					
					Cost /Acre
Description					
Description Disc harrowing, 6" deep	(MEANS 32 91 13.23	6100)			\$117.61

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Alpine Bluegrass	0.44	10.10	\$10.53
Alpine Fescue	1.30	38.80	\$23.51
Cinquefoil, Slender	0.06	5.85	\$29.44
Currant, Wax	0.40	1.38	\$27.75
Rocky Mountain Fescue	0.68	10.93	\$7.33
Lupine, Silver	0.70	0.41	\$83.69
Slender Wheatgrass - Native	2.74	10.00	\$19.36
Thurber's Fescue	0.18	1.86	\$14.13
Flax, Lewis Blue	0.86	5.70	\$36.38
Timothy, Alpine - Native	0.34	10.15	\$13.32

Tufted Hairgrass	0.34	19.51	\$9.68
Yarrow, White	0.10	6.36	\$7.34
Totals Seed Mix	8.14	121.05	\$282.45

Application

Description		Cost /Acre
Hydro seeding (MEANS 32 92 19.14 0200)		\$1,359.07
	Total Seed Application Cost/Acre	\$1,359.07

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Hydromulch tackifier, >15 ac. {Materials Only}	1.00	ACRE	\$1,459.26	\$1,459.26
Total Mulch Materials Cost/Acre				\$1,459.26

Application

Description		Cost /Acre
NA-mulch application incl. with hydroseeding		\$0.00
	Total Mulch Application Cost/Acre	\$0.00

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
		Totals :	Nursery Stoc	k Cost / Acre	\$0.00

JOB TIME AND COST

 No. of Acres:
 683
 Cost /Acre:
 \$3,218.39

 Estimated Failure Rate:
 10%
 Cost /Acre*:
 \$3,100.78

*Selected Replanting Work Items: SEEDING,MULCHING

Initial Job Cost: \$2,198,160.37

Reseeding Job Cost: \$211,783.27

Total Job Cost: \$2,409,944

751.30

TRUCK/LOADER TEAM WORK

,	Γask description:	Tenmile	TSF - Hau	ıling '	Горsoil 30				
Site:	Climax Mine		Permi	t Acti	on: 2024-06		Permit/Job#:	M1977493	
]	PROJECT IDE	NTIFICATION	[
	User: ACY	/2024	County:	Colora Lake	ado	Ab	obreviation: _ Filename: _	None M493-F100	01
Agency or organization name: DRMS HOURLY EQUIPMENT COST Shift basis: 1 per day								_	
_		Truck Loader Tea	Т		Equipment Descri 740	ption			_
		Truck Loader Tea	m - i ruck: -Loader:		T 966H high lift				_
	Sun	port Equipment -L			D6T LGP				_
	Sup		amp Area:	NA					_
_	Road N	Maintenance – Mot			T 12M				_
	11044		ter Truck:		ter Tanker, 7,000	Gal.			_
	Cost Breakdown:	Truck/Loa	ader Team		Support I	Equipment	Mainte	enance Equip	ment
	_	Truck	Loader		Load Area	Dump Area	Motor Grad	der Water	Truck
%Util	ization-machine:	100		100	100	NA	1	.00	100
Own	ership cost/hour:	\$108.25	\$5	7.78	\$99.72	NA	\$69.	.16	\$73.42
	erating cost/hour:	\$79.54	\$4	6.25	\$71.22	NA	\$54.	.74	\$83.21
	Utilization-riper:	NA		0	NA	NA	ı	NA	NA

\$0.00

\$0.00

\$38.59

\$209.53

Support:

NA

NA

NA

NA

\$209.53

0

\$0.00

\$0.00

\$27.76

\$151.66

Maint:

1

\$0.00

\$0.00

\$21.12

\$177.75

\$329.41

1

Total work team cost/hour: \$2,878.85

MATERIAL QUANTITIES

Initial volume: 499,109 CCY Swell factor: 1.215

\$0.00

\$0.00

\$36.85

\$140.88

\$2,339.91

3

Loose volume: **606,417** LCY

NA

NA

\$25.24

\$213.03

Work:

Source of estimated volume: Division of Reclamation, Mining & Safety

Source of estimated swell factor: Cat Handbook

Material Purchase Cost: \$0.00

Total Cost: \$0.00

HOURLY PRODUCTION

Truck Capacity:

Ripper own. cost/hour:

Ripper op. cost/hour:

Operator cost/hour:

Unit Subtotals:

Number of Units:

Group Subtotals:

Truck Payload (weight) Basis:

Material weight: 1,600 Pounds/LCY

Description: Top Soil
Rated Payload: 87,000 Pounds
Payload Capacity: 54.38 LCY

Truck Bed (volume) Basis: Struck Volume:	24.20	LCY				
Heaped Volume:	31.40	LCY				
Average Volume:	27.80	LCY				
Adjusted Volume:	31.40	LCY				
Fin	al Truck Volum	e Based on Number	r of Loader Passes:	31.50	LCY	
Loading Tool Capacity						
			Buc	ket Size Class: _	NA	_
Rated Capacity:	5.000	LCY (heaped				_
Bucket Fill Factor:	1.050	Moist loam o	or sandy clay (100%	- 110%) 1.050		=
Adjusted Capacity:	5.250	LCY				
Job Condition Correction	ıs:		Site Altitude (ft.):	11000 feet		
	Truck	Loader	Source			
Altitude Adj:	0.600	1.000	(CAT HI	3)		
Job Efficiency:	0.830	0.830	(CAT HI	3)		
Net Correction:	0.498	0.830				
Looding Tool Cycle Time						
Loading Tool Cycle Time	i Numbe	er of Loading Tool	Passes Required to	Fill Truck:	6 r	asses
Excavators and Front Show		er of Loading 1001	Passes Required to	Fill Truck:	<u> </u>	oasses
Excavators and Front Short	vels:		Passes Required to	Fill Truck:	<u> 6 </u>	oasses
Excavators and Front Show	vels:	on Rating: NA	Passes Required to	Fill Truck:	<u>6</u> F	oasses
Excavators and Front Show Machine Cycle Time Selected Value	v <u>els:</u> vs. Job Condition	on Rating: NA sic Rating: NA	Passes Required to		<u>6</u> F	oasses
Excavators and Front Show Machine Cycle Time Selected Value	vels: vs. Job Condition within this Base Material Desc	on Rating: NA sic Rating: NA			<u>6</u> F	passes
Excavators and Front Show Machine Cycle Time Selected Value Track Loaders	vels: vs. Job Condition within this Base Material Descent:	on Rating: NA sic Rating: NA				passes
Excavators and Front Show Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min Load: NA	vels: vs. Job Condition within this Base Material Desc :):	on Rating: NA sic Rating: NA cription: NA		Dump: 0.10		passes
Excavators and Front Show Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min	vels: vs. Job Condition within this Base Material Desc :):	on Rating: NA sic Rating: NA cription: NA		Dump: 0.10		
Excavators and Front Show Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loaders Cycle Time Factors	vels: vs. Job Condition within this Base Material Descent:): s - Unadjusted Base	on Rating: NA sic Rating: NA cription: NA Maneuver: NA Basic Loader Cycle		Dump: 0.10 maneuver): Factor (min.)	00 0.500 minu Source	
Excavators and Front Show Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loaders Cycle Time Factors Material	vels: vs. Job Condition within this Base — Material Desc.): s - Unadjusted Base Mixed mate	on Rating: NA sic Rating: NA cription: NA Basic Loader Cycle rial 0.02	Time (load, dump, 1	Dump: 0.10 maneuver): Factor (min.) 0.020	00 minu Source (Cat HB)	
Excavators and Front Show Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loaders Cycle Time Factors Material Stockpile	vels: vs. Job Condition within this Base — Material Desc a): s - Unadjusted Base Mixed mate Conveyor of	on Rating: NA sic Rating: NA eription: Maneuver: NA sasic Loader Cycle rial 0.02 r dozer piled 10 ft. 1	Time (load, dump, a	Dump: 0.10 maneuver): Factor (min.) 0.020 0.000	00 minu Source (Cat HB) (Cat HB)	
Excavators and Front Show Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loaders Cycle Time Factors Material Stockpile Truck Ownership	vels: vs. Job Condition within this Base — Material Desc a): s - Unadjusted B Mixed mate Conveyor of Common ow	on Rating: NA sic Rating: NA eription: Maneuver: NA sasic Loader Cycle rial 0.02 r dozer piled 10 ft. I wnership of trucks a	Time (load, dump, a	Dump: 0.10 maneuver): Factor (min.) 0.020 0.000 -0.040	00 minu Source (Cat HB) (Cat HB) (Cat HB)	
Excavators and Front Show Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loaders Cycle Time Factors Material Stockpile Truck Ownership Operation	vels: vs. Job Condition within this Base — Material Desc a): S - Unadjusted B Mixed mate Conveyor or Common ov Constant op	on Rating: NA sic Rating: NA cription: NA cr	Time (load, dump, a	Dump: 0.10 maneuver):	00 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)	
Excavators and Front Show Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loaders Cycle Time Factors Material Stockpile Truck Ownership	vels: vs. Job Condition within this Base — Material Desc a): S - Unadjusted B Mixed mate Conveyor or Common ov Constant op	on Rating: NA sic Rating: NA cription: NA cr	Time (load, dump, manager) high and up 0.00 and loaders -0.04	Dump: 0.10 maneuver): Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	00 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	
Excavators and Front Show Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loaders Cycle Time Factors Material Stockpile Truck Ownership Operation	vels: vs. Job Condition within this Base — Material Desc a): S - Unadjusted B Mixed mate Conveyor or Common ov Constant op	on Rating: NA sic Rating: NA Pription: NA Pr	Time (load, dump, shigh and up 0.00 and loaders -0.04	Dump: 0.10 maneuver): Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060	00	
Excavators and Front Show Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loaders Cycle Time Factors Material Stockpile Truck Ownership Operation	vels: vs. Job Condition within this Base — Material Desc a): S - Unadjusted B Mixed mate Conveyor or Common ov Constant op	on Rating: NA sic Rating: NA Pription: National Nation	Time (load, dump, manager) high and up 0.00 and loaders -0.04	Dump: 0.10 maneuver): Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	00 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	
Excavators and Front Show Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loaders Cycle Time Factors Material Stockpile Truck Ownership Operation	vels: vs. Job Condition within this Base — Material Desc a): S - Unadjusted B Mixed mate Conveyor or Common ov Constant op	on Rating: NA sic Rating: NA Pription: National Nation	Time (load, dump, a high and up 0.00 and loaders -0.04 Time Adjustment: bader Cycle Time:	Dump: 0.10 maneuver): Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	00	
Excavators and Front Show Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loaders Cycle Time Factors Material Stockpile Truck Ownership Operation Dump Target	vels: vs. Job Condition within this Base — Material Description: s - Unadjusted Base Mixed mate Conveyor or Common ov Constant op Nominal tar	on Rating: NA sic Rating: NA Pription: National Nation	Time (load, dump, and loaders -0.04 Time Adjustment: bader Cycle Time: d Time per Truck:	Dump: 0.10 maneuver): Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	00	
Excavators and Front Show Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loaders Cycle Time Factors Material Stockpile Truck Ownership Operation Dump Target	vels: vs. Job Condition within this Base — Material Desc a): s - Unadjusted B Mixed mate — Conveyor or — Common ov — Constant op — Nominal tar ne: 0.60	on Rating: NA Sic Rating: NA Pription: National	Time (load, dump, many dump), and loaders -0.04 Time Adjustment: bader Cycle Time: di Time per Truck:	Dump: 0.10 maneuver): Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 2.300	O.500 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	utes
Excavators and Front Show Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loaders Cycle Time Factors Material Stockpile Truck Ownership Operation Dump Target: Truck Cycle Time: Truck Exchange Time	vels: vs. Job Condition within this Base — Material Description: s - Unadjusted B Mixed mater Conveyor or Common ov Constant op Nominal tar ne: 0.60 2.300	on Rating: NA sic Rating: NA cription: Maneuver: NA Basic Loader Cycle or dozer piled 10 ft. It wnership of trucks a cration -0.04 creation	Time (load, dump, and loaders -0.04 Time Adjustment: bader Cycle Time: d Time per Truck: Adjusted Adjusted	Dump: 0.10 maneuver): Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 2.300 for site altitude:	00	ntes

<u>Truck Travel (Haul & Return) Time:</u> Road Condition: <u>Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0</u>

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4910.00	-0.09	3.00	2.91	3005	2.379

Task # F1001

Haul Time: 2.379 minutes

Return Route:

recturn rec	rute.					
Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4910.00	0.09	3.00	3.09	3005	1.803

Return Time: 1.803 minutes
Total Truck Cycle Time: 9.149 minutes

Loading Tool unit

Production _____572.73 LCY/Hour Adjusted for job efficiency: ____475.36 LCY/Hour

Truck Unit Production

206.59 LCY/Hour Adjusted for job efficiency: 171.47 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 514.40 LCY/Hour Adjusted single truck/loader team production: 475.36 LCY/Hour Adjusted multiple truck/loader team production: 1,426.09 LCY/Hour

JOB TIME AND COST

Fleet size: 3 Team(s) Total job time: 425.23 Hours

Unit cost: \$2.019 /LCY Total job cost: \$1,224,175

BULLDOZER WORK

Task description:	Tenmile TSF - T	Topsoil Grad	ing 30		
Climax Mine	Pei	mit Action:	2024-06	Permit/Job#:	M1977493
PROJECT IDENTIFI	CATION				
Task #: F1002	State:	Colorado		Abbreviation:	None
Date: $\frac{11002}{6/13/2024}$	County:	Lake		Filename:	M493-F1002
User: $\frac{6/13/2024}{ACY}$	County.	Lake		i nename.	WI+75-1 1002
		D) (G			
Agency or organ	ization name: D	RMS			
HOURLY EQUIPME	NT COST				
	D8T - 8SU		<u> </u>		
Horsepower: 310					
• • • • • • • • • • • • • • • • • • • •	ni-Universal		<u> </u>		
Attachment: NA			<u>—</u>		
	er day				
Data Source: (CR	.G)		_		
Cost Breakdown:			Itilization 0/		
Ownership Cost/Hour:		\$173.32	<u>Utilization %</u> 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				
MATERIAL QUANT	ITIES				
Initial Volume: 598,9 Swell factor: 1.000					
	931 LCY				
Source of estimated volum Source of estimated swell		dhook			
		1000K			
HOURLY PRODUCT	<u>'ION</u>				
Average push distance:	250 feet				
Unadjusted hourly produc	etion: <u>377.8 LCY</u>	/hr			
Materials consistency des	cription: Loose	stockpile 1.2			
Average push gradient:	0 %				
Average site altitude:	11,000 feet				
Material weight:	1,600 lbs/LCY				
Weight description:	Top Soil				
Job Condition Correction			Source		
Operator S		.750	(AVG.)		
Material consiste		.200	(CAT HB)		
Dozing met		.000	(GEN.)		
Visib	ılıty:1	.000	(AVG.)		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.9668

Adjusted unit production: 365.26 LCY/hr
Adjusted fleet production: 1826.3 LCY/hr

JOB TIME AND COST

Fleet size: 5 Dozer(s)
Unit cost: \$0.881/LCY

Total job time: 327.95 Hours 527,365

TRUCK/LOADER TEAM WORK

Climax Mine Permi	t Action: 2024-06	Permit/Job#:	M1977493
PROJECT IDENTIFICATION			
	Colorado Lake	Abbreviation: Filename:	None M493-F1003
	1S		
		Shift basis: <u>1 per day</u>	
Agency or organization name: DRM		Shift basis: <u>1 per day</u>	
Agency or organization name: DRM HOURLY EQUIPMENT COST	Equipment Description	Shift basis: 1 per day	
Agency or organization name:DRM_HOURLY EQUIPMENT COST_ Truck Loader Team -Truck:	Equipment Description Cat 740	Shift basis: <u>1 per day</u>	
Agency or organization name:DRM. HOURLY EQUIPMENT COST Truck Loader Team -Truck: -Loader:	Equipment Description Cat 740 CAT 966H high lift	Shift basis: <u>1 per day</u>	
Agency or organization name: DRM HOURLY EQUIPMENT COST Truck Loader Team -Truck: -Loader: Support Equipment -Load Area:	Equipment Description Cat 740 CAT 966H high lift Cat D6T LGP	Shift basis: <u>1 per day</u>	

Cost Breakdown:	Truck/Loa	ader Team	Support 1	Equipment			
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck	
%Utilization-machine:	100	100	100	NA	100	100	
Ownership cost/hour:	\$108.25	\$57.78	\$99.72	NA	\$69.16	\$73.42	
Operating cost/hour:	\$79.54	\$46.25	\$71.22	NA	\$54.74	\$83.21	
%Utilization-riper:	NA	0	NA	NA	NA	NA	
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00	
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00	
Operator cost/hour:	\$25.24	\$36.85	\$38.59	NA	\$27.76	\$21.12	
Unit Subtotals:	\$213.03	\$140.88	\$209.53	NA	\$151.66	\$177.75	
Number of Units:	6	3	1	0	1	1	
Group Subtotals:	Work:	\$1,700.82	Support:	\$209.53	Maint:	\$329.41	

Total work team cost/hour: \$2,239.76

MATERIAL QUANTITIES

Initial volume: 200,000 CCY Swell factor: 1.215

Loose volume: 243,000 LCY

Source of estimated volume: TR-37

Source of estimated swell factor: Cat Handbook

Material Purchase Cost: \$0.00

Total Cost: \$0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight:1,600Pounds/LCYDescription:Top SoilRated Payload:87,000PoundsPayload Capacity:54.38LCY

Truck Travel (Haul & Return) Time:

maintained 3.0

Track Loaders Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time: Truck Exchange Time Truck Load Time	Decide to the control of the control	Maneuver: NA Basic Loader Cycle Timerial 0.02 r dozer piled 10 ft. high vnership of trucks and eration -0.04 get 0.00 Net Cycle Timerial Adjusted Loader	and up 0.00 loaders -0.04 e Adjustment: er Cycle Time: me per Truck:	Dump: 0.100 naneuver): 0.100 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 2.300 for site altitude: for site altitude:	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes 1.000 2.300	Mint
Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time:	- Unadjusted B Mixed mate Conveyor or Common ov Constant op Nominal tar	Maneuver: NA Basic Loader Cycle Timerial 0.02 r dozer piled 10 ft. high vnership of trucks and eration -0.04 get 0.00 Net Cycle Timerial Adjusted Loader Net Load Timerial 0.00	and up 0.00 loaders -0.04 e Adjustment: er Cycle Time: me per Truck:	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 2.300	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	-
Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	- Unadjusted B Mixed mate Conveyor of Common ov Constant op	Maneuver: NA Basic Loader Cycle Timerial 0.02 r dozer piled 10 ft. high vnership of trucks and eration -0.04 get 0.00 Net Cycle Timerial Adjusted Loader	and up 0.00 loaders -0.04 e Adjustment:	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	ites
Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	- Unadjusted B Mixed mate Conveyor of Common ov Constant op	Maneuver: NA Basic Loader Cycle Timerial 0.02 r dozer piled 10 ft. high vnership of trucks and eration -0.04 get 0.00 Net Cycle Timerial Adjusted Loader	and up 0.00 loaders -0.04 e Adjustment:	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	ntes
Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	- Unadjusted B Mixed mate Conveyor of Common ov Constant op	Maneuver: NA Basic Loader Cycle Tin rial 0.02 r dozer piled 10 ft. high vnership of trucks and eration -0.04 get 0.00	n and up 0.00 loaders -0.04	naneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	- Unadjusted B Mixed mate Conveyor of Common ov Constant op	Maneuver: NA Basic Loader Cycle Tin rial 0.02 r dozer piled 10 ft. high vnership of trucks and eration -0.04	n and up 0.00	Factor (min.) 0.020 0.000 -0.040 -0.040	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership:	- Unadjusted B Mixed mate Conveyor or Common ov	Maneuver: NA Basic Loader Cycle Tin rial 0.02 r dozer piled 10 ft. high vnership of trucks and	n and up 0.00	Factor (min.) 0.020 0.000 -0.040	Source (Cat HB) (Cat HB) (Cat HB)	ntes
Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile:): - Unadjusted B Mixed mate Conveyor or	Maneuver: NA Basic Loader Cycle Tin rial 0.02 r dozer piled 10 ft. high	n and up 0.00	naneuver): 0.020 0.000	Source (Cat HB) (Cat HB)	utes
Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors Material:): - Unadjusted B Mixed mate	Maneuver: NA Basic Loader Cycle Tin		naneuver): 0.020	Source (Cat HB)	utes
Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors): I Unadjusted B	Maneuver: NA Basic Loader Cycle Tin	ne (load, dump, r	naneuver): 0	.500 minu	ıtes
Cycle Time Elements (min. Load: NA Wheel and Track Loaders): - Unadjusted B	Maneuver: NA	ne (load, dump, r	naneuver):0	.500 minu	ıtes
Cycle Time Elements (min.):	-		Dump:0.100)	
		приоп.				
Track Loaders	- Material Desc	puon				
	Material Deco	rintion:				
Selected Value	within this Bas					
Machine Cycle Time						
Excavators and Front Shov	els:					
Loading Tool Cycle Time	: Numb	er of Loading Tool Pas	ses Required to	Fill Truck:	6 p	asses
Net Correction:	0.498	0.830				
Job Efficiency.	0.030	0.630	(CAI III	,		
Job Efficiency:	0.830	0.830	(CAT HB	,		
Altitude Adj:	Truck 0.600	Loader 1.000	Source (CAT HB)		
JOD COHUHUUH COFFECUOH				. 1000 IEEI		
Job Condition Correction	g•	Ç;,	e Altitude (ft.): 1	1000 foot		
Adjusted Capacity:	5.250	LCY				
Bucket Fill Factor:	1.050	Moist loam or sa	andy clay (100%	- 110%) 1.050		_
Rated Capacity:	5.000	LCY (heaped)	_ ~~	<u> </u>		_
Boung roof cupucity			Bucl	tet Size Class: N	A	
Loading Tool Capacity						
Fina	al Truck Volum	e Based on Number of	Loader Passes:	31.50	LCY	
	31.40	LCY				
Adjusted volume: _	27.80 31.40	LCY				
Average Volume: _ Adjusted Volume: _						
Heaped Volume: _Average Volume: _Adjusted Volume: _	31.40	LCY				

CIRCES Cost Estimating Software

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1478.00	-1.10	3.00	1.90	3005	0.936

Haul Time: 0.936 minutes

Return Route:

recturn rec	rate.					
Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1478.00	1.10	3.00	4.10	3005	0.692

Return Time: 0.692 minutes
Total Truck Cycle Time: 6.595 minutes

Loading Tool unit

Production 572.73 LCY/Hour Adjusted for job efficiency: 475.36 LCY/Hour

Truck Unit Production

286.60 LCY/Hour Adjusted for job efficiency: 237.87 LCY/Hour

Optimal No. of Trucks: 2 Truck(s) Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 475.75 LCY/Hour Adjusted single truck/loader team production: 475.36 LCY/Hour Adjusted multiple truck/loader team production: 1,426.09 LCY/Hour

JOB TIME AND COST

Fleet size: 3 Team(s) Total job time: **170.40** Hours

Unit cost: \$1.571 /LCY Total job cost: \$381,646

BULLDOZER WORK

Task description:	=	Tenmile 151	F - Topsoil Grad	ing 50		
: Climax Mine			Permit Action:	2024-06	Permit/Job#:	M1977493
PROJECT IDEN	NTIFI(<u>CATION</u>				
Task #: F100 Date: 6/13/ User: ACY	2024	Sta Cour	ate: Colorado tty: Lake		Abbreviation: Filename:	None M493-F1004
		zation name:	DRMS			
HOURLY EQUI	IPMEN	T COST				
Basic Machine:		08T - 8SU		_		
Horsepower: Blade Type:	310 Semi	-Universal		<u> </u>		
Attachment:	NA	-Oniversal				
Shift Basis: Data Source:	1 per					
Cost Breakdown:		,		Titilization 0/		
Ownership Cost/H	lour.		\$173.32	<u>Utilization %</u> NA		
Operating Cost/F			\$109.71	100		
Ripper own. Cost/F			\$0.00	NA		
Ripper op. Cost/H	Hour:		\$0.00	0		
Operator Cost/F	lour:		\$38.59	NA		
Total unit Cost/Hot Total Fleet Cost/Hot	_	\$321.62 \$643.23				
MATERIAL QU	JANTI'	<u>TIES</u>				
Initial Volume:	240,00	00				
Swell factor:	1.000					
Loose volume:	240,00	O LCY				
Source of estimated		JO LC I				
Source of estimated		e: <u>TR-3</u>	37 Handbook			
HOURLY PROD	d swell f	e: TR-3 Factor: Cat I				
	d swell f DUCTI nce:	e: <u>TR-3</u> Cat I	Handbook et			
HOURLY PROI	I swell f DUCTI nce: producti	e: TR-3 Cat I CON 250 fee 377.8 I	Handbook et			
HOURLY PROD Average push dista Unadjusted hourly	DUCTI nce: producti cy descrient: _	e: TR-3 Cat I CON 250 fee 377.8 I	Handbook et LCY/hr			
HOURLY PROD Average push dista Unadjusted hourly Materials consisten Average push gradi	DUCTI nce: producti cy descrient: _	e: TR-3 Cat I CON 250 fee ion: 377.8 I ciption: Lo	Handbook et LCY/hr cose stockpile 1.2			
HOURLY PROD Average push dista Unadjusted hourly Materials consisten Average push gradi Average site altitud	DUCTI nce: producti cy descrient: le:	e: TR-3 Cat I Con 250 fee 377.8 I cription: Lo 0 % 11,000 feet	Handbook et LCY/hr cose stockpile 1.2			
HOURLY PROD Average push dista Unadjusted hourly Materials consisten Average push gradi Average site altitud Material weight: Weight description Job Condition Corr	DUCTI nce: producti cy descr ient: le: - : ection F	e: TR-3 Factor: 250 fee ion: 377.8 I ription: Lo 0 % 11,000 feet 1,600 lbs/LCY Top Soil	Handbook et LCY/hr cose stockpile 1.2	Source		
HOURLY PROD Average push dista Unadjusted hourly Materials consisten Average push gradi Average site altitud Material weight: Weight description Job Condition Corr Ope	DUCTI nce: producti cy descrient: le: : cection Ferator Sk	e: TR-3 Factor: 250 fee ion: 377.8 I ription: Lo 0 % 11,000 feet 1,600 lbs/LCY Top Soil Factor cill:	Handbook et LCY/hr cose stockpile 1.2	Source (AVG.)		
HOURLY PROD Average push dista Unadjusted hourly Materials consisten Average push gradi Average site altitud Material weight: Weight description Job Condition Corr Ope Material c	DUCTI nce: producti cy descrient: le: : cection Ferator Sk	e: TR-3 Factor: 250 fee fion: 377.8 I ription: Lo 11,000 feet 1,600 lbs/LCY Top Soil Factor Kill: Loy:	Handbook et LCY/hr cose stockpile 1.2	Source		

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: 324.64 LCY/hr
Adjusted fleet production: 649.28 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: \$0.991/LCY

TRUCK/LOADER TEAM WORK

Climax Mine Perm	it Action: _2024-06	Permit/Job#:	M1977493
PROJECT IDENTIFICATION			
Task #: F1005 State:	Colorado	Abbreviation:	None
Date: 6/12/2024 County:	Lake	Filename:	M493-F1005
User: ACY			
Agency or organization name: <u>DRN</u> HOURLY EQUIPMENT COST	MS	Shift basis: 1 per day	
Agency or organization name:DRM HOURLY EQUIPMENT COST	MS Equipment Description	Shift basis: 1 per day	
	Equipment Description	Shift basis: 1 per day	
HOURLY EQUIPMENT COST	Equipment Description Cat 740	Shift basis: 1 per day	
HOURLY EQUIPMENT COST Truck Loader Team -Truck:	Equipment Description Cat 740 CAT 966H high lift	Shift basis: 1 per day	
HOURLY EQUIPMENT COST Truck Loader Team -Truck: -Loader:	Equipment Description Cat 740 CAT 966H high lift Cat D6T LGP	Shift basis: 1 per day	
HOURLY EQUIPMENT COST Truck Loader Team -Truck: -Loader: Support Equipment -Load Area:	Equipment Description Cat 740 CAT 966H high lift Cat D6T LGP NA	Shift basis: 1 per day	

Cost Breakdown:	Truck/Loader Team		Support I	Equipment	Maintenance Equipment		
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck	
%Utilization-machine:	100	100	100	NA	100	100	
Ownership cost/hour:	\$108.25	\$57.78	\$99.72	NA	\$69.16	\$73.42	
Operating cost/hour:	\$79.54	\$46.25	\$71.22	NA	\$54.74	\$83.21	
%Utilization-riper:	NA	0	NA	NA	NA	NA	
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00	
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00	
Operator cost/hour:	\$25.24	\$36.85	\$38.59	NA	\$27.76	\$21.12	
Unit Subtotals:	\$213.03	\$140.88	\$209.53	NA	\$151.66	\$177.75	
Number of Units:	15	3	1	0	1	1	
Group Subtotals:	Work:	\$3,618.09	Support:	\$209.53	Maint:	\$329.41	

Total work team cost/hour: \$4,157.03

MATERIAL QUANTITIES

Initial volume: _ 1,012,923 **CCY** Swell factor: 1.215

Loose volume: ____ 1,230,701 LCY

> Source of estimated volume: TR-37

Source of estimated swell factor: Cat Handbook

> Material Purchase Cost: \$0.00

Total Cost: \$0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: 1,600 Pounds/LCY Top Soil Description:

Rated Payload: 87,000 Pounds Payload Capacity: 54.38 LCY

Truck Travel (Haul & Return) Time:

maintained 3.0

Track Loaders Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time: Truck Exchange Time Truck Load Time	Decide to the control of the control	Maneuver: NA Basic Loader Cycle Timerial 0.02 r dozer piled 10 ft. high vnership of trucks and eration -0.04 get 0.00 Net Cycle Timerial Adjusted Loader	and up 0.00 loaders -0.04 e Adjustment: er Cycle Time: me per Truck:	Dump: 0.100 naneuver): 0.100 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 2.300 for site altitude: for site altitude:	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes 1.000 2.300	Mint
Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time:	- Unadjusted B Mixed mate Conveyor or Common ov Constant op Nominal tar	Maneuver: NA Basic Loader Cycle Timerial 0.02 r dozer piled 10 ft. high vnership of trucks and eration -0.04 get 0.00 Net Cycle Timerial Adjusted Loader Net Load Timerial 0.00	and up 0.00 loaders -0.04 e Adjustment: er Cycle Time: me per Truck:	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 2.300	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	-
Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	- Unadjusted B Mixed mate Conveyor of Common ov Constant op	Maneuver: NA Basic Loader Cycle Timerial 0.02 r dozer piled 10 ft. high vnership of trucks and eration -0.04 get 0.00 Net Cycle Timerial Adjusted Loader	and up 0.00 loaders -0.04 e Adjustment:	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	ites
Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	- Unadjusted B Mixed mate Conveyor of Common ov Constant op	Maneuver: NA Basic Loader Cycle Timerial 0.02 r dozer piled 10 ft. high vnership of trucks and eration -0.04 get 0.00 Net Cycle Timerial Adjusted Loader	and up 0.00 loaders -0.04 e Adjustment:	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	ntes
Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	- Unadjusted B Mixed mate Conveyor of Common ov Constant op	Maneuver: NA Basic Loader Cycle Tin rial 0.02 r dozer piled 10 ft. high vnership of trucks and eration -0.04 get 0.00	n and up 0.00 loaders -0.04	naneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	- Unadjusted B Mixed mate Conveyor of Common ov Constant op	Maneuver: NA Basic Loader Cycle Tin rial 0.02 r dozer piled 10 ft. high vnership of trucks and eration -0.04	n and up 0.00	Factor (min.) 0.020 0.000 -0.040 -0.040	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership:	- Unadjusted B Mixed mate Conveyor or Common ov	Maneuver: NA Basic Loader Cycle Tin rial 0.02 r dozer piled 10 ft. high vnership of trucks and	n and up 0.00	Factor (min.) 0.020 0.000 -0.040	Source (Cat HB) (Cat HB) (Cat HB)	ntes
Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile:): - Unadjusted B Mixed mate Conveyor or	Maneuver: NA Basic Loader Cycle Tin rial 0.02 r dozer piled 10 ft. high	n and up 0.00	naneuver): 0.020 0.000	Source (Cat HB) (Cat HB)	utes
Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors Material:): - Unadjusted B Mixed mate	Maneuver: NA Basic Loader Cycle Tin		naneuver): 0.020	Source (Cat HB)	utes
Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors): I Unadjusted B	Maneuver: NA Basic Loader Cycle Tin	ne (load, dump, r	naneuver): 0	.500 minu	ıtes
Cycle Time Elements (min. Load: NA Wheel and Track Loaders): - Unadjusted B	Maneuver: NA	ne (load, dump, r	naneuver):0	.500 minu	ıtes
Cycle Time Elements (min.):	-		Dump:0.100)	
		приоп.				
Track Loaders	- Material Desc	puon				
	Material Deco	rintion:				
Selected Value	within this Bas					
Machine Cycle Time						
Excavators and Front Shov	els:					
Loading Tool Cycle Time	: Numb	er of Loading Tool Pas	ses Required to	Fill Truck:	6 p	asses
Net Correction:	0.498	0.830				
Job Efficiency.	0.030	0.630	(CAI III	,		
Job Efficiency:	0.830	0.830	(CAT HB	,		
Altitude Adj:	Truck 0.600	Loader 1.000	Source (CAT HB)		
JOD COHUHUUH COFFECUOH				. 1000 IEEI		
Job Condition Correction	g•	Ç;,	e Altitude (ft.): 1	1000 foot		
Adjusted Capacity:	5.250	LCY				
Bucket Fill Factor:	1.050	Moist loam or sa	andy clay (100%	- 110%) 1.050		_
Rated Capacity:	5.000	LCY (heaped)	_ ~~	<u> </u>		_
Boung roof cupucity			Bucl	tet Size Class: N	A	
Loading Tool Capacity						
Fina	al Truck Volum	e Based on Number of	Loader Passes:	31.50	LCY	
	31.40	LCY				
Adjusted volume: _	27.80 31.40	LCY				
Average Volume: _ Adjusted Volume: _						
Heaped Volume: _Average Volume: _Adjusted Volume: _	31.40	LCY				

CIRCES Cost Estimating Software

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	14837.00	1.40	3.00	4.40	2421	7.010

Haul Time: 7.010 minutes Return Route: Travel Haul Distance Grade (%) Roll. Res Total Res Velocity Seg# Time (Ft) (%) (%) (fpm) (min) 14837.00 3.00 1.60 -1.40 3005 5.076

Return Time: 5.076 minutes
Total Truck Cycle Time: 17.053 minutes

Selected Number of Trucks: 5 Truck(s)

Loading Tool unit

Production 572.73 LCY/Hour Adjusted for job efficiency: 475.36 LCY/Hour Truck Unit Production 110.83 LCY/Hour Adjusted for job efficiency: 91.99 LCY/Hour

Adjusted hourly truck team production: 459.96 LCY/Hour Adjusted single truck/loader team production: 459.96 LCY/Hour

Adjusted multiple truck/loader team production: 1,379.87 LCY/Hour

JOB TIME AND COST

Optimal No. of Trucks: 5 Truck(s)

Fleet size: 3 Team(s) Total job time: 891.90 Hours

Unit cost: \$3.013 /LCY Total job cost: \$3,707,635

BULLDOZER WORK

Task description:	Tenmile TSF - T	Topsoil Grad	ing 33		
Climax Mine	Per	rmit Action:	2024-06	Permit/Job#:	M1977493
PROJECT IDENTIF	<u>ICATION</u>				
Task #: F1006	State:	Colorado		Abbreviation:	None
Date: $\frac{11000}{6/13/2024}$	County:	Lake		Filename:	M493-F1006
User: ACY	County.	Lake		i nename.	1/14/3-1 1000
		D) (C			
Agency or organ	nization name:D	RMS			
HOURLY EQUIPME	ENT COST				
	t D8T - 8SU		<u> </u>		
Horsepower: 310			<u> </u>		
• • • • • • • • • • • • • • • • • • • •	ni-Universal		<u> </u>		
Attachment: NA					
	er day				
Data Source: (CF	RG)		<u> </u>		
Cost Breakdown:			<u>Utilization %</u>		
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		
T . 1	0.24 62				
Total unit Cost/Hour: Total Fleet Cost/Hour:	\$321.62 \$1,286.46				
MATERIAL QUANT Initial Volume: 1,21 Swell factor: 1.00	5,507				
	5,507 LCY				
Source of estimated volumes Source of estimated swell		dbook			
HOURLY PRODUCT	ΓΙΟΝ				
Average push distance:	250 feet				
Unadjusted hourly produc		/hr			
Materials consistency des	scription: Loose	stockpile 1.2		_	
Average push gradient: Average site altitude:	0 % 11,000 feet				
Material weight:	1,600 lbs/LCY				
Weight description:	Top Soil				
Job Condition Correction	. Factor		Source		
Operator		0.750	(AVG.)		
Material consist		.200	(CAT HB)		
Dozing me		.000	(GEN.)		
Visib	oility: 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: 324.64 LCY/hr
Adjusted fleet production: 1298.56 LCY/hr

JOB TIME AND COST

Fleet size: 4 Dozer(s)
Unit cost: \$0.991/LCY

Total job time: 936.04 Hours
Total job cost: \$1,204,182

TRUCK/LOADER TEAM WORK

: Climax Mine	Permit Action: 2024-06	1	Permit/Job#:	M1977493
PROJECT IDENTIFICATION				
Date: 6/12/2024 Cour	ate: Colorado aty: Lake	Ab	breviation: _ Filename: _	None M493-F1007
User: ACY				
Agency or organization name:	DRMS			
	DRMS	Shift bas	is: <u>1 per day</u>	
Agency or organization name:	DRMS Equipment De		is: <u>1 per day</u>	
Agency or organization name:	Equipment De		is: <u>1 per day</u>	
Agency or organization name: HOURLY EQUIPMENT COST Truck Loader Team -7	Equipment De	escription	is: <u>1 per day</u>	
Agency or organization name: HOURLY EQUIPMENT COST Truck Loader Team -7	Equipment De Truck: Cat 740 CAT 966H high I	escription	is: <u>1 per day</u>	
Agency or organization name: HOURLY EQUIPMENT COST Truck Loader Team -1 -Lo	Equipment De Truck: Cat 740 CAT 966H high It Area: Cat D6T LGP	escription	is: <u>1 per day</u>	
Agency or organization name: HOURLY EQUIPMENT COST Truck Loader Team -1 -Lo Support Equipment -Load	Equipment De Truck: Cat 740 Dader: CAT 966H high I Area: Cat D6T LGP Area: NA	escription	is: <u>1 per day</u>	

Cost Breakdown:	Truck/Loader Team		Support I	Equipment	Maintenance Equipment		
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck	
%Utilization-machine:	100	100	100	NA	100	100	
Ownership cost/hour:	\$108.25	\$57.78	\$99.72	NA	\$69.16	\$73.42	
Operating cost/hour:	\$79.54	\$46.25	\$71.22	NA	\$54.74	\$83.21	
%Utilization-riper:	NA	0	NA	NA	NA	NA	
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00	
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00	
Operator cost/hour:	\$25.24	\$36.85	\$38.59	NA	\$27.76	\$21.12	
Unit Subtotals:	\$213.03	\$140.88	\$209.53	NA	\$151.66	\$177.75	
Number of Units:	9	3	1	0	1	1	
Group Subtotals:	Work:	\$2,339.91	Support:	\$209.53	Maint:	\$329.41	

Total work team cost/hour: \$2,878.85

MATERIAL QUANTITIES

Initial volume: 363,968 CCY Swell factor: 1.215

Loose volume: _ 442,221 LCY

> Source of estimated volume: TR-37

Source of estimated swell factor: Cat Handbook

> Material Purchase Cost: \$0.00

Total Cost: \$0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: 1,600 Pounds/LCY Description:

Top Soil Rated Payload: 87,000 Pounds Payload Capacity: 54.38 LCY

Truck Travel (Haul & Return) Time:

maintained 3.0

Truck Red (volume) Perio						
Truck Bed (volume) Basis: Struck Volume:	24.20	LCY				
Heaped Volume:	31.40	LCY				
Average Volume:	27.80	LCY				
Adjusted Volume:	31.40	LCY				
Fir	al Truck Volume	Based on Number o	of Loader Passes:	31.50	LCY	
Loading Tool Capacity	ar Track Volume	Bused on I value of o	T Louder 1 disses.		201	
Doubling Tool Capacity			Bucl	ket Size Class:	NA	
Rated Capacity:	5.000	LCY (heaped)				_
Bucket Fill Factor:	1.050	Moist loam or	sandy clay (100%	- 110%) 1.050		_
Adjusted Capacity:	5.250	LCY				
Job Condition Correction	ıs:	S	ite Altitude (ft.):	11000 feet		
	Truck	Loader	Source			
Altitude Adj:	0.600	1.000	(CAT HE	3)		
Job Efficiency:	0.830	0.830	(CAT HE	3)		
Net Correction:	0.498	0.830				
		1				
Excavators and Front Sho	vels:					
Excavators and Front Sho Machine Cycle Time Selected Valu						
Machine Cycle Time Selected Valu	vs. Job Conditio	ic Rating: NA				
Machine Cycle Time Selected Valu	vs. Job Conditio e within this Basi – Material Descr	ic Rating: NA				
Machine Cycle Time Selected Valu Track Loaders	vs. Job Conditio e within this Basi – Material Descr .):	ic Rating: NA		Dump:0.10	00	
Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min	vs. Job Conditio e within this Basi – Material Descr .):	ription: Maneuver: NA	me (load, dump, r	•	00 0.500 minu	utes
Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA	vs. Job Condition e within this Basic — Material Description .): Material Description	ription: Maneuver: NA	me (load, dump, 1	•		utes
Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: <u>NA</u> Wheel and Track Loader	vs. Job Conditions within this Basis — Material Description.): Material Description in Material Descr	ic Rating: NA ription: NA Maneuver: NA asic Loader Cycle Ti ial 0.02		naneuver):	0.500 minu Source (Cat HB)	utes
Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile	vs. Job Condition e within this Basis — Material Describle. Material Describle. Material Describle. Material Describle. Material Describle.	ic Rating: NA ription: NA Maneuver: NA Pasic Loader Cycle Ti al 0.02 dozer piled 10 ft. hig	gh and up 0.00	maneuver): Factor (min.)	0.500 minu	utes
Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile Truck Ownership	vs. Job Condition e within this Basis — Material Describle.	Ic Rating: NA Iniption: NA Idaneuver: NA Idaneuv	gh and up 0.00	Factor (min.) 0.020 0.000 -0.040	0.500 minu Source (Cat HB) (Cat HB) (Cat HB)	utes
Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile Truck Ownership Operation	vs. Job Condition e within this Basis — Material Describle. .): Material Describle. Material Describe. Material Descr	Ic Rating: NA Iniption: NA Idaneuver: NA Iniption: NA Idaneuver: NA Idaneuve	gh and up 0.00	Factor (min.) 0.020 0.000 -0.040 -0.040	0.500 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile Truck Ownership	vs. Job Condition e within this Basis — Material Describle. .): Material Describle. Material Describe. Material Descr	Maneuver: NA Maneuver: NA Masic Loader Cycle Ti	gh and up 0.00 1 loaders -0.04	maneuver): Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	0.500 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile Truck Ownership Operation	vs. Job Condition e within this Basis — Material Describle. .): Material Describle. Material Describe. Material Descr	Ic Rating: NA Iniption: NA Iniption: NA Iniption: NA Inipation: NA Inipition: NA Inipition	gh and up 0.00 d loaders -0.04 me Adjustment:	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060	0.500 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	utes
Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile Truck Ownership Operation	vs. Job Condition e within this Basis — Material Describle. .): Material Describle. Material Describe. Material Descr	ic Rating: NA ription: NA Maneuver: NA asic Loader Cycle Ti ial 0.02 dozer piled 10 ft. hig nership of trucks and ration -0.04 get 0.00 Net Cycle Tii Adjusted Load	gh and up 0.00 d loaders -0.04 me Adjustment: der Cycle Time:	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	utes
Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile Truck Ownership Operation	vs. Job Condition e within this Basis — Material Describle. .): Material Describle. Material Describe. Material Descr	ic Rating: NA ription: NA Maneuver: NA asic Loader Cycle Ti ial 0.02 dozer piled 10 ft. hig nership of trucks and ration -0.04 get 0.00 Net Cycle Tii Adjusted Load	gh and up 0.00 d loaders -0.04 me Adjustment:	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060	0.500 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	utes
Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile Truck Ownership Operation	vs. Job Condition e within this Basis — Material Describle. .): Material Describle. Material Describe. Material Descr	ic Rating: NA ription: NA Maneuver: NA asic Loader Cycle Ti ial 0.02 dozer piled 10 ft. hig nership of trucks and ration -0.04 get 0.00 Net Cycle Tii Adjusted Load	gh and up 0.00 d loaders -0.04 me Adjustment: der Cycle Time:	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	utes
Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile Truck Ownership Operation Dump Target	vs. Job Condition e within this Basis — Material Describes. .): Moreover of the content of the conveyor of the conveyor of the constant open on the constant open.	ic Rating: NA ription: NA Maneuver: NA asic Loader Cycle Ti ial 0.02 dozer piled 10 ft. hig nership of trucks and ration -0.04 get 0.00 Net Cycle Tii Adjusted Load	gh and up 0.00 d loaders -0.04 me Adjustment: der Cycle Time: Time per Truck:	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	utes
Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile Truck Ownership Operation Dump Target Truck Cycle Time:	vs. Job Condition e within this Basis — Material Describle. Material Describe. Material Describe.	ic Rating: NA ription: Maneuver: NA asic Loader Cycle Ti ial 0.02 dozer piled 10 ft. hig nership of trucks and ration -0.04 get 0.00 Net Cycle Tii Adjusted Load Net Load T	gh and up 0.00 d loaders -0.04 me Adjustment: der Cycle Time: Fime per Truck:	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 2.300	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	

CIRCES Cost Estimating Software

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	6758.00	-3.20	3.00	-0.20	3005	2.318

Haul Time: 2.318 minutes

Return Route:

rectarii rec	rate.					
Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	6758.00	3.20	3.00	6.20	2742	2.697

Return Time: 2.697 minutes
Total Truck Cycle Time: 9.982 minutes

Loading Tool unit

Production 572.73 LCY/Hour Adjusted for job efficiency: 475.36 LCY/Hour

Truck Unit Production

189.35 LCY/Hour Adjusted for job efficiency: 157.16 LCY/Hour

Optimal No. of Trucks: _____ 3 ____ Truck(s) Selected Number of Trucks: _____ 3 ____ Truck(s)

Adjusted hourly truck team production: 471.47 LCY/Hour Adjusted single truck/loader team production: 471.47 LCY/Hour Adjusted multiple truck/loader team production: 1,414.42 LCY/Hour

JOB TIME AND COST

Fleet size: 3 Team(s) Total job time: 312.65 Hours

Unit cost: \$2.035 /LCY Total job cost: **\$900,076**

BULLDOZER WORK

Task description:	Tenmile TSF - 7	Topsoil Grad	ing 17		
Climax Mine	Per	mit Action:	2024-06	Permit/Job#:	M1977493
PROJECT IDENTIF	<u>ICATION</u>				
Task #: F1008	State:	Colorado		Abbreviation:	None
Date: 6/13/2024	County:	Lake		Filename:	M493-F1008
User: ACY				<u> </u>	
Agency or organ	nization name: D	RMS			
HOURLY EQUIPME	NT COST				
	D8T - 8SU				
Horsepower: 310			 :		
Blade Type: Sen	ni-Universal				
Attachment: NA					
	er day		<u> </u>		
Data Source: (CF	RG)		<u>—</u>		
Cost Breakdown:					
			<u>Utilization %</u>		
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		
MATERIAL QUANT Initial Volume: 436, Swell factor: 1.000	762				
-	762 LCY	<u> </u>			
Source of estimated volumes Source of estimated swell		dbook			
HOURLY PRODUCT	<u>rion</u>				
Average push distance: Unadjusted hourly produc	250 feet 377.8 LCY	//hr			
Materials consistency des	cription: Loose	stockpile 1.2			
Average push gradient: Average site altitude:	0 % 11,000 feet				
Material weight:	1,600 lbs/LCY				
Weight description:	Top Soil				
Job Condition Correction			Source		
Operator S		0.750	(AVG.)		
Material consists		.200	(CAT HB)		
Dozing me		.000	(GEN.)		
Visib	лицу: <u> </u>	.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: 324.64 LCY/hr
Adjusted fleet production: 973.92 LCY/hr

JOB TIME AND COST

Fleet size: 3 Dozer(s)
Unit cost: \$0.991/LCY

Total job time: 448.46 Hours
Total job cost: \$432,693

TRUCK/LOADER TEAM WORK

Task description:	Tenmile	TSF - Hauling T	Topsoil 25, 26, 27	, 17		
Site: Climax Mine		Permit Action	on: <u>2024-06</u>		Permit/Job#: M	1977493
PROJECT IDE	NTIFICATION	[
Task #: F100)9	State: Colora County: Lake	ado	Ab	breviation: No Filename: M4	one 493-F1009
User: ACY						
Agency o	or organization nar	ne: DRMS				
HOURLY EQU	IPMENT COST	<u>r</u>		Shift bas	is: 1 per day	
			Equipment Descri	ption		
	Truck Loader Tea		740 Γ 966H high lift			
Sup	port Equipment -L		D6T LGP			
		ump Area: NA	T 103 f			
Road N	Maintenance –Mot -Wa		<u>Γ 12M</u> ter Tanker, 7,000	Gal		
-	***	uer Truek. Wu	er ranker, 7,000	Oui.		
Cost Breakdown:		ader Team		Equipment		nce Equipment
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	100	100
Ownership cost/hour:	\$108.25	\$57.78	\$99.72	NA	\$69.16	\$73.42
Operating cost/hour:	\$79.54	\$46.25	\$71.22	NA	\$54.74	\$83.21
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA NA	\$0.00	\$0.00
Operator cost/hour: Unit Subtotals:	\$25.24 \$213.03	\$36.85 \$140.88	\$38.59 \$209.53	NA NA	\$27.76 \$151.66	\$21.12 \$177.75
Number of Units:	\$213.03	1	\$209.33 1	0	\$131.00	3177.73
Group Subtotals:	Work:	\$1,206.03	Support:	\$209.53	Maint:	\$329.41
Total work team co		•	Support.	Ψ207.53	Mant.	ψ327.41
MATERIAL QU	<u>UANTITIES</u>					
Initial volume Loose volume		CCY LCY	Swell	factor: 1.215		
Sci	ource of estimated	 Lvolume: Divis	ion of Reclamatic	on, Mining & Safe	etv	
	e of estimated swe		Handbook	, , , , , , , , , , , , , , , , , , ,		
	Material Purch					
	10	otal Cost: \$0.00)			
HOURLY PRO	<u>ODUCTION</u>					
Truck Capacity:						
Truck Payload (we			D. 1 7 CY			
Material Desc	weight: 1,600 cription: Top So	nil	Pounds/LCY			
Rated P			Pounds			
Payload Ca			LCY			

Track Loade Cycle Time Elements (m Load: NA Wheel and Track Load Cycle Time Facto Materi Stockpi Truck Ownersh Operatio Dump Targ Truck Cycle Time: Truck Exchange T	ers - Unadjusted ors al: Mixed ma le: Conveyor ip: Common on: Constant o et: Nominal t	Maneuver: NA Basic Loader Cycle T Aterial 0.02 or dozer piled 10 ft. hi ownership of trucks an operation -0.04 arget 0.00 Net Cycle Ti Adjusted Loa Net Load	gh and up 0.00 d loaders -0.04 me Adjustment: der Cycle Time: Time per Truck:	Dump:0.100	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes 1.000 2.300	utes
Cycle Time Elements (m Load: NA Wheel and Track Load Cycle Time Factor Materi Stockpi Truck Ownersh Operation Dump Targ	ers - Unadjusted ors al: Mixed ma le: Conveyor ip: Common on: Constant of	Maneuver: NA Basic Loader Cycle To terial 0.02 or dozer piled 10 ft. his ownership of trucks an operation -0.04 arget 0.00 Net Cycle Ti Adjusted Loan Net Load	gh and up 0.00 d loaders -0.04 ime Adjustment: der Cycle Time: Time per Truck:	Dump: 0.100 maneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 2.300	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	
Cycle Time Elements (m Load: NA Wheel and Track Load Cycle Time Factor Materi Stockpi Truck Ownersh Operation Dump Targ	ers - Unadjusted ors al: Mixed ma le: Conveyor ip: Common on: Constant of	Maneuver: NA Basic Loader Cycle T Aterial 0.02 or dozer piled 10 ft. hi ownership of trucks an operation -0.04 arget 0.00 Net Cycle Ti Adjusted Loa	gh and up 0.00 d loaders -0.04 ime Adjustment: der Cycle Time:	Dump: 0.100 maneuver): 0.100 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	utes
Cycle Time Elements (m Load: NA Wheel and Track Load Cycle Time Facto Materi Stockpi Truck Ownersh Operation	ers - Unadjusted ors al: Mixed ma le: Conveyor ip: Common on: Constant of	Maneuver: NA Basic Loader Cycle T Aterial 0.02 or dozer piled 10 ft. hi ownership of trucks an operation -0.04 arget 0.00 Net Cycle Ti Adjusted Loa	gh and up 0.00 d loaders -0.04 ime Adjustment: der Cycle Time:	Dump: 0.100 maneuver): 0.100 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	utes
Cycle Time Elements (m Load: NA Wheel and Track Load Cycle Time Facto Materi Stockpi Truck Ownersh Operation	ers - Unadjusted ors al: Mixed ma le: Conveyor ip: Common on: Constant of	Maneuver: NA Basic Loader Cycle T Iterial 0.02 or dozer piled 10 ft. hi ownership of trucks an operation -0.04 arget 0.00 Net Cycle Ti	gh and up 0.00 d loaders -0.04	Dump: 0.100 maneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	utes
Cycle Time Elements (m Load: NA Wheel and Track Load Cycle Time Facto Materi Stockpi Truck Ownersh Operation	ers - Unadjusted ors al: Mixed ma le: Conveyor ip: Common on: Constant of	Maneuver: NA Basic Loader Cycle T Iterial 0.02 or dozer piled 10 ft. hi ownership of trucks an operation -0.04 arget 0.00	ime (load, dump, r gh and up 0.00 d loaders -0.04	Dump: 0.100 maneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Cycle Time Elements (m Load: NA Wheel and Track Load Cycle Time Facto Materi Stockpi Truck Ownersh	ers - Unadjusted ors al: Mixed ma le: Conveyor ip: Common	Maneuver: NA Basic Loader Cycle T terial 0.02 or dozer piled 10 ft. hi ownership of trucks an	ime (load, dump, r	Dump: 0.100 maneuver): 0. Factor (min.) 0.020 0.000 -0.040	Source (Cat HB) (Cat HB) (Cat HB)	utes
Cycle Time Elements (m Load: NA Wheel and Track Load Cycle Time Factor Materi Stockpi	ers - Unadjusted ors al: Mixed ma le: Conveyor	Maneuver: NA Basic Loader Cycle Toterial 0.02 or dozer piled 10 ft. hi	ime (load, dump, r	Dump: 0.100 maneuver): 0.100 Factor (min.) 0.020 0.000	Source (Cat HB) (Cat HB)	utes
Cycle Time Elements (m Load: NA Wheel and Track Load Cycle Time Factor Materi	in.): ers - Unadjusted ors al: Mixed ma	Maneuver: NA Basic Loader Cycle T	ime (load, dump, r	Dump: 0.100 maneuver): 0.100 Factor (min.) 0.020	Source (Cat HB)	utes
Cycle Time Elements (m Load: NA Wheel and Track Load Cycle Time Factor	in.): ers - Unadjusted	Maneuver: NA Basic Loader Cycle T		Dump: 0.100 maneuver): 0.100 Factor (min.)	.500 min	utes
Cycle Time Elements (m Load: NA Wheel and Track Load	in.): ers - Unadjusted	Maneuver: NA		Dump: 0.100	.500 min	utes
Cycle Time Elements (m Load: NA	in.):	Maneuver: NA		Dump:0.100		
Cycle Time Elements (m		•)	
		escription:				
Trook I code	re Material Da					
Selected Va						
Machine Cycle Tir	ne vs. Job Condi lue within this B					
Excavators and Front Sh		icor of Louding 10011	asses required to			- usses
Loading Tool Cycle Ti		nber of Loading Tool P	asses Required to	Fill Truck	6 1	passes
Net Correction:	0.498	0.830				
Job Efficiency:	0.830	0.830	(CAT HE	3)		
Altitude Adj:	Truck 0.600	Loader 1.000	Source (CAT HE			
Job Condition Correcti	ons:	S	Site Altitude (ft.):	11000 feet		
Adjusted Capacity	y: 5.250			,		_
Bucket Fill Factor		` 1	sandy clay (100%	- 110%) 1.050		_
Rated Capacity	y: 5.000	LCY (heaped)				
Loading 1001 Capacity			Ruel	ket Size Class: N	A	
F Loading Tool Capacity	inal Truck Volu	me Based on Number	of Loader Passes:	31.50	LCY	
						
·		LCY				
Adjusted Volume:	47.00	LCY				
Average Volume:		LCI				
	31.40	_ LCY LCY				

<u>Truck Travel (Haul & Return) Time:</u> Road Condition: <u>Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0</u>

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	12672.00	3.30	3.00	6.30	1566	8.394

Haul Time: 8.394 minutes Return Route: Travel Haul Distance Grade (%) Roll. Res Total Res Velocity Seg# Time (Ft) (%) (%) (fpm) (min) 12672.00 3.00 -0.30 -3.30 3706 3.525

Return Time: 3.525 minutes
Total Truck Cycle Time: 16.886 minutes

Selected Number of Trucks: 5 Truck(s)

Loading Tool unit

Production 572.73 LCY/Hour Adjusted for job efficiency: 475.36 LCY/Hour Truck Unit Production 111.93 LCY/Hour Adjusted for job efficiency: 92.90 LCY/Hour

Adjusted hourly truck team production: 464.51 LCY/Hour Adjusted single truck/loader team production: 464.51 LCY/Hour

Adjusted multiple truck/loader team production: 464.51 LCY/Hour

JOB TIME AND COST

Optimal No. of Trucks: 5 Truck(s)

 Fleet size:
 1
 Team(s)
 Total job time:
 2.62
 Hours

 Unit cost:
 \$3.757
 /LCY
 Total job cost:
 \$4,564

BULLDOZER WORK

Task description:	Tenmi	e 18F - 10	pson Grad	ing 25, 26, 27, 17		
: Climax Mine		Pern	nit Action:	2024-06	Permit/Job#:	M1977493
PROJECT IDENT	TIFICATIO!	<u>N</u>				
Task #: F1010 Date: 6/13/20 User: ACY)24	State: County:	Colorado Lake		Abbreviation: Filename:	None M493-F1010
	organization na	me: DR	MS			
HOURLY EQUIP	MENT COS	<u>5T</u>				
Basic Machine:	Cat D8T - 8S	U		_		
Horsepower: _ Blade Type:	310 Semi-Univers			<u> </u>		
Attachment:	NA	aı		<u> </u>		
Shift Basis: _ Data Source:	1 per day (CRG)			_		
Cost Breakdown:						
Ownership Cost/Ho	11 r '		\$173.32	<u>Utilization %</u> NA		
Operating Cost/Ho			\$109.71	100		
Ripper own. Cost/Ho			\$0.00	NA		
Ripper op. Cost/Ho			\$0.00	0		
Operator Cost/Ho	ur:		\$38.59	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour						
MATERIAL QUA						
	1,200 1.000		_			
	1,200 LCY		_			
Source of estimated v	olumo		_			
Source of estimated s	well factor:	TR-37 Cat Handl	ook			
HOURLY PRODU	well factor:		oook			
	well factor:					
HOURLY PRODU	well factor:	Cat Handl 50 feet 77.8 LCY/I				
HOURLY PRODU Average push distance Unadjusted hourly pro-	well factor:	Cat Handl 50 feet 77.8 LCY/I	hr			
HOURLY PRODU Average push distance Unadjusted hourly pro Materials consistency Average push gradier	well factor:	Cat Handl 50 feet 77.8 LCY/I Loose s	hr			
HOURLY PRODU Average push distance Unadjusted hourly pro Materials consistency Average push gradier Average site altitude:	well factor: $\frac{2}{3}$ ve: $\frac{2}{3}$ description: at: $\frac{0 \%}{11,000 \text{ f}}$	Cat Handle 50 feet 77.8 LCY/I Loose s Feet	hr			
HOURLY PRODU Average push distance Unadjusted hourly pro- Materials consistency Average push gradier Average site altitude: Material weight: Weight description: Job Condition Correct	well factor:	Cat Handle 50 feet 77.8 LCY/I Loose s Feet S/LCY I	hr tockpile 1.2	Source		
HOURLY PRODUCTION Average push distance Unadjusted hourly producted Materials consistency Average push gradier Average site altitude: Material weight: Weight description: Job Condition Correct Operation	well factor: UCTION The: Oduction: Oduction: Oduction: Oduction: 1,600 lb Top Sointion Factor Into Skill:	Cat Handle 50 feet 77.8 LCY/I Loose s Feet 0s/LCY	hr tockpile 1.2	(AVG.)		
HOURLY PRODU Average push distance Unadjusted hourly pro- Materials consistency Average push gradier Average site altitude: Material weight: Weight description: Job Condition Correct Operate Material con-	well factor: UCTION The: Oduction: Oduction: Oduction: Oduction: 1,600 lb Top Sointion Factor Into Skill:	Cat Handle 50 feet 77.8 LCY/I Loose s Feet 98/LCY 1 0.7	hr tockpile 1.2			

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
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: 324.64 LCY/hr
Adjusted fleet production: 324.64 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.991/LCY

Total job time: 3.70 Hours
Total job cost: \$1,189

TRUCK/LOADER TEAM WORK

,	-		ul Bedding Material			
Site:	Climax M	I ine	Perm	it Action: <u>2024-06</u>	Permit/Job#	t: <u>M1977493</u>
	<u>PROJECT</u>	DENTIFICA	<u>TION</u>			
	Task #:	F1011	State:	Colorado	Abbreviation:	None
	Date:	6/13/2024	County:	Lake	Filename:	M493-F1011
	User:	ACY	_			
		ency or organizati		Equipment Desc	Shift basis: 1 per da	<u>Y</u>
		Truck Load	ler Team -Truck:	Cat 740		
			-Loader:	CAT 966H high lift		
		Support Equipr	nent -Load Area:	Cat D6T LGP		
			-Dump Area:	NA		
	I	Road Maintenance	e –Motor Grader:	CAT 12M		
			-Water Truck:	Water Tanker, 7,000	O Gal.	
	Cost Break	down: Tru	ıck/Loader Team	Suppor	t Equipment Mai	ntenance Equipment

Cost Breakdown:	Truck/Loa	ader Team	Support 1	Equipment	Maintenan	ce Equipment
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	100	100
Ownership cost/hour:	\$108.25	\$57.78	\$99.72	NA	\$69.16	\$73.42
Operating cost/hour:	\$79.54	\$46.25	\$71.22	NA	\$54.74	\$83.21
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$25.24	\$36.85	\$38.59	NA	\$27.76	\$21.12
Unit Subtotals:	\$213.03	\$140.88	\$209.53	NA	\$151.66	\$177.75
Number of Units:	6	2	1	0	1	1
Group Subtotals:	Work:	\$1,559.94	Support:	\$209.53	Maint:	\$329.41

Total work team cost/hour: \$2,098.88

MATERIAL QUANTITIES

Initial volume: 35,875 CCY Swell factor: 1.000

Loose volume: 35,875 LCY

Source of estimated volume: TR-37

Source of estimated swell factor: Cat Handbook

Material Purchase Cost: \$0.00

Total Cost: \$0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: 2,600 Pounds/LCY
Description: Limestone - Broken

Rated Payload: 87,000 Pounds
Payload Capacity: 33.46 LCY

Truck Travel (Haul & Return) Time:

Struck Volume:	<u>:</u> 24.20	LCY				
Heaped Volume:	31.40	LCY				
Average Volume:	27.80	LCY				
Adjusted Volume:	31.40	LCY				
Fi	nal Truck Volur	me Based on Number	of Loader Passes:	28.88	LCY	
Loading Tool Capacity						
			Buc	ket Size Class:	NA	
Rated Capacity:		LCY (heaped)				_
Bucket Fill Factor:	0.825	Blasted rock -	avg. blasted (75	- 90%) 0.825		
Adjusted Capacity:	4.125	LCY				
Job Condition Correction	ns:	;	Site Altitude (ft.):	11000 feet		
	Truck	Loader	Source			
Altitude Adj:	0.600	1.000	(CAT HE	3)		
Job Efficiency:	0.830	0.830	(CAT HE	3)		
Net Correction:	0.498	0.830				
Excavators and Front Sho Machine Cycle Tim Salested Val	<u>vels:</u> e vs. Job Condit		Passes Required to	Fill Truck:	7	passes
Excavators and Front Sho Machine Cycle Tim Selected Valu	vels:	tion Rating: NA asic Rating: NA	Passes Required to	Fill Truck:	7	passes
Excavators and Front Sho Machine Cycle Tim Selected Valu	vels: e vs. Job Condit e within this Ba – Material Des	tion Rating: NA asic Rating: NA	Passes Required to	Fill Truck:	7	passes
Excavators and Front Sho Machine Cycle Tim Selected Valu Track Loaders	vels: e vs. Job Condit e within this Ba – Material Des	tion Rating: NA asic Rating: NA	Passes Required to		.100	passes
Excavators and Front Sho Machine Cycle Tim Selected Valu Track Loaders Cycle Time Elements (min	vels: e vs. Job Condit e within this Ba – Material Des	tion Rating: NA asic Rating: NA NA Scription: NA		Dump: 0	.100	passes
Excavators and Front Sho Machine Cycle Tim Selected Valu Track Loader: Cycle Time Elements (min Load: NA Wheel and Track Loade	vels: e vs. Job Condit e within this Ba — Material Des a.): es - Unadjusted	tion Rating: NA asic Rating: NA NA Scription: NA		Dump: 0	.100 min	
Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (minutes) Load: NA	vels: e vs. Job Condit e within this Ba — Material Des a.): es - Unadjusted	tion Rating: NA asic Rating: NA NA Scription: NA Maneuver: NA Basic Loader Cycle T		Dump: 0	.100 min	
Excavators and Front Sho Machine Cycle Tim Selected Valu Track Loader: Cycle Time Elements (min Load: NA Wheel and Track Loade Cycle Time Factor	vels: e vs. Job Condit e within this Ba — Material Des a.): es - Unadjusted s : Mixed mat	tion Rating: NA asic Rating: NA NA Scription: NA Maneuver: NA Basic Loader Cycle T	Time (load, dump, 1	Dump: 0 maneuver): Factor (min.	.100 0.500 min) Source	
Excavators and Front Sho Machine Cycle Tim Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loade Cycle Time Factor Materia	vels: e vs. Job Condit e within this Ba — Material Des a.): es - Unadjusted s : Mixed mat : Conveyor of	tion Rating: NA asic Rating: NA NA Scription: NA Basic Loader Cycle Terial 0.02	Time (load, dump, note that is a second to the load) igh and up 0.00	Dump: 0 maneuver): Factor (min. 0.020	.100 0.500 min Source (Cat HB)	
Excavators and Front Sho Machine Cycle Tim Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loade Cycle Time Factor Materia Stockpile Truck Ownership Operation	vels: e vs. Job Condit e within this Ba — Material Des a.): es - Unadjusted s : Mixed mat : Conveyor o : Common o : Constant o	tion Rating: NA asic Rating: NA NA scription: NA	Time (load, dump, note that is a second to the load) igh and up 0.00	Dump: 0 maneuver): Factor (min. 0.020 0.000	.100 0.500 min Source (Cat HB) (Cat HB)	
Excavators and Front Sho Machine Cycle Tim Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loade Cycle Time Factor Materia Stockpile Truck Ownership	vels: e vs. Job Condit e within this Ba — Material Des a.): es - Unadjusted s : Mixed mat : Conveyor o : Common o : Constant o	tion Rating: NA asic Rating: NA NA Scription: Maneuver: NA	igh and up 0.00 and loaders -0.04	Dump: 0 maneuver): Factor (min. 0.020 0.000 -0.040	.100	
Excavators and Front Sho Machine Cycle Tim Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loade Cycle Time Factor Materia Stockpile Truck Ownership Operation	vels: e vs. Job Condit e within this Ba — Material Des a.): es - Unadjusted s : Mixed mat : Conveyor o : Common o : Constant o	tion Rating: NA asic Rating: NA NA Scription: Maneuver: NA Basic Loader Cycle Total 0.02 or dozer piled 10 ft. his ownership of trucks and peration -0.04 arget 0.00 Net Cycle T	igh and up 0.00 and loaders -0.04 ime Adjustment:	Dump: 0 maneuver): Factor (min. 0.020 0.000 -0.040 0.000 -0.060	.100 0.500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	
Excavators and Front Sho Machine Cycle Tim Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loade Cycle Time Factor Materia Stockpile Truck Ownership Operation	vels: e vs. Job Condit e within this Ba — Material Des a.): es - Unadjusted s : Mixed mat : Conveyor o : Common o : Constant o	tion Rating: NA asic Rating: NA NA Scription: Maneuver: NA Basic Loader Cycle Terial 0.02 or dozer piled 10 ft. his ownership of trucks an operation -0.04 arget 0.00 Net Cycle T Adjusted Loader Cy	igh and up 0.00 and loaders -0.04 ime Adjustment:	Dump: 0 maneuver): Factor (min. 0.020	.100 0.500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	
Excavators and Front Sho Machine Cycle Tim Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loade Cycle Time Factor Materia Stockpile Truck Ownership Operation	vels: e vs. Job Condit e within this Ba — Material Des a.): es - Unadjusted s : Mixed mat : Conveyor o : Common o : Constant o	tion Rating: NA asic Rating: NA NA Scription: Maneuver: NA Basic Loader Cycle Terial 0.02 or dozer piled 10 ft. his ownership of trucks an operation -0.04 arget 0.00 Net Cycle T Adjusted Loader Cy	igh and up 0.00 and loaders -0.04 ime Adjustment:	Dump: 0 maneuver): Factor (min. 0.020 0.000 -0.040 0.000 -0.060	.100 0.500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	
Excavators and Front Sho Machine Cycle Tim Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loade Cycle Time Factor Materia Stockpile Truck Ownership Operation	vels: e vs. Job Condit e within this Ba — Material Des a.): es - Unadjusted s : Mixed mat : Conveyor o : Common o : Constant o	tion Rating: NA asic Rating: NA NA Scription: Maneuver: NA Basic Loader Cycle Terial 0.02 or dozer piled 10 ft. his ownership of trucks an operation -0.04 arget 0.00 Net Cycle T Adjusted Loader Cy	igh and up 0.00 and loaders -0.04 ime Adjustment:	Dump: 0 maneuver): Factor (min. 0.020	.100 0.500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	
Excavators and Front Sho Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (minute of the content of the cycle Time Factor of	vels: e vs. Job Condit e within this Ba — Material Des a.): es - Unadjusted s : Mixed mat : Conveyor o : Common o : Nominal ta	tion Rating: NA asic Rating: NA NA Scription: Maneuver: NA Basic Loader Cycle Terial 0.02 or dozer piled 10 ft. his ownership of trucks an operation -0.04 arget 0.00 Net Cycle T Adjusted Loader Cy	igh and up 0.00 and loaders -0.04 ime Adjustment: ader Cycle Time: Time per Truck:	Dump: 0 maneuver): Factor (min. 0.020	.100 O.500 min O.500 min O.500 min (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes minutes minutes	
Excavators and Front Sho Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (minute Load: NA Wheel and Track Loade Cycle Time Factor Materia Stockpile Truck Ownership Operation Dump Targe	vels: e vs. Job Condit e within this Ba — Material Des a.): es - Unadjusted s : Mixed mat : Conveyor o : Common o : Constant o : Nominal ta	tion Rating:NA	igh and up 0.00 ad loaders -0.04 ime Adjustment: ader Cycle Time: Time per Truck:	Dump: 0 maneuver): Factor (min. 0.020	.100 0.500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	nutes

maintained 3.0

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	5333.00	-3.00	3.00	0.00	3005	2.027

Haul Time: 2.027 minutes

Return Route:

ictuin ic	Return Route.						
Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)	
1	5333.00	3.00	3.00	6.00	2742	2.167	

Return Time: 2.167 minutes Total Truck Cycle Time: 9.601 minutes

Selected Number of Trucks: 3 Truck(s)

Loading Tool unit

Adjusted for job efficiency: 384.49 Production 463.24 LCY/Hour LCY/Hour Truck Unit Production Adjusted for job efficiency: 149.78 LCY/Hour 180.46 LCY/Hour

> Adjusted hourly truck team production: 449.34 LCY/Hour Adjusted single truck/loader team production: 384.49 LCY/Hour LCY/Hour 768.97

Adjusted multiple truck/loader team production:

JOB TIME AND COST

Optimal No. of Trucks: 3 Truck(s)

Fleet size: 2 Team(s) Total job time: 46.65 Hours

Total job cost: **\$97,920** Unit cost: \$2.729 /LCY

BULLDOZER RIPPING WORK

	Task description:	Tenr	nile OSF - Roads - Rippi	ing			
Site:	Climax Mine		Permit Action:	2024-06	Permit/J	ob#: _M1	977493
	PROJECT IDI	ENTIFICATI	<u>ON</u>				
	Task #: F10	012	State: Colorado		Abbreviation	on: Nor	ne
		7/2024	County: Lake		Filenan		93-F1012
	User: AC	CY	· · · · · · · · · · · · · · · · · · ·				
	Agency	or organization	name: DRMS				
	HOURLY EQ	UIPMENT CO	<u>OST</u>				
	Basic 1	Machine: Cat	D7R DS Series II LGP		Horsepower:	240	
	Ripper Att		hank Ripper	_	Shift Basis:	1 per da	<u> </u>
					Data Source:	(CRG)	
	Cost Breakdown:	<u>.</u>					
					Utilization %		
		Ownership Co		\$90.24	NA NA		
	D:	Operating Co		\$78.95	100		
		er Ownership Co per Operating Co		\$9.25 \$5.20	NA 100		
	Кірі	Operator Co		\$38.59	NA		
		Total Unit Co	· ·	\$222.23	1171		
		Total Fleet Co	ost/Hour: \$222	23			
	MATERIAL Q						
			Sele	cted estimating	method: Area		
	Alternate Method	<u>ls:</u>					
Seismic:	NA 7.00		Bank Volume:	NA 1.00	BCY	NA	DOW COX
Area:	7.00	acres	• • • • • •	1.00	Volume:11,293		BCY or CCY
		Source of estir	nated quantity: TR-37				
	HOURLY PRO	<u>ODUCTION</u>					
	Seismic:						
		;	Seismic Velocity:	NA	feet/second		
	Area:						
		Averag	e Ripping Depth:	2.45	feet/pass		
			e Ripping Width:	6.50	feet/pass		
		_	Ripping Length:	250.00	feet/pass		
			age Dozer Speed:	88.00	feet/minute		
		_	Maneuver Time:tion per unit area:	0.25 0.724	minutes/pass acres/hour		
	Lib Com Prime Co		<u></u>	0.724	acres/nour		
	Job Condition Co						
	Un	adjusted Hourly	Unit Production:	0.724	Acres/hr		
			Site Altitude:	11,000	feet		
			Altitude Adj:	1.00	(CAT HB)		
			Job Efficiency:	0.83	(1 shift/day)		
			Net Correction:	0.83	multiplier		
			Hourly Unit Production:	0.60	Acres/hr		
		Adjusted 1	Hourly Fleet Production:	0.60	Acres/hr		
	JOB TIME AN	ND COST					
	Fleet size:	1	Grader(s)	Total job time	e: 11.65		Hours
	Unit cost:	\$369.738			t: \$2,588		

	Construct Water Conveyances									
							t/Unit	Tot	al Cost	
Task #		Area	Description	Task Type	Quant Unit					Key Assumptions
	105.12	Tenmile TSF	Clean Water Channel	Excavate diversion/spillway	35,875 CY	\$	3.66	\$	131,303	Into ESC
		Tenmile TSF	Rip Rap	Rip Rap Armoring	16,068 CY	\$	74.40	\$	1,195,459	
	105.7	Tenmile TSF	Bedding for Riprap Placed	Drain Rock	19,230 CY	\$	73.88	\$	1,420,712	Clean surface water across 3Dam to ESC
	105.10	Tenmile TSF	Impacted Water Pipeline	30" Corrugated HDPE Installed	7,000 LF	\$	78.33	\$	548,310	
		Tenmile TSF	Decant Pool Spillways	Excvate Diversion/Spillway	7,052 CY	\$	3.66	\$	25,810	
		Tenmile TSF	ACB		72,231 SF	\$	63.70	\$	4,601,115	
F2001		Tenmile TSF	Hydrologic Protection					\$	7,922,709	

REVEGETATION WORK

Task d	lescrip	tion: Te	nmile TSF- Reveg	- Upland				
Clir	Climax Mine Permit Action: 2024-06 Permit		Permit/Job#	: <u>M1977493</u>				
PROJI	ECT 1	IDENTIFICAT	<u>ION</u>					
Tas	sk #:	F3001	State: Co	olorado		Abb	oreviation:	None
	Pate:	6/10/2024	County: La	ke			Filename:	M493-F3001
U	Jser:	ACY	=					
	Age	ency or organizatio	n name: DRMS					
ERT	ILIZI	<u>ING</u>						
<u> Iateria</u>	als			TT */ /	<u> </u>			
Des	criptio	on		Units / Acre	Unit	Cost	t / Unit	Cost /Acre
						\$		\$
						Tota	al Fertilizer Materials Cost/Acre	\$0.00
Desc.	criptic	on						Cost /Acre
								\$
				Total	Fertilizer	· Application	n Cost/Acre	\$0.00
TILLI	<u>NG</u>							
Desc	criptio	on						Cost /Acre
			EANS 32 91 13.23	6100)				\$117.61
						Total Tilling	g Cost/Acre	\$117.61
SEEDI	<u>ING</u>							, , ,=====
	d Mix					Rate – PLS LBS /	Seeds per SQ. FT	Cost /Acre

Alpine Bluegrass	0.11	2.53	\$2.63
Arizona Fescue - Redondo	0.45	5.17	\$6.78
Mountain Brome - Bromar	1.70	2.73	\$10.23
Cinquefoil, Slender	0.04	3.90	\$19.62
Currant, Wax	0.16	0.55	\$11.10
Rocky Mountain Fescue	0.17	2.73	\$1.83
Lupine, Silver	1.74	1.02	\$208.03
Slender Wheatgrass - Native	0.68	2.48	\$4.80
Vetch, American	1.33	0.60	\$163.74
Prairie Junegrass	0.09	4.78	\$4.39

Acre

Total	ls Seed Mix 7.66	54.11	\$487.09
Yarrow, White	0.05	3.18	\$3.67
Penstemon, Rocky Mountain	0.27	4.23	\$16.58
Tufted Hairgrass	0.17	9.76	\$4.84
Timothy, Alpine - Native	0.25	7.46	\$9.80
Flax, Lewis Blue	0.45	2.99	\$19.03

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
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$492.78	\$985.56
Total Mulch Materials Cost/Acre				\$985.56

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}	·	\$85.37
Power mulcher (MEANS 32 91 13.16 0350)		\$157.25
	Total Mulch Application Cost/Acre	\$242.63

NURSERY STOCK PLANTING

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

JOB TIME AND COST

 No. of Acres:
 625
 Cost /Acre:
 \$2,069.53

 Estimated Failure Rate:
 10%
 Cost /Acre*:
 \$1,951.92

*Selected Replanting Work Items: SEEDING,MULCHING

Initial Job Cost: \$1,293,456.25

Reseeding Job Cost: \$121,995.00

Total Job Cost: Job Hours: 687.50

REVEGETATION WORK

Task description: Tenmile TSF - Reveg - Tree	es				
e: Climax Mine Permit Action:	2024-	-06		Permit/Job#	: <u>M1977493</u>
PROJECT IDENTIFICATION Task #: F3002 State: Colorado Date: 8/19/2024 County: Lake User: ACY Agency or organization name: DRMS			Ab		None M493-F3002
FERTILIZING					
	nits /	Unit	Cos	t / Unit	Cost /Acre
			\$		\$
			Tot	al Fertilizer Materials Cost/Acre	\$0.00
	Total	Fertilizer	Applicatio	n Cost/Acre	\$ \$0.00
<u> FILLING</u>					
Description					Cost /Acre
		F	Fotal Tillin	g Cost/Acre	\$ \$0.00
SEEDING					
Seed Mix			Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
	Totals S	eed Mix	0.00	0.00	\$ \$0.00
Application					I
Description					Cost /Acre
					\$

Total Seed Application Cost/Acre	\$0.00

MULCHING and MISCELLANEOUS

Materials

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

Application

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

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
Fir, Subalpine	225	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.74	\$0.00	\$616.50
Spruce, Englemann	225	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.74	\$0.00	\$616.50
		Totals :	Nursery Stoc	ek Cost / Acre	\$1,233.00

JOB TIME AND COST

 No. of Acres:
 19
 Cost /Acre:
 \$1,233.00

 Estimated Failure Rate:
 20%
 Cost /Acre*:
 \$1,233.00

 *Selected Replanting Work Items:
 NURSERY

Initial Job Cost: \$23,427.00

Reseeding Job Cost: \$4,685.40

Total Job Cost: Job Hours: 22.80

SAFEGUARDING UNDERGROUND OPENINGS

	Task description:	Tenmile Tunnel Sea	aling		
Site:	Climax Mine	Permit .	Action: 2024-06	Permit/3	Job#: <u>M1977493</u>
ROJE	ECT IDENTIFICAT	<u>ION</u>			
Γask #	t: G4001	State: Color	ado	Abbreviation:	None
Date	e: 6/18/2024	County: Lake		Filename:	M493-G4001
	:: ACY				

UNIT COSTS

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Tenmile Tunnel	2@ 15'D x 10'H x 10'W	USER PROVIDED ITEM	111.00	CY	\$1,167.18	\$129,556.98

Job Hours: ______ 1,307.00 ____ Total Cost: _____ \$129,556.98

TRUCK/LOADER TEAM WORK

-	Task description: 3 Dam - Haul Tops			psoil						
Site:	Climax N	I ine		Perr	nit Acti	on: <u>2024-06</u>		Permit/Job#:	M1977493	
<u>]</u>	PROJECT	IDE	NTIFICATION	<u>N</u>						
	Task #:	H100)1	State:	Color	ado		Abbreviation:	None	
	Date:	6/12/	2024	County:	Lake			Filename:	M493-H1001	
	User:	ACY	·							
<u>]</u>	HOURLY	EQU	IPMENT COS	<u>T</u>		Equipment Descr		basis: <u>1 per day</u>		
			Truck Loader Te	am -Truck	: Cat	740				
				-Loader		T 966H high lift				
		Supp	oort Equipment -			D6T LGP				
				Oump Area						
		Road M	Iaintenance –Mo			T 12M	<u> </u>			
_			-W	ater Truck	: Wa	ter Tanker, 5,000	Gal.			
<u>(</u>	Cost Breakdown: Truck/Loader Team				ı	Support	Equipment	Maint	enance Equipment	
			Truck	Loader		Load Area	Dump Area	Motor Gra	der Water Truck	ς.

Cost Breakdown:	Truck/Loa	ader Team	Support l	Equipment	Maintenan	ce Equipment
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	100	100
Ownership cost/hour:	\$108.25	\$57.78	\$99.72	NA	\$69.16	\$51.70
Operating cost/hour:	\$79.54	\$46.25	\$71.22	NA	\$54.74	\$50.22
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$25.24	\$36.85	\$38.59	NA	\$27.76	\$21.12
Unit Subtotals:	\$213.03	\$140.88	\$209.53	NA	\$151.66	\$123.04
Number of Units:	8	2	1	0	1	1
Group Subtotals:	Work:	\$1,986.00	Support:	\$209.53	Maint:	\$274.70

Total work team cost/hour: \$2,470.23

MATERIAL QUANTITIES

Initial volume: 94,000 CCY Swell factor: 1.215

Loose volume: 114,210 LCY

Source of estimated volume: TR-37

Source of estimated swell factor: Cat Handbook

Material Purchase Cost: \$0.00

nase Cost: \$0.00

Total Cost: \$0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: 1,600 Pounds/LCY
Description: Top Soil

Rated Payload: 87,000 Pounds Payload Capacity: 54.38 LCY

Track Loade Cycle Time Elements (m Load: NA Wheel and Track Load Cycle Time Facto Materi Stockpi Truck Ownersh Operatio Dump Targ Truck Cycle Time: Truck Exchange T	ers - Unadjusted ors al: Mixed ma le: Conveyor ip: Common on: Constant o et: Nominal t	Maneuver: NA Basic Loader Cycle T Aterial 0.02 or dozer piled 10 ft. hi ownership of trucks an operation -0.04 arget 0.00 Net Cycle Ti Adjusted Loa Net Load	gh and up 0.00 d loaders -0.04 me Adjustment: der Cycle Time: Time per Truck:	Dump:0.100	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes 1.000 2.300	utes
Cycle Time Elements (m Load: NA Wheel and Track Load Cycle Time Factor Materi Stockpi Truck Ownersh Operation Dump Targ	ers - Unadjusted ors al: Mixed ma le: Conveyor ip: Common on: Constant of	Maneuver: NA Basic Loader Cycle To terial 0.02 or dozer piled 10 ft. his ownership of trucks an operation -0.04 arget 0.00 Net Cycle Ti Adjusted Loan Net Load	gh and up 0.00 d loaders -0.04 ime Adjustment: der Cycle Time: Time per Truck:	Dump: 0.100 maneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 2.300	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	
Cycle Time Elements (m Load: NA Wheel and Track Load Cycle Time Factor Materi Stockpi Truck Ownersh Operation Dump Targ	ers - Unadjusted ors al: Mixed ma le: Conveyor ip: Common on: Constant of	Maneuver: NA Basic Loader Cycle T Aterial 0.02 or dozer piled 10 ft. hi ownership of trucks an operation -0.04 arget 0.00 Net Cycle Ti Adjusted Loa	gh and up 0.00 d loaders -0.04 ime Adjustment: der Cycle Time:	Dump: 0.100 maneuver): 0.100 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	utes
Cycle Time Elements (m Load: NA Wheel and Track Load Cycle Time Facto Materi Stockpi Truck Ownersh Operation	ers - Unadjusted ors al: Mixed ma le: Conveyor ip: Common on: Constant of	Maneuver: NA Basic Loader Cycle T Aterial 0.02 or dozer piled 10 ft. hi ownership of trucks an operation -0.04 arget 0.00 Net Cycle Ti Adjusted Loa	gh and up 0.00 d loaders -0.04 ime Adjustment: der Cycle Time:	Dump: 0.100 maneuver): 0.100 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	utes
Cycle Time Elements (m Load: NA Wheel and Track Load Cycle Time Facto Materi Stockpi Truck Ownersh Operation	ers - Unadjusted ors al: Mixed ma le: Conveyor ip: Common on: Constant of	Maneuver: NA Basic Loader Cycle T terial 0.02 or dozer piled 10 ft. hi ownership of trucks an operation -0.04 arget 0.00 Net Cycle Ti	gh and up 0.00 d loaders -0.04	Dump: 0.100 maneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	utes
Cycle Time Elements (m Load: NA Wheel and Track Load Cycle Time Facto Materi Stockpi Truck Ownersh Operation	ers - Unadjusted ors al: Mixed ma le: Conveyor ip: Common on: Constant of	Maneuver: NA Basic Loader Cycle T Iterial 0.02 or dozer piled 10 ft. hi ownership of trucks an operation -0.04 arget 0.00	ime (load, dump, r gh and up 0.00 d loaders -0.04	Dump: 0.100 maneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Cycle Time Elements (m Load: NA Wheel and Track Load Cycle Time Facto Materi Stockpi Truck Ownersh	ers - Unadjusted ors al: Mixed ma le: Conveyor ip: Common	Maneuver: NA Basic Loader Cycle T terial 0.02 or dozer piled 10 ft. hi ownership of trucks an	ime (load, dump, r	Dump: 0.100 maneuver): 0. Factor (min.) 0.020 0.000 -0.040	Source (Cat HB) (Cat HB) (Cat HB)	utes
Cycle Time Elements (m Load: NA Wheel and Track Load Cycle Time Factor Materi Stockpi	ers - Unadjusted ors al: Mixed ma le: Conveyor	Maneuver: NA Basic Loader Cycle T Iterial 0.02 or dozer piled 10 ft. hi	ime (load, dump, r	Dump: 0.100 maneuver): 0.100 Factor (min.) 0.020 0.000	Source (Cat HB) (Cat HB)	utes
Cycle Time Elements (m Load: NA Wheel and Track Load Cycle Time Factor Materi	in.): ers - Unadjusted ors al: Mixed ma	Maneuver: NA Basic Loader Cycle T	ime (load, dump, r	Dump: 0.100 maneuver): 0.100 Factor (min.) 0.020	Source (Cat HB)	utes
Cycle Time Elements (m Load: NA Wheel and Track Load Cycle Time Factor	in.): ers - Unadjusted	Maneuver: NA Basic Loader Cycle T		Dump: 0.100 maneuver): 0.100 Factor (min.)	.500 min	utes
Cycle Time Elements (m Load: NA Wheel and Track Load	in.): ers - Unadjusted	Maneuver: NA		Dump: 0.100	.500 min	utes
Cycle Time Elements (m Load: NA	in.):	Maneuver: NA		Dump:0.100		
Cycle Time Elements (m		•)	
		escription:				
Trook I code	re Material Da					
Selected Va						
Machine Cycle Tir	ne vs. Job Condi lue within this B					
Excavators and Front Sh		icor of Louding 10011	asses required to			- usses
Loading Tool Cycle Ti		nber of Loading Tool P	asses Required to	Fill Truck	6 1	passes
Net Correction:	0.498	0.830				
Job Efficiency:	0.830	0.830	(CAT HE	3)		
Altitude Adj:	Truck 0.600	Loader 1.000	Source (CAT HE			
Job Condition Correcti	ons:	S	Site Altitude (ft.):	11000 feet		
Adjusted Capacity	y: 5.250			,		_
Bucket Fill Factor		` 1	sandy clay (100%	- 110%) 1.050		_
Rated Capacity	y: 5.000	LCY (heaped)				
Loading 1001 Capacity			Ruel	ket Size Class: N	A	
F Loading Tool Capacity	inal Truck Volu	me Based on Number	of Loader Passes:	31.50	LCY	
						
·		LCY				
Adjusted Volume:	47.00	LCY				
Average Volume:		LCI				
	31.40	_ LCY LCY				

<u>Truck Travel (Haul & Return) Time:</u> Road Condition: <u>Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0</u>

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	5280.00	5.70	3.00	8.70	983	5.453

Haul Time: 5.453 minutes

Return Route:

Retain Route.							
	Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
	1	5280.00	-5.70	3.00	-2.70	3706	1.469

Return Time: 1.469 minutes
Total Truck Cycle Time: 11.889 minutes

Loading Tool unit

Production 572.73 LCY/Hour Adjusted for job efficiency: 475.36 LCY/Hour

Truck Unit Production

158.97 LCY/Hour Adjusted for job efficiency: 131.95 LCY/Hour

Optimal No. of Trucks: 4 Truck(s) Selected Number of Trucks: 4 Truck(s)

Adjusted hourly truck team production: 527.80 LCY/Hour Adjusted single truck/loader team production: 475.36 LCY/Hour Adjusted multiple truck/loader team production: 950.73 LCY/Hour

JOB TIME AND COST

Fleet size: 2 Team(s) Total job time: **120.13** Hours

Unit cost: \$2.598 /LCY Total job cost: **\$296,746**

BULLDOZER WORK

	ription:	3 Da	m - Topsoil Grading			
e: Climax	Mine		Permit Action	2024-06	Permit/Job#:	M1977493
PROJEC	CT IDEN	TIFICATI	<u>ON</u>			
Task #:	H1002		State: Colorado)	Abbreviation:	None
Date:	6/13/20		County: Lake		Filename:	M493-H1002
User:	ACY					
A	Agency or	organization	name: DRMS			
HOURL'	Y EQUII	PMENT CO	<u>OST</u>			
Basic M	Sachine:	Cat D7R D	S XR Series II			
Horse	epower:	240				
	le Type:	Semi-Univ	ersal			
	chment:	NA				
	ft Basis:	1 per day				
Data	Source: _	(CRG)				
Cost Break	kdown:					
				<u>Utilization %</u>		
	ip Cost/Ho		\$90.24			
	ng Cost/Ho		\$78.95			
Ripper ow			\$0.00			
	p. Cost/Ho	-	\$0.00			
Operato	or Cost/Ho	our:	\$38.59	NA		
Total unit of Total Fleet						
Total Fleet MATER Initial Vo	t Cost/Hou IAL QUA olume: _	ANTITIES 112,800	55			
Total Fleet MATERI Initial Vo Swell	t Cost/Hou IAL QUA olume: _ factor: _	ANTITIES 112,800 1.000	55			
MATERI Initial Vo Swell Loose vo	IAL QUA olume: _ factor: _ olume: _	\$415. ANTITIES 112,800 1.000 112,800 LC	Y			
MATERI Initial Vo Swell Loose vo Source of 6	IAL QUA olume: _ factor: _ olume: _ estimated	\$415. ANTITIES 112,800 1.000 112,800 LC	Y TR-37			
MATERI Initial Vo Swell Loose vo Source of 6	IAL QUA olume: _ factor: _ olume: _ estimated :	ANTITIES 112,800 1.000 112,800 LC volume:	<u>Y</u> TR-37			
MATERI Initial Vo Swell Loose vo Source of 6	IAL QUA olume: factor: olume: estimated : Y PROD ush distance	ANTITIES 112,800 1.000 112,800 LC volume: swell factor: UCTION ce:	<u>Y</u> TR-37			
MATERI Initial Vo Swell Loose vo Source of of Source of of HOURLY Average pu	t Cost/Houndary IAL QUA olume: factor: olume: estimated a estimated a Y PROD ush distance d hourly pro-	ANTITIES 112,800 1.000 112,800 LC volume: swell factor: UCTION ce:	Y TR-37 Cat Handbook 200 feet 410.8 LCY/hr	2		
MATERI Initial Vo Swell Loose vo Source of of Source of of HOURLY Average pu	t Cost/Hourist Cos	### ##################################	Y TR-37 Cat Handbook 200 feet 410.8 LCY/hr :: Loose stockpile 1			
MATERI Initial Vo Swell Loose vo Source of of Source of of HOURLY Average pu Unadjusted Materials of	t Cost/Hou IAL QUA olume: factor: olume: estimated a estimated a Y PROD ush distance d hourly proconsistency ush gradie ite altitude	### ##################################	Y TR-37 Cat Handbook 200 feet 410.8 LCY/hr :: Loose stockpile 1	2		
MATERI Initial Vo Swell Loose vo Source of 6 Source of 6 HOURLY Average pr Unadjusted Average pr Average pr Average pr	t Cost/Hour t Cost	### ##################################	TR-37 Cat Handbook 200 feet 410.8 LCY/hr : Loose stockpile 1 0 feet	2		
MATERI Initial Vo Swell Loose vo Source of 6 Source of 6 HOURLY Average pr Unadjusted Average pr Average pr Average si Material w Weight des	IAL QUA olume: factor: olume: factor: olume: estimated = estima	### ##################################	TR-37 Cat Handbook 200 feet 410.8 LCY/hr : Loose stockpile 1 0 feet lbs/LCY Soil	Source		
MATERI Initial Vo Swell Loose vo Source of of Source of of HOURLY Average pr Unadjusted Materials of Average pr Average si Material w Weight des	t Cost/Hourist Cost/Hourist Cost/Hourist Cost/Hourist Colume: gradient Standard Sta	### ### ##############################	TR-37 Cat Handbook 200 feet 410.8 LCY/hr : Loose stockpile 1 0 feet blbs/LCY Soil 0.750	Source (AVG.)		
MATERI Initial Vo Swell Loose vo Source of of Source of of HOURLY Average pr Unadjusted Materials of Average pr Average si Material w Weight des	t Cost/Hourist Cost/Hourist Cost/Hourist Cost/Hourist Cost/Hourist Column: gestimated sestimated s	### ### ##############################	TR-37 Cat Handbook 200 feet 410.8 LCY/hr : Loose stockpile 1 0 feet lbs/LCY Soil	Source		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.5478

Adjusted unit production: 635.84 LCY/hr
Adjusted fleet production: 1271.68 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: \$0.327/LCY

Total job time: 88.70 Hours
Total job cost: \$36,860

TRUCK/LOADER TEAM WORK

Task description:	3 Dam -	Haul Bedding M	[aterial			
Site: Climax Mine		Permit Action	on: _2024-06		Permit/Job#: M	1977493
PROJECT IDE	ENTIFICATION	<u>I</u>				
Task #: H10 Date: 6/12 User: AC	2/2024	State: Colora County: Lake	ido	Ab	breviation: No. M4	ne 93-H1003
Agency	or organization nar	me: DRMS				
HOURLY EQU	JIPMENT COS	<u>r</u>		Shift bas	is: <u>1 per day</u>	
		ī	Equipment Descri	ntion		
	Truck Loader Tea			puon		
			Γ 966H high lift			
Sur	port Equipment -I		D6T LGP			
•	-D	ump Area: NA				
Road	Maintenance –Mot		Γ 12M			
	-Wa	nter Truck: Wat	er Tanker, 5,000	Gal.		
Cost Breakdown	: Truck/Lo	ader Team		Equipment	Maintenan	ce Equipment
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	100	100
Ownership cost/hour:	\$108.25	\$57.78	\$99.72	NA	\$69.16	\$51.70
Operating cost/hour:	\$79.54	\$46.25	\$71.22	NA	\$54.74	\$50.22
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$25.24	\$36.85	\$38.59	NA	\$27.76	\$21.12
Unit Subtotals:	\$213.03	\$140.88	\$209.53	NA	\$151.66	\$123.04
Number of Units:	2	1	1	0	1	1

Support:

\$209.53

Total work team cost/hour: \$1,051.17

MATERIAL QUANTITIES

Initial volume: 7,321 CCY Swell factor: 1.000 Loose volume: 7,321 LCY

Source of estimated volume: TR-37

Work:

Source of estimated swell factor: Cat Handbook

Material Purchase Cost: \$0.00

Total Cost: \$0.00

\$566.94

HOURLY PRODUCTION

Truck Capacity:

Group Subtotals:

Truck Payload (weight) Basis:

Material weight: 2,600 Pounds/LCY
Description: Limestone - Broken

Rated Payload: 87,000 Pounds
Payload Capacity: 33.46 LCY

Maint:

\$274.70

Truck Travel (Haul & Return) Time:

maintained 3.0

Truels Dad (volume) Daries						
Truck Bed (volume) Basis: Struck Volume:	24.20 L	.CY				
Heaped Volume:		.CY				
Average Volume:		CY				
Adjusted Volume:		.CY				
Fino'	Truck Volume F	Based on Number of	I oadar Passası	28.88	LCY	
Loading Tool Capacity	Truck volume I	Based on Number of	Loadel Lasses.	20.00	LC1	
Loading 1001 Capacity			Buc	ket Size Class: N	NΑ	
Rated Capacity:	5.000	LCY (heaped)	200		,,,,	_
Bucket Fill Factor:	0.825	Blasted rock - a	vg. blasted (75	- 90%) 0.825		_
Adjusted Capacity:	4.125	LCY				_
Job Condition Corrections	<u>:</u>	Si	te Altitude (ft.):	11000 feet		
	Truck	Loader	Source			
Altitude Adj:	0.600	1.000	(CAT HE	3)		
Job Efficiency:	0.830	0.830	(CAT HE			
Net Correction:	0.498	0.830				
	0,120	0,000				
	s. Job Condition within this Basic Material Descrip	Rating: NA				
Cycle Time Elements (min.)	•					
Load: NA		neuver: NA		Dump: 0.10	0	
Wheel and Track Loaders	- Unadjusted Bas	ic Loader Cycle Tin	ne (load, dump, 1	naneuver):(0.500 min	utes
Cycle Time Factors				Factor (min.)	Source	
Material:	Mixed materia	1 0.02		0.020	(Cat HB)	_
Stockpile:	Conveyor or do	ozer piled 10 ft. hig	n and up 0.00	0.000	(Cat HB)	_
Truck Ownership:		ership of trucks and	loaders -0.04	-0.040	(Cat HB)	_
Operation:	Constant opera			-0.040	(Cat HB)	
Dump Target:	Nominal target			0.000	(Cat HB)	
		Net Cycle Tim		-0.060	minutes	
		Adjusted Load		0.440	minutes	
		Net Load 1	ime per Truck:	2.740	minutes	
Truck Cycle Time:						
Truck Exchange Time	e: 0.60	Minutes	Adjusted	for site altitude:	1.000	Minute
Truck Exchange Time Truck Load Time		Minutes Minutes	3	for site altitude:	1.000 2.740	Minute Minute

CIRCES Cost Estimating Software

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2676.00	-3.00	3.00	0.00	3005	1.143

Haul Time: 1.143 minutes

Return Route:

rectarii rec	rate.					
Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2676.00	3.00	3.00	6.00	2742	1.198

Return Time: 1.198 minutes
Total Truck Cycle Time: 7.748 minutes

Loading Tool unit

Production 463.24 LCY/Hour Adjusted for job efficiency: 384.49 LCY/Hour

Truck Unit Production

223.62 LCY/Hour Adjusted for joint and the control of the

Adjusted for job efficiency: _____185.60 ____ LCY/Hour

Optimal No. of Trucks: 2 Truck(s) Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 371.20 LCY/Hour Adjusted single truck/loader team production: 371.20 LCY/Hour Adjusted multiple truck/loader team production: 371.20 LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: 19.72 Hours

Unit cost: \$2.832 /LCY Total job cost: **\$20,732**

			-	Construct Water Conve	eyances		
İ					Cost/Unit T	Total Cost	
Task #		Area	Description	Task Type	Quant Unit	Key Assumptions	
1	102.7	3 Dam	Clean Water Surface Channel		7,441 CY \$ 3.66 \$	\$ 27,234 Across 3Dam to ESC	
İ		3 Dam	Rip Rap	Rip Rap Armoring	3,333 CY \$ 74.40 \$	\$ 247,975 Across 3Dam to ESC	
ĺ		3 Dam	Bedding for Riprap Placed	Drain Rock	3,988 CY \$ 73.88 \$	\$ 294,633 Across 3Dam to ESC	
H2001		3 Dam	Hydrologic Protection		•	\$ 569,843	

REVEGETATION WORK

Description Units / Acre	Task description:	3 Dam - Reveg - Upla	nd				
Task #: H3001	Climax Mine	Permit A	action:2024	-06		Permit/Job#:	M1977493
Task #: H3001	ROJECT IDENTIFICA	TION					
Date: 6/10/2024 County: Lake			orado		Abh	reviation.	None.
Agency or organization name: DRMS DRMS DRMS DRMS					_		
Description Description Description Description Description Description Description Description Cost /Acre Total Fertilizer Materials Cost/Acre Materials Cost/Acre Materials Cost/Acre Total Fertilizer Application Cost/Acre S Total Fertilizer Application Cost/Acre S Total Tilling Cost/Acre Seed Mix Rate - PLS LBS / Acre Rate - PLS LBS / Acre Cost /Acre Cost /Acre Cost /Acre Cost /Acre Cost /Acre	User: ACY				_		
Description	Agency or organiza	tion name: DRMS					
Description Acre Unit Cost / Unit Cost / Cost / Acre Total Fertilizer Materials Cost/Acre So.00 Application Description Cost / Acre S Total Fertilizer Application Cost/Acre S Total Fertilizer Application Cost/Acre S Total Fertilizer Application Cost/Acre S Total Tilling Cost/Acre S Total Tilling Cost/Acre S Total Tilling Cost/Acre S EEDING Rate - PLS per SQ. FT Acre Cost / Acre	ERTILIZING						
Description Acre Unit Cost / Unit Cost / Cost / Acre Total Fertilizer Materials Cost/Acre \$0.00 Application Description Cost / Acre Total Fertilizer Application Cost/Acre S Total Fertilizer Application Cost/Acre S Total Fertilizer Application Cost/Acre S Total Tilling Cost/Acre S Total Tilling Cost/Acre S Total Tilling Cost/Acre S Total Tilling Cost/Acre S Total Tilling Cost/Acre S Total Tilling Cost/Acre S Total Tilling Cost/Acre S Total Tilling Cost/Acre S Total Tilling Cost/Acre S Total Tilling Cost/Acre S Total Tilling Cost/Acre S Total Tilling Cost/Acre S Total Tilling Cost/Acre S Total Tilling Cost/Acre S Total Tilling Cost/Acre S Total Tilling Cost/Acre S Total Tilling Cost/Acre S Total Tilling Cost/Acre	<u> </u>						
Total Fertilizer Materials Cost/Acre \$0.00 Application Description Cost /Acre \$ Total Fertilizer Application Cost/Acre \$ Total Fertilizer Application Cost/Acre \$0.00 FILLING Description Cost /Acre \$ Total Tilling Cost/Acre \$0.00 SEEDING Rate - PLS per SQ. LBS / per SQ. FT	Description			Unit	Cost	/ Unit	Cost /Acre
Application Description Total Fertilizer Application Cost/Acre Solution Total Fertilizer Application Cost/Acre Solution Total Tilling Cost/Acre Solution SEEDING Rate - PLS Seeds per SQ. LBS / Acre FT Cost /Acre					\$		\$
Application Description Cost /Acre \$ Total Fertilizer Application Cost/Acre \$0.00 FILLING Description Cost /Acre \$ Total Tilling Cost/Acre \$0.00 SEEDING Rate - PLS PLS LBS / Acre FT Cost /Acre					Tota	Materials	\$0.00
Description Cost /Acre \$ Total Fertilizer Application Cost/Acre \$0.00 FILLING Description Cost /Acre \$ Total Tilling Cost/Acre \$0.00 SEEDING Rate - PLS Seeds per SQ. FT Cost /Acre FT Cost /Acre FT Cost /Acre FT Cost /Acre Cost							
Description Cost /Acre \$ Total Fertilizer Application Cost/Acre \$0.00 FILLING Description Cost /Acre \$ Total Tilling Cost/Acre \$0.00 SEEDING Rate - PLS Seeds per SQ. FT Cost /Acre FT Cost /Acre FT Cost /Acre FT Cost /Acre Cost	pplication						
Total Fertilizer Application Cost/Acre \$0.00 TILLING Description Cost /Acre \$ Total Tilling Cost/Acre \$0.00 SEEDING Rate - PLS LBS / Acre PTSQ. FT Cost /Acre FT							Cost /Acre
Description Cost /Acre S Total Tilling Cost/Acre SEEDING Rate - PLS PLS PER SQ. FT Cost /Acre Cost /Acre Cost /Acre Cost /Acre Cost /Acre	•						\$
Description Cost /Acre S Total Tilling Cost/Acre SEEDING Rate - PLS PLS PER SQ. FT Cost /Acre Cost /Acre Cost /Acre Cost /Acre Cost /Acre			Total	Fantilizan A	nnlication	Cost/A oro	
Description Cost /Acre \$ Total Tilling Cost/Acre \$0.00 SEEDING Rate - PLS LBS / PLS per SQ. FT Cost /Acre			1014	Terunzer A	ррисаци	I COSUACIE	\$0.00
SEEDING Rate - PLS LBS / Acre Seed Mix Cost /Acre	<u>'ILLING</u>						
SEEDING Rate - PLS LBS / Acre Seeds per SQ. FT Cost /Acre	Description						Cost /Acre
SEEDING Rate - PLS LBS / Acre Cost /Acre							\$
SEEDING Rate - PLS LBS / Acre Cost /Acre							Ψ
Seed Mix Rate – PLS LBS / Acre Rate – PLS PET Seeds PET SQ. FT				To	otal Tilling	g Cost/Acre	\$0.00
Seed Mix Rate – PLS LBS / Acre Rate – PLS PET Seeds PET SQ. FT	EEDING						
Seed Mix PLS LBS / Acre PLS Per SQ. FT Cost /Acre					Rate –		
Acre FT	Seed Mix				PLS		Cost /Acre
Acre						per SQ. FT	
	İ						

Arizona Fescue - Redondo

Mountain Brome - Bromar

Rocky Mountain Fescue

Slender Wheatgrass - Native

Cinquefoil, Slender

Currant, Wax

Lupine, Silver

Vetch, American

CIRCES Cost Estimating Software

\$13.56

\$20.46

\$39.25

\$22.20

\$416.06

\$327.49

\$3.67

\$9.61

10.33

5.46

7.80

1.10

5.46

2.04

4.96

1.20

0.90

3.40

0.08

0.32

0.34

3.48

1.36

2.66

Prairie Junegrass	0.18	9.57	\$8.77
Flax, Lewis Blue	0.90	5.97	\$38.07
Timothy, Alpine - Native	0.50	14.92	\$19.59
Tufted Hairgrass	0.34	19.51	\$9.68
Penstemon, Rocky Mountain	0.54	8.46	\$33.16
Yarrow, White	0.10	6.36	\$7.34
Totals Seed Mix	15.32	108.21	\$974.17

Application

Description		Cost /Acre
Hydro seeding (MEANS 32 92 19.14 0200)		\$1,359.07
	Total Seed Application Cost/Acre	\$1,359.07

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Hydromulch, 1 ton/ac. rate {Materials Only}	1.00	ACRE	\$1,459.26	\$1,459.26
Total Mulch Materials Cost/Acre				\$1,459,26

Application

Description		Cost /Acre
NA-mulch application incl. with hydroseeding		\$0.00
Total	Mulch Application Cost/Acre	\$0.00

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
		Totals 1	Nursery Stoc	k Cost / Acre	\$0.00

JOB TIME AND COST

 No. of Acres:
 29
 Cost /Acre:
 \$3,792.50

 Estimated Failure Rate:
 10%
 Cost /Acre*:
 \$3,792.50

*Selected Replanting Work Items: SEEDING,MULCHING

Initial Job Cost: \$109,982.50

Reseeding Job Cost: \$10,998.25

Total Job Cost: \$120,981

31.90

BULLDOZER WORK

Task description:	Pond S	hop - Grading			
e: Climax Mine		Permit Action:	2024-06	Permit/Job#:	M1977493
PROJECT ID	ENTIFICATION	<u>N</u>			
Task #: I10	01	State: Colorado		Abbreviation:	None
	7/2024	County: Lake		Filename:	M493-I1001
User: AC		, <u> </u>	·	-	
Agency	or organization na	me: DRMS			
HOURLY EQ	UIPMENT COS	<u>ST</u>			
Basic Machine		U	<u></u>		
Horsepowe					
Blade Type		al			
Attachmen			<u> </u>		
Shift Basis Data Source			<u> </u>		
Data Source	·. (CKG)				
Cost Breakdown:			ı		
_			<u>Utilization %</u>		
Ownership Cos		\$173.32	NA 100		
Operating Cos		\$109.71	100		
Ripper own. Cos		\$0.00 \$0.00	NA 0		
Ripper op. Cos					
Operator Cos	/Hour:	\$38.59	NA		
Total unit Cost/H	lour: \$321.62				
Total Fleet Cost/					
MATERIAL (<u>UANTITIES</u>				
Initial Volume:	1,613				
Swell factor:					
Loose volume:					
Source of estimat	_	TR-37			
Source of estimat	ed swell factor:	Cat Handbook			
HOURLY PRO	ODUCTION				
	<u></u>				
Average push dis		50 feet			
Unadjusted hourl	y production: 3'	77.8 LCY/hr	<u></u>		
Materials consist	ency description:	Compacted fill or e	embankment 0.9		
Average push gra Average site altit		feet			
Material weight:		os/LCY			
Weight description	on: Decomp	oosed rock - 50% Rock	t, 50% Earth		
Job Condition Co	orrection Factor		Source		
	perator Skill:	0.750	(AVG.)		
	consistency:	0.900	(CAT HB))		
	zing method:	1.000	(GEN.)		
	Visibility:	1.000	(AVG.)		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.700	(FND-MF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3110

Adjusted unit production: 117.50 LCY/hr
Adjusted fleet production: 117.5 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$2.737/LCY

Total job time: 15.99 Hours
Total job cost: \$5,144

TRUCK/LOADER TEAM WORK

Task description: Site: Climax Mine		nop - Hauling To	on: 2024-06	,	Permit/Job#: M	1977493
Site: Climax Mille		Periiit Acu	OII: <u>2024-06</u>	<u> </u>	Perimi/Job#: <u>W</u>	1977493
PROJECT IDEN	NTIFICATION N					
Task #: I1002		State: Color	ado	Ab	breviation: No	ne
Date: 6/13/2	2024	County: Lake			Filename: M4	93-I1002
User: ACY						
Agency or	organization nar	ne: DRMS				
HOURLY EQUI	PMENT COST	<u>r</u>		Shift bas	is: 1 per day	
			Equipment Descri	ption		
7	Гruck Loader Tea		: 740 T 966H high lift			
Supp	ort Equipment -L		: D6T XL			
		ump Area: NA	L			
Road M	aintenance – Mot					
-	- w a	iter Truck: NA	<u> </u>			
Cost Breakdown:	Truck/Loa	ader Team	Support 1	Equipment	Maintenan	ice Equipment
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	NA	NA
Ownership cost/hour:	\$108.25	\$57.78	\$90.43	NA	NA	NA
Operating cost/hour:	\$79.54	\$46.25	\$67.29	NA	NA	NA
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	NA	NA
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	NA	NA
Operator cost/hour:	\$25.24	\$36.85	\$38.59	NA	NA	NA
Unit Subtotals:	\$213.03	\$140.88	\$196.31	NA	NA	NA
Number of Units:	2	1	1	0	0	0
Group Subtotals:	Work:	\$566.94	Support:	\$196.31	Maint:	\$0.00
Total work team co	st/hour: \$763.25	;				
MATERIAL QU	<u>ANTITIES</u>					
Initial volume	: 538	CCY	Y Swell	factor: 1.215		
Loose volume	: 654	LCY	7			
So	urce of estimated	volume: TR-	37			
Source	of estimated swe		Handbook			
	Material Purch					
	10	otal Cost: \$0.0	U			
HOURLY PRO	DUCTION					
•						
Truck Capacity: Truck Payload (wei	ght) Basis:					
Material v			Pounds/LCY			
	ription: Top So					
Rated Pa			Pounds			
Payload Ca	pacity: <u>54.38</u>		LCY			

Struck Volume:	24.20 L	CY				
Heaped Volume:		CY				
Average Volume:		CY				
Adjusted Volume:	31.40 L	CY				
Final '	Truck Volume E	Based on Number of	Loader Passes:	31.50	LCY	
Loading Tool Capacity						
D + 10 - 1	7 000	LOW (1 1)	Bucke	et Size Class: N.	A	_
Rated Capacity:	5.000	LCY (heaped)	1 .1. (1000/	1100/ \ 1.050		_
Bucket Fill Factor:	1.050	LCY	andy clay (100% -	- 110%) 1.050		_
Adjusted Capacity:	5.250					
Job Condition Corrections:		Sit	e Altitude (ft.): 1	<u>1000</u> feet		
	Truck	Loader	Source			
Altitude Adj:	0.600	1.000	(CAT HB)	1		
Job Efficiency:	0.830	0.830	(CAT HB))		
Net Correction:	0.498	0.830				
	1					
Loading Tool Cycle Time:		of Loading Tool Pas	ses Required to F	ill Truck:	<u>6</u>]	passes
Excavators and Front Shovels	<u>s:</u>					
Machine Cycle Time vs Selected Value w						
•	vithin this Basic	Rating: NA				
Selected Value w Track Loaders – I	vithin this Basic	Rating: NA				
Selected Value w	vithin this Basic Material Descrip	Rating: NA		Dump: 0.100)	
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA	vithin this Basic Material Descrip Ma	Rating: NA otion: neuver: NA		·		
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders -	vithin this Basic Material Descrip Ma	Rating: NA otion: neuver: NA	ne (load, dump, m	aneuver):0.	.500 min	utes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors	vithin this Basic Material Descrip Ma Unadjusted Basi	Rating: NA otion: NA neuver: NA ic Loader Cycle Tin	ne (load, dump, m	aneuver): 0. Factor (min.)	.500 min	utes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material:	Material Descrip Ma Unadjusted Basi	Rating: NA ption: NA neuver: NA ic Loader Cycle Tin		aneuver):0. Factor (min.) 0.020	Source (Cat HB)	utes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile:	Material Descrip Ma Unadjusted Basi Mixed material Conveyor or do	Rating: NA neuver: NA ic Loader Cycle Tin 1 0.02 ozer piled 10 ft. high	n and up 0.00	aneuver): 0. Factor (min.) 0.020 0.000	Source (Cat HB) (Cat HB)	utes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership:	Material Descrip Ma Unadjusted Basi Mixed material Conveyor or de	Rating: NA neuver: NA ic Loader Cycle Tin 1 0.02 ozer piled 10 ft. high ership of trucks and	n and up 0.00	aneuver): 0. Factor (min.) 0.020 0.000 -0.040	Source (Cat HB) (Cat HB) (Cat HB)	utes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Material Descrip Ma Unadjusted Basi Mixed material Conveyor or do Common owner	Rating: NA ption: NA neuver: NA ic Loader Cycle Tin 1 0.02 ozer piled 10 ft. high ership of trucks and tion -0.04	n and up 0.00 loaders -0.04	aneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership:	Material Descrip Ma Unadjusted Basi Mixed material Conveyor or do Common owner	Rating: NA ption: NA Ineuver: NA ic Loader Cycle Time 1 0.02 ozer piled 10 ft. high ership of trucks and tion -0.04 - factor not applical	n and up 0.00 loaders -0.04	aneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Material Descrip Ma Unadjusted Basi Mixed material Conveyor or do Common owner	Rating: NA ption: NA Include Tycle Time Tours and the standard Tycle Time Tours and the standard Tycle Time Tours and the standard Tycle Time Tycle Time Tycle Time Tycle Time Tycle Time Tycle Time Tycle Time Tycle Time Tycle Time Tycle Time Tycle Time Tycle Time Tycle Time Tycle Time Tycle Tycle Time Tycle Tycle Time Tycle Tycle Time Tycle Tycle Time Tycle	n and up 0.00 loaders -0.04 ble 0.00 e Adjustment:	aneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Material Descrip Ma Unadjusted Basi Mixed material Conveyor or do Common owner	Rating: NA ption: NA Include Tycle Time I 0.02 Descripted 10 ft. high ership of trucks and tition -0.04 - factor not applicated Net Cycle Time Adjusted Loader	n and up 0.00 loaders -0.04 ble 0.00 e Adjustment:	aneuver):0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	utes
Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Material Descrip Ma Unadjusted Basi Mixed material Conveyor or do Common owner	Rating: NA ption: NA Include Tycle Time I 0.02 Descripted 10 ft. high ership of trucks and tition -0.04 - factor not applicated Net Cycle Time Adjusted Loader	n and up 0.00 loaders -0.04 ble 0.00 e Adjustment: er Cycle Time:	aneuver):0. Factor (min.)0.0200.000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	utes
Selected Value w Track Loaders - I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	Material Descrip Ma Unadjusted Basi Mixed material Conveyor or do Common owner Constant opera No adjustment	Rating: NA ption: NA Include Tycle Time I 0.02 Descripted 10 ft. high ership of trucks and tition -0.04 - factor not applicated Net Cycle Time Adjusted Loader	n and up 0.00 loaders -0.04 ble 0.00 e Adjustment: er Cycle Time: me per Truck:	aneuver):0. Factor (min.)0.0200.000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	
Selected Value w Track Loaders - I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time:	Material Descrip Ma Unadjusted Basi Mixed material Conveyor or de Common owner Constant opera No adjustment	Rating: NA neuver: NA ic Loader Cycle Tim 1 0.02 ozer piled 10 ft. high ership of trucks and tion -0.04 - factor not applical Net Cycle Tim Adjusted Loade Net Load Ti	n and up 0.00 loaders -0.04 ble 0.00 e Adjustment: er Cycle Time: me per Truck:	aneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 2.300	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	utes Minute Minute

<u>Truck Travel (Haul & Return) Time:</u> Road Condition: <u>Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0</u>

917.00

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	917.00	7.30	3.00	10.30	918	1.104

Task # I1002

Haul Time: 1.104 minutes Return Route: Travel Haul Distance Grade (%) Roll. Res Total Res Velocity Seg# Time (Ft) (%) (%) (fpm)

3.00

Return Time: 0.304 minutes
Total Truck Cycle Time: 6.375 minutes

3706

Loading Tool unit

Production 572.73 LCY/Hour Adjusted for job efficiency: 475.36 LCY/Hour

-4.30

Truck Unit Production

296.49 LCY/Hour Adjusted for job efficien

-7.30

four Adjusted for job efficiency: <u>246.08</u> LCY/Hour

(min)

0.304

Optimal No. of Trucks: 2 Truck(s) Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 492.17 LCY/Hour Adjusted single truck/loader team production: 475.36 LCY/Hour Adjusted multiple truck/loader team production: 475.36 LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: 1.38 Hours

Unit cost: \$1.606 /LCY Total job cost: **\$1,050**

BULLDOZER WORK

: Climax Mine					
emmux wine		Permit Action:	2024-06	Permit/Job#:	M1977493
PROJECT IDEN	TIFICATION	<u>ON</u>			
Task #: I1003		State: Colorado		Abbreviation:	None
Date: $\frac{-17000}{6/13/2}$		County: Lake		Filename:	M493-I1003
User: ACY				=	
Agency or	organization	name: DRMS			
HOURLY EQUI	PMENT CO	OST			
Basic Machine:		S XR Series II			
Horsepower:	240				
Blade Type:	Semi-Unive	ersal	<u></u>		
Attachment:	NA		<u> </u>		
Shift Basis: Data Source:	1 per day (CRG)				
	(CKU)				
Cost Breakdown:					
O	.	¢00.24	<u>Utilization %</u>		
Ownership Cost/H Operating Cost/H		\$90.24 \$78.95	NA 100		
Ripper own. Cost/H		\$0.00	NA		
Ripper op. Cost/H		\$0.00	0		
Operator Cost/H	-	\$38.59	NA		
Total unit Cost/Hou	r: \$207.				
Total Fleet Cost/Ho	ur: \$207.	78			
MATERIAL QU	ANTITIES	78			
MATERIAL QU Initial Volume:	ANTITIES 646	78			
MATERIAL QU Initial Volume: Swell factor:	646 1.000	78			
MATERIAL QU Initial Volume: Swell factor: Loose volume:	646 1.000 646 LCY				
MATERIAL QU Initial Volume: Swell factor:	646 1.000 646 LCY volume:	TR-37 Cat Handbook			
MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated	646 1.000 646 LCY volume: swell factor:	TR-37			
MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated	646 1.000 646 LCY volume: swell factor:	TR-37			
MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROL	646 1.000 646 LCY volume: swell factor:	TR-37 Cat Handbook			
MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distar	646 1.000 646 LCY volume: swell factor: DUCTION nce: production:	TR-37 Cat Handbook 200 feet 410.8 LCY/hr			
MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distar Unadjusted hourly p	646 1.000 646 LCY volume: swell factor: DUCTION nce: production: cy description ent: 0 %	TR-37 Cat Handbook 200 feet 410.8 LCY/hr Loose stockpile 1.2			
MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROI Average push distar Unadjusted hourly p Materials consistence Average push gradie	ANTITIES 646 1.000 646 LCY volume: swell factor: DUCTION nce: production: cy description ent: e: 11,000	TR-37 Cat Handbook 200 feet 410.8 LCY/hr Loose stockpile 1.2			
MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROI Average push distar Unadjusted hourly p Materials consistence Average push gradic Average site altitude	ANTITIES 646 1.000 646 LCY volume: swell factor: DUCTION nce: broduction: cy description ent: e: 1,600	TR-37 Cat Handbook 200 feet 410.8 LCY/hr Loose stockpile 1.2			
MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distar Unadjusted hourly p Materials consistence Average push gradic Average site altitude Material weight: Weight description: Job Condition Corre	ANTITIES 646 1.000 646 LCY volume: swell factor: DUCTION nce: production: cy description ent: e: 1,600 Top S ection Factor	TR-37 Cat Handbook 200 feet 410.8 LCY/hr Loose stockpile 1.2	Source		
MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distar Unadjusted hourly p Materials consistence Average push gradic Average site altitude Material weight: Weight description: Job Condition Correc Ope	ANTITIES 646 1.000 646 LCY volume: swell factor: DUCTION nce: broduction: cy description ent: e: 1,600 Top S ection Factor rator Skill:	TR-37 Cat Handbook 200 feet 410.8 LCY/hr Loose stockpile 1.2 0 feet lbs/LCY oil 0.750	Source (AVG.)		
MATERIAL QU Initial Volume: Swell factor: Loose volume: Loose volume: Source of estimated Source of estimated HOURLY PROI Average push distar Unadjusted hourly p Materials consistence Average site altitude Material weight: Weight description: Job Condition Corre Ope Material co	ANTITIES 646 1.000 646 LCY volume: swell factor: DUCTION nce: broduction: cy description ent: e: 1,600 Top S ection Factor rator Skill:	TR-37 Cat Handbook 200 feet 410.8 LCY/hr Loose stockpile 1.2	Source		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.9668

Adjusted unit production: 397.16 LCY/hr
Adjusted fleet production: 397.16 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.523/LCY

Total job time: Total job cost: 1.63 Hours \$338

REVEGETATION WORK

Task description:	Pond Shop - Reveg	- Upland			
e: Climax Mine	Permit Action: 2024-06 Permit/Job#:			: <u>M1977493</u>	
PROJECT IDENTIF	<u>ICATION</u>				
Task #: 13001 Date: 6/11/202 User: ACY Agency or org		colorado ake			None M493-I3001
FERTILIZING .					
Materials Description		Units / Acre	Unit	Cost / Unit	Cost /Acre
				\$	\$
				Total Fertilizer Materials Cost/Acre	\$0.00
Application					
Description					Cost /Acre
					\$
		Total	Fertilizer A	application Cost/Acre	\$0.00
<u> FILLING</u>					
Description Disc harrowing, 6" d	eep (MEANS 32 91 13.23	3 6100)			Cost /Acre \$117.61
2.50 maro mig, 0 u	oop (To	otal Tilling Cost/Acre	\$117.61
<u>SEEDING</u>			T	otal Hilling Cost/Acre	\$117.61
				Data	

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Alpine Bluegrass	0.11	2.53	\$2.63
Arizona Fescue - Redondo	0.45	5.17	\$6.78
Mountain Brome - Bromar	1.70	2.73	\$10.23
Cinquefoil, Slender	0.04	3.90	\$19.62
Currant, Wax	0.16	0.55	\$11.10
Rocky Mountain Fescue	0.17	2.73	\$1.83
Lupine, Silver	1.74	1.02	\$208.03
Slender Wheatgrass - Native	0.68	2.48	\$4.80
Vetch, American	1.33	0.60	\$163.74
Prairie Junegrass	0.09	4.78	\$4.39

Total	ls Seed Mix 7.66	54.11	\$487.09
Yarrow, White	0.05	3.18	\$3.67
Penstemon, Rocky Mountain	0.27	4.23	\$16.58
Tufted Hairgrass	0.17	9.76	\$4.84
Timothy, Alpine - Native	0.25	7.46	\$9.80
Flax, Lewis Blue	0.45	2.99	\$19.03

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
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$492.78	\$985.56
Total Mulch Materials Cost/Acre				\$985.56

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$85.37
Power mulcher (MEANS 32 91 13.16 0350)		\$157.25
	Total Mulch Application Cost/Acre	\$242.63

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
		Totals 1	Nursery Stoc	k Cost / Acre	\$0.00

JOB TIME AND COST

 No. of Acres:
 0.77
 Cost /Acre:
 \$2,069.53

 Estimated Failure Rate:
 10%
 Cost /Acre*:
 \$723.73

*Selected Replanting Work Items: SEEDING

Initial Job Cost: \$1,593.54

Reseeding Job Cost: \$55.73

Total Job Cost: \$1,649

2.00

TRUCK/LOADER TEAM WORK

Climax Mine Perm	nit Action: 2024-06	Permit/Job#:	M1977493
PROJECT IDENTIFICATION			
Task #:J1001 State:	Colorado	Abbreviation:	None
Date: 6/12/2024 County:	Lake	Filename:	M493-J1001
User: ACY			
Agency or organization name: <u>DRI</u> HOURLY EQUIPMENT COST	MS	Shift basis: 1 per day	
Agency or organization name: <u>DRI</u> HOURLY EQUIPMENT COST	MS Equipment Description	Shift basis: 1 per day	
	Equipment Description	Shift basis: 1 per day	
HOURLY EQUIPMENT COST	Equipment Description Cat 740	Shift basis: 1 per day	
HOURLY EQUIPMENT COST Truck Loader Team -Truck:	Equipment Description Cat 740 CAT 966H high lift	Shift basis: 1 per day	
HOURLY EQUIPMENT COST Truck Loader Team -Truck: -Loader:	Equipment Description Cat 740 CAT 966H high lift Cat D6T LGP	Shift basis: 1 per day	
HOURLY EQUIPMENT COST Truck Loader Team -Truck: -Loader: Support Equipment -Load Area:	Equipment Description Cat 740 CAT 966H high lift Cat D6T LGP NA	Shift basis: 1 per day	

Cost Breakdown:			Support l	Equipment	Maintenance Equipment	
	Truck	Truck Loader		Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	100	100
Ownership cost/hour:	\$108.25	\$57.78	\$99.72	NA	\$69.16	\$73.42
Operating cost/hour:	\$79.54	\$46.25	\$71.22	NA	\$54.74	\$83.21
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$25.24	\$36.85	\$38.59	NA	\$27.76	\$21.12
Unit Subtotals:	\$213.03	\$140.88	\$209.53	NA	\$151.66	\$177.75
Number of Units:	12	6	1	0	1	1
Group Subtotals:	Work:	\$3,401.64	Support:	\$209.53	Maint:	\$329.41

Total work team cost/hour: \$3,940.58

MATERIAL QUANTITIES

Initial volume: _ 1,850,752 CCY Swell factor: 1.215

Loose volume: 2,248,664 LCY

> Source of estimated volume: TR-37

Source of estimated swell factor: Cat Handbook

> Material Purchase Cost: \$0.00

Total Cost: \$0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: 1,600 Pounds/LCY Top Soil Description:

Rated Payload: 87,000 Pounds Payload Capacity: 54.38 LCY

Truck Travel (Haul & Return) Time:

maintained 3.0

Track Loaders Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time: Truck Exchange Time Truck Load Time	Decide to the control of the control	Maneuver: NA Basic Loader Cycle Timerial 0.02 r dozer piled 10 ft. high vnership of trucks and eration -0.04 get 0.00 Net Cycle Timerial Adjusted Loader	and up 0.00 loaders -0.04 e Adjustment: er Cycle Time: me per Truck:	Dump: 0.100 naneuver): 0.100 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 2.300 for site altitude: for site altitude:	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes 1.000 2.300	Mint
Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time:	- Unadjusted B Mixed mate Conveyor or Common ov Constant op Nominal tar	Maneuver: NA Basic Loader Cycle Timerial 0.02 r dozer piled 10 ft. high vnership of trucks and eration -0.04 get 0.00 Net Cycle Timerial Adjusted Loader Net Load Timerial 0.00	and up 0.00 loaders -0.04 e Adjustment: er Cycle Time: me per Truck:	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 2.300	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	-
Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	- Unadjusted B Mixed mate Conveyor of Common ov Constant op	Maneuver: NA Basic Loader Cycle Timerial 0.02 r dozer piled 10 ft. high vnership of trucks and eration -0.04 get 0.00 Net Cycle Timerial Adjusted Loader	and up 0.00 loaders -0.04 e Adjustment:	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	ites
Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	- Unadjusted B Mixed mate Conveyor of Common ov Constant op	Maneuver: NA Basic Loader Cycle Timerial 0.02 r dozer piled 10 ft. high vnership of trucks and eration -0.04 get 0.00 Net Cycle Timerial Adjusted Loader	and up 0.00 loaders -0.04 e Adjustment:	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	ntes
Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	- Unadjusted B Mixed mate Conveyor of Common ov Constant op	Maneuver: NA Basic Loader Cycle Tin rial 0.02 r dozer piled 10 ft. high vnership of trucks and eration -0.04 get 0.00	n and up 0.00 loaders -0.04	naneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	- Unadjusted B Mixed mate Conveyor of Common ov Constant op	Maneuver: NA Basic Loader Cycle Tin rial 0.02 r dozer piled 10 ft. high vnership of trucks and eration -0.04	n and up 0.00	Factor (min.) 0.020 0.000 -0.040 -0.040	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership:	- Unadjusted B Mixed mate Conveyor or Common ov	Maneuver: NA Basic Loader Cycle Tin rial 0.02 r dozer piled 10 ft. high vnership of trucks and	n and up 0.00	Factor (min.) 0.020 0.000 -0.040	Source (Cat HB) (Cat HB) (Cat HB)	ntes
Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile:): - Unadjusted B Mixed mate Conveyor or	Maneuver: NA Basic Loader Cycle Tin rial 0.02 r dozer piled 10 ft. high	n and up 0.00	naneuver): 0.020 0.000	Source (Cat HB) (Cat HB)	utes
Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors Material:): - Unadjusted B Mixed mate	Maneuver: NA Basic Loader Cycle Tin		naneuver): 0.020	Source (Cat HB)	utes
Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors): I Unadjusted B	Maneuver: NA Basic Loader Cycle Tin	ne (load, dump, r	naneuver): 0	.500 minu	ıtes
Cycle Time Elements (min. Load: NA Wheel and Track Loaders): - Unadjusted B	Maneuver: NA	ne (load, dump, r	naneuver):0	.500 minu	ıtes
Cycle Time Elements (min.):	-		Dump:0.100)	
		приоп.				
Track Loaders	- Material Desc	puon				
	Material Deco	rintion:				
Selected Value	within this Bas					
Machine Cycle Time						
Excavators and Front Shov	els:					
Loading Tool Cycle Time	: Numb	er of Loading Tool Pas	ses Required to	Fill Truck:	6 p	asses
Net Correction:	0.498	0.830				
Job Efficiency.	0.030	0.630	(CAI III	,		
Job Efficiency:	0.830	0.830	(CAT HB	,		
Altitude Adj:	Truck 0.600	Loader 1.000	Source (CAT HB)		
JOD COHUHUUH COFFECUOH				. 1000 IEEI		
Job Condition Correction	g•	Ç;,	e Altitude (ft.): 1	1000 foot		
Adjusted Capacity:	5.250	LCY				
Bucket Fill Factor:	1.050	Moist loam or sa	andy clay (100%	- 110%) 1.050		_
Rated Capacity:	5.000	LCY (heaped)	_ ~~	<u> </u>		_
Boung roof cupucity			Bucl	tet Size Class: N	A	
Loading Tool Capacity						
Fina	al Truck Volum	e Based on Number of	Loader Passes:	31.50	LCY	
	31.40	LCY				
Adjusted volume: _	27.80 31.40	LCY				
Average Volume: _ Adjusted Volume: _						
Heaped Volume: _Average Volume: _Adjusted Volume: _	31.40	LCY				

CIRCES Cost Estimating Software

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4023.00	-1.60	3.00	1.40	3005	1.709

Haul Time: 1.709 minutes

Return Route:

Return Route.								
Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)		
1	4023.00	1.60	3.00	4.60	3005	1.559		

Return Time: 1.559 minutes
Total Truck Cycle Time: 8.235 minutes

Loading Tool unit

Production _____572.73 LCY/Hour Adjusted for job efficiency: ____475.36 LCY/Hour

Truck Unit Production

229.52 LCY/Hour Adjusted for job effi

Adjusted for job efficiency: 190.50 LCY/Hour

Optimal No. of Trucks: 2 Truck(s) Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 381.00 LCY/Hour Adjusted single truck/loader team production: 381.00 LCY/Hour Adjusted multiple truck/loader team production: 2,285.99 LCY/Hour

JOB TIME AND COST

Fleet size: 6 Team(s) Total job time: **983.67** Hours

Unit cost: \$1.724 /LCY Total job cost: \$3,876,230

BULLDOZER WORK

Task description:	Mayflower TSF	- Grade Top	soil		
Climax Mine	Per	mit Action:	2024-06	Permit/Job#:	M1977493
PROJECT IDENTIF	ICATION				
Task #: J1002	State:	Colorado		Abbreviation:	None
Date: $\frac{51002}{6/13/2024}$	County:	Lake		Filename:	M493-J1002
User: ACY	County.	Lake		Thename.	W1473-31002
Agency or orga	nization name: D	RMS			
HOURLY EQUIPME	ENT COST				
Basic Machine:Car	t D8T - 8SU				
Horsepower: 310					
• • • • • • • • • • • • • • • • • • • •	mi-Universal		<u> </u>		
Attachment: NA			<u> </u>		
	er day		<u>—</u>		
Data Source: (CI	RG)		<u> </u>		
Cost Breakdown:		ı			
0 11 0 77		\$150.00	<u>Utilization %</u>		
Ownership Cost/Hour:		\$173.32	NA 100		
Operating Cost/Hour:		\$109.71	100		
Ripper own. Cost/Hour: Ripper op. Cost/Hour:		\$0.00 \$0.00	NA 0		
** *		\$38.59			
Operator Cost/Hour:		\$36.39	NA		
Swell factor: 1.00	20,902				
Loose volume: 2,22	20,902 LCY				
Source of estimated volu Source of estimated swel			on, Mining & Safety		
		JOOOK			
HOURLY PRODUC'	<u>110N</u>				
Average push distance:	250 feet				
Unadjusted hourly produ		/hr			
Materials consistency des	scription: Loose	stockpile 1.2			
Average push gradient:	0 %				
Average site altitude:	11,000 feet				
Material weight:	1,600 lbs/LCY			_	
Weight description:	Top Soil				
Job Condition Correction			Source		
Operator		.750	(AVG.)		
Material consist		.200	(CAT HB)		
Dozing me		.000	(GEN.)		
Visib	bility: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: 324.64 LCY/hr
Adjusted fleet production: 1623.2 LCY/hr

JOB TIME AND COST

Fleet size: 5 Dozer(s)
Unit cost: \$0.991/LCY

Total job time: 1,368.22 Hours
Total job cost: \$2,200,210

TRUCK/LOADER TEAM WORK

7	Гask descrip	otion:	Mayfl	ower TSF -	Haul Top	soil 33			
Site:	Climax N	Iine		Perr	nit Action:	2024-06		Permit/Job#:	M1977493
<u>I</u>	PROJECT	IDE	NTIFICATIO	<u> N</u>					
	Task #:	J1003	3	State:	Colorado)		Abbreviation:	None
	Date:	6/12/	2024	County:	Lake			Filename:	M493-J1003
	User:	ACY							
<u>I</u>		•	r organization n		Equ	uipment Descri		basis: 1 per day	
		,	Truck Loader T	eam -Truck		-			
				-Loader		66H high lift			
		Supp	oort Equipment			ST LGP			
				Dump Area					
]	Road M	Iaintenance –M						
			-1	Vater Truck	: Water	Tanker, 7,000 (Gal.		
<u>(</u>	Cost Break	down:	Truck/I	oader Tean		Support I	Equipment		enance Equipment

Cost Breakdown:	Truck/Loa	ader Team	Support I	Equipment	Maintenan	ce Equipment
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	100	100
Ownership cost/hour:	\$108.25	\$57.78	\$99.72	NA	\$69.16	\$73.42
Operating cost/hour:	\$79.54	\$46.25	\$71.22	NA	\$54.74	\$83.21
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$25.24	\$36.85	\$38.59	NA	\$27.76	\$21.12
Unit Subtotals:	\$213.03	\$140.88	\$209.53	NA	\$151.66	\$177.75
Number of Units:	9	3	1	0	1	1
Group Subtotals:	Work:	\$2,339.91	Support:	\$209.53	Maint:	\$329.41

Total work team cost/hour: \$2,878.85

MATERIAL QUANTITIES

Initial volume: 188,225 CCY Swell factor: 1.215

Loose volume: 228,693 LCY

Source of estimated volume: TR-37

Source of estimated swell factor: Cat Handbook

Material Purchase Cost: \$0.00

Total Cost: \$0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: 1,600 Pounds/LCY
Description: Top Soil

Rated Payload: 87,000 Pounds
Payload Capacity: 54.38 LCY

Truck Travel (Haul & Return) Time:

maintained 3.0

Truck Bed (volume) Basis:						
Struck Volume:		LCY				
Heaped Volume:		LCY				
Average Volume:		LCY				
Adjusted Volume:		LCY				
Fin	al Truck Volume	Based on Number of	of Loader Passes:	31.50	LCY	
Loading Tool Capacity						
			Buc	ket Size Class: N	NA	
Rated Capacity:	5.000	LCY (heaped)				=
Bucket Fill Factor:	1.050		sandy clay (100%	- 110%) 1.050		_
Adjusted Capacity:	5.250	LCY				
Job Condition Correction	ıs:	S	ite Altitude (ft.):	<u>11000</u> feet		
	Truck	Loader	Source			
Altitude Adj:	0.600	1.000	(CAT HI			
Job Efficiency:	0.830	0.830	(CAT HI	3)		
Net Correction:	0.498	0.830				
	00150					
	vs. Job Condition within this Basic	c Rating: NA				
	Material Descri	iption:				
Cycle Time Elements (min	.):					
Load: NA	M	laneuver: NA		Dump: 0.10	0	
Wheel and Track Loaders	s - Unadjusted Ba	sic Loader Cycle Ti	me (load, dump,	maneuver):().500 minu	ıtes
Cycle Time Factors				Factor (min.)	Source	_
Material:				0.020	(Cat HB)	_
Stockpile:		dozer piled 10 ft. hig		0.000	(Cat HB)	_
Truck Ownership:		nership of trucks and	l loaders -0.04	-0.040	(Cat HB)	
Operation:	Constant oper				(C III)	
Dump Target:	NT 1 1 .			-0.040	(Cat HB)	_
	Nominal targe	et 0.00	ma A divetment	0.000	(Cat HB)	-
	Nominal targe	et 0.00 Net Cycle Tir	ne Adjustment:	0.000 -0.060	(Cat HB) minutes	- -
	Nominal targe	et 0.00 Net Cycle Tir Adjusted Load	me Adjustment: ler Cycle Time: Time per Truck:	0.000	(Cat HB)	_
Truck Cycle Time:	Nominal targe	et 0.00 Net Cycle Tir Adjusted Load	ler Cycle Time:	0.000 -0.060 0.440	(Cat HB) minutes minutes	_
Truck Cycle Time:	•	et 0.00 Net Cycle Tir Adjusted Load Net Load T	ler Cycle Time: Fime per Truck:	0.000 -0.060 0.440 2.300	(Cat HB) minutes minutes minutes minutes	Minute
Truck Exchange Tin	ne: 0.60	et 0.00 Net Cycle Tir Adjusted Load Net Load T	ler Cycle Time: Fime per Truck: Adjusted	0.000 -0.060 0.440 2.300 for site altitude:	(Cat HB) minutes minutes minutes minutes	_
	ne: 0.60 ne: 2.300	et 0.00 Net Cycle Tir Adjusted Load Net Load T	ler Cycle Time: Fime per Truck: Adjusted Adjusted	0.000 -0.060 0.440 2.300	(Cat HB) minutes minutes minutes minutes	Minute Minute Minute

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	5914.00	-1.80	3.00	1.20	3005	2.315

Task # J1003

Haul Time: 2.315 minutes

Return Route:

Return Route.										
Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)				
1	5914.00	1.80	3.00	4.80	3005	2.197				

Return Time: 2.197 minutes
Total Truck Cycle Time: 9.479 minutes

Loading Tool unit

Production 572.73 LCY/Hour Adjusted for job efficiency: 475.36 LCY/Hour

Truck Unit Production

199.40 LCY/Hour Adjusted for job efficiency: 165.50 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 496.49 LCY/Hour Adjusted single truck/loader team production: 475.36 LCY/Hour Adjusted multiple truck/loader team production: 1,426.09 LCY/Hour

JOB TIME AND COST

Fleet size: 3 Team(s) Total job time: **160.36** Hours

Unit cost: \$2.019 /LCY Total job cost: **\$461,663**

BULLDOZER WORK

Task description:	Mayflo	ower TSF -	Grade Top	osoil 33					
: Climax Mine		Perr	nit Action:	2024-06	Permit/Job#:	M1977493			
PROJECT IDENTIFICATION									
Task #: J1004 Date: 6/13/2		State: County:	Colorado Lake		Abbreviation: Filename:	None M493-J1004			
User: <u>ACY</u> Agency or	organization na	ame: <u>DR</u>	MS						
HOURLY EQUI	PMENT COS	<u>ST</u>							
Basic Machine:	Cat D8T - 8S	U		_					
Horsepower: Blade Type:	310 Semi-University	201		<u> </u>					
Attachment:	NA	sai		<u> </u>					
Shift Basis: Data Source:	1 per day (CRG)			-					
Cost Breakdown:				 Utilization %					
Ownership Cost/H	our:		\$173.32	NA					
Operating Cost/H			\$109.71	100					
Ripper own. Cost/H			\$0.00	NA					
Ripper op. Cost/H			\$0.00	0					
Operator Cost/H	our:		\$38.59	NA					
MATERIAL QU Initial Volume: Swell factor:			_						
Loose volume:	225,870 LCY		_						
Source of estimated Source of estimated	-	TR-37 Cat Hand	book						
HOURLY PROD	<u>OUCTION</u>								
Average push distar Unadjusted hourly p		250 feet 377.8 LCY/	hr						
Materials consistence	ey description:	Loose s	tockpile 1.2						
Average push gradic Average site altitude		feet							
Material weight:	_1,600 lb	os/LCY			_				
Weight description:	Top So	i1							
Job Condition Corre	ection Factor rator Skill:	0.7	750	Source (AVG.)					
Material co			200	(CAT HB)					
	ng method:		000	(GEN.)					
	Visibility:		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: 324.64 LCY/hr
Adjusted fleet production: 649.28 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: \$0.991/LCY

Total job time: 347.88 Hours \$223,766

TRUCK/LOADER TEAM WORK

Task description:	Mayflov	ver TSF - Haul T	opsoil 30 Pool			
Site: Climax Mine		Permit Action	on: <u>2024-06</u>		Permit/Job#: M	1977493
PROJECT IDE	NTIFICATION	<u>[</u>				
Task #: J100. Date: 6/12/ User: ACY	/2024	State: Colora County: Lake	ado	Ab	breviation: No. M4	ne 93-J1005
Agency o	r organization nar	ne: DRMS				
HOURLY EQU	IPMENT COS	<u>r</u>		Shift bas	is: <u>1 per day</u>	
		I	Equipment Descri	ption		
-	Truck Loader Tea			1		
			Γ 966H high lift			
Supi	port Equipment -I		D6T LGP			
11		ump Area: NA				
Road M	Iaintenance –Mot		Γ 12M			
	-Wa	ter Truck: Wat	er Tanker, 7,000	Gal.		
·		"				
Cost Breakdown:	Truck/Lo	ader Team	Support 1	Equipment	Maintenan	ce Equipment
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	100	100
Ownership cost/hour:	\$108.25	\$57.78	\$99.72	NA	\$69.16	\$73.42
Operating cost/hour:	\$79.54	\$46.25	\$71.22	NA	\$54.74	\$83.21
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$25.24	\$36.85	\$38.59	NA	\$27.76	\$21.12
Unit Subtotals:	\$213.03	\$140.88	\$209.53	NA	\$151.66	\$177.75
Number of Units:	12	3	1	0	1	1

Total work team cost/hour: \$3,517.94

MATERIAL QUANTITIES

Initial volume: 493,000 CCY Swell factor: 1.215

\$2,979.00

Loose volume: **598,995** LCY

Work:

Source of estimated volume: <u>Division of Reclamation</u>, Mining & Safety

Source of estimated swell factor: Cat Handbook

Material Purchase Cost: \$0.00

Total Cost: \$0.00

Total Cost: \$0.00

\$209.53

Support:

HOURLY PRODUCTION

Truck Capacity:

Group Subtotals:

Truck Payload (weight) Basis:

Material weight: 1,600 Pounds/LCY

Description: Top Soil
Rated Payload: 87,000 Pounds
Payload Capacity: 54.38 LCY

\$329.41

Maint:

Truck Bed (volume) Basis Struck Volume:	24.20	LCY					
Heaped Volume:	31.40	LCY					
Average Volume:	27.80	LCY					
Adjusted Volume:	31.40	LCY					
Fi	nal Truck Vol	ume Based	on Number of	f Loader Passes:	31.50	LCY	
Loading Tool Capacity							
				Buck	tet Size Class: N	ÍΑ	
Rated Capacity			CY (heaped)				_
Bucket Fill Factor				andy clay (100%	- 110%) 1.050		_
Adjusted Capacity	: 5.25	0 L	CY				
Job Condition Correction	ons:		Si	te Altitude (ft.): 1	1000 feet		
	Truck		Loader	Source			
Altitude Adj:	0.600		1.000	(CAT HB	·		
Job Efficiency:	0.830		0.830	(CAT HB)		
Net Correction:	0.498		0.830				
Loading Tool Cycle Tin	ne: Nu	mber of Lo	ading Tool Pas	sses Required to I	Fill Truck:	6	passes
Loading Tool Cycle Tin		mber of Lo	ading Tool Pas	sses Required to I	Fill Truck:	6	passes
Excavators and Front Sho	ovels:		-	sses Required to I	Fill Truck:	6]	passes
Excavators and Front Sho Machine Cycle Tim	ovels:	dition Ratin	ng: NA	sses Required to I	Fill Truck:	6	passes
Excavators and Front Sho Machine Cycle Tim Selected Val	ovels: ne vs. Job Con ne within this	dition Ratin Basic Ratin	ng: NA			6]	passes
Excavators and Front Sho Machine Cycle Tim	ovels: ne vs. Job Con ue within this s – Material D	dition Ratin Basic Ratin	ng: NA	sses Required to I		6	passes
Excavators and Front She Machine Cycle Tim Selected Val Track Loader	ovels: ne vs. Job Con ue within this s – Material D	dition Ratin Basic Ratin	ng: <u>NA</u> ng: <u>NA</u>				passes
Excavators and Front She Machine Cycle Tim Selected Val Track Loader Cycle Time Elements (mi Load: NA	ovels: ne vs. Job Con ue within this s – Material Γ n.):	dition Ratin Basic Ratin Description: Maneuve	er: NA		Dump: 0.100		
Excavators and Front She Machine Cycle Tim Selected Val Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade	ovels: ne vs. Job Con ue within this s – Material D n.): ors - Unadjuste	dition Ratin Basic Ratin Description: Maneuve	er: NA		Dump: 0.100) .500 min	
Excavators and Front She Machine Cycle Tim Selected Val Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loader Cycle Time Facto	ovels: ne vs. Job Con ue within this s – Material E n.): ors - Unadjuste	dition Ratin Basic Ratin Description: Maneuve d Basic Los	er: NA ader Cycle Tin		Dump: 0.100 naneuver): 0.100 Factor (min.)) .500 min Source	
Excavators and Front She Machine Cycle Tim Selected Val Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade	ovels: ne vs. Job Con ue within this s – Material D n.): rs - Unadjuste rs d: Mixed m	dition Ratin Basic Ratin Description: Maneuve ed Basic Locaterial 0.02	er: NA ader Cycle Tin	ne (load, dump, n	Dump: 0.100 naneuver): 0. Factor (min.) 0.020) .500 min	
Excavators and Front She Machine Cycle Tim Selected Val Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Facto Materia	ovels: ne vs. Job Con ue within this s – Material D n.): rrs - Unadjuste rs d: Mixed m e: Conveyor	dition Ratin Basic Ratin Description: Maneuve d Basic Locaterial 0.02 or or dozer p	er: NA ader Cycle Tin	ne (load, dump, n	Dump: 0.100 naneuver): 0.100 Factor (min.)) min Source (Cat HB)	
Excavators and Front She Machine Cycle Tim Selected Val Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loader Cycle Time Factor Materia Stockpil	e vs. Job Con ue within this s – Material E n.): ers - Unadjuste rs l: Mixed m e: Conveyo p: Common	dition Ratin Basic Ratin Description: Maneuve d Basic Locaterial 0.02 or or dozer p	er: NA ader Cycle Tin biled 10 ft. high	ne (load, dump, n	Dump: 0.100 naneuver): 0.100 Factor (min.) 0.020 0.000	Source (Cat HB) (Cat HB)	
Excavators and Front She Machine Cycle Tim Selected Val Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Facto Materia Stockpil Truck Ownershi	e vs. Job Conue within this s – Material En.): ers - Unadjusters el: Mixed me: Conveyop: Common	dition Ratin Basic Ratin Description: Maneuve daterial 0.02 atterial 0.02 or or dozer particular operation target 0.00	er: NA ader Cycle Time biled 10 ft. high of trucks and 0.04	ne (load, dump, n h and up 0.00 loaders -0.04	Dump: 0.100 naneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	Source (Cat HB) (Cat HB) (Cat HB)	
Excavators and Front She Machine Cycle Tim Selected Val Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Facto Materia Stockpil Truck Ownershi Operatio	e vs. Job Conue within this s – Material En.): ers - Unadjusters el: Mixed me: Conveyop: Common	dition Ratin Basic Ratin Description: Maneuve d Basic Locaterial 0.02 or or dozer particular operation target 0.00	er: NA ader Cycle Tim biled 10 ft. high of trucks and 0.04 Net Cycle Tim	ne (load, dump, n h and up 0.00 loaders -0.04	Dump: 0.100 naneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	
Excavators and Front She Machine Cycle Tim Selected Val Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Facto Materia Stockpil Truck Ownershi Operatio	e vs. Job Conue within this s – Material En.): ers - Unadjusters el: Mixed me: Conveyop: Common	dition Ratin Basic Ratin Description: Maneuve d Basic Locaterial 0.02 or or dozer particular operation target 0.00	er: NA ader Cycle Tin biled 10 ft. high of trucks and 0.04 Net Cycle Tim Adjusted Loade	ne (load, dump, n h and up 0.00 loaders -0.04 ne Adjustment: er Cycle Time:	Dump: 0.100 naneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	
Excavators and Front She Machine Cycle Tim Selected Val Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Facto Materia Stockpil Truck Ownershi Operatio	e vs. Job Conue within this s – Material En.): ers - Unadjusters el: Mixed me: Conveyop: Common	dition Ratin Basic Ratin Description: Maneuve d Basic Locaterial 0.02 or or dozer particular operation target 0.00	er: NA ader Cycle Tin biled 10 ft. high of trucks and 0.04 Net Cycle Tim Adjusted Loade	ne (load, dump, n h and up 0.00 loaders -0.04	Dump: 0.100 naneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	
Excavators and Front She Machine Cycle Tim Selected Val Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Facto Materia Stockpil Truck Ownershi Operatio	e vs. Job Conue within this s – Material En.): ers - Unadjusters el: Mixed me: Conveyop: Common	dition Ratin Basic Ratin Description: Maneuve d Basic Locaterial 0.02 or or dozer particular operation target 0.00	er: NA ader Cycle Tin biled 10 ft. high of trucks and 0.04 Net Cycle Tim Adjusted Loade	ne (load, dump, n h and up 0.00 loaders -0.04 ne Adjustment: er Cycle Time:	Dump: 0.100 naneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	
Excavators and Front She Machine Cycle Tim Selected Val Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Facto Materia Stockpil Truck Ownershi Operatio Dump Targe	e vs. Job Conue within this s – Material En.): ers - Unadjusters el: Mixed me: Conveyop: Common: Constant et: Nominal	dition Ratin Basic Ratin Description: Maneuve ad Basic Locaterial 0.02 or or dozer parts of the control of the	er: NA ader Cycle Tin biled 10 ft. high of trucks and 0.04 Net Cycle Tim Adjusted Loade	ne (load, dump, n h and up 0.00 loaders -0.04 ne Adjustment: er Cycle Time: ime per Truck:	Dump: 0.100 naneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	utes
Excavators and Front She Machine Cycle Time Selected Val Track Loader Cycle Time Elements (mine) Load: NA Wheel and Track Loader Cycle Time Factor Materia Stockpil Truck Ownershi Operation Dump Targer Truck Cycle Time:	e vs. Job Conue within this s – Material En.): ers - Unadjusters d: Mixed me: Conveyore: Common Constante: Nominal	dition Ratin Basic Ratin Description: Maneuve d Basic Locaterial 0.02 or or dozer partion target 0.00	er: NA er: NA ader Cycle Tin biled 10 ft. high of trucks and 0.04 Net Cycle Tim Adjusted Loade Net Load Tim	ne (load, dump, n h and up 0.00 loaders -0.04 ne Adjustment: er Cycle Time: ime per Truck: Adjusted	Dump: 0.100 naneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 2.300	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	utes — — — —

<u>Truck Travel (Haul & Return) Time:</u> Road Condition: <u>Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0</u>

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	8395.00	-4.50	3.00	-1.50	3005	2.880

Return Route: 2.880 minutes

Return Route.						
Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	8395.00	4.50	3.00	7.50	2155	4.029

Return Time: 4.029 minutes
Total Truck Cycle Time: 11.876 minutes

Loading Tool unit

Production _____572.73 LCY/Hour Adjusted for job efficiency: ____475.36 LCY/Hour

Truck Unit Production

_____159.15 ___ LCY/Hour Adjusted for job efficiency: 132.09 LCY/Hour

Optimal No. of Trucks: 4 Truck(s) Selected Number of Trucks: 4 Truck(s)

Adjusted hourly truck team production: 528.37 LCY/Hour Adjusted single truck/loader team production: 475.36 LCY/Hour Adjusted multiple truck/loader team production: 1,426.09 LCY/Hour

JOB TIME AND COST

Fleet size: 3 Team(s) Total job time: **420.03** Hours

Unit cost: \$2.467 /LCY Total job cost: **\$1,477,626**

BULLDOZER WORK

Task description:	Mayflower TSF	- Grade Top	osoil 30 Pool		
Climax Mine	Per	mit Action:	2024-06	Permit/Job#:	M1977493
PROJECT IDENTIF	<u>ICATION</u>				
Task #: J1006	State:	Colorado		Abbreviation:	None
Date: $\frac{31000}{6/13/2024}$	County:	Lake		Filename:	M493-J1006
User: ACY		Luce		Thename.	111/25 \$1000
·		D) (G			
Agency or organ	nization name: D	RMS			
HOURLY EQUIPME	ENT COST				
	D8T - 8SU				
Horsepower: 310					
• • • • • • • • • • • • • • • • • • • •	ni-Universal		<u> </u>		
Attachment: NA Shift Basis: 1 pe					
Data Source: (CF	er day		<u> </u>		
	(0)		<u>—</u>		
Cost Breakdown:		i			
0 11 0 77		0150.00	<u>Utilization %</u>		
Ownership Cost/Hour:		\$173.32	NA 100		
Operating Cost/Hour:		\$109.71	100		
Ripper own. Cost/Hour: Ripper op. Cost/Hour:		\$0.00 \$0.00	NA 0		
** *		\$38.59			
Operator Cost/Hour:		\$38.39	NA		
MATERIAL QUANT Initial Volume: 591, Swell factor: 1.00	600				
Loose volume: <u>591,</u>	600 LCY				
Source of estimated volumes Source of estimated swellings and the state of the stat		lbook			
HOURLY PRODUCT	<u> TION</u>				
Average push distance: Unadjusted hourly produc	250 feet 377.8 LCY	//hr			
Materials consistency des	scription: Loose	stockpile 1.2			
Average push gradient: Average site altitude:	0 % 11,000 feet				
Material weight:	1,600 lbs/LCY			_	
Weight description:	Top Soil				
Job Condition Correction	Factor		Source		
Operator	Skill: 0	.750	(AVG.)		
Material consiste		.200	(CAT HB)		
Dozing me		.000	(GEN.)		
Visib	oility: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: 324.64 LCY/hr
Adjusted fleet production: 1623.2 LCY/hr

JOB TIME AND COST

Fleet size: 5 Dozer(s)
Unit cost: \$0.991/LCY

Total job time: 364.47 Hours
Total job cost: \$586,088

TRUCK/LOADER TEAM WORK

Task description:	Mayflov	wer TSF - Haul T	Горsoil 16			
Site: Climax Mine		Permit Acti	on: 2024-06		Permit/Job#: M	1977493
PROJECT IDE	NTIFICATION	[
Task #: J100	7	State: Color	ado	Ab	breviation: No	ne
		County: Lake			Filename: M4	193-J1007
User: ACY	<u></u>					
Agency o	r organization nar	ne: DRMS				
HOURLY EQU	IPMENT COS	<u>r</u>		Shift bas	is: <u>1 per day</u>	
			Equipment Descri	ption		
ı	Truck Loader Tea		740			
			T 966H high lift			
Sup	port Equipment -I		D6T LGP			
Road N	-ט- Maintenance –Mot	T	T 12M			
Rodu IV			ter Tanker, 7,000	Gal.		
-						
Cost Breakdown:	Truck/Lo	ader Team	Support l	Equipment	Maintenan	ce Equipment
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	100	100
Ownership cost/hour:	\$108.25	\$57.78	\$99.72	NA	\$69.16	\$73.42
Operating cost/hour:	\$79.54	\$46.25	\$71.22	NA	\$54.74	\$83.21
%Utilization-riper:	NA	0	NA	NA	NA	NA

\$0.00

\$0.00

\$38.59

\$209.53

Support:

NA

NA

NA

NA

\$209.53

0

\$0.00

\$0.00

\$27.76

\$151.66

Maint:

1

\$0.00

\$0.00

\$21.12

\$177.75

\$329.41

1

Total work team cost/hour: \$2,098.88

MATERIAL QUANTITIES

Initial volume: __336,864 CCY Swell factor: __1.215

\$0.00

\$0.00

\$36.85

\$140.88

\$1,559.94

2

Loose volume: **409,290** LCY

NA

NA

6

\$25.24

\$213.03

Work:

Source of estimated volume: TR-37
Source of estimated swell factor: Cat Handbook

Material Purchase Cost: \$0.00

chase Cost: \$0.00

Total Cost: \$0.00

HOURLY PRODUCTION

Truck Capacity:

Ripper own. cost/hour:

Ripper op. cost/hour:

Operator cost/hour:

Unit Subtotals:

Number of Units:

Group Subtotals:

Truck Payload (weight) Basis:

Material weight: 1,600 Pounds/LCY
Description: Top Soil

Rated Payload: 87,000 Pounds
Payload Capacity: 54.38 LCY

Truck Travel (Haul & Return) Time:

maintained 3.0

Truck Red (volume) Perio						
Truck Bed (volume) Basis: Struck Volume:	24.20	LCY				
Heaped Volume:	31.40	LCY				
Average Volume:	27.80	LCY				
Adjusted Volume:	31.40	LCY				
Fir	al Truck Volume	Based on Number o	of Loader Passes:	31.50	LCY	
Loading Tool Capacity	ar Track volume	Bused on I value of o	T Louder 1 disses.		201	
Doubling Tool Capacity			Bucl	ket Size Class:	NA	
Rated Capacity:	5.000	LCY (heaped)				_
Bucket Fill Factor:	1.050	Moist loam or	sandy clay (100%	- 110%) 1.050		_
Adjusted Capacity:	5.250	LCY				
Job Condition Correction	ıs:	S	ite Altitude (ft.):	11000 feet		
	Truck	Loader	Source			
Altitude Adj:	0.600	1.000	(CAT HE	3)		
Job Efficiency:	0.830	0.830	(CAT HE	3)		
Net Correction:	0.498	0.830				
		1				
Excavators and Front Sho	vels:					
Excavators and Front Sho Machine Cycle Time Selected Valu						
Machine Cycle Time Selected Valu	vs. Job Conditio	ic Rating: NA				
Machine Cycle Time Selected Valu	vs. Job Conditio e within this Basi – Material Descr	ic Rating: NA				
Machine Cycle Time Selected Valu Track Loaders	vs. Job Conditio e within this Basi – Material Descr .):	ic Rating: NA		Dump:0.10	00	
Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min	vs. Job Conditio e within this Basi – Material Descr .):	ription: Maneuver: NA	me (load, dump, r	•	00 0.500 minu	utes
Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: <u>NA</u>	vs. Job Condition e within this Basic — Material Description .): Material Description Material Description Material Description Material Description Material Description Material Description Material Description	ription: Maneuver: NA	me (load, dump, 1	•		utes
Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: <u>NA</u> Wheel and Track Loader	vs. Job Conditions within this Basis — Material Describing.): Material Describing. Material Describing. Material Describing.	ic Rating: NA ription: NA Maneuver: NA asic Loader Cycle Ti ial 0.02		naneuver):	0.500 minu Source (Cat HB)	utes
Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile	vs. Job Condition e within this Basis — Material Describle. Material Describle. Material Describle. Material Describle. Material Describle.	ic Rating: NA ription: NA Maneuver: NA Pasic Loader Cycle Ti al 0.02 dozer piled 10 ft. hig	gh and up 0.00	maneuver): Factor (min.)	0.500 minu	utes
Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile Truck Ownership	vs. Job Condition e within this Basis — Material Describle. Material Describle. Material Describle. Material Describle. Material Describle. Material Describle. Material Describle. Material Describle. Material Describle. Material Describle. Material Describle. Material Describle.	Ic Rating: NA Iniption: NA Idaneuver: NA Idaneuv	gh and up 0.00	Factor (min.) 0.020 0.000 -0.040	0.500 minu Source (Cat HB) (Cat HB) (Cat HB)	utes
Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile Truck Ownership Operation	vs. Job Condition e within this Basis — Material Describle. .): Material Describle. Material Describe. Material Descr	Ic Rating: NA Iniption: NA Idaneuver: NA Iniption: NA Idaneuver: NA Idaneuve	gh and up 0.00	Factor (min.) 0.020 0.000 -0.040 -0.040	0.500 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile Truck Ownership	vs. Job Condition e within this Basis — Material Describle. .): Material Describle. Material Describe. Material Descr	Maneuver: NA Maneuver: NA Masic Loader Cycle Ti Masic Loader Cycle Ti Masic Loader Cycle Ti Masic Loader Cycle Ti Masic Loader Cycle Ti Masic Loader Cycle Ti Masic Loader Cycle Ti Masic Loader Cycle Ti Masic Loader Cycle Ti Masic Loader Cycle Ti Masic Loader Cycle Ti Masic Loader Cycle Ti Masic Loader Cycle Ti Masic Loader Cycle Ti	gh and up 0.00 1 loaders -0.04	maneuver): Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	0.500 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile Truck Ownership Operation	vs. Job Condition e within this Basis — Material Describle. .): Material Describle. Material Describe. Material Descr	Ic Rating: NA Iniption: NA Iniption: NA Iniption: NA Inipation: NA Inipition: gh and up 0.00 d loaders -0.04 me Adjustment:	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060	0.500 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	utes 	
Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile Truck Ownership Operation	vs. Job Condition e within this Basis — Material Describle. .): Material Describle. Material Describe. Material Descr	ic Rating: NA ription: NA Maneuver: NA asic Loader Cycle Ti ial 0.02 dozer piled 10 ft. hig nership of trucks and ration -0.04 get 0.00 Net Cycle Tii Adjusted Load	gh and up 0.00 d loaders -0.04 me Adjustment: der Cycle Time:	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	utes
Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile Truck Ownership Operation	vs. Job Condition e within this Basis — Material Describle. .): Material Describle. Material Describe. Material Descr	ic Rating: NA ription: NA Maneuver: NA asic Loader Cycle Ti ial 0.02 dozer piled 10 ft. hig nership of trucks and ration -0.04 get 0.00 Net Cycle Tii Adjusted Load	gh and up 0.00 d loaders -0.04 me Adjustment:	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060	0.500 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	utes
Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile Truck Ownership Operation	vs. Job Condition e within this Basis — Material Describle. .): Moss - Unadjusted Basis i Mixed material i Conveyor or i Common ow i Constant ope	ic Rating: NA ription: NA Maneuver: NA asic Loader Cycle Ti ial 0.02 dozer piled 10 ft. hig nership of trucks and ration -0.04 get 0.00 Net Cycle Tii Adjusted Load	gh and up 0.00 d loaders -0.04 me Adjustment: der Cycle Time:	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	utes
Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile Truck Ownership Operation Dump Target	vs. Job Condition e within this Basis — Material Describe. .): Moreover of the content of the conveyor of the conveyor of the constant open of the constant open.	ic Rating: NA ription: NA Maneuver: NA asic Loader Cycle Ti ial 0.02 dozer piled 10 ft. hig nership of trucks and ration -0.04 get 0.00 Net Cycle Tii Adjusted Load	gh and up 0.00 d loaders -0.04 me Adjustment: der Cycle Time: Time per Truck:	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	utes
Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile Truck Ownership Operation Dump Target Truck Cycle Time:	vs. Job Condition e within this Basis — Material Describle. Material Describe. ic Rating: NA ription: Maneuver: NA asic Loader Cycle Ti ial 0.02 dozer piled 10 ft. hig nership of trucks and ration -0.04 get 0.00 Net Cycle Tii Adjusted Load Net Load T	gh and up 0.00 d loaders -0.04 me Adjustment: der Cycle Time: Fime per Truck:	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 2.300	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	 	

CIRCES Cost Estimating Software

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	5227.00	-1.30	3.00	1.70	3005	2.151

Haul Time: 2.151 minutes

Return Route:

ixcum ixc	Return Route.							
Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)		
1	5227.00	1.30	3.00	4.30	3005	1.947		

Return Time: 1.947 minutes
Total Truck Cycle Time: 9.065 minutes

Loading Tool unit

Production _____ 572.73 ___ LCY/Hour Adjusted for job efficiency: _____ 475.36 ___ LCY/Hour Truck Unit Production

208.50 LCY/Hour Adjusted for job efficiency: 173.06 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 519.17 LCY/Hour Adjusted single truck/loader team production: 475.36 LCY/Hour Adjusted multiple truck/loader team production: 950.73 LCY/Hour

JOB TIME AND COST

 Fleet size:
 2
 Team(s)
 Total job time:
 430.50
 Hours

 Unit cost:
 \$2.208
 /LCY
 Total job cost:
 \$903,572

BULLDOZER WORK

Task description:	May	flower TSF -	Grade Top	osoil 16		
: Climax Mine		Pern	nit Action:	2024-06	Permit/Job#:	M1977493
PROJECT IDEN	NTIFICATI	<u>ON</u>				
Task #:	2024	State: County:	Colorado Lake		Abbreviation: Filename:	None M493-J1008
	r organization	name: DR	MS			
HOURLY EQU	IPMENT CO	<u>OST</u>				
Basic Machine:	Cat D8T - 3	8SU		_		
Horsepower: Blade Type:	310 Semi-Univ	oreal				
Attachment:	NA	ersar		<u> </u>		
Shift Basis: Data Source:	1 per day (CRG)			-		
Cost Breakdown:				Litilization %		
Ownership Cost/H	Hour:		\$173.32	<u>Utilization %</u> NA		
Operating Cost/F			\$109.71	100		
Ripper own. Cost/I	Hour:		\$0.00	NA		
Ripper op. Cost/H			\$0.00	0		
Operator Cost/H	Hour:		\$38.59	NA		
Total unit Cost/Hot Total Fleet Cost/Ho MATERIAL QU	\$643.	23				
Initial Volume: Swell factor: Loose volume:	404,237 1.000 404,237 LC					
Source of estimated Source of estimated		TR-37 Cat Handl	oook			
HOURLY PRO	<u>DUCTION</u>					
Average push dista Unadjusted hourly	-	250 feet 377.8 LCY/I	hr			
Materials consisten	cy description	: Loose s	tockpile 1.2			
Average push grade Average site altitude		0 feet	<u> </u>			
Material weight:	_1,600	lbs/LCY			_	
Weight description	: <u>Top S</u>	Soil				
Job Condition Corr	rection Factor erator Skill:	0.7	750	Source (AVG.)		
	onsistency:		200	(CAT HB)		
	ng method:		000	(GEN.)		
	Visibility:		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: 324.64 LCY/hr
Adjusted fleet production: 649.28 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: \$0.991/LCY

TRUCK/LOADER TEAM WORK

Task description:	Mayflov	ver TSF - Ha	aul To	opsoil 30 Temp S	Sludge		
Site: Climax Mine		Permit A	Actio	n: 2024-06		Permit/Job#: N	M1977493
PROJECT IDE	NTIFICATION	[
Task #:			olorac ake	do	Ab		one [493-J1009
User: ACY							
Agency o	r organization nar	ne: DRMS	5				
HOURLY EQU	IPMENT COST	<u>r</u>	-			is: 1 per day	
-	Truck Loader Tea	m -Truck	Cat 7	quipment Descri	ption		
	Truck Louder Tea	-Loader:		966H high lift			
Supp	oort Equipment -L			O6T LGP			
Road M	-Di Iaintenance –Mot	ump Area:	NA CAT	`12M			
		iter Truck:		er Tanker, 7,000 (Gal.		
Cost Breakdown:	Truck/Los Truck	ader Team Loader		Support I Load Area	Equipment Dump Area	Maintena Motor Grader	nce Equipment Water Truck
					•		
%Utilization-machine:	100		00	100	NA	100	
Ownership cost/hour:	\$108.25	\$57.		\$99.72	NA	\$69.16	
Operating cost/hour:	\$79.54	\$46.		\$71.22	NA	\$54.74	
%Utilization-riper: Ripper own. cost/hour:	NA NA	ΦΩ	.00	NA \$0.00	NA NA	NA \$0.00	
Ripper op. cost/hour:	NA NA	·	.00	\$0.00	NA NA	\$0.00	
Operator cost/hour:	\$25.24	\$36.		\$38.59	NA NA	\$27.76	
Unit Subtotals:	\$213.03	\$140.		\$209.53	NA NA	\$151.66	
Number of Units:	3	Ψ1+0.	1	1	0	1	1
Group Subtotals:	Work:	\$779.97	1	Support:	\$209.53	Maint:	\$329.41
Total work team co	ost/hour: \$1,318.	+		Support	4203100	2,24,22	φο 2 /111
MATERIAL QU	<u>JANTITIES</u>						
Initial volume Loose volume			CCY LCY	Swell	factor: 1.135		
	ource of estimated e of estimated swe Material Purch To	ell factor: Case Cost: S		andbook	on, Mining & Safe	ety	
HOURLY PRO	<u>DDUCTION</u>						
Truck Capacity:							

Truck	Capacity:

Truck Payload (weight) Basis:

Material weight:	2,700	Pounds/LCY
Description:	Earth - Wet excavated	_
Rated Payload:	87,000	Pounds
Payload Capacity:	32.22	LCY

Truck Bed (volume) Basis Struck Volume:	24.20	LCY					
Heaped Volume:	31.40	LCY					
Average Volume:	27.80	LCY					
Adjusted Volume:	31.40	LCY					
Fi	nal Truck Vo	lume Based	on Number of	f Loader Passes:	31.50	LCY	
Loading Tool Capacity							
				Buc	ket Size Class:	NA	
Rated Capacity			CY (heaped)				_
Bucket Fill Factor				ed materials (8:	5 - 95%) 0.900		_
Adjusted Capacity	4.50	0 LO	CY				
Job Condition Correction	ns:		Si	te Altitude (ft.):	11000 feet		
	Truck		Loader	Source	!		
Altitude Adj:	0.600		1.000	(CAT HI	3)		
Job Efficiency:	0.830		0.830	(CAT HI	3)		
Net Correction:	0.498		0.830				
Loading Tool Cycle Tin	ne• Nii	mber of Log	ding Tool Pag	sses Required to	Fill Truck:	7	naccec
Loading Tool Cycle Tin		mber of Loa	ading Tool Pas	sses Required to	Fill Truck:	7	passes
Excavators and Front Sho	vels:			sses Required to	Fill Truck:	7	passes
	ovels: e vs. Job Con	dition Ratin	g: <u>NA</u>	sses Required to	Fill Truck:	7	passes
Excavators and Front Sho Machine Cycle Tim	ovels: e vs. Job Con ne within this	dition Ratin Basic Ratin	g: NA g: NA		Fill Truck:	7	passes
Excavators and Front Sho Machine Cycle Tim Selected Value	ovels: e vs. Job Con ne within this s – Material I	dition Ratin Basic Ratin	g: NA g: NA			7	passes
Excavators and Front Sho Machine Cycle Tim Selected Valu Track Loader	ovels: e vs. Job Con ne within this s – Material I	dition Ratin Basic Ratin	g: <u>NA</u> g: <u>NA</u>				passes
Excavators and Front Sho Machine Cycle Tim Selected Valu Track Loader Cycle Time Elements (mi	ovels: e vs. Job Con ne within this s – Material I n.):	dition Rating Basic Rating Description: Maneuve	g: NA g: NA er: NA		Dump:0.10	00	passes
Excavators and Front Sho Machine Cycle Tim Selected Value Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade	e vs. Job Con ne within this s – Material I n.):	dition Rating Basic Rating Description: Maneuve	g: NA g: NA er: NA		Dump: 0.10	00 0.500 mir	1
Excavators and Front Sho Machine Cycle Tim Selected Value Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Factor	e vs. Job Con ne within this s – Material I n.):	dition Rating Basic Rating Description: Maneuve ed Basic Loa	g: NA g: NA er: NA ader Cycle Tin		Dump: 0.10 maneuver): Factor (min.)	00 0.500 mir Source	1
Excavators and Front Sho Machine Cycle Tim Selected Value Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Factor Materia	e vs. Job Con ne within this s – Material I n.): rs - Unadjuste	dition Rating Basic Rating Description: Maneuve ed Basic Loa	g: NA g: NA er: NA ader Cycle Tin	me (load, dump,	Dump: 0.10 maneuver): Factor (min.) 0.020	00 0.500 mir Source (Cat HB)	1
Excavators and Front Sho Machine Cycle Tim Selected Value Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Factor	e vs. Job Conne within this s – Material In.): rs - Unadjusters I: Mixed note: Conveyor	dition Rating Basic Rating Description: Maneuve ed Basic Loa material 0.02 or or dozer p	g: NA g: NA er: NA ader Cycle Tin	me (load, dump,	Dump: 0.10 maneuver): Factor (min.)	00 0.500 mir Source	1
Excavators and Front Sho Machine Cycle Tim Selected Value Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Factor Materia Stockpile	e vs. Job Con ue within this s – Material I n.): rs - Unadjuste s l: Mixed n e: Conveyo c: Common	dition Rating Basic Rating Description: Maneuve ed Basic Loa material 0.02 or or dozer p	g: NA g: NA er: NA ader Cycle Tin iled 10 ft. higi of trucks and	me (load, dump,	Dump: 0.10 maneuver): Factor (min.) 0.020 0.010	0.500 mir Source (Cat HB) (Cat HB)	1
Excavators and Front Sho Machine Cycle Tim Selected Value Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Factor Materia Stockpile Truck Ownershi	e vs. Job Con ne within this s – Material I n.): rs - Unadjuste s l: Mixed n e: Conveyo o: Common n: Constant	dition Rating Basic Rating Description: Maneuve ed Basic Loa naterial 0.02 or or dozer p	g: NA g: NA er: NA ader Cycle Tin iled 10 ft. higi of trucks and	me (load, dump,	Dump: 0.10 maneuver): Factor (min.) 0.020 0.010 -0.040	0.500 mir Source (Cat HB) (Cat HB) (Cat HB)	1
Excavators and Front Sho Machine Cycle Tim Selected Value Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Factor Materia Stockpile Truck Ownership	e vs. Job Con ne within this s – Material I n.): rs - Unadjuste s l: Mixed n e: Conveyo o: Common n: Constant	dition Rating Basic Rating Description: Maneuve ed Basic Loa material 0.02 or or dozer promoreship toperation - target 0.00	g: NA g: NA er: NA ader Cycle Tin diled 10 ft. high of trucks and 0.04 Net Cycle Tim	me (load, dump, h or less 0.01 loaders -0.04 me Adjustment:	Dump: 0.10 maneuver): Factor (min.) 0.020 0.010 -0.040 -0.040	0.500 mir Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)	1
Excavators and Front Sho Machine Cycle Tim Selected Value Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Factor Materia Stockpile Truck Ownership	e vs. Job Con ne within this s – Material I n.): rs - Unadjuste s l: Mixed n e: Conveyo o: Common n: Constant	dition Rating Basic Rating Description: Maneuve ed Basic Loa material 0.02 or or dozer promoreship toperation - target 0.00	g: NA g: NA er: NA ader Cycle Tin diled 10 ft. higi of trucks and 0.04 Net Cycle Tin djusted Load	me (load, dump, h or less 0.01 loaders -0.04 me Adjustment: er Cycle Time:	Dump: 0.10 maneuver): Factor (min.) 0.020 0.010 -0.040 -0.040 0.000 -0.050 0.450	00	1
Excavators and Front Sho Machine Cycle Tim Selected Value Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Factor Materia Stockpile Truck Ownership	e vs. Job Con ne within this s – Material I n.): rs - Unadjuste s l: Mixed n e: Conveyo o: Common n: Constant	dition Rating Basic Rating Description: Maneuve ed Basic Loa material 0.02 or or dozer promoreship toperation - target 0.00	g: NA g: NA er: NA ader Cycle Tin diled 10 ft. higi of trucks and 0.04 Net Cycle Tin djusted Load	me (load, dump, h or less 0.01 loaders -0.04 me Adjustment:	Dump: 0.10 maneuver): Factor (min.) 0.020 0.010 -0.040 -0.040 0.000 -0.050	0.500 mir Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	1
Excavators and Front Sho Machine Cycle Tim Selected Value Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Factor Materia Stockpile Truck Ownership	e vs. Job Con ne within this s – Material I n.): rs - Unadjuste s l: Mixed n e: Conveyo o: Common n: Constant	dition Rating Basic Rating Description: Maneuve ed Basic Loa material 0.02 or or dozer promoreship toperation - target 0.00	g: NA g: NA er: NA ader Cycle Tin diled 10 ft. higi of trucks and 0.04 Net Cycle Tin djusted Load	me (load, dump, h or less 0.01 loaders -0.04 me Adjustment: er Cycle Time:	Dump: 0.10 maneuver): Factor (min.) 0.020 0.010 -0.040 -0.040 0.000 -0.050 0.450	00	1
Excavators and Front Sho Machine Cycle Tim Selected Value Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Factor Materia Stockpile Truck Ownership Operation Dump Targe	e vs. Job Con ne within this s – Material I n.): rs - Unadjuste s l: Mixed n e: Conveyo c: Common t: Nominal	dition Rating Basic Rating Description: Maneuve ed Basic Loa material 0.02 or or dozer per ownership toperation - target 0.00	g: NA g: NA er: NA ader Cycle Tin diled 10 ft. higi of trucks and 0.04 Net Cycle Tin djusted Load	h or less 0.01 loaders -0.04 ne Adjustment: er Cycle Time: ime per Truck:	Dump: 0.10 maneuver): Factor (min.) 0.020 0.010 -0.040 -0.040 0.000 -0.050 0.450	00	nutes
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<u>Truck Travel (Haul & Return) Time:</u> Road Condition: <u>Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0</u>

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Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	8342.00	-4.30	3.00	-1.30	3005	2.862

Haul Time: 2.862 minutes

Return Route:

Return Route.								
Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)		
1	8342.00	4.30	3.00	7.30	2470	3.584		

Return Time: 3.584 minutes
Total Truck Cycle Time: 11.913 minutes

Loading Tool unit

Production 497.37 LCY/Hour Adjusted for job efficiency: 412.82 LCY/Hour Truck Unit Production 158.65 LCY/Hour Adjusted for job efficiency: 131.68 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 395.05 LCY/Hour Adjusted single truck/loader team production: 395.05 LCY/Hour Adjusted multiple truck/loader team production: 395.05 LCY/Hour

JOB TIME AND COST

 Fleet size:
 1
 Team(s)
 Total job time:
 330.40
 Hours

 Unit cost:
 \$3.339
 /LCY
 Total job cost:
 \$435,769

BULLDOZER WORK

Task description:	Mayflower TSF	- Grade Top	osoil 30 Temp Sludge		
Climax Mine	Per	rmit Action:	2024-06	Permit/Job#:	M1977493
PROJECT IDENTIF	<u>ICATION</u>				
Task #: J1010	State:	Colorado		Abbreviation:	None
Date: 6/17/2024	County:	Lake		Filename:	M493-J1010
User: ACY		<u> </u>		I monume.	111/20 01010
Agency or organ	nization name: D	RMS			
		ICIVIS			
HOURLY EQUIPME	ENT COST				
-	<u>: D8T - 8SU</u>		_		
	ni-Universal		_		
Attachment: NA					
	er day		_		
Data Source: (CF			_		
Cost Breakdown:		1			
Ownership Cost/Hour:		\$173.32	<u>Utilization %</u> NA		
Operating Cost/Hour:		\$173.32	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 QUANT Initial Volume: 138, Swell factor: 1.00	000				
Loose volume: 138,	000 LCY				
Source of estimated volumes Source of estimated swell		dbook			
HOURLY PRODUCT	ΓΙΟΝ				
Average push distance:	250 feet				
Unadjusted hourly produc	ction: <u>377.8 LCY</u>	<u>/hr</u>			
Materials consistency des	scription: Loose	stockpile 1.2			
Average push gradient: Average site altitude:	0 % 11,000 feet				
Material weight:	2,700 lbs/LCY				
Weight description:	Earth - Wet excav	ated			
Job Condition Correction		750	Source		
Operator S		200	(AVG.)		
Material consiste Dozing me		.000	(CAT HB) (GEN.)		
		.000	(AVG.)		
V 151C			(1110.)		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.852	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5092

Adjusted unit production: 192.38 LCY/hr
Adjusted fleet production: 384.76 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: \$1.672/LCY

Total job time: 358.67 Hours
Total job cost: \$230,704

MOTOR GRADER WORK

Task description:	McNulty OSF - Finish G	rading		
: Climax Mine	Permit Actio	on: 2024-06	Per	mit/Job#: <u>M1977493</u>
PROJECT IDENT	<u>IFICATION</u>			
Task #: <u>J1011</u>	State: Colora			viation: None
Date: 6/17/202	4 County: Summi	it	Fil	ename: <u>M493-J1011</u>
User: ACY				
Agency or or	ganization name: DRMS			
HOURLY EQUIPM	MENT COST			
Basic Mach	ine: CAT 12M		Horsepower:	158
Ripper Attachm	ent:		Shift Basis:	1 per day
			Data Source:	(CRG)
Cost Breakdown:				
			Utilization %	
Ow	nership Cost/Hour:	\$69.16	NA	
Op	perating Cost/Hour:	\$54.74	100	
	nership Cost/Hour:		NA	
	perating Cost/Hour:	\$0.00		
	perator Cost/Hour:	\$27.76	NA	
То	tal Unit Cost/Hour:	\$151.66		
Tot	al Fleet Cost/Hour:	\$303.32		
	<u> </u>	9.00		acres
Sou	arce of estimated acreage: Clin	max Estimate TR-3	37	
HOURLY PRODU	<u>CTION</u>			
	Average Grader Speed:	1.50	mph	
			grading (0-2.5 mph	1) - 1.5
	Selected Blade Angle:	45	degrees	
Wide	Effective Blade Length:	8.50 2.00	feet	
	h of blade overlap per pass: g or ripping width per pass:	6.50	feet feet	
	ted Hourly Unit Production:	1.1818	acres/hou	r
Job Condition Correcti	•		ite Altitude: 11000	
	Sou			
Altitude Adj:				
Job Efficiency:				
Net Correction:	0.8550 multip	lier		
	Adjusted Hourly Unit Production	on: 1.0105	acres/Hour	
	Adjusted Hourly Fleet Production		acres/Hour	
	Trajustica Troatry Troot Froutette			
JOB TIME AND C	<u>OST</u>			
Fleet size:	2 Grader(s)	Total job time	e: <u>415.16</u>	Hours
Unit cost: \$	150.09 per acre	Total job cos	t: \$125,92	6
Omi cost \$	150.09 per acre	Total job cos	ı. <u>\$14</u> 3,94	<u>U</u>

TRUCK/LOADER TEAM WORK

,	Task descrip	tion: May	yflower TSF -	Haul Bedding Material		
Site:	e: Climax Mine Permit		nit Action: 2024-06	Permit/Job#:	M1977493	
	<u>PROJECT</u>	DENTIFICAT	<u>ION</u>			
	Task #:	J1012	State:	Colorado	Abbreviation:	None
	Date:	6/12/2024	County:	Lake	Filename:	M493-J1012
	User:	ACY				
		ency or organization EQUIPMENT C			Shift basis: 1 per day	
				Equipment Description		
		Truck Loader	Team -Truck:			
			-Loader:			
	Support Equipment -Load Area:		Cat D6T LGP			
			-Dump Area:	NA		
	I	Road Maintenance –	Motor Grader:			
			-Water Truck:	Water Tanker, 5,000 Gal.		
	Cost Break	down: Trucl	x/Loader Team	Support Equipme	ent Maint	enance Equipment

Cost Breakdown:	Truck/Loader Team		Support I	Equipment	Maintenance Equipment		
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck	
%Utilization-machine:	100	100	100	NA	100	100	
Ownership cost/hour:	\$108.25	\$57.78	\$99.72	NA	\$69.16	\$51.70	
Operating cost/hour:	\$79.54	\$46.25	\$71.22	NA	\$54.74	\$50.22	
%Utilization-riper:	NA	0	NA	NA	NA	NA	
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00	
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00	
Operator cost/hour:	\$25.24	\$36.85	\$38.59	NA	\$27.76	\$21.12	
Unit Subtotals:	\$213.03	\$140.88	\$209.53	NA	\$151.66	\$123.04	
Number of Units:	9	3	1	0	1	1	
Group Subtotals:	Work:	\$2,339.91	Support:	\$209.53	Maint:	\$274.70	

Total work team cost/hour: \$2,824.14

MATERIAL QUANTITIES

Initial volume: _55,693 CCY Swell factor: _1.000

Loose volume: 55,693 LCY

Source of estimated volume: <u>TR-37</u>

Source of estimated swell factor: Cat Handbook

Material Purchase Cost: \$0.00

Total Cost: \$0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: 2,600 Pounds/LCY
Description: Limestone - Broken

Rated Payload: 87,000 Pounds
Payload Capacity: 33.46 LCY

Truck Bed (volume) Basis: Struck Volume:	24.20	LCY					
Heaped Volume:	31.40	LCY					
Average Volume:	27.80	LCY					
Adjusted Volume:	31.40	LCY					
Fin	al Truck Vol	ume Base	d on Number o	f Loader Passes:	28.88	LCY	
Loading Tool Capacity							
		1		Bucl	ket Size Class:	NA	<u></u>
Rated Capacity:	5.000		LCY (heaped)				
Bucket Fill Factor:	0.825			avg. blasted (75	- 90%) 0.825		
Adjusted Capacity:	4.125	5 1	LCY				
Job Condition Correction	ıs:		S	ite Altitude (ft.):	11000 feet		
	Truck		Loader	Source			
Altitude Adj:	0.600		1.000	(CAT HE	3)		
Job Efficiency:	0.830		0.830	(CAT HE	3)		
Net Correction:	0.498		0.830				
ret correction.	0.470		0.050				
Excavators and Front Short Machine Cycle Time	<u>vels:</u> vs. Job Cond	dition Rati	ng: NA	sses Required to	Fill Truck:	7	_ passes
Excavators and Front Sho	vels: vs. Job Conce within this	dition Rati Basic Rati	ng: NA NA	asses Required to		7	_ passes
Excavators and Front Sho Machine Cycle Time Selected Valu	vels: vs. Job Conce within this Material D	dition Rati Basic Rati	ng: NA NA			7	_ passes
Excavators and Front Short Machine Cycle Time Selected Value Track Loaders	vels: vs. Job Conce within this Material D	dition Rati Basic Rati	ing: NA NA NA			100	_ passes
Excavators and Front Sho Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min	vels: vs. Job Conce within this Material D .):	dition Rati Basic Rati Pescription Maneur	ing: NA NA NA NA NA NA NA NA NA NA NA NA NA		Dump: 0.	100	_ passes
Excavators and Front Shoom Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min Load: NA	vels: vs. Job Conde within this Material D :): s - Unadjuste	dition Rati Basic Rati Pescription Maneur	ing: NA NA NA NA NA NA NA NA NA NA NA NA NA		Dump: 0.	100 0.500 n	ninutes
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Excavators and Front Sho Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile	vels: vs. Job Conce within this Material D i): s - Unadjuste Mixed m Conveyo	dition Rati Basic Rati Pescription Maneu d Basic Lo aterial 0.0 r or dozer	ng: NA ing: NA ver: NA pader Cycle Ti 2 piled 10 ft. hig	me (load, dump, r	Dump: 0.2 maneuver): Factor (min.) 0.020 0.000	0.500 n Source (Cat HB (Cat HB	ninutes
Excavators and Front Shood Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile Truck Ownership	vs. Job Conde within this Material D :): s - Unadjuste Mixed m Conveyo	dition Rati Basic Rati escription Maneu d Basic Lo aterial 0.0 r or dozer	ng: NA ing: NA ver: NA pader Cycle Ti piled 10 ft. hig p of trucks and	me (load, dump, r	Dump: 0.2 maneuver): Factor (min.) 0.020 0.000 -0.040	0.500 n Source (Cat HB (Cat HB	ninutes
Excavators and Front Shoom Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile Truck Ownership Operation	vels: vs. Job Conde within this Material D :): s - Unadjuste Mixed m Conveyor Common	dition Rati Basic Rati escription Maneu d Basic Lo aterial 0.0 r or dozer ownershi operation	ver: NA pader Cycle Tip piled 10 ft. hig p of trucks and -0.04	me (load, dump, r	Dump: 0 maneuver):	0.500 n Source (Cat HB	ninutes))))
Excavators and Front Shood Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile Truck Ownership	vels: vs. Job Conde within this Material D :): s - Unadjuste Mixed m Conveyor Common	dition Rati Basic Rati escription Maneu d Basic Lo aterial 0.0 r or dozer	ver: NA pader Cycle Ti piled 10 ft. hig p of trucks and -0.04	me (load, dump, regh and up 0.00 l loaders -0.04	Dump:0 maneuver): Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	0.500 n Source (Cat HB	ninutes)))))
Excavators and Front Shoom Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile Truck Ownership Operation	vels: vs. Job Conde within this Material D :): s - Unadjuste Mixed m Conveyor Common	dition Rati Basic Rati escription Maneur d Basic Lo aterial 0.0 r or dozer ownershi operation target 0.0	ng: NA ng: NA ver: NA pader Cycle Tir piled 10 ft. hig p of trucks and -0.04 Net Cycle Tir	me (load, dump, r gh and up 0.00 I loaders -0.04 me Adjustment:	Dump: 0.1 maneuver): Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060	0.500 n Source (Cat HB (Cat HB (Cat HB (Cat HB (Cat HB	ninutes))))
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Excavators and Front Shoom Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile Truck Ownership Operation	vels: vs. Job Conde within this Material D :): s - Unadjuste Mixed m Conveyor Common	dition Rati Basic Rati escription Maneur d Basic Lo aterial 0.0 r or dozer ownershi operation target 0.0	ng: NA ing: NA ver: NA pader Cycle Ti piled 10 ft. hig p of trucks and -0.04 0 Net Cycle Tir Adjusted Load	me (load, dump, r gh and up 0.00 I loaders -0.04 me Adjustment: ler Cycle Time:	Dump: 0.2 maneuver): Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	0.500 n Source (Cat HB (Cat HB (Cat HB (Cat HB (Cat HB (Cat HB minutes	ninutes)))))
Excavators and Front Shormal Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Material Stockpile Truck Ownership Operation Dump Target Truck Cycle Time:	vels: vs. Job Conde within this Material D The second of the content of the con	dition Rati Basic Rati Pescription Maneur d Basic Lo aterial 0.0 r or dozer ownershi operation target 0.0	ng: NA ing: NA ver: NA pader Cycle Ti piled 10 ft. hig p of trucks and -0.04 0 Net Cycle Tir Adjusted Load Net Load T	me (load, dump, regh and up 0.00 loaders -0.04 loaders -0.04 ler Cycle Time: Time per Truck:	Dump: 0.7 maneuver): Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 2.740	100 O.500 n Source (Cat HB (Cat HB (Cat HB (Cat HB minutes minutes minutes	ninutes)))))
Excavators and Front Shoom Machine Cycle Time Selected Valua Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factors Material Stockpile Truck Ownership Operation Dump Target Truck Cycle Time: Truck Exchange Time	vels: vs. Job Conde within this — Material D .): s - Unadjuste Mixed m Conveyor Common Constant Nominal	dition Rati Basic Rati escription Maneur d Basic Lo aterial 0.0 r or dozer ownershi operation target 0.0	ng: NA ing: NA ver: NA pader Cycle Ti 2 piled 10 ft. hig p of trucks and -0.04 0 Net Cycle Tir Adjusted Load Net Load T	me (load, dump, response of the control of the cont	Dump:	100 Source (Cat HB	ninutes))))) Minu
Excavators and Front Shormal Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Material Stockpile Truck Ownership Operation Dump Target Truck Cycle Time:	vs. Job Conde within this — Material D .): s - Unadjuste Mixed m Conveyo Common Constant Nominal	dition Rati Basic Rati Pescription Maneur d Basic Lo aterial 0.0 r or dozer ownershi operation target 0.0	ng: NA ing: NA ver: NA pader Cycle Ti piled 10 ft. hig p of trucks and -0.04 0 Net Cycle Tir Adjusted Load Net Load T	me (load, dump, regh and up 0.00 loaders -0.04 loaders -0.04 ler Cycle Time: Time per Truck: Adjusted Adjusted	Dump: 0.7 maneuver): Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 2.740	100 Source (Cat HB (Cat HB (Cat HB (Cat HB minutes minutes minutes	ninutes))))

<u>Truck Travel (Haul & Return) Time:</u> Road Condition: <u>Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0</u>

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	5491.00	3.60	3.00	6.60	1281	4.419

Haul Time: 4.419 minutes

Return Route:

1totain it	rate.					
Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	5491.00	-3.60	3.00	-0.60	3706	1.527

Return Time: 1.527 minutes
Total Truck Cycle Time: 11.353 minutes

Loading Tool unit

Production 463.24 LCY/Hour Adjusted for job efficiency: 384.49 LCY/Hour Truck Unit Production 152.61 LCY/Hour Adjusted for job efficiency: 126.66 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 379.99 LCY/Hour Adjusted single truck/loader team production: 379.99 LCY/Hour Adjusted multiple truck/loader team production: 1,139.98 LCY/Hour

JOB TIME AND COST

Fleet size: 3 Team(s) Total job time: 48.85 Hours

Unit cost: \$2.477 /LCY Total job cost: **\$137,972**

BULLDOZER RIPPING WORK

	Task description:	May	flower TSF - Roads - Ri	pping				
Site:	: Climax Mine		Permit Action:	2024-06	Permit	/Job#:	M197749	3
	PROJECT IDI	ENTIFICATI	<u>ON</u>					
	Task #: J10	013	State: Colorado		Abbrevia	tion:	None	
		7/2024	County: Lake		Filena	_	M493-J10	13
	User: AC	CY	-					
	Agency	or organization	name: DRMS					
	HOURLY EQ	UIPMENT CO	<u>OST</u>					
	Basic 1	Machine: Cat	D7R DS Series II LGP		Horsepower:	2	40	
	Ripper Att	achment: 3-S	hank Ripper		Shift Basis:	1 pe	r day	
					Data Source:	(Cl	RG)	
	Cost Breakdown:	<u>.</u>						
					Utilization %			
		Ownership Co		\$90.24	NA NA			
	Dinn	Operating Co er Ownership Co		\$78.95 \$9.25	100 NA			
		per Operating Co		¢5.20	100			
	тарь	Operator Co		\$38.59	NA			
		Total Unit Co	· · · · · · · · · · · · · · · · · · ·	\$222.23				
		Total Fleet Co	ost/Hour: \$444	1.45				
	MATERIAL Q			atad actimatina	mathad. Area			
			Sele	cted estillating	method: Area			
	Alternate Method	<u>18.</u>				_		
Seismic: Area:	NA 29.00	acres	Bank Volume: _ Rip Depth (ft):	NA 1.00	BCY Volume: 46,78		NA .	BCY or CCY
mea.	27.00			1.00		<u> </u>		ber of eer
			nated quantity: TR-37					
	HOURLY PRO	<u>DDUCTION</u>						
	Seismic:		a	37.1	0			
		:	Seismic Velocity:	NA	feet/second			
	Area:							
			ge Ripping Depth:	2.45	feet/pass			
			e Ripping Width: Ripping Length:	6.50 250.00	feet/pass feet/pass			
		_	age Dozer Speed:	88.00	feet/minute			
			Maneuver Time:	0.25	minutes/pass			
		_	tion per unit area:	0.724	acres/hour			
	Job Condition Co	orrection Factors	<u>i</u>					
	Un	adjusted Hourly	Unit Production:	0.724	Acres/hr			
			Site Altitude:	11,000	feet			
			Altitude Adj:	1.00	(CAT HB)			
			Job Efficiency:	0.83	(1 shift/day)			
			Net Correction:	0.83	multiplier			
		Adjusted	Hourly Unit Production:	0.60	Acres/hr			
			Hourly Fleet Production:	1.20	Acres/hr			
	JOB TIME AN	ND COST						
	Fleet size:	2	Grader(s)	Total job time	e: 24.12		Hou	rs
	Unit cost:	\$369.738	Per acre	Total job cos	st: \$10,72	2		
		,	=	355 205	Ψ=0,7 =			

<u> </u>				Construct Water Conveyances	5					
						Cost	/Unit	Tot	al Cost	
Task #		Area	Description	Task Type	Quant Unit					Key Assumptions
	106.11	Mayflower TS	Rip Rap	Rip Rap Armoring	25,352 CY	\$	74.40	\$	1,886,189	Across TSF to East Side Channel Extension
1		Mayflower TS	Bedding for Riprap Placed	Drain Rock	30,341 CY	\$	73.88	\$	2,241,593	Across TSF to East Side Channel Extension
1	106.14	Mayflower TSF	Impacted Water Pipeline	30" Corrugated HDPE Installed	26,300 LF	\$	78.33	\$	2,060,079	
1	106.16	Mayflower TSF	Decant Pool Spillways	Excvate Diversion/Spillway	9,126 CY	\$	3.66	\$	33,401	
1	106.16	Mayflower TSF	ACB		93,475 SF	\$	63.70	\$	5,954,358	
J2001		Mayflower TSF	Hydrologic Protection			•		\$ 1	2,175,620	

REVEGETATION WORK

Task desc	ription: Ma	ayflower TSF - Rev	veg - Upland				
Climax	x Mine	Permit A	Action: 2024	-06		Permit/Job#	M1977493
ROJEC	T IDENTIFICAT	ION					
Task # Date	: J3001		lorado ke				None M493-J3001
A	Agency or organization	n name: DRMS					
ERTILI	ZING						
<u> Iaterials</u>							
Descrip	otion		Units / Acre	Unit	Cost	t / Unit	Cost /Acre
					\$		\$
					Tota	al Fertilizer Materials Cost/Acre	\$0.00
pplicatio	n						
Descrip	otion						Cost /Acre
			Total	Fertilizer	Application	n Cost/Acre	\$0.00
ILLING	<u>.</u>						
Descrip	otion						Cost /Acre
	rrowing, 6" deep (MI	EANS 32 91 13.23	6100)				\$117.61
				7	Fotal Tilling	g Cost/Acre	\$117.61
EEDING	<u>3</u>						
Seed M	lix				Rate – PLS LBS /	Seeds per SQ. FT	Cost /Acre

Currant, Wax	0.16	0.55	\$11.10	
Rocky Mountain Fescue	0.17	2.73	\$1.83	
Lupine, Silver	1.74	1.02	\$208.03	
Slender Wheatgrass - Native	0.68	2.48	\$4.80	
Vetch, American	1.33	0.60	\$163.74	
Prairie Junegrass	0.09	4.78	\$4.39	

Alpine Bluegrass

Cinquefoil, Slender

Arizona Fescue - Redondo

Mountain Brome - Bromar

Acre

2.53

5.17

2.73

3.90

0.11

0.45

1.70

0.04

\$2.63

\$6.78

\$10.23

\$19.62

Tufted Hairgrass Penstemon, Rocky Mountain Yarrow, White	0.17	9.76	\$4.84
	0.27	4.23	\$16.58
	0.05	3.18	\$3.67
Totals Seed Mix	7.66	54.11	\$487.09

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
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$492.78	\$985.56
Total Mulch Materials Cost/Acre				\$985.56

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$85.37
Power mulcher (MEANS 32 91 13.16 0350)		\$157.25
	Total Mulch Application Cost/Acre	\$242.63

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
		Totals 1	Nursery Stoc	k Cost / Acre	\$0.00

JOB TIME AND COST

 No. of Acres:
 701
 Cost /Acre:
 \$2,069.53

 Estimated Failure Rate:
 10%
 Cost /Acre*:
 \$1,951.92

*Selected Replanting Work Items: SEEDING,MULCHING

Initial Job Cost: \$1,450,740.53

Reseeding Job Cost: \$136,829.59

Total Job Cost: \$1,587,570

771.10

REVEGETATION WORK

Task description: Mayflower TSF - Reveg - Trees				
: Climax Mine Permit Action: 2024	1-06		Permit/Job#	: <u>M1977493</u>
PROJECT IDENTIFICATION Task #: J3002 State: Colorado Date: 8/20/2024 County: Lake User: ACY Agency or organization name: DRMS	J3002 State: Colorado Abbreviation: N 8/20/2024 County: Lake Filename: M ACY			
FERTILIZING				
Materials Units / Description Acre	Unit	Cos	st / Unit	Cost /Acre
Description Acre	Cint	\$		\$
			tal Fertilizer Materials Cost/Acre	\$0.00
Tota	l Fertilizer	Application	on Cost/Acre	\$ \$0.00
<u> </u>				φοιου
Description				Cost /Acre
				\$
	ŗ	Total Tillin	ng Cost/Acre	\$0.00
SEEDING				
Seed Mix		Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Tr. A. I.	Cood Mir	0.00	0.00	\$
Application	Seed Mix	0.00	0.00	\$0.00
Description				Cost /Acre
Z TOTAL PRODU				\$

Total Seed Application Cost/Acre	\$0.00

MULCHING and MISCELLANEOUS

Materials

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

Application

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

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
Fir, Subalpine	225	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.74	\$0.00	\$616.50
Spruce, Englemann	225	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.74	\$0.00	\$616.50
Totals Nursery Stock Cost / Acre					\$1,233.00

JOB TIME AND COST

 No. of Acres:
 21
 Cost /Acre:
 \$1,233.00

 Estimated Failure Rate:
 20%
 Cost /Acre*:
 \$1,233.00

 *Selected Replanting Work Items:
 NURSERY

Initial Job Cost: \$25,893.00

Reseeding Job Cost: \$5,178.60

Total Job Cost: Job Hours: 25.20

REVEGETATION WORK

Task description:	Mayflower Pool/Sl	udge Cell - Reve	g - Upland	i		
Climax Mine	Permi	it Action: 2024	-06		Permit/Job#:	M1977493
ROJECT IDENTI	FICATION					
Task #: <u>J3003</u>		Colorado		Abb		None
Date: $\frac{6/11/202}{ACY}$			Filename: N	M493-J3003		
Agency or org	anization name: DRM	S				
ERTILIZING						
Description		Units / Acre	Unit	Cost	t / Unit	Cost /Acre
				\$		\$
				Tota	al Fertilizer Materials Cost/Acre	\$0.00
pplication Description						Cost /Acre
						\$
		Total	Fertilizer	Application	n Cost/Acre	\$0.00
TILLING						
Description						Cost /Acre
	leep (MEANS 32 91 13.2	3 6100)				\$117.61
	•		ŗ	Fotal Tilling	g Cost/Acre	\$117.61
EEDING						
Seed Mix				Rate – PLS LBS /	Seeds per SQ. FT	Cost /Acre

Alpine Bluegrass

Cinquefoil, Slender

Currant, Wax

Lupine, Silver

Vetch, American

Prairie Junegrass

Arizona Fescue - Redondo

Mountain Brome - Bromar

Rocky Mountain Fescue

Slender Wheatgrass - Native

\$2.63

\$6.78

\$10.23

\$19.62

\$11.10

\$208.03

\$163.74

\$1.83

\$4.80

\$4.39

Acre

0.11

0.45

1.70

0.04

0.16

0.17

1.74

0.68

1.33

0.09

2.53

5.17

2.73

3.90

0.55

2.73

1.02

2.48

0.60

4.78

Total	ls Seed Mix 7.66	54.11	\$487.09
Yarrow, White	0.05	3.18	\$3.67
Penstemon, Rocky Mountain	0.27	4.23	\$16.58
Tufted Hairgrass	0.17	9.76	\$4.84
Timothy, Alpine - Native	0.25	7.46	\$9.80
Flax, Lewis Blue	0.45	2.99	\$19.03

Application

Description		Cost /Acre
Broadcast seeding [DMG]		\$272.56
	Total Seed Application Cost/Acre	\$272.56

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$492.78	\$985.56
Total Mulch Materials Cost/Acre				\$985.56

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$85.37
Power mulcher (MEANS 32 91 13.16 0350)		\$157.25
	Total Mulch Application Cost/Acre	\$242.63

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
		Totals 1	Nursery Stoc	k Cost / Acre	\$0.00

JOB TIME AND COST

 No. of Acres:
 183
 Cost /Acre:
 \$2,105.45

 Estimated Failure Rate:
 10%
 Cost /Acre*:
 \$759.65

*Selected Replanting Work Items: SEEDING
Initial Job Cost: \$385,297.35

Reseeding Job Cost: \$13,901.60

Total Job Cost: \$399,199

Job Hours: 201.30

REVEGETATION WORK

Task description: Mayflower Pool/Slu	ıdge Cell - Reveg	- Trees			
Climax Mine Permi	t Action:	6		Permit/Job#	#: <u>M1977493</u>
PROJECT IDENTIFICATION					
			Abl	breviation:	None
Date: 9/10/2024 County: L	ake			Filename:	M493-J3004
User: ACY					
Agency or organization name: <u>DRMS</u>	S				
FERTILIZING .					
Materials					
Description	Units / Acre	Unit	Cos	t / Unit	Cost /Acre
			\$		\$
				al Fertilizer	7
			100	Materials	
				Cost/Acre	\$0.00
Description					
Application					Cost /Acre
					\$
	Total F	ertilizer	Applicatio	n Cost/Acre	\$0.00
<u> </u>					
Description					Cost /Acre
					\$
		7.5	1 4 1 (27)	G 4/4	
		T	otal Tillin	g Cost/Acre	\$0.00
SEEDING					
			Rate –		
Seed Mix			PLS	Seeds	Cost /Acre
			LBS /	per SQ. FT	
			Acre		
					\$
	Totals Se	ed Miv	0.00	0.00	Φ0.00
	1 otals Se	cu IVIIX	0.00		\$0.00
Application					
Description					Cost /Acre
					\$

Total Seed Application Cost/Acre	\$0.00

MULCHING and MISCELLANEOUS

Materials

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

Application

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

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
Fir, Subalpine	225	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.74	\$0.00	\$616.50
Spruce, Englemann	225	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.74	\$0.00	\$616.50
		Totals 2	Nursery Stoc	ek Cost / Acre	\$1,233.00

JOB TIME AND COST

 No. of Acres:
 5
 Cost /Acre:
 \$1,233.00

 Estimated Failure Rate:
 20%
 Cost /Acre*:
 \$1,233.00

 *Selected Replanting Work Items:
 NURSERY

Initial Job Cost: \$6,165.00

Reseeding Job Cost: \$1,233.00

Total Job Cost: \$7,398

6.00

BULLDOZER WORK

Task description:	Mayf	lower Seepage Bldg	- Grading		
: Climax Mine		Permit Actio	on: 2024-06	Permit/Job#:	M1977493
PROJECT IDEN	TIFICATIO	<u>ON</u>			
Task #: L100	1	State: Colora	do	Abbreviation:	None
Date: 6/17/2		County: Lake	<u>uo</u>	Filename:	M493-L1001
User: ACY					1.1.70 21001
	organization	name: DRMS			
HOURLY EQUI					
Basic Machine:	Cat D8T - 8				
Horsepower:	310				
Blade Type:	Semi-Unive	ersal			
Attachment:	NA				
Shift Basis:	1 per day				
Data Source:	(CRG)				
	-				
Cost Breakdown:			Utilization %		
Ownership Cost/H	our.	\$173.3			
Operating Cost/H		\$109.7			
Ripper own. Cost/H		\$0.0			
Ripper op. Cost/H		\$0.0			
Operator Cost/H		\$38.5			
operator costri		φ30.2	NA NA		
Initial Volume: Swell factor:	33,873 1.165				
Loose volume:	39,462 LCY				
Source of estimated Source of estimated		TR-37 Cat Handbook			
HOURLY PROD	<u>OUCTION</u>				
Average push distar	ice:	250 feet			
Unadjusted hourly p		377.8 LCY/hr			
Materials consistence	cy description:	Rock, well rippe	ed or blasted 0.8		
Average push gradio Average site altitude) feet			
Material weight:	2,900	lbs/LCY			
Weight description:	Decor	mposed rock - 50% Ro	ock, 50% Earth		
Job Condition Corre		0.770	Source		
	rator Skill:	0.750	(AVG.)		
Material co		0.800	(CAT HB)	
Dozir	ng method:	1.000	(GEN.)		
	Visibility: _	1.000	(AVG.)		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3554

Adjusted unit production: 134.27 LCY/hr
Adjusted fleet production: 134.27 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$2.395/LCY

Total job time: 293.90 Hours
Total job cost: \$94,523

TRUCK/LOADER TEAM WORK

Task description: Site: Climax Mine				- Haul Topsoil on: 2024-06	,	Permit/Job#:	M1077402	
Site: Climax Wilne		Permit	Acno	on: <u>2024-06</u>		Permit/Job#: _	M1977493	
PROJECT IDEN	TIFICATION	[
Task #: L1002	2	State: Colorado			Ab	breviation: 1	None	
Date: 6/13/2		County: I	Lake			Filename:	M493-L1002	
User: ACY		- <u> </u>						
Agency or	organization nar	ne: DRM	S					
HOURLY EQUI	PMENT COST	<u>r</u>			Shift bas	is: 1 per day		
				Equipment Descri	ption			
Т	Truck Loader Tea	H	Cat '					
Sunn	ort Equipment -I	-Loader:		T 966H high lift D6T XL				
Бирр		ump Area:	NA	D01 71E				
Road M	aintenance – Mot	H	NA					
	-Wa	iter Truck:	NA					
Cost Breakdown:	Truck/Lo	ader Team		Support I	Equipment	Maintan	nance Equipm	ant
Cost Breakdown.	Truck	Loader		Load Area	Dump Area	Motor Grade		
%Utilization-machine:	100		100	100	NA	N.A	A	NA
Ownership cost/hour:	\$108.25	\$57	7.78	\$90.43	NA	N/	A	NA
Operating cost/hour:	\$79.54	\$46	5.25	\$67.29	NA	N/	A	NA
%Utilization-riper:	NA		0	NA	NA	N/	A	NA
Ripper own. cost/hour:	NA	\$0	0.00	\$0.00	NA	N/	4	NA
Ripper op. cost/hour:	NA	\$0	0.00	\$0.00	NA	N/	A	NA
Operator cost/hour:	\$25.24	\$36	5.85	\$38.59	NA	N/	A	NA
Unit Subtotals:	\$213.03	\$140	0.88	\$196.31	NA	N/	A	NA
Number of Units:	2		1	1	0		0	0
Group Subtotals:	Work:	\$566.94		Support:	\$196.31	Main	t: \$0.00	
Total work team cos	st/hour: \$763.25	5						
MATERIAL QU	<u>ANTITIES</u>							
Initial volume	: 2,690		CCY	Swell	factor: 1.215			
Loose volume:	3,269	8	LCY					
So	urce of estimated	l volume:	TR-3'	7				
Source	of estimated swe			landbook				
	Material Purch		\$0.00					
	10	otal Cost:	\$0.00	ı				
HOURLY PRO	DUCTION							
Truck Capacity: Truck Payload (wei	oht) Basis							
Material v				Pounds/LCY				
Descr	ription: Top So	oil						
Rated Pa	yload: <u>87,000</u>			Pounds			_	

LCY

Payload Capacity: 54.38

	rs - Unadjusted E I: Mixed mate e: Conveyor or c: Common ov n: Constant op t: No adjustme me: 0.60	Maneuver: NA Basic Loader Cycle Tir rial 0.02 r dozer piled 10 ft. hig wnership of trucks and eration -0.04 ent - factor not applica Net Cycle Tin Adjusted Load	h and up 0.00 loaders -0.04 ble 0.00 ne Adjustment: er Cycle Time: time per Truck:	Dump:0.100	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes 1.000 2.300	utes
Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Factor Materia Stockpile Truck Ownership Operation Dump Targe	rs - Unadjusted E I: Mixed mate c: Conveyor or c: Common ov n: Constant op t: No adjustme	Maneuver: NA Basic Loader Cycle Tir rial 0.02 r dozer piled 10 ft. hig wnership of trucks and eration -0.04 ent - factor not applica Net Cycle Tin Adjusted Load Net Load T	h and up 0.00 loaders -0.04 ble 0.00 ne Adjustment: er Cycle Time: ime per Truck:	Dump: 0.100 naneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 2.300	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	——————————————————————————————————————
Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Factor Materia Stockpile Truck Ownership Operation Dump Targe	rs - Unadjusted E I: Mixed mate Conveyor or Common ov Constant op	Maneuver: NA Basic Loader Cycle Tir rial 0.02 r dozer piled 10 ft. hig wnership of trucks and eration -0.04 ent - factor not applica Net Cycle Tin Adjusted Load	h and up 0.00 loaders -0.04 ble 0.00 ne Adjustment: er Cycle Time:	Dump: 0.100 naneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	utes
Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Factor Materia Stockpile Truck Ownershi	rs - Unadjusted E I: Mixed mate Conveyor or Common ov Constant op	Maneuver: NA Basic Loader Cycle Tir rial 0.02 r dozer piled 10 ft. hig wnership of trucks and eration -0.04 ent - factor not applica Net Cycle Tin Adjusted Load	h and up 0.00 loaders -0.04 ble 0.00 ne Adjustment: er Cycle Time:	Dump: 0.100 naneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	utes
Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Factor Materia Stockpile Truck Ownershi	rs - Unadjusted E I: Mixed mate Conveyor or Common ov Constant op	Maneuver: NA Basic Loader Cycle Tir rial 0.02 r dozer piled 10 ft. hig vnership of trucks and eration -0.04 ent - factor not applica Net Cycle Tin	h and up 0.00 loaders -0.04 lble 0.00 ne Adjustment:	Dump: 0.100 naneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	utes
Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Factor Materia Stockpile Truck Ownershi	rs - Unadjusted E I: Mixed mate Conveyor or Common ov Constant op	Maneuver: NA Basic Loader Cycle Tir rial 0.02 r dozer piled 10 ft. hig vnership of trucks and eration -0.04 ent - factor not applica	h and up 0.00 loaders -0.04	Dump: 0.100 naneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Factor Materia Stockpile Truck Ownershi	rs - Unadjusted E	Maneuver: NA Basic Loader Cycle Tir rial 0.02 r dozer piled 10 ft. hig wnership of trucks and	me (load, dump, r	Dump: 0.100 naneuver): 0. Factor (min.) 0.020 0.000 -0.040	Source (Cat HB) (Cat HB) (Cat HB)	utes
Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Factor Materia Stockpile	rs - Unadjusted E	Maneuver: NA Basic Loader Cycle Tir rial 0.02 r dozer piled 10 ft. hig	me (load, dump, r	Dump: 0.100 naneuver): 0. Factor (min.) 0.020 0.000	Source (Cat HB) (Cat HB)	utes
Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Factor Materia	rs - Unadjusted E	Maneuver: NA Basic Loader Cycle Tir	me (load, dump, r	Dump: 0.100 naneuver): 0. Factor (min.) 0.020	Source (Cat HB)	utes
Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Factor	n.): rs - Unadjusted E	Maneuver: NA Basic Loader Cycle Tir		Dump: 0.100 naneuver): 0.100 Factor (min.)	.500 minu	utes
Track Loader Cycle Time Elements (mi Load: NA Wheel and Track Loade	n.): rs - Unadjusted E	Maneuver: NA		Dump: 0.100	.500 min	utes
Track Loader Cycle Time Elements (mi Load: NA	n.):	Maneuver: NA		Dump:0.100		utas
Track Loader Cycle Time Elements (mi	n.):	-)	
Track Loader						
	s – Material Desc					
Science var						
Machine Cycle Tim Selected Value	e vs. Job Conditi ae within this Bas					
Excavators and Front Sho	ovels:					
Loading Tool Cycle Tin	ne: Numb	er of Loading Tool Pa	sses Required to	Fill Truck:	6 p	passes
Net Correction:	0.498	0.830				
Job Efficiency:	0.830	0.830	(CAT HB)		
Altitude Adj:	0.600	1.000	(CAT HB	,		
	Truck	Loader	Source			
Job Condition Correction	ns:	Si	te Altitude (ft.): 1	10400 feet		
Adjusted Capacity	5.250	LCY				_
Bucket Fill Factor			andy clay (100%	- 110%) 1.050		_
Rated Capacity	5.000	LCY (heaped)	_ ~~			—
Loading 1001 Capacity			Rucl	cet Size Class: N	Α	
Loading Tool Capacity	nai Truck volum	e Based on Number of	Loadel Lasses.	31.30	LC1	
Fi	nal Truck Volum	e Based on Number of	f Loader Passes	31.50	LCY	
	31.40	LCY				
Adjusted Volume:	27.80	LCY				
Average Volume: Adjusted Volume:		LCY				
Heaped Volume: Average Volume: Adjusted Volume:	31.40					

<u>Truck Travel (Haul & Return) Time:</u> Road Condition: <u>Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0</u>

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	2640.00	-1.80	3.00	1.20	3005	1.226

Haul Time: **1.226** minutes Return Route: Travel Haul Distance Grade (%) Roll. Res Total Res Velocity Seg# Time (Ft) (%) (%) (fpm) (min) 2640.00 3.00 4.80 3005 1.80 1.108

Return Time: 1.108 minutes
Total Truck Cycle Time: 7.301 minutes

Loading Tool unit

Production Truck Unit Production

Truck Unit Production

258.88 LCY/Hour Adjusted for job efficiency: 475.36 LCY/Hour Adjusted for job efficiency: 214.87 LCY/Hour Optimal No. of Trucks: 2 Truck(s)

Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 429.74 LCY/Hour Adjusted single truck/loader team production: 429.74 LCY/Hour Adjusted multiple truck/loader team production: 429.74 LCY/Hour

JOB TIME AND COST

 Fleet size:
 1
 Team(s)
 Total job time:
 7.61
 Hours

 Unit cost:
 \$1.776
 /LCY
 Total job cost:
 \$5,805

BULLDOZER WORK

Task description:	Mayflov	wer Seepage Bldg -	Grade Topsoil		
: Climax Mine		Permit Action:	2024-06	Permit/Job#:	M1977493
PROJECT ID	ENTIFICATION	<u>I</u>			
Task #: L1	003	State: Colorado)	Abbreviation:	None
		County: Lake		Filename:	M493-L1003
User: AC		, <u> </u>		-	
Agency	or organization nar	ne: DRMS			
HOURLY EQ	UIPMENT COS	<u>r</u>			
Basic Machine		IR Series II			
Horsepowe					
Blade Type		al			
Attachmen					
Shift Basis			<u></u>		
Data Source	e: (CRG)				
Cost Breakdown	:		i		
_			<u>Utilization %</u>		
Ownership Cos		\$90.24	NA 100		
Operating Cos		\$78.95	100		
Ripper own. Cos		\$0.00	NA 0		
Ripper op. Cos		\$0.00	0		
Operator Cos	t/Hour:	\$38.59	NA		
Total unit Cost/H	Iour: \$207.78				
Total Fleet Cost/					
MATERIAL (<u> UANTITIES</u>				
Initial Volumes					
Swell factor: Loose volume:					
Loose volume:	3,440 LC I				
Source of estimate	_	TR-37			
Source of estimate	ted swell factor:	Cat Handbook			
HOURLY PRO	ODUCTION				
		10 faat			
Average push dis Unadjusted hourl		0.8 LCY/hr			
Materials consist	ency description:	Loose stockpile 1.	2		
Average push gra Average site altit		eet			
Material weight:	1,600 lbs	s/LCY			
Weight description	on: Top Soil				
Job Condition Co	orrection Factor		Source		
	perator Skill:	0.750	(AVG.)		
	l consistency:	1.200	(CAT HB)		
	ozing method:	1.000	(GEN.)		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
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: 353.00 LCY/hr
Adjusted fleet production: 353 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.589/LCY

Total job time: 70 John 19.14 Hours 19.14

MOTOR GRADER WORK

Task description:	Mayflower TSF - Gradin	g		
: Climax Mine	Permit Actio	n: <u>2024-06</u>	Peri	mit/Job#: <u>M1977493</u>
PROJECT IDENTI	IFICATION			
Task #: L1004	State: Colora	do	Abbre	viation: None
Date: 6/17/202				ename: M493-L1004
User: ACY	<u> </u>			
Agency or or	ganization name: DRMS			
HOURLY EQUIPM	MENT COST			
Basic Machi			Horsepower:	158
Ripper Attachme			Shift Basis:	1 per day
11	· · · · · · · · · · · · · · · · · · ·		Data Source:	(CRG)
C . D 11				, ,
Cost Breakdown:			Utilization %	
Ow	nership Cost/Hour:	\$69.16	NA	
Or	perating Cost/Hour:	0.5.4.7.4	100	
	nership Cost/Hour:	Φ0.00	NA	
	perating Cost/Hour:	\$0.00	1111	
	perator Cost/Hour:	\$27.76	NA	
	tal Unit Cost/Hour:	\$151.66		
		6151.66		
100	arrice costriour.	5131.00		
MATERIAL QUAN	NTITIES .			
Total Ar	ea to be graded or ripped: 1.0	0		acres
Sou	arce of estimated acreage: Clin	max Estimate TR-3	37	
HOURLY PRODU	CTION			
HOURL1 FRODU		1.50	,	
	Average Grader Speed: Selected Application:	1.50	mph grading (0-2.5 mph) 15
	Selected Application. Selected Blade Angle:	45	degrees	.) - 1.3
	Effective Blade Length:	8.50	feet	
Widt	1 (11 1 1	2.00	feet	
	g or ripping width per pass:	6.50	feet	
	ted Hourly Unit Production:	1.1818	acres/hour	r
Job Condition Correcti	on Factors	Si	ite Altitude: 10400 t	feet
	Sou	rce		
Altitude Adj:	1			
Job Efficiency:				
Net Correction:				
	A directed Housely Unit Dec 3	on: 1.0105	oores/Henr	
	Adjusted Hourly Unit Production Adjusted Hourly Fleet Production		acres/Hour acres/Hour	
	Adjusted Hourry Fleet Froduction	Jii. 1.0105	actes/flour	
JOB TIME AND C	<u>OST</u>			
Fleet size:		Total job time	e: 0.99	Hours
	170.00	m . 1 . 1		
Unit cost: \$1	150.09 per acre	Total job cos	t: \$150	

REVEGETATION WORK

	Peri	Permit Action: 2024-06 Permit/Job#:				
ROJECT IDENTIFICA Task #: L3001 Date: 8/20/2024 User: ACY	ATION State: County:	Colorado Lake		_	oreviation: _ Filename: _	None M493-L3001
Agency or organiza	tion name: DR	MS				
ERTILIZING						
aterials						
Description		Units / Acre	Unit	Cos	t / Unit	Cost /Acre
				\$		\$
				Tot	al Fertilizer Materials Cost/Acre	\$0.00
Description						Cost /Acre
<u>LLING</u>		Total	Fertilizer A	Applicatio	n Cost/Acre	\$0.00
LLING Description Disc harrowing, 6" deep (MEANS 32 91 13		Fertilizer A	Applicatio	n Cost/Acre	\$0.00 Cost /Acre \$117.61
Description	MEANS 32 91 13				n Cost/Acre	Cost /Acre
Description	MEANS 32 91 13					Cost /Acre \$117.61
Description Disc harrowing, 6" deep (MEANS 32 91 13		T	otal Tillin Rate – PLS LBS /		Cost /Acre \$117.61
Description Disc harrowing, 6" deep (MEANS 32 91 13		T	otal Tillin Rate – PLS	g Cost/Acre Seeds per SQ.	Cost /Acre \$117.61 \$117.61
Description Disc harrowing, 6" deep (EEDING Seed Mix	MEANS 32 91 13		T	otal Tillin Rate – PLS LBS / Acre	g Cost/Acre Seeds per SQ. FT	Cost /Acre \$117.61 \$117.61 Cost /Acre
Description Disc harrowing, 6" deep (EEDING Seed Mix	MEANS 32 91 13	2.23 6100)	T	otal Tillin Rate – PLS LBS / Acre	g Cost/Acre Seeds per SQ. FT	Cost /Acre \$117.61 \$117.61 Cost /Acre

	\$
Total Seed Application Cost/Acre	\$

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$492.78	\$985.56
Total Mulch Materials Cost/Acre				\$985.56

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$85.37
Power mulcher (MEANS 32 91 13.16 0350)		\$157.25
	Total Mulch Application Cost/Acre	\$242.63

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres:	1	Cost /Acre:	\$2,069.53
Estimated Failure Rate:	10%	Cost /Acre*:	\$1,951.92

*Selected Replanting Work Items: SEEDING,MULCHING

Initial Job Cost: \$2,069.53

Reseeding Job Cost: \$195.19

Total Job Hours: \$2,265

1.10

TRUCK/LOADER TEAM WORK

7	Гask descrip	otion:	Robinso	on TSF - I	Haul Fil	material 28					
Site:	Climax M	Iine		Pern	nit Actio	n: <u>2024-06</u>			Permit/Job#:	M19	977493
<u>I</u>	PROJECT	IDE!	NTIFICATION	<u>I</u>							
	Task #:	M10	01	State:	Colora	do		Al	breviation:	None	2
	Date:	6/13/	2024	County:	Lake				Filename:	M49	3-M1001
	User:	ACY	-								
<u>I</u>	HOURLY	EQU	IPMENT COS	<u>r</u>	I	Equipment Des	scri		sis: 1 per day		
_			Truck Loader Tea	ım -Truck				<u> </u>			
				-Loader	: CA	966H high li	ft				
		Supp	port Equipment -I	Load Area:	: Cat	D6T LGP					
				ump Area							
	I	Road M	Iaintenance –Mot								
			-Wa	ater Truck	: Wat	er Tanker, 7,0	00 (Gal.			
<u>(</u>	Cost Break	down:		ader Team	1		ort I	Equipment			e Equipment
			Truck	Loader		Load Area		Dump Area	Motor Grad	ier	Water Truck

Cost Breakdown:	Truck/Loa	ader Team	Support 1	Equipment	Maintenance Equipment		
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck	
%Utilization-machine:	100	100	100	NA	100	100	
Ownership cost/hour:	\$108.25	\$57.78	\$99.72	NA	\$69.16	\$73.42	
Operating cost/hour:	\$79.54	\$46.25	\$71.22	NA	\$54.74	\$83.21	
%Utilization-riper:	NA	0	NA	NA	NA	NA	
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00	
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00	
Operator cost/hour:	\$25.24	\$36.85	\$38.59	NA	\$27.76	\$21.12	
Unit Subtotals:	\$213.03	\$140.88	\$209.53	NA	\$151.66	\$177.75	
Number of Units:	12	2	1	0	1	1	
Group Subtotals:	Work:	\$2,838.12	Support:	\$209.53	Maint:	\$329.41	

Total work team cost/hour: \$3,377.06

MATERIAL QUANTITIES

Initial volume: 324,328 CCY Swell factor: 1.165

Loose volume: 377,842 LCY

> Source of estimated volume: TR-37 Source of estimated swell factor: Cat Handbook

Material Purchase Cost: \$0.00

Total Cost: \$0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: Pounds/LCY 2,900 Description: Decomposed rock - 50% Rock, 50% Earth Rated Payload: 87,000 Pounds

Payload Capacity: 30.00 LCY

Truck Travel (Haul & Return) Time:

maintained 3.0

Truck Red (volume) Resign						
Truck Bed (volume) Basis: Struck Volume:	24.20 L	CY				
Heaped Volume:		CY				
Average Volume:		CY				
Adjusted Volume:		CY				
Fina	al Truck Volume B	sased on Number of	of Loader Passes:	26.25	LCY	
Loading Tool Capacity						
<u> </u>			Buc	ket Size Class: N	ÍΑ	
Rated Capacity:	5.000	LCY (heaped)				_
Bucket Fill Factor:	1.050	Moist loam or	sandy clay (100%	- 110%) 1.050		_
Adjusted Capacity:	5.250	LCY				
Job Condition Correction	<u>s:</u>	S	ite Altitude (ft.):	<u>11100</u> feet		
	Truck	Loader	Source			
Altitude Adj:	0.600	1.000	(CAT HE	3)		
Job Efficiency:	0.830	0.830	(CAT HE	3)		
Net Correction:	0.498	0.830				
	within this Basic Material Descrip	Rating: NA				
Cycle Time Elements (min.):					
Load: NA	Ma	neuver: NA		Dump: 0.100)	
Wheel and Track Loaders	- Unadjusted Basi	c Loader Cycle Ti	me (load, dump,	naneuver):0	.500 min	utes
Cycle Time Factors				Factor (min.)	Source	
Material:				0.020	(Cat HB)	_
Stockpile:		ozer piled 10 ft. hig		0.000	(Cat HB)	<u> </u>
Truck Ownership:		rship of trucks and	d loaders -0.04	-0.040	(Cat HB)	_
Operation:				-0.040	(Cat HB)	_
Dump Target:	Nominal target		A 1'	0.000	(Cat HB)	<u> </u>
		•	me Adjustment:	-0.060	_ minutes	
			ler Cycle Time: Fime per Truck:	0.440 1.860	_ minutes minutes	
Truck Cycle Time:					_	
Truck Exchange Tim	ne: 0.60	Minutes	Adjusted	for site altitude:	1.000	Minut
Truck Load Tim	-	Minutes	9	for site altitude:		
		111114600	Tajustea	TOT BILL UITHUUC.	1.860	Minut
ck Maneuver and Dump Tim		Minutes	9	for site altitude:	1.667	Minut Minut

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	13622.00	1.90	3.00	4.90	1845	7.695

Haul Time: 7.695 minutes

Return Route:

	ixctuiii ixc	Juic.					
	Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
Ī	1	13622.00	-1.90	3.00	1.10	3706	3.883

Return Time: 3.883 minutes
Total Truck Cycle Time: 16.105 minutes

Loading Tool unit

Production _____550.70 LCY/Hour Adjusted for job efficiency: ____457.08 LCY/Hour Truck Unit Production

97.80 LCY/Hour Adjusted for job efficiency: 81.17 LCY/Hour

Optimal No. of Trucks: 6 Truck(s) Selected Number of Trucks: 6 Truck(s)

Adjusted hourly truck team production: 487.03 LCY/Hour Adjusted single truck/loader team production: 457.08 LCY/Hour Adjusted multiple truck/loader team production: 914.16 LCY/Hour

JOB TIME AND COST

Fleet size: 2 Team(s) Total job time: 413.32 Hours

Unit cost: \$3.694 /LCY Total job cost: **\$1,395,811**

BULLDOZER WORK

Task description:	-				
Climax Mine		Permit Action:	2024-06	Permit/Job#:	M1977493
PROJECT IDEN	TIFICATIO	<u>ON</u>			
Task #: M100	2	State: Colorado		Abbreviation:	None
Date: $\frac{1700}{6/17/2}$		County: Lake)	Filename:	M493-M100
User: ACY	2024	County. Lake		i nename.	W1+73-W1100.
Agency or	organization	name: DRMS			
HOURLY EQUI	PMENT CO	<u>OST</u>			
Basic Machine:	Cat D8T - 8	SSU			
Horsepower:	310				
Blade Type:	Semi-Unive	ersal			
Attachment:	NA				
Shift Basis:	1 per day				
Data Source:	(CRG)				
Cost Breakdown:					
			<u>Utilization %</u>		
Ownership Cost/H		\$173.32	NA		
Operating Cost/H		\$109.71	100		
Ripper own. Cost/H		\$0.00			
Ripper op. Cost/H		\$0.00			
Operator Cost/H	our.	\$38.59	NA		
Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QU	r: \$321.0 ur: \$643. 2	52			
Total unit Cost/Hou Total Fleet Cost/Hou	r: \$321.0 ur: \$643. 2	52			
Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume:	r: \$321.6 \$643.2 ANTITIES 389,193	52 23			
Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor:	r: \$321.6 ur: \$643.2 ANTITIES 389,193 1.000 389,193 LCY volume:	52 23			
Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated	r: \$321.6 ur: \$643.2 ANTITIES 389,193 1.000 389,193 LCY volume: swell factor:	52 23 Y 			
Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD	r: \$321.6 ur: \$643.2 ANTITIES 389,193 1.000 389,193 LCY volume: swell factor: DUCTION	52 23 Y 			
Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated	r: \$321.6 ur: \$443.2 ANTITIES 389,193 1.000 389,193 LCY volume: swell factor: DUCTION nce:	TR-37 Cat Handbook			
Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distant	r: \$321.6 ur: \$643.2 ANTITIES 389,193 1.000 389,193 LCY volume: swell factor: DUCTION nce: production:	7 TR-37 Cat Handbook 100 feet 852.6 LCY/hr			
Total unit Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distant Unadjusted hourly p	r: \$321.6 ur: \$4643.2 ANTITIES 389,193 1.000 389,193 LCY volume: swell factor: DUCTION ace: production: cy description: ent: _0 %	TR-37 Cat Handbook 100 feet 852.6 LCY/hr Loose stockpile 1.			
Total unit Cost/Hou Total Fleet Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distan Unadjusted hourly p Materials consistence Average push gradie	r: \$321.6 ur: \$443.2 ANTITIES 389,193 1.000 389,193 LCY volume: swell factor: DUCTION nce: production:	TR-37 Cat Handbook 100 feet 852.6 LCY/hr Loose stockpile 1.			
Total unit Cost/Hou Total Fleet Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distant Unadjusted hourly p Materials consistence Average push gradie Average site altitude	r: \$321.6 ur: \$443.2 ANTITIES 389,193 1.000 389,193 LCY volume: swell factor: DUCTION nce: production:	TR-37 Cat Handbook 100 feet 852.6 LCY/hr Loose stockpile 1	2		
Total unit Cost/Hou Total Fleet Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distant Unadjusted hourly p Materials consistence Average push gradie Average site altitude Material weight: Weight description: Job Condition Corre	r: \$321.6 ur: \$4643.2 ANTITIES 389,193 1.000 389,193 LCY volume: swell factor: DUCTION nce: production: 2 ent: 0 % 11,100 2,900 Decorection Factor	TR-37 Cat Handbook 100 feet 852.6 LCY/hr : Loose stockpile 1	2 k, 50% Earth Source		
Total unit Cost/Hou Total Fleet Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distant Unadjusted hourly p Materials consistence Average push gradie Average site altitude Material weight: Weight description: Job Condition Correct Open	r: \$321.6 ur: \$443.2 ANTITIES 389,193 1.000 389,193 LCY volume: swell factor: DUCTION nce: production: 2,900 Decorection Factor rator Skill:	TR-37 Cat Handbook 100 feet 852.6 LCY/hr : Loose stockpile 1. 0 feet lbs/LCY mposed rock - 50% Roc 0.750	2 k, 50% Earth Source (AVG.)		
Total unit Cost/Hou Total Fleet Cost/Hou Total Fleet Cost/Hou MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROD Average push distant Unadjusted hourly p Materials consistence Average push gradie Average site altitude Material weight: Weight description: Job Condition Correct Oper Material co	r: \$321.6 ur: \$443.2 ANTITIES 389,193 1.000 389,193 LCY volume: swell factor: DUCTION nce: production: 2,900 Decorection Factor rator Skill:	TR-37 Cat Handbook 100 feet 852.6 LCY/hr : Loose stockpile 1	2 k, 50% Earth Source		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4739

Adjusted unit production: 404.05 LCY/hr
Adjusted fleet production: 808.1 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: \$0.796/LCY

Total job time: 481.61 Hours
Total job cost: \$309,789

TRUCK/LOADER TEAM WORK

Climax Mine Permi	it Action: 2024-06	Permit/Job#:	M1977493
PROJECT IDENTIFICATION			
	Colorado	Abbreviation:	None
Date: <u>6/12/2024</u> County:	Lake	Filename:	M493-M1003
Agency or organization name: <u>DRM</u>	MS		
Agency or organization name: <u>DRM</u> HOURLY EQUIPMENT COST	MS	Shift basis: 1 per day	
	MS Equipment Description	Shift basis: 1 per day	
	Equipment Description	Shift basis: 1 per day	
IOURLY EQUIPMENT COST	Equipment Description	Shift basis: 1 per day	
IOURLY EQUIPMENT COST Truck Loader Team -Truck:	Equipment Description Cat 740	Shift basis: 1 per day	
Truck Loader Team -Truck: -Loader:	Equipment Description Cat 740 CAT 966H high lift Cat D6T LGP	Shift basis: 1 per day	
Truck Loader Team -Truck: -Loader: Support Equipment -Load Area:	Equipment Description Cat 740 CAT 966H high lift Cat D6T LGP	Shift basis: 1 per day	

Cost Breakdown:	Truck/Loa	ader Team	Support l	Equipment	Maintenan	ce Equipment
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	100	100
Ownership cost/hour:	\$108.25	\$57.78	\$99.72	NA	\$69.16	\$73.42
Operating cost/hour:	\$79.54	\$46.25	\$71.22	NA	\$54.74	\$83.21
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$25.24	\$36.85	\$38.59	NA	\$27.76	\$21.12
Unit Subtotals:	\$213.03	\$140.88	\$209.53	NA	\$151.66	\$177.75
Number of Units:	16	4	1	0	1	1
Group Subtotals:	Work:	\$3,972.00	Support:	\$209.53	Maint:	\$329.41

Total work team cost/hour: \$4,510.94

MATERIAL QUANTITIES

Initial volume: __1,060,082 _____ CCY Swell factor: __1.215

Loose volume: **1,288,000** LCY

Source of estimated volume: TR-37

Source of estimated swell factor: Cat Handbook

Material Purchase Cost: \$0.00

Total Cost: \$0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: 1,600 Pounds/LCY
Description: Top Soil

Rated Payload: 87,000 Pounds Payload Capacity: 54.38 LCY

24.20	LCY				
	LCY				
27.80	LCY				
31.40	LCY				
al Truck Volume	Based on Number of	f Loader Passes:	31.50	LCY	
		Buc	ket Size Class: N	ΙA	_
5.000	LCY (heaped)				_
1.050	Moist loam or s	andy clay (100%	- 110%) 1.050		=
5.250	LCY				
<u>ıs:</u>	Si	te Altitude (ft.):	11100 feet		
Truck	Loader	Source			
0.600	1.000	(CAT HE	3)		
0.830	0.830	(CAT HE	3)		
0.498	0.830				
<u>e:</u> Number	r of Loading Tool Pa	sses Required to	Fill Truck:		asses
vels:					
vs. Job Conditio	n Rating: NA				
– Material Descr	ription:				
ı.):					
M	Ianeuver: NA		Dump: 0.100)	
N	Ianeuver: NA		Dump: 0.100)	
	Maneuver: NA asic Loader Cycle Tir	me (load, dump, 1	•) .500 minu	ıtes
	-	me (load, dump, 1	•		ıtes
s - Unadjusted Bas Mixed materi	asic Loader Cycle Tii		maneuver): 0 Factor (min.) 0.020	Source (Cat HB)	utes
s - Unadjusted Bass Mixed materic: Conveyor or	asic Loader Cycle Tinial 0.02 dozer piled 10 ft. hig	h and up 0.00	maneuver): 0 Factor (min.) 0.020 0.000	Source (Cat HB) (Cat HB)	ntes
s - Unadjusted Bass Mixed materic: Conveyor or: Common own	asic Loader Cycle Tin ial 0.02 dozer piled 10 ft. hig nership of trucks and	h and up 0.00	Factor (min.) 0.020 0.000 -0.040	Source (Cat HB) (Cat HB) (Cat HB)	ntes
s - Unadjusted Bass: Mixed materi Conveyor or Common ow Constant ope	ial 0.02 dozer piled 10 ft. hig nership of trucks and ration -0.04	h and up 0.00	Factor (min.) 0.020 0.000 -0.040 -0.040	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)	ites
s - Unadjusted Bass Mixed materic: Conveyor or: Common own	ial 0.02 dozer piled 10 ft. hig nership of trucks and ration -0.04 tet 0.00	h and up 0.00 loaders -0.04	maneuver):0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
s - Unadjusted Bass: Mixed materi Conveyor or Common ow Constant ope	ial 0.02 dozer piled 10 ft. hig nership of trucks and ration -0.04 get 0.00 Net Cycle Tin	h and up 0.00 loaders -0.04	maneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	ntes
s - Unadjusted Bass: Mixed materi Conveyor or Common ow Constant ope	ial 0.02 dozer piled 10 ft. hig nership of trucks and ration -0.04 tet 0.00 Net Cycle Tin Adjusted Load	h and up 0.00 loaders -0.04 ne Adjustment: er Cycle Time:	maneuver):0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	ntes
s - Unadjusted Bass: Mixed materi Conveyor or Common ow Constant ope	ial 0.02 dozer piled 10 ft. hig nership of trucks and ration -0.04 tet 0.00 Net Cycle Tin Adjusted Load	h and up 0.00 loaders -0.04	maneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	ites
s - Unadjusted Bass: Mixed materi Conveyor or Common ow Constant ope	ial 0.02 dozer piled 10 ft. hig nership of trucks and ration -0.04 tet 0.00 Net Cycle Tin Adjusted Load	h and up 0.00 loaders -0.04 ne Adjustment: er Cycle Time:	maneuver):0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	ites
s - Unadjusted Bass: Mixed materi Conveyor or Common ow Constant ope	ial 0.02 dozer piled 10 ft. hig nership of trucks and ration -0.04 tet 0.00 Net Cycle Tin Adjusted Load	h and up 0.00 loaders -0.04 ne Adjustment: er Cycle Time: time per Truck:	maneuver):0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	ntes Minute
s - Unadjusted Bass Mixed materi Conveyor or Common ow Constant ope Nominal targ	ial 0.02 dozer piled 10 ft. hig nership of trucks and ration -0.04 tet 0.00 Net Cycle Tin Adjusted Load Net Load T	h and up 0.00 loaders -0.04 ne Adjustment: er Cycle Time: ime per Truck:	maneuver):0 Factor (min.)0.0200.000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	
	31.40 al Truck Volume 5.000 1.050 5.250 Truck 0.600 0.830 0.498 e: Numbe evels: e vs. Job Condition e within this Basi – Material Descri	31.40 LCY	Site Altitude (ft.): 2 Truck Loader Source	Site Altitude (ft.): 11100 feet	31.40 LCY

<u>Truck Travel (Haul & Return) Time:</u> Road Condition: <u>Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0</u>

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	9557.00	-3.70	3.00	-0.70	3005	3.279

Haul Time: 3.279 minutes

Return Route:

rectarii rec	rate.					
Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	9557.00	3.70	3.00	6.70	2470	4.050

Return Time: 4.050 minutes
Total Truck Cycle Time: 12.296 minutes

Loading Tool unit

Production _____572.73 ___ LCY/Hour Adjusted for job efficiency: ____475.36 ___ LCY/Hour Truck Unit Production

_____153.71 LCY/Hour Adjusted for job efficiency: ____127.58 LCY/Hour

Optimal No. of Trucks: 4 Truck(s) Selected Number of Trucks: 4 Truck(s)

Adjusted hourly truck team production: 510.33 LCY/Hour Adjusted single truck/loader team production: 475.36 LCY/Hour Adjusted multiple truck/loader team production: 1,901.45 LCY/Hour

JOB TIME AND COST

Fleet size: 4 Team(s) Total job time: 677.38 Hours

Unit cost: \$2.372 /LCY Total job cost: **\$3,055,602**

BULLDOZER WORK

Task description	n:	Robinson TSF	- Grade Tops	oil 30		
e: Climax Min	ie	Pe	ermit Action:	2024-06	Permit/Job#:	M1977493
PROJECT II	DENTIF:	<u>ICATION</u>				
Date: 6	M1004 5/13/2024 ACY	State County			Abbreviation: Filename:	None M493-M1004
		nization name: <u>I</u>	DRMS			
HOURLY E	QUIPME	ENT COST				
Basic Machi		D8T - 8SU		_		
Horsepov Blade Ty) ni-Universal				
Attachme						
Shift Ba Data Sou	sis: 1 p	er day RG)		_		
Cost Breakdow		,				
Ownership Co	ost/Hour		\$173.32	<u>Utilization %</u> NA		
Operating Co			\$173.32	100		
Ripper own. Co			\$0.00	NA		
Ripper op. Co	ost/Hour:		\$0.00	0		
Operator Co	ost/Hour:		\$38.59	NA		
MATERIAL Initial Volum Swell factor	QUANT ne: 1,27	2,099				
Loose volum	ne: 1,27	2,099 LCY				
Source of estin			ndbook			
HOURLY P	RODUC	<u> TION</u>				
Average push of Unadjusted hou		250 feet 377.8 LC	Y/hr			
Materials consi	stency des	scription: Loos	e stockpile 1.2			
Average push as Average site al		0 % 11,100 feet				
Material weigh	t:	1,600 lbs/LCY			_	
Weight descrip	tion:	Top Soil				
Job Condition	Correction Operator		0.750	Source (AVG.)		
Mater	ial consist		1.200	(CAT HB)		
	Dozing me		1.000	(GEN.)		
			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: 324.64 LCY/hr
Adjusted fleet production: 1298.56 LCY/hr

JOB TIME AND COST

Fleet size: 4 Dozer(s)
Unit cost: \$0.991/LCY

Total job time: 979.62 Hours
Total job cost: \$1,260,247

TRUCK/LOADER TEAM WORK

Climax Mine Perm	nit Action: 2024-06	Permit/Job#:	M1977493
PROJECT IDENTIFICATION			
Task #:M1005 State:	Colorado	Abbreviation:	None
Date: 6/12/2024 County:	Lake	Filename:	M493-M1005
User: ACY			
Agency or organization name: <u>DRI</u> HOURLY EQUIPMENT COST	MS	Shift basis: 1 per day	
Agency or organization name: DRI	MS Equipment Description	Shift basis: 1 per day	
	Equipment Description	Shift basis: 1 per day	
HOURLY EQUIPMENT COST	Equipment Description Cat 740	Shift basis: 1 per day	
HOURLY EQUIPMENT COST Truck Loader Team -Truck:	Equipment Description Cat 740 CAT 966H high lift	Shift basis: 1 per day	
Truck Loader Team -Truck: -Loader:	Equipment Description Cat 740 CAT 966H high lift Cat D6T LGP	Shift basis: 1 per day	
Truck Loader Team -Truck: -Loader: Support Equipment -Load Area:	Equipment Description Cat 740 CAT 966H high lift Cat D6T LGP NA	Shift basis: 1 per day	

Cost Breakdown:	Truck/Loa	ader Team	Support I	Equipment	Maintenan	ce Equipment
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	100	100
Ownership cost/hour:	\$108.25	\$57.78	\$99.72	NA	\$69.16	\$73.42
Operating cost/hour:	\$79.54	\$46.25	\$71.22	NA	\$54.74	\$83.21
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$25.24	\$36.85	\$38.59	NA	\$27.76	\$21.12
Unit Subtotals:	\$213.03	\$140.88	\$209.53	NA	\$151.66	\$177.75
Number of Units:	10	5	1	0	1	1
Group Subtotals:	Work:	\$2,834.70	Support:	\$209.53	Maint:	\$329.41

Total work team cost/hour: \$3,373.64

MATERIAL QUANTITIES

Initial volume: _524,139 CCY Swell factor: _1.215

Loose volume: 636,829 LCY

Source of estimated volume: TR-37

Source of estimated swell factor: Cat Handbook

Material Purchase Cost: \$0.00

Total Cost: \$0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight:
Description:1,600
Top SoilPounds/LCYRated Payload:87,000PoundsPayload Capacity:54.38LCY

Truck Travel (Haul & Return) Time:

maintained 3.0

Truck Rad (voluma) Davies						
Truck Bed (volume) Basis: Struck Volume:	24.20 L	CY				
Heaped Volume:		CY				
Average Volume:		CY				
Adjusted Volume:		CY				
Fina	Truck Volume B	Based on Number o	f Loader Passes:	31.50	LCY	
Loading Tool Capacity	Truck volume E	aused on I tamber of	Louder Fusies.			
Bouding Tool Capacity			Buc	ket Size Class: 1	NA	
Rated Capacity:	5.000	LCY (heaped)				_
Bucket Fill Factor:	1.050		andy clay (100%	- 110%) 1.050		
Adjusted Capacity:	5.250	LCY				
Job Condition Corrections	<u>:</u>	Si	te Altitude (ft.):	<u>11100</u> feet		
	Truck	Loader	Source			
Altitude Adj:	0.600	1.000	(CAT HE			
Job Efficiency:	0.830	0.830	(CAT HE	3)		
Net Correction:	0.498	0.830				
	<u> </u>					
	within this Basic	Rating: NA				
	Material Descrip .	ouon:				
Cycle Time Elements (min.)		27.4		D 0.10	.0	
Load: NA	Ma	neuver: NA		Dump: 0.10	00	
Wheel and Track Loaders	- Unadjusted Basi	ic Loader Cycle Tir	ne (load, dump,	maneuver):	0.500 min	utes
Cycle Time Factors				Factor (min.)	Source	
Material:	Mixed material			0.020	(Cat HB)	_
Stockpile:		ozer piled 10 ft. hig		0.000	(Cat HB)	_
Truck Ownership:		ership of trucks and	loaders -0.04	-0.040	(Cat HB)	_
Operation:	Constant opera			-0.040	(Cat HB)	_
Dump Target:	Nominal target		A 1'	0.000	(Cat HB)	_
		Adjusted Load	ne Adjustment:	-0.060 0.440	minutes minutes	
			ime per Truck:	2.300	minutes	
Truck Cycle Time:						
Truck Exchange Time	e: 0.60	Minutes	Adjusted	for site altitude:	1.000	Minute
Truck Load Time		Minutes	ū	for site altitude:	2.300	– Minute
ck Maneuver and Dump Time		Minutes		for site altitude:	1.667	_ Minute

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1478.00	0.00	3.00	3.00	3005	1.284

Haul Time: 1.284 minutes

Return Route:

ixctuiii ixc	atc.					
Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1478.00	0.00	3.00	3.00	3005	0.659

Return Time: 0.659 minutes
Total Truck Cycle Time: 6.910 minutes

Loading Tool unit

Production 572.73 LCY/Hour Adjusted for job efficiency: 475.36 LCY/Hour

Truck Unit Production

273.53 LCY/Hour Adjusted for job efficiency: 227.03 LCY/Hour

Optimal No. of Trucks: 2 Truck(s) Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 454.06 LCY/Hour Adjusted single truck/loader team production: 454.06 LCY/Hour Adjusted multiple truck/loader team production: 2,270.30 LCY/Hour

JOB TIME AND COST

Fleet size: 5 Team(s) Total job time: **280.50** Hours

Unit cost: \$1.486 /LCY Total job cost: **\$946,321**

BULLDOZER WORK

	scription:		KODII	son 15F	- Grade Tops	oil 35		
: Clima	ax Mine			_ Pe	ermit Action:	2024-06	Permit/Job#:	M1977493
PROJE	ECT IDEN	TIFI	CATIO	<u>N</u>				
Task Dat Use	te: 6/13/2			State:			Abbreviation: Filename:	None M493-M1006
	Agency or	organ	ization n	iame:[ORMS			
HOUR	LY EQUI	PME	NT CO	<u>ST</u>				
	Machine:		D8T - 89	SU		<u> </u>		
	orsepower:	310 Sam	i-Unive	·a.a.1		<u> </u>		
	lade Type: ttachment:	NA	i-Ullive	Sai		<u> </u>		
Sl	hift Basis:		r day G)					
	eakdown:		- /					
Orrename	ahin Coat/II				¢172.22	<u>Utilization %</u>		
	ship Cost/Hating Cost/H	-			\$173.32 \$109.71	NA 100		
	own. Cost/H				\$0.00	NA		
	op. Cost/H				\$0.00	0		
	ator Cost/H	-			\$38.59	NA		
	it Cost/Hou eet Cost/Hou	-	\$321.6 \$643.2					
MATE	RIAL QU	ANTI	ITIES					
	Volume:	628,9	-					
	_							
Swe	ell factor: _ e volume: _	1.000						
Swe Loose Source o	ell factor:	1.000 628,9 volum	67 LCY ne:	TR-37 Cat Har	ndbook			
Swe Loose Source o Source o	ell factor: volume: of estimated	1.000 628,9 volum swell	67 LCY ne: factor:	TR-37	ndbook			
Swee Loose Source of Source of HOUR! Average	ell factor: e volume: of estimated of estimated	1.000 628,9 volum swell DUCT	ne: factor:	TR-37				
Swe Loose Source of Source of HOUR! Average Unadjust	ell factor: volume: of estimated of estimated LY PROD push distan	1.000 628,9 volum swell DUCT	ne: factor: ION tion:	TR-37 Cat Har 250 feet 377.8 LC				
Swee Loose Source of Source of MOUR! Average Unadjust Average	ell factor: e volume: of estimated of estimated LY PROD e push distanted hourly p	1.000 628,9 volum swell DUCT ace: produce ey descent:	ne: factor: ION tion:	TR-37 Cat Har 250 feet 377.8 LC	Y/hr			
Swee Loose Source of Source of MOUR! Average Unadjust Average	ell factor: e volume: of estimated of estimated LY PROD e push distanted hourly p s consistence e push gradice s site altitude	1.000 628,9 volum swell DUCT ace: produce ey descent:	100	TR-37 Cat Har 250 feet 377.8 LC	Y/hr			
Swe Loose Source of Source of MOUR! Average Unadjust Material: Average Average Material	ell factor: e volume: of estimated of estimated LY PROD e push distanted hourly p s consistence e push gradice s site altitude	1.000 628,9 volum swell DUCT ace: produce ey descent:	100	TR-37 Cat Har 250 feet 377.8 LC Loose feet bs/LCY	Y/hr			
Swee Loose Source of Source of Source of HOUR! Average Unadjust Material: Average Average Material Weight of	ell factor: e volume: of estimated of estimated LY PROD e push distanted hourly push gradice e site altitude weight: description: dition Corre	1.000 628,9 volum swell DUCT ace: produce ey descent:	167 LCY ne: factor: ION tion: 0 % 11,100 1,600 1 Top So	TR-37 Cat Har 250 feet 377.8 LC Loose feet bs/LCY	Y/hr e stockpile 1.2	Source		
Swee Loose Source of Source of Source of HOUR! Average Unadjust Material: Average Average Material Weight of	ell factor: e volume: of estimated of estimated LY PROD e push distanted hourly push gradice e push gradice site altitude weight: description: dition Correct Open	1.000 628,9 volum swell DUCT ace: broduce by descent: e: ection rator S	167 LCY ne: factor: ION tion: 0 % 11,100 1,600 1 Top So Factor kill:	TR-37 Cat Har 250 feet 377.8 LC Loose feet bs/LCY	Y/hr e stockpile 1.2	Source (AVG.)		
Swee Loose Source of Source of Source of HOUR! Average Unadjust Material: Average Average Material Weight of	ell factor: e volume: of estimated of estimated LY PROD e push distanted hourly push gradice e site altitude weight: description: dition Corre Oper Material co	1.000 628,9 volum swell DUCT ace: broduce by descent: e: ection rator S	167 LCY ne: factor: ION tion: 0 % 11,100 1,600 l Top So Factor kill: ncy:	TR-37 Cat Har 250 feet 377.8 LC Loose feet bs/LCY	Y/hr e stockpile 1.2	Source		

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: 324.64 LCY/hr
Adjusted fleet production: 649.28 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: \$0.991/LCY

Total job time: 968.71 Hours
Total job cost: \$623,107

TRUCK/LOADER TEAM WORK

-	Task description: Robinson TSF - F		aul Bedding	Material				
Site:	Climax M	Iine	Perm	it Action: _2	2024-06	Permit/Job#:	M1977493	
]	PROJECT	DENTIFIC	CATION					
	Task #:	M1007	State:	Colorado		Abbreviation:	None	
	Date:	6/12/2024	County:	Lake		Filename:	M493-M1007	
	User:	ACY						
<u>]</u>	Agency or organization name: DRMS HOURLY EQUIPMENT COST Shift basis: 1 per day Equipment Description							
		Truck L	oader Team -Truck:	Cat 740				
			-Loader:	CAT 9661	H high lift			
		Support Equ	ipment -Load Area:	Cat D6T I	_GP			
			-Dump Area:	NA				
	I	Road Maintena	nce –Motor Grader:	CAT 12M	· -			
			-Water Truck:	Water Tar	ıker, 5,000 Gal.			
<u>(</u>	Cost Break	down:	Truck/Loader Team		Support Equipment	Maint	enance Equipment	

Cost Breakdown:	Truck/Loader Team		Support I	Equipment	Maintenance Equipment		
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck	
%Utilization-machine:	100	100	100	NA	100	100	
Ownership cost/hour:	\$108.25	\$57.78	\$99.72	NA	\$69.16	\$51.70	
Operating cost/hour:	\$79.54	\$46.25	\$71.22	NA	\$54.74	\$50.22	
%Utilization-riper:	NA	0	NA	NA	NA	NA	
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00	
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00	
Operator cost/hour:	\$25.24	\$36.85	\$38.59	NA	\$27.76	\$21.12	
Unit Subtotals:	\$213.03	\$140.88	\$209.53	NA	\$151.66	\$123.04	
Number of Units:	6	2	1	0	1	1	
Group Subtotals:	Work:	\$1,559.94	Support:	\$209.53	Maint:	\$274.70	

Total work team cost/hour: \$2,044.17

MATERIAL QUANTITIES

Initial volume: 25,362 CCY Swell factor: 1.000

Loose volume: 25,362 LCY

> Source of estimated volume: TR-37

Source of estimated swell factor: Cat Handbook

Material Purchase Cost:

\$0.00 Total Cost: \$0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: 2,600 Pounds/LCY Description: Limestone - Broken Rated Payload: 87,000 Pounds Payload Capacity: 33.46 LCY

Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Factor Materia Stockpile Truck Ownership Operation Dump Targe Truck Cycle Time: Truck Exchange Ti Truck Load Ti	rs - Unadjusted B rs l: Mixed mater e: Conveyor or c: Common ow n: Constant ope t: Nominal tars	rial 0.02 dozer piled 10 ft. high vnership of trucks and eration -0.04 get 0.00 Net Cycle Tin Adjusted Load	h and up 0.00 loaders -0.04 ne Adjustment: er Cycle Time: ime per Truck: Adjusted	Dump: 0.100 naneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 2.740 for site altitude: for site altitude:	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes 1.000 2.740	utes Mii Mii
Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Factor Materia Stockpile Truck Ownershi Operation Dump Targe	rs - Unadjusted B rs l: Mixed mater e: Conveyor or o: Common ow n: Constant ope t: Nominal targ	rial 0.02 dozer piled 10 ft. higi ynership of trucks and eration -0.04 get 0.00 Net Cycle Tim Adjusted Load Net Load T	h and up 0.00 loaders -0.04 ne Adjustment: er Cycle Time: ime per Truck:	naneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 2.740	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	——————————————————————————————————————
Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Factor Materia Stockpile Truck Ownership	rs - Unadjusted B rs l: Mixed mater e: Conveyor or o: Common ow n: Constant ope	rial 0.02 dozer piled 10 ft. higgenership of trucks and eration -0.04 get 0.00 Net Cycle Tim Adjusted Loade	h and up 0.00 loaders -0.04 ne Adjustment: er Cycle Time:	naneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	utes
Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Factor Materia Stockpile Truck Ownership	rs - Unadjusted B rs l: Mixed mater e: Conveyor or o: Common ow n: Constant ope	rial 0.02 dozer piled 10 ft. higgenership of trucks and eration -0.04 get 0.00 Net Cycle Tim Adjusted Loade	h and up 0.00 loaders -0.04 ne Adjustment: er Cycle Time:	naneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	utes
Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Factor Materia Stockpile Truck Ownership	rs - Unadjusted B rs l: Mixed mater e: Conveyor or o: Common ow n: Constant ope	rial 0.02 dozer piled 10 ft. higi vnership of trucks and eration -0.04 get 0.00 Net Cycle Tim	h and up 0.00 loaders -0.04	naneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	utes
Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Factor Materia Stockpile Truck Ownership	rs - Unadjusted B rs l: Mixed mater e: Conveyor or o: Common ow n: Constant ope	rial 0.02 dozer piled 10 ft. higi vnership of trucks and eration -0.04 get 0.00	h and up 0.00 loaders -0.04	naneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Factor Materia Stockpile Truck Ownershi	rs - Unadjusted B rs l: Mixed mater e: Conveyor or o: Common ow	asic Loader Cycle Tir rial 0.02 dozer piled 10 ft. higi vnership of trucks and	h and up 0.00	Factor (min.) 0.020 0.000 -0.040	Source (Cat HB) (Cat HB) (Cat HB)	utes
Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Factor Materia Stockpile	rs - Unadjusted B rs l: Mixed mater e: Conveyor or	asic Loader Cycle Tir rial 0.02 dozer piled 10 ft. hig	h and up 0.00	naneuver): 0 Factor (min.) 0.020 0.000	Source (Cat HB) (Cat HB)	utes
Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Factor Materia	rs - Unadjusted B	asic Loader Cycle Tin		naneuver): 0 Factor (min.) 0.020	Source (Cat HB)	utes
Cycle Time Elements (mi Load: NA Wheel and Track Loade Cycle Time Factor	rs - Unadjusted B	asic Loader Cycle Tin	ne (load, dump, n	naneuver): 0 Factor (min.)	.500 min	utes
Cycle Time Elements (mi Load: NA Wheel and Track Loade	rs - Unadjusted B		ne (load, dump, n	naneuver): 0	.500 min	utes
Cycle Time Elements (mi Load: NA	N			·)	
Cycle Time Elements (mi						
	n).					
Track Loader	s – Material Desc	ription:				
•	ue within this Bas					
Excavators and Front Sho Machine Cycle Tim	<u></u>	on Rating: NA				
Loading Tool Cycle Tin	ne: Numbe	er of Loading Tool Pas	sses Required to l	Fill Truck:	<u> </u>	passes
Net Correction:	0.498	0.830				
Job Efficiency:	0.830	0.830	(CAT HB	<i>)</i>		
Altitude Adj:	0.600	1.000	(CAT HB	_		
gos continui correctio	Truck	Loader	Source	1100		
Job Condition Correction	ons:	Şi	te Altitude (ft.): <u>1</u>	1100 feet		
Adjusted Capacity	4.125	LCY	<u> </u>			_
Bucket Fill Factor			vg. blasted (75 -	90%) 0.825		=
Rated Capacity	5.000	LCY (heaped)	Buci		12.1	_
Loading Tool Capacity			Puel	ket Size Class: N	ſΑ	
	nal Truck Volume	e Based on Number of	f Loader Passes:	28.88	LCY	
	31.40	LCY				
Adjusted Volume:	27.80	LCY				
Average Volume:		LCY				
9	24.20 31.40					

<u>Truck Travel (Haul & Return) Time:</u> Road Condition: <u>Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0</u>

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	9610.00	-2.00	3.00	1.00	3005	3.525

Haul Time: 3.525 minutes

Return Route:

ixctuiii ixc	Juic.					
Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	9610.00	2.00	3.00	5.00	3005	3.437

Return Time: 3.437 minutes
Total Truck Cycle Time: 12.369 minutes

Loading Tool unit

Production 463.24 LCY/Hour Adjusted for job efficiency: 384.49 LCY/Hour

Truck Unit Production

140.07 LCY/Hour Adjusted for job efficiency: 116.26 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 348.78 LCY/Hour Adjusted single truck/loader team production: 348.78 LCY/Hour Adjusted multiple truck/loader team production: 697.56 LCY/Hour

JOB TIME AND COST

Fleet size: 2 Team(s) Total job time: **36.36** Hours

Unit cost: \$2.930 /LCY Total job cost: **\$74,323**

BULLDOZER RIPPING WORK

	Task description:	Robinson TSF - Roads - Ri	pping			
Site	: Climax Mine	Permit Action:	2024-06	Permit/Jol	b#: <u>M1977493</u>	
	PROJECT IDE	NTIFICATION				
	Task #: M10	08 State: Colorado)	Abbreviation	n: None	
		/2024 County: Lake		Filename		
	User: ACY	·				
	Agency o	r organization name: DRMS				
	HOURLY EQU	IPMENT COST				
	Basic M	<u> </u>		Horsepower:	240	
	Ripper Attac				1 per day	
	11			Data Source:	(CRG)	
	Cost Breakdown:					
				Utilization %		
		Ownership Cost/Hour:		NA		
		Operating Cost/Hour:	\$78.95	100		
		Ownership Cost/Hour:	\$9.25	NA		
	Rippe	r Operating Cost/Hour:	\$5.20	100		
		Operator Cost/Hour:	\$38.59	NA		
		Total Unit Cost/Hour:	\$222.23			
		Total Fleet Cost/Hour: \$2	22.23			
	MATERIAL QU	JANTITIES Se	elected estimating	method: Area		
	Alternate Methods		siceted estimating	, mediod		
C - : :		Bank Volume:	NI A	BCY	NTA	
Seismic: Area:	NA 6.00	acres Rip Depth (ft):	NA 1.00	Volume: 9,680	NA BCY	or CC
7 Hou.		Source of estimated quantity: TR-3				or cc
			1			
	HOURLY PRO	DUCTION				
	Seismic:					
		Seismic Velocity:	NA	feet/second		
	Area:					
	<u> </u>	Average Ripping Depth:	2.45	feet/pass		
		Average Ripping Width:	6.50	feet/pass		
		Average Ripping Length:	250.00	feet/pass		
		Average Dozer Speed:	88.00	feet/minute		
		Average Maneuver Time:	0.25	minutes/pass		
		Production per unit area:	0.724	acres/hour		
	Job Condition Corn	rection Factors				
	Unac	ljusted Hourly Unit Production:	0.724	Acres/hr		
		Site Altitude:	11,100	feet		
		Altitude Adj:	1.00	(CAT HB)		
		Job Efficiency:	0.83	(1 shift/day)		
		Net Correction:	0.83	multiplier		
		Adjusted Hourly Unit Production	n: 0.60	Acres/hr		
		Adjusted Hourly Fleet Production		Acres/hr		
	JOB TIME ANI	O COST				
	Fleet size:	1 Grader(s)	Total job tim	ne: 9.98	Hours	
	Unit post:		ū			
	Unit cost:	\$369.738 Per acre	Total job cos	δι. \$4,418		

	Construct Water Conveyances										
						Cos	st/Unit	To	tal Cost		
Task #		Area	Description	Task Type	Quant Unit		•			Key Assumptions	
	104.8	Robinson TSF	Clean Water Surface Channel	Excavate diversion/spillway	25,777 CY	\$	3.66	\$	94,344	To ECS	
	104.8	Robinson TSF	Rip Rap	Rip Rap Armoring	11,545 CY	\$	74.40	\$	858,948	To ECS	
	104.8	Robinson TSF	Bedding for Riprap Placed	Drain Rock	13,817 CY	\$	73.88	\$	1,020,800	To ECS	
	104.11	Robinson TSF	Impacted Water Pipeline	30" Corrugated HDPE Installed	8,200 LF	\$	78.33	\$	642,306		
M2001		Robinson TSF	Hydrologic Protection					\$	2,616,398		

REVEGETATION WORK

Task description: Robinson	TSF - Reveg - Upland				
Climax Mine	Permit Action: 2024	l-06		Permit/Job	#: <u>M1977493</u>
PROJECT IDENTIFICATION					
Task #: M3001	State: Colorado		Abb	reviation:	None
Date: 6/11/2024 County: Lake User: ACY		_	Filename:	M493-M3001	
Agency or organization name	: DRMS				
<u>FERTILIZING</u>					
Materials					
Description	Units / Acre	Unit	Cost	/ Unit	Cost /Acre
			\$		\$
			Tota	al Fertilizer Materials Cost/Acre	\$0.00
Application Description					Cost /Acre
20001.01					\$
					φ
	Tota	l Fertilizer A	pplication	n Cost/Acre	\$0.00
<u>TILLING</u>					
Description					Cost /Acre
Disc harrowing, 6" deep (MEANS 3	32 91 13.23 6100)				\$117.61
		To	otal Tilling	g Cost/Acre	\$117.61
SEEDING					
G 134			Rate –	Cooda	Cost /A ama

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Alpine Bluegrass	0.11	2.53	\$2.63
Arizona Fescue - Redondo	0.45	5.17	\$6.78
Mountain Brome - Bromar	1.70	2.73	\$10.23
Cinquefoil, Slender	0.04	3.90	\$19.62
Currant, Wax	0.16	0.55	\$11.10
Rocky Mountain Fescue	0.17	2.73	\$1.83
Lupine, Silver	1.74	1.02	\$208.03
Slender Wheatgrass - Native	0.68	2.48	\$4.80
Vetch, American	1.33	0.60	\$163.74
Prairie Junegrass	0.09	4.78	\$4.39

Total	ls Seed Mix 7.66	54.11	\$487.09
Yarrow, White	0.05	3.18	\$3.67
Penstemon, Rocky Mountain	0.27	4.23	\$16.58
Tufted Hairgrass	0.17	9.76	\$4.84
Timothy, Alpine - Native	0.25	7.46	\$9.80
Flax, Lewis Blue	0.45	2.99	\$19.03

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
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$492.78	\$985.56
Total Mulch Materials Cost/Acre				\$985.56

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$85.37
Power mulcher (MEANS 32 91 13.16 0350)		\$157.25
	Total Mulch Application Cost/Acre	\$242.63

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:
 457
 Cost /Acre:
 \$2,069.53

 Estimated Failure Rate:
 10%
 Cost /Acre*:
 \$1,951.92

*Selected Replanting Work Items: SEEDING,MULCHING

Initial Job Cost: \$945,775.21

Reseeding Job Cost: \$89,202.74

Total Job Cost: \$1,034,978

Job Hours: 502.70

REVEGETATION WORK

Task description: Robinson TSF - Reveg - Tree	es		
Climax Mine Permit Action:	2024-06	Permit/Joba	#: <u>M1977493</u>
PROJECT IDENTIFICATION			
Task #: M3002 State: Colorado		Abbreviation:	None
Date: 8/20/2024 County: Lake		Filename:	M493-M3002
User: ACY			
Agency or organization name: DRMS			
FERTILIZING			
Materials			
Description Un Ac	its / re Unit	Cost / Unit	Cost /Acre
		\$	\$
		Total Fertilizer	
		Materials Cost/Acre	\$0.00
	<u> </u>	CosuAcit	ψυ•υυ
Application			
Description			Cost /Acre
			\$
	Total Fertilize	r Application Cost/Acre	\$0.00
<u> </u>			
Description			Cost /Acre
•			\$
			Ψ
		Total Tilling Cost/Acre	\$0.00
SEEDING			
SEEDING		D-4-	
Seed Mix		Rate – PLS Seeds	Cost /Acre
		IRS / per SQ.	
		Acre	
			\$
Т	otals Seed Mix	0.00	\$0.00
Application			1 40.00
Description			Cost /Acre
			\$
			Ψ

Total Seed Application Cost/Acre	\$0.00

MULCHING and MISCELLANEOUS

Materials

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

Application

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

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
Fir, Subalpine	225	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.74	\$0.00	\$616.50
Spruce, Englemann	225	Bare root seedling, 11-16 inch ht. (MEANS)	\$2.74	\$0.00	\$616.50
		Totals 2	Nursery Stoc	ek Cost / Acre	\$1,233.00

JOB TIME AND COST

No. of Acres: 14 Cost /Acre: \$1,233.00
Estimated Failure Rate: 20% Cost /Acre*: \$1,233.00
*Selected Replanting Work Items: NURSERY

Initial Job Cost: \$17,262.00

Reseeding Job Cost: \$3,452.40

Total Job Cost: \$20,714

16.80

TRUCK/LOADER TEAM WORK

Task description: 1 Dam - Haul Topsoil 22	
Site: Climax Mine Permit Action: 2024-06 Permit/Job#: M1	977493
PROJECT IDENTIFICATION	
Task #: N1001 State: Colorado Abbreviation: Non-	ie
	93-N1001
User: ACY	
Agency or organization name: DRMS	
HOURLY EQUIPMENT COST Shift basis: 1 per day	
Equipment Description	
Truck Loader Team -Truck: Cat 740	
-Loader: CAT 966H high lift Support Equipment -Load Area: Cat D6T LGP	
-Dump Area: NA	
Road Maintenance – Motor Grader: CAT 12M	
-Water Truck: Water Tanker, 5,000 Gal.	
	-
Cost Breakdown:Truck/Loader TeamSupport EquipmentMaintenancTruckLoaderLoad AreaDump AreaMotor Grader	ce Equipment Water Truck
	water Truck
%Utilization-machine: 100 100 NA 100	100
Ownership cost/hour: \$108.25 \$57.78 \$99.72 NA \$69.16	\$51.70
Operating cost/hour: \$79.54 \$46.25 \$71.22 NA \$54.74	\$50.22
%Utilization-riper: NA 0 NA NA NA NA	NA
Ripper own. cost/hour: NA \$0.00 \$0.00 NA \$0.00	\$0.00
Ripper op. cost/hour: NA \$0.00 \$0.00 NA \$0.00	\$0.00
Operator cost/hour: \$25.24 \$36.85 \$38.59 NA \$27.76	\$21.12
Unit Subtotals: \$213.03 \$140.88 \$209.53 NA \$151.66	\$123.04
Number of Units: 2 1 1 0 1	1
Group Subtotals: Work: \$566.94 Support: \$209.53 Maint:	\$274.70
Total work team cost/hour: \$1,051.17 MATERIAL QUANTITIES	
MATERIAL QUANTITIES	
Initial volume: 250 CCY Swell factor: 1.215	
Loose volume: LCY	
Source of estimated volume: TR-37	
Source of estimated swell factor: Cat Handbook	
Material Purchase Cost: \$0.00	
Total Cost:\$0.00	

HOURLY PRODUCTION

Truck Capacity:
Truck Payload (weight) Basis:

Material weight:	1,600	Pounds/LCY	
Description:	Top Soil		
Rated Payload:	87,000	Pounds	
Payload Capacity:	54.38	LCY	

Truck Bed (volume) Basis:						
Struck Volume:	24.20	LCY				
Heaped Volume:		LCY				
Average Volume:		LCY				
Adjusted Volume:		LCY				
Fina	Truck Volume	Based on Number of	Loader Passes:	31.50	LCY	
Loading Tool Capacity	Truck volume	Bused on Ivamoer of	Louder Fusses.		Le i	
Loading Tool Capacity			Ruck	ket Size Class: N	Δ	
Rated Capacity:	5.000	LCY (heaped)	Buci	100 5120 61455.		_
Bucket Fill Factor:	1.050		andy clay (100%	- 110%) 1.050		_
Adjusted Capacity:	5.250	LCY		,		_
Job Condition Corrections	<u>:</u>	Si	te Altitude (ft.): 1	1100 feet		
	Truck	Loader	Source			
Altitude Adj:	0.600	1.000	(CAT HB			
Job Efficiency:	0.830	0.830	(CAT HB			
Net Correction:	0.498	0.830				
Excavators and Front Shove Machine Cycle Time v	<u></u>	n Rating: NA				
	vs. Job Condition within this Basic	c Rating: NA				
Machine Cycle Time v Selected Value	rs. Job Condition within this Basic Material Descri	c Rating: NA				
Machine Cycle Time v Selected Value Track Loaders –	es. Job Condition within this Basic Material Descri	c Rating: NA		Dump: 0.100)	
Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.)	rs. Job Condition within this Basic Material Descri :	c Rating: NA iption: naneuver: NA	ne (load, dump, n	•)	utes
Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA	rs. Job Condition within this Basic Material Descri :	c Rating: NA iption: naneuver: NA	ne (load, dump, n	•		utes
Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material:	rs. Job Condition within this Basic Material Descri : M - Unadjusted Ba Mixed materi	c Rating: NA iption: NA ianeuver: NA sic Loader Cycle Tin al 0.02		naneuver): 0.020	.500 min Source (Cat HB)	utes
Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile:	ys. Job Condition within this Basic Material Descri : M - Unadjusted Ba Mixed materi Conveyor or o	c Rating: NA iption: NA faneuver: NA sic Loader Cycle Tin al 0.02 dozer piled 10 ft. high	n and up 0.00	naneuver): 0.020 0.000	Source (Cat HB) (Cat HB)	utes
Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership:	rs. Job Condition within this Basic Material Descri M - Unadjusted Ba Mixed materi Conveyor or o Common own	c Rating: NA iption: NA sic Loader Cycle Tin al 0.02 dozer piled 10 ft. high nership of trucks and	n and up 0.00	Factor (min.) 0.020 0.000 -0.040	Source (Cat HB) (Cat HB) (Cat HB)	utes
Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Material Descri	c Rating: NA iption: NA sic Loader Cycle Tin al 0.02 dozer piled 10 ft. highership of trucks and ration -0.04	n and up 0.00	Factor (min.) 0.020 0.000 -0.040 -0.040	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership:	rs. Job Condition within this Basic Material Descri M - Unadjusted Ba Mixed materi Conveyor or o Common own	c Rating: NA iption: Ianeuver: NA sic Loader Cycle Tin al 0.02 dozer piled 10 ft. high ership of trucks and ration -0.04 et 0.00	n and up 0.00 loaders -0.04	naneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Material Descri	c Rating: NA iption: Interpretation: I	n and up 0.00 loaders -0.04	naneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	utes — — —
Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Material Descri	c Rating: NA iption: Interpretation: Interpretation: NA Interpretati	n and up 0.00 loaders -0.04	naneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Material Descri	c Rating: NA iption: Interpretation: Interpretation: NA Interpretati	n and up 0.00 loaders -0.04 le Adjustment: er Cycle Time:	naneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	utes
Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	Material Descri	c Rating: NA iption: Interpretation: Interpretation: NA Interpretati	n and up 0.00 loaders -0.04 ee Adjustment: er Cycle Time: time per Truck:	naneuver): 0 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	utes
Machine Cycle Time v Selected Value Track Loaders – Cycle Time Elements (min.) Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time:	Material Descri	c Rating: NA iption: Ianeuver: NA sic Loader Cycle Tin al 0.02 dozer piled 10 ft. high nership of trucks and ration -0.04 et 0.00 Net Cycle Tim Adjusted Loade Net Load Ti	n and up 0.00 loaders -0.04 lee Adjustment: er Cycle Time: lime per Truck: Adjusted	naneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 2.300	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	

<u>Truck Travel (Haul & Return) Time:</u> Road Condition: <u>Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0</u>

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1531.00	0.10	3.00	3.10	3005	1.363

Haul Time: 1.363 minutes

Return Route:

Return Route.							
Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)	
1	1267.00	8.40	3.00	11.40	1610	0.879	

Return Time: 0.879 minutes
Total Truck Cycle Time: 7.209 minutes

Loading Tool unit

Production 572.73 LCY/Hour Adjusted for job efficiency: 475.36 LCY/Hour

Truck Unit Production

262.18 LCY/Hour Adjusted for job efficiency: 217.61 LCY/Hour

Optimal No. of Trucks: 2 Truck(s) Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 435.23 LCY/Hour Adjusted single truck/loader team production: 435.23 LCY/Hour Adjusted multiple truck/loader team production: 435.23 LCY/Hour

JOB TIME AND COST

Fleet size: 1 Team(s) Total job time: **0.70** Hours

Unit cost: \$2.415 /LCY Total job cost: \$734

BULLDOZER WORK

Task description:	1 Dan	- Grade Topsoil 22			
e: Climax Mine		Permit Action:	2024-06	Permit/Job#:	M1977493
PROJECT IDENT	<u>IFICATIO</u>	<u>N</u>			
Task #: N1002		State: Colorado		Abbreviation:	None
Date: 6/13/20	24	County: Lake		Filename:	M493-N1002
User: ACY					
Agency or o	organization n	ame: DRMS			
HOURLY EQUIP	MENT CO	<u>ST</u>			
Basic Machine:	Cat D8T - 88	SU			
Horsepower:	310		<u> </u>		
Blade Type: _	Semi-Univer	sal			
Attachment:	NA 1 man dans		<u> </u>		
Shift Basis: _ Data Source:	1 per day (CRG)		<u> </u>		
_	(CKG)		_		
Cost Breakdown:			1		
0 1: 0 4		Ф1 7 2.22	<u>Utilization %</u>		
Ownership Cost/Ho		\$173.32	NA 100		
Operating Cost/Ho Ripper own. Cost/Ho		\$109.71 \$0.00	100 NA		
Ripper own. Cost/Ho		\$0.00	0		
Operator Cost/Ho	-	\$38.59			
Operator Cost/110	uı	\$30.37	NA		
Total unit Cost/Hour:	\$321.62	2			
Total Fleet Cost/Hour	r: \$321.6 2	2			
Swell factor:	300 1.000				
Loose volume:	300 LCY				
Source of estimated v Source of estimated s		TR-37 Cat Handbook			
HOURLY PRODU	<u>JCTION</u>				
Average push distance Unadjusted hourly pro-		250 feet 377.8 LCY/hr			
Materials consistency	description:	Partly consolidated	stockpile 1.1		
Average push gradier Average site altitude:		feet			
Material weight:	_1,600 1	bs/LCY		<u> </u>	
Weight description:	Top So	il			
Job Condition Correct		0.750	Source		
	tor Skill:	0.750	(AVG.)		
Material con		1.100	(CAT HB)		
	method: isibility:	1.000 1.000	(GEN.)		
'	isionny:	1.000	(AVG.)		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.2612

Adjusted unit production: 476.48 LCY/hr
Adjusted fleet production: 476.48 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.675/LCY

Total job time: 0.63 Hours
Total job cost: \$202

TRUCK/LOADER TEAM WORK

Task description:	1 Dam -	Haul Topsoil 2	24			
Site: Climax Mine	<u> 1 Dum</u>		tion: 2024-06		Permit/Job#: M	1977493
one. Chinax Wine		T CHIIIt 7 IC	2024 00		<u> </u>	1711475
PROJECT IDEN	NTIFICATION					
$\begin{array}{c} \text{Task #:} & \underline{\text{N100}} \\ \text{Date:} & \underline{6/12/2} \\ \text{User:} & \underline{\text{ACY}} \end{array}$	2024	State: Colorado Abr County: Lake			breviation: Non M4	ne 93-N1003
Agency or	organization nar	ne: DRMS				
HOURLY EQUI	PMENT COST	<u>r</u>			is: 1 per day	
	Гruck Loader Tea	m Truck: Co	Equipment Descri	ption		
•	Truck Loader Tea		AT 966H high lift			
Supp	ort Equipment -L	oad Area: Ca	at D6T LGP			
		imp Area: N				
Road M	laintenance –Mote -Wa		AT 12M ater Tanker, 5,000	Gal.		
		NOT TIMEST	<u> </u>	<u></u>		
Cost Breakdown:		ader Team		Equipment		ce Equipment
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	100	100
Ownership cost/hour:	\$108.25	\$57.78	\$99.72	NA	\$69.16	\$51.70
Operating cost/hour:	\$79.54	\$46.25	\$71.22	NA	\$54.74	\$50.22
%Utilization-riper:	NA	0		NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00		NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00		NA	\$0.00	\$0.00
Operator cost/hour:	\$25.24	\$36.85		NA	\$27.76	\$21.12
Unit Subtotals:	\$213.03	\$140.88		NA	\$151.66	\$123.04
Number of Units:	2	1	1	0	1	1
Group Subtotals:	Work:	\$566.94	Support:	\$209.53	Maint:	\$274.70
Total work team co	st/hour: \$1,051.	<u> 17 </u>				
MATERIAL QU	ANTITIES					
Initial volume	: 1,000	CC		factor: 1.215		
Loose volume	: 1,215	LC	Y			
So	ource of estimated	volume: TR-	-37			
Source	of estimated swe		Handbook			
	Material Purch	ase Cost: \$0.0 stal Cost: \$0.0				
	10	nai Cost. <u> </u>	00			
HOURLY PRO	DUCTION					
Truck Capacity: Truck Payload (wei	ght) Basis:					

Pounds/LCY

Pounds LCY

Material weight:

Rated Payload: Payload Capacity:

Description:

1,600

Top Soil

87,000

54.38

CIRCES Cost Estimating Software

Truck Travel (Haul & Return) Time:

maintained 3.0

Truck Rad (voluma) Pasia						
Truck Bed (volume) Basis: Struck Volume:	24.20 LC	Ϋ́				
Heaped Volume:	31.40 LC					
Average Volume:	27.80 LC					
Adjusted Volume:	31.40 LC					
Final	Truck Volume Ba	ased on Number o	f Loader Passes:	31.50	LCY	
Loading Tool Capacity						
	7 .000	1	Buck	et Size Class: N	ÍA.	
Rated Capacity:	5.000	LCY (heaped)	1 1 (1000)	1100() 1 050		=
Bucket Fill Factor:	1.050		sandy clay (100%	- 110%) 1.050		_
Adjusted Capacity: _	5.250	LCY				
Job Condition Corrections:	<u>L</u>	S	ite Altitude (ft.): 1	1100 feet		
	Truck	Loader	Source			
Altitude Adj:	0.600	1.000	(CAT HB))		
Job Efficiency:	0.830	0.830	(CAT HB))		
Net Correction:	0.498	0.830				
Loading Tool Cycle Time:			usses Required to F			
	within this Basic R Material Descripti	Rating: NA				
Cycle Time Elements (min.):						
Load: NA	Man	euver: NA		Dump: 0.100)	
Wheel and Track Loaders -	Unadjusted Basic	Loader Cycle Ti	me (load, dump, m	naneuver):0	.500 min	utes
Cycle Time Factors				Factor (min.)	Source	
Material:	Mixed material	0.02		0.020	(Cat HB)	_
Stockpile:	•	zer piled 10 ft. hig		0.000	(Cat HB)	_
Truck Ownership:		ship of trucks and	l loaders -0.04	-0.040	(Cat HB)	_
Operation:	Constant operati			-0.040	(Cat HB)	_
Dump Target:	Nominal target (ma A divistments	-0.060	(Cat HB)	_
			ne Adjustment: _ ler Cycle Time: _	0.440	_ minutes minutes	
			Time per Truck:	2.300	minutes	
Truck Cycle Time:						
Truck Exchange Time	: 0.60	Minutes	Adjusted	for site altitude:	1.000	Minute
Truck Load Time		Minutes	3	for site altitude:	2.300	_ Minute
ick Maneuver and Dump Time		Minutes	ū	for site altitude:	1.667	Minute
r						_

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1267.00	-8.40	3.00	-5.40	2721	0.541

Haul Time: **0.541** minutes Return Route: Total Res Travel Haul Distance Grade (%) Roll. Res Velocity Seg# Time (Ft) (%) (%) (fpm) (min) 1267.00 8.40 3.00 11.40 1610 0.879

Return Time: 0.879 minutes
Total Truck Cycle Time: 6.387 minutes

Loading Tool unit

Production 572.73 LCY/Hour Adjusted for job efficiency: 475.36 LCY/Hour Truck Unit Production 295.93 LCY/Hour Adjusted for job efficiency: 245.62 LCY/Hour

Optimal No. of Trucks: 2 Truck(s) Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 491.24 LCY/Hour Adjusted single truck/loader team production: 475.36 LCY/Hour Adjusted multiple truck/loader team production: 475.36 LCY/Hour

JOB TIME AND COST

 Fleet size:
 1
 Team(s)
 Total job time:
 2.56
 Hours

 Unit cost:
 \$2.211
 /LCY
 Total job cost:
 \$2,687

BULLDOZER WORK

	1 Dain	- Grade Topsoil 24			
: Climax Mine		Permit Action:	2024-06	Permit/Job#:	M1977493
PROJECT IDENT	<u> </u>	<u>N</u>			
Task #: N1004		State: Colorado		Abbreviation:	None
Date: 6/13/20)24	County: Lake		Filename:	M493-N1004
User: ACY					
Agency or o	organization na	me: DRMS			
HOURLY EQUIP	MENT COS	<u>T</u>			
	Cat D8T - 8SI	IJ			
Horsepower:	310				
Blade Type:	Semi-Univers	al			
	NA 1 man dans				
Shift Basis: Data Source:	1 per day				
Data Source: _	(CRG)				
Cost Breakdown:			T.		
			<u>Utilization %</u>		
Ownership Cost/Hor		\$173.32	NA 100		
Operating Cost/Hor		\$109.71	100		
Ripper own. Cost/Hor		\$0.00 \$0.00	NA 0		
Ripper op. Cost/Hor			-		
Operator Cost/Ho	ur:	\$38.59	NA		
Total unit Cost/Hour:	\$321.62				
Total Fleet Cost/Hour					
MATERIAL QUA					
	1,200 1.000				
Swell factor:	•				
Swell factor: 1 Loose volume: 1 Source of estimated v Source of estimated s	1.000 1,200 LCY volume: well factor:	Division of Reclamate Cat Handbook	tion, Mining & Safety		
Swell factor: 1 Loose volume: 1 Source of estimated v	1.000 1,200 LCY volume: well factor:		tion, Mining & Safety		
Swell factor: Loose volume: Source of estimated v Source of estimated s	1.000 1,200 LCY //olume: well factor: UCTION re:		ion, Mining & Safety		
Swell factor: 1 Loose volume: 1 Source of estimated v Source of estimated s HOURLY PRODU	1.000 1,200 LCY volume: well factor: UCTION ee:	Cat Handbook 50 feet			
Swell factor: Loose volume: Source of estimated v Source of estimated s HOURLY PRODU Average push distanc Unadjusted hourly pro	1.000 1,200 LCY volume: vwell factor: UCTION re: oduction: description: nt: -30 %	Cat Handbook 50 feet 77.8 LCY/hr Loose stockpile 1.2			
Swell factor: Loose volume: Source of estimated v Source of estimated s HOURLY PRODU Average push distanc Unadjusted hourly pro Materials consistency Average push gradien	1.000 1,200 LCY //olume: //well factor: UCTION re:	Cat Handbook 50 feet 77.8 LCY/hr Loose stockpile 1.2			
Swell factor: Loose volume: Source of estimated v Source of estimated s HOURLY PRODU Average push distanc Unadjusted hourly pro Materials consistency Average push gradien Average site altitude:	1.000 1,200 LCY volume: well factor: UCTION re: oduction: 1,200 LCY volume: 2,200 LCY description: 1,200 LCY 1,200 LCY 1,200 LCY	Cat Handbook 50 feet 77.8 LCY/hr Loose stockpile 1.2			
Swell factor: Loose volume: 1 Source of estimated v Source of estimated s HOURLY PRODU Average push distanc Unadjusted hourly pro Materials consistency Average push gradien Average site altitude: Material weight: Weight description: Job Condition Correct	1.000	Cat Handbook 50 feet 77.8 LCY/hr Loose stockpile 1.2 eet s/LCY	Source		
Swell factor: Loose volume: Source of estimated v Source of estimated s HOURLY PRODU Average push distance Unadjusted hourly pro Materials consistency Average push gradient Average site altitude: Material weight: Weight description: Job Condition Correct Opera	1.000	Cat Handbook 50 feet 77.8 LCY/hr Loose stockpile 1.2 eet 0.750	Source (AVG.)		
Swell factor: Loose volume: Source of estimated v Source of estimated s HOURLY PRODU Average push distance Unadjusted hourly pro Materials consistency Average push gradient Average site altitude: Material weight: Weight description: Job Condition Correct Operate Material con	1.000	Cat Handbook 50 feet 77.8 LCY/hr Loose stockpile 1.2 eet s/LCY	Source		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.3758

Adjusted unit production: 519.78 LCY/hr
Adjusted fleet production: 519.78 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.619/LCY

Total job time: 2.31 Hours
Total job cost: \$743

Task description:	1 Dam - Haul Top	osoil 28		
te: Climax Mine	Perm	it Action: 2024-06	Permit/Job#:	M1977493
PROJECT IDENTIFIC	<u>CATION</u>			
Task #: N1005	State:	Colorado	Abbreviation:	None
Date: 6/12/2024	County:	Lake	Filename:	M493-N1005
User: ACY				
Agency or organi		MS	giro, i d	
			Shift basis: 1 per day	
Agency or organi		Equipment Description	Shift basis: 1 per day	
Agency or organi	NT COST	Equipment Description Cat 740	Shift basis: 1 per day	
Agency or organic	NT COST oader Team -Truck:	Equipment Description Cat 740 CAT 966H high lift	Shift basis: 1 per day	
Agency or organic	NT COST Oader Team -Truck: -Loader:	Equipment Description Cat 740 CAT 966H high lift Cat D6T LGP	Shift basis: 1 per day	
Agency or organic HOURLY EQUIPMENT Truck I Support Equ	noader Team -Truck: -Loader: ipment -Load Area:	Equipment Description Cat 740 CAT 966H high lift Cat D6T LGP NA	Shift basis: 1 per day	

Cost Breakdown:	Truck/Loa	ader Team	Support I	Equipment	Maintenan	ce Equipment
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	100	100
Ownership cost/hour:	\$108.25	\$57.78	\$99.72	NA	\$69.16	\$51.70
Operating cost/hour:	\$79.54	\$46.25	\$71.22	NA	\$54.74	\$50.22
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$25.24	\$36.85	\$38.59	NA	\$27.76	\$21.12
Unit Subtotals:	\$213.03	\$140.88	\$209.53	NA	\$151.66	\$123.04
Number of Units:	12	3	1	0	1	1
Group Subtotals:	Work:	\$2,979.00	Support:	\$209.53	Maint:	\$274.70

Total work team cost/hour: \$3,463.23

MATERIAL QUANTITIES

Initial volume: 407,801 CCY Swell factor: 1.215

Loose volume: 495,478 LCY

Source of estimated volume: Division of Reclamation, Mining & Safety

Source of estimated swell factor: Cat Handbook

Material Purchase Cost: \$0.00

Total Cost: \$0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: 1,600 Pounds/LCY
Description: Top Soil

Rated Payload: 87,000 Pounds Payload Capacity: 54.38 LCY

Truck Travel (Haul & Return) Time:

maintained 3.0

Truck Rad (voluma) Davies						
Truck Bed (volume) Basis: Struck Volume:	24.20 L	CY				
Heaped Volume:		CY				
Average Volume:		CY				
Adjusted Volume:		CY				
Fina	Truck Volume B	Based on Number of	f Loader Passes:	31.50	LCY	
Loading Tool Capacity	Truck volume E	aused on I tamber of	Louder Fusies.			
Bouding Tool Capacity			Buc	ket Size Class: 1	NA	
Rated Capacity:	5.000	LCY (heaped)				_
Bucket Fill Factor:	1.050		andy clay (100%	- 110%) 1.050		
Adjusted Capacity:	5.250	LCY				
Job Condition Corrections	<u>:</u>	Si	te Altitude (ft.):	<u>11100</u> feet		
	Truck	Loader	Source			
Altitude Adj:	0.600	1.000	(CAT HE			
Job Efficiency:	0.830	0.830	(CAT HE	3)		
Net Correction:	0.498	0.830				
	<u> </u>					
	within this Basic	Rating: NA				
	Material Descrip .	ouon:				
Cycle Time Elements (min.)		27.4		D 0.10	.0	
Load: NA	Ma	neuver: NA		Dump: 0.10	00	
Wheel and Track Loaders	- Unadjusted Basi	ic Loader Cycle Tir	ne (load, dump,	maneuver):	0.500 min	utes
Cycle Time Factors				Factor (min.)	Source	
Material:	Mixed material			0.020	(Cat HB)	_
Stockpile:		ozer piled 10 ft. hig		0.000	(Cat HB)	_
Truck Ownership:		ership of trucks and	loaders -0.04	-0.040	(Cat HB)	_
Operation:	Constant opera			-0.040	(Cat HB)	_
Dump Target:	Nominal target		A 1'	0.000	(Cat HB)	_
		Adjusted Load	ne Adjustment:	-0.060 0.440	minutes minutes	
			ime per Truck:	2.300	minutes	
Truck Cycle Time:						
Truck Exchange Time	e: 0.60	Minutes	Adjusted	for site altitude:	1.000	Minute
Truck Load Time		Minutes	ū	for site altitude:	2.300	– Minute
ck Maneuver and Dump Time		Minutes		for site altitude:	1.667	_ Minute

CIRCES Cost Estimating Software

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	9926.00	1.80	3.00	4.80	1845	5.677

Return Route:

Seg # Haul Distance Grade (%) Roll. Res Total Res Velocity Travel

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	9926.00	-1.80	3.00	1.20	3706	2.888

Return Time: 2.888 minutes
Total Truck Cycle Time: 13.532 minutes

Loading Tool unit

Production 572.73 LCY/Hour Adjusted for job efficiency: 475.36 LCY/Hour

Truck Unit Production

139.67 LCY/Hour Adjusted for job efficiency: 115.93 LCY/Hour

Optimal No. of Trucks: 4 Truck(s) Selected Number of Trucks: 4 Truck(s)

Adjusted hourly truck team production: 463.71 LCY/Hour Adjusted single truck/loader team production: 463.71 LCY/Hour Adjusted multiple truck/loader team production: 1,391.14 LCY/Hour

JOB TIME AND COST

Fleet size: 3 Team(s) Total job time: **356.17** Hours

Unit cost: \$2.489 /LCY Total job cost: **\$1,233,491**

BULLDOZER WORK

Task description:	1 Dam - G	rade Topsoil 28			
e: Climax Mine		Permit Action:	2024-06	Permit/Job#:	M1977493
PROJECT IDENT	<u>IFICATION</u>				
Task #: N1006 Date: 6/13/20 User: ACY		State: Colorado Lake		Abbreviation: Filename:	None M493-N1006
	rganization name	DRMS			
HOURLY EQUIP	MENT COST				
	Cat D8T - 8SU				
_	310		<u> </u>		
	Semi-Universal				
	NA				
	1 per day				
	(CRG)				
Cost Breakdown:			TT('1' - 4' 0/		
Ourmanshin Cost/Hou		¢172.22	<u>Utilization %</u> NA		
Ownership Cost/Hou		\$173.32 \$109.71	100		
Operating Cost/Hou		\$109.71			
Ripper own. Cost/Hou		\$0.00	NA 0		
Ripper op. Cost/Hou					
Operator Cost/Hou	ır:	\$38.59	NA		
Total unit Cost/Hour:	\$321.62				
Total Fleet Cost/Hour					
			<u></u>		
MATERIAL OUA	NTITIES				
MATERIAL QUA	NIIIIES				
Initial Volume: 4	89,362				
Swell factor: 1	.000				
	89,362 LCY				
	,				
Source of estimated v		2-37			
Source of estimated sy	well factor: <u>Ca</u>	t Handbook			
HOURLY PRODU	JCTION				
Average push distance					
Unadjusted hourly pro	oduction: <u>377.8</u>	3 LCY/hr			
Materials consistency	description:	Loose stockpile 1.2			
Average push gradien Average site altitude:	t:30 % 11,100 feet				
Material weight:	1,600 lbs/L0	CY			
Weight description:	Top Soil				
Job Condition Correct		0.750	Source		
	tor Skill:	0.750	(AVG.)		
Material con		1.200	(CAT HB)		
	method:	1.000	(GEN.)		
V	isibility:	1.000	(AVG.)		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.3758

Adjusted unit production: 519.78 LCY/hr
Adjusted fleet production: 1039.56 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: \$0.619/LCY

Total job time: 470.74 Hours
Total job cost: \$302,794

,	Task description	1 Dam	- Haul Bed	lding N	Iaterial			
Site:	Climax Mine		Perm	nit Acti	on: 2024-06		Permit/Job#:	M1977493
]	PROJECT ID	ENTIFICATION	<u> 1</u>					
	Date: 6/1 User: AC		State: _ County: _	Colora Lake	ado	Ab	breviation: _ Filename: _	None M493-N1007
<u>]</u>		or organization na <u>UIPMENT COS</u>			Equipment Descri		is: <u>1 per day</u>	
		Truck Loader Te	am -Truck:	Cat	740	P.11011		
_	Sı	pport Equipment -	-Loader:		T 966H high lift D6T LGP			
			ump Area:					
_	Road	Maintenance –Mo	tor Grader: ater Truck:		T 12M ter Tanker, 5,000	Gal.		
9	Cost Breakdow		ader Team			Equipment		nance Equipment
		Truck	Loader		Load Area	Dump Area	Motor Grad	er Water Truck
		400			4.00		_	

Cost Breakdown:	Truck/Loa	ader Team	Support I	Equipment	Maintenan	ce Equipment
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	100	100
Ownership cost/hour:	\$108.25	\$57.78	\$99.72	NA	\$69.16	\$51.70
Operating cost/hour:	\$79.54	\$46.25	\$71.22	NA	\$54.74	\$50.22
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$25.24	\$36.85	\$38.59	NA	\$27.76	\$21.12
Unit Subtotals:	\$213.03	\$140.88	\$209.53	NA	\$151.66	\$123.04
Number of Units:	8	2	1	0	1	1
Group Subtotals:	Work:	\$1,986.00	Support:	\$209.53	Maint:	\$274.70

Total work team cost/hour: \$2,470.23

MATERIAL QUANTITIES

Initial volume: 15,427 **CCY** Swell factor: 1.000

Loose volume: 15,427 LCY

> Source of estimated volume: TR-37

Source of estimated swell factor: Cat Handbook

> Material Purchase Cost: \$0.00

Total Cost: \$0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: 2,600 Pounds/LCY Description: Limestone - Broken Rated Payload: 87,000 Pounds Payload Capacity: 33.46 LCY

Struck Volume:	24.20 I	LCY				
Heaped Volume:		LCY				
Average Volume:		LCY				
Adjusted Volume:		LCY				
Final '	Truck Volume l	Based on Number of	Loader Passes:	28.88	LCY	
Loading Tool Capacity						
D + 10 '	5 000	I CW (1 1)	Bucke	et Size Class: N	A	_
Rated Capacity:	5.000	LCY (heaped)	. 1.1 1 /75	000() 0 025		_
Bucket Fill Factor:Adjusted Capacity:	0.825 4.125	LCY	vg. blasted (75 -	90%) 0.825		_
Adjusted Capacity.	4.125					
Job Condition Corrections:	<u>-</u>	Si	te Altitude (ft.): 1	<u>1100</u> feet		
	Truck	Loader	Source			
Altitude Adj:	0.600	1.000	(CAT HB)			
Job Efficiency:	0.830	0.830	(CAT HB)			
Net Correction:	0.498	0.830				
	'					
Loading Tool Cycle Time:	Number	of Loading Tool Pas	sses Required to F	ill Truck:	7 1	passes
				·		
Excavators and Front Shovel	<u>s:</u>					
Excavators and Front Shovel Machine Cycle Time vs Selected Value w	. Job Condition					
Machine Cycle Time vs Selected Value w	Job Condition vithin this Basic	Rating: NA				
Machine Cycle Time vs	Job Condition vithin this Basic	Rating: NA				
Machine Cycle Time vs Selected Value w Track Loaders – I	Job Condition vithin this Basic Material Descrip	Rating: NA		Dump: 0.100		
Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA	. Job Condition vithin this Basic Material Descrip	Rating: NA ption: aneuver: NA	no (lood, dump, m	·)	
Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: <u>NA</u> Wheel and Track Loaders -	. Job Condition vithin this Basic Material Descrip	Rating: NA ption: aneuver: NA	ne (load, dump, m	aneuver):0.	.500 min	
Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors	. Job Condition vithin this Basic Material Descrip Ma Ma Unadjusted Bas	Rating: NA ption: aneuver: NA sic Loader Cycle Tin	ne (load, dump, m	aneuver): 0. Factor (min.)	.500 min	
Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material:	. Job Condition vithin this Basic Material Descrip Ma Unadjusted Bas	Rating: NA ption: aneuver: NA sic Loader Cycle Tin		aneuver): 0. Factor (min.) 0.020	500 min Source (Cat HB)	
Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile:	. Job Condition vithin this Basic Material Descrip Ma Unadjusted Bas Mixed materia Conveyor or d	Rating: NA ption: Anneuver: NA sic Loader Cycle Tine al 0.02 lozer piled 10 ft. high	h and up 0.00	aneuver):0. Factor (min.) 0.020 0.000	500 min Source (Cat HB) (Cat HB)	
Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership:	. Job Condition vithin this Basic Material Descrip Ma Unadjusted Bas Mixed materia Conveyor or d Common own	Rating: NA ption: aneuver: NA sic Loader Cycle Tin al 0.02 lozer piled 10 ft. high ership of trucks and	h and up 0.00	aneuver):0. Factor (min.) 0.020 0.000 -0.040	500 min Source (Cat HB) (Cat HB) (Cat HB)	
Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Material Descrip Material Descrip Material Descrip Material Descrip Material Descrip Material Descrip Material Descrip Material Descrip Material Descrip Material Descrip Material Descrip Constant operation	Rating: NA ption: aneuver: NA sic Loader Cycle Tin al 0.02 lozer piled 10 ft. high ership of trucks and ation -0.04	h and up 0.00	aneuver):0. Factor (min.) 0.020 0.000	500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)	
Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership:	. Job Condition vithin this Basic Material Descrip Ma Unadjusted Bas Mixed materia Conveyor or d Common own	Rating: NA ption: aneuver: NA sic Loader Cycle Tin al 0.02 lozer piled 10 ft. high ership of trucks and ation -0.04	h and up 0.00 loaders -0.04	aneuver):0. Factor (min.) 0.020 0.000 -0.040 -0.040	500 min Source (Cat HB) (Cat HB) (Cat HB)	
Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Material Descrip Material Descrip Material Descrip Material Descrip Material Descrip Material Descrip Material Descrip Material Descrip Material Descrip Material Descrip Material Descrip Constant operation	Rating: NA ption: aneuver: NA sic Loader Cycle Tin al 0.02 lozer piled 10 ft. high ership of trucks and ation -0.04 et 0.00	h and up 0.00 loaders -0.04	aneuver):0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	
Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Material Descrip Material Descrip Material Descrip Material Descrip Material Descrip Material Descrip Material Descrip Material Descrip Material Descrip Material Descrip Material Descrip Constant operation	Rating: NA ption: aneuver: NA sic Loader Cycle Tin al 0.02 lozer piled 10 ft. high ership of trucks and ation -0.04 bt 0.00 Net Cycle Tin Adjusted Loade	h and up 0.00 loaders -0.04	aneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	
Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Material Descrip Material Descrip Material Descrip Material Descrip Material Descrip Material Descrip Material Descrip Material Descrip Material Descrip Material Descrip Material Descrip Constant operation	Rating: NA ption: aneuver: NA sic Loader Cycle Tin al 0.02 lozer piled 10 ft. high ership of trucks and ation -0.04 bt 0.00 Net Cycle Tin Adjusted Loade	h and up 0.00 loaders -0.04 ne Adjustment: er Cycle Time:	aneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	
Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	Material Description Material Description Material Description Material Description Material Description Material Description Material Description Material Description Material Description Material Description Mixed material Conveyor or description Conveyor or description Common own Constant operation Nominal targe	Rating: NA ption: aneuver: NA sic Loader Cycle Tin al 0.02 lozer piled 10 ft. high ership of trucks and ation -0.04 bt 0.00 Net Cycle Tin Adjusted Loade	h and up 0.00 loaders -0.04 ne Adjustment: er Cycle Time: ime per Truck:	aneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	utes
Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time:	Material Descrip Material Des	e Rating: NA ption: aneuver: NA sic Loader Cycle Tin al 0.02 lozer piled 10 ft. high ership of trucks and ation -0.04 et 0.00 Net Cycle Tim Adjusted Loade Net Load Ti	h and up 0.00 loaders -0.04 ne Adjustment: er Cycle Time: ime per Truck: Adjusted f	aneuver):	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	

<u>Truck Travel (Haul & Return) Time:</u> Road Condition: <u>Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0</u>

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	13939.00	-1.50	3.00	1.50	3005	5.022

Task # N1007

Haul Time: 5.022 minutes

Return Route:

recturn re	rate.					
Seg#	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	13939.00	1.50	3.00	4.50	3005	4.854

Return Time: 4.854 minutes
Total Truck Cycle Time: 15.283 minutes

Loading Tool unit

Production _____463.24 ___ LCY/Hour Adjusted for job efficiency: ____384.49 ___ LCY/Hour Truck Unit Production

_____113.36 LCY/Hour Adjusted for job efficiency: _____94.09 LCY/Hour

Optimal No. of Trucks: 4 Truck(s) Selected Number of Trucks: 4 Truck(s)

Adjusted hourly truck team production: 376.37 LCY/Hour Adjusted single truck/loader team production: 376.37 LCY/Hour Adjusted multiple truck/loader team production: 752.74 LCY/Hour

JOB TIME AND COST

Fleet size: 2 Team(s) Total job time: **20.49** Hours

Unit cost: \$3.282 /LCY Total job cost: **\$50,626**

				Construct Water Conveyance	es		
					Cost/Unit Tota	al Cost	
Task #		Area	Description	Task Type	Quant Unit	Key Assumptions	
	101.8	1 Dam	Clean Water Surface Channel	Excavate diversion/spillway	15,679 CY \$ 3.66 \$	57,385	
1	101.8	1 Dam	Rip Rap	Rip Rap Armoring	7,022 CY \$ 74.40 \$	522,437	
1	101.8	1 Dam	Bedding for Riprap Placed	Drain Rock	8,404 CY \$ 73.88 \$	620,888	
N2001		1 Dam	Hydrologic Protection		\$ 1	1,200,709	

REVEGETATION WORK

Task description:	1 Dam - Reveg - U	pland				
Climax Mine	Perm	it Action: 2024	-06		Permit/Job#	: M1977493
ROJECT IDENTIFIC						
Task #: N3001 Date: 8/20/2024		Colorado Lake		_		None M493-N3001
User: ACY	County	Lake		_	riielialile.	W1493-IN3001
	ization name:DRM	IS				
ERTILIZING						
Iaterials			1	1		
Description		Units / Acre	Unit	Cost	t / Unit	Cost /Acre
				\$		\$
				Tota	al Fertilizer Materials Cost/Acre	\$0.00
Description						Cost /Acre
		Total	Fertilizer A	pplication	n Cost/Acre	\$0.00
TLLING						
Description						Cost /Acre
						\$
			To	otal Tillin	g Cost/Acre	\$0.00
EEDING						
Seed Mix				Rate – PLS LBS /	Seeds per SQ.	Cost /Acre
					FT	
Alpine Bluegrass				Acre 0.22	FT 5.05	\$5.26

Mountain Brome - Bromar

Rocky Mountain Fescue

Slender Wheatgrass - Native

Cinquefoil, Slender

Currant, Wax

Lupine, Silver

Vetch, American

CIRCES	Cost	Estimating	Software

\$20.46

\$39.25

\$22.20

\$416.06

\$3.67

\$9.61 \$327.49

3.40

0.08

0.32

0.34

3.48

1.36

2.66

5.46

7.80

1.10

5.46

2.04

4.96

1.20

Prairie Junegrass	0.18	9.57	\$8.77
Flax, Lewis Blue	0.90	5.97	\$38.07
Timothy, Alpine - Native	0.50	14.92	\$19.59
Tufted Hairgrass	0.34	19.51	\$9.68
Penstemon, Rocky Mountain	0.54	8.46	\$33.16
Yarrow, White	0.10	6.36	\$7.34
Totals Seed Mix	15.32	108.21	\$974.17

Application

Description		Cost /Acre
Hydro seeding (MEANS 32 92 19.14 0200)		\$1,359.07
	Total Seed Application Cost/Acre	\$1,359.07

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Hydromulch, 1 ton/ac. rate {Materials Only}	1.00	ACRE	\$1,459.26	\$1,459.26
Total Mulch Materials Cost/Acre				\$1,459.26

Application

Description	Cost /Acre
NA-mulch application incl. with hydroseeding	\$0.00
Total Mulch	Application Cost/Acre \$0.00

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
		Totals 1	Nursery Stoc	k Cost / Acre	\$0.00

JOB TIME AND COST

 No. of Acres:
 127
 Cost /Acre:
 \$3,792.50

 Estimated Failure Rate:
 10%
 Cost /Acre*:
 \$3,792.50

*Selected Replanting Work Items: SEEDING, MULCHING

Initial Job Cost: \$481,647.50

Reseeding Job Cost: \$48,164.75

Total Job Cost: \$529,812

Job Hours: 139.70

Task description:	Roads -	Haul Topsoil - M	IcNulty OSF				
Site: Climax Mine		Permit Actio	on: 2024-06		Permit/Job#:	M1977	7493
PROJECT IDEN	NTIFICATION	<u>]</u>					
Task #: O100	01	State: Colora	ndo	Ab	breviation:	None	
Date: 8/20/2	2024	County: Lake			Filename:	M493-0	D1001
User: ACY							
Agency or	r organization nan	ne: DRMS					
HOURLY EQUI	PMENT COST	<u> </u>		Shift bas	is: 1 per day		
			Equipment Descri	ption			
٦	Truck Loader Tea						
			Γ 966H high lift				
Supp	oort Equipment -L	ump Area: Cat NA	D6T LGP				
Road M	Iaintenance –Mote						
Rodd W			er Tanker, 5,000	Gal.			
			, .,				
Cost Breakdown:	Truck/Loa	ader Team	Support I	Equipment	Mainte		Equipment
	Truck	Loader	Load Area	Dump Area	Motor Grad	er W	ater Truck
%Utilization-machine:	100	100	100	NA	N	ĪΑ	100
Ownership cost/hour:	\$108.25	\$57.78	\$99.72	NA	N	ΙA	\$51.70
Operating cost/hour:	\$79.54	\$46.25	\$71.22	NA	N	ΙA	\$50.22
%Utilization-riper:	NA	0	NA	NA	N	ĪΑ	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	N	ĪΑ	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	N	JA	\$0.00

\$38.59

\$209.53

Support:

Total work team cost/hour: \$2,672.48

MATERIAL QUANTITIES

Initial volume: __166,000 CCY Swell factor: __1.215

\$36.85

\$140.88

\$2,339.91

3

Loose volume: **201,690** LCY

\$25.24

\$213.03

Work:

Source of estimated volume: TR-37

Source of estimated swell factor: Cat Handbook

Material Purchase Cost: \$0.00

Total Cost: \$0.00

HOURLY PRODUCTION

Truck Capacity:

Operator cost/hour:

Unit Subtotals:

Number of Units:

Group Subtotals:

Truck Payload (weight) Basis:

Material weight: 1,600 Pounds/LCY
Description: Top Soil

Rated Payload: 87,000 Pounds
Payload Capacity: 54.38 LCY

NA

NA

Maint:

0

NA

NA

\$209.53

0

\$21.12

\$123.04

\$123.04

Truck Bed (volume) Basis Struck Volume:	24.20	LC	Y				
Heaped Volume:	31.40	LC					
Average Volume:	27.80	LC					
Adjusted Volume:	31.40	LC					
J							
Fir	al Truck Vo	olume Bas	sed on Number of Lo	ader Passes:	31.50	LCY	
Loading Tool Capacity							
				Bucl	cet Size Class:	NA	
Rated Capacity:	5.00	00	LCY (heaped)		_		
Bucket Fill Factor:	1.0		Other - moist loam	(100-1	10%) 1.050		
Adjusted Capacity:	5.2	50	LCY				
Job Condition Correction	<u>1S:</u>		Site A	Altitude (ft.): 1	13000 feet		
	Truck		Loader	Source			
Altitude Adj:	0.390		1.000	(CAT HB	3)		
Job Efficiency:	0.830		0.830	(CAT HB			
,							
Net Correction:	0.324		0.830				
		umber of	Loading Tool Passes	Required to	Fill Truck:	6	passes
	vels: e vs. Job Core e within this	ndition Ras S Basic Ra	ating: NA NA NA	Required to	Fill Truck:	6	passes
Selected Valu Track Loaders	vels: vs. Job Core within this Material	ndition Ras S Basic Ra	ating: NA NA NA	Required to	Fill Truck:	6	passes
Excavators and Front Sho Machine Cycle Time Selected Valu Track Loaders	vels: vs. Job Core within this Material	ndition Ras S Basic Ra	ating: NA NA NA NA NA NA NA NA NA NA NA NA NA	Required to		6	passes
Excavators and Front Sho Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min Load: NA	vels: vs. Job Core within this Material .):	ndition Ras Basic Ra Description	ating: NA NA NA NA NA NA NA NA NA NA NA NA NA		Dump: 0.1	100	
Excavators and Front Sho Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader	vels: vs. Job Core within this Material :): s - Unadjust	ndition Ras Basic Ra Description	ating: NA NA NA NA NA NA NA NA NA NA NA NA NA		Dump: 0.1	0.500	minutes
Excavators and Front Sho Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factor	vels: vs. Job Core within this Material or or s - Unadjust	ndition Ras Basic Ras Description Mane ted Basic	ating: NA NA NA NA NA NA NA NA NA NA NA NA NA		Dump: 0.1 naneuver): Factor (min.)	0.500 Source	minutes
Excavators and Front Sho Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factor Material	vels: vs. Job Core within this Material or s - Unadjust Mixed to	ndition Ras Basic Ras Description Mane ted Basic	ating: NA NA NA NA NA NA NA NA NA NA NA NA NA	load, dump, r	Dump: 0.1 naneuver): Factor (min.) 0.020	0.500 Source (Cat H	minutes
Excavators and Front Sho Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factor	vels: vels: vs. Job Core within this Material s - Material s - Unadjust Mixed 1 Convey	Mane ded Basic	ating: NA NA NA NA NA NA NA NA NA NA NA NA NA	load, dump, r	Dump: 0.1 naneuver): Factor (min.)	0.500 Source	minutes ce (B) (B)
Excavators and Front Sho Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factor Material Stockpile	vels: vels: vs. Job Convey: Material u.): s - Unadjust Mixed to Convey: Commo	Mane ded Basic	ating: NA ating: NA on: NA Euver: NA Loader Cycle Time (0.02 er piled 10 ft. high ar ship of trucks and loa	load, dump, r	Dump: 0.1 naneuver): Factor (min.) 0.020 0.000	0.500 Source (Cat H	minutes ce (B) (B)
Excavators and Front Sho Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factor Material Stockpile Truck Ownership	vels: vels: vs. Job Core within this Material .): s - Unadjust Mixed to Convey Commo	Mane ded Basic material 0 or or dozon owners at operation	ating: NA NA NA NA NA NA NA NA NA NA NA NA NA	load, dump, r	Dump: 0.1 naneuver): Factor (min.) 0.020 0.000 -0.040	0.500 Source (Cat H (Cat H (Cat H	minutes ce [B) [B) [B) [B)
Excavators and Front Sho Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factor Material Stockpile Truck Ownership Operation	vels: vels: vs. Job Core within this Material .): s - Unadjust Mixed to Convey Commo	Mane ded Basic material 0 or or dozon owners at operation	ating: NA non: NA Euver: NA Loader Cycle Time (0.02 er piled 10 ft. high are ship of trucks and load on -0.04 factor not applicable Net Cycle Time A	doad, dump, r	Dump: 0.1 naneuver): Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060	0.500 Source (Cat House (Cat H	minutes ce (B) (B) (B) (B) (B)
Excavators and Front Sho Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factor Material Stockpile Truck Ownership Operation	vels: vels: vs. Job Core within this Material .): s - Unadjust Mixed to Convey Commo	Mane ded Basic material 0 or or dozon owners at operation	ating: NA ating: NA on: NA Euver: NA Loader Cycle Time (0.02 er piled 10 ft. high ar ship of trucks and loa on -0.04 factor not applicable Net Cycle Time A Adjusted Loader C	load, dump, r ad up 0.00 ders -0.04 0.00 adjustment: Cycle Time:	Dump: 0.1 naneuver): Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	0.500 Source (Cat H (Ca	minutes ce [B) [B) [B) [B] [B] [ces
Excavators and Front Sho Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factor Material Stockpile Truck Ownership Operation	vels: vels: vs. Job Core within this Material .): s - Unadjust Mixed to Convey Commo	Mane ded Basic material 0 or or dozon owners at operation	ating: NA non: NA Euver: NA Loader Cycle Time (0.02 er piled 10 ft. high are ship of trucks and load on -0.04 factor not applicable Net Cycle Time A	load, dump, r ad up 0.00 ders -0.04 0.00 adjustment: Cycle Time:	Dump: 0.1 naneuver): Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060	0.500 Source (Cat H (Ca	minutes ce [B) [B) [B) [B] [B] [ces
Excavators and Front Sho Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factor Material Stockpile Truck Ownership Operation Dump Target	vels: vels: vs. Job Core within this Material .): s - Unadjust Mixed to Convey Commo	Mane ded Basic material 0 or or dozon owners at operation	ating: NA ating: NA on: NA Euver: NA Loader Cycle Time (0.02 er piled 10 ft. high ar ship of trucks and loa on -0.04 factor not applicable Net Cycle Time A Adjusted Loader C	load, dump, r ad up 0.00 ders -0.04 0.00 adjustment: Cycle Time:	Dump: 0.1 naneuver): Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	0.500 Source (Cat H (Ca	minutes ce [B) [B) [B) [B] [B] [ces
Excavators and Front Sho Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factor Material Stockpile Truck Ownership Operation Dump Target	vels: vs. Job Core within this – Material .): s - Unadjust Mixed to Convey Convey Constar No adjust	Mane ded Basic material 0 for or dozon owners at operations the operation of the operation	ating: NA ating: NA on: NA Euver: NA Loader Cycle Time (0.02 er piled 10 ft. high ar ship of trucks and loa on -0.04 factor not applicable Net Cycle Time A Adjusted Loader C	load, dump, r ad up 0.00 ders -0.04 0.00 adjustment: Cycle Time: per Truck:	Dump: 0.1 naneuver): Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	0.500 Source (Cat H (Ca	minutes ce (B) (B) (B) (B) (B) (ces ces ces
Excavators and Front Sho Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factor Material Stockpile Truck Ownership Operation Dump Target	vels: vels: vs. Job Core within this Material vels: Solution Mixed to Convey Common Constant No adjust me: 0.	Mane ded Basic material 0 for or dozent operationstment - 1	ating: NA ating: NA on: NA Euver: NA Loader Cycle Time (0.02 er piled 10 ft. high archip of trucks and loadon -0.04 factor not applicable Net Cycle Time A Adjusted Loader C Net Load Time	load, dump, rend up 0.00 ders -0.04 dijustment: Eycle Time: Eycle Truck: Adjusted	Dump: 0.1 maneuver): Factor (min.)	0.500 Source (Cat H (Ca	minutes ce [B) [B) [B] [B] es es es

<u>Truck Travel (Haul & Return) Time:</u> Road Condition: <u>Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0</u>

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4319.00	7.90	3.00	10.90	857	5.129

Task # O1001

Haul Time: 5.129 minutes

Return Route:

1tetarii 1te	rate.					
Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	4319.00	-7.90	3.00	-4.90	3706	1.201

Return Time: 1.201 minutes
Total Truck Cycle Time: 12.733 minutes

Loading Tool unit

Production 492.38 LCY/Hour Adjusted for job efficiency: 408.68 LCY/Hour Truck Unit Production 148.44 LCY/Hour Adjusted for job efficiency: 123.20 LCY/Hour

Optimal No. of Trucks: 3 Truck(s) Selected Number of Trucks: 3 Truck(s)

Adjusted hourly truck team production: 369.61 LCY/Hour Adjusted single truck/loader team production: 369.61 LCY/Hour Adjusted multiple truck/loader team production: 1,108.83 LCY/Hour

JOB TIME AND COST

Fleet size: 3 Team(s) Total job time: **181.89** Hours

Unit cost: \$2.410 /LCY Total job cost: **\$486,107**

BULLDOZER WORK

Task description:	Road	ls - Grade T	opsoil - Mcl	Nulty OSF		
e: Climax Mine		Perr	mit Action:	2024-06	Permit/Job#:	M1977493
PROJECT IDEN	TIFICATION	<u>ON</u>				
Task #: 0100 Date: 8/20/2 User: ACY		State: County:	Colorado Lake		Abbreviation: Filename:	None M493-O1002
	organization	name: DR	MS			
HOURLY EQUI	PMENT CO	<u>DST</u>				
Basic Machine:		S XR Series	П			
Horsepower: Blade Type:	240 Semi-Unive	ersal		<u> </u>		
Attachment:	NA NA	71541		<u> </u>		
Shift Basis: Data Source:	1 per day (CRG)					
Cost Breakdown:						
Ournarchin Cast/U	011#1		\$90.24	<u>Utilization %</u> NA		
Ownership Cost/H Operating Cost/H			\$78.95	100		
Ripper own. Cost/H			\$0.00	NA		
Ripper op. Cost/H			\$0.00	0		
Operator Cost/H	lour:		\$38.59	NA		
Total unit Cost/Hou	r: \$207.	78				
Total Fleet Cost/Ho	ur: \$831.	10				
MATERIAL QU	ANTITIES					
Initial Volume:	199,200					
Swell factor:	1.000					
Loose volume:	199,200 LC	Y				
Source of estimated Source of estimated		TR-37 Cat Hand	book			
HOURLY PROI	<u>DUCTION</u>					
Average push distar Unadjusted hourly p		200 feet 410.8 LCY/	hr			
Materials consistence	cy description	: Loose s	tockpile 1.2			
Average push gradi		0 feet				
Material weight:	_1,600	lbs/LCY			<u></u>	
Weight description:	Top S	oil				
Job Condition Corre	ection Factor rator Skill:	0.	750	Source (AVG.)		
	onsistency:		200	(CAT HB)		
	ng method:	1.0	000	(GEN.)		
	Visibility:	1.0	000	(AVG.)		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	1.000	(CAT HB)
Altitude:	0.960	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.8250

Adjusted unit production: 338.91 LCY/hr
Adjusted fleet production: 1355.64 LCY/hr

JOB TIME AND COST

Fleet size: 4 Dozer(s)
Unit cost: \$0.613/LCY

Task description:	Roads -	Haul Topsoil - T	enmile			
Site: Climax Mine		Permit Action	on: 2024-06		Permit/Job#: N	11977493
PROJECT IDEN	TIFICATION					
Task #: O100	3	State: Colora	ıdo	Ab	breviation: N	one
Date: 8/20/2	2024	County: Lake			Filename: M	493-O1003
User: ACY						
Agency or	organization nar	ne: DRMS				
HOURLY EQUI				Shift bas	is: 1 per day	
		I	Equipment Descri	ption		
Т	Truck Loader Tea			,		
			Γ 966H high lift			
Supp	ort Equipment -L		D6T LGP			
		ımp Area: NA				
Road M	aintenance – Mot		F 1 7 000	G 1		
	-Wa	ter Truck: Wat	er Tanker, 5,000	Gal.		
Cost Breakdown:		ader Team		Equipment		nce Equipment
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	NA	100
Ownership cost/hour:	\$108.25	\$57.78	\$99.72	NA	NA	\$51.70
Operating cost/hour:	\$79.54	\$46.25	\$71.22	NA	NA	\$50.22
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	NA	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	NA	\$0.00

Total work team cost/hour: \$2,318.57

MATERIAL QUANTITIES

CCY Swell factor: 1.215 Initial volume:

\$36.85

\$140.88

\$1,986.00

2

Loose volume: 29,160 LCY

\$25.24

\$213.03

Work:

8

Source of estimated volume: TR-37 Source of estimated swell factor: Cat Handbook

Material Purchase Cost:

\$0.00 \$0.00 Total Cost:

\$209.53

\$38.59

\$209.53

Support:

HOURLY PRODUCTION

Truck Capacity:

Operator cost/hour:

Unit Subtotals:

Number of Units:

Group Subtotals:

Truck Payload (weight) Basis:

Material weight: 1,600 Pounds/LCY Description: Top Soil Rated Payload: 87,000 Pounds Payload Capacity: 54.38 **LCY**

NA

NA

Maint:

0

\$21.12

\$123.04

\$123.04

NA

NA

0

Truck Bed (volume) Basis:						
Struck Volume:	24.20	LCY				
Heaped Volume:		LCY				
Average Volume:		LCY				
Adjusted Volume:	31.40	LCY				
Fina	l Truck Volume	Based on Number of Loa	ader Passes:	31.50	LCY	
Loading Tool Capacity						
		1	Buck	tet Size Class: N	NA .	_
Rated Capacity:	5.000	LCY (heaped)				_
Bucket Fill Factor:	1.050	Other - moist loam	(100-1	10%) 1.050		=
Adjusted Capacity:	5.250	LCY				
Job Condition Correction	<u>s:</u>	Site A	ltitude (ft.): <u>1</u>	3000 feet		
	Truck	Loader	Source			
Altitude Adj:	0.390	1.000	(CAT HB			
Job Efficiency:	0.830	0.830	(CAT HB)		
Net Correction:	0.324	0.830				
Excavators and Front Shov	_	r of Loading Tool Passes	Required to l	Fill Truck:	6 1	passes
Excavators and Front Shov Machine Cycle Time Selected Value	els:	n Rating: NA NA NA	Required to l	Fill Truck:	6 1	oasses
Excavators and Front Shov Machine Cycle Time Selected Value	els: vs. Job Condition within this Basi - Material Descr	n Rating: NA NA NA	Required to I	Fill Truck:	6]	oasses
Excavators and Front Show Machine Cycle Time Selected Value Track Loaders	els: vs. Job Condition within this Basi - Material Descr	n Rating: NA NA NA	Required to I	Fill Truck:		oasses
Excavators and Front Show Machine Cycle Time Selected Value Track Loaders - Cycle Time Elements (min.	els: vs. Job Condition within this Basi - Material Descr b:	n Rating: NA CRATING: NA Internation: NA Inter		Dump: 0.100		
Excavators and Front Show Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min. Load: NA Wheel and Track Loaders	els: vs. Job Condition within this Basi - Material Descr b:	n Rating: NA CRATING: NA Internation: NA Inter		Dump: 0.100	0 0.500 min	
Excavators and Front Show Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min. Load: NA	els: vs. Job Condition within this Basi - Material Descr b:	n Rating: NA c Rating: NA iption: NA Ianeuver: NA asic Loader Cycle Time (I		Dump: 0.100	0	
Excavators and Front Show Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors	vs. Job Condition within this Basi - Material Descr b: - Unadjusted Ba	n Rating: NA c Rating: NA iption: NA Ianeuver: NA asic Loader Cycle Time (I	load, dump, n	Dump: 0.100 naneuver): 0 Factor (min.)	0 0.500 min Source	
Excavators and Front Show Machine Cycle Time Selected Value Track Loaders - Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership:	els: vs. Job Condition within this Basi - Material Descr b: M - Unadjusted Ba Mixed materi Conveyor or Common own	n Rating: NA c Rating: NA iption: NA Ianeuver: NA asic Loader Cycle Time (Interpretate of the Interpretate load, dump, n	Dump: 0.100 naneuver): 0.100 Factor (min.) 0.020	0.500 min Source (Cat HB) (Cat HB) (Cat HB)		
Excavators and Front Show Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	els: vs. Job Condition within this Basi - Material Descr b: M - Unadjusted Ba Mixed materi Conveyor or Common own Constant oper	n Rating: NA c Rating: NA iption: NA Ianeuver: NA asic Loader Cycle Time (Interpretate of the property of trucks and load ration -0.04	d up 0.00 lers -0.04	Dump: 0.100 naneuver): 0.100 Factor (min.) 0.020 0.000 -0.040 -0.040	0.500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)	
Excavators and Front Show Machine Cycle Time Selected Value Track Loaders - Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership:	els: vs. Job Condition within this Basi - Material Descr b: M - Unadjusted Ba Mixed materi Conveyor or Common own Constant oper	n Rating: NA c Rating: NA iption: NA Ianeuver: NA asic Loader Cycle Time (Interpretation of trucks and load ration -0.04 nt - factor not applicable (Interpretation of trucks)	d up 0.00 ders -0.04	Dump: 0.100 naneuver): 0.000 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	0.500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	
Excavators and Front Show Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	els: vs. Job Condition within this Basi - Material Descr b: M - Unadjusted Ba Mixed materi Conveyor or Common own Constant oper	n Rating: NA c Rating: NA iption: NA Ianeuver: NA asic Loader Cycle Time (Interpretation of trucks and load ration -0.04 nt - factor not applicable (Interpretation of trucks) Net Cycle Time A	d up 0.00 ders -0.04	Dump: 0.100 naneuver): 0 Factor (min.) 0.020 0.000 -0.040 0.000 -0.060	0	
Excavators and Front Show Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	els: vs. Job Condition within this Basi - Material Descr b: M - Unadjusted Ba Mixed materi Conveyor or Common own Constant oper	n Rating: NA c Rating: NA iption: NA Ianeuver: NA asic Loader Cycle Time (Interpretation of trucks and load ration -0.04 nt - factor not applicable (Interpretation of trucks)	d up 0.00 ders -0.04 0.00 djustment:	Dump: 0.100 naneuver): 0.000 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	0.500 min Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	
Excavators and Front Show Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	els: vs. Job Condition within this Basi - Material Descr b: M - Unadjusted Ba Mixed materi Conveyor or Common own Constant oper	n Rating: NA c Rating: NA iption: NA Ianeuver: NA Isic Loader Cycle Time (Interpretation of trucks and load ration -0.04 Int - factor not applicable (Interpretation of the Adjusted Loader Cycle Time Adjusted	d up 0.00 ders -0.04 0.00 djustment:	Dump: 0.100 naneuver): 0.100 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	0	
Excavators and Front Show Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	ws. Job Condition within this Basi - Material Describ: - Unadjusted Basi - Mixed material Conveyor or Common own Constant open No adjustmen	n Rating: NA c Rating: NA iption: NA Ianeuver: NA Isic Loader Cycle Time (Interpretation of trucks and load ration -0.04 Int - factor not applicable (Interpretation of the Adjusted Loader Cycle Time Adjusted	d up 0.00 ders -0.04 0.00 djustment: ycle Time: per Truck:	Dump: 0.100 naneuver): 0.100 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	0	
Excavators and Front Show Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (min. Load: NA Wheel and Track Loaders Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	els: vs. Job Condition within this Basi - Material Descr b: - Unadjusted Ba Mixed material Conveyor or Common own Constant open No adjustmen	n Rating: NA c Rating: NA iption: NA Ianeuver: NA Isic Loader Cycle Time (Interpretation of trucks and load ration of trucks and load ration of the cycle Time A Adjusted Loader Cycle Time A Net Load Time	d up 0.00 ders -0.04 dijustment: _ycle Time: _per Truck: _	Dump: 0.100 naneuver): 0.100 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 2.300	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	utes

<u>Truck Travel (Haul & Return) Time:</u> Road Condition: <u>Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0</u>

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	13886.00	0.00	3.00	3.00	3005	5.413

Haul Time: 5.413 minutes

Return Route:

	ixcum ixc	atc.					
	Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
ſ	1	13886.00	0.00	3.00	3.00	3005	4.788

Return Time: 4.788 minutes
Total Truck Cycle Time: 16.604 minutes

Loading Tool unit

Production 492.38 LCY/Hour Adjusted for job efficiency: 408.68 LCY/Hour Truck Unit Production

113.83 LCY/Hour Adjusted for job efficiency: 94.48 LCY/Hour

Optimal No. of Trucks: 4 Truck(s) Selected Number of Trucks: 4 Truck(s)

Adjusted hourly truck team production: 377.92 LCY/Hour Adjusted single truck/loader team production: 377.92 LCY/Hour Adjusted multiple truck/loader team production: 755.84 LCY/Hour

JOB TIME AND COST

Fleet size: 2 Team(s) Total job time: 38.58 Hours

Unit cost: \$3.068 /LCY Total job cost: **\$89,450**

BULLDOZER WORK

Task description:	Roads -	Grade Topsoil - Ter	ımile		
: Climax Mine		Permit Action:	2024-06	Permit/Job#:	M1977493
PROJECT IDEN	NTIFICATION	<u>1</u>			
Task #: O100)4	State: Colorado		Abbreviation:	None
Date: 8/21/		County: Lake		Filename:	M493-O1004
User: ACY				-	
Agency o	r organization na	me: DRMS			
HOURLY EQU	IPMENT COS	<u>T</u>			
Basic Machine:	Cat D7R DS X	KR Series II			
Horsepower:	240		<u> </u>		
Blade Type:	Semi-Universa	al			
Attachment:	NA		<u> </u>		
Shift Basis: Data Source:	1 per day		<u> </u>		
Data Source:	(CRG)				
Cost Breakdown:			T.		
	•		<u>Utilization %</u>		
Ownership Cost/F		\$90.24	NA 100		
Operating Cost/I		\$78.95	100		
Ripper own. Cost/I		\$0.00 \$0.00	NA 0		
Ripper op. Cost/I					
Operator Cost/I	iour:	\$38.59	NA		
Total unit Cost/Hor	ur: \$207.78				
Total Fleet Cost/Ho					
MATERIAL QU	JANTITIES				
Initial Volume:	28,800				
Swell factor:	1.000				
Loose volume:	28,800 LCY				
•	,				
Source of estimated	_	TR-37			
Source of estimated	l swell factor:	Cat Handbook			
HOURLY PRO	DUCTION				
)O			
Average push dista Unadjusted hourly		00 feet 10.8 LCY/hr			
Materials consisten	cy description:	Loose stockpile 1.2			
Average push grade Average site altitude		eet			
Material weight:	_1,600 lbs	s/LCY			
Weight description	: Top Soil				
Job Condition Corr	ection Factor		Source		
	erator Skill:	0.750	(AVG.)		
	onsistency:	1.200	(CAT HB)		
Dozi	ng method:	1.000	(GEN.)		
	Visibility:	1.000	(AVG.)		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
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: 353.00 LCY/hr
Adjusted fleet production: 706 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: \$0.589/LCY

Total job time: 40.79 Hours
Total job cost: \$16,952

Task description: Site: Climax Mine PROJECT IDENT Task #: 01005			on: <u>2024-06</u>		Permit/Job#: _ breviation:	M1977493 None
Date: 8/20/20	24	County: <u>Lake</u>			Filename:	M493-O1005
User: ACY						
Agency or o	rganization nan	ne: DRMS				
HOURLY EQUIP	MENT COST	<u>r</u>		Shift bas	is: <u>1 per day</u>	
			Equipment Descri	ption		
Tr	uck Loader Tea		740			
Suppor	rt Equipment -L		T 966H high lift D6T LGP			<u> </u>
Биррог		imp Area: NA				
Road Mai	ntenance -Mot	1				
	-Wa	ter Truck: Wa	ter Tanker, 5,000	Gal.		
Cost Breakdown:	Truck/Loa	ader Team	Support I	Equipment	Mainter	nance Equipment
	Truck	Loader	Load Area	Dump Area	Motor Grade	er Water Truck
%Utilization-machine:	100	100	100	NA	N.	A 100
Ownership cost/hour:	\$108.25	\$57.78	\$99.72	NA	N.	A \$51.70
Operating cost/hour:	\$79.54	\$46.25	\$71.22	NA	N.	A \$50.22
%Utilization-riper:	NA	0	NA	NA	N.	A NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	N.	A \$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	N.	A \$0.00
Operator cost/hour:	\$25.24	\$36.85	\$38.59	NA	N.	A \$21.12

\$209.53

Support:

NA

\$209.53

0

Total work team cost/hour: \$1,538.60

MATERIAL QUANTITIES

Unit Subtotals:

Number of Units:

Group Subtotals:

Initial volume: 20,000 CCY Swell factor: 1.215

\$140.88

\$1,206.03

1

Loose volume: 24,300 LCY

\$213.03

Work:

5

Source of estimated volume: TR-37
Source of estimated swell factor: Cat Handbook

Material Purchase Cost: \$0.00

chase Cost: \$0.00

Total Cost: \$0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: 1,600 Pounds/LCY
Description: Top Soil

Rated Payload: 87,000 Pounds Payload Capacity: 54.38 LCY

NA

Maint:

0

\$123.04

\$123.04

Truck Bed (volume) Basis:						
C41 X7 .1	24.20					
Struck Volume:		CY CY				
Heaped Volume: Average Volume:		CY				
Adjusted Volume:		CY				
rajusteu voiume.						
	Fruck Volume Ba	ased on Number of Load	ler Passes:	31.50	LCY	
Loading Tool Capacity			Buck	et Size Class:	NA	
Rated Capacity:	5.000	LCY (heaped)				
Bucket Fill Factor:	1.050	Other - moist loam	(100-1	10%) 1.050		_
Adjusted Capacity:	5.250	LCY				
Job Condition Corrections:		Site Alt	itude (ft.): <u>1</u>	1100 feet		
	Truck	Loader	Source			
Altitude Adj:	0.600	1.000	(CAT HB))		
Job Efficiency:	0.830	0.830	(CAT HB))		
Net Correction:	0.498	0.830				
Loading Tool Cycle Time:		f Loading Tool Passes R			6	
Excavators and Front Shovels Machine Cycle Time vs Selected Value w	. Job Condition Frithin this Basic I	Rating: NA				
Track Loaders – N	Material Descript	ion:				
Cycle Time Elements (min.):						
Load: NA	Mar					
	-	neuver: NA	_	Dump: 0	.100	
Wheel and Track Loaders -	Unadjusted Basic	-	– ad, dump, m			nutes
Wheel and Track Loaders - Cycle Time Factors	Unadjusted Basio	-	ad, dump, m		0.500 mir	nutes
1	Mixed material	c Loader Cycle Time (lo		aneuver): Factor (min. 0.020	0.500 mir	nutes
Cycle Time Factors Material: Stockpile:	Mixed material Conveyor or do	c Loader Cycle Time (lo 0.02 zer piled 10 ft. high and	up 0.00	Factor (min. 0.020 0.000	0.500 mir) Source (Cat HB) (Cat HB)	nutes
Cycle Time Factors Material: Stockpile: Truck Ownership:	Mixed material Conveyor or do Common owner	c Loader Cycle Time (lo 0.02 zer piled 10 ft. high and rship of trucks and loade	up 0.00	Factor (min. 0.020 0.000 -0.040	0.500 mir) Source (Cat HB) (Cat HB) (Cat HB)	nutes
Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Mixed material Conveyor or do Common owner Constant operat	0.02 zer piled 10 ft. high and rship of trucks and loade ion -0.04	up 0.00	Factor (min. 0.020 0.000 -0.040 -0.040	0.500 mir) Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)	nutes
Cycle Time Factors Material: Stockpile: Truck Ownership:	Mixed material Conveyor or do Common owner Constant operat	0.02 zer piled 10 ft. high and rship of trucks and loade ion -0.04 • factor not applicable 0.	up 0.00 rrs -0.04	Factor (min. 0.020 0.000 -0.040 0.000	0.500 mir Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	nutes
Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Mixed material Conveyor or do Common owner Constant operat	0.02 zer piled 10 ft. high and rship of trucks and loader ion -0.04 factor not applicable 0. Net Cycle Time Adj	up 0.00 rs -0.04 00 justment:	Factor (min. 0.020 0.000 -0.040 0.000 -0.060	0.500 mir Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	nutes
Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Mixed material Conveyor or do Common owner Constant operat	0.02 zer piled 10 ft. high and rship of trucks and loade ion -0.04 • factor not applicable 0.	up 0.00 ors -0.04 00 justment: cle Time:	Factor (min. 0.020 0.000 -0.040 0.000	0.500 mir Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	nutes
Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Mixed material Conveyor or do Common owner Constant operat	2. Loader Cycle Time (lo 0.02 2 zer piled 10 ft. high and rship of trucks and loader ion -0.04 • factor not applicable 0.1 Net Cycle Time Adj Adjusted Loader Cyc	up 0.00 ors -0.04 00 justment: cle Time:	Factor (min. 0.020 0.000 -0.040 0.000 -0.060 0.440	0.500 mir Source	nutes
Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	Mixed material Conveyor or do Common owner Constant operat	2. Loader Cycle Time (lo 0.02 2 zer piled 10 ft. high and rship of trucks and loader ion -0.04 • factor not applicable 0.1 Net Cycle Time Adj Adjusted Loader Cyc	up 0.00 rs -0.04 00 justment: cle Time: er Truck:	Factor (min. 0.020 0.000 -0.040 0.000 -0.060 0.440	0.500 mir Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	nutes
Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time:	Mixed material Conveyor or do Common owner Constant operat No adjustment	c Loader Cycle Time (lo 0.02 zer piled 10 ft. high and rship of trucks and loade ion -0.04 factor not applicable 0.1 Net Cycle Time Adj Adjusted Loader Cyc Net Load Time po	up 0.00 ors -0.04 ors -0.04 ors -0.04 cle Time: cle Truck: Adjusted to	Factor (min. 0.020 0.000 -0.040 0.000 -0.060 0.440 2.300	0.500 mir Source	

<u>Truck Travel (Haul & Return) Time:</u> Road Condition: <u>Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0</u>

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	13622.40	1.90	3.00	4.90	1845	7.695

Haul Time: 7.695 minutes Return Route: Travel Haul Distance Grade (%) Roll. Res Total Res Velocity Seg# Time (Ft) (%) (%) (fpm) (min) 13622.40 -1.90 3.00 1.10 3706 3.883

Return Time: 3.883 minutes
Total Truck Cycle Time: 16.545 minutes

Loading Tool unit

Production Truck Unit Production

Truck Unit Production

114.24 LCY/Hour Adjusted for job efficiency: 475.36 LCY/Hour Adjusted for job efficiency: 94.82 LCY/Hour Optimal No. of Trucks: 5 Truck(s)

Selected Number of Trucks: 5 Truck(s)

Adjusted hourly truck team production: 474.08 LCY/Hour Adjusted single truck/loader team production: 474.08 LCY/Hour Adjusted multiple truck/loader team production: 474.08 LCY/Hour

JOB TIME AND COST

 Fleet size:
 1
 Team(s)
 Total job time:
 51.26
 Hours

 Unit cost:
 \$3.245
 /LCY
 Total job cost:
 \$78,864

BULLDOZER WORK

Task description:	Road	s - Grade T	opsoil - Rob	oinson TSF		
:: Climax Mine		Perr	nit Action:	2024-06	Permit/Job#:	M1977493
PROJECT IDEN	TIFICATIO	<u>)N</u>				
Task #: O1000 Date: 8/21/2 User: ACY		State: County:	Colorado Lake		Abbreviation: Filename:	None M493-O1006
	organization	name: DR	MS			
HOURLY EQUI	PMENT CO	<u>ost</u>				
Basic Machine:		S XR Series	П			
Horsepower: Blade Type:	240 Semi-Unive	rsal		<u> </u>		
Attachment:	NA	1341		<u> </u>		
Shift Basis: Data Source:	1 per day (CRG)			_		
Cost Breakdown:	(cito)					
0 11 0 77			400.24	<u>Utilization %</u>		
Ownership Cost/H			\$90.24	NA 100		
Operating Cost/H Ripper own. Cost/H			\$78.95 \$0.00	100 NA		
Ripper op. Cost/H			\$0.00	0		
Operator Cost/H	·		\$38.59	NA		
Total unit Cost/Hou	r: \$207.7	78				
Total Fleet Cost/Ho						
MATERIAL QU Initial Volume:	24,000		_			
Swell factor: Loose volume:	1.000 24,000 LCY		_			
Source of estimated Source of estimated		TR-37 Cat Hand	book			
HOURLY PROD	OUCTION					
Average push distar Unadjusted hourly p		200 feet 410.8 LCY/	hr			
Materials consistence	cy description:	Loose s	tockpile 1.2			
Average push gradic Average site altitude) feet				
Material weight:	1,600	lbs/LCY				
Weight description:	Top S	oil				
Job Condition Corre	ection Factor rator Skill:	0 ′	750	Source (AVG.)		
Material co			200	(CAT HB)		
	ng method:		000	(GEN.)		
	Visibility:		000	(AVG.)		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
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: 353.00 LCY/hr
Adjusted fleet production: 706 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: \$0.589/LCY

Total job time: 33.99 Hours
Total job cost: \$14,126

Task description:	Roads -	Haul Topsoil - R	obinson Lake			
Site: Climax Mine		Permit Action	on: 2024-06]	Permit/Job#: M	1977493
PROJECT IDEN'	FIFICATION					
Task #: O1007		State: Colora	ıdo	Ab	breviation: No	ne
Date: $8/20/20$		County: Lake			Filename: M4	193-O1007
User: ACY						
Agency or	organization nan	ne: DRMS				
<i>C</i> ,	C					
HOURLY EQUIF	PMENT COST	<u>r</u>		Shift bas	is: <u>1 per day</u>	
		I	Equipment Descri	ption		
Tı	ruck Loader Tea			1		
			Γ 966H high lift			
Suppo	rt Equipment -L		D6T LGP			
D 1M.		amp Area: NA or Grader: NA				
Road Ma	intenance –Mote		er Tanker, 5,000	Gal		
	- vv a	itel Truck. Wat	er ranker, 5,000	Oai.		
Cost Breakdown:	Truck/Loa	ader Team	Support I	Equipment	Maintenan	ice Equipment
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	NA	100
Ownership cost/hour:	\$108.25	\$57.78	\$99.72	NA	NA	\$51.70
Operating cost/hour:	\$79.54	\$46.25	\$71.22	NA	NA	\$50.22
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	NA	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	NA	\$0.00
Operator cost/hour:	\$25.24	\$36.85	\$38.59	NA	NA	\$21.12
Unit Subtotals:	\$213.03	\$140.88	\$209.53	NA	NA	\$123.04

Total work team cost/hour: \$2,744.63

MATERIAL QUANTITIES

Initial volume: 60,000 CCY Swell factor: 1.215

2

Support:

Loose volume: **72,900** LCY

Source of estimated volume: TR-37

10

Work:

Source of estimated swell factor: Cat Handbook

Material Purchase Cost: \$0.00

Total Cost: \$0.00

\$2,412.06

HOURLY PRODUCTION

Truck Capacity:

Number of Units:

Group Subtotals:

Truck Payload (weight) Basis:

Material weight: 1,600 Pounds/LCY
Description: Top Soil

Rated Payload: 87,000 Pounds Payload Capacity: 54.38 LCY

0

\$123.04

Maint:

0

\$209.53

Truck Travel (Haul & Return) Time:

maintained 3.0

Truck Bed (volume) Basis:						
Struck Volume:	24.20 LC	ĽY				
Heaped Volume:	31.40 LC					
Average Volume:	27.80 LC	CY				
Adjusted Volume:	31.40 LC	CY				
Final 7	Γruck Volume Ba	sed on Number of Lo	ader Passes:	31.50	LCY	
Loading Tool Capacity			D 1	· a' a'		
Data I Cama situu	5,000	I CV (harrad)	Buck	et Size Class:	NA	_
Rated Capacity: Bucket Fill Factor:	5.000 1.050	LCY (heaped) Other - moist loam	(100.1	10%) 1.050		_
Adjusted Capacity:	5.250	LCY	(100-1	10%) 1.030		_
Job Condition Corrections:		Site A	ltitude (ft.): <u>1</u>	1100 feet		
sob condition corrections.	Truck	Loader	Source	1100		
Altitude Adj:	0.600	1.000	(CAT HB	`		
Job Efficiency:	0.830	0.830	(CAT HB			
too Efficiency.	0.050	0.020	(CITI IID	/		
Net Correction:	0.498	0.830				
T 11 TO 10 1 TO	X 1 0				_	
Loading Tool Cycle Time:	Number of	Loading Tool Passes	Required to I	ill Iruck:	6	passes
Excavators and Front Shovels	<u>s:</u>					
Machine Cycle Time vs	. Job Condition R	ating: NA				
Selected Value w	rithin this Basic R	lating: NA				
Track Loaders – I	Material Descripti	on:				
Cycle Time Elements (min.):						
Load: NA	Mane	euver: NA		Dump: 0.10	00	
	=		<u> </u>			
Wheel and Track Loaders -	Unadjusted Basic	Loader Cycle Time (load, dump, n	naneuver):	0.500 min	utes
Cycle Time Factors				Factor (min.)	Source	
Material:	Mixed material (0.020	(Cat HB)	
Stockpile:		zer piled 10 ft. high an		0.000	(Cat HB)	_
Truck Ownership:		ship of trucks and load	ders -0.04	-0.040	(Cat HB)	_
Operation:	Constant operati			-0.040	(Cat HB)	_
Dump Target:	No adjustment -	factor not applicable		0.000	(Cat HB)	_
		Net Cycle Time A	_	-0.060	minutes	
		Adjusted Loader C		0.440	minutes	
		Net Load Time	per Truck: _	2.300	minutes	
Truck Cycle Time:						
Truck Exchange Time:	0.60	Minutes	A 12 1	C 14.4 1	1.000	
Truck Load Time:			Aajustea	for site altitude:	1.000	Minutes
	2.300	Minutes	•	for site altitude:	2.300	Minutes Minutes
ck Maneuver and Dump Time:	2.300	Minutes Minutes	Adjusted	·-		_

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	13866.00	0.00	3.00	3.00	3005	5.407

Return Route: 5.407 minutes

Task # O1007

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res	Total Res (%)	Velocity (fpm)	Travel Time
1	13866.00	0.00	3.00	3.00	3005	(min) 4.782

Return Time: 4.782 minutes
Total Truck Cycle Time: 15.156 minutes

Loading Tool unit

Production 572.73 LCY/Hour Adjusted for job efficiency: 475.36 LCY/Hour

Truck Unit Production

124.71 LCY/Hour Adjusted for job efficiency: 103.51 LCY/Hour

Optimal No. of Trucks: 5 Truck(s) Selected Number of Trucks: 5 Truck(s)

Adjusted hourly truck team production: 517.53 LCY/Hour Adjusted single truck/loader team production: 475.36 LCY/Hour Adjusted multiple truck/loader team production: 950.73 LCY/Hour

JOB TIME AND COST

Fleet size: 2 Team(s) Total job time: **76.68** Hours

Unit cost: \$2.887 /LCY Total job cost: **\$210,453**

BULLDOZER WORK

Task description:	Roads -	Grade Topsoil - Ro	binson Lake		
: Climax Mine		Permit Action:	2024-06	Permit/Job#:	M1977493
PROJECT IDE	NTIFICATION				
Task #: O100	08	State: Colorado		Abbreviation:	None
		County: Lake		Filename:	M493-O1008
User: ACY	•	·		-	
Agency o	r organization nar	ne: DRMS			
HOURLY EQU	IPMENT COST	<u>r</u>			
Basic Machine:	Cat D7R DS X	R Series II			
Horsepower:	240	1			
Blade Type:	Semi-Universa	l			
Attachment:	NA 1 man day				
Shift Basis: Data Source:	1 per day (CRG)				
	(CNO)				
Cost Breakdown:			1		
0 0	· Y	400 * 1	<u>Utilization %</u>		
Ownership Cost/I		\$90.24	NA 100		
Operating Cost/I		\$78.95	100		
Ripper own. Cost/I		\$0.00 \$0.00	NA 0	<u></u>	
Ripper op. Cost/I			0		
Operator Cost/I	nour:	\$38.59	NA		
Total unit Cost/Ho	ur: \$207.78				
Total Fleet Cost/Ho					
MATERIAL QU	JANTITIES				
Initial Volume:	72,000				
Swell factor:	1.000				
Loose volume:	72,000 LCY				
Source of estimated		TR-37			
Source of estimated	d swell factor:	Cat Handbook			
HOUDI V DDO	DUCTION				
HOURLY PRO		0.6			
Average push dista Unadjusted hourly		0 feet 0.8 LCY/hr			
Materials consisten		Loose stockpile 1.2	2		
Average push grad Average site altitud		et			
Material weight:	1,600 lbs	/LCY			
Weight description	: Top Soil				
Job Condition Corr	rection Factor		Source		
	erator Skill:	0.750	(AVG.)		
	consistency:	1.200	(CAT HB)		
	ng method:	1.000	(GEN.)		
	Visibility:	1.000	(AVG.)		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
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: 353.00 LCY/hr
Adjusted fleet production: 706 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: \$0.589/LCY

Total job time: 101.98 Hours \$42,379

Site Climax Mine Permit Topsoil Majority Permit Date Permit Date Site Colorator County Date Size Colorator Date Size Date Size Date Size Date Date Size Date Size Date Date Size Date Dat				THE CHI LOTT	,	, 01111		
PROJECT IDENTIFICATION Task #: 01009	-	Γask description:	Roads -	Haul Topsoil - M	layflower			
Task #: O1009	Site:	Climax Mine		Permit Action	on: 2024-06		Permit/Job#: _	M1977493
Date 8/20/2024 County: Lake]	PROJECT IDENTIFICATION						
Na					ido	Ab		
HOURLY EQUIPMENT COST				County: <u>Lake</u>			Filename:	M493-O1009
Equipment Description Truck Loader Team - Truck: Cat 740 CAT 966H high lift				me: DRMS				
Truck Loader Team - Truck: Cat 740 -Loader: CAT 966H high lift Support Equipment - Load Area: -Dump Area: NA NA NA NA NA NA]	HOURLY EQU	IPMENT COST	<u>r</u>		Shift bas	is: <u>1 per day</u>	
CAT 966H high lift Support Equipment -Load Area: Cat D6T LGP NA NA Support Equipment NA Support Equipment Support Equipment NA Support Equipment NA Support Equipment Maintenance Maintenance Maintenance NA Support Equipment Maintenance Equipment Maintenance Equipment Maintenance Equipment Maintenance Equipment Maintenance Equipment Maintenance Equipment Maintenance Equipment Maintenance Equipment Maintenance Equipment Maintenance Support Equipment Maintenance Equipment Maintenance Equipment Maintenance Equipment Maintenance Equipment Maintenance Support Equipment Maintenance Equipment Maintenance Equipment Maintenance Equipment Maintenance Equipment Maintenance Equipment Maintenance Equipment Maintenance Motor Grader Mater Truck Maintenance Maintenance Equipment Maintenance Maintenance Equipment Maintenance Maintenance Equipment Maintenance Maintenanc						ption		
Support Equipment - Load Area:			Truck Loader Tea					
Cost Breakdown: Truck/Loader Team Support Equipment Maintenance Equipment		C	To the T					
Road Maintenance - Motor Grader: -Water Truck: NA		Supj			D61 LGP			
Cost Breakdown: Truck/Loader Team Support Equipment Maintenance Equipment WUtilization-machine: 100 100 100 100 NA NA 100 Ownership cost/hour: \$108.25 \$57.78 \$99.72 NA NA \$51.70 Operating cost/hour: \$79.54 \$46.25 \$71.22 NA NA \$50.22 %Utilization-riper: NA 0 NA NA NA NA Ripper own. cost/hour: NA \$0.00 \$0.00 NA NA \$0.00 Ripper op. cost/hour: NA \$0.00 \$0.00 NA NA \$0.00 Operator cost/hour: \$25.24 \$36.85 \$38.59 NA NA \$21.12 Unit Subtotals: \$213.03 \$140.88 \$209.53 NA NA \$123.04 Number of Units: 12 2 1 0 0 0 1		Road N		· I · · · · · ·				
Truck Loader Load Area Dump Area Motor Grader Water Truck %Utilization-machine: 100 100 100 NA NA 100 Ownership cost/hour: \$108.25 \$57.78 \$99.72 NA NA \$51.70 Operating cost/hour: \$79.54 \$46.25 \$71.22 NA NA NA \$50.22 %Utilization-riper: NA 0 NA NA NA NA NA Ripper own. cost/hour: NA \$0.00 \$0.00 NA NA \$0.00 Ripper op. cost/hour: NA \$0.00 \$0.00 NA NA \$0.00 Operator cost/hour: \$25.24 \$36.85 \$38.59 NA NA \$21.12 Unit Subtotals: \$213.03 \$140.88 \$209.53 NA NA \$123.04 Number of Units: 12 2 1 0 0 0 1					er Tanker, 5,000	Gal.		
Truck Loader Load Area Dump Area Motor Grader Water Truck %Utilization-machine: 100 100 100 NA NA 100 Ownership cost/hour: \$108.25 \$57.78 \$99.72 NA NA \$51.70 Operating cost/hour: \$79.54 \$46.25 \$71.22 NA NA NA \$50.22 %Utilization-riper: NA 0 NA NA NA NA NA Ripper own. cost/hour: NA \$0.00 \$0.00 NA NA \$0.00 Ripper op. cost/hour: NA \$0.00 \$0.00 NA NA \$0.00 Operator cost/hour: \$25.24 \$36.85 \$38.59 NA NA \$21.12 Unit Subtotals: \$213.03 \$140.88 \$209.53 NA NA \$123.04 Number of Units: 12 2 1 0 0 0 1								
%Utilization-machine: 100 100 100 NA NA 100 Ownership cost/hour: \$108.25 \$57.78 \$99.72 NA NA \$51.70 Operating cost/hour: \$79.54 \$46.25 \$71.22 NA NA \$50.22 %Utilization-riper: NA 0 NA NA NA NA NA Ripper own. cost/hour: NA \$0.00 \$0.00 NA NA \$0.00 Ripper op. cost/hour: NA \$0.00 \$0.00 NA NA \$0.00 Operator cost/hour: \$25.24 \$36.85 \$38.59 NA NA \$21.12 Unit Subtotals: \$213.03 \$140.88 \$209.53 NA NA \$123.04 Number of Units: 12 2 1 0 0 1		Cost Breakdown:						
Ownership cost/hour: \$108.25 \$57.78 \$99.72 NA NA \$51.70 Operating cost/hour: \$79.54 \$46.25 \$71.22 NA NA \$50.22 %Utilization-riper: NA 0 NA NA NA NA NA NA Ripper own. cost/hour: NA \$0.00 \$0.00 NA NA \$0.00 Ripper op. cost/hour: NA \$0.00 \$0.00 NA NA \$0.00 Operator cost/hour: \$25.24 \$36.85 \$38.59 NA NA \$21.12 Unit Subtotals: \$213.03 \$140.88 \$209.53 NA NA \$123.04 Number of Units: 12 2 1 0 0 1			Truck	Loader	Load Area	Dump Area	Motor Grade	er Water Truck
Operating cost/hour: \$79.54 \$46.25 \$71.22 NA NA \$50.22 %Utilization-riper: NA 0 NA \$0.00 NA NA \$0.00 NA NA \$0.00 NA NA \$0.00 NA NA \$0.00 NA NA NA \$0.00 NA	%Util	ization-machine:	100	100	100	NA	N.	A 100
%Utilization-riper: NA 0 NA NA NA NA Ripper own. cost/hour: NA \$0.00 \$0.00 NA NA \$0.00 Ripper op. cost/hour: NA \$0.00 \$0.00 NA NA \$0.00 Operator cost/hour: \$25.24 \$36.85 \$38.59 NA NA \$21.12 Unit Subtotals: \$213.03 \$140.88 \$209.53 NA NA \$123.04 Number of Units: 12 2 1 0 0 1	Own	ership cost/hour:	\$108.25	\$57.78	\$99.72	NA	N.	A \$51.70
Ripper own. cost/hour: NA \$0.00 \$0.00 NA NA \$0.00 Ripper op. cost/hour: NA \$0.00 \$0.00 NA NA \$0.00 Operator cost/hour: \$25.24 \$36.85 \$38.59 NA NA \$21.12 Unit Subtotals: \$213.03 \$140.88 \$209.53 NA NA \$123.04 Number of Units: 12 2 1 0 0 1	Ope	erating cost/hour:	\$79.54	\$46.25	\$71.22	NA	N.	A \$50.22
Ripper op. cost/hour: NA \$0.00 \$0.00 NA NA \$0.00 Operator cost/hour: \$25.24 \$36.85 \$38.59 NA NA \$21.12 Unit Subtotals: \$213.03 \$140.88 \$209.53 NA NA \$123.04 Number of Units: 12 2 1 0 0 1	%	Utilization-riper:	NA	0	NA	NA	N.	A NA
Operator cost/hour: \$25.24 \$36.85 \$38.59 NA NA \$21.12 Unit Subtotals: \$213.03 \$140.88 \$209.53 NA NA \$123.04 Number of Units: 12 2 1 0 0 1	Ripper	r own. cost/hour:	NA	\$0.00	\$0.00	NA	N.	A \$0.00
Unit Subtotals: \$213.03 \$140.88 \$209.53 NA NA \$123.04 Number of Units: 12 2 1 0 0 1	Ripp	er op. cost/hour:	NA	\$0.00	\$0.00	NA	N.	A \$0.00
Number of Units: 12 2 1 0 0 1	Op	erator cost/hour:	\$25.24	\$36.85	\$38.59	NA	N.	A \$21.12
		Unit Subtotals:	\$213.03	\$140.88	\$209.53	NA	N.	A \$123.04
Group Subtotals: Work: \$2,838.12 Support: \$209.53 Maint: \$123.04	N	Number of Units:	12	2	1	0		0 1
	(Group Subtotals:	Work:	\$2,838.12	Support:	\$209.53	Main	t: \$123.04

Total work team cost/hour: \$3,170.69

MATERIAL QUANTITIES

Initial volume: 95,000 CCY Swell factor: 1.215

Loose volume: 115,425 LCY

Source of estimated volume: TR-37
Source of estimated swell factor: Cat Handbook

Material Purchase Cost: \$0.00

chase Cost: \$0.00 Total Cost: \$0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: 1,600 Pounds/LCY
Description: Top Soil

Rated Payload: 87,000 Pounds Payload Capacity: 54.38 LCY

Truck Bed (volume) Basis: Struck Volume:	24.20	LCY				
Heaped Volume:		LCY				
Average Volume:	27.80	LCY				
Adjusted Volume:	31.40	LCY				
Final '	Truck Volume	Based on Number of Loa	ader Passes:	31.50	LCY	
Loading Tool Capacity			_			
			Bucke	et Size Class: N	A	
Rated Capacity:	5.000	LCY (heaped)				_
Bucket Fill Factor:	1.050	Other - moist loam	(100-11	0%) 1.050		_
Adjusted Capacity:	5.250	LCY				
Job Condition Corrections:		Site A	ltitude (ft.): <u>10</u>	1400 feet		
	Truck	Loader	Source			
Altitude Adj:	0.600	1.000	(CAT HB)			
Job Efficiency:	0.830	0.830	(CAT HB)			
Net Correction:	0.498	0.830				
I anding Tool Cycle Time.						
Loading Tool Cycle Time:	Number	of Loading Tool Passes	Required to Fi	ll Truck:	6	passes
Loading Tool Cycle Time: Excavators and Front Shovel		of Loading Tool Passes	Required to Fi	ll Truck:	6	passes
Excavators and Front Shovel	<u>s:</u>	· ·	Required to Fi	ll Truck:	6	passes
	s: Job Condition	n Rating: <u>NA</u>	Required to Fi	ll Truck:	6	passes
Excavators and Front Shovel Machine Cycle Time vs	s: . Job Condition vithin this Basic	n Rating: NA Rating: NA	-	ll Truck:	6	passes
Excavators and Front Shovel Machine Cycle Time vs Selected Value w Track Loaders – I	s: . Job Condition vithin this Basic	n Rating: NA Rating: NA	-		6	passes
Excavators and Front Shovel Machine Cycle Time vs Selected Value w Track Loaders – I	s: Job Condition ithin this Basic Material Descri	n Rating: NA Rating: NA	-			passes
Excavators and Front Shovel. Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.):	s: Job Condition vithin this Basic Material Descri	n Rating: NA Rating: NA Ption: aneuver: NA		Dump: 0.100		passes
Excavators and Front Shovel Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA	s: Job Condition vithin this Basic Material Descri	n Rating: NA Rating: NA Ption: aneuver: NA		Dump: 0.100		
Excavators and Front Shovel Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders -	s: Job Condition vithin this Basic Material Descri	n Rating: NA NA NA NA NA NA NA NA NA NA NA NA NA		Dump: 0.100 aneuver): 0.		
Excavators and Front Shovel Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material:	s: Job Condition vithin this Basic Material Descri	n Rating: NA NA NA NA NA NA NA NA NA NA NA NA NA	oad, dump, ma	Dump: 0.100 aneuver): 0. Factor (min.)	500 mir Source	
Excavators and Front Shovel Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material:	s: Job Condition vithin this Basic Material Descri Material Descri Material Descri Material Descri Material Descri	n Rating: NA c Rating: NA ption: NA aneuver: NA sic Loader Cycle Time (I	oad, dump, ma	Dump: 0.100 aneuver): 0. Factor (min.) 0.020	500 mir Source (Cat HB)	
Excavators and Front Shovel Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	s: Job Condition vithin this Basic Material Descri Material Descri Material Descri Material Descri Material Descri Mixed Material Conveyor or description own Constant oper	n Rating: NA c Rating: NA ption: NA aneuver: NA sic Loader Cycle Time (I al 0.02 dozer piled 10 ft. high aneuership of trucks and load attion -0.04	oad, dump, mad up 0.00 lers -0.04	Dump: 0.100 aneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040	500 mir Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)	
Excavators and Front Shovel Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership:	s: Job Condition vithin this Basic Material Descri Material Descri Material Descri Material Descri Material Descri Mixed Material Conveyor or description own Constant oper	n Rating: NA c Rating: NA ption: NA aneuver: NA sic Loader Cycle Time (I al 0.02 lozer piled 10 ft. high anership of trucks and load ation -0.04 t - factor not applicable (I	oad, dump, mad up 0.00 lers -0.04	Dump: 0.100 nneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	500 mir Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	
Excavators and Front Shovel Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	s: Job Condition vithin this Basic Material Descri Material Descri Material Descri Material Descri Material Descri Mixed Material Conveyor or description own Constant oper	n Rating: NA c Rating: NA ption: NA aneuver: NA sic Loader Cycle Time (I al 0.02 dozer piled 10 ft. high anership of trucks and load ation -0.04 t - factor not applicable (I Net Cycle Time A	oad, dump, mad up 0.00 lers -0.04 lers -0.04 djustment:	Dump: 0.100 aneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	
Excavators and Front Shovel Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	s: Job Condition vithin this Basic Material Descri Material Descri Material Descri Material Descri Material Descri Mixed Material Conveyor or description own Constant oper	n Rating: NA c Rating: NA ption: NA aneuver: NA sic Loader Cycle Time (I al 0.02 dozer piled 10 ft. high anership of trucks and load ation -0.04 t - factor not applicable (I Net Cycle Time A Adjusted Loader Cycle Time A	oad, dump, mad up 0.00 lers -0.04 lers -0.04 djustment:	Dump: 0.100 aneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	
Excavators and Front Shovel Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	s: Job Condition vithin this Basic Material Descri Material Descri Material Descri Material Descri Material Descri Mixed Material Conveyor or description own Constant oper	n Rating: NA c Rating: NA ption: NA aneuver: NA sic Loader Cycle Time (I al 0.02 dozer piled 10 ft. high anership of trucks and load ation -0.04 t - factor not applicable (I Net Cycle Time A	oad, dump, mad up 0.00 lers -0.04 lers -0.04 djustment:	Dump: 0.100 aneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	
Excavators and Front Shovel Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	s: Job Condition vithin this Basic Material Descri Material Descri Material Descri Material Descri Material Descri Mixed Material Conveyor or description own Constant oper	n Rating: NA c Rating: NA ption: NA aneuver: NA sic Loader Cycle Time (I al 0.02 dozer piled 10 ft. high anership of trucks and load ation -0.04 t - factor not applicable (I Net Cycle Time A Adjusted Loader Cycle Time A	oad, dump, mad up 0.00 lers -0.04 lers -0.04 djustment:	Dump: 0.100 aneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	
Excavators and Front Shovel Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	S: Job Condition within this Basic Material Description of the Mixed material Conveyor or constant oper No adjustmen	n Rating: NA c Rating: NA ption: NA aneuver: NA sic Loader Cycle Time (I al 0.02 dozer piled 10 ft. high anership of trucks and load ation -0.04 t - factor not applicable (I Net Cycle Time A Adjusted Loader Cycle Time A	oad, dump, mad up 0.00 lers -0.04 lers djustment:ycle Time:per Truck:	Dump: 0.100 aneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	
Excavators and Front Shovel Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time:	Mixed material Conveyor or of Common own Constant oper No adjustmen 0.60 2.300	n Rating: NA Prion: NA aneuver: NA sic Loader Cycle Time (Interpretate of the Interpretate of the Interp	oad, dump, madd up 0.00 lers -0.04 lers -0.04 lers rume: ycle Time: per Truck: Adjusted for Adj	Dump: 0.100 aneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 2.300	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	nutes

<u>Truck Travel (Haul & Return) Time:</u> Road Condition: <u>Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0</u>

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	19219.00	0.60	3.00	3.60	2421	8.424

Haul Time: 8.424 minutes

Return Route:

Retain Route.						
Seg#	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	19219.00	-0.60	3.00	2.40	3005	6.549

Return Time: 6.549 minutes Total Truck Cycle Time: minutes 19.940

Loading Tool unit

Adjusted for job efficiency: 475.36 LCY/Hour Production 572.73 LCY/Hour

Truck Unit Production Adjusted for job efficiency: 78.67 LCY/Hour 94.79 LCY/Hour

Optimal No. of Trucks: 6 Truck(s) Selected Number of Trucks: 6 Truck(s)

> Adjusted hourly truck team production: 472.03 LCY/Hour Adjusted single truck/loader team production: 472.03 LCY/Hour LCY/Hour 944.07

Adjusted multiple truck/loader team production:

JOB TIME AND COST

Fleet size: 2 Team(s) Total job time: 122.26 Hours

Total job cost: \$387,659 Unit cost: \$3.359 /LCY

BULLDOZER WORK

Task description:	Roads - Grade T	Topsoil - May	yflower		
Climax Mine	Per	mit Action:	2024-06	Permit/Job#:	M1977493
PROJECT IDENTIFI	<u>ICATION</u>				
Task #: 01010	State:	Colorado		Abbreviation:	None
Date: 8/21/2024	County:	Lake		Filename:	M493-O1010
User: ACY				_	1.1.70 01010
Agency or organ	 nization name: DI	RMS			
HOURLY EQUIPME					
	D7R DS XR Series	П			
Horsepower: 240		11			
	ni-Universal				
Attachment: NA					
	er day				
Data Source: (CR	RG)				
Cost Breakdown:					
O manufacture Control		¢00.24	<u>Utilization %</u>		
Ownership Cost/Hour: Operating Cost/Hour:		\$90.24 \$78.95	NA 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: Total Fleet Cost/Hour:	\$207.78 \$415.55				
MATERIAL QUANT Initial Volume: 114, Swell factor: 1.000	000				
Loose volume: 114,0	000 LCY				
Source of estimated volur Source of estimated swell		lbook			
HOURLY PRODUCT	<u> TION</u>				
Average push distance: Unadjusted hourly produc	$\frac{200 \text{ feet}}{410.8 \text{ LCY}}$	/hr			
Materials consistency des	cription: Loose	stockpile 1.2			
Average push gradient: Average site altitude:	0 % 10,400 feet				
Material weight:	1,600 lbs/LCY			<u></u>	
Weight description:	Top Soil			<u> </u>	
Job Condition Correction			Source		
Operator S	Skill:0	.750	(AVG.)		
Material consists		.200	(CAT HB)		
Dozing me		.000	(GEN.)		
Visib	ılıty:1	.000	(AVG.)		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
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: 353.00 LCY/hr
Adjusted fleet production: 706 LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: \$0.589/LCY

Total job time: 161.47 Hours
Total job cost: \$67,100

REVEGETATION WORK

Task description: R	oads - Robinson Lake	e - Reveg - I	Iydric			
Climax Mine	imax Mine Permit Action: 2024-06 Permit/Job#:		M1977493			
PROJECT IDENTIFICATION Task #: O3001 Date: 8/12/2024 User: ACY	State: Colo County: Lake				_	None M493-O3001
Agency or organizati	on name: DRMS					
ERTILIZING						
Saterials						
Description		Units / Acre	Unit	Cost	t / Unit	Cost /Acre
				\$		\$
				Tota	al Fertilizer Materials Cost/Acre	\$0.00
pplication						
Description						Cost /Acre
						\$
		Total	Fertilizer	Application	n Cost/Acre	\$0.00
ILLING						
Description						Cost /Acre
Disc harrowing, 6" deep (M	IEANS 32 91 13.23 61	00)				\$117.61
			,	Total Tilling	g Cost/Acre	\$117.61
EEDING						
Seed Mix				Rate – PLS LBS /	Seeds per SQ. FT	Cost /Acre

Cine de l'on, Siende l	U.1_	11110	φεσισ,
Idaho Fescue	0.09	1.14	\$1.28
Butterwort, Golden	0.08	2.55	\$17.68
Mannagrass, Northwest	0.11	0.92	\$1.70
Elephant Head	0.08	2.01	\$45.61
Reedgrass, Canadian (or Blue Joint)	0.06	6.17	\$24.75
Timothy, Alpine - Native	0.20	5.97	\$7.84

Baltic Rush

Aquatic Sedge Merten's Rush

Cinquefoil, Slender

Acre

61.82

5.03

0.84

11.70

0.22

0.19

0.01

0.12

\$41.48

\$53.50

\$0.98

\$58.87

Tufted Hairgrass	0.13	7.46	\$3.70
Monkey Flower	0.12	12.22	\$20.49
Totals Seed Mix	1.41	117.82	\$277.89

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
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$492.78	\$985.56
Total Mulch Materials Cost/Acre				\$985.56

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$85.37
Power mulcher (MEANS 32 91 13.16 0350)		\$157.25
	Total Mulch Application Cost/Acre	\$242.63

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: \$1,860.33 Cost /Acre*: \$1,742.72 No. of Acres: 18.36

Estimated Failure Rate: 10%

*Selected Replanting Work Items: SEEDING,MULCHING

Initial Job Cost: \$34,155.66

Reseeding Job Cost: \$3,199.63 Total Job Cost: \$37,355 Job Hours: **21.00**

CIRCES Cost Estimating Software

REVEGETATION WORK

Task description:	Roads - McNulty	OSF - Reveg - Al	oine			
Climax Mine	Perr	Permit Action: _2024-06 Permit/Job#:				: <u>M1977493</u>
PROJECT IDENTI	FICATION					
Task #: O3002 Date: 8/12/20 User: ACY	State: County:	Colorado Lake		_		None M493-O3002
Agency or or	ganization name:DRI	MS				
FERTILIZING						
Jaterials			T			T
Description		Units / Acre	Unit	Cost	/ Unit	Cost /Acre
				\$		\$
				Tota	al Fertilizer Materials Cost/Acre	\$0.00
Description						Cost /Acre
		Total	Fertilizer A	Application	n Cost/Acre	\$0.00
TILLING						
Description Disc harrowing 6"	deep (MEANS 32 91 13.	23 6100)				Cost /Acre \$117.61
Disc narrowing, o	(WEET 11 to 32) 1 13.	.25 0100)	Т	otal Tilling	g Cost/Acre	\$117.61
SEEDING						
Seed Mix				Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre

Alpine Bluegrass

Cinquefoil, Slender

Rocky Mountain Fescue

Timothy, Alpine - Native

Slender Wheatgrass - Native

Alpine Fescue

Currant, Wax

Lupine, Silver

Thurber's Fescue

Flax, Lewis Blue

CIRCES	Cost	Estimating	Software

\$10.53

\$23.51

\$29.44

\$27.75

\$7.33

\$83.69

\$19.36

\$14.13

\$36.38

\$13.32

0.44

1.30

0.06

0.40

0.68

0.70

2.74

0.18

0.86

0.34

10.10

38.80

5.85

1.38

10.93

10.00

1.86

5.70

10.15

0.41

Tufted Hairgrass	0.34	19.51	\$9.68
Yarrow, White	0.10	6.36	\$7.34
Totals Seed Mix	8.14	121.05	\$282.45

Application

Description		Cost /Acre
Hydro seeding (MEANS 32 92 19.14 0200)		\$1,359.07
	Total Seed Application Cost/Acre	\$1,359.07

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Hydromulch tackifier, >15 ac. {Materials Only}	1.00	ACRE	\$1,459.26	\$1,459.26
Total Mulch Materials Cost/Acre				\$1,459.26

Application

Description		Cost /Acre
NA-mulch application incl. with hydroseeding		\$0.00
	Total Mulch Application Cost/Acre	\$0.00

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
		Totals :	Nursery Stoc	k Cost / Acre	\$0.00

JOB TIME AND COST

 No. of Acres:
 52
 Cost /Acre:
 \$3,218.39

 Estimated Failure Rate:
 10%
 Cost /Acre*:
 \$3,100.78

*Selected Replanting Work Items: SEEDING,MULCHING

Initial Job Cost: \$167,356.28

Reseeding Job Cost: \$16,124.06

Total Job Cost: \$183,480

Job Hours: 58.00

REVEGETATION WORK

Task description:	Roads - Mayflower T	Tenmile Robin	son TSF - l	Reveg - Up	land	
Climax Mine	Permit A	Action: <u>2024</u>	-06		Permit/Job#	: <u>M1977493</u>
PROJECT IDENTII	FICATION					
Task #: 03003 Date: 8/20/202 User: ACY Agency or ors		lorado ke				None M493-O3003
FERTILIZING						
Materials						
Description		Units / Acre	Unit	Cost	t / Unit	Cost /Acre
				\$		\$
				Tota	al Fertilizer Materials Cost/Acre	\$0.00
Application						Cost /Acre
Description						
		Total	Fertilizer .	Application	n Cost/Acre	\$ \$0.00
<u> </u>						7 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Description						Cost /Acre
Disc harrowing, 6" o	deep (MEANS 32 91 13.23 d	6100)				\$117.61
			Т	Total Tilling	g Cost/Acre	\$117.61
SEEDING						
Seed Mix				Rate – PLS LBS /	Seeds per SQ. FT	Cost /Acre

Alpine Bluegrass

Cinquefoil, Slender

Currant, Wax

Lupine, Silver

Vetch, American

Prairie Junegrass

Arizona Fescue - Redondo

Mountain Brome - Bromar

Rocky Mountain Fescue

Slender Wheatgrass - Native

CIRCES Cost Estimating Software	

\$2.63

\$6.78

\$10.23

\$19.62

\$11.10

\$208.03

\$163.74

\$1.83

\$4.80

\$4.39

0.11

0.45

1.70

0.04

0.16

0.17

1.74

0.68

1.33

0.09

2.53

5.17

2.73

3.90

0.55

2.73

1.02

2.48

0.60

4.78

Totals Seed M		54.11	\$487.09
Yarrow, White	0.05	3.18	\$3.67
Penstemon, Rocky Mountain	0.27	4.23	\$16.58
Tufted Hairgrass	0.17	9.76	\$4.84
Timothy, Alpine - Native	0.25	7.46	\$9.80
Flax, Lewis Blue	0.45	2.99	\$19.03

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
Straw, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$492.78	\$985.56
Total Mulch Materials Cost/Acre				\$985.56

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}	·	\$85.37
Power mulcher (MEANS 32 91 13.16 0350)		\$157.25
	Total Mulch Application Cost/Acre	\$242.63

NURSERY STOCK PLANTING

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

JOB TIME AND COST

 No. of Acres:
 42
 Cost /Acre:
 \$2,069.53

 Estimated Failure Rate:
 10%
 Cost /Acre*:
 \$1,951.92

*Selected Replanting Work Items: SEEDING, MULCHING

Initial Job Cost: \$86,920.26

Reseeding Job Cost: \$8,198.06

Total Job Cost: \$95,118

48.00

TRUCK/LOADER TEAM WORK

Task des	scription:	Robinso	on Lake - H	aul Te	emp Platforms In	1		
Site: Clima	ax Mine		Permi	t Actio	on: <u>2024-06</u>		Permit/Job#:N	I1977493
PROJE	ECT IDE	NTIFICATION	<u> </u>					
Task				Colora	do	Ab		one
Da [*] Use			County:	Lake			Filename: M	493-P1001
		r organization na	ne: DRM	IS				
<u>HOUR</u>	LY EQU	IPMENT COS	<u>r</u>				is: <u>1 per day</u>	
		Truck Loader Tea	ım -Truck	Cat	Equipment Descri	ption		
			-Loader:	CAT	Γ 950H high lift			
	Supp	port Equipment -I	Load Area: ump Area:	Cat :	D6T XL			
	Road M	Iaintenance –Mot		NA				<u> </u>
		-Wa	ter Truck:	NA				
Cost Rr	eakdown:	Truck/Lo	ader Team		Support I	Equipment	Maintena	nce Equipment
<u>Cost B1</u>	curuo wn.	Truck	Loader		Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-	machine:	100		100	100	NA	NA	NA
Ownership c	ost/hour:	\$108.25	\$3	6.61	\$90.43	NA	NA	NA
Operating c	ost/hour:	\$79.54	\$3	5.43	\$67.29	NA	NA	NA
%Utilizati	ion-riper:	NA		0	NA	NA	NA	NA
Ripper own. c	ost/hour:	NA	\$	0.00	\$0.00	NA	NA	NA
Ripper op. c	ost/hour:	NA	\$	0.00	\$0.00	NA	NA	NA
Operator c	ost/hour:	\$25.24	\$3	6.85	\$38.59	NA	NA	NA
Unit S	Subtotals:	\$213.03	\$10	8.89	\$196.31	NA	NA	NA
Number	of Units:	10		2	1	0	0	C
Group S	Subtotals:	Work:	\$2,348.08		Support:	\$196.31	Maint:	\$0.00
Total wo	ork team co	ost/hour: \$2,544.	39					
MATE	RIAL QU	JANTITIES						
Ini	tial volume	e: 30.000		CCY	Swell	factor: 1.320		
	ose volume		00	LCY	z wen	<u> </u>		
	Sc	ource of estimated	l volume	TR-3	7			
		e of estimated swe			landbook			
		Material Purch	ase Cost:	\$0.00				
		To	otal Cost:	\$0.00				
HOUR	RLY PR <i>(</i>	<u>ODUCTION</u>						
		22011011						
	C <mark>apacity:</mark> ayload (we	ight) Basis:						
TIUCK F	Material				Pounds/LCY			
			e - Broken					
	Rated P	•)		Pounds			

LCY

Payload Capacity: 31.07

Truck Travel (Haul & Return) Time:

maintained 3.0

Truck Bed (volume) Basis: Struck Volume:	24.20 LC	CY				
Heaped Volume:	31.40 LC					
Average Volume:	27.80 LC	CY				
Adjusted Volume:	31.07 LC	CY				
Final 7	Truck Volume Ba	ased on Number of l	Loader Passes:	28.38	LCY	
Loading Tool Capacity						
		1	Bucl	ket Size Class:	NA	_
Rated Capacity:	4.300	LCY (heaped)				-
Bucket Fill Factor:	1.100	Other - rock/dirt	mixtures (100	-120%) 1.100		=
Adjusted Capacity:	4.730	LCY				
<u>Job Condition Corrections:</u>		Site	Altitude (ft.): 1	11100 feet		
	Truck	Loader	Source			
Altitude Adj:	0.600	1.000	(CAT HB	·		
Job Efficiency:	0.830	0.830	(CAT HB	3)		
Net Correction:	0.498	0.830				
T 1' T 1G 1 T'	N Y 1 (D 1.	E:11		
Loading Tool Cycle Time:	Number of	Loading Tool Pass	es Required to	Fill Truck:		asses
Excavators and Front Shovels	<u>:</u>					
Machine Cycle Time vs.	Job Condition R	tating: NA				
Selected Value w						
Tuesda I and an A	Notomial Deseminti	·				
Track Loaders – N	nateriai Descripti	ion:				
Cycle Time Elements (min.):	ласенат Беѕспри	ion:				
	-	euver: NA		Dump: 0.10	00	
Cycle Time Elements (min.): Load: NA	Man	euver: NA		·		
Cycle Time Elements (min.):	Man	euver: NA	e (load, dump, r	·	0.500 minu	ııtes
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - U Cycle Time Factors	Man	euver: NA Loader Cycle Time	e (load, dump, r	·		ntes
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - U Cycle Time Factors Material:	Man Unadjusted Basic Mixed material (euver: NA Loader Cycle Time		maneuver): Factor (min.) 0.020	0.500 minu Source (Cat HB)	ites
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - U Cycle Time Factors Material: Stockpile:	Manumadjusted Basic Mixed material (Conveyor or doz	euver: NA Loader Cycle Time 0.02 zer piled 10 ft. high	and up 0.00	maneuver):	0.500 minu Source (Cat HB) (Cat HB)	ites
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - U Cycle Time Factors Material: Stockpile: Truck Ownership:	Mandusted Basic Mixed material (Conveyor or doz Common owner	euver: NA Loader Cycle Time 0.02 zer piled 10 ft. high ship of trucks and le	and up 0.00	Factor (min.) 0.020 0.000 -0.040	0.500 minu Source (Cat HB) (Cat HB) (Cat HB)	ites - - -
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - U Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Mandjusted Basic Mixed material (Conveyor or dozenom owner)	euver: NA Loader Cycle Time 0.02 zer piled 10 ft. high ship of trucks and le	and up 0.00	Factor (min.) 0.020 0.000 -0.040 -0.040	0.500 minu Source (Cat HB) ites 	
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - U Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Mandusted Basic Mixed material (Conveyor or doz Common owner	euver: NA Loader Cycle Time 0.02 zer piled 10 ft. high ship of trucks and le ton -0.04 0.00	and up 0.00 paders -0.04	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	0.500 minu	ites
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - U Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Mandjusted Basic Mixed material (Conveyor or dozenom owner)	euver: NA Loader Cycle Time 0.02 zer piled 10 ft. high ship of trucks and le ion -0.04 0.00 Net Cycle Time	and up 0.00 paders -0.04 Adjustment:	maneuver): Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060	0.500 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	ites
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - U Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Mandjusted Basic Mixed material (Conveyor or dozenom owner)	euver: NA Loader Cycle Time 0.02 zer piled 10 ft. high ship of trucks and le ton -0.04 0.00 Net Cycle Time Adjusted Loader	and up 0.00 paders -0.04 Adjustment:	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	0.500 minu	ites
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - U Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Mandjusted Basic Mixed material (Conveyor or dozenom owner)	euver: NA Loader Cycle Time 0.02 zer piled 10 ft. high ship of trucks and le ton -0.04 0.00 Net Cycle Time Adjusted Loader	and up 0.00 paders -0.04 Adjustment: Cycle Time:	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	ites
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - U Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	Mandjusted Basic Mixed material (Conveyor or dozenom owner)	euver: NA Loader Cycle Time 0.02 zer piled 10 ft. high ship of trucks and le ton -0.04 0.00 Net Cycle Time Adjusted Loader	and up 0.00 paders -0.04 Adjustment: Cycle Time: ne per Truck:	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	ites
Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - U Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time:	Mandjusted Basic Mixed material (Conveyor or doz Common owner Constant operati Nominal target (euver: NA Loader Cycle Time 0.02 zer piled 10 ft. high ship of trucks and le ion -0.04 0.00 Net Cycle Time Adjusted Loader Net Load Tir	and up 0.00 paders -0.04 Adjustment: Cycle Time: ne per Truck:	Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 2.300	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Page 3 of 3

18002.00

Haul Route:

Seg	#	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1		18002.00	-2.80	3.00	0.20	3005	6.255

Haul Time: **6.255** minutes Return Route: Travel Haul Distance Grade (%) Roll. Res Total Res Velocity Seg# Time (Ft) (%) (%) (fpm) (min)

3.00

2.80

Return Time: 6.777 minutes
Total Truck Cycle Time: 17.999 minutes

2742

6.777

Loading Tool unit

Production 516.00 LCY/Hour Adjusted for job efficiency: 428.28 LCY/Hour Truck Unit Production 94.61 LCY/Hour Adjusted for job efficiency: 78.52 LCY/Hour

Optimal No. of Trucks: 5 Truck(s) Selected Number of Trucks: 5 Truck(s)

Adjusted hourly truck team production: 392.62 LCY/Hour Adjusted single truck/loader team production: 392.62 LCY/Hour Adjusted multiple truck/loader team production: 785.24 LCY/Hour

5.80

JOB TIME AND COST

Fleet size: 2 Team(s) Total job time: 50.43 Hours

Unit cost: \$3.240 /LCY Total job cost: **\$128,315**

BULLDOZER WORK

Task description:	Robin	nson Lake - G	rade Tem	p Platforms In		
: Climax Mine		Permi	t Action:	2024-06	Permit/Job#:	M1977493
PROJECT IDEN	NTIFICATIO	<u>)N</u>				
Task #: P1002 Date: 6/14/2 User: ACY			Colorado Lake		Abbreviation: Filename:	None M493-P1002
Agency or	organization i	name: DRM	1S			
HOURLY EQUI	PMENT CO	<u>ST</u>				
Basic Machine:	Cat D6T LC	iP				
Horsepower: Blade Type:	200 Straight			<u> </u>		
Attachment:	NA			<u> </u>		
Shift Basis: Data Source:	1 per day (CRG)			 		
Cost Breakdown:				 Utilization %		
Ownership Cost/H	Iour:		\$99.72	NA		
Operating Cost/H			\$71.22	100		
Ripper own. Cost/H			\$0.00	NA		
Ripper op. Cost/H			\$0.00	0		
Operator Cost/H	Iour:		\$38.59	NA		
MATERIAL QU Initial Volume: Swell factor:	39,000 1.000		-			
Loose volume:	39,000 LCY		=			
Source of estimated Source of estimated		Division of Cat Handbo		on, Mining & Safety		
HOURLY PROI	<u>DUCTION</u>					
Average push distant Unadjusted hourly p		150 feet 212.5 LCY/hr	•			
Materials consisten	cy description:	Loose sto	ockpile 1.2			
Average push gradi Average site altitud) feet	_			
Material weight:	_2,800	lbs/LCY			_	
Weight description:	Granit	e - Broken				
Job Condition Corre	ection Factor erator Skill:	0.75	50	Source (AVG.)		
	onsistency:	1.20		(CAT HB)		
	ng method:	1.00		(GEN.)		
	Visibility:	1.00		(AVG.)		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	1.000	(CAT HB)
Altitude:	0.940	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5188

Adjusted unit production: 110.25 LCY/hr
Adjusted fleet production: 330.75 LCY/hr

JOB TIME AND COST

Fleet size: 3 Dozer(s)
Unit cost: \$1.900/LCY

Total job time: 117.91 Hours
Total job cost: \$74,118

TRUCK/LOADER TEAM WORK

Site: Climax Mine		Permit Acti	VIII 404T-00			
					Permit/Job#: <u>M</u>	1711473
PROJECT IDEN	TIFICATION					
Task #: P1003	3	State: Colora	ado	Ab	breviation: No	ne
Date: 6/13/2	2024	County: Lake			Filename: M4	193-P1003
User: ACY						
Agency or	organization nar	ne: DRMS				
HOURLY EQUI	PMENT COST	<u>r</u>		Shift bas	is: 1 per day	
			Equipment Descri	ption		
1	Truck Loader Tea		740 T 950H high lift			
Supp	ort Equipment -L		D6T XL			
	-Dı	ımp Area: NA				
Road M	aintenance – Mot	or Grader: NA ter Truck: NA				
	- vv a	ter fruck: NA				
Cost Breakdown:	Truck/Loa	ader Team	Support l	Equipment	Maintenan	ice Equipment
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	NA	NA
Ownership cost/hour:	\$108.25	\$36.61	\$90.43	NA	NA	NA
Operating cost/hour:	\$79.54	\$35.43	\$67.29	NA	NA	NA
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	NA	NA
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	NA	NA
Operator cost/hour:	\$25.24	\$36.85	\$38.59	NA	NA	NA
Unit Subtotals:	\$213.03	\$108.89	\$196.31	NA	NA	NA
Number of Units:	4	1	1	0	0	0
Group Subtotals:	Work:	\$961.01	Support:	\$196.31	Maint:	\$0.00
Total work team cos	st/hour: \$1,157. .	32				
MATERIAL QU	ANTITIES					
Initial volume:		CCY	Swell	factor: 1.000		
Loose volume:	8,100	LCY	•			
So	urce of estimated					
Source	of estimated swe		Handbook			
	Material Purch	ase Cost: \$0.00 otal Cost: \$0.00				
	10	παι Cost φο.οι	<u> </u>			
HOURLY PRO	DUCTION					
Truck Capacity:						
Truck Payload (weight	ght) Basis:					
	veight: 2,600		Pounds/LCY			
	iption: Limest	one - Broken	Pounds			

Truck Bed (volume) Basis Struck Volume:	24.20	LCY				
Heaped Volume:	31.40	LCY				
Average Volume:	27.80	LCY				
Adjusted Volume:	31.40	LCY				
Fii	nal Truck Volu	ıme Based on Numbe	r of Loader Passes:	28.38	LCY	
Loading Tool Capacity						
			Buck	et Size Class: N	Ā	_
Rated Capacity:						_
Bucket Fill Factor:			- avg. blasted (75 -	90%) 0.825		_
Adjusted Capacity:	3.548	LCY				
Job Condition Correctio	ns:		Site Altitude (ft.): 1	1100 feet		
	Truck	Loader	Source			
Altitude Adj:	0.600	1.000	(CAT HB))		
Job Efficiency:	0.830	0.830	(CAT HB))		
Net Correction:	0.498	0.830				
Loading Tool Cycle Tim	e: Nun	nber of Loading Tool	Passes Required to F	Fill Truck:	8 1	oasses
Loading Tool Cycle Tim Excavators and Front Sho		nber of Loading Tool	Passes Required to F	Fill Truck:	8 1	passes
Excavators and Front Sho	vels:		Passes Required to F	Fill Truck:	8 1	passes
Excavators and Front Sho Machine Cycle Time	vels:	ition Rating: <u>NA</u>	Passes Required to F	Fill Truck:	8 1	passes
Excavators and Front Sho Machine Cycle Time Selected Valu	vels: e vs. Job Cond e within this F	ition Rating: NA Basic Rating: NA			8 1	passes
Excavators and Front Sho Machine Cycle Time Selected Valu Track Loaders	vels: e vs. Job Cond e within this F s – Material De	ition Rating: NA Basic Rating: NA	Passes Required to F		8 1	passes
Excavators and Front Sho Machine Cycle Time Selected Valu	vels: e vs. Job Cond e within this F s – Material De	ition Rating: NA Basic Rating: NA				passes
Excavators and Front Sho Machine Cycle Time Selected Value Track Loaders Cycle Time Elements (minute of the NA)	vels: e vs. Job Cond within this E — Material De a.):	ition Rating: NA Basic Rating: NA escription: Maneuver: NA		Dump: 0.100)	
Excavators and Front Sho Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loaders	vels: e vs. Job Cond he within this E he — Material De he.): es - Unadjusted	ition Rating: NA Basic Rating: NA escription: Maneuver: NA		Dump: 0.100) .500 min	
Excavators and Front Sho Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factor	vels: e vs. Job Cond he within this E he — Material De he.): es - Unadjusted s	ition Rating: NA Basic Rating: NA escription: Maneuver: NA Basic Loader Cycle		Dump: 0.100 naneuver): 0.100 Factor (min.)		
Excavators and Front Sho Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factor Material	vels: e vs. Job Cond he within this E he — Material De he.): es - Unadjusted he — Mixed ma	ition Rating: NA Basic Rating: NA escription: Maneuver: NA	Time (load, dump, m	Dump: 0.100 naneuver): 0. Factor (min.) 0.020) .500 min	
Excavators and Front Sho Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factor	vels: e vs. Job Cond he within this E he — Material De he.): es - Unadjusted he is — Mixed ma he is — Conveyor	ition Rating: NA Basic Rating: NA escription: NA Maneuver: NA I Basic Loader Cycle aterial 0.02	Time (load, dump, n	Dump: 0.100 naneuver): 0.100 Factor (min.)	.500 min Source (Cat HB)	
Excavators and Front Sho Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factor Material Stockpile	vels: e vs. Job Cond the within this E s – Material De n.): es - Unadjusted s : Mixed ma :: Conveyor : Common	ition Rating: NA Basic Rating: NA escription: Maneuver: NA I Basic Loader Cycle aterial 0.02 or dozer piled 10 ft.	Time (load, dump, n	Dump: 0.100 naneuver): 0. Factor (min.) 0.020 0.000	Source (Cat HB) (Cat HB)	
Excavators and Front Sho Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factor Material Stockpile Truck Ownership	vels: e vs. Job Cond the within this F s – Material De th.): es - Unadjusted s : Mixed ma the Conveyor the Constant of	ition Rating: NA Basic Rating: NA escription: Maneuver: NA Basic Loader Cycle atterial 0.02 or dozer piled 10 ft. 1 ownership of trucks a operation -0.04 carget 0.00	Time (load, dump, m	Dump: 0.100 naneuver): 0.100 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	Source (Cat HB) (Cat HB) (Cat HB)	
Excavators and Front Sho Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factor Materia Stockpile Truck Ownership Operation	vels: e vs. Job Cond the within this F s – Material De th.): es - Unadjusted s : Mixed ma the Conveyor the Constant of	ition Rating: NA Basic	Time (load, dump, m	Dump: 0.100 naneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	
Excavators and Front Sho Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factor Materia Stockpile Truck Ownership Operation	vels: e vs. Job Cond the within this F s – Material De th.): es - Unadjusted s : Mixed ma the Conveyor the Constant of	ition Rating: NA Basic	Time (load, dump, m	Dump: 0.100 naneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	
Excavators and Front Sho Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factor Materia Stockpile Truck Ownership Operation	vels: e vs. Job Cond the within this F s – Material De th.): es - Unadjusted s : Mixed ma the Conveyor the Constant of	ition Rating: NA Basic	Time (load, dump, m	Dump: 0.100 naneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	
Excavators and Front Sho Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factor Materia Stockpile Truck Ownership Operation	vels: e vs. Job Cond the within this F s – Material De th.): es - Unadjusted s : Mixed ma the Conveyor the Constant of	ition Rating: NA Basic	Time (load, dump, m	Dump: 0.100 naneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	
Excavators and Front Sho Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factor Materia Stockpile Truck Ownership Operatior Dump Targer	vels: e vs. Job Cond the within this E s – Material De th.): es - Unadjusted s : Mixed ma the Conveyor to Common the Constant of the Nominal to	ition Rating: Basic Rating: Maneuver: Maneuver: NA Basic Loader Cycle Adjusted Loading: NA NA NA NA NA NA NA NA NA N	Time (load, dump, man high and up 0.00 and loaders -0.04 Time Adjustment:	Dump: 0.100 naneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	
Excavators and Front Sho Machine Cycle Time Selected Valu Track Loaders Cycle Time Elements (min Load: NA Wheel and Track Loader Cycle Time Factor Material Stockpile Truck Ownership Operation Dump Targe	vels: e vs. Job Cond the within this F s – Material De the se – Material De the se – Unadjusted the se – U	ition Rating: NA Basic Rating: NA Basic Rating: NA Basic Rating: NA Basic Rating: NA Basic Rating: NA Basic Rating: NA Basic Rating: NA Basic Rating: NA Basic Rating: NA Basic Loader Cycle Adjusted In Italian Rating: National Rating Natio	Time (load, dump, ment) high and up 0.00 and loaders -0.04 Time Adjustment: ader Cycle Time: d Time per Truck:	Dump: 0.100 naneuver): 0.100 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 3.180	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	utes

<u>Truck Travel (Haul & Return) Time:</u> Road Condition: <u>Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0</u>

**			
Hau	ı v	α	to.
Hau	1 1/	.vu	LU.

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	16738.00	-1.70	3.00	1.30	3005	5.928

Haul Time: 5.928 minutes

Return Route:

recturn re	rate.					
Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	16738.00	1.70	3.00	4.70	3005	5.795

Return Time: 5.795 minutes
Total Truck Cycle Time: 17.570 minutes

Loading Tool unit

Production 407.37 LCY/Hour Adjusted for job efficiency: 338.12 LCY/Hour Truck Unit Production

_____96.92 LCY/Hour Adjusted for job efficiency: _____80.44 LCY/Hour

Optimal No. of Trucks: 4 Truck(s) Selected Number of Trucks: 4 Truck(s)

Adjusted hourly truck team production: 321.76 LCY/Hour Adjusted single truck/loader team production: 321.76 LCY/Hour Adjusted multiple truck/loader team production: 321.76 LCY/Hour

JOB TIME AND COST

Fleet size: _____ Team(s) Total job time: _____ 25.19 Hours

Unit cost: \$3.597 /LCY Total job cost: **\$29,156**

TRUCK/LOADER TEAM WORK

Task description:	Robinso	on Lake - Haul	Γopsoil 28			
Site: Climax Mine		Permit Act	ion: <u>2024-06</u>		Permit/Job#: M	1977493
PROJECT IDEN	NTIFICATION	Ī				
Task #: P100 Date: 6/13/ User: ACY	4 2024	State: Colo County: Lake		Ab	breviation: No M4	ne 193-P1004
Agency o	r organization na	me: DRMS				
HOURLY EQU	IPMENT COS	<u>T</u>		Shift bas	is: 1 per day	
			Equipment Descri	ption		
	Truck Loader Tea	-Loader: CA	t 740 AT 950H high lift			
Supp	oort Equipment -I	Load Area: Ca ump Area: NA	t D6T XL			
Road M	Iaintenance –Mot					
	-Wa	ater Truck: NA	A			
Cost Breakdown:		ader Team		Equipment		ce Equipment Water Truck
	Truck	Loader	Load Area	Dump Area	Motor Grader	
%Utilization-machine:	100	100	100	NA	NA	NA
Ownership cost/hour:	\$108.25	\$36.61	\$90.43	NA	NA	NA
Operating cost/hour:	\$79.54	\$35.43	\$67.29	NA NA	NA NA	NA NA
%Utilization-riper: Ripper own. cost/hour:	NA NA	\$0.00	NA \$0.00	NA NA	NA NA	NA NA
Ripper op. cost/hour:	NA NA	\$0.00	\$0.00	NA NA	NA	NA NA
Operator cost/hour:	\$25.24	\$36.85	\$38.59	NA	NA	NA
Unit Subtotals:	\$213.03	\$108.89	\$196.31	NA	NA	NA
Number of Units:	12	3	1	0	0	0
Group Subtotals:	Work:	\$2,883.03	Support:	\$196.31	Maint:	\$0.00
Total work team co		34				
MATERIAL QU	<u>JANTITIES</u>					
Initial volume Loose volume		70 CC		factor: 1.215		
	ource of estimated e of estimated swe Material Purch To	ell factor: Cat	Handbook 00			
HOURLY PRO Truck Capacity: Truck Payload (we Material	ight) Basis:		Pounds/LCY			
	ription: Top So	oil				

Pounds

LCY

Rated Payload:

Payload Capacity:

87,000

54.38

Truck Travel (Haul & Return) Time:

maintained 3.0

Rated Capacity: 4.300 LCY (heaped) Bucket Fill Factor: 1.050 Moist loam or sandy clay (100% - Adjusted Capacity: 4.515 LCY Job Condition Corrections: Site Altitude (ft.): 11 Truck Loader Source Altitude Adj: 0.600 1.000 (CAT HB) Job Efficiency: 0.830 0.830 (CAT HB) Net Correction: 0.498 0.830		LCY	
Heaped Volume: 31.40 LCY Average Volume: 27.80 LCY Adjusted Volume: 31.40 LCY Adjusted Volume: 31.40 LCY Final Truck Volume Based on Number of Loader Passes: _ Loading Tool Capacity	t Size Class: <u>N</u>		 - -
Average Volume: 27.80	t Size Class: <u>N</u>		 - -
Final Truck Volume Based on Number of Loader Passes: Loading Tool Capacity Bucke Rated Capacity: 4.300 LCY (heaped) Bucket Fill Factor: 1.050 Moist loam or sandy clay (100% - Adjusted Capacity: 4.515 LCY Job Condition Corrections: Site Altitude (ft.): 11 Truck Loader Source Altitude Adj: 0.600 1.000 (CAT HB) Job Efficiency: 0.830 0.830 (CAT HB) Net Correction: 0.498 0.830	t Size Class: <u>N</u>		 - -
Bucke Rated Capacity: 4.300 LCY (heaped)	t Size Class: <u>N</u>		 _ _
Bucket Rated Capacity: 4.300 LCY (heaped) Bucket Fill Factor: 1.050 Moist loam or sandy clay (100% - Adjusted Capacity: 4.515 LCY Site Altitude (ft.): 11 Truck Loader Source Altitude Adj: 0.600 1.000 (CAT HB) Job Efficiency: 0.830 0.830 (CAT HB) Net Correction: 0.498 0.830	110%) 1.050	A	 - -
Rated Capacity: 4.300 LCY (heaped) Bucket Fill Factor: 1.050 Moist loam or sandy clay (100% - Adjusted Capacity: 4.515 LCY Site Altitude (ft.): 11 Truck Loader Source Altitude Adj: 0.600 1.000 (CAT HB) Job Efficiency: 0.830 0.830 (CAT HB) Net Correction: 0.498 0.830	110%) 1.050	A	
Bucket Fill Factor: 1.050			_
Adjusted Capacity: 4.515 LCY Job Condition Corrections: Site Altitude (ft.): 11 Truck Loader Source Altitude Adj: 0.600 1.000 (CAT HB) Job Efficiency: 0.830 0.830 (CAT HB) Net Correction: 0.498 0.830			_
Job Condition Corrections: Site Altitude (ft.): 11 Truck Loader Source Altitude Adj: 0.600 1.000 (CAT HB) Job Efficiency: 0.830 0.830 (CAT HB) Net Correction: 0.498 0.830	100 feet		
Truck Loader Source Altitude Adj: 0.600 1.000 (CAT HB) Job Efficiency: 0.830 0.830 (CAT HB) Net Correction: 0.498 0.830	100 feet		
Altitude Adj: 0.600 1.000 (CAT HB) Job Efficiency: 0.830 0.830 (CAT HB) Net Correction: 0.498 0.830			
Job Efficiency: 0.830 0.830 (CAT HB) Net Correction: 0.498 0.830			
Net Correction: 0.498 0.830			
	11 Tr 1 .	7	
Loading Tool Cycle Time: Number of Loading Tool Passes Required to Fi	II 1 TUCK:	7 1	passes
Excavators and Front Shovels:			
Machine Cycle Time vs. Job Condition Rating: NA			
Selected Value within this Basic Rating: NA			
Track Loaders – Material Description:			
Cycle Time Elements (min.):			
Load: NA Maneuver: NA	Dump: 0.100)	
Wheel and Track Loaders - Unadjusted Basic Loader Cycle Time (load, dump, ma	neuver). 0	.500 min	utes
	Factor (min.)		ates
Cycle Time Factors Material: Mixed material 0.02	0.020	Source (Cat HB)	_
Stockpile: Conveyor or dozer piled 10 ft. high and up 0.00	0.000	(Cat HB)	_
Truck Ownership: Common ownership of trucks and loaders -0.04	-0.040	(Cat HB)	_
Operation: Constant operation -0.04	-0.040	(Cat HB)	=
Dump Target: Nominal target 0.00	0.000	(Cat HB)	
Net Cycle Time Adjustment:	-0.060	minutes	
Adjusted Loader Cycle Time:	0.440	minutes	
Net Load Time per Truck:	2.740	minutes	
Truck Cycle Time:			
Truck Exchange Time: 0.60 Minutes Adjusted for	or site altitude:	1.000	Minute
Truck Load Time: 2.740 Minutes Adjusted for	or site altitude:	2.740	Minutes
Truck Loud Time. 2.710 Williams Adjusted Re	or site altitude:	1.667	Minutes

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	9926.00	1.80	3.00	4.80	1845	5.677

Haul Time: 5.677 minutes

Return Route:

1tetarii 1te	rate.					
Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	9926.00	-1.80	3.00	1.20	3706	2.888

Return Time: 2.888 minutes
Total Truck Cycle Time: 13.972 minutes

Loading Tool unit

Production _____507.03 ___ LCY/Hour Adjusted for job efficiency: ____420.84 ___ LCY/Hour

Truck Unit Production

135.72 LCY/Hour Adjusted for job efficiency: 112.65 LCY/Hour

Optimal No. of Trucks: _____ 4 ___ Truck(s) Selected Number of Trucks: ____ 4 ___ Truck(s)

Adjusted hourly truck team production: 450.61 LCY/Hour Adjusted single truck/loader team production: 420.84 LCY/Hour Adjusted multiple truck/loader team production: 1,262.51 LCY/Hour

JOB TIME AND COST

Fleet size: 3 Team(s) Total job time: 132.81 Hours

Unit cost: \$2.439 /LCY Total job cost: \$408,958

BULLDOZER WORK

T	ask description:		Robin	son Lake -	Grade Top	soil 28		
e: _	Climax Mine			Per	mit Action:	2024-06	Permit/Job#:	M1977493
P	ROJECT IDEN	TIFI	CATIO	<u>N</u>				
	Task #: P1005 Date: 6/13/2 User: ACY			State: County:	Colorado Lake		Abbreviation: Filename:	None M493-P1005
	Agency or	organ	ization r	name: DI	RMS			
<u>H</u>	IOURLY EQUII	PME	NT CO	<u>ST</u>				
	Basic Machine:		D8T - 8	SU				
	Horsepower: Blade Type:	310	ni-Unive	rao1		<u> </u>		
	Attachment:	NA	II-UIIIVE	ısaı		<u>—</u>		
	Shift Basis: Data Source:		er day .G)					
<u>C</u>	ost Breakdown:		,				,	
	Ownership Cost/Ho	Ollr'			\$173.32	<u>Utilization %</u> NA	<u>0</u>	
	Operating Cost/Ho				\$109.71	100		
R	ipper own. Cost/He				\$0.00	NA		
	Ripper op. Cost/Ho	our:			\$0.00	0		
	Operator Cost/He	our:			\$38.59	NA		
T	otal unit Cost/Hour otal Fleet Cost/Hou IATERIAL QU	ır:	\$321.6 \$964.8					
<u>1V</u>	Initial Volume:	165,6						
	Swell factor:	1.000						
	Loose volume:	165,6	600 LCY	•				
	ource of estimated ource of estimated			TR-37 Cat Hand	lbook			
<u>H</u>	IOURLY PROD	UCT	<u>ION</u>					
	verage push distan Inadjusted hourly p			250 feet 377.8 LCY	/hr			
M	Materials consistenc	y des	cription:	Loose	stockpile 1.2			
	verage push gradie verage site altitude		0 % 11,100	feet				
1./	Saterial weight:		1,600 1	lbs/LCY				
10.								
	Veight description:	-	Top So	oil				
W	ob Condition Corre		Factor		750	Sourc		
W	ob Condition Corre Oper	ator S	Factor Skill:	0	.750	(AVG	.)	
W	ob Condition Corre	ator S nsiste	Factor Skill:ency:	0	.750 .200 .000		.) (B)	

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: 324.64 LCY/hr
Adjusted fleet production: 973.92 LCY/hr

JOB TIME AND COST

Fleet size: 3 Dozer(s)
Unit cost: \$0.991/LCY

Total job time: 170.03 Hours
Total job cost: \$164,057

TRUCK/LOADER TEAM WORK

Task description:	Robinso	on Lake - Haul Sl	udge Removal							
Site: Climax Mine		Permit Actio	on: 2024-06		Permit/Job#: N	11977493				
PROJECT IDE	NTIFICATION	<u>I</u>								
Task #: P100	6	State: Colora	do	Ab		one				
Date: <u>6/13/</u>		County: <u>Lake</u>			Filename: M	493-P1006				
User: ACY	<u> </u>									
Agency o	r organization nar	ne: DRMS								
HOURLY EQUIPMENT COST Shift basis: 1 per day										
 ,	T. 1 T. 1 T.		Equipment Descri	ption						
,	Truck Loader Tea		/40 7 950H high lift							
Supp	oort Equipment -I		D6T XL							
	-D	ump Area: NA								
Road M	Iaintenance – Mot									
	- VV 2	nter Truck: NA								
Cost Breakdown:	Truck/Lo	ader Team	Support I	Equipment	Maintena	nce Equipment				
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck				
%Utilization-machine:	100	100	100	NA	NA	NA				
Ownership cost/hour:	\$108.25	\$36.61	\$90.43	NA	NA	NA				
Operating cost/hour:	\$79.54	\$35.43	\$67.29	NA	NA	NA				
%Utilization-riper:	NA	0	NA	NA	NA	NA				
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	NA	NA				
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	NA	NA				
Operator cost/hour:	\$25.24	\$36.85	\$38.59	NA	NA	NA				
Unit Subtotals:	\$213.03	\$108.89	\$196.31	NA	NA	NA				
Number of Units:	12	3	1	0	0	0				
Group Subtotals:	Work:	\$2,883.03	Support:	\$196.31	Maint:	\$0.00				
Total work team co		34								
MATERIAL QU	JANTITIES									
Initial volume		CCY	Swell	factor: 1.135						
Loose volume	2: 732,4	53 LCY								
	ource of estimated		•							
Source	e of estimated swe		andbook							
	Material Purch	ase Cost: $\frac{\$0.00}{\$0.00}$								
	10	φο.σο								
HOURLY PRO	<u>DDUCTION</u>									
Truck Capacity:										
Truck Payload (we			Pounds/LCY							
Material Desc		Wet excavated	FOURIUS/LCY							

Pounds LCY

Rated Payload: _ Payload Capacity: _

87,000

32.22

Struck Volume:	24.20 L	.CY				
Heaped Volume:		.CY				
Average Volume:		.CY				
Adjusted Volume:		.CY				
<u> </u>						
Final '	Fruck Volume I	Based on Number of l	Loader Passes:	30.96	LCY	
Loading Tool Capacity			D 1	. C. Cl N		
Rated Capacity:	4.300	LCY (heaped)	Виск	et Size Class: N	A	_
Bucket Fill Factor:	0.900	Other - cemented	materials (85	95%) 0 900		_
Adjusted Capacity:	3.870	LCY	inaterials (65	- 9370) 0.900		_
Job Condition Corrections:			Altitude (ft.): 1	1100 foot		
Job Condition Corrections.	Truck		Source	<u>1100</u> 1001		
Altitudo Adi:	0.600	Loader 1.000	(CAT HB)			
Altitude Adj: Job Efficiency:	0.830	0.830	(CAT HB)			
Job Efficiency.	0.830	0.830	(CAI IID)			
Net Correction:	0.498	0.830				
Loading Tool Cycle Time:	Number	of Loading Tool Pass	es Required to F	ill Truck:	81	passes
Excavators and Front Shovel	s:					
Machine Cycle Time vs	. Job Condition					
Machine Cycle Time vs Selected Value w	. Job Condition vithin this Basic	Rating: NA				
Machine Cycle Time vs Selected Value w Track Loaders – I	. Job Condition vithin this Basic	Rating: NA				
Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.):	. Job Condition vithin this Basic Material Descrip	Rating: NA otion:		Dummi 0 100		
Machine Cycle Time vs Selected Value w Track Loaders – I	. Job Condition vithin this Basic Material Descrip	Rating: NA		Dump: 0.100		
Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.):	. Job Condition vithin this Basic Material Descrip Ma	Rating: NA otion: NA	e (load, dump, m	·		utes
Machine Cycle Time vs Selected Value w Track Loaders – l Cycle Time Elements (min.): Load: NA	. Job Condition vithin this Basic Material Descrip Ma	Rating: NA otion: NA	e (load, dump, m	aneuver):0.	500 min	utes
Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: <u>NA</u> Wheel and Track Loaders -	. Job Condition vithin this Basic Material Descrip Ma	Rating: NA otion: NA neuver: NA ic Loader Cycle Time	e (load, dump, m	·		utes
Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors	. Job Condition vithin this Basic Material Descrip Ma Unadjusted Bas	Rating: NA otion: NA neuver: NA ic Loader Cycle Time		aneuver): 0. Factor (min.)	500 minu	utes
Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material:	. Job Condition vithin this Basic Material Descrip Ma Unadjusted Bas Mixed materia Conveyor or description	Rating: NA otion: NA ineuver: NA ic Loader Cycle Time 1 0.02	and up 0.00	aneuver):0. Factor (min.) 0.020	Source (Cat HB)	utes
Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	. Job Condition vithin this Basic Material Descrip Ma Unadjusted Bas Mixed materia Conveyor or de Common owners	Rating: NA otion: NA ic Loader Cycle Time 1 0.02 ozer piled 10 ft. high ership of trucks and leation -0.04	and up 0.00	aneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership:	. Job Condition vithin this Basic Material Descrip Ma-Unadjusted Bas Mixed materia Conveyor or de Common owner.	Rating: NA otion: Inneuver: NA ic Loader Cycle Time 1 0.02 ozer piled 10 ft. high ership of trucks and leation -0.04 t 0.00	and up 0.00 paders -0.04	aneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	Source (Cat HB) utes	
Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	. Job Condition vithin this Basic Material Descrip Ma Unadjusted Bas Mixed materia Conveyor or de Common owners	Rating: NA otion: Inneuver: NA ic Loader Cycle Time 1 0.02 ozer piled 10 ft. high ership of trucks and leation -0.04 t 0.00 Net Cycle Time	and up 0.00 paders -0.04	aneuver):0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	utes
Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	. Job Condition vithin this Basic Material Descrip Ma Unadjusted Bas Mixed materia Conveyor or de Common owners	Rating: NA otion: Inneuver: NA ic Loader Cycle Time 1 0.02 ozer piled 10 ft. high ership of trucks and leation -0.04 t 0.00 Net Cycle Time Adjusted Loader	and up 0.00 paders -0.04 Adjustment: Cycle Time:	aneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	utes
Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	. Job Condition vithin this Basic Material Descrip Ma Unadjusted Bas Mixed materia Conveyor or de Common owners	Rating: NA otion: Inneuver: NA ic Loader Cycle Time 1 0.02 ozer piled 10 ft. high ership of trucks and leation -0.04 t 0.00 Net Cycle Time Adjusted Loader	and up 0.00 paders -0.04	aneuver):0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	utes
Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	. Job Condition vithin this Basic Material Descrip Ma Unadjusted Bas Mixed materia Conveyor or de Common owners	Rating: NA otion: Inneuver: NA ic Loader Cycle Time 1 0.02 ozer piled 10 ft. high ership of trucks and leation -0.04 t 0.00 Net Cycle Time Adjusted Loader	and up 0.00 paders -0.04 Adjustment: Cycle Time:	aneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	utes
Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target:	. Job Condition vithin this Basic Material Descrip Ma Unadjusted Bas Mixed materia Conveyor or descrip Common owner Constant opera	Rating: NA otion: Inneuver: NA ic Loader Cycle Time 1 0.02 ozer piled 10 ft. high ership of trucks and leation -0.04 t 0.00 Net Cycle Time Adjusted Loader	and up 0.00 paders -0.04 Adjustment: Cycle Time: ne per Truck:	aneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	utes
Machine Cycle Time vs Selected Value w Track Loaders – I Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time:	. Job Condition vithin this Basic Material Descrip Ma Unadjusted Bas Mixed materia Conveyor or de Common owner Constant opera Nominal target	Rating: NA otion: Inneuver: NA ic Loader Cycle Time 1 0.02 ozer piled 10 ft. high ership of trucks and leation -0.04 t 0.00 Net Cycle Time Adjusted Loader Net Load Time	and up 0.00 paders -0.04 Adjustment: Cycle Time: ne per Truck: Adjusted f	aneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 3.180	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	

<u>Truck Travel (Haul & Return) Time:</u> Road Condition: <u>Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0</u>

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	10915.00	2.70	3.00	5.70	1566	7.191

Haul Time: 7.191 minutes

Return Route:

ixcum ixc	atc.					
Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	10915.00	-2.70	3.00	0.30	3706	3.130

Return Time: 3.130 minutes
Total Truck Cycle Time: 16.168 minutes

Loading Tool unit

Production 444.40 LCY/Hour Adjusted for job efficiency: 368.85 LCY/Hour

Truck Unit Production

114.90 LCY/Hour

Adjusted for job efficiency: 95.36 LCY/Hour

Optimal No. of Trucks: 4 Truck(s) Selected Number of Trucks: 4 Truck(s)

Adjusted hourly truck team production: 381.45 LCY/Hour Adjusted single truck/loader team production: 368.85 LCY/Hour Adjusted multiple truck/loader team production: 1,106.56 LCY/Hour

JOB TIME AND COST

Fleet size: 3 Team(s) Total job time: **661.92** Hours

Unit cost: \$2.783 /LCY Total job cost: **\$2,038,272**

BULLDOZER WORK

Task des	scription:	Robinson	Lake - Spread Slu	idge Removal		
: Clima	x Mine		Permit Action:	2024-06	Permit/Job#:	M1977493
PROJE	ECT IDEN	<u>TIFICATION</u>				
Task :	#: P1007	7	State: Colorado		Abbreviation:	None
Dat			ounty: Lake		Filename:	M493-P1007
Use	er: ACY		<u> </u>		-	
	Agency or	organization name	e: DRMS			
HOURI	LY EOUI	PMENT COST				
	Machine:	Cat D8T - 8SU				
	rsepower:	310				
Bla	ade Type:	Semi-Universal				
	tachment:	NA				
	hift Basis:	1 per day				
Dat	ta Source:	(CRG)				
Cost Bre	akdown:					
				Utilization %		
Owners	ship Cost/H	lour:	\$173.32	NA		
Operat	ting Cost/H	lour:	\$109.71	100		
	wn. Cost/H		\$0.00	NA		
Ripper	op. Cost/H	lour:	\$0.00	0		
Opera	ator Cost/H	lour:	\$38.59	NA		
Total uni	it Cost/Hou	ır: \$321.62				
	et Cost/Ho					
10001110	200 0000 110	42,000,00				
MATE	RIAL OU	ANTITIES				
	Volume: _	732,453				
~	ell factor:	1.000				
Loose	volume: _	732,453 LCY				
Source o	of estimated	volume: D	ivision of Reclamat	tion, Mining & Safety		
Source o	of estimated	swell factor: C	at Handbook			
HOUD						
HOUK	LY PROL	<u>DUCTION</u>				
	push distar		feet			
Unadjust	ted hourly p	production: 377.	.8 LCY/hr			
Materials	s consistenc	cy description: _	Wet, highly cohesi	ve 0.8		
	push gradie site altitude		t			
Material	weight:	2,700 lbs/L	_CY			
Weight d	description:	Earth - We	et excavated			
Job Cond	dition Corre	ection Factor		Source		
		rator Skill:	0.750	(AVG.)		
		onsistency:	0.800	(CAT HB)		
	Material CC	monotoney.	0.000	(,		
		ng method:	1.000	(GEN.)		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.852	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3819

Adjusted unit production: 144.28 LCY/hr
Adjusted fleet production: 721.4 LCY/hr

JOB TIME AND COST

Fleet size: 5 Dozer(s)
Unit cost: \$2.229/LCY

Total job time: 1,015.32 Hours
Total job cost: \$1,632,715

TRUCK/LOADER TEAM WORK

Site: Climax Mine		Permit Actio	on: 2024-06		Permit/Job#: M	1977493
PROJECT IDEN		[
Task #: P1008		State: Colora	do	Ab	breviation: No	
Date: $\frac{8/21/2}{\text{User:}}$	2024	County: <u>Lake</u>			Filename: M4	93-P1008
Agency or	organization nar	ne: DRMS				
HOURLY EQUI	PMENT COST	<u>r</u>		Shift bas	is: 1 per day	
			Equipment Descri	ption		
Т	ruck Loader Tea					
Supp	ort Equipment -L		「950H high lift D6T XL			
		ump Area: NA	0 0 1 1 1 1 1			
Road M	aintenance –Mot					
	- w a	ter Truck: NA				
Cost Breakdown:	Truck/Loa	ader Team	Support I	Equipment	Maintenan	ce Equipment
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100	100	NA	NA	NA
Ownership cost/hour:	\$108.25	\$36.61	\$90.43	NA	NA	NA
Operating cost/hour:	\$79.54	\$35.43	\$67.29	NA	NA	NA
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	NA	NA
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	NA	NA
Operator cost/hour:	\$25.24	\$36.85	\$38.59	NA	NA	NA
Unit Subtotals:	\$213.03	\$108.89	\$196.31	NA	NA	NA
Number of Units:	14	2	1	0	0	0
Group Subtotals:	Work:	\$3,200.20	Support:	\$196.31	Maint:	\$0.00
Total work team cos	st/hour: \$3,396.	51				
MATERIAL QU	<u>ANTITIES</u>					
Initial volume:		CCY	Swell	factor: 1.320		
Loose volume:	39,60	00 LCY				
	urce of estimated					
Source	of estimated swe		landbook			
	Material Purch	ase Cost: $\frac{\$0.00}{\$0.00}$				
	-	<u> </u>				
HOURLY PRO	DUCTION					
Truck Canacity						
Truck Capacity: Truck Payload (weighted)	ght) Basis:					
Truck Payload (weight) Material w	veight: 2,800		Pounds/LCY			
Truck Payload (weight) Material w	veight: 2,800 Granite	e - Broken	Pounds/LCY Pounds			

Truck Travel (Haul & Return) Time:

maintained 3.0

TIUCK LOAU TIIIIC	2.300	- Williams	Aujusteu	for site altitude: for site altitude:	2.300	Minu
Truck Exchange Time Truck Load Time		Minutes Minutes		for site altitude:	2.300	Minu —
Truck Cycle Time:	0.60	NC .		C 1. 1.1. 1	1.000	3.7
		Net Load T	ime per Truck:	2.300	minutes	
		Adjusted Load		0.440	minutes	
, ,		Net Cycle Tin	ne Adjustment:	-0.060	minutes	_
Dump Target:	Nominal targe			0.000	(Cat HB)	_
Operation:	Constant oper			-0.040	(Cat HB)	_
Truck Ownership:	•	nership of trucks and		-0.040	(Cat HB)	_
Stockpile:		dozer piled 10 ft. hig	h and up 0 00	0.000	(Cat HB)	_
Cycle Time Factors Material:	Mixed materi	al 0.02		Factor (min.) 0.020	Source (Cat HB)	_
Wheel and Track Loaders	- Unadjusted Ba	sic Loader Cycle Tir	ne (load, dump, 1	-	.500 min	utes
Load: NA		aneuver: NA		Dump: 0.100		
Cycle Time Elements (min.)		A		D 0.100		
Track Loaders –		iption:				
Selected Value						
Machine Cycle Time v						
Excavators and Front Shove	ls:					
Loading Tool Cycle Time:	Number	of Loading Tool Pa	sses Required to	Fill Truck:	6	passes
Net Correction:	0.498	0.830				
Job Efficiency:	0.830	0.830	(CAT HE	5)		
Altitude Adj:	0.600	1.000	(CAT HE	,		
A 1.1. 1 A 11	Truck	Loader	Source	.,		
Job Condition Corrections			te Altitude (ft.):	11100 feet		
_						
Adjusted Capacity:	4.730	LCY	i matures (100	-120/0/1.100		_
Rated Capacity: Bucket Fill Factor:	4.300 1.100	LCY (heaped) Other - rock/dir	t miytures (100	-120%) 1.100		_
		1	Buc	ket Size Class: N	A	_
Loading Tool Capacity						
	Truck Volume	Based on Number of	Loader Passes:	28.38	LCY	
rajusted volume.	31.07					
Adjusted Volume:		LCY				
Hooned Waluman		LCY				
Heaped Volume: Average Volume:	31.40 27.80	LCY LCY				

CIRCES Cost Estimating Software

Road Condition: Firm, smooth, rolling, dirt/lt. surfaced, watered,

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	18002.00	2.80	3.00	5.80	1566	11.727

Haul Time: 11.727 minutes

Return Route:

Retain Route.								
Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)		
1	18002.00	-2.80	3.00	0.20	3706	5.040		

Return Time: 5.040 minutes
Total Truck Cycle Time: 21.734 minutes

Loading Tool unit

Production 516.00 LCY/Hour Adjusted for job efficiency: 428.28 LCY/Hour Truck Unit Production 78.35 LCY/Hour Adjusted for job efficiency: 65.03 LCY/Hour

Optimal No. of Trucks: 7 Truck(s) Selected Number of Trucks: 7 Truck(s)

Adjusted hourly truck team production: 455.20 LCY/Hour Adjusted single truck/loader team production: 428.28 LCY/Hour Adjusted multiple truck/loader team production: 856.56 LCY/Hour

JOB TIME AND COST

Fleet size: _____ 2 Team(s) Total job time: _____ 46.23 Hours

Unit cost: \$3.965 /LCY Total job cost: \$157,026

BULLDOZER WORK

Task description:	Robin	nson Lake -	Grade Tem	p Platforms Out		
: Climax Mine		Peri	mit Action:	2024-06	Permit/Job#:	M1977493
PROJECT IDEN	NTIFICATIO	<u>)N</u>				
Task #: P1009 Date: 8/21/2 User: ACY		State: County:	Colorado Lake		Abbreviation: Filename:	None M493-P1009
Agency or	organization i	name: _DR	MS			
HOURLY EQUI	PMENT CO	<u>ST</u>				
Basic Machine:	Cat D6T LC	iP				
Horsepower:	200			_		
Blade Type: Attachment:	Straight NA					
Shift Basis: Data Source:	1 per day (CRG)			<u> </u>		
Cost Breakdown:						
Ownership Cost/H	lour.		\$99.72	<u>Utilization %</u> NA		
Operating Cost/H			\$71.22	100		
Ripper own. Cost/H			\$0.00	NA		
Ripper op. Cost/H			\$0.00	0	 ;	
Operator Cost/H	lour:		\$38.59	NA		
Initial Volume: Swell factor:	39,000 1.000		<u>—</u>			
Loose volume:	39,000 LCY		_			
Source of estimated Source of estimated		Division of Cat Hand		on, Mining & Safety		
HOURLY PROI	<u>DUCTION</u>					
Average push distar Unadjusted hourly p		150 feet 212.5 LCY/	hr			
Materials consisten	cy description:	Loose s	stockpile 1.2			
Average push gradi Average site altitud) feet	<u></u>			
Material weight:	2,800	lbs/LCY			<u> </u>	
Weight description:	Granit	e - Broken				
Job Condition Corre	ection Factor rator Skill:	0	750	Source (AVG.)		
	onsistency:		200	(CAT HB)		
	ng method:		000	(GEN.)		
	Visibility:		000	(AVG.)		

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	1.000	(CAT HB)
Altitude:	0.940	(CAT HB)
Material Weight:	0.821	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5188

Adjusted unit production: 110.25 LCY/hr
Adjusted fleet production: 330.75 LCY/hr

JOB TIME AND COST

Fleet size: 3 Dozer(s)
Unit cost: \$1.900/LCY

Total job time: 117.91 Hours
Total job cost: \$74,118

BULLDOZER RIPPING WORK

	Task description:	Rob	inson Lake - Roads - Rip	ping							
Site:	Climax Mine		Permit Action:	2024-06	Permit/.	Job#:	M1977493				
	PROJECT ID	ENTIFICATI	ON								
	Task #: P10	010	State: Colorado		Abbreviati	ion: N	None				
		1/2024	County: Lake		Filena		M493-P1010				
	User: AC	CY									
	Agency or organization name: DRMS										
	HOURLY EQ	UIPMENT C	<u>OST</u>								
	Basic	Machine: Car	t D7R DS Series II LGP		Horsepower:	24	0				
	Ripper Att		Shank Ripper	 ;	Shift Basis:	1 per					
					Data Source:	(CR	G)				
	Cost Breakdown:	<u>.</u>									
					Utilization %						
		Ownership C		\$90.24	NA NA						
	D:	Operating C		\$78.95	100 NA						
		er Ownership C per Operating C		\$9.25 \$5.20	NA 100						
	Kipj	Operator C		\$38.59	NA						
		Total Unit C	· · · · · · · · · · · · · · · · · · ·	\$222.23	1171						
		Total Fleet C	ost/Hour: \$444	1.45							
	MATERIAL (Sele	cted estimating	method: Area						
	Alternate Method	<u>ls:</u>									
Seismic:	NA		Bank Volume:	NA	BCY	N					
Area:	_18.00	acres	Rip Depth (ft):	1.00	Volume:29,040)	BCY or C				
	Source of estimated quantity: TR-37										
	HOURLY PRO	ODUCTION									
	Seismic:	_									
	<u>Bersime.</u>		Seismic Velocity:	NA	feet/second						
	A #00:		•								
	Area:	Δverac	ge Ripping Depth:	2.45	feet/pass						
			ge Ripping Width:	6.50	feet/pass						
			e Ripping Length:	500.00	feet/pass						
			age Dozer Speed:	88.00	feet/minute						
			e Maneuver Time:	0.25	minutes/pass						
		Produc	tion per unit area:	0.755	acres/hour						
	Job Condition Co	orrection Factors	<u>S</u>								
	Un	adjusted Hourly	Unit Production:	0.755	Acres/hr						
			Site Altitude:	11,100	feet						
			Altitude Adj:	1.00	(CAT HB)						
			Job Efficiency:	0.83	(1 shift/day)						
			Net Correction:	0.83	multiplier						
		Adjusted	Hourly Unit Production:	0.63	Acres/hr						
			Hourly Fleet Production:	1.25	Acres/hr						
	JOB TIME AN	ND COST									
	Fleet size:	2	Grader(s)	Total job time	e: 14.37		Hours				
	-	\$251.705	_	ū							
	Unit cost:	\$354.785	Per acre	Total job cos	st: \$6,386						

	Construct Water Conveyances									
	Cost/Unit Total Cost									
Task #		Area	Description	Task Type	Quant Unit					Key Assumptions
		Robinson Lake	Clean Water Surface Channel	Excavate diversion/spillway	8,238 CY	\$	3.66	\$	30,151	
		Robinson Lake	Rip Rap	Rip Rap Armoring	3,690 CY	\$	74.40	\$	274,536	
		Robinson Lake	Bedding for Riprap Placed	Drain Rock	4,416 CY	\$	73.88	\$	326,254	
	107.10	Robinson lake	Impacted Water Pipeline	Pipeline	1,720 LF	\$	78.33	\$	134,728	Bwtn 1 Dam to Tims Pond
P2001		Robinson lake	Hydrologic Protection					\$	765,669	

REVEGETATION WORK

Task description:	Robinson Lake - R	Reveg - Hydric				
Climax Mine	Permit Action: 2024-06 Permit/Job#:				: <u>M1977493</u>	
ROJECT IDENTIF	FICATION					
Task #: P3001		Colorado		ΛЫ	breviation:	None
Date: $\frac{13001}{6/11/2026}$		Lake		_		M493-P3001
User: ACY		Lake		_	Thename.	1473 1 3001
Agency or org	anization name: DRM	IS				
ERTILIZING						
aterials						
Description		Units / Acre	Unit	Cos	t / Unit	Cost /Acre
				\$		\$
				Tot	al Fertilizer Materials Cost/Acre	\$0.00
					G	\$
ILLING		Total	retunzer A	ррпсано	n Cost/Acre	\$0.00
Description						Cost /Acre
						\$
			To	otal Tillin	g Cost/Acre	\$0.00
EEDING						
				Rate –		
Seed Mix				PLS	Seeds	Cost /Acre
				LBS/	per SQ.	
				Acre	FT	
Baltic Rush				0.44	123.64	\$82.95
Aquatic Sedge				0.38	10.05	\$106.99
Merten's Rush				0.01	1.40	\$1.64
Cinquefoil, Slender				0.24	23.40	\$117.75

Idaho Fescue

Elephant Head

Butterwort, Golden

Mannagrass, Northwest

Reedgrass, Canadian (or Blue Joint)

\$2.56

\$35.37

\$3.41

\$91.22

\$49.51

0.18

0.16

0.22

0.16

0.12

2.27

5.10

1.83

4.02

12.34

Timothy, Alpine - Native	0.40	11.94	\$15.67
Tufted Hairgrass	0.26	14.92	\$7.40
Monkey Flower	0.24	24.44	\$40.98
Totals Seed Mix	2.81	235.35	\$555.45

Application

Description		Cost /Acre
Broadcast seeding [DMG]		\$272.56
	Total Seed Application Cost/Acre	\$272.56

MULCHING and MISCELLANEOUS

Materials

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

Application

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

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre		
					\$		
	Totals Nursery Stock Cost / Acre						

JOB TIME AND COST

No. of Acres:	43	Cost /Acre:	\$828.01
Estimated Failure Rate:	10%	Cost /Acre*:	\$828.01
*Coloated Domlanting Worls Itames	CEEDING		

*Selected Replanting Work Items: SEEDING

Initial Job Cost: \$35,604.43

Reseeding Job Cost: \$3,560.44

Total Job Cost: \$39,165

Job Hours: 47.30

P4001-P4002 Lower Robinson Lake Cleanout							
Task #	Description	Quantity	Units	Co	ost	EPS Sign Off Source	Key Assumptions
P4001	Robinson Lake- Pre-Excavation Work & Water Mgmt	1,087.00	Hrs	\$!	519,326	CVS CVS	
P4002	Robinson Lake - Finish Work	270.00	Hrs	\$	129,000	CVS CVS	

TRUCK/LOADER TEAM WORK

Task description:	5 Dam - Haul Top	psoil			
e: Climax Mine	Perm	nit Action: 2024-06	Permit/Job#:	M1977493	
PROJECT IDENTIF	<u>ICATION</u>				
Task #: Q1001	State:	Colorado	Abbreviation:	None	
Date: 8/21/2024	County:	Lake	Filename:	M493-Q1001	
** **					
User: ACY Agency or orga		MS			
		MS Equipment Description	Shift basis: 1 per day		
Agency or orga HOURLY EQUIPME		Equipment Description	Shift basis: 1 per day		
Agency or orga HOURLY EQUIPME	ENT COST	Equipment Description Cat 740	Shift basis: 1 per day		
Agency or orga HOURLY EQUIPME Truck	ENT COST Loader Team -Truck:	Equipment Description Cat 740 CAT 966H high lift	Shift basis: 1 per day		
Agency or orga HOURLY EQUIPME Truck	ENT COST Loader Team -Truck: -Loader:	Equipment Description Cat 740 CAT 966H high lift Cat D6T LGP	Shift basis: 1 per day		
Agency or orga HOURLY EQUIPME Truck Support E	Loader Team -Truck: -Loader: quipment -Load Area:	Equipment Description Cat 740 CAT 966H high lift Cat D6T LGP NA	Shift basis: 1 per day		

Cost Breakdown:	Truck/Loa	ader Team	Support I	Equipment	Maintenance Equipment		
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck	
%Utilization-machine:	100	100	100	NA	100	100	
Ownership cost/hour:	\$108.25	\$57.78	\$99.72	NA	\$69.16	\$51.70	
Operating cost/hour:	\$79.54	\$46.25	\$71.22	NA	\$54.74	\$50.22	
%Utilization-riper:	NA	0	NA	NA	NA	NA	
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00	
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00	
Operator cost/hour:	\$25.24	\$36.85	\$38.59	NA	\$27.76	\$21.12	
Unit Subtotals:	\$213.03	\$140.88	\$209.53	NA	\$151.66	\$123.04	
Number of Units:	6	3	1	0	1	1	
Group Subtotals:	Work:	\$1,700.82	Support:	\$209.53	Maint:	\$274.70	

Total work team cost/hour: \$2,185.05

MATERIAL QUANTITIES

Initial volume: 196,170 CCY Swell factor: 1.215

Loose volume: 238,347 LCY

Source of estimated volume: TR-37

Source of estimated swell factor: Cat Handbook

Material Purchase Cost: \$0.00

Total Cost: \$0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: 1,600 Pounds/LCY
Description: Top Soil

Rated Payload: 87,000 Pounds Payload Capacity: 54.38 LCY

maintained 3.0

Truck Bed (volume) Basis:						
Struck Volume:	24.20	LCY				
Heaped Volume:	31.40	LCY				
Average Volume:		LCY				
Adjusted Volume:	31.40	LCY				
F' 1	m 1 37 1	D 1 N 1	CI 1 D	21.50	LOW	
	Truck volume	Based on Number of	of Loader Passes:	31.50	LCY	
Loading Tool Capacity						
		1		tet Size Class: N	NA	_
Rated Capacity:	5.000	LCY (heaped)		4400() 4.050		-
Bucket Fill Factor: _ Adjusted Capacity:	1.050 5.250	Moist loam or LCY	sandy clay (100%	- 110%) 1.050		=-
Adjusted Capacity.	3.230	LC1				
Job Condition Corrections:	<u>_</u>	S	Site Altitude (ft.): 1	.0400 feet		
	Truck	Loader	Source			
Altitude Adj:	0.600	1.000	(CAT HB	/		
Job Efficiency:	0.830	0.830	(CAT HB)		
Net Correction:	0.498	0.830				
Net correction.	0.470	0.050				
		CT 1: T 1.D	D 1 1 7	C'11 (D) 1	6 p	asses
Loading Tool Cycle Time:	Numbe	r of Loading Tool Pa	asses Required to I	fill I ruck:	P	••••
		r of Loading Tool Pa	asses Required to I	fill Truck:	P	45505
Excavators and Front Shovel	<u>ls:</u>	·	asses Required to I	fill Truck:	P	
Excavators and Front Shovel Machine Cycle Time vs	<u>ls:</u> s. Job Conditio	on Rating: <u>NA</u>	asses Required to I	rill Truck:	P	
Excavators and Front Shovel Machine Cycle Time vs. Selected Value v	l <u>s:</u> s. Job Conditio within this Basi	on Rating: NA ic Rating: NA	asses Required to I	rili Iruck:	Р	4 55 6 5
Excavators and Front Shovel Machine Cycle Time vs	l <u>s:</u> s. Job Conditio within this Basi	on Rating: NA ic Rating: NA	asses Required to I	rill Truck:	Р	
Excavators and Front Shovel Machine Cycle Time vs. Selected Value v	ls: s. Job Conditio within this Basi Material Descr	on Rating: NA ic Rating: NA	asses Required to I	-III Truck:	р	
Excavators and Front Shovel Machine Cycle Time vs. Selected Value vs. Track Loaders –	ls: s. Job Conditio within this Basi Material Descr	on Rating: NA ic Rating: NA	asses Required to I	Dump: 0.10		
Excavators and Front Shovel Machine Cycle Time vs. Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA	ls: s. Job Conditio within this Basi Material Descr	on Rating: NA NA NA Pription: NA Maneuver: NA		Dump: 0.10	0	
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Excavators and Front Shovel Machine Cycle Time vs. Selected Value v Track Loaders – Cycle Time Elements (min.): Load: NA	ls: s. Job Conditio within this Basi Material Descr	on Rating: NA NA NA Pription: NA Maneuver: NA		Dump: 0.10	0	
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Excavators and Front Shovel Machine Cycle Time vs. Selected Value vs. Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile:	ls: s. Job Conditio within this Basi Material Descr M Unadjusted Ba Mixed mater Conveyor or	on Rating: NA ic Rating: NA ription: NA daneuver: NA asic Loader Cycle Ti ial 0.02 dozer piled 10 ft. hi	ime (load, dump, n	Dump: 0.10 naneuver): (Factor (min.) 0.020 0.000	0 minu Source (Cat HB) (Cat HB)	
Excavators and Front Shovel Machine Cycle Time vs. Selected Value vs. Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership:	ls: s. Job Conditio within this Basi Material Descr M Unadjusted Ba Mixed mater Conveyor or Common ow	on Rating: NA ic Rating: NA ription: NA Maneuver: NA asic Loader Cycle Ti ial 0.02 dozer piled 10 ft. hi nership of trucks and	ime (load, dump, n	Dump: 0.100 naneuver): 0.000	0 minu Source (Cat HB) (Cat HB) (Cat HB)	
Excavators and Front Shovel Machine Cycle Time vs. Selected Value vs. Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	ls: s. Job Conditio within this Basi Material Descr M Unadjusted Ba Mixed mater Conveyor or Common ow Constant ope	on Rating: NA ic Rating: NA ic Rating: NA ic Rating: NA ic Rating: NA ic Rating: NA ic Ration: NA ic Ration ic Ratio	ime (load, dump, n	Dump: 0.10 naneuver): 0.00 Factor (min.) 0.020 0.000 -0.040 -0.040	0	
Excavators and Front Shovel Machine Cycle Time vs. Selected Value vs. Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership:	ls: s. Job Conditio within this Basi Material Descr M Unadjusted Ba Mixed mater Conveyor or Common ow	on Rating: NA ic Rating: NA ic Rating: NA ic Rating: NA ic Rating: NA ic Rating: NA ic Ration: NA ic Ration - NA ic Ration - 0.04 ic Ration - 0.04 ic Ration - 0.04 ic Ration - 0.04	ime (load, dump, n gh and up 0.00 d loaders -0.04	Dump: 0.100 naneuver): 0.100 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	0 minu	
Excavators and Front Shovel Machine Cycle Time vs. Selected Value vs. Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	ls: s. Job Conditio within this Basi Material Descr M Unadjusted Ba Mixed mater Conveyor or Common ow Constant ope	on Rating: NA ic Rating: NA ic Rating: NA ic Rating: NA ic Rating: NA ic Rating: NA ic Ration: NA ic Ration: NA ic Ration - NA ic Ration - 0.04 ic to 0.00 ic Ration - Net Cycle Ti	ime (load, dump, ngh and up 0.00 d loaders -0.04 me Adjustment:	Dump: 0.100 naneuver): 0.020 0.000 -0.040 -0.040 0.000 -0.060	0 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	
Excavators and Front Shovel Machine Cycle Time vs. Selected Value vs. Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	ls: s. Job Conditio within this Basi Material Descr M Unadjusted Ba Mixed mater Conveyor or Common ow Constant ope	on Rating: NA ic Rating: NA ription: NA daneuver: NA asic Loader Cycle Ti ial 0.02 dozer piled 10 ft. hi nership of trucks and ration -0.04 get 0.00 Net Cycle Ti Adjusted Load	ime (load, dump, n gh and up 0.00 d loaders -0.04 me Adjustment: der Cycle Time:	Dump: 0.100 naneuver): (Continuo) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	0	
Excavators and Front Shovel Machine Cycle Time vs. Selected Value vs. Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	ls: s. Job Conditio within this Basi Material Descr M Unadjusted Ba Mixed mater Conveyor or Common ow Constant ope	on Rating: NA ic Rating: NA ription: NA daneuver: NA asic Loader Cycle Ti ial 0.02 dozer piled 10 ft. hi nership of trucks and ration -0.04 get 0.00 Net Cycle Ti Adjusted Load	ime (load, dump, ngh and up 0.00 d loaders -0.04 me Adjustment:	Dump: 0.100 naneuver): 0.020 0.000 -0.040 -0.040 0.000 -0.060	0 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	
Excavators and Front Shovel Machine Cycle Time vs. Selected Value vs. Track Loaders – Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	ls: s. Job Conditio within this Basi Material Descr M Unadjusted Ba Mixed mater Conveyor or Common ow Constant ope	on Rating: NA ic Rating: NA ription: NA daneuver: NA asic Loader Cycle Ti ial 0.02 dozer piled 10 ft. hi nership of trucks and ration -0.04 get 0.00 Net Cycle Ti Adjusted Load	ime (load, dump, n gh and up 0.00 d loaders -0.04 me Adjustment: der Cycle Time:	Dump: 0.100 naneuver): (Continuo) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440	0	
Excavators and Front Shovel Machine Cycle Time vs. Selected Value vs. Track Loaders — Cycle Time Elements (min.): Load: NA Wheel and Track Loaders — Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time:	Is: s. Job Condition within this Basis Material Description Munadjusted Basis Mixed materical Conveyor or Common ow Constant ope Nominal targ	on Rating: NA ic Rating: NA ription: NA daneuver: NA asic Loader Cycle Ti ial 0.02 dozer piled 10 ft. hi nership of trucks and ration -0.04 get 0.00 Net Cycle Ti Adjusted Load	ime (load, dump, n gh and up 0.00 d loaders -0.04 me Adjustment: der Cycle Time: Γime per Truck:	Dump: 0.100 naneuver): 0.100 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 2.300	0	ites
Excavators and Front Shovel Machine Cycle Time vs. Selected Value vs. Track Loaders — Cycle Time Elements (min.): Load: NA Wheel and Track Loaders — Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time: Truck Exchange Time:	s. Job Condition within this Basis Material Description Material Description Material Description Mixed Mixed Material Conveyor or Common ow Constant open Nominal targetics: 0.60	on Rating: NA ic Rating: NA ription: NA daneuver: NA asic Loader Cycle Ti ial 0.02 dozer piled 10 ft. hi nership of trucks and ration -0.04 get 0.00 Net Cycle Ti Adjusted Load Net Load	gh and up 0.00 d loaders -0.04 me Adjustment: der Cycle Time: Fime per Truck: Adjusted	Dump: 0.100 naneuver): 0.100 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 2.300 for site altitude:	O.500 minu Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes 1.000	ites
Excavators and Front Shovel Machine Cycle Time vs. Selected Value vs. Track Loaders — Cycle Time Elements (min.): Load: NA Wheel and Track Loaders — Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time:	s. Job Condition within this Basis Material Description Mutable Mixed material Conveyor or Common ow Constant ope Nominal target 10.60	on Rating: NA ic Rating: NA ription: Maneuver: NA asic Loader Cycle Ti ial 0.02 dozer piled 10 ft. hi nership of trucks and ration -0.04 tet 0.00 Net Cycle Ti Adjusted Load Net Load Minutes	ime (load, dump, n gh and up 0.00 d loaders -0.04 me Adjustment: der Cycle Time: Γime per Truck: Adjusted Adjusted	Dump: 0.100 naneuver): 0.100 Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 2.300	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	

TT. 1	D
наш	Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3693.00	-4.30	3.00	-1.30	3005	1.288

Haul Time: **1.288** minutes Return Route: Travel Haul Distance Grade (%) Roll. Res Total Res Velocity Seg# Time (Ft) (%) (%) (fpm) (min) 3693.00 3.00 7.30 2470 4.30 1.702

Return Time: 1.702 minutes
Total Truck Cycle Time: 7.957 minutes

Loading Tool unit

Production ______ 572.73 ___ LCY/Hour Adjusted for job efficiency: _____ 475.36 ___ LCY/Hour Truck Unit Production

237.54 LCY/Hour Adjusted for job efficiency: 197.16 LCY/Hour

Optimal No. of Trucks: 2 Truck(s) Selected Number of Trucks: 2 Truck(s)

Adjusted hourly truck team production: 394.31 LCY/Hour Adjusted single truck/loader team production: 394.31 LCY/Hour Adjusted multiple truck/loader team production: 1,182.93 LCY/Hour

JOB TIME AND COST

 Fleet size:
 3
 Team(s)
 Total job time:
 201.49
 Hours

 Unit cost:
 \$1.847
 /LCY
 Total job cost:
 \$440,261

BULLDOZER WORK

	iption:	3 Dai	m - Grade Topsoil			
e: Climax	Mine		Permit Action	2024-06	Permit/Job#:	M1977493
PROJEC	T IDENT	TIFICATIO	<u>ON</u>			
Task #:	Q1002		State: Colorado)	Abbreviation:	None
Date:	8/21/202	24	County: Lake		Filename:	M493-Q1002
User:	ACY					
A	gency or o	rganization	name: DRMS			
HOURLY	Y EQUIP	MENT CO	<u>ost</u>			
Basic M	lachine:	Cat D8T - 8	SSU			
		310				
Blad	e Type:	Semi-Unive	ersal			
		NA				
		1 per day				
Data	Source: _	(CRG)				
Cost Break	down:					
				<u>Utilization %</u>		
	ip Cost/Hoι		\$173.32			
	ig Cost/Hou		\$109.71	100		
Ripper own			\$0.00			
	p. Cost/Hou	-	\$0.00			
Operato	r Cost/Hou	ur:	\$38.59	NA		
Initial Vo	olume: 2	NTITIES 235,404 .000				
	olume: 2 factor: 1		<u> </u>			
Initial Vo Swell i Loose vo Source of e	factor: 1 colume: 2 colume: 2 colume: 2	235,404 .000 235,404 LCY		ation, Mining & Safety		
Initial Vo Swell i Loose vo Source of e	factor: 2 folume: 2 folume: 2 estimated versimated sy	235,404 000 235,404 LCY olume: well factor:	Division of Reclamate	ation, Mining & Safety		
Initial Vo Swell a Loose vo Source of e Source of e	polume: 2 factor: 1 polume: 2 estimated vertimated sw Y PRODU ush distance	235,404 000 235,404 LCY olume: well factor: JCTION e:	Division of Reclamate	ation, Mining & Safety		
Initial Vo Swell in Loose vo Source of e Source of e HOURLY Average pu Unadjusted	polume: 2 factor: 1 polume: 2 estimated vertimated sy Y PRODU ush distance I hourly pro	235,404 000 235,404 LCY olume: well factor: JCTION e:	Division of Reclams Cat Handbook 250 feet 377.8 LCY/hr			
Initial Vo Swell in Loose vo Source of e Source of e HOURLY Average pu Unadjusted	factor: 2 factor: 1 folume: 2 estimated vestimated sv Y PRODU ush distance hourly pro consistency ush gradien	235,404000 235,404 LCY olume: well factor: UCTION e: oduction:	Division of Reclams Cat Handbook 250 feet 377.8 LCY/hr Loose stockpile 1			
Initial Vo Swell is Loose vo Source of e Source of e HOURLY Average pu Unadjusted Materials c	polume: 2 factor: 1 polume: 2 estimated versimated sw Y PRODU ush distance I hourly pro- consistency ush gradien te altitude:	235,404000 235,404 LCY olume: well factor: UCTION e: cduction: description: at: -30 % 10,400	Division of Reclams Cat Handbook 250 feet 377.8 LCY/hr Loose stockpile 1			
Initial Vo Swell in Loose vo Source of e Source of e HOURLY Average pu Unadjusted Materials of Average pu Average pu	polume: 2 factor: 1 polume: 2 estimated vertimated sw Y PRODU ush distance il hourly pro- consistency ush gradien te altitude: eight:	235,404000 235,404 LCY olume: well factor: UCTION e: cduction: description: at: -30 % 10,400				
Initial Vo Swell is Loose vo Source of e Source of e HOURLY Average pu Unadjusted Materials c Average pu Average sit	polume: 2 factor: 1 polume: 2 factor	235,404000 235,404 LCY olume: well factor: UCTION e: description: at:30 %1,600Top S tion Factor	Division of Reclams Cat Handbook 250 feet 377.8 LCY/hr Loose stockpile 1	.2 Source		
Initial Vo Swell is Loose vo Source of e Source of e HOURLY Average pu Unadjusted Materials c Average pu Average sid Material wo Weight des	polume: 2 factor: 1 polume: 2 estimated vertimated sw Y PRODU ush distance h hourly pro- consistency ush gradien te altitude: eight: scription: ion Correct Operate	235,404000 235,404 LCY olume: well factor: UCTION e: oduction: description: at:	Division of Reclams Cat Handbook 250 feet 377.8 LCY/hr Loose stockpile 1 D feet lbs/LCY oil 0.750	Source (AVG.)		
Initial Vo Swell is Loose vo Source of e Source of e HOURLY Average pu Unadjusted Materials c Average pu Average sid Material wo Weight des	polume: 2 factor: 1 polume: 2 estimated versimated sw Y PRODU ush distance hourly pro- consistency ush gradien te altitude: eight: correct Operat Jaterial con-	235,404000 235,404 LCY olume: well factor: UCTION e: oduction: description: at:	Division of Reclams Cat Handbook 250 feet 377.8 LCY/hr Loose stockpile 1	.2 Source)	

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.601	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 1.3758

Adjusted unit production: 519.78 LCY/hr
Adjusted fleet production: 519.78 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.619/LCY

Total job time: 452.89 Hours
Total job cost: \$145,657

TRUCK/LOADER TEAM WORK

		TRUCK/LON	DER TEAM V	VOKK		
Task description:	5 Dam -	Haul Bedding M	[aterial			
Site: Climax Mine		Permit Action	on: 2024-06		Permit/Job#: N	M1977493
PROJECT IDE	NTIFICATION	<u>I</u>				
Task #: _ Q10		State: Colora	ado	Ab	breviation: N	one
Date: 8/21 User: ACY		County: <u>Lake</u>			Filename: M	[493-Q1003
Agency of	or organization nar	ne: DRMS				
HOURLY EQU	IPMENT COST	_			is: 1 per day	
			Equipment Descri	ption		
	Truck Loader Tea		740 Γ 966H high lift			
Sur	port Equipment -I		D6T LGP			
~ 		ump Area: NA	201 201			
Road I	Maintenance –Mot		Г 12М			
	-Wa	ter Truck: Wat	er Tanker, 5,000	Gal.		
Cost Breakdown	: Truck/Lo	ader Team	Support 1	Equipment	Maintena	ınce Equipment
	Truck	Loader	Load Area	Dump Area	Motor Grader	
%Utilization-machine:	100	100	100	NA	100	100
Ownership cost/hour:	\$108.25	\$57.78	\$99.72	NA	\$69.16	\$51.70
Operating cost/hour:	\$79.54	\$46.25	\$71.22	NA	\$54.74	\$50.22
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	NA	\$0.00	\$0.00
Operator cost/hour:	\$25.24	\$36.85	\$38.59	NA	\$27.76	\$21.12
Unit Subtotals:	\$213.03	\$140.88	\$209.53	NA	\$151.66	\$123.04
Number of Units:	6	1	1	0	1	1
Group Subtotals:	Work:	\$1,419.06	Support:	\$209.53	Maint:	\$274.70
Total work team c	ost/hour: \$1,903.	29				

MATERIAL QUANTITIES

Initial volume: 7,583 CCY Swell factor: 1.000
Loose volume: 7,583 LCY

Source of estimated volume: Division of Reclamation, Mining & Safety

Source of estimated swell factor: Cat Handbook

Material Purchase Cost: \$0.00

Total Cost: \$0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight: 2,600 Pounds/LCY
Description: Limestone - Broken

Rated Payload: 87,000 Pounds Payload Capacity: 33.46 LCY

maintained 3.0

Struck Volume:	24.20 L	.CY				
Heaped Volume:		CY				
Average Volume:		CY				
Adjusted Volume:	31.40 L	CY				
Final 7	Fruck Voluma F	Based on Number o	f Loader Passes	28.88	LCY	
Tillar	Truck volume L	based on Number o	Loadel Lasses.	20.00	LC1	
Loading Tool Capacity						
			Bucke	et Size Class: N	A	
Rated Capacity:	5.000	LCY (heaped)				_
Bucket Fill Factor:	0.825		avg. blasted (75 -	90%) 0.825		_
Adjusted Capacity:	4.125	LCY	(**			=
3 1 J <u> </u>						
Job Condition Corrections:		S	ite Altitude (ft.): 10	0400 feet		
Altitudo Adi.	Truck	Loader	Source			
Altitude Adj:	0.600	1.000	(CAT HB)			
Job Efficiency:	0.830	0.830	(CAT HB)			
Nat Camartian	0.498	0.830				
	U.490	0.030				
Net Correction: Loading Tool Cycle Time: Excavators and Front Shovels Machine Cycle Time vs Selected Value w	Number of Signature 1 Number of Signature 1	Rating: NA	sses Required to F	ill Truck:	<u>7</u> r	oasses
Loading Tool Cycle Time: Excavators and Front Shovels Machine Cycle Time vs Selected Value w Track Loaders – N	Number of the Nu	Rating: NA NA NA	sses Required to F	ill Truck:		passes
Loading Tool Cycle Time: Excavators and Front Shovels Machine Cycle Time vs Selected Value w Track Loaders – N Cycle Time Elements (min.): Load: NA	Number of SE. Job Condition within this Basic Material Descrip	Rating: NA Rating: NA ption: NA		Dump: 0.100)	
Loading Tool Cycle Time: Excavators and Front Shovels: Machine Cycle Time vs Selected Value w Track Loaders - N Cycle Time Elements (min.): Load: NA Wheel and Track Loaders -	Number of SE. Job Condition within this Basic Material Descrip	Rating: NA Rating: NA ption: NA		Dump: 0.100 aneuver): 0.	.500 minu	
Loading Tool Cycle Time: Excavators and Front Shovels: Machine Cycle Time vs Selected Value w Track Loaders - N Cycle Time Elements (min.): Load: NA Wheel and Track Loaders - Cycle Time Factors	Number of SE. Job Condition within this Basic Material Descrip Ma Unadjusted Basic	Rating: NA Rating: NA otion: NA neuver: NA ic Loader Cycle Tin		Dump: 0.100 aneuver): 0. Factor (min.)	.500 minu Source	
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Loading Tool Cycle Time: Excavators and Front Shovels Machine Cycle Time vs Selected Value w Track Loaders – N Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile:	Number of SE. Job Condition within this Basic Material Descrip Ma Unadjusted Basic Mixed material Conveyor or do	Rating: NA Rating: NA ption: neuver: NA ic Loader Cycle Tine 1 0.02 pzer piled 10 ft. hig	me (load, dump, m	Dump: 0.100 aneuver): 0. Factor (min.) 0.020 0.000	Source (Cat HB) (Cat HB)	
Loading Tool Cycle Time: Excavators and Front Shovels Machine Cycle Time vs Selected Value w Track Loaders – N Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership:	Number of SE. Job Condition within this Basic Material Descrip Ma Unadjusted Basic Mixed material Conveyor or do Common owners.	Rating: NA Rating: NA Potion: NA Include: NA Rating: NA	me (load, dump, m	Dump: 0.100 aneuver): 0. Factor (min.) 0.020 0.000 -0.040	Source (Cat HB) (Cat HB) (Cat HB)	
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Loading Tool Cycle Time: Excavators and Front Shovels Machine Cycle Time vs Selected Value w Track Loaders – N Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership:	Number of SE. Job Condition within this Basic Material Descrip Ma Unadjusted Basic Mixed material Conveyor or do Common owners.	Rating: NA Rating: NA Pation: NA Rating: NA	me (load, dump, m th and up 0.00 l loaders -0.04	Dump: 0.100 aneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	
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Loading Tool Cycle Time: Excavators and Front Shovels Machine Cycle Time vs Selected Value w Track Loaders – N Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Number of Si. Job Condition within this Basic Material Descrip Ma Unadjusted Basic Mixed material Conveyor or do Common owners	Rating: NA Rating: NA Potion: NA Ineuver: NA It Loader Cycle Tit I 0.02 Descripted 10 ft. highership of trucks and tition -0.04 I 0.00 Net Cycle Tir Adjusted Load	me (load, dump, m th and up 0.00 loaders -0.04 me Adjustment: er Cycle Time:	Dump: 0.100 aneuver): 0. Factor (min.) 0.020 0.000 -0.040 0.000 -0.060 0.440	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	
Loading Tool Cycle Time: Excavators and Front Shovels Machine Cycle Time vs Selected Value w Track Loaders – N Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Number of Si. Job Condition within this Basic Material Descrip Ma Unadjusted Basic Mixed material Conveyor or do Common owners	Rating: NA Rating: NA Potion: NA Ineuver: NA It Loader Cycle Tit I 0.02 Descripted 10 ft. highership of trucks and tition -0.04 I 0.00 Net Cycle Tir Adjusted Load	me (load, dump, m th and up 0.00 l loaders -0.04 me Adjustment:	Dump: 0.100 aneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	
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Loading Tool Cycle Time: Excavators and Front Shovels Machine Cycle Time vs Selected Value w Track Loaders – N Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Exchange Time:	Number of SE. Job Condition within this Basic Material Descrip Ma Unadjusted Basic Mixed material Conveyor or do Common owner Constant operation Nominal target 0.60	Rating: NA Rating: NA Pation: NA Include: N	me (load, dump, m th and up 0.00 loaders -0.04 me Adjustment: er Cycle Time: Time per Truck:	Dump: 0.100 aneuver): 0. Factor (min.) 0.020 0.000 -0.040 0.000 -0.060 0.440 2.740 For site altitude:	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes 1.000	utes
Loading Tool Cycle Time: Excavators and Front Shovels: Machine Cycle Time vs Selected Value w Track Loaders – N Cycle Time Elements (min.): Load: NA Wheel and Track Loaders – Cycle Time Factors Material: Stockpile: Truck Ownership: Operation: Dump Target: Truck Cycle Time:	Number of section of the content of the condition of the condition of the content of the content of the content of the content operation operation oper	Rating: NA Rating: NA Potion: NA Ineuver: NA It Loader Cycle Tit I 0.02 Descripted 10 ft. highership of trucks and tition -0.04 To.00 Net Cycle Tir Adjusted Load Net Load T	me (load, dump, m th and up 0.00 loaders -0.04 me Adjustment: er Cycle Time: Time per Truck:	Dump: 0.100 aneuver): 0. Factor (min.) 0.020 0.000 -0.040 -0.040 0.000 -0.060 0.440 2.740	Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	16738.00	4.40	3.00	7.40	1281	13.250

Task # Q1003

Haul Time: 13.250 minutes Return Route: Travel Haul Distance Grade (%) Roll. Res Total Res Velocity Seg# Time (Ft) (%) (%) (fpm) (min) 16738.00 3.00 -1.40 -4.40 3706 4.656

Return Time: 4.656 minutes
Total Truck Cycle Time: 23.313 minutes

Loading Tool unit

Production Truck Unit Production

Truck Unit Production

74.32 LCY/Hour Adjusted for job efficiency: 384.49 LCY/Hour Adjusted for job efficiency: 61.68 LCY/Hour Optimal No. of Trucks: 6 Truck(s)

Selected Number of Trucks: 6 Truck(s)

Adjusted hourly truck team production: 370.09 LCY/Hour Adjusted single truck/loader team production: 370.09 LCY/Hour Adjusted multiple truck/loader team production: 370.09 LCY/Hour

JOB TIME AND COST

 Fleet size:
 1
 Team(s)
 Total job time:
 20.49
 Hours

 Unit cost:
 \$5.143
 /LCY
 Total job cost:
 \$38,997

	Construct Water Conveyances									
	Cost/Unit Total Cost									
Task #	·									
	103.7	5 Dam	Clean Water Surface Channel	Excavate diversion/spillway	7,706 CY	\$	3.66	\$	28,204	Inot tenmile creek
	104.7	5 Dam	Rip Rap	Rip Rap Armoring	3,452 CY	\$	74.40	\$	256,829	Inot tenmile creek
	105.7 5 Dam Bedding for Riprap Placed Drain Rock 4,131 CY \$ 73.88 \$ 305,198 Inot tenmile creek								Inot tenmile creek	
	103.10 5 Dam Impacted Water Pipeline 30" Corrugated HDPE Installed 8,200 LF \$ 78.33 \$ 642,306									
Q2001		5 Dam	Hydrologic Protection					\$	1,232,537	

REVEGETATION WORK

Task description: 5	Dam - Reveg - Upl	and					
Climax Mine	Permit Action: 2024-06 Permit/Job#					#: <u>M1977493</u>	
PROJECT IDENTIFICAT	<u>ION</u>						
Task #: Q3001 Date: 8/20/2024 User: ACY	State: Co County: La	olorado ke		_ Abl		None M493-Q3001	
Agency or organization	on name: DRMS						
ERTILIZING							
<u> </u>							
Description		Units / Acre	Unit	Cos	t / Unit	Cost /Acre	
				\$		\$	
				Tot	al Fertilizer Materials Cost/Acre	\$0.00	
pplication							
Description						Cost /Acre	
						\$	
		Total	Fertilizer A	Applicatio	n Cost/Acre	\$0.00	
ILLING							
Description						Cost /Acre	
						\$	
			T	otal Tillin	g Cost/Acre	\$0.00	
<u>EEDING</u>							
Seed Mix				Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre	
Alpine Bluegrass				0.22	5.05	\$5.26	
Arizona Fescue - Redondo				0.90	10.33	\$13.56	

Mountain Brome - Bromar

Rocky Mountain Fescue

Slender Wheatgrass - Native

Cinquefoil, Slender

Currant, Wax

Lupine, Silver

Vetch, American

\$20.46

\$39.25

\$22.20

\$3.67

\$9.61

\$416.06

\$327.49

3.40

0.08

0.32

0.34

3.48

1.36

2.66

5.46

7.80

1.10

5.46

2.04

4.96

1.20

Prairie Junegrass	0.18	9.57	\$8.77
Flax, Lewis Blue	0.90	5.97	\$38.07
Timothy, Alpine - Native	0.50	14.92	\$19.59
Tufted Hairgrass	0.34	19.51	\$9.68
Penstemon, Rocky Mountain	0.54	8.46	\$33.16
Yarrow, White	0.10	6.36	\$7.34
Totals Seed Mix	15.32	108.21	\$974.17

Application

Description		Cost /Acre
Hydro seeding (MEANS 32 92 19.14 0200)		\$1,359.07
	Total Seed Application Cost/Acre	\$1,359.07

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Hydromulch, 1 ton/ac. rate {Materials Only}	1.00	ACRE	\$1,459.26	\$1,459.26
Total Mulch Materials Cost/Acre				\$1,459.26

Application

Description		Cost /Acre
NA-mulch application incl. with hydroseeding		\$0.00
	Total Mulch Application Cost/Acre	\$0.00

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
		Total	s Nursery Stoc	k Cost / Acre	\$0.00

JOB TIME AND COST

 No. of Acres:
 61
 Cost /Acre:
 \$3,792.50

 Estimated Failure Rate:
 10%
 Cost /Acre*:
 \$3,792.50

*Selected Replanting Work Items: SEEDING,MULCHING

Initial Job Cost: \$231,342.50

Reseeding Job Cost: \$23,134.25

Total Job Cost: \$254,477

Job Hours: 67.10

SAFEGUARDING UNDERGROUND OPENINGS

Site:	Task description: Climax Mine		round Opening Permit Action:	,	Permit/	Job#: M1977493
ROJE	CT IDENTIFICATION	<u> </u>				
Гask #	: R4001	State:	Colorado		Abbreviation:	None
Date	: 6/18/2024	County:	Lake		Filename:	M493-R4001
User	: ACY					

UNIT COSTS

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
No. 3 Gallery - Bulkhead	8' x 8'	USER PROVIDED ITEM	4.74	CY	\$1,377.77	\$6,532.01
Storke Portal - Bulkhead	12' x 14'	USER PROVIDED ITEM	12.44	CY	\$1,378.38	\$17,147.05
Phillipson Portal -	10' x15'	USER PROVIDED ITEM	11.11	CY	\$1,378.04	\$15,310.02
Bulkhead						

BOREHOLE SEALING WORK

Site:	Task description: Climax Mine		Ionitoring Wells Permit Action:	2024-06	Permit/.	Job#: <u>M1977493</u>
ROJE	CCT IDENTIFICATIO	<u>N</u>				
Γask #	: R4002	State:	Colorado		Abbreviation:	None
Date	: 6/11/2024	County:	Lake		Filename:	M493-R4002

UNIT COSTS

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
13 Monitoring Wells	Portland cement grout - 4 in. (labor, equip, materials)	4	156.9	2,040.00	LF	\$8.71	\$17,774.93
Water Truck	Water Tanker, 3,500 Gal.	1	1	13.00	EA	\$75.02	\$975.26

 Job Hours:
 20.40
 Total Cost:
 \$18,750.00

S4001 Impacted Water Treatment

Specific Tasks	Quantity Units	Cost/Unit Total Equip Equip Cost	Cost/Unit Labor	Total Labor Cost	Cost/Unit Materials	Total Materia Cost	l Total Cost	Comment
Existing WTP Annual Treatment cost (10 years)	12,820 Mgal			\$ -	\$ 730.0	0 \$ 9,358,600	\$ 9,358,600	Current 2022 cost = \$2.34 million. 3,206 MG/Yr. Assume 60% reduction in volume post-closure.
Projected additional cost for Molybdenum WTP								
Labor (water/maintenance/electrician) (8 FTE for 10 years)	80 FTE		73,049.60	\$ 5,843,968		\$ -	\$ 5,843,968	Assumes 8 water/maintenance operators on rotating shifts
Site Supervisor (1 FTE for 10 years)	10 FTE		198,265.60	\$ 1,982,656		\$ -	\$ 1,982,656	Assumes 1 Site Supervisor for the management of the crew and site
Lime 273 tons/year for 10 years)	2,730 tons			\$ -	\$ 206.0	0 \$ 562,380	\$ 562,380	Assumes consistent lime usage for treatment post mining
Sulfuric Acid (67,200 lbs each year for 10 years)	672,000 Lbs			\$ -	\$ 0.3	1 \$ 208,320	\$ 208,320	Assumes consistent acid usage for treatment post mining
Ferric sulfate (410 tons/year for 10 years)	4,100 tons			\$ -	\$ 0.3	1 \$ 1,271	\$ 1,271	Assumes consistent usage for treatment post mining
Other Reagents (polymer) (67k lbs per year for 10 years)	670,000 Lbs			\$ -	\$ 3.5	5 \$ 2,378,500	\$ 2,378,500	Assumes consistent polymer usage for treatment post mining
Power	10 year			\$ -	\$ 142,500.0	0 \$ 1,425,000	\$ 1,425,000	\$0.285M per year currently- assume 50% post closure for treatment systems
Natural Gas	10 year			\$ -	\$ 76,500.0	0 \$ 765,000	\$ 765,000	\$153K per year (2022)- assume 50% post closure for remaining buildings
Vehicles	10 units	\$ 7,500 \$ 75,000		\$ -		\$ -	\$ 75,000	Pickups for access to remote water system check points
Loader (1 loader for 10 years)	10 year	\$ 303,493 \$ 3,034,930		\$ -		\$ -	\$ 3,034,930	Loader for road maintenance, snow plowing and general maintenance
Outside Services	10 year		359,560.00	\$ 3,595,600			\$ 3,595,600	\$719K per year currently- assume 50% post closure
Sampling and maintenance	10 year	\$ 660,500 \$ 6,605,000		\$ -		\$ -	\$ 6,605,000	Regular maintenance, service of installed pump sets and sampling 2022. assume 50% reduction.
Sludge disposal	10 year			\$ -	\$ 128,767.6	0 \$ 1,287,676	\$ 1,287,676	
							Total Cost	
TOTAL COSTS		\$ 9,714,930		\$ 11,422,224		\$ 15,986,747	\$ 37,123,901	

Notes: Cost per MG from actual 2022 Climax cost plus estimated unit cost for Molybdenum Water Treatment Plant.

Annual treatment volume (2022) 3,206 MG/year. Based on Wheeler 2023. Assume 50% reduction in flows post-closure.

Sludge disposal estimate December 2023 from RADPROS. Based on approximately 1 million gallons/year 2022 - 2023. Assume 40% post-closure.

		U4001	-U40	05 Monitoring	g -Site	Maintenance	
						Revision #/	
Task #	Description	Quantity Units		Cost	EPS S	Sign Off Source	Key Assumptions
U4001	Tailings stewardship	100.00	\$	3,000,000.00)	CVS	
U4002	Operations and Maintenance first 10-year period	45000.00 Hrs	\$	3,696,300.00	CVS	Mtnc&Envi	
U4003	Operations and Maintenance second 10-year period	27000.00 Hrrs	_	2,217,780.00		Mtnc&Envi	
U4004	Operations and Maintenance first 10-year period	13500.00 Hrs	\$	1,108,890.00	CVS	Mtnc&Envi	
	Water Quality Monitoring Yr 1 (2024)	100.00 Hrs	\$	9,245.48		CVS	
	Water Quality Monitoring Yr 2	100.00 Hrs	\$	9,620.58	}	CVS	
	Water Quality Monitoring Yr 3	100.00 Hrs	\$	10,010.91		CVS	
	Water Quality Monitoring Yr 4	100.00 Hrs	\$	10,417.06		CVS	
	Water Quality Monitoring Yr 5	100.00 Hrs	\$	10,839.70		CVS	
	Water Quality Monitoring Yr 6	100.00 Hrs	\$	11,279.49		CVS	
	Water Quality Monitoring Yr 7	100.00 Hrs	\$	11,737.11		CVS	
	Water Quality Monitoring Yr 8	100.00 Hrs	\$	12,213.31		CVS	
	Water Quality Monitoring Yr 9	100.00 Hrs	\$	12,708.82		CVS	
	Water Quality Monitoring Yr 10	100.00 Hrs	\$	13,224.44		CVS	
	Water Quality Monitoring Yr 11	100.00 Hrs	\$	13,760.97	,	CVS	
	Water Quality Monitoring Yr 12	100.00 Hrs	\$	14,319.28	}	CVS	
	Water Quality Monitoring Yr 13	100.00 Hrs	\$	14,900.23		CVS	
	Water Quality Monitoring Yr 14	100.00 Hrs	\$	15,504.76	,	CVS	
	Water Quality Monitoring Yr 15	100.00 Hrs	\$	16,133.81		CVS	
	Water Quality Monitoring Yr 16	100.00 Hrs	\$	16,788.39)	CVS	
	Water Quality Monitoring Yr 17	100.00 Hrs	\$	17,469.52		CVS	
	Water Quality Monitoring Yr 18	100.00 Hrs	\$	18,178.28	}	CVS	
	Water Quality Monitoring Yr 19	100.00 Hrs	\$	18,915.81		CVS	
	Water Quality Monitoring Yr 20	100.00 Hrs	\$	19,683.25		CVS	
	Water Quality Monitoring Yr 21	100.00 Hrs	\$	20,481.83		CVS	
	Water Quality Monitoring Yr 22	100.00 Hrs	\$	21,312.81		CVS	
	Water Quality Monitoring Yr 23	100.00 Hrs	\$	22,177.51		CVS	
	Water Quality Monitoring Yr 24	100.00 Hrs	\$	23,077.28		CVS	
	Water Quality Monitoring Yr 25	100.00 Hrs	ς ,	24,013.57		CVS	
	Water Quality Monitoring Yr 26	100.00 Hrs	\$	24,987.83		CVS	
	Water Quality Monitoring Yr 27	100.00 Hrs	\$	26,001.63		CVS	
	Water Quality Monitoring Yr 28	100.00 Hrs	ر د	27,056.56		CVS	
			ب ک				
	Water Quality Monitoring Yr 29	100.00 Hrs	\$	28,154.29		CVS	
U4005	Water Quality Monitoring Yr 30 Water Quality Monitoring for 30 Years	100.00 Hrs 3000.00 Hrs	\$ \$	29,296.55 523,511.05		CVS	

DEMOLITION WORK

Site:	Climax Mine	Permit Action: 2024-06	Permit/Job#: M1977493
PROJEC	CT IDENTIFICAT	CION	
Task #:	X4001	State: Colorado	Abbreviation: None
Date:	6/18/2024	County: Lake	Filename: M493-X4001
User:	ACY		

<u>UNIT COSTS</u> <u>Location adjustment: 87.90 %</u>

Structure or Item		Demolition Menu				
Description	Dimensions	Selection	Quantity	Unit	Unit Cost	Total Cost
6 CRUSHER SWCH HSE - SUPERSTRUCTURE	80Lx38Wx15H (- 30%)	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 10,000 ft. haul	31,920.00	CF	\$0.24	\$7,769.33
6 CRUSHER SWCH HSE - Floor	10" @ 80Lx38W	Floor, concrete, demolition only, average reinforcing - 10 in. thick	3,040.00	SF	\$1.84	\$5,586.61
6 CRUSHER SWCH HSE - Footing	1.5ft x 2ft	Footing, concrete, average reinforcing - 1.5 ft. x 2 ft.	236.00	LF	\$6.62	\$1,561.28
MILL LIME SILO - SUPERSTRUCTURE	60Lx16Wx16H	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	15,360.00	CF	\$0.24	\$3,738.62
MILL LIME SILO - Floor	8" @ 60Lx16W	Floor, concrete, demolition only, average reinforcing - 8 in. thick	960.00	SF	\$1.47	\$1,411.30
MILL LIME SILO - Footing	1.5ft x 2ft	Footing, concrete, average reinforcing - 1.5 ft. x 2 ft.	152.00	LF	\$6.62	\$1,005.57
DOMESTIC WATER PLANT - SUPERSTRUCTURE	45Lx81Wx24H (- 30%)	Bldg. (MN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	61,236.00	CF	\$0.33	\$20,122.15
DOMESTIC WATER PLANT - Floor	12"@ 45Wx81L	Floor, concrete, demolition only, average reinforcing - 12 in. thick	3,645.00	SF	\$2.21	\$8,037.95
DOMESTIC WATER PLANT - Footing	1.5ft x 2ft	Footing, concrete, average reinforcing - 1.5 ft. x 2 ft.	252.00	LF	\$6.62	\$1,667.13
3 MILL - SUPERSTRUCTURE	725Lx180Wx80H (-30%)	Plant (3S) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	7,308,000.00	CF	\$0.48	\$3,535,610.40
3 MILL - Floor	12"@ 725Lx180W	Floor, concrete, demolition only, average reinforcing - 12 in. thick	130,500.00	SF	\$2.21	\$287,778.60

3 MILL - Footings	2ft x 3ft	Footing, concrete, average reinforcing - 2.0 ft. x 3 ft.	1,810.00	LF	\$13.23	\$23,948.47
TAILING DIST HOUSE - SUPERSTRUCTURE	60Lx40Wx14H	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	34,160.00	CF	\$0.24	\$8,314.54
TAILING DIST HOUSE - Floor	12" @ 61Lx40W	Floor, concrete, demolition only, average reinforcing - 12 in. thick	2,440.00	SF	\$2.21	\$5,380.69
MILL TANK VALVE HSE1 - SUPERSTRUCTURE	21Lx29Wx10H	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	6,090.00	CF	\$0.24	\$1,482.31
MILL TANK VALVE HSE1 - Floor	12" @ 21Lx29W	Floor, concrete, demolition only, average reinforcing - 12 in. thick	609.00	SF	\$2.21	\$1,342.97
MILL TANK VALVE HSE2 - SUPERSTRUCTURE	20Lx20Wx10H	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	4,000.00	CF	\$0.24	\$973.60
MILL TANK VALVE HSE2 - Floor	12" @ 20Lx20W	Floor, concrete, demolition only, average reinforcing - 12 in. thick	400.00	SF	\$2.21	\$882.08
6 CRUSHER SECONDARY - SUPERSTRUCTURE	160Lx90Wx87H	Plant (3S) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	1,252,800.00	CF	\$0.48	\$606,104.64
6 CRUSHER SECONDARY - Floor	12"@ 160Lx90W	Floor, concrete, demolition only, average reinforcing - 12 in. thick	14,400.00	SF	\$2.21	\$31,754.88
6 CRUSHER SECONDARY - Footing	2ft x 3ft	Footing, concrete, average reinforcing - 2.0 ft. x 3 ft.	500.00	LF	\$13.23	\$6,615.60
6 CRUSHER PRIMARY - SUPERSTRUCTURE	60Lx110Wx72H	Plant (3S) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	475,200.00	CF	\$0.48	\$229,901.76
6 CRUSHER PRIMARY - Floor	12"@ 60Lx110W	Floor, concrete, demolition only, average reinforcing - 12 in. thick	6,600.00	SF	\$2.21	\$14,554.32
6 CRUSHER OFFICE - SUPERSTRUCTURE	30Lx72Wx16H	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	34,560.00	CF	\$0.24	\$8,411.90
6 CRUSHER OFFICE - Floor	12"@ 30Lx72W	Floor, concrete, demolition only, average reinforcing - 12 in. thick	2,160.00	SF	\$2.21	\$4,763.23
6 CRUSHER	1.5ft x 2ft	Footing, concrete,	204.00	LF	\$6.62	\$1,349.58

OFFICE - Footings		average reinforcing - 1.5 ft. x 2 ft.				
GATEHOUSE - SUPERSTRUCTURE	64Lx40Wx10H	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	25,600.00	CF	\$0.24	\$6,231.04
GATEHOUSE - Floor	12"@ 64Lx40W	Floor, concrete, demolition only, average reinforcing - 12 in. thick	2,560.00	SF	\$2.21	\$5,645.31
GATEHOUSE - Footing	1.5ft x 2ft	Footing, concrete, average reinforcing - 1.5 ft. x 2 ft.	206.00	LF	\$6.62	\$1,362.81
COVERED STORAGE - SUPERSTRUCTURE	60Lx25Wx14H	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	21,000.00	CF	\$0.24	\$5,111.40
COVERED STORAGE - Floor	12"@ 60Lx25W	Floor, concrete, demolition only, average reinforcing - 12 in. thick	1,500.00	SF	\$2.21	\$3,307.80
COVERED STORAGE - Footing	1.5ft x 2ft	Footing, concrete, average reinforcing - 1.5 ft. x 2 ft.	170.00	LF	\$6.62	\$1,124.65
NEW SCALE HOUSE - SUPERSTRUCTURE	80Lx16Wx16H (- 30%)	Bldg. (MN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	14,336.00	CF	\$0.33	\$4,710.81
NEW SCALE HOUSE - Floor	12" @ 80Lx16W	Floor, concrete, demolition only, average reinforcing - 12 in. thick	1,280.00	SF	\$2.21	\$2,822.66
PHLLPSN MAPP GAS HSE - SUPERSTRUCTURE	20Lx45Wx8H	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	7,200.00	CF	\$0.24	\$1,752.48
PHLLPSN MAPP GAS HSE - Floor	12"@ 40Lx45W	Floor, concrete, demolition only, average reinforcing - 12 in. thick	900.00	SF	\$2.21	\$1,984.68
PHLLPSN MAPP GAS HSE - Footing	1.5ft x 2ft	Footing, concrete, average reinforcing - 1.5 ft. x 2 ft.	130.00	LF	\$6.62	\$860.03
OPEN PIT FUEL TANKS - SUPERSTRUCTURE	100Lx25Wx8H	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	20,000.00	CF	\$0.24	\$4,868.00
OPEN PIT FUEL TANKS - Floor	12"@ 100Lx25W	Floor, concrete, demolition only, average reinforcing - 12 in. thick	2,500.00	SF	\$2.21	\$5,513.00
OPEN PIT FUEL TANKS - Footing	1.5ft x 2ft	Footing, concrete, average reinforcing - 1.5 ft. x 2 ft.	250.00	LF	\$6.62	\$1,653.90

DOMESTIC WATER	44Lx44Wx40H	Bldg. (MN)	77,440.00	CF	\$0.33	\$25,446.78
TANK - SUPERSTRUCTURE	TTLATT WATOII	demo./on-site disposal in existing	77,440.00	Ci	ψ0.33	Ψ23,440.76
SOLEMBLINGGLORE		pit or cut - Max.				
DOMESTIC WATER TANK - Floor	12"@ 44Lx44W	Floor, concrete, demolition only,	1,936.00	SF	\$2.21	\$4,269.27
TAINK - Floor		average reinforcing - 12 in. thick				
DOMESTIC WATER TANK - Footing	1.5ft x 2ft	Footing, concrete, average reinforcing - 1.5 ft. x 2 ft.	176.00	LF	\$6.62	\$1,164.35
OPEN PIT FUEL PUMP HSE - SUPERSTRUCTURE	40Lx20Wx12H	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	9,600.00	CF	\$0.24	\$2,336.64
OPEN PIT FUEL PUMP HSE - Floor	12" @ 40Lx20W	Floor, concrete, demolition only, average reinforcing - 12 in. thick	800.00	SF	\$2.21	\$1,764.16
PHILLIPSON WAREHOUSE - SUPERSTRUCTURE	76Lx94Wx42H (- 30%)	Bldg. (MN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	210,034.00	CF	\$0.33	\$69,017.17
PHILLIPSON WAREHOUSE - Floor	12"@ 76Lx94W	Floor, concrete, demolition only, average reinforcing - 12 in. thick	7,144.00	SF	\$2.21	\$15,753.95
PHILLIPSON WAREHOUSE - Footing	1.5ft x 2ft	Footing, concrete, average reinforcing - 1.5 ft. x 2 ft.	340.00	LF	\$6.62	\$2,249.30
OPEN PIT PHASE 1 SHOP - SUPERSTRUCTURE	146Lx56Wx52H (- 30%)	Bldg. (MN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	297,606.00	CF	\$0.33	\$97,793.33
OPEN PIT PHASE 1 SHOP - Floor	12"@ 146Lx56W	Floor, concrete, demolition only, average reinforcing - 12 in. thick	8,176.00	SF	\$2.21	\$18,029.72
OPEN PIT PHASE 1 SHOP - Footing	2ft x 3ft	Footing, concrete, average reinforcing - 2.0 ft. x 3 ft.	404.00	LF	\$13.23	\$5,345.40
OPEN PIT OFFICES - SUPERSTRUCTURE	48Lx80Wx25H (- 30%)	Bldg. (MN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	67,200.00	CF	\$0.33	\$22,081.92
OPEN PIT OFFICES - Floor	12"@ 48Lx80W	Floor, concrete, demolition only, average reinforcing - 12 in. thick	3,840.00	SF	\$2.21	\$8,467.97
OPEN PIT OFFICES - Footing	1.5ft x 2ft	Footing, concrete, average reinforcing - 1.5 ft. x 2 ft.	240.00	LF	\$6.62	\$1,587.74
OPEN PIT PHASE 2 SHOP -	400Lx80Wx70H (- 30%)	Bldg. (MN) demo./on-site	1,724,800.00	CF	\$0.33	\$566,769.28

SUPERSTRUCTURE		disposal in existing pit or cut - Max. 10,000 ft. haul				
OPEN PIT PHASE 2 SHOP - Floor	12"@ 400Lx80W	Floor, concrete, demolition only, average reinforcing - 12 in. thick	35,200.00	SF	\$2.21	\$77,623.04
OPEN PIT PHASE 2 SHOP - Footing	2ft x 3ft	Footing, concrete, average reinforcing - 2.0 ft. x 3 ft.	1,040.00	LF	\$13.23	\$13,760.45
OPEN PIT WASH BAY - SUPERSTRUCTURE	90Lx105Wx60H (- 30%)	Bldg. (MN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	396,900.00	CF	\$0.33	\$130,421.34
OPEN PIT WASH BAY - Floor	12"@ 90Lx105W	Floor, concrete, demolition only, average reinforcing - 12 in. thick	9,450.00	SF	\$2.21	\$20,839.14
OPEN PIT WASH BAY - Footing	2ft x 3 ft	Footing, concrete, average reinforcing - 2.0 ft. x 3 ft.	390.00	LF	\$13.23	\$5,160.17
TENMILE TUNNEL SHOP - SUPERSTRUCTURE	34Lx26Wx16H (- 30%)	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	9,901.00	CF	\$0.24	\$2,409.90
TENMILE TUNNEL SHOP - Floor	12"@ 34Lx26W	Floor, concrete, demolition only, average reinforcing - 12 in. thick	884.00	SF	\$2.21	\$1,949.40
TENMILE TUNNEL SHOP - Footing	1.5ft x 2ft	Footing, concrete, average reinforcing - 1.5 ft. x 2 ft.	120.00	LF	\$6.62	\$793.87
TENMILE TUNL OFC - SUPERSTR. (trailer)	50Lx20Wx12H	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	12,000.00	CF	\$0.24	\$2,920.80
TENMILE TUNL OFC - SUPERSTR Foundations	12" @ 50Lx20W	Floor, concrete, demolition only, average reinforcing - 12 in. thick	1,000.00	SF	\$2.21	\$2,205.20
TENMILE TUNL CMP HSE - SUPERSTRUCTURE	18Lx18Wx12H (- 30%)	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	2,722.00	CF	\$0.24	\$662.53
TENMILE TUNL CMP HSE - Floor	12"@ 10Lx18W	Floor, concrete, demolition only, average reinforcing - 12 in. thick	324.00	SF	\$2.21	\$714.48
TENMILE TUNL CMP HSE - Footing	1.5ft x 2ft	Footing, concrete, average reinforcing - 1.5 ft. x 2 ft.	72.00	LF	\$6.62	\$476.32
TENMILE TUNL DMP HSE - SUPERSTRUCTURE	40Lx12Wx10H (- 30%)	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max.	3,360.00	CF	\$0.24	\$817.82

		10,000 ft. haul				
TENMILE TUNL DMP HSE - Floor	8"@ 40Lx12W	Floor, concrete, demolition only, average reinforcing -	480.00	SF	\$1.47	\$705.65
TENMILE TUNL DMP HSE - Footing	1.5ft x 2ft	8 in. thick Footing, concrete, average reinforcing -	104.00	LF	\$6.62	\$688.02
TENMILE BARGE - SUPERSTRUCTURE	36Lx36Wx10H	1.5 ft. x 2 ft. Bldg. (SN) demo./on-site disposal in existing pit or cut - Max.	12,960.00	CF	\$0.24	\$3,154.46
TENMILE BARGE - Floor	12" @ 36Lx36W	10,000 ft. haul Floor, concrete, demolition only, average reinforcing - 12 in. thick	1,296.00	SF	\$2.21	\$2,857.94
POND SHOP - SUPERSTRUCTURE	60Lx40Wx20H	Bldg. (MN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	48,000.00	CF	\$0.33	\$15,772.80
POND SHOP - Floor	12"@ 60Lx40W	Floor, concrete, demolition only, average reinforcing - 12 in. thick	2,400.00	SF	\$2.21	\$5,292.48
POND SHOP - Footing	1.5ft x 2ft	Footing, concrete, average reinforcing - 1.5 ft. x 2 ft.	200.00	LF	\$6.62	\$1,323.12
POND SHOP DOCKS - SUPERSTRUCTURE	200Lx20Wx3H (- 30%)	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	8,400.00	CF	\$0.24	\$2,044.56
POND SHOP DOCKS - Floor	12" @ 200Lx20W	Floor, concrete, demolition only, average reinforcing - 12 in. thick	4,000.00	SF	\$2.21	\$8,820.80
TENMILE COHEREX STA - SUPERSTRUCTURE	22Lx40Wx10H	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	8,800.00	CF	\$0.24	\$2,141.92
TENMILE COHEREX STA - Floor	12"@ 22Lx40W	Floor, concrete, demolition only, average reinforcing - 12 in. thick	880.00	SF	\$2.21	\$1,940.58
TENMILE COHEREX STA - Footing	1.5ft x 2ft	Footing, concrete, average reinforcing - 1.5 ft. x 2 ft.	124.00	LF	\$6.62	\$820.33
Decommissioning - Mine Mill	-	USER PROVIDED ITEM	1.00	EA	\$250,000.00	\$250,000.00
Abate Asbestos and Remove Regulated Materials	-	USER PROVIDED ITEM	1.00	EA	\$450,000.00	\$450,000.00
Explosives Shed (Powder Storage)	13Hx8Wx8H (- 30%)	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max.	582.00	CF	\$0.24	\$141.66

		10,000 ft. haul				
New Mill Building	1105Lx805Wx13H	Plant (3S) demo./on-	8,094,678.00	CF	\$0.48	\$3,916,205.22
· ·	(-30%)	site disposal in	, ,			, , ,
		existing pit or cut -				
		Max. 10,000 ft. haul				
New Mill Building -	15"@ 1108x805	Floor, concrete,	889,525.00	SF	\$2.21	\$1,961,580.53
Floor		demolition only,				
		average reinforcing -				
		12 in. thick				
Train Shack at Ten	50Lx20Wx14H (-	Bldg. (SN)	9,800.00	CF	\$0.24	\$2,385.32
Mile North Portal	30%)	demo./on-site				
		disposal in existing				
		pit or cut - Max.				
		10,000 ft. haul				
Train Shack at Ten	6" @ 50x20	Floor, concrete,	1,000.00	SF	\$1.10	\$1,102.60
Mile North Portal -		demolition only,				
Floor		average reinforcing -				
		6 in. thick			***	****
Mayflower Coherex	7Lx8Wx19H	Bldg. (SN)	1,064.00	CF	\$0.24	\$258.98
Station - Building		demo./on-site				
		disposal in existing				
		pit or cut - Max. 10,000 ft. haul				
Mayflower Coherex	12"@	Floor, concrete,	1,080.00	SF	\$2.21	\$2,381.62
Station - Floor	36Lx30Wx2H	demolition only,	1,080.00	SF	\$2.21	\$2,381.02
Station - Floor	30LX30 W X2H	average reinforcing -				
		12 in. thick				
Mayflower Coherex	12"@ 50Lx30W	Floor, concrete,	1,500.00	SF	\$2.21	\$3,307.80
Station - Floor 2	12 @ JOLAJOW	demolition only,	1,500.00	51	φ2.21	Ψ3,307.00
Station 1 loor 2		average reinforcing -				
		12 in. thick				
Supply Canal No. 2	5Lx3W	USER PROVIDED	565.00	CF	\$30.13	\$17,023.45
Pipeline - Grouting	SEAS !!	ITEM	202.00		Ψ30.13	Ψ17,023.13
Mill Return Pipeline -	5L x 1W	USER PROVIDED	31.00	CF	\$30.13	\$934.03
Grouting		ITEM			,	, , , , , , , , , , , , , , , , , , , ,
Supply Canal No. 2	80Lx2Wx2H	USER PROVIDED	1,280.00	LF	\$18.64	\$23,859.20
Pipeline - Footing		ITEM				. ,
Mayflower Flood	10Lx10Wx35H	USER PROVIDED	1.00	EA	\$530,000.00	\$530,000.00
Bypass Tunnel		ITEM				
Decommissioning	-	USER PROVIDED	1.00	EA	\$150,000.00	\$150,000.00
		ITEM				
Remove Regulated	-	USER PROVIDED	1.00	EA	\$100,000.00	\$100,000.00
Materials		ITEM				
Chalk Mountain /	20Lx8Wx8H	Bldg. (SN)	1,280.00	CF	\$0.24	\$311.55
Robinson Lake Sub		demo./on-site				
1 D C D	187 10777 10777		2 2 4 2 2 2	C-	Φ0.64	Φ# < 0 # ·
	15Lx12Wx13W		2,340.00	CF	\$0.24	\$569.56
Snack						
1 Dam San Duma	12" @ 15I v12W		180.00	ÇE.	\$2.21	\$206.04
	12 @ IJLX12W		100.00	SF	ΦΔ.Δ1	φ370.7 4
SHACK - HOUL						
Robinson Lake Seen	14Lx12Wx13H		2.184 00	CF	\$0.24	\$531.59
	1.22.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		_,		¥	4001.07
4 Dam Seep Pump Shack 4 Dam Sep Pump Shack - floor Robinson Lake Seep Pump Shack	15Lx12Wx13W 12" @ 15Lx12W 14Lx12Wx13H	disposal in existing pit or cut - Max. 10,000 ft. haul Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul Floor, concrete, demolition only, average reinforcing - 12 in. thick Bldg. (SN) demo./on-site	2,340.00 180.00 2,184.00	CF SF	\$0.24 \$2.21 \$0.24	\$569.56 \$396.94 \$531.59

Page 8 of 8 Demo Worksheet Cont'd Task # TTT

		disposal in existing pit or cut - Max. 10,000 ft. haul				
Robinson Lake Seep Pump Shack - floor	12" @ 14Lx12W	Floor, concrete, demolition only, average reinforcing - 12 in. thick	168.00	SF	\$2.21	\$370.47
3 Dam Pumpstation	36Lx30Wx30H (- 30%)	Bldg. (MN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	39,690.00	CF	\$0.33	\$13,042.13

Total Cost (adjusted for

Subtotal (unadjusted): \$13,439,814.83 Job Hours: <u>24,875.00</u> \$11,813,597.24 location):

DEMOLITION WORK

Site:	Climax Mine	Permit Action:	2024-06	Permit/.	Job#: <u>M1977493</u>
OJEC	T IDENTIFICAT	<u> TION</u>			
Γask #:	X4002	State: Colorado		Abbreviation:	None
Date:	6/20/2024	County: Lake	_	Filename:	M493-X4002
User:	ACY	<u> </u>			

<u>UNIT COSTS</u> <u>Location adjustment: 87.90 %</u>

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
MAYFLOWER HLDNG TANK - SUPERSTRUCTURE	28Lx28Wx18H	Bldg. (MN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	14,112.00	CF	\$0.33	\$4,637.20
MAYFLOWER HLDNG TANK - Floor	5ft@ 28x28	Floor, concrete, demolition only, average reinforcing - 12 in. thick	3,920.00	SF	\$2.21	\$8,644.38
CHALK MTN PUMP HOUSE - SUPERSTRUCTURE	25Lx25Wx20H)-30%	Bldg. (MN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	8,750.00	CF	\$0.33	\$2,875.25
CHALK MTN PUMP HOUSE - Floor	12"@ 25Lx25W	Floor, concrete, demolition only, average reinforcing - 12 in. thick	625.00	SF	\$2.21	\$1,378.25
CHALK MTN PUMP HOUSE - Footing	1.5ft x 2ft	Footing, concrete, average reinforcing - 1.5 ft. x 2 ft.	100.00	LF	\$6.62	\$661.56
3 MILL SUBSTATION - SUPERSTRUCTURE	155Lx30Wx15H	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	69,750.00	CF	\$0.24	\$16,977.15
3 MILL SUBSTATION - Floor	12" @ 155Lx30W	Floor, concrete, demolition only, average reinforcing - 12 in. thick	4,650.00	SF	\$2.21	\$10,254.18
OPEN PIT SHOP SUB - SUPERSTRUCTURE	25Lx25Wx15H	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	9,375.00	CF	\$0.24	\$2,281.88
OPEN PIT SHOP SUB - Floor	12"@ 25Lx25W	Floor, concrete, demolition only, average reinforcing - 12 in. thick	625.00	SF	\$2.21	\$1,378.25
DOMESTIC WATER SUB - WOOD STRUCTURE	20Lx20Wx8H	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	3,200.00	CF	\$0.24	\$778.88
DOMESTIC WATER SUB - Floor	12"@ 8Lx4W	Floor, concrete, demolition only, average reinforcing - 12 in. thick	32.00	SF	\$2.21	\$70.57
IRECO PLANT SUB	20Lx20Wx8H	Bldg. (SN) demo./on-	3,200.00	CF	\$0.24	\$778.88

_		site disposal in existing				
SUPERSTRUCTURE		pit or cut - Max. 10,000 ft. haul				
IRECO PLANT SUB - Floor	12"@ 12Lx12W	Floor, concrete, demolition only, average reinforcing - 12	144.00	SF	\$2.21	\$317.55
OPEN PIT UTIL LINES - 21 POLES	21@ 35'-45' Wood	in. thick Utility Poles, Wood 35' - 45' high (each pole)	21.00	EA	\$325.00	\$6,825.00
OPEN PIT UTIL LINES - Line	4977 LF	Disposal of utility pole and hardware surplus material	4,977.00	LF	\$0.02	\$99.54
TAILING UTILITY LINE - 25 POLES	25@ 35'-45' Wood	Utility Poles, Wood 35' - 45' high (each pole)	25.00	EA	\$325.00	\$8,125.00
TAILING UTILITY LINE - Line	5925 LF	Disposal of utility pole and hardware surplus material	5,925.00	LF	\$0.02	\$118.50
Decommissioning - Water Control Strucures	-	USER PROVIDED ITEM	1.00	EA	\$30,000.00	\$30,000.00
Remove Regulated Materials - Subs & Utility	-	USER PROVIDED ITEM	1.00	EA	\$30,000.00	\$30,000.00
Remove TDL Pipe RCP	42-48"	Pipe, reinforced concrete (RCP) - 42 in. diameter pipe	12,808.00	LF	\$76.25	\$976,592.07
Remove TDL Pipe HDPE	20-36"	Pipe, sewer/water - 27 to 36 in. diameter pipe	10,531.00	LF	\$7.86	\$82,773.66
Haul TDL HDPE pipe to landfill-Load	133mi	Loading and 2 mile haul, no salvage - Machine loading	3,753.00	CY	\$21.15	\$79,375.95
Hau TLD HDPE pipe to landfill-haul	208 Trips @131mi	Hauling only, per mile, 12-18 CY truck - 50 mph average speed	27,314.00	MI	\$4.43	\$121,096.62
HDPE pipe to landfill-disposal fee	3753 CY	Dump fees - Building construction materials.	3,753.00	CY	\$11.10	\$41,658.30
CMP 18" culvert	18"x215LF	Pipe, corrugated metal (CMP) - 18 in. diameter pipe	215.00	LF	\$8.10	\$1,740.90
CMP 24" culvert	24"x205LF	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	205.00	LF	\$10.60	\$2,172.00
CMP 36" culvert	36"x170LF	Pipe, corrugated metal (CMP) - 36 in. diameter pipe	170.00	LF	\$16.96	\$2,883.25
CMP 42" culvert	42"@25LF	Pipe, corrugated metal (CMP) - 36 in. diameter pipe	25.00	LF	\$16.96	\$424.01
Wood 34" culvert	120LF	USER PROVIDED ITEM	120.00	LF	\$13.62	\$1,634.40
Plastic 18" culvert	18"@552LF	Pipe, sewer/water - 15 to 18 in. diameter pipe	552.00	LF	\$5.24	\$2,892.48
Plastic 24" culvert	24"@230LF	Pipe, sewer/water - 21 to 24 in. diameter pipe	552.00	LF	\$7.86	\$4,338.72
Plastic 42" culvert	42"@811LF	Pipe, sewer/water - 27 to 36 in. diameter pipe	552.00	LF	\$7.86	\$4,338.72
Haul culverts to pit	33Hr	USER PROVIDED ITEM	33.00	HR	\$104.45	\$3,446.85

Demo Worksheet Cont'd Task # TTT Page 3 of 3

Subtotal Subtotal (adjusted for Job Hours: 367.00 (unadjusted): \$1,451,569.95 location): ___

\$1,275,929.99

EQUIPMENT MOBILIZATION/DEMOBILIZATION

	Task description:	Initial Mobilizati	on					
Site:	Climax Mine	Per	mit Action:	2024-06	Permit/Jo	b#: M1977493		
<u>P</u>	ROJECT IDENTIFIC	<u>CATION</u>						
	Task #: Z0001	State:	Colorado		Abbreviation:	None		
	Date: 9/12/2024	County:	Summit		Filename:	M493-Z0001		
	User: ACY							
<u>E</u>	Agency or organi							
					Shift basis:	1 per day		
				Cost I	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 GOOSEN	ECK, DROP DEC	K 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	Owner ship Cost/hr/ unit	Haul Rig Cost/hr/uni	Fleet Size	Haul Trip Cost/hr/	Return Trip Cost/hr/ fleet	DOT Permit Cost/ fleet
Description	(TONS)	Cost/III/ uiiit	t	Size	fleet		
Cat D6T LGP	28.63	\$108.97	\$122.78	9	\$2,085.75	\$1,105.02	\$3,750.00
Cat D7R DS XR	35.93	\$99.49	\$122.78	6	\$1,333.62	\$736.68	\$750.00
Series II							
Cat D8T - 8SU	47.71	\$173.32	\$122.78	10	\$2,961.00	\$1,227.80	\$750.00
Cat D10T - 10SU	84.53	\$257.39	\$125.64	8	\$3,064.24	\$1,005.12	\$1,000.00
Cat 315D L 8'-6" Stick	19.05	\$244.29	\$59.44	2	\$607.46	\$118.88	\$1,000.00
Cat 320D L 9'-6" Stick	23.70	\$244.29	\$59.44	4	\$1,214.92	\$237.76	\$1,250.00
Cat 336D L 10'-6" Stick	32.23	\$244.29	\$122.78	4	\$1,468.28	\$491.12	\$250.00
CAT 966H high lift	25.80	\$57.78	\$59.44	12	\$1,406.64	\$713.28	\$750.00
CAT 973D	29.07	\$120.46	\$122.78	6	\$1,459.44	\$736.68	\$250.00
CAT 450E	9.80	\$78.06	\$59.44	1	\$137.50	\$59.44	\$1,000.00
Atlas Capco DM45/LP - 7-7/8"	1.25	\$311.69	\$59.44	1	\$371.13	\$59.44	\$500.00
Grove GMK3055, 141', 54.4 MT	39.30	\$167.54	\$122.78	6	\$1,741.92	\$736.68	\$750.00
Grove RT650E, 105', 45.4 MT	28.74	\$189.03	\$122.78	6	\$1,870.86	\$736.68	\$750.00
Cat 740	36.49	\$108.25	\$122.78	35	\$8,086.05	\$4,297.30	\$8,750.00
Water Tanker, 5,000 Gal.	15.00	\$51.70	\$59.44	3	\$333.42	\$178.32	\$750.00

Water Tanker, 7,000 Gal.	29.65	\$73.42	\$122.78	3	\$588.60	\$368.34	\$750.00
Drill/Broadcast Seeder with	25.00	\$41.02	\$59.44	8	\$803.68	\$475.52	\$2,000.00
Tractor Power Mulcher	6.00	\$27.21	\$59.44	8	\$693.20	\$475.52	\$2,000.00
(Bowie LD-90)							

Subtotals: \$30,227.7 \$13,759.58 \$27,000.00

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Hydroseeder with Tractor	\$133.22	4	\$532.88	\$532.88
Light Duty Pickup, 4x4, 3/4 T.	\$57.91	10	\$579.10	\$579.10
Light Duty Pickup, 4x4, 1 T.	\$130.54	3	\$391.62	\$391.62
Crew				
Flatbed Truck, 6x4, 45K GVW	\$103.84	8	\$830.72	\$830.72
Generic 15-18 cy, 6x4	\$129.15	20	\$2,583.00	\$2,583.00

Subtotals: \$4,917.32 \$4,917.32

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:

Total one-way travel distance:

Average Travel Speed:

DENVER

miles

55.00

mph

Transportation Cycle Time:

	Non-	
	Roadable	Roadable
	Equipment	Equipment
Haul Time (Hours):	1.60	1.60
Return Time (Hours):	1.60	1.60
Loading Time (Hours):	8.00	NA
Unloading Time (Hours):	8.00	NA
Subtotals:	19.20	3.20

JOB TIME AND COST

Total job cost: **38.40** Hours

Total job cost: **\$1,177,781**

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description:	Reveg Failure Mob	ilization		
e: Climax Mine	Permi	t Action:	Permit/Jo	b#: <u>M1977493</u>
PROJECT IDENTIFICA	<u>TION</u>			
Task #: Z0002	State: C	Colorado	Abbreviation:	None
Date: 9/12/2024	County: S	ummit	Filename:	M493-Z0002
User: ACY	<u> </u>			
Agency or organizat	ion name: DRM	S		
EQUIPMENT TRANSPO	ORT RIG COST			
			Shift basis:	1 per day
			Cost Data Source:	CRG Data
Truck Tractor D	escription: GEN	ERIC ON-HIGHW	AY TRUCK TRACTOR, 6X4,	DIESEL POWERED,
			400 HP (2ND HALF, 2006)	,
Truck Trailer D	escription:	GENERIC FOLDIN	IG GOOSENECK, DROP DEC	K EQUIPMENT
		TR	AILER (25T, 50T, AND 100T)	
Cost Breakdown:				
Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons	
Ownership Cost/Hour		\$22.18	\$23.94	
Operating Cost/Hour		\$54.55	\$55.65	
Operator Cost/Hour		\$22.52	\$22.52	

NON ROADABLE EQUIPMENT:

Total Unit Cost/Hour:

Helper Cost/Hour:

\$0.00

\$59.44

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	\$41.02	\$59.44	2	\$200.92	\$118.88	\$2,000.00
Seeder with							
Tractor							
Power Mulcher	6.00	\$27.21	\$59.44	2	\$173.30	\$118.88	\$2,000.00
(Bowie LD-90)							

\$23.53

\$122.78

\$23.53

\$125.64

Subtotals: \$374.22 \$237.76 \$4,000.00

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Hydroseeder with Tractor	\$133.22	2	\$266.44	\$266.44
Light Duty Pickup, 4x4, 3/4 T.	\$57.91	3	\$173.73	\$173.73
Light Duty Pickup, 4x4, 1 T. Crew	\$130.54	1	\$130.54	\$130.54
Flatbed Truck, 6x4, 45K GVW	\$103.84	1	\$103.84	\$103.84

Subtotals:	\$674.55	\$674.55

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:

Total one-way travel distance:

Average Travel Speed:

DENVER

miles

55.00 mph

Task # Z0002

Transportation Cycle Time:

	Non-	
	Roadable	Roadable
	Equipment	Equipment
Haul Time (Hours):	1.60	1.60
Return Time (Hours):	1.60	1.60
Loading Time (Hours):	8.00	NA
Unloading Time (Hours):	8.00	NA
Subtotals:	19.20	3.20

JOB TIME AND COST

Total job cost: 38.40 Hours

Total job cost: \$24,092

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: N	Mayflower TSF Slu	ıdge Cell Mobiliza	ntion	
te: Climax Mine	Permi	t Action:2024-0	6 Permit/Jo	ob#: M1977493
PROJECT IDENTIFICA	<u>TION</u>			
Task #: Z0003 Date: 9/12/2024 User: ACY		Colorado Summit	Abbreviation: Filename:	None M493-Z0003
Agency or organizat	ion name: DRM	S		
EQUIPMENT TRANSPO	RT RIG COST			
			Shift basis: Cost Data Source:	1 per day CRG Data
Truck Tractor De	escription: GEN	ERIC ON-HIGHW	AY TRUCK TRACTOR, 6X4, 400 HP (2ND HALF, 2006)	DIESEL POWERED,
Truck Trailer De	escription:		NG GOOSENECK, DROP DEC RAILER (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	

\$22.52

\$23.53

\$122.78

\$22.52

\$23.53

\$125.64

NON ROADABLE EQUIPMENT:

Total Unit Cost/Hour:

Operator Cost/Hour:
Helper Cost/Hour:

\$22.52

\$0.00

\$59.44

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 D7R DS XR	35.93	\$99.49	\$122.78	1	\$222.27	\$122.78	\$750.00
Series II							
Cat D8T - 8SU	47.71	\$173.32	\$122.78	2	\$592.20	\$245.56	\$750.00
Water Tanker,	15.00	\$51.70	\$59.44	3	\$333.42	\$178.32	\$750.00
5,000 Gal.							
Drill/Broadcast	25.00	\$41.02	\$59.44	2	\$200.92	\$118.88	\$2,000.00
Seeder with							
Tractor							
Power Mulcher	6.00	\$27.21	\$59.44	2	\$173.30	\$118.88	\$2,000.00
(Bowie LD-90)							
Cat 336D L 10'-6"	32.23	\$244.29	\$122.78	1	\$367.07	\$122.78	\$250.00
Stick							
CAT 973D	29.07	\$120.46	\$122.78	1	\$243.24	\$122.78	\$250.00

Subtotals: \$2,132.42 \$1,029.98 \$6,750.00

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Hydroseeder with Tractor	\$133.22	1	\$133.22	\$133.22
Light Duty Pickup, 4x4, 3/4 T.	\$57.91	2	\$115.82	\$115.82

Light Duty Pickup, 4x4, 1 T.	\$130.54	1	\$130.54	\$130.54
Crew				
Flatbed Truck, 6x4, 45K GVW	\$103.84	1	\$103.84	\$103.84
Generic 15-18 cy, 6x4	\$129.15	2	\$258.30	\$258.30

Subtotals: \$741.72 \$741.72

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region: **DENVER** Total one-way travel distance: 88.00 miles 55.00 mph

Average Travel Speed:

Total Non-Roadable Mob/Demob Cost * "* two round trips with haul rig:

Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig: \$91,857.12 \$2,373.50

<u>Transportation Cycle Time:</u>

	Non-	
	Roadable	Roadable
	Equipment	Equipment
Haul Time (Hours):	1.60	1.60
Return Time (Hours):	1.60	1.60
Loading Time (Hours):	8.00	NA
Unloading Time (Hours):	8.00	NA
Subtotals:	19.20	3.20

JOB TIME AND COST

Total job time:	38.40	Hours