

April 24, 2020

Miranda Kawcak Peabody Sage Creek Mining, LLC 29515 Routt County Road #27 Oak Creek, CO 80467

RE: Sage Creek Mine; C-2009-087: Permit Renewal No. 2 (RN2) Adequacy Review

Dear Ms. Kawcak:

The Colorado Division of Reclamation, Mining, and Safety (Division) has reviewed the above referenced permit renewal (RN2), to renew the permit for another five year permit term in accordance with Rule 2.01.5. Please find below the adequacy review issues that will need to be addressed prior to the Division's approval of the revision. The Division is required to issue its proposed decision for this renewal by $\frac{6}{24}$. Please provide responses with adequate time for the Division to review items prior to the decision date.

Please address the following items:

2.03.4 Identification of Interests

- 1. Please review ownership and control information provided in Section 2.03.4(3) of the permit and provide any necessary updates. Please update any ownership and controls information that may have changed during the process of this renewal.
- 2. Please review Surface Ownership Map. If any updates have occurred, please provide the information required by Rule 2.03.4(6)(a) for these entities/persons. Please insure that any entity/person that is listed in this section of the permit has their property correctly depicted and labeled on the associated map.
- 3. Please review the Identification of Other Licenses and Permits listed in 2.03.10 of the PAP and update the list with any new licenses/permits obtained and update the status of any pending licenses or permits.
- 4. In accordance with Rule 2.03.12, please revise Exhibit 2.03.12-E1 by submitting a copy of the newspaper publication and affidavit of publication required by Rule 2.07.3(2) no later than four weeks after the last day of the publication.

2.03.5 Compliance Information

5. Please update section 2.03.5(3) of the application to add or delete any information about violations received more than three years ago.

2.03.10 Other Licenses and Permits



6. Please review section 2.03.10 of the permit and revise the section if necessary to document any new permits obtained or renewal/issuances of permits currently held.

2.05.6(3)(a)(i), (iii), and (iv) – Protection of the Hydrologic Balance

7. Please review Annual Hydrology Reports and updated the probable hydrologic consequences for the site, including selenium data not previously included into the permit.

3.03,2; Determination of the Bond Amount

8. The Division has updated the reclamation cost estimate for the site. The reclamation cost estimate enclosed with this letter takes into account all approved revisions to date. Please provide the Division any comments or additions that should be included into this estimate.

If you have any questions feel free to contact me at Sincerely,

tatthe Amoh

Tabetha Lynch Environmental Protection Specialist

Enclosures:

1. Reclamation Cost Estimate for the Peabody Sage Creek Mine RN2

COST SUMMARY WORK

Task description:	RN2					
Site: Peabody Sage Cree	k Mine	Permit Action:	RN2	Permit/Job#:	C2009087	
PROJECT IDENTIF	FICATION					

Task #:000State:ColoradoAbbreviation:NoneDate:3/12/2020County:RouttFilename:C087-000User:TNL

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Haul Backfill Mat. from Coal Handling Fac. to Portal	TRUCK1	2	243.07	\$388,684
002	Haul Backfill Material from Utility Pad Area to Portal Face-	TRUCK1	3	102.12	\$222,823
003	Haul Backfill Material from South Facilities to Portal Face-	TRUCK1	2	182.31	\$349,354
004	Remove Coal Stockpile Footprint	TRUCK1	1	63.46	\$114,210
010	Regrade Cut Material Over 6.93 ROM Coal Area	DOZER	1	46.54	\$11,066
011	Regrade Cut Material Over covered Storage Pad Area	DOZER	1	6.94	\$1,650
012	Regrade Drill Pads COV11, CCU31, CCU47, CCU58, CCU67, CCU84,	DOZER	1	7.78	\$1,914
013	Regrade Drill Pads CCU087 and Septic Drainfield	DOZER	1	1.94	\$479
020	Remove Gravel from North Facilities Parking Area	TRUCK1	1	4.99	\$7,610
021	Remove Gravel from Main North Facilities Area	TRUCK1	1	11.51	\$17,561
022	Remove Gravel from North Facilities Electrical Shop Area	TRUCK1	1	3.07	\$4,682
023	Remove Gravel from North Office Parking Area	TRUCK1	1	0.58	\$878
024	Remove Gravel from South Powder Magazine Pad	TRUCK1	1	0.49	\$755
030	Rip North Facilities Parking Area	RIPPER	1	3.24	\$1,123
031	Rip North Facilities Area	RIPPER	1	7.48	\$2,592
032	Rip North Electrical Shop Facilities Area	RIPPER	1	1.99	\$691
033	Rip North Office Parking Area	RIPPER	1	0.37	\$130
034	Rip South Powder Magazine Pad	RIPPER	1	0.32	\$114
035	Rip South Covered Storage Area	RIPPER	1	3.74	\$1,296
040	Rip Haulroad A/A1 Reduction	RIPPER	1	8.85	\$3,067
041	Rip Haulroad B Reduction	RIPPER	1	5.98	\$2,074
042	Rip Haulroad D	RIPPER	1	2.61	\$907
045	Regrade Haulroad A/A1 Reduction	DOZER	2	32.94	\$22,814
046	Regrade Haulroad B Reduction	DOZER	2	22.27	\$15,423
047	Regrade Haulroad D	DOZER	2	9.93	\$6,875
050	Regrade Upper Sump	DOZER	1	10.36	\$3,475
051	Regrade Lower Sump	DOZER	1	7.40	\$2,482
052	Regrade Area Ditches	GRADER	1	1.03	\$159
053	Backfill and Regrade Microwave Tower Pad (MR22)	DOZER	1	0.16	\$26
054	Replace Topsoil on Microwave Tower Pad	DOZER	1	0.08	\$12
060	Replace Topsoil on Coal Handling Facilities Area	SCRAPER1	1	30.32	\$37,608
061	Replace Topsoil on Portal Face-Up Area	SCRAPER1	1	46.56	\$57,757

062	Replace Topsoil on South Utility Pads	SCRAPER1	1	17.86	\$22,151
063	Replace Topsoil on South Facilities Storage Areas	SCRAPER1	1	37.67	\$46,731
064	Replace Topsoil on Haulroad A/A-1 Reduction	SCRAPER1	1	24.94	\$35,065
065	Replace Topsoil on Haulroad B Reduction	SCRAPER1	1	15.32	\$21,542
066	Replace Topsoil on Haulroad D Location	SCRAPER1	1	6.35	\$8,923
068	Replace Topsoil on COV11, CCU31, CCU47, CCU58, CCU67, CCU84,	DOZER	1	6.64	\$2,229
069	Replace Topsoil on Upper Sump	DOZER	1	6.64	\$2,229
070	Replace Topsoil on Lower Sump	DOZER	1	4.74	\$1,592
080	Seal Mine Shafts and Portals	MINESEAL	1	32.00	\$44,225
090	Drillhole/Monitoring Well Sealing	BOREHOLE	1	233.00	\$111,654
100	Reseed North Facilities Areas	REVEGE	1	7.20	\$10,841
101	Reseed South Facilities Areas	REVEGE	1	38.40	\$51,032
102	Reseed Reclamed Roads	REVEGE	1	7.10	\$10,100
103	Reseed Drill Pads and Geotechnical Hole Locations	REVEGE	1	3.00	\$963
104	Seed Remaining BRB-2 and BRB-3 Area	REVEGE	1	68.01	\$61,454
106	Seed Phase II Released BRB4	REVEGE	1	231.20	\$208,912
110	Demolish and Remove North Facilities and Materials	DEMOLISH	1	134.00	\$239,591
111	Demolish and Remove South Facilites and Structures	DEMOLISH	1	190.00	\$342,215
120	Mobilize/Demobilize Equipment from Hayden	MOBILIZE	1	3.33	\$37,288
125	Site Maintenance During Liability Period	SITEMAINT ENANCE	1	400.00	\$59,516
126	Weed Managment Over Liability Period	REVEGE	1	0.00	\$9,950
127	Water Monitoring During Liability Period	SITEMAINT ENANCE	1	60.00	\$55,844
128	Clean Sediment from Upper and Lower Sumps	TRUCK1	1	59.72	\$30,984
		<u>SUBTO</u>	<u>TALS:</u>	2457.55	\$2,695,322

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	\$54,446
Performance bond:	1.05	Total =	\$28,301
Job superintendent:	1,228.78	Total =	\$85,265
Profit:	10.00	Total =	\$269,532
		TOTAL O & P =	\$437,543
		CONTRACT AMOUNT (direct + O & P) =	\$3,132,865

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): Engineering work and/or contract/bid preparation: Reclamation management and/or administration:	\$500 4.61 3.58	Total = Total =	\$500 \$144,425 \$112,157
CONTINGENCY:	0.00	Total =	\$0
	TOTAL IN	DIRECT COST =	\$694,625
TOTAL BO	\$3,389,947		

TRUCK/LOADER TEAM WORK

Site: Peabody Sage Cr	eek Mine	Permi	it Actio	on: RN2		Permit/Job#:	C2009087
PROJECT IDENT	IFICATION						
Task #: 001		State: 0	Colora	do	Abl	previation: No	ne
Date: $3/25/2$	020		Routt	40		Filename: 00	
User: TNL		·					
Agency or o	rganization nan	ne: DRM	[S				
HOURLY EQUIP	MENT COST	-			Shift ba	sis: <u>1 per day</u>	
			Е	quipment Descr	iption		
Tr	ick Loader Tea	m -Truck:	Cat 7		1		
		-Loader:		988H			
Suppor	t Equipment -L	F		D10T - 10SU			
Road Mai	-Du ntenance –Moto	mp Area:	NA NA				
Road Mai		ter Truck:		er Tanker, 10,00	0 Gal.		
				, ,			
Cost Breakdown:	Truck/Loa	der Team			Equipment		ance Equipment
	Truck	Loader		Load Area	Dump Area	Motor Grader	Water Truck
6 Utilization-machine:	100		95	100	NA	NA	25
Ownership cost/hour:	\$80.59	\$91	1.83	\$140.61	NA	NA	\$68.95
Operating cost/hour:	\$66.37	\$90).74	\$135.35	NA	NA	\$25.83
%Utilization-riper:	NA		0	NA	NA	NA	NA
tipper own. cost/hour:	NA	\$0	0.00	\$0.00	NA	NA	\$0.00
Ripper op. cost/hour:	NA	\$0	0.00	\$0.00	NA	NA	\$0.00
Operator cost/hour:	\$32.93	\$40).65	\$41.24	NA	NA	\$21.09
Unit Subtotals:	\$179.89	\$223	3.22	\$317.20	NA	NA	\$115.88
Number of Units:	4		2	1	0	0	1
Group Subtotals:	Work:	\$1,166.00		Support:	\$317.20	Maint:	\$115.88
Total work team cost/	hour: <u>\$1,599.0</u>	8					
MATERIAL QUA	NTITIES						
Initial volume:	291,017		CCY	Swell	factor: 1.125		
Loose volume:	327,39		LCY				
	ce of estimated				on, Mining & Sat	fety	
Source o	ce of estimated f estimated swe Material Purcha	ll factor:		andbook	on, Mining & Sat	fety	

HOURLY PRODUCTION

Truck Capacity:

Truck Pay	load (weigl	ht) l	Basis:

Material weight:	2,650	Pounds/LCY	
Description:	Decompos	ed rock - 25% Rock, 75% Earth	
Rated Payload:	82,000	Pounds	

 Total Cost:
 \$0.00

 \$0.00
 \$0.00

Payload Capacity:	30.94	LCY
r ayroad Capacity.	50.74	LUI

Truck Maneuver and Dump

Time:

1.00

Minutes

Truck Bed (volume) Basis:						
Struck Volume:	21.60	LCY				
Heaped Volume:	31.70	LCY				
Average Volume:	26.65	LCY				
Adjusted Volume:	30.94	LCY				
Final Ti	ruck Volume	Based on Number	of Loader Passes:	30.36	LCY	
Loading Tool Capacity						
			Buc	ket Size Class: N	A	
Rated Capacity:	9.200	LCY (heape	d)			_
Bucket Fill Factor:	0.825		- avg. blasted (7.	5 - 90%) 0.825		-
Adjusted Capacity:	7.590	LCY	0	,		_
Job Condition Corrections:			Site Altitude (ft.)	: <u>6800</u> feet		
	Truck	Loader	Source	e		
Altitude Adj:	1.000	1.000	(CAT H	B)		
Job Efficiency:	0.830	0.830	(CAT H	B)		
Net Correction:	0.830	0.830				
Loading Tool Cycle Time:		Number of Loadin	g Tool Passes Rec	wired to Fill		passes
				Truck:	4	pusses
Excavators and Front Shovels	<u>:</u>					
Machine Cycle Time vs.						
Selected Value w	ithin this Bas	ic Rating: NA				
Track Loaders – M	Aaterial Desci	ription:				
Cycle Time Elements (min.):						
Load: NA	N	Ianeuver: NA		Dump: 0.10	n	
	-			Dump. 0.10	0	
Wheel and Track	Loaders - Un	adjusted Basic Loa	der Cycle Time (l	oad, dump,	.575 min	utes
				maneuver):	.373	
Cycle Time Factors				Factor (min.)	Source	
Material:	Mixed mate	rial 0.02		0.020	(Cat HB)	
Stockpile:	•	dozer piled 10 ft.	high and up	0.000	(Cat HB)	
	0.00			0.000	(Cut IID)	_
Truck Ownership:		vnership of trucks	and loaders -	-0.040	(Cat HB)	
Operation:	0.04 Constant on	eration -0.04		-0.040	(Cat HB)	_
Dump Target:	Nominal tar			0.000	(Cat HB)	
Dump Turget.	i toininui tui		ime Adjustment:	-0.060	minutes	_
			ader Cycle Time:	0.515	minutes	
			Time per Truck:	1.645	minutes	
			-		_	
Truck Cycle Time:						
Truck Exchange Time:	0.60	Minutes	Adjusted	for site altitude:	0.600	Minutes
Truck Load Time:	1.645	Minutes	Adjusted	for site altitude:	1.645	Minutes

1.000

Minutes

Adjusted for site altitude:

		ul & Return) T	ime: I	Road Condition	on: <u>Firm, smoot</u>	<u>h, rolling, dirt</u>	lt. surfaced	, watered,
<u>maintainec</u> Haul Rout								
Seg #	-	Distance	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)	
1	950.0	00	-5.00	3.00	-2.00	3893	0.294	
Return Ro	ute:				Haul Time:	0.294	min	utes
Seg #	1	Distance	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)	
1	950.0	00	5.00	3.00	8.00	2120	0.572	
				Total True	Return Time: ck Cycle Time:			nutes nutes
Loading Too Prod Truck Unit Prod	uction	811.40	LCY/Hour		Adjusted for jo	b efficiency:	673.40	5 LCY/Hour
Truck Onit Flou	uction	443.10	LCY/Hour		Adjusted for jo	b efficiency:	367.78	8 LCY/Hour
Optimal No. of T	rucks:	2	Truck(s)		Selected Numb	er of Trucks:	2	Truck(s)
		А	Adjusted single	e truck/loader	team production team production team production	on: 673.	46 L	CY/Hour CY/Hour CY/Hour
JOB TIN	1E AN	D COST						
Fleet	size:	2	Team(s)	T	otal job time:	243.0	7	Hours
Unit	cost:	\$1.187	/LCY	Т	otal job cost:	\$388,6	84	

Page 6 of 130

TRUCK/LOADER TEAM WORK

Haul Backfill Material from Utility Pad Area to Portal Face-

Site: Peabody Sage	Creek Mine	Permit	Actio	n: RN2	Permit/Job			o#: <u>C2009087</u>	
PROJECT IDEN	TIFICATION								
User: TNI	_	State:ColoradoCounty:Routt				Abbreviation: None Filename: 002			
Agency of	r organization nan	ne: DRMS	5						
HOURLY EQUI	PMENT COST	-			Shift ba	sis: <u>1 per da</u>	<u>iy</u>		
				uipment Descri	iption				
]	Fruck Loader Tear		Cat 77						
Supr	ort Equipment -L		CAT S	988H 10T - 10SU					
Dupp			NA	101 1050					
Road M	aintenance – Moto		NA						
	-Wa	ter Truck:	Water	Tanker, 10,00	0 Gal.				
Cost Breakdown:	Truck/Loa	der Team		Support	Equipment	Mai	ntena	ance Equipment	
	Truck	Loader		Load Area	Dump Area	Motor Grader		Water Truck	
6Utilization-machine:	100		95	100	NA]	NA	25	
Ownership cost/hour:	\$80.59	\$91.	.83	\$140.61	NA]	NA	\$68.95	
Operating cost/hour:	\$66.37	\$90.	.74	\$135.35	NA]	NA	\$25.83	
%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:	\$32.93	\$40.	.65	\$41.24	NA]	NA	\$21.09	
Unit Subtotals:	\$179.89	\$223.	.22	\$317.20	NA]	NA	\$115.88	
Number of Units:	6		3	1	0		0	1	
Group Subtotals:	Work:	\$1,749.00		Support:	\$317.20	Ma	int:	\$115.88	
Total work team co MATERIAL QU		8							
Initial volum	e: 183,389	C	CCY	Swell f	factor: 1.125				
Loose volume			LCY						
	urce of estimated of estimated swe Material Purcha	Il factor: C use Cost: \$	Cat Ha \$0.00	on of Reclamation ndbook	on, Mining & Sa	fety			
	То	tal Cost: \$	50.00						

HOURLY PRODUCTION

Truck Capacity:

Task description:

Truck Payload (weight) Basis:

Material weight:2,650Pounds/LCYDescription:Decomposed rock - 25% Rock, 75% Earth

Rated Payload:	82,000	Pounds
Payload Capacity:	30.94	LCY

Truck Bed (volume) Basis		LCV				
Struck Volume: Heaped Volume:	<u>21.60</u> 31.70	LCY LCY				
Average Volume:	26.65	LCY				
Adjusted Volume:	30.94	LCY				
Ū		-				
Fina	al Truck Volume	e Based on Number o	f Loader Passes:	30.36	LCY	
Loading Tool Capacity						
			Buck	ket Size Class: N	A	
Rated Capacity:	9.200	LCY (heaped))			
Bucket Fill Factor:	0.825	Blasted rock -	avg. blasted (75	5 - 90%) 0.825		
Adjusted Capacity:	7.590	LCY				
Job Condition Correction	201		Sita Altituda (ft.)	6800 faat		
Job Condition Correction			Site Altitude (ft.):			
A 1.". 1 A 1"	Truck	Loader	Source			
Altitude Adj:	1.000	1.000	(CAT HE			
Job Efficiency:	0.830	0.830	(CAT HE)		
Net Correction:	0.830	0.830				
Loading Tool Cycle Tim	<u>e:</u>	Number of Loading	Tool Passes Requ		4	passes
Excavators and Front Shore	vels:			Truck:		
Machine Cycle Time	vs. Job Conditi	on Rating: NA				
-	e within this Bas					
	– Material Desc					
Cycle Time Elements (min						
-				D 0.100	`	
Load: NA		Maneuver: NA		Dump: 0.100)	
Wheel and Tr	ack Loaders - Ui	nadjusted Basic Load	ler Cycle Time (10	oad dumn	min	utes
Wheel and Th		liadjusted Duste Load	•	naneuver): 0	.575	utes
Cycle Time Factor	re			Factor (min.)	Source	
Materia		erial 0.02		0.020	(Cat HB)	_
Stockpile		or dozer piled 10 ft. h	igh and up			_
	0.00	-		0.000	(Cat HB)	
Truck Ownership		wnership of trucks a	nd loaders -	-0.040	(Cat HB)	
	0.04					_
Operation		peration -0.04		-0.040	(Cat HB) (Cat HB)	
Dump Targe	t: Nominal ta		me Adjustment:	0.000 -0.060	minutes	_
			ler Cycle Time:	0.515	 minutes	
			Time per Truck:	1.645	minutes	
			•	-	_	
Truck Cycle Time:						
Truck Exchange Ti	me: 0.60	Minutes	Adjusted	for site altitude:	0.600	Minutes
Truck Load Ti	me: 1.645	Minutes	Adjusted	for site altitude:	1.645	Minutes
Truck Maneuver and Du	1.00	Minutes	•	for site altitude:	1.000	Minutes
	me:		5	_		-

Haul Route: Travel Seg # Haul Distance Grade (%) Roll. Res Total Res Velocity Time (Ft) (%) (%) (fpm) (min) 2754 1 500.00 0.00 3.00 3.00 0.632 Haul Time: 0.632 minutes **Return Route:** Seg # Haul Distance Grade (%) Roll. Res Total Res Velocity Travel Time (%) (fpm) (Ft) (%) (min) 500.00 0.00 3.00 3.00 4074 1 0.466 **Return Time:** 0.466 minutes Total Truck Cycle Time: 4.343 minutes Loading Tool unit Production 811.40 LCY/Hour Adjusted for job efficiency: 673.46 LCY/Hour Truck Unit Production 419.43 LCY/Hour 348.13 LCY/Hour Adjusted for job efficiency: Optimal No. of Trucks: 2 Truck(s) Selected Number of Trucks: 2 Truck(s) LCY/Hour Adjusted hourly truck team production: 696.26 Adjusted single truck/loader team production: 673.46 LCY/Hour Adjusted multiple truck/loader team production: 2,020.39 LCY/Hour JOB TIME AND COST Fleet size: 3 Team(s) Total job time: **102.12** Hours Unit cost: \$1.080 /LCY Total job cost: **\$222,823**

Truck Travel (Haul & Return) Time:

maintained 3.0

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

Page 9 of 130

TRUCK/LOADER TEAM WORK

Task description:	Haul Ba	ckfill Mate	erial f	from South Faci	lities to Portal F	ace-	
ite: Peabody Sage Cr	eek Mine	Permi	it Act	ion: <u>RN2</u>		Permit/Job#:	C2009087
PROJECT IDENT	IFICATION						
Task #: 003		State: C	Colora	ado	Abb	previation: No	ne
Date: 3/25/2	020 C	County: F	Routt			Filename: 003	3
User: TNL							
Agency or o	rganization nam	e: DRM	S				
HOURLY EQUIP	MENT COST				Shift ba	sis: <u>1 per day</u>	
				Equipment Descr	iption		
Tru	ick Loader Tean	F		770D Г 988Н			
Suppor	t Equipment -Lo	-Loader:		D10T - 10SU			
Suppor		mp Area:		D10T - 10SU			
Road Mai	ntenance – Moto		NA				
- <u></u>	-Wat	er Truck:	Wat	er Tanker, 10,00) Gal.		
Cost Breakdown:	Truck/Load	ler Team		Support	Equipment	Mainten	ance Equipment
	Truck	Loader		Load Area	Dump Area	Motor Grader	Water Truck
Utilization-machine:	100		95	100	100	NA	25
Ownership cost/hour:	\$80.59	\$91	.83	\$140.61	\$140.61	NA	\$68.95
Operating cost/hour:	\$66.37	\$90).74	\$135.35	\$135.35	NA	\$25.83
%Utilization-riper:	NA		0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0	0.00	\$0.00	\$0.00	NA	\$0.00
Ripper op. cost/hour:	NA	\$0	0.00	\$0.00	\$0.00	NA	\$0.00
Operator cost/hour:	\$32.93	\$40).65	\$41.24	\$41.24	NA	\$21.09
Unit Subtotals:	\$179.89	\$223	3.22	\$317.20	\$317.20	NA	\$115.88
Number of Units:	4		2	1	1	0	1
Group Subtotals:	Work:	\$1,166.00		Support:	\$634.40	Maint:	\$115.88
Total work team cost/	hour: <u>\$1,916.2</u>	8					
MATERIAL QUA	NTITIES NOT						
Initial volume:	192,960		CCY	Swell	factor: 1.125		
Loose volume:	217,08	0	LCY				
	ce of estimated f estimated swel			ion of Reclamati Iandbook	on, Mining & Sat	fety	

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight:2,650Pounds/LCYDescription:Decomposed rock - 25% Rock, 75% Earth

Total Cost:

Material Purchase Cost:

\$0.00

\$0.00

Rated Payload:	82,000	Pounds
Payload Capacity:	30.94	LCY

Truck Bed (volume) Basis: Struck Volume: Heaped Volume: Average Volume:	31.70 26.65	LCY LCY LCY				
Adjusted Volume:	30.94	LCY				
Final Tr	ruck Volume E	Based on Number of I	Loader Passes:	30.36	LCY	
Loading Tool Capacity						
	0.000		Buck	tet Size Class: <u>N</u>	NA	_
Rated Capacity:	<u>9.200</u> 0.825	LCY (heaped) Blasted rock - av	a blastad (75	0.0%) 0.825		
Adjusted Capacity:	7.590	LCY	g. blasted (73	- 90%) 0.825		
Job Condition Corrections:		Sit	e Altitude (ft.):	<u>6800</u> feet		
	Truck	Loader	Source			
Altitude Adj:	1.000	1.000	(CAT HB	,		
Job Efficiency:	0.830	0.830	(CAT HB	3)		
Net Correction:	0.830	0.830				
Loading Tool Cycle Time:	N	umber of Loading To	ool Passes Requ		4	passes
Excavators and Front Shovels	<u>:</u>			Truck:	·	
Machine Cycle Time vs.	Job Condition	Rating: NA				
Selected Value wi						
Track Loaders – M	Iaterial Descri	ption:				
Cycle Time Elements (min.):						
Load: NA	M	aneuver: NA		Dump: 0.10	0	
Wheel and Track	Loaders - Una	djusted Basic Loader			0.575 min	ites
			n	naneuver):		
Cycle Time Factors				Factor (min.)	Source	_
Material:	Mixed mater			0.020	(Cat HB)	_
Stockpile:	0.00	dozer piled 10 ft. hig	n and up	0.000	(Cat HB)	
Truck Ownership:		nership of trucks and	loaders -	-0.040	(Cat HB)	_
Operation:	Constant ope	ration -0.04		-0.040	(Cat HB)	
Dump Target:	Nominal targ			0.000	(Cat HB)	_
		Net Cycle Time	-	-0.060	minutes	
		Adjusted Loader		0.515	minutes	
		Net Load Tin	ne per Truck:	1.645	minutes	
Truck Cycle Time:						
Truck Exchange Time:	0.60	Minutes	Adjusted t	for site altitude:	0.600	Minutes
Truck Load Time:	1.645	Minutes	Adjusted t	for site altitude:	1.645	Minutes
Truck Maneuver and Dump Time:		Minutes	Adjusted	for site altitude:	1.000	Minutes

	Truck Trav	vel (Haul	& Return) T	ime:	Road Condition	on: <u>Firm, smoo</u>	th, rolling, dir	t/lt. surfac	ed, wate	red,
	maintainec Haul Route						· <u>·</u> ··			
	Seg #		Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel		
		(Ft)			(%)	(%)	(fpm)	Time (min)		
	1	1250.0	00	-1.00	3.00	2.00	3843	1.131		
						Haul Time:	1.131	m	inutes	
	Return Ro									
	Seg #		Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel Time		
		(Ft)			(%)	(%)	(fpm)	(min)		
	1	1250.0	00	1.00	3.00	4.00	3891	0.703		
						Return Time:	0.703	s n	ninutes	
					Total True	ck Cycle Time:	5.079) n	ninutes	
L	oading Too	ol unit								
- T 1		uction _	811.40	LCY/Hour		Adjusted for j	ob efficiency:	673	.46	LCY/Hour
Truck	Unit Produ	uction	358.65	LCY/Hour		Adjusted for j	oh efficiency.	297	68	LCY/Hour
		_	350.05			rujusteu for j	ob enterency.		.00	LC I/Hou
Optima	al No. of T	rucks:	2	Truck(s)		Selected Numb	per of Trucks:	2		Truck(s)
				Adjusted	l hourly truck	team productio	on: 595.	36	LCY/Ho	our
				Adjusted single					LCY/Ho	
			Ad	ljusted multiple	e truck/loader	team productio	on: 1,190	.73	LCY/Ho	our
	JOB TIN	1E ANI) COST							
	Fleet	size:	2	Team(s)	Te	otal job time:	182.3	51	Hours	5
	Unit	cost:	\$1.609	/LCY	Т	otal job cost:	\$349,3	54	_	

TRUCK/LOADER TEAM WORK

Task description:	Remove	Coal Stockpile	Footprint			
Site: Peabody Sage C	Creek Mine	Permit Act	ion: <u>RN2</u>		Permit/Job#:	C2009087
PROJECT IDEN	TIFICATION					
Task #: 004		State: Colora	ado	Abł	previation: Nor	ne
Date: 3/25/	2020 C	County: Routt			Filename: 004	
User: TNL						
Agency or	organization nam	e: DRMS				
HOURLY EQUI	PMENT COST			Shift ba	sis: <u>1 per day</u>	
			Equipment Descr	iption		
Т	ruck Loader Tear		770D			
	art Equipment L		Г 988H D10T - 10SU			
Suppo	ort Equipment -Lo		$\frac{D101 - 1050}{D10T - 10SU}$			
Road Ma	aintenance – Moto		<u>Г 14М</u>			
	-Wat	er Truck: Wat	ter Tanker, 10,00	0 Gal.		
Cost Breakdown:	Truck/Loa			Equipment		nce Equipment Water Truck
	Truck	Loader	Load Area	Dump Area	Motor Grader	water Truck
Utilization-machine:	100	95	100	100	25	25
Ownership cost/hour:	\$80.59	\$91.83	\$140.61	\$140.61	\$64.10	\$68.95
Operating cost/hour:	\$66.37	\$90.74	\$135.35	\$135.35	\$14.04	\$25.83
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Operator cost/hour:	\$32.93	\$40.65	\$41.24	\$41.24	\$28.52	\$21.09
Unit Subtotals:	\$179.89	\$223.22	\$317.20	\$317.20	\$106.66	\$115.88
Number of Units:	4	1	1	1	1	1
Group Subtotals:	Work:	\$942.78	Support:	\$634.40	Maint:	\$222.54
Total work team cos MATERIAL QUA		2				
Initial volume	: 48,400	CCY	Swell	factor: 1.000		
Loose volume						
	arce of estimated of estimated swel		tion of Reclamati Handbook	on, Mining & Sat	fety	

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight:1,600Pounds/LCYDescription:Coal - Bituminous, Raw

Material Purchase Cost:

Total Cost:

\$0.00

\$0.00

Rated Payload: Payload Capacity:	82,000 51.25		Pounds LCY	
Truck Bed (volume) Basis: Struck Volume:	21.60	_ LCY		

burden voranne.	21.00	DC I
Heaped Volume:	31.70	LCY
Average Volume:	26.65	LCY
Adjusted Volume:	31.70	LCY

Final Truck Volume Based on Number of Loader Passes:	25.53	LCY
--	-------	-----

Loading Tool Capacity

		Bucket Size Class: NA
Rated Capacity:	9.200	LCY (heaped)
Bucket Fill Factor:	0.925	Loose material - 1/8" to 3/8" (90 - 95%) 0.925
Adjusted Capacity:	8.510	LCY

Job Condition Corrections:

Site Altitude (ft.): <u>6800</u> feet

	Truck	Loader	Source				
Altitude Adj:	1.000	1.000	(CAT HB)			
Job Efficiency:	0.830	0.830	(CAT HB)			
Net Correction:	0.830	0.830					
Loading Tool Cycle Time:	1	Number of Loading To	ool Passes Requ	ired to Fil Truck		3	passes
Excavators and Front Shove	ls:			TTUCK	•		
Machine Cycle Time v Selected Value		Ū					
Track Loaders –	Material Descr	ription:					
Cycle Time Elements (min.)	•						
Cycle Time Elements (min.)				_			
Cycle Time Elements (min.) Load: <u>NA</u>		Ianeuver: NA		Dump:	0.100		-
Load: NA	N	Ianeuver: <u>NA</u> adjusted Basic Loader	•	-	0	575	minutes
Load: NA Wheel and Trac	N		•	ad, dump, naneuver):	0.	575	
Load: NA	M k Loaders - Un		n	ad, dump,	0. (min.)		ce
Load: <u>NA</u> Wheel and Trac Cycle Time Factors	N k Loaders - Un Material 1/8	adjusted Basic Loader	02	ad, dump, naneuver): Factor	0. (min.) 20	575	ce IB)
Load: <u>NA</u> Wheel and Trac <u>Cycle Time Factors</u> Material:	Material 1/8 Conveyor of 0.00	adjusted Basic Loader	n 02 3h and up	ad, dump, naneuver): Factor -0.0	0. (min.) 20 00	575 Sour (Cat F	ce IB) IB)
Load: NA Wheel and Trac Cycle Time Factors Material: Stockpile:	Material 1/8 Conveyor of 0.00 Common ov 0.04	adjusted Basic Loader " to 3/4" diameter -0.0 r dozer piled 10 ft. hig wnership of trucks and	n 02 3h and up	ad, dump, naneuver): Factor -0.0 0.0	0. (min.) 20 00 40	575 Sour (Cat H	<u>ce</u> <u>IB)</u> IB) IB)
Load: NA Wheel and Trac Cycle Time Factors Material: Stockpile: Truck Ownership:	Material 1/8 Conveyor of 0.00 Common ov 0.04	adjusted Basic Loader "to 3/4" diameter -0.0 r dozer piled 10 ft. hig vnership of trucks and eration -0.04	n 02 3h and up	ad, dump, naneuver): <u>Factor</u> -0.0 0.0 -0.0	0. (min.) 20 00 40 40	575 Sour (Cat H (Cat H	ce
Load: NA Wheel and Trac Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Material 1/8 Conveyor or 0.00 Common ov 0.04 Constant op	adjusted Basic Loader "to 3/4" diameter -0.0 r dozer piled 10 ft. hig vnership of trucks and eration -0.04	n 02 3h and up 1 loaders -	ad, dump, naneuver): <u>Factor</u> -0.0 0.0 -0.0	0. (min.) 20 00 40 40 00	575 Sour (Cat H (Cat H (Cat H (Cat H	ce IB) IB) IB) IB) IB) IB)
Load: NA Wheel and Trac Cycle Time Factors Material: Stockpile: Truck Ownership: Operation:	Material 1/8 Conveyor or 0.00 Common ov 0.04 Constant op	adjusted Basic Loader " to 3/4" diameter -0.6 r dozer piled 10 ft. hig wnership of trucks and eration -0.04 get 0.00 Net Cycle Time Adjusted Loader	02 gh and up l loaders -	ad, dump, naneuver): Factor -0.0 -0.0 -0.0 -0.0 0.0	0. (min.) 20 00 40 40 40 00 00 75	575 Sour (Cat H (Cat H (Cat H (Cat H (Cat H	ce IB) IB) IB) IB) IB) tes

Truck Travel (Haul & Return) Time: maintained 3.0

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

Haul Time: **1.987** minutes

Haul Route:

Seg #	Haul Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel
	(Ft)		(%)	(%)	(fpm)	Time (min)
1	365.00	-2.60	3.00	0.40	4254	0.622
2	525.00	-8.69	3.00	-5.69	1693	0.437
3	1760.00	-6.25	3.00	-3.25	3053	0.642
4	900.00	-5.30	3.00	-2.30	3893	0.286

Return Route:

Return Ro	ute.					
Seg #	Haul Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel
U	(Ft)		(%)	(%)	(fpm)	Time
	()			(,-)	((min)
1	900.00	5.30	3.00	8.30	2120	0.555
2	1760.00	6.25	3.00	9.25	2000	0.878
3	525.00	8.69	3.00	11.69	1477	0.321
4	365.00	2.60	3.00	5.60	2851	0.277

Return Time:	2.031	minutes
Total Truck Cycle Time:	6.668	minutes

Loading Tool unit Production	928.36	LCY/Hour	Adjusted for job ef	ficiency	770.54	LCY/Hour
Truck Unit Production	720.30		5 5	•	110.54	
-	229.72	LCY/Hour	Adjusted for job ef	ficiency:	190.67	LCY/Hour
Optimal No. of Trucks:	4	Truck(s)	Selected Number of	f Trucks:	4	Truck(s)
		Adjusted hour	ly truck team production:	762.68	LCY/H	Iour
	I	Adjusted single truck	k/loader team production:	762.68	LCY/H	Iour
	Ad	justed multiple truck	k/loader team production:	762.68	LCY/H	Iour

JOB TIME AND COST

Fleet size:	1	Team(s)	Total job time:	63.46	Hours
Unit cost:	\$2.360	/LCY	Total job cost:	\$114,210	

Page 15 of 130

BULLDOZER WORK

Task description:	Regrade Cut Ma	aterial Over	6.93 ROM Coal Area		
e: <u>Peabody Sage Creek</u>	Mine Pe	rmit Action:	RN2	Permit/Jo	b#: C2009087
PROJECT IDENTIFI	<u>CATION</u>				
Task #: 010	State:	Colorado		Abbreviation:	None
Date: <u>3/25/2020</u>	County:	Routt		Filename:	010
User: <u>TNL</u>					
Agency or organ	ization name:	RMS			
HOURLY EQUIPME	NT COST				
Basic Machine: Cat	D8T - 8SU				
Horsepower: 310			-		
	ni-Universal				
	ank ripper				
	er day				
Data Source: (CR	(6)				
Cost Breakdown:			Utilization %		
Ownership Cost/Hour:		\$103.86	NA		
Operating Cost/Hour:		\$82.26	100		
Ripper own. Cost/Hour:		\$10.43	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$41.24	NA		
MATERIAL QUANTI Initial Volume: 16,7' Swell factor: 1.12: Loose volume: 18,8	70	_			
Source of estimated volu	me: Division		on, Mining & Safety		
Source of estimated volu Source of estimated swel factor:			on, whiling & Safety		
HOURLY PRODUCT					
Average push distance:	101 <u>1</u> 100 feet				
Unadjusted hourly production:	852.6 LCY	/hr			
Materials consistency description:	Partly	consolidated s	stockpile 1.1		
Average push gradient:	0 %				
Average site altitude:	6,800 feet				
Material weight:	2,650 lbs/LCY				
Weight description:	Decomposed rock	- 25% Rock,	75% Earth		

Job Condition Correction Factor	_	Source
Operator Skill:	0.750	(AVG.)
Material consistency:	1.100	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4755

Adjusted unit production:	405.41 LCY/hr
Adjusted fleet production:	405.41 LCY/hr

JOB TIME AND COST

Fleet size:	1 Dozer(s)
Unit cost:	\$0.587/LCY

Total job time:	46.54 Hours
Total job cost:	\$11,066

Page 17 of 130

BULLDOZER WORK

Task description:	Regrade Cut M	aterial Over	covered Storage Pad	Area	
e: <u>Peabody Sage Creek</u>	Mine Po	ermit Action:	RN2	Permit/Jo	ob#: <u>C2009087</u>
PROJECT IDENTIFI	<u>CATION</u>				
Task #: 011	State:	Colorado		Abbreviation:	None
Date: <u>3/25/2020</u>	County:	Routt		Filename:	011
User: TNL					
Agency or organ	nization name: <u>D</u>	RMS			
HOURLY EQUIPME	NT COST				
Basic Machine: Cat	: D8T - 8SU				
Horsepower: 310)		-		
51	ni-Universal		-		
	hank ripper		_		
	er day		_		
Data Source: (CH	RG)		-		
Cost Breakdown:		1	Utilization 0/		
Ownership Cost/Hour:		\$103.86	<u>Utilization %</u> NA		
Operating Cost/Hour:		\$82.26	100		
Ripper own.					
Cost/Hour:		\$10.43	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$41.24	NA		
MATERIAL QUANTInitial Volume:2,50Swell factor:1.12Loose volume:2,81	0				
Source of estimated volu	me: Division	of Reclamation	on, Mining & Safety		
Source of estimated swe factor:					
HOURLY PRODUCT	<u>'ION</u>				
Average push distance:	100 feet				
Unadjusted hourly production:	852.6 LCY	//hr			
Materials consistency description:	Partly	consolidated s	stockpile 1.1		
Average push gradient:	0 %				
Average site altitude:	6,800 feet				
Material weight:	2,650 lbs/LCY				
Weight description:	Decomposed roc	k - 25% Rock,	75% Earth		

	Source
0.750	(AVG.)
1.100	(CAT HB)
1.000	(GEN.)
1.000	(AVG.)
0.830	(1 SHIFT/DAY)
0.800	(FND-RF)
1.000	(CAT HB)
1.000	(CAT HB)
0.868	(CAT HB)
1.000	(PAT)
	0.750 1.100 1.000 0.830 0.800 1.000 1.000 0.868

Net correction: 0.4755

Adjusted unit production:	405.41 LCY/hr
Adjusted fleet production:	405.41 LCY/hr

JOB TIME AND COST

Fleet size:	1 Dozer(s)
Unit cost:	\$0.587/LCY

Total job time:	6.94 Hours
Total job cost:	\$1,650

BULLDOZER WORK

Task description:	Regrade Drill P	ads COV11,	CCU31, CCU47, CC	CU58, CCU67, CC	U84,
: Peabody Sage Creek	Mine Pe	ermit Action:	RN2	Permit/Jo	ob#: <u>C2009087</u>
PROJECT IDENTIFI	ICATION				
Task #: 012	State:	Colorado		Abbreviation:	None
Date: <u>3/25/2020</u>	County:	Routt		Filename:	012
User: TNL					
Agency or organ	nization name:	RMS			
HOURLY EQUIPME	<u>ENT COST</u>				
Basic Machine: Ca	t D8T - 8SU		_		
Horsepower: 31			-		
7 1	mi-Universal		-		
	shank ripper		-		
	ber day		-		
	RG)		-		
Cost Breakdown:			Utilization %		
Ownership Cost/Hour:		\$103.86	NA		
Operating Cost/Hour:		\$82.26	100		
Ripper own. Cost/Hour:		\$10.43	NA		
Ripper op. Cost/Hour:		\$8.38	100		
Operator Cost/Hour:		\$41.24	NA		
MATERIAL QUANTInitial Volume:3,38Swell factor:1.25Loose volume:4,23	38				
Loose volume. 4,23	5 LC 1				
Source of estimated vol Source of estimated swe factor:			on, Mining & Safety		
HOURLY PRODUCT	<u> TION</u>				
Average push distance:	50 feet				
Unadjusted hourly production:	1,400.0 LC	CY/hr			
Materials consistency description:	Compa	acted fill or en	nbankment 0.9		
Average push gradient:	0 %				
Average site altitude:	6,800 feet				
Material weight:	2,650 lbs/LCY				
Weight description:	Decomposed rocl	<u>k - 25% Roc</u> k,	75% Earth		

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3890

Adjusted unit production:	544.60 LCY/hr
Adjusted fleet production:	544.6 LCY/hr

JOB TIME AND COST

Fleet size:	1 Dozer(s)
Unit cost:	\$0.452/LCY

Total job time:	7.78 Hours
Total job cost:	\$1,914

Page 21 of 130

BULLDOZER WORK

Task description:	Regrade Drill	Pads CCU087	and Septic Drainfield	1	
Peabody Sage Cree	k Mine F	ermit Action:	RN2	Permit/Jo	ob#: <u>C2009087</u>
PROJECT IDENTIF	TICATION				
Task #: 013	State:	Colorado		Abbreviation:	None
Date: 3/25/2020	0 County:	Routt		Filename:	013
User: TNL					
Agency or orga	anization name: <u> </u>	ORMS			
HOURLY EQUIPMI	ENT COST				
Basic Machine: C	at D8T - 8SU				
Horsepower: 31	10				
Blade Type: Se	emi-Universal		-		
Attachment: 3-	-shank ripper		-		
Shift Basis: 1	per day				
Data Source: (C	CRG)				
Cost Breakdown:					
JUST DICARUUWII.			Utilization %		
Ownership Cost/Hours		\$103.86	NA		
Operating Cost/Hours		\$82.26	100		
Ripper own					
Cost/Hour:		\$10.43	NA		
Ripper op. Cost/Hour	-	\$8.38	100		
Operator Cost/Hour		\$41.24	NA		
	7				
Loose volume: 1,0	59 LCY				
Source of estimated vo Source of estimated sw factor:			on, Mining & Safety		
HOURLY PRODUC	TION				
Average push distance					
Unadjusted hourly production:	1,400.0 L	CY/hr			
Materials consistency description:	Com	acted fill or en	nbankment 0.9		
Average push gradient:	0 %				
Average site altitude:	6,800 feet				
Material weight:	2,650 lbs/LCY				
Weight description:	Decomposed roo	k - 25% Rock,	75% Earth		

Job Condition Correction Factor	_	Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3890

Adjusted unit production:	544.60 LCY/hr
Adjusted fleet production:	544.6 LCY/hr

JOB TIME AND COST

Fleet size:	1 Dozer(s)
Unit cost:	\$0.452/LCY

Total job time:	1.94 Hours
Total job cost:	\$479

TRUCK/LOADER TEAM WORK

Task description:	Remove	Gravel from No	orth Facilities P	arking Area		
Site: Peabody Sage Cro	eek Mine	Permit Act	ion: RN2		Permit/Job#:	C2009087
PROJECT IDENT	IFICATION					
Task #: 020 Date: 3/25/20 User: TNL			ado			
Agency or or	ganization nam	e: DRMS				
HOURLY EQUIPM	MENT COST			Shift ba	sis: <u>1 per day</u>	
				iption		
Tru	ck Loader Tear					
Support	Equipment -Lo		1 988H			
Support						
Road Main						
	-Wat	er Truck: Wat	ter Tanker, 10,00	0 Gal.		
Cost Breakdown:	Truck/Load	der Team	Support	Equipment	Maintena	ance Equipment
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	95	NA	NA	25	25
Ownership cost/hour:	\$80.59	\$91.83	NA	NA	\$64.10	\$68.95
Operating cost/hour:	\$66.37	\$90.74	NA	NA	\$14.04	\$25.83
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	NA	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	NA	NA	\$0.00	\$0.00
Operator cost/hour:	\$32.93	\$40.65	NA	NA	\$28.52	\$21.09
Unit Subtotals:	Creek Mine Permit Action: RN2 Permit/Job#: C NTIFICATION State: Colorado Abbreviation: None 5/2020 County: Routt Filename: 020 L	\$115.88				
Number of Units:	6	1	0	0	1	1
Group Subtotals:	Work:	\$1,302.56	Support:	\$0.00	Maint:	\$222.54
Total work team cost/h		0				
Initial volume:	4,195	CCY	Swell	factor: 1.090		
Loose volume:	4,573			1.070		
	e of estimated			on, Mining & Sat	faty	
	estimated swel		Handbook		icty	

HOURLY PRODUCTION

Truck Capacity:

	Truck Pay	yload (weight)	Basis:
--	-----------	---------	---------	--------

Material weight:2,400Pounds/LCYDescription:Clay and gravel - Dry

Material Purchase Cost:

\$0.00

Total Cost: \$0.00

Rated Payload:	82,000	Pounds
Payload Capacity:	34.17	LCY

<u>Truck Bed (volume) Basis</u> Struck Volume: Heaped Volume: Average Volume: Adjusted Volume:		LCY LCY LCY LCY				
Fina	al Truck Volume	Based on Number of	f Loader Passes:	30.36	LCY	
Loading Tool Capacity			Buck	et Size Class: N	А	
Rated Capacity	: 9.200	LCY (heaped)				
Bucket Fill Factor		Other - rock/di	rt mixtures (100	0-120%) 1.100		-
Adjusted Capacity	: 10.120	LCY	X	,		-
Job Condition Correction	<u>ns:</u>	S	tite Altitude (ft.):	<u>6800</u> feet		
	Truck	Loader	Source			
Altitude Adj:	1.000	1.000	(CAT HB	5)		
Job Efficiency:	0.830	0.830	(CAT HB			
Net Correction:	0.830	0.830				
Loading Tool Cycle Tim	<u>e:</u>	Number of Loading	Tool Passes Requ		3	passes
Excavators and Front Sho	vels:			Truck:		
Machine Cycle Time Selected Valu	e vs. Job Conditio e within this Bas					
		<u> </u>				
Cycle Time Elements (min	– Material Desc					
Load: NA		Maneuver: NA		Dump: 0.100)	
Wheel and Tr	ack Loaders - Ur	adjusted Basic Load		ad, dump, naneuver):	.575 min	utes
Cycle Time Factor	rs		1	Factor (min.)	Source	
Materia		8" to 3/4" diameter -(0.02	-0.020	(Cat HB)	
Stockpil		r dozer piled 10 ft. h		0.000	(Cat HB)	
Truck Ownershi	0.04	wnership of trucks ar	id loaders -	-0.040	(Cat HB)	
Operation		peration -0.04		-0.040	(Cat HB)	
Dump Targe	et: Nominal tar			0.000	(Cat HB)	
		•	ne Adjustment:	-0.100	minutes	
			er Cycle Time: 'ime per Truck:	0.475 1.050	_ minutes 	
		Net Lodu I	inte per fruek.	1.030		
Truck Cycle Time:						
Truck Exchange Ti	me: 0.60	Minutes	Adjusted f	for site altitude:	0.600	Minutes
Truck Load Ti	me: 1.050	Minutes	Adjusted f	for site altitude:	1.050	Minutes
Truck Maneuver and Du Ti	1.00 me:	Minutes	Adjusted f	for site altitude:	1.000	Minutes

<u>1</u>	Fruck Trav	el (Haul & Return) T	<u>ime:</u>	Road Condition	on: Very hard, s	smooth, aspha	lt or concrete,	<u>no tire</u>
p	penetration Taul Route	1.2						
Ē.	Seg #	Haul Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
	-	(Ft)		(%)	(%)	(fpm)	Time (min)	
	1	10560.00	0.00	1.20	1.20	4223	3.212	
г	Return Rot	ita			Haul Time:	3.212	minute	es
r	Seg #	Haul Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
	566 "	(Ft)		(%)	(%)	(fpm)	Time (min)	
	1	10560.00	0.00	1.20	1.20	4254	2.754	
					Return Time:	2.754	minu	tes
				Total Truc	k Cycle Time:			tes
Lo	ading Too	l unit						
	Produ	iction 1,104.00	LCY/Hour		Adjusted for jo	ob efficiency:	916.32	LCY/Hour
Truck	Unit Produ	211.42	LCY/Hour		Adjusted for jo	ob efficiency:	175.48	LCY/Hour
Optimal	l No. of Ti	rucks: 5	Truck(s)	1	Selected Numb	er of Trucks:	6	Truck(s)
			Adjusted	hourly truck	team productio	on: 1,052	2.87 LCY	//Hour
			Adjusted single					/Hour
		А	djusted multiple	e truck/loader	team productio	on: 916.	32 LCY	/Hour
<u>]</u>	IOB TIM	IE AND COST						
	Fleet	size: 1	Team(s)	То	otal job time:	4.99	н	ours
	Unit	cost: \$1.664	/LCY	T	otal job cost:	\$7,61	.0	

TRUCK/LOADER TEAM WORK

Remove Gravel from Main North Facilities Area

PROJECT IDENT Task #: 021 Date: 3/25/2 User: TNL Agency or construction HOURLY EQUIP	2020 C	State: <u>Color</u> County: <u>Routt</u> ne: <u>DRMS</u>	ado		previation: <u>Nor</u> Filename: <u>021</u>	
Date: 3/25/2 User: TNL Agency or c	organization nam	County: Routt	ado			
User: TNL Agency or c	organization nam	•			Filename: 021	
	-	e: DRMS				
HOURLY EQUIP		-				
HUUKLI EQUIF				Shift he	aige 1 man days	
	MENI COSI				sis: <u>1 per day</u>	
Tr	uck Loader Tear		Equipment Descr 770D	iption		
		-Loader: CA	Т 988Н			
Suppor	rt Equipment -Lo					
D 1M.		mp Area: NA	T 1 4 M			
Road Mai	intenance – Moto -Wat		T 14M ter Tanker, 10,00	0 Gal		
	- •• at	ci iluck. wa		0 0ai.		
Cost Breakdown:	Truck/Load	der Team	Support	Equipment	Maintena	nce Equipment
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
Utilization-machine:	100	95	NA	NA	25	25
Ownership cost/hour:	\$80.59	\$91.83				
		φ/1.05	NA	NA	\$64.10	
Operating cost/hour:	\$66.37	\$90.74	NA NA	NA NA	\$64.10 \$14.04	\$68.95
%Utilization-riper:	\$66.37 NA					\$68.95 \$25.83
Operating cost/hour: %Utilization-riper: Ripper own. cost/hour:		\$90.74	NA	NA	\$14.04	\$68.95 \$25.83 NA
%Utilization-riper: Ripper own. cost/hour:	NA	\$90.74 0	NA NA	NA NA	\$14.04 NA	\$68.95 \$25.83 NA \$0.00
%Utilization-riper: Ripper own. cost/hour:	NA NA	\$90.74 0 \$0.00	NA NA NA	NA NA NA	\$14.04 NA \$0.00	\$68.95 \$25.83 NA \$0.00 \$0.00
%Utilization-riper: Ripper own. cost/hour: Ripper op. cost/hour:	NA NA NA	\$90.74 0 \$0.00 \$0.00	NA NA NA NA	NA NA NA NA	\$14.04 NA \$0.00 \$0.00	\$68.95 \$25.83 NA \$0.00 \$0.00 \$21.09
%Utilization-riper: Ripper own. cost/hour: Ripper op. cost/hour: Operator cost/hour:	NA NA NA \$32.93	\$90.74 0 \$0.00 \$0.00 \$40.65	NA NA NA NA NA	NA NA NA NA	\$14.04 NA \$0.00 \$0.00 \$28.52	\$68.95 \$25.83 NA \$0.00 \$0.00 \$21.09 \$115.88 1

HOURLY PRODUCTION

Truck Capacity:

Task description:

Truck Pay	yload ((weight)	Basis:

Material weight:2,400Pounds/LCYDescription:Clay and gravel - Dry

Material Purchase Cost:

\$0.00

Total Cost: \$0.00

Rated Payload:	82,000	Pounds
Payload Capacity:	34.17	LCY

Truck Bed (volume) Basis: Struck Volume: Heaped Volume: Average Volume: Adjusted Volume:	31.70 26.65	LCY LCY LCY LCY				
Final T	ruck Volume I	Based on Number of I	loader Passes:	30.36	LCY	
Loading Tool Capacity						
Rated Capacity:	9.200	LCY (heaped)	Buck	tet Size Class: <u>N</u>	A	_
Bucket Fill Factor:	1.100	Other - rock/dirt	mixtures (10	0-120%) 1.100		-
Adjusted Capacity:	10.120	LCY	(10	0 120/0) 11100		-
Job Condition Corrections:		Site	e Altitude (ft.):	6800 feet		
sob condition corrections.	Truck	Loader	Source			
Altitude Adj:	1.000	1.000	(CAT HE			
Job Efficiency:	0.830	0.830	(CAT HI			
Net Correction:	0.830	0.830				
Loading Tool Cycle Time:	N	Sumber of Loading To	ool Passes Requ		3	passes
Excavators and Front Shovels	<u>:</u>			Truck:		
Machine Cycle Time vs.	Job Condition	Rating: NA				
Selected Value wi						
Track Loaders – M	Iaterial Descri	ption:				
Cycle Time Elements (min.):						
Load: NA	Μ	aneuver: NA		Dump: 0.100)	
Wheel and Track	Loaders - Una	djusted Basic Loader	•	· · · ()	.575 ^{min}	utes
			1	naneuver):		
Cycle Time Factors			_	Factor (min.)	Source	
Material:		' to 3/4" diameter -0.0		-0.020	(Cat HB)	_
Stockpile:	0.00	dozer piled 10 ft. high	n and up	0.000	(Cat HB)	
Truck Ownership:		nership of trucks and	loaders -	-0.040	(Cat HB)	
Operation:	Constant ope	eration -0.04		-0.040	(Cat HB)	
Dump Target:	Nominal targ			0.000	(Cat HB)	
		Net Cycle Time		-0.100	minutes	
		Adjusted Loader Net Load Tin	•	0.475	_ minutes minutes	
		met Loau 11	ie per Truck:	1.050	minutes	
Truck Cycle Time:						
Truck Exchange Time:	0.60	Minutes	Adjusted	for site altitude:	0.600	Minutes
Truck Load Time:	1.050	Minutes	Adjusted	for site altitude:	1.050	Minutes
Truck Maneuver and Dump Time:		Minutes	Adjusted	for site altitude:	1.000	Minutes

]	Fruck Trav	el (Haul & Return) T	<u>ime:</u>	Road Conditio	n: Very hard, s	smooth, aspha	lt or concrete,	<u>no tire</u>
Į	penetration Haul Route	1.2						
ĺ	Seg #	Haul Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
	-	(Ft)		(%)	(%)	(fpm)	Time (min)	
	1	10560.00	0.00	1.20	1.20	4223	3.212	
T	Datum Day				Haul Time:	3.212	minute	es
1	Return Rou Seg #	Haul Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
	50g #	(Ft)	Grade (70)	(%)	(%)	(fpm)	Time (min)	
	1	10560.00	0.00	1.20	1.20	4254	2.754	
					Return Time:	2.754	i minu	tes
				Total Truc	k Cycle Time:	8.616	minu	tes
Lo	oading Too	l unit						
	Produ Unit Produ	iction 1,104.00	LCY/Hour		Adjusted for jo	ob efficiency:	916.32	LCY/Hour
TTUCK	Unit Float	211.42	LCY/Hour		Adjusted for jo	ob efficiency:	175.48	LCY/Hour
Optima	l No. of Ti	ucks: 5	Truck(s)	:	Selected Numb	er of Trucks:	6	Truck(s)
			Adjusted	hourly truck	team productio	on: 1,052	2.87 LCY	//Hour
			Adjusted single					/Hour
		А	djusted multiple	truck/loader	team productio	on: 916.	<u>32</u> LCY	//Hour
	JOB TIM	E AND COST						
	Fleet	size:1	Team(s)	То	otal job time:	11.5	1 H	ours
	Unit	cost: \$1.664	/LCY	Т	otal job cost:	\$17,5	61	

TRUCK/LOADER TEAM WORK

_				1
Date: 3/25/2020 County: Routt Filename: 022 User: TNL Agency or organization name: DRMS RLY EQUIPMENT COST Shift basis: 1 per day Equipment Description Truck Loader Team -Truck: Cat 770D	e: Peabody S			
<u>FION</u>	<u>ON</u>	ION	<u>DENTIFICA</u>	PROJECT]
State: Colorado Abbreviation:	State: Colorado A	State: C		Task #:
County: Routt Filename:	County: Routt	County: R		Date:
_		-	TNL	User:
on name: DRMS	name: DRMS	on name: DRMS	cy or organizat	Age
COST Shift basis: 1 per da	OST Shift	OST	OLIIPMENT	HOURLYE
				HOURLI
		r Team -Truck	Truck Loa	
			THUCK LOAC	
nent -Load Area: NA	nt -Load Area: NA	ent -Load Area:	Support Equipr	
		Motor Grader	ad Maintenance	Re
			uu munnenunev	
-Water Truck: Water Tanker, 10,000 Gal.	-Water Truck: Water Tanker, 10,000 Gal.	-Water Truck:		Cost Breakdo
-Water Truck: Water Tanker, 10,000 Gal. ck/Loader Team Support Equipment Main k Loader Load Area Dump Area Motor	-Water Truck: Water Tanker, 10,000 Gal. /Loader Team Support Equipment	-Water Truck:	<u>wn</u> : Tru	
-Water Truck: Water Tanker, 10,000 Gal. ck/Loader Team Support Equipment Main k Loader Load Area Dump Area Motor Grader Grader Grader	Water Truck: Water Tanker, 10,000 Gal. /Loader Team Support Equipment Loader Load Area Dump Area	-Water Truck: k/Loader Team	<u>wn: Tru</u> Truc	
-Water Truck: Water Tanker, 10,000 Gal. ck/Loader Team Support Equipment Main k Loader Load Area Dump Area Motor 100 95 NA NA	Water Truck: Water Tanker, 10,000 Gal. /Loader Team Support Equipment Loader Load Area Dump Area 00 95 NA NA	-Water Truck: k/Loader Team Loader 100	<u>wn:</u> Tru Truc	<u>Cost Breakdo</u>
-Water Truck: Water Tanker, 10,000 Gal. ck/Loader Team Support Equipment Main k Loader Load Area Dump Area Motor 100 95 NA NA 80.59 \$91.83 NA NA \$64.	Water Truck: Water Tanker, 10,000 Gal. /Loader Team Support Equipment Loader Load Area Dump Area 00 95 NA NA .59 \$91.83 NA NA	-Water Truck: <u>k/Loader Team</u> Loader 100 0.59 \$91.	<u>wn:</u> Tru Truc ine: our: \$	Cost Breakdo
-Water Truck: Water Tanker, 10,000 Gal. ck/Loader Team Support Equipment Main k Loader Load Area Dump Area Motor 100 95 NA NA 80.59 \$91.83 NA NA \$64. 56.37 \$90.74 NA NA \$14.	Water Truck: Water Tanker, 10,000 Gal. /Loader Team Support Equipment Loader Load Area Dump Area 00 95 NA NA .59 \$91.83 NA NA .37 \$90.74 NA NA	-Water Truck: k/Loader Team Loader 100 0.59 \$91. 6.37 \$90.	wn: Tru Truc ine: our: \$ our: \$ per:	<u>Cost Breakdo</u> (tilization-mac) wnership cost/l perating cost/l %Utilization-r
Water Truck: Water Tanker, 10,000 Gal. ck/Loader Team Support Equipment Main k Loader Load Area Dump Area Motor 100 95 NA NA 30.59 \$91.83 NA NA \$64. 56.37 \$90.74 NA NA \$14. NA 0 NA NA \$14.	-Water Truck: Water Tanker, 10,000 Gal. /Loader Team Support Equipment Loader Load Area Dump Area 00 95 NA NA .59 \$91.83 NA NA .37 \$90.74 NA NA NA 0 NA NA	-Water Truck: k/Loader Team Loader 100 0.59 \$91. 6.37 \$90. NA	wn: Tru Truc ine: our: \$ our: \$ per: wwn.	Cost Breakdo (tilization-mac) wnership cost/l perating cost/l %Utilization-r Ripper
Water Truck: Water Tanker, 10,000 Gal. ck/Loader Team Support Equipment Main k Loader Load Area Dump Area Motor 100 95 NA NA 80.59 \$91.83 NA NA 56.37 \$90.74 NA NA \$14. NA 0 NA NA \$0. NA \$0.00 NA NA \$0.	-Water Truck:Water Tanker, 10,000 Gal./Loader TeamSupport EquipmentLoaderLoad AreaDump Area0095NANA.59\$91.83NANA.37\$90.74NANANA0NANANA\$0.00NANA	-Water Truck: k/Loader Team Loader 100 0.59 \$91. 6.37 \$90. NA NA NA \$0.	wn: True ine: True our: \$ our: \$ per: > own. > our: \$	Cost Breakdo (tilization-mac) wnership cost/l perating cost/l %Utilization-r Ripper
-Water Truck:Water Tanker, 10,000 Gal.ck/Loader TeamSupport EquipmentMainkLoaderLoad AreaDump AreaMotor Grader10095NANANA80.59\$91.83NANA\$64.56.37\$90.74NANA\$14.NA0NANA\$14.NA\$0.00NANA\$0.NA\$0.00NANA\$0.	-Water Truck:Water Tanker, 10,000 Gal./Loader TeamSupport EquipmentLoaderLoad AreaDump Area0095NANA.59\$91.83NANA.37\$90.74NANANA0NANANA\$0.00NANANA\$0.00NANA	-Water Truck: k/Loader Team k/Loader Team Loader 100 0.59 \$91 6.37 \$90 NA \$0 NA \$0	wn: Tru ine: Truc our: \$ our: \$ per: \$ own. \$ our: \$	Cost Breakdo (tilization-mac) wnership cost/l perating cost/l %Utilization-r Ripper cost/l
-Water Truck:Water Tanker, 10,000 Gal.ck/Loader TeamSupport EquipmentMainkLoaderLoad AreaDump AreaMotor Grader10095NANANA80.59\$91.83NANA\$64.56.37\$90.74NANA\$14.NA0NANA\$14.NA\$0.00NANA\$0.NA\$0.00NANA\$0.	-Water Truck:Water Tanker, 10,000 Gal./Loader TeamSupport EquipmentLoaderLoad AreaDump Area0095NANA.59\$91.83NANA.37\$90.74NANANA0NANANA\$0.00NANANA\$0.00NANA.93\$40.65NANA	-Water Truck: k/Loader Team Loader 100 0.59 \$91. 6.37 \$90. NA NA NA NA \$0. 2.93 \$40.	wn: True ine: True our: \$ our: \$ per: \$ own. \$ our: \$ our: \$	<u>Cost Breakdo</u> (tilization-mac) wnership cost/l perating cost/l %Utilization-r Ripper cost/l ipper op. cost/l
-Water Truck:Water Tanker, 10,000 Gal.ck/Loader TeamSupport EquipmentMainkLoaderLoad AreaDump AreaMotor Grader10095NANANA80.59\$91.83NANA\$64.56.37\$90.74NANA\$14.NA0NANA\$14.NA\$0.00NANA\$0.NA\$0.00NANA\$0.S2.93\$40.65NANA\$28.	Water Truck: Water Tanker, 10,000 Gal. /Loader Team Support Equipment Loader Load Area Dump Area 00 95 NA NA .59 \$91.83 NA NA .37 \$90.74 NA NA NA 0 NA NA NA \$0.00 NA NA NA \$0.00 NA NA .93 \$40.65 NA NA .89 \$223.22 NA NA	-Water Truck: k/Loader Team Loader 100 0.59 \$91. 6.37 \$90. NA NA NA \$0. 2.93 \$40. 9.89 \$223.	wn: True ine: True our: \$ our: \$ per: > our: > our: \$ our: \$ our: \$ our: \$ our: \$ our: \$ our: \$	<u>Cost Breakdo</u> (tilization-mack wnership cost/l perating cost/l %Utilization-r Ripper cost/l ipper op. cost/l Operator cost/l

Initial volume: 2,581 CCY Swell factor: 1.090 Loose volume: 2,813 LCY Division of Reclamation, Mining & Safety Source of estimated volume: Division of Reclamation, Mining & Safety Source of estimated swell factor: Cat Handbook Material Purchase Cost: \$0.00

\$0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Payload (weight) Basis:

Material weight:2,400Pounds/LCYDescription:Clay and gravel - Dry

Total Cost:

Rated Payload:	82,000	Pounds
Payload Capacity:	34.17	LCY

Truck Bed (volume) Basis: Struck Volume:	21.60	LCY				
Heaped Volume:		LCY				
Average Volume:		LCY				
Adjusted Volume:		LCY				
<u> </u>						
Final	Truck Volume E	Based on Number of	Loader Passes:	30.36	LCY	
Loading Tool Capacity						
			Buck	et Size Class: N	A	
Rated Capacity:	9.200	LCY (heaped)				
Bucket Fill Factor:	1.100	Other - rock/dir	t mixtures (10	0-120%) 1.100		-
Adjusted Capacity:	10.120	LCY				-
Job Condition Corrections	:	Si	te Altitude (ft.):	6800 feet		
	Truck	Loader	Source			
Altitude Adj:	1.000	1.000	(CAT HE	8)		
Job Efficiency:	0.830	0.830	(CAT HE			
Net Correction:	0.830	0.830				
Loading Tool Cycle Time:	Ν	Number of Loading T	Cool Passes Requ	uired to Fill		passes
Excavators and Front Shove				Truck:	3	F
Machine Cycle Time v		n Rating: NA				
Selected Value						
Track Loaders –						
Cycle Time Elements (min.)		<u> </u>				
Load: NA		aneuver: NA		Dump: 0.100	1	
				2 ump:		
Wheel and Trac	k Loaders - Una	djusted Basic Loade	r Cuolo Timo (le			
			i Cycle Time (ic	oad, dump,	575 min	utes
Cycle Time Factors			-	bad, dump, 0. 0.	575 min	utes
			r	- 0	575 min	utes
Material:		' to 3/4" diameter -0.	.02	naneuver):	575	utes
	Conveyor or	' to 3/4'' diameter -0 dozer piled 10 ft. hig	.02	naneuver): 0. Factor (min.)	S75 Source	utes
Material:	Conveyor or 0.00		.02 gh and up	naneuver):	S75 Source (Cat HB) (Cat HB)	utes
Material: Stockpile:	Conveyor or 0.00 Common ow 0.04	dozer piled 10 ft. hig nership of trucks and	.02 gh and up	naneuver): Factor (min.) -0.020	Source (Cat HB)	utes
Material: Stockpile: Truck Ownership: Operation:	Conveyor or 0.00 Common ow 0.04 Constant ope	dozer piled 10 ft. hig nership of trucks and eration -0.04	.02 gh and up	naneuver):0. Factor (min.) -0.020 0.000 -0.040 -0.040	S75 Source (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Material: Stockpile: Truck Ownership:	Conveyor or 0.00 Common ow 0.04	dozer piled 10 ft. hig nership of trucks and eration -0.04 get 0.00	r .02 gh and up d loaders -	naneuver):0. Factor (min.) -0.020 0.000 -0.040 -0.040 0.000	S75 Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB)	utes
Material: Stockpile: Truck Ownership: Operation:	Conveyor or 0.00 Common ow 0.04 Constant ope	dozer piled 10 ft. hig nership of trucks and eration -0.04 get 0.00 Net Cycle Tim	.02 gh and up d loaders - e Adjustment:	naneuver):0. Factor (min.) -0.020 0.000 -0.040 -0.040 0.000 -0.100	S75 Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	utes
Material: Stockpile: Truck Ownership: Operation:	Conveyor or 0.00 Common ow 0.04 Constant ope	dozer piled 10 ft. hig nership of trucks and eration -0.04 get 0.00 Net Cycle Tim Adjusted Loade	.02 gh and up d loaders - e Adjustment: er Cycle Time:	naneuver):0. Factor (min.) -0.020 0.000 -0.040 -0.040 0.000 -0.100 0.475	S75 Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	utes
Material: Stockpile: Truck Ownership: Operation:	Conveyor or 0.00 Common ow 0.04 Constant ope	dozer piled 10 ft. hig nership of trucks and eration -0.04 get 0.00 Net Cycle Tim Adjusted Loade	.02 gh and up d loaders - e Adjustment:	naneuver):0. Factor (min.) -0.020 0.000 -0.040 -0.040 0.000 -0.100	S75 Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes	utes
Material: Stockpile: Truck Ownership: Operation:	Conveyor or 0.00 Common ow 0.04 Constant ope	dozer piled 10 ft. hig nership of trucks and eration -0.04 get 0.00 Net Cycle Tim Adjusted Loade	.02 gh and up d loaders - e Adjustment: er Cycle Time:	naneuver):0. Factor (min.) -0.020 0.000 -0.040 -0.040 0.000 -0.100 0.475	S75 Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	utes
Material: Stockpile: Truck Ownership: Operation: Dump Target:	Conveyor or 0.00 Common ow 0.04 Constant ope Nominal targ	dozer piled 10 ft. hig nership of trucks and eration -0.04 get 0.00 Net Cycle Tim Adjusted Loade	.02 gh and up d loaders - e Adjustment: er Cycle Time: me per Truck:	naneuver):0. Factor (min.) -0.020 0.000 -0.040 -0.040 0.000 -0.100 0.475	S75 Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes	utes
Material: Stockpile: Truck Ownership: Operation: Dump Target:	e: 0.60	dozer piled 10 ft. hig nership of trucks and eration -0.04 get 0.00 Net Cycle Tim Adjusted Loade Net Load Ti	n .02 gh and up d loaders - e Adjustment: er Cycle Time: me per Truck:	naneuver):	S75 Source (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) (Cat HB) minutes minutes minutes	

Truck Travel (Haul & Return) Time: penetration 1.2

Road Condition: Very hard, smooth, asphalt or concrete, no tire

Seg #	Haul	Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
	(Ft)			(%)	(%)	(fpm)	Time (min)	
1	1056	0.00	0.00	1.20	1.20	4223	3.212	
					Haul Time:	3.212	minutes	
Return F	loute:							
Seg #	Haul	Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
	(Ft)			(%)	(%)	(fpm)	Time (min)	
1	1056	0.00	0.00	1.20	1.20	4254	2.754	
					Return Time:	2.754	minutes	
				Total Tru	ck Cycle Time:	8.616	minutes	
Loading T	ool unit							
Pro	oduction	1,104.00	LCY/Hour		Adjusted for jo	b efficiency:	916.32	LCY/Hour
ruck Unit Pro	oduction							
		211.42	LCY/Hour		Adjusted for jo	b efficiency:	175.48	LCY/Hour
ptimal No. of	Trucks:	5	Truck(s)		Selected Numb	er of Trucks:	6	Truck(s)
				•	team productio			
			5 0		team productio	-		
		Ad	ljusted multiple	truck/loader	team production	n: 916.	32 LCY/He	our
IOR T	ME AN	D COST						
<u>JOD 11</u>								
					otal job time:	3.07	Hours	

Fleet size:	1	Team(s)	Total job time:	3.07	Hour
Unit cost:	\$1.664	/LCY	Total job cost:	\$4,682	

TRUCK/LOADER TEAM WORK

Task description:	Remove	e Gravel from N	orth Office Park	king Area		
Site: Peabody Sage Cr	eek Mine	Permit Act	tion: <u>RN2</u>		Permit/Job#:	C2009087
PROJECT IDENT	IFICATION					
Task #: 023		State: Color	ado	Abl	breviation: No	ne
Date: $3/25/2$	020 0	County: Routt			Filename: 02	
User: TNL						
Agency or o	rganization nan	ne: DRMS				
HOURLY EQUIP	MENT COST	-		Shift ba	asis: <u>1 per day</u>	
			Equipment Descr	iption		
Tru	ick Loader Tear		770D	*		
			Т 988Н			
Suppor	t Equipment -L					
Pood Mai	-Du ntenance –Moto	mp Area: NA	T 14M			
Koau Mai			ter Tanker, 10,00	0 Gal.		
			,_,_,_,_,,_,,,,,,,,,,,,,,,,,,,,,,,,			
Cost Breakdown:	Truck/Loa	der Team	Support	Equipment	Mainten	ance Equipment
	Truck	Loader	Load Area	Dump Area	Motor Grader	Water Truck
Utilization-machine:	100	95	NA	NA	25	25
Ownership cost/hour:	\$80.59	\$91.83	NA	NA	\$64.10	\$68.95
Operating cost/hour:	\$66.37	\$90.74	NA	NA	\$14.04	\$25.83
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	NA	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	NA	NA	\$0.00	\$0.00
Operator cost/hour:	\$32.93	\$40.65	NA	NA	\$28.52	\$21.09
Unit Subtotals:	\$179.89	\$223.22	NA	NA	\$106.66	\$115.88
Number of Units:	6	1	0	0	1	1
Group Subtotals:	Work:	\$1,302.56	Support:	\$0.00	Maint:	\$222.54
Total work team cost/		0	1			
Initial volume:	484	CCY	Swell	factor: 1.090		
	-					

Source of estimated volume: Source of estimated swell factor: Material Purchase Cost: Total Cost:

e:	Division of Reclamation, Mining & Safety
r:	Cat Handbook
t:	\$0.00
t:	\$0.00

HOURLY PRODUCTION

Truck Capacity:

Truck Par	yload ((weight)	Basis:

Material weight:2,400Pounds/LCYDescription:Clay and gravel - Dry

Rated Payload:	82,000	Pounds
Payload Capacity:	34.17	LCY

Truck Dad (volume) Design						
Truck Bed (volume) Basis: Struck Volume:	21.60	LCY				
Heaped Volume:		LCY				
Average Volume:		LCY				
Adjusted Volume:	31.70	LCY				
Final T	ruck Volume I	Based on Number of I	Loader Passes:	30.36	LCY	
Loading Tool Capacity						
			Buck	ket Size Class: N	JA	
Rated Capacity:	9.200	LCY (heaped)				
Bucket Fill Factor:	1.100	Other - rock/dirt	mixtures (10	0-120%) 1.100		-
Adjusted Capacity:	10.120	LCY				
Job Condition Corrections:		Sit	e Altitude (ft.):	6800 feet		
Job Condition Corrections.	-					
	Truck	Loader	Source			
Altitude Adj:	1.000	1.000	(CAT HE			
Job Efficiency:	0.830	0.830	(CAT HE	5)		
Net Correction:	0.830	0.830				
Loading Tool Cycle Time:	Ν	Number of Loading To	ool Passes Requ	uired to Fill		passes
Excavators and Front Shovel				Truck:	3	Passes
Machine Cycle Time vs		n Rating: NA				
Selected Value w						
Track Loaders – 1		<u> </u>				
Cycle Time Elements (min.):	viaterial Deseri					
Load: NA	М	aneuver: NA		Dump: 0.10	0	
	_			I		
Wheel and Track	Loaders - Una	djusted Basic Loader	Cycle Time (lo	oad, dump,	0.575 min	utes
			r	maneuver):	1.373	
Cycle Time Factors				Factor (min.)	Source	
Material:	Material 1/8'	" to 3/4" diameter -0.0)2	-0.020	(Cat HB)	
Stockpile:		dozer piled 10 ft. hig		0.000	(Cat HB)	_
	0.00			0.000	(Cat IIB)	_
Truck Ownership:		nership of trucks and	loaders -	-0.040	(Cat HB)	
	0.04					
Operation:	Constant ope			-0.040	(Cat HB)	
Dump Target:	Nominal targ	Net Cycle Time	A diustment:	-0.100	(Cat HB) minutes	_
		Adjusted Loader		0.475	minutes	
		Net Load Tin		1.050	minutes	
			r	2.000		
Truck Cycle Time:						
Truck Exchange Time		Minutes	· ·	for site altitude:	0.600	Minutes
Truck Load Time		Minutes	Ū.	for site altitude:	1.050	Minutes
Truck Maneuver and Dump Time		Minutes	Adjusted	for site altitude:	1.000	Minutes

Truck Travel (Haul & Return) Time: penetration 1.2

Unit cost: _____\$1.664 /LCY

Road Condition:	Ver	y hard,	smooth,	as	phalt	or	concrete,	no ti	ire

Total job cost: \$878

Seg	# Hau	1 Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
505	(Ft)			(%)	(%)	(fpm)	Time (min)	
1	105	60.00	0.00	1.20	1.20	4223	3.212	
Datum	Route:				Haul Time:	3.212	minutes	
Seg a		l Distance	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)	
1	105	60.00	0.00	1.20	1.20	4254	2.754	
				Total Tru	Return Time: ick Cycle Time:	2.754 8.616		
-	Tool unit Production	1,104.00	LCY/Hour		Adjusted for jo	b efficiency:	916.32	LCY/Hour
	Toduction	211.42	LCY/Hour		Adjusted for jo	b efficiency:	175.48	LCY/Hour
ptimal No.	of Trucks:	5	Truck(s)		Selected Numb	er of Trucks:	6	Truck(s)
			Adjusted single	truck/loader	team productio team productio team productio	n: 916.	32 LCY/He	our
JOB '	TIME AN	ND COST						
	leet size:		Team(s)	_	otal job time:	0.58	Hours	

CIRCES Cost Estimating Software
TRUCK/LOADER TEAM WORK

Task description:	Remove	Gravel from So	outh Powder Ma	gazine Pad		
Site: Peabody Sage Cr	eek Mine	Permit Act	ion: <u>RN2</u>		Permit/Job#:	C2009087
PROJECT IDENT	TIFICATION					
Task #: 024		State: Colora	ado	Abt	previation: Nor	ne
Date: 3/25/2	020 C	County: Routt			Filename: 024	
User: TNL						
Agency or o	organization nam	e: DRMS				
HOURLY EQUIP	<u>MENT COST</u>			Shift ba	sis: <u>1 per day</u>	
			Equipment Descr	iption		
Tri	uck Loader Tean		770D			
Suppor	t Equipment -Lo		Г 988Н			
Suppor		mp Area: NA				
Road Mai	ntenance – Motor		Г 14М			
	-Wate	er Truck: Wat	er Tanker, 10,00	0 Gal.		
			_			
<u>Cost Breakdown</u> :	Truck/Load		Support Load Area	Equipment	Maintena Motor	nce Equipment Water Truck
	Truck	Loader	Load Area	Dump Area	Grader	water fluck
Utilization-machine:	100	95	NA	NA	25	25
Ownership cost/hour:	\$80.59	\$91.83	NA	NA	\$64.10	\$68.95
Operating cost/hour:	\$66.37	\$90.74	NA	NA	\$14.04	\$25.83
%Utilization-riper:	NA	0	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$0.00	NA	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$0.00	NA	NA	\$0.00	\$0.00
Operator cost/hour:	\$32.93	\$40.65	NA	NA	\$28.52	\$21.09
Unit Subtotals:	\$179.89	\$223.22	NA	NA	\$106.66	\$115.88
Number of Units:	6	1	0	0	1	1
Group Subtotals:	Work:	\$1,302.56	Support:	\$0.00	Maint:	\$222.54
Total work team cost/ MATERIAL QUA Initial volume:	. <u></u>	<u>0</u>	Swell	factor: 1.090		
Loose volume:	453	LCY				
	ce of estimated y		ion of Reclamati Iandbook	on, Mining & Sat	fety	

HOURLY PRODUCTION

Truck Capacity:

Truck Par	yload ((weight)	Basis:

Material weight:2,400Pounds/LCYDescription:Clay and gravel - Dry

Material Purchase Cost: \$0.00

Total Cost: \$0.00

Rated Payload:	82,000	Pounds
Payload Capacity:	34.17	LCY

Truck Maneu	ver and Dump Time:	1.00	Minutes	Adjusted	for site altitude:	1.000	Minutes
	ck Load Time:	1.050	Minutes	Ū.	for site altitude:	1.050	Minutes
	change Time:	0.60	Minutes	Ū.	for site altitude:	0.600	Minutes
Truck Cycle Ti				,		0	
			Inet Load I	ime per Truck:	1.050	minutes	
				er Cycle Time:	0.475	minutes	
				ne Adjustment:	-0.100	minutes	
D	ump Target:	Nominal targ			0.000	(Cat HB)	
	Operation:	Constant oper			-0.040	(Cat HB)	
Truck	Ownership:	Common own 0.04	nership of trucks an	nd loaders -	-0.040	(Cat HB)	
	Stockpile:	Conveyor or 0.00	dozer piled 10 ft. h	igh and up	0.000	(Cat HB)	
	Material:		to 3/4" diameter -		-0.020	(Cat HB)	
Cycle 7	ime Factors				Factor (min.)	Source	
Wh	eel and Track I	Loaders - Una	djusted Basic Load	•	oad, dump, maneuver):).575 mir	nutes
Load:	NA	Ma	aneuver: NA		Dump: 0.10	0	
Cycle Time Eler	ments (min.):						
Trac	ck Loaders – M	aterial Descrip	ption:				
	ected Value wit						
Machine C	Cycle Time vs.	Job Condition	Rating: NA				
Excavators and	Front Shovels:				Truck:	5	
Loading Tool	Cycle Time:	Ν	umber of Loading	Tool Passes Req	uired to Fill	3	passes
Net Correction: 0.830			0.830				
JOD EII	ciency:	0.830	0.830	(CAT H	В)		
	Altitude Adj:1.000Job Efficiency:0.830			(CAT H			
	1	Truck	Loader 1.000	Source			
Job Condition	Corrections:			Site Altitude (ft.)	: <u>6800</u> feet		
-	· · _						
Adjusted Capacity:		10.120	LCY				_
	l Capacity: Fill Factor:	9.200	LCY (heaped) Other - rock/d	irt mixtures (10	00-120%) 1.100		_
Data	1 Consister	0.200	LCV (beened)	Buc	ket Size Class: <u>N</u>	ΝA	
Loading Tool Capacity							
	Final Tr	uck Volume B	ased on Number o	f Loader Passes:	30.36	LCY	
Adjusted	l Volume:	31.70	LCY				
-	e Volume:	26.65	LCY				
	i volume.	31.70	LCY				
Heaped	Volume:		LCY				

Truck Travel (Haul & Return) Time: Road Condition: Very hard, smooth, asphalt or concrete, no							ete, no tire			
	netration ul Route									
	Seg #Haul Distance (Ft)Grade (%)					Total Res (%)	Velocity (fpm)	Travel Time (min)		
1	-	10560	0.00	0.00	1.20	1.20	4223	3.212		
Re	turn Rou	te:				Haul Time:	3.212	mir	nutes	
	Seg #		Distance	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)		
1	-	10560	0.00	0.00	1.20	1.20	4254	2.754		
					Total True	Return Time: ck Cycle Time:	-		iinutes iinutes	
Load Truck Ui	ding Tool Produ nit Produ	ction _	1,104.00	LCY/Hour		Adjusted for jo	b efficiency:	916.3	<u>32</u> LC	Y/Hour
		-	211.42	LCY/Hour	Adjusted for job efficiency: <u>175.48</u> LCY/				Y/Hour	
Optimal N	ptimal No. of Trucks:5 Truck(s)			Truck(s)	Selected Number of Trucks: <u>6</u> Truck(s)				ıck(s)	
	Adjusted hourly truck team production:1,052.87LCY/HourAdjusted single truck/loader team production:916.32LCY/HourAdjusted multiple truck/loader team production:916.32LCY/Hour									
JC)B TIM	E ANI	D COST							
	Fleet s	ize:	1	Team(s)	Т	otal job time:	0.49)	Hours	
	Unit c	ost:	\$1.664	/LCY	Т	otal job cost:	l job cost: \$755			

Page 38 of 130

	Task description	: Rip North	Facilities Parkir	ng Area			
Site:	Peabody Sage	e Creek Mine	Permit Action	: RN2		Permit/Job#: <u>C2</u>	2009087
<u>P</u>	PROJECT IDE	NTIFICATION					
	Task #:03Date: $3/2$ User:Th	25/2020 Cou	tate: Colorado nty: Routt			viation: None lename: 030	
	Agency	or organization name:	DRMS				
E	HOURLY EQU	JIPMENT COST					
	Basic	Machine: Cat D10T	- 10SU		Horsepower:	574	
	Ripper Att	achment: <u>3-Shank F</u>	Ripper		Shift Basis:	1 per day (CRG)	
<u>C</u>	Cost Breakdown:				=	()	
		Ownership Cost/Hou	r.	\$140.61	Utilization % NA		
		Operating Cost/Hou	r:	\$135.35	100		
		er Ownership Cost/Hou		\$18.34	NA		
	Ripp	er Operating Cost/Hou Operator Cost/Hou		\$10.80 \$41.24	100 NA		
		Total Unit Cost/Hou		\$346.33	NA		
		Total Fleet Cost/Hou	r: \$34	6.33			
<u>N</u>	MATERIAL Q	<u>UANTITIES</u>	Sele	ected estimating	g method: Area		
<u>A</u>	Alternate Method	<u>s:</u>					
Seismic:	NA		Bank Volume:	NA	BCY	NA	
Area:	2.60	acres	Rip Depth (ft):	1.50	Volume:	6,292	BCY or CCY
		Source of estimated q	uantity: <u>Map 2</u>	2.05.3 M1B			
H	HOURLY PRC	DUCTION					
_	Seismic:						
<u>5</u>	<u>bershille.</u>	Seismic	Velocity:	NA	feet/seco	ond	
А	Area:						
<u> </u>	<u>II du.</u>	Average Rippi	ng Depth:	1.50	feet/pass		
		Average Rippi		8.67	feet/pass		
		Average Rippin		250.00	feet/pass		
		Average Doz		88.00	feet/min		
		Average Maneu Production per		0.25	minutes/ acres/hor		
Ţ	ob Condition Con	-		0.900		ui	
<u>J(</u>			a duation :	0.000	۸ ـــــ ۸ ــــ		
	Una	djusted Hourly Unit P		0.966	Acres/hr		
			Altitude:	6,800	feet	D)	
			itude Adj:	<u>1.00</u> 0.83	(CAT H) (1 shift/c	,	
			orrection:	0.83	(1 shiit/c multiplie	•	
		Adjusted Hourly		0.80	Acres/hr		
		Adjusted Hourly		0.80	Acres/hr		
J	IOB TIME AN						
<u>0</u>	Fleet size:		ler(s)	Total job tim	a. 2	.24 H	Hours
	1 1001 5120.	1 0140	··· (0)	10tu j00 ull		T 1	LUUID

	Unit cost:	\$431.992	Per acre	Total job cost:	\$1,123
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Page 40 of 130

	Creek Mine Permit Action	on: <u>RN2</u>		Permit/Job#: C2009087	
PROJECT IDEN	NTIFICATION				
Task #: 031	State: Colorad	do	Abbre	eviation: None	
	5/2020 County: Routt			ilename: 031	
User: TNI					
Agency o	or organization name: DRMS				
HOURLY EQUI	IPMENT COST				
Basic M	Iachine: Cat D10T - 10SU		Horsepower:	574	
Ripper Atta			Shift Basis:	1 per day	
	î î		Data Source:	(CRG)	
Cost Breakdown:					
		¢140.c1	Utilization %		
	Ownership Cost/Hour: Operating Cost/Hour:	\$140.61 \$135.35	NA 100		
Rinner	Ownership Cost/Hour:	\$133.33	 NA		
	r Operating Cost/Hour:	\$10.80	100		
r r ·	Operator Cost/Hour:	\$41.24	NA		
	Total Unit Cost/Hour:	\$346.33			
	Total Fleet Cost/Hour: \$	346.33			
		540.55			
n: <u>6.00</u>	acres Rip Depth (f Source of estimated quantity:Map	·	Volume:	14,520 E	3CY
HOURLY PROI	DUCTION				
Solomia					
Seismic:					
<u>Seisinic.</u>	Seismic Velocity:	NA	feet/seco	ond	
Area:		NA			
	Average Ripping Depth:	1.50	feet/pass	5	
	Average Ripping Depth: Average Ripping Width:	1.50 8.67	feet/pass	5	
	Average Ripping Depth: Average Ripping Width: Average Ripping Length:	1.50 8.67 250.00	feet/pass feet/pass feet/pass	5 5 5	
	Average Ripping Depth: Average Ripping Width: Average Ripping Length: Average Dozer Speed:	1.50 8.67	feet/pass	s s ute	
	Average Ripping Depth: Average Ripping Width: Average Ripping Length:	1.50 8.67 250.00 88.00	feet/pass feet/pass feet/pass feet/min	s s ute /pass	
	Average Ripping Depth: Average Ripping Width: Average Ripping Length: Average Dozer Speed: Average Maneuver Time: Production per unit area:	1.50 8.67 250.00 88.00 0.25	feet/pass feet/pass feet/pass feet/min minutes/	s s ute /pass	
<u>Area:</u> Job Condition Corr	Average Ripping Depth: Average Ripping Width: Average Ripping Length: Average Dozer Speed: Average Maneuver Time: Production per unit area:	1.50 8.67 250.00 88.00 0.25	feet/pass feet/pass feet/pass feet/min minutes/	s s ute /pass ur	
<u>Area:</u> Job Condition Corr	Average Ripping Depth: Average Ripping Width: Average Ripping Length: Average Dozer Speed: Average Maneuver Time: Production per unit area:	1.50 8.67 250.00 88.00 0.25 0.966 0.966 6,800	feet/pass feet/pass feet/pass feet/min minutes/ acres/ho Acres/hr feet	s s ute /pass ur	
<u>Area:</u> Job Condition Corr	Average Ripping Depth: Average Ripping Width: Average Ripping Length: Average Dozer Speed: Average Maneuver Time: Production per unit area: Production per unit area: Ijusted Hourly Unit Production: Site Altitude: Altitude Adj:	$ \begin{array}{r} 1.50\\ 8.67\\ 250.00\\ 88.00\\ 0.25\\ 0.966\\ 0.966\\ 6,800\\ 1.00\\ \end{array} $	feet/pass feet/pass feet/pass feet/min minutes/ acres/ho Acres/hr feet (CAT H	s s ute /pass ur B)	
<u>Area:</u> Job Condition Corr	Average Ripping Depth: Average Ripping Width: Average Ripping Length: Average Dozer Speed: Average Maneuver Time: Production per unit area: rection Factors Ijusted Hourly Unit Production: Site Altitude: Altitude Adj: Job Efficiency:	$ \begin{array}{r} 1.50\\ 8.67\\ 250.00\\ 88.00\\ 0.25\\ 0.966\\ \hline 0.966\\ \hline 6,800\\ 1.00\\ 0.83\\ \end{array} $	feet/pass feet/pass feet/pass feet/min minutes/ acres/ho Acres/hr feet (CAT H (1 shift/c	s s ute /pass ur B) day)	
<u>Area:</u> Job Condition Corr	Average Ripping Depth: Average Ripping Width: Average Ripping Length: Average Dozer Speed: Average Maneuver Time: Production per unit area: Production per unit area: Ijusted Hourly Unit Production: Site Altitude: Altitude Adj:	$ \begin{array}{r} 1.50\\ 8.67\\ 250.00\\ 88.00\\ 0.25\\ 0.966\\ 0.966\\ 6,800\\ 1.00\\ \end{array} $	feet/pass feet/pass feet/pass feet/min minutes/ acres/ho Acres/hr feet (CAT H	s s ute /pass ur B) day)	
<u>Area:</u> Job Condition Corr	Average Ripping Depth: Average Ripping Width: Average Ripping Length: Average Dozer Speed: Average Maneuver Time: Production per unit area: rection Factors Ijusted Hourly Unit Production: Site Altitude: Altitude Adj: Job Efficiency:	1.50 8.67 250.00 88.00 0.25 0.966 6,800 1.00 0.83 0.83 n: 0.80	feet/pass feet/pass feet/pass feet/min minutes/ acres/ho Acres/hr feet (CAT H (1 shift/c	s s ute /pass ur B) day)	
<u>Area:</u> Job Condition Corr	Average Ripping Depth: Average Ripping Width: Average Ripping Length: Average Dozer Speed: Average Maneuver Time: Production per unit area: Production per unit area: rection Factors Ijusted Hourly Unit Production: Site Altitude: Altitude Adj: Job Efficiency: Net Correction: Adjusted Hourly Fleet Production	1.50 8.67 250.00 88.00 0.25 0.966 6,800 1.00 0.83 0.83 n: 0.80	feet/pass feet/pass feet/pass feet/min minutes/ acres/ho Acres/hr feet (CAT H (1 shift/c multiplic Acres/hr	s s ute /pass ur B) day)	

	Unit cost:	\$431.992	Per acre	Total job cost:	\$2,592
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Page 42 of 130

	Task descripti	on: Rip No	orth Electrical S	hop Facilities Area	a			
Task #: 032 State: Colorado Abbreviation: None Dat:: 325/2020 County: Routt Filename: 032 Dat:: 325/2020 County: Routt Filename: 032 Agency or organization name: DRMS HOURLY EOUIPMENT COST Horsepower: 574 Basic Machine: Cat Dirot 10SU Horsepower: (CRG) Cost Breakdown: Utilization % Shift Basis: 1 per day Operating Cost/Hour: \$140.61 NA NA Ripper Operating Cost/Hour: \$143.63 NA NA Ripper Operating Cost/Hour: \$143.63 NA NA Total Unit Cost/Hour: \$346.33 Total Unit Cost/Hour: \$346.33 Total Piet Cost/Hour: \$346.33 Total Unit Cost/Hour: \$372 BCY or Source of estimated quantity: Map 2.05.3 M1B MA Exerce NA Basic Acrage Ripping With: \$67 Ket/pass Average Ripping With: \$67 Ket/pass Average Ripping With: \$63 \$62 minutex/pass Podu	Site: Peabody S	age Creek Mine	Permit A	ction: RN2		Permit/Job#:	C20090	87
Date: 125/2020 County: Routt Filename: 032 User: INL DRMS HOURLY EQUIPMENT COST Basic Machine: Cat D107 - 10SU Horsepower: 574 Basic Machine: Cat D107 - 10SU Horsepower: 574 Ownership Cost/Hour: S140.61 NA Operating Cost/Hour: \$135.35 100 Ripper Ownership Cost/Hour: \$18.34 NA Ripper Ownership Cost/Hour: \$18.34 NA Operating Cost/Hour: \$18.34 NA Ripper Ownership Cost/Hour: \$18.34 NA Operating Cost/Hour: \$346.33 Total Unit Cost/Hour: \$346.33 Total Unit Cost/Hour: \$346.33 Total Unit Cost/Hour: \$346.33 MATERIAL QUANTITIES Selected estimating method: Area Aternate Methods: Size NA Bark Volume: 3.872 BCY or Source of estimated quantity: Map 2.05.3 M1B MA Feet/pass Average Ripping Voluti: 8.67 feet/pass Average Ripping Nidth: 8.67 feet/pass Average Naverage Naverage Naverage Naverag	PROJECT I	DENTIFICATION	N					
User: INL Agency or organization name: DRMS HOURLY EQUIPMENT COST Basic Machine: Cat Dior - 10SU Ripper Attachment: 3.Shank Ripper Data Source: (CRG) Cost Breakdown: Utilization % Ownership Cost/Hour: \$140.61 NA Operating Cost/Hour: \$1435.35 100 Operating Cost/Hour: \$10.80 100 Operator Cost/Hour: \$346.33 Total Unit Cost/Hour: \$346.33 Total Fleet Cost/Hour: \$346.33 MATERIAL QUANTITIES Selected estimating method: Area Alternate Methods: isto is the peth (ft): 1.50 Volume: 3.872 BCY or Source of estimated quantity: Map 2.05.3 M1B Map Material BCY or Seismic: Seismic Velocity: NA feet/pass Average Ripping Poth: 4.50 feet/pass Average Ripping Depth: 1.50 feet/pass Average Naneuver Time; 0.25 minutes/pass Production per unit area; 0.966 Acres/hr Average Ripping Depth: 0.966								
Agreed or or organization name: DRMS FOURLY EQUIPMENT COST Basic Machine: Cat D107 : 108U Horsepower: 574 Ripper Attachment: 3-Shank Ripper Data Source: (CRG) Ownership Cost/Hour: \$140.61 NA Operating Cost/Hour: \$133.55 100 Operating Cost/Hour: \$18.34 NA Ripper Ownership Cost/Hour: \$18.34 NA Ripper Ownership Cost/Hour: \$18.34 NA NA 100 Operating Cost/Hour: \$18.34 NA Ripper Ownership Cost/Hour: \$18.34 NA NA NA NA NA Operator Cost/Hour: \$346.33 Total Unit Cost/Hour: \$346.33 NA NA NA Still Basic MA Atternate Methods:			County: <u>Rout</u>	t	F1	lename: 0	32	
HOURLY EQUIPMENT COST Basic Machine: Cat D10T - 10SU Horsepower: 574 Ripper Attachment: 3-Shank Ripper Shih Basis: 1 per day Data Source: (CRG) Cost Breakdown: Utilization % Ownership Cost/Hour: \$140.61 NA Operating Cost/Hour: \$135.35 100 Operating Cost/Hour: \$181.34 NA Ripper Operating Cost/Hour: \$181.34 NA Operator Cost/Hour: \$346.33 Total Fleet Cost/Hour: \$346.33 MATERIAL QUANTITIES Selected estimating method: Area Alternate Methods: ic: NA BCY NA ic: NA BCY NA BCY or Source of estimated quantity: Map 2.05.3 M1B Map 2.05.3 M1B Mareage Ripping Depth: 1.50 feet/second Area: Average Ripping Depth: 1.50 feet/second Average Ripping Depth: 250.00 feet/pass Average Ripping Depth: 1.50 feet/second Average Ripping Length: 250.00 feet/pass Average Ripping Length: 25	Agen	cy or organization na	me: DRMS					
Basic Machine: Cat D10T - 10SU Horsepower: 574 Ripper Attachment: 3.Shank Ripper Shiñ Basis: 1 per day Data Source: (CRG) Cost Breakdown: \$140.61 NA Operating Cost/Hour: \$135.35 100 Ripper Operating Cost/Hour: \$135.35 100 Operating Cost/Hour: \$138.34 NA Ripper Operating Cost/Hour: \$134.6.33 Total Unit Cost/Hour: \$346.33 MATERIAL QUANTITIES Selected estimating method: Area Alternate Methods: ic: NA BCY NA atternate Methods: ic: NA BCY NA BCY or Source of estimated quantity: Map 205.3 M1B Map 205.3 M1B Marea BCY or NA feet/second Area: Average Ripping Depth: 1.50 feet/pass Average Ripping Ungth: 250.00 feet/pass Average Mareuver Time: 0.25 Average Ripping Ungth: 250.00 feet/pass Average Mareuver Time: 0.26 minute/pass Average Ripping Ungth: </td <td>•</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	•							
Ripper Attachment: 3-Shank Ripper Shift Basis: 1 per day Duta Source: Cost Breakdown: Utilization % Ownership Cost/Hour: \$140.61 NA Operating Cost/Hour: \$18.33 IOO Ripper Ownership Cost/Hour: \$18.34 NA Ripper Ownership Cost/Hour: \$18.33 IOO Operator Cost/Hour: \$346.33 Total Theet Cost/Hour: \$3346.33 Total Fleet Cost/Hour: \$3346.33 Selected estimating method: Area Alternate Methods: ic: NA Bank Volume: NA BCY NA Bank Volume: MA BCY NA BCY or Source of estimated quantity: Mag 2.05.3 M1B HOURLY PRODUCTION Seismic: Seismic Seismic Velocity: NA feet/second Average Ripping Length: 250.000 feet/pass Average Nameuver Time: 0.25 minutes/pass Average Naping Length: 250.000 feet/minute Average Nameuver Time: 0.26 minutes/pass Average Ripping Length: 250.00 feet/pass Average Nameuver Time: 0.25 minutes/pass					Horsepower:	574	4	
Cost Breakdown: Utilization % Operating Cost/Hour: \$135,35 Ripper Ovenership Cost/Hour: \$18,34 Ripper Ovenership Cost/Hour: \$18,34 Ripper Ovenership Cost/Hour: \$18,34 Ripper Ovenership Cost/Hour: \$18,34 Operator Cost/Hour: \$18,34 Total Unit Cost/Hour: \$346,33 Total Fleet Cost/Hour: \$346,33 Matteriate Methods:	Ripper A	Attachment: 3-Sha	ank Ripper		Shift Basis:	*	•	
Ownership Cost/Hour: S140.61 NA Operating Cost/Hour: S135.35 100 Ripper Operating Cost/Hour: S18.34 NA Ripper Operating Cost/Hour: S18.34 NA Operator Cost/Hour: S140.63 NA Operator Cost/Hour: S346.33 NA Total Unit Cost/Hour: S346.33 NA Alternate Methods: ic: NA BCY ic: NA Bank Volume: NA BCY a: 1.60 acres Rip Depth (ft): 1.50 Volume: 3.872 BCY or Source of estimated quantity: Map 2.05.3 M1B MA MA Selesmic: Selesmic: Selesmic: NA feet/second Area: Average Ripping Depth: 1.50 feet/pass feet/pass Average Ripping With: 8.67 feet/pass feet/pass Average Ripping Depth: 250.00 feet/pass feet/pass Average Ripping Vitht: 0.25 minutes/pass feet/pass Average Ripping Vitht: 0.25 minutes/pass feet/minute	~ ~				Data Source:	(CR	G)	
Ownership Cost/Hour: \$140.61 NA Operating Cost/Hour: \$135.35 100 Ripper Operating Cost/Hour: \$10.80 100 Operator Cost/Hour: \$346.33 Total Unit Cost/Hour: \$346.33 Total Fleet Cost/Hour: \$346.33 MATERIAL QUANTITIES Selected estimating method: Area Alternate Methods: ix: NA ix: NA Bank Volume: NA Bank Volume: NA BCY NA source of estimated quantity: Map 2.05.3 M1B MC BCY or HOURLY PRODUCTION Scismic: Seismic Velocity: NA feet/second Areage Ripping Depth: 1.50 feet/pass Average Ripping Vidth: 250.00 feet/pass Average Ripping Length: 250.00 feet/pass Average Maeuver Time: 0.25 minutes/pass Production per unit area: 0.966 acres/hour Iob Condition Correction Factors Unadjusted Hourly Unit Production: 0.966 Acres/hr Site Altitude: 6,800 feet Iob Efficiency: 0.83 (1 sh	Cost Breakdow	<u>n:</u>			Utilization %			
Ripper Ownership Cost/Hour: \$18.34 NA Ripper Operating Cost/Hour: \$10.80 100 Operator Cost/Hour: \$346.33 Total Unit Cost/Hour: \$346.33 MATERIAL QUANTITIES Selected estimating method: Area Alternate Methods: istanting method: NA ic: NA Bank Volume: NA ic: NA BCY NA Bank Volume: Maternate Methods: NA BCY ic: NA BCY NA Bank Volume: MA BCY NA Bank Volume: MA BCY NA Bank Volume: NA BCY NA Bank Volume: NA BCY BCY or Source of estimated quantity: Map 2.05.3 M1B Maternation and the second and								
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Óperator Cost/Hour: \$41.24 NA Total Unit Cost/Hour: \$3346.33 Total Fleet Cost/Hour: \$346.33 MATERIAL QUANTITIES Selected estimating method: Area Alternate Methods: ic: NA BCY NA ac: NA BCY NA BCY or Source of estimated quantity: Map 2.05.3 M1B MA BCY or Source of estimated quantity: Map 2.05.3 M1B MA Get/second HOURLY PRODUCTION Seismic: Seismic Velocity: NA feet/second Average Ripping Depth: 1.50 feet/pass feet/pass Average Ripping Length: 250.00 feet/pass feet/pass Average Ripping Length: 0.25 minutes/pass minutes/pass Production per unit area: 0.966 acres/hour Job Efficiency: 0.83 (1 shift/day) Job Efficiency: 0.83 multiplier Adjusted Hourly Unit Production: 0.80 Acres/hr Job Efficiency: 0.83 multiplier Adjusted Hourly Fleet Production: 0.80 Acres/hr Job Efficiency:								
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MATERIAL QUANTITIES Selected estimating method:Area Alternate Methods:		•		\$346.33	<u> </u>			
MATERIAL QUANTITIES Selected estimating method:Area Alternate Methods:		Total Elast Cost	/	\$246.22	-			
Seismic: NA feet/second Area: 1.50 feet/pass Average Ripping Depth: 1.50 feet/pass Average Ripping Length: 8.67 feet/pass Average Ripping Length: 250.00 feet/pass Average Ripping Length: 0.25 minutes/pass Average Maneuver Time: 0.25 minutes/pass Production per unit area: 0.966 acres/hour Job Condition Correction Factors 1.00 (CAT HB) Job Efficiency: 0.83 (I shift/day) Net Correction: 0.80 Acres/hr Adjusted Hourly Unit Production: 0.80 Acres/hr Adjusted Hourly Eleet Production: 0.80 Acres/hr			Rip Depth	n (ft): 1.50		3,872	NA	BCY or
Seismic: NA feet/second Area: Average Ripping Depth: 1.50 feet/pass Average Ripping Uength: 250.00 feet/pass Average Ripping Length: 250.00 feet/pass Average Ripping Length: 250.00 feet/pass Average Maneuver Time: 0.25 minutes/pass Production per unit area: 0.966 acres/hour Job Condition Correction Factors Unadjusted Hourly Unit Production: 0.966 Acres/hr Site Altitude 6,800 feet Altitude Adj: 1.00 (CAT HB) Job Efficiency: 0.83 (1 shift/day) Net Correction: 0.80 Acres/hr Adjusted Hourly Unit Production: 0.80 Acres/hr Adjusted Hourly Unit Production: 0.80 Acres/hr Adjusted Hourly Unit Production: 0.80 Acres/hr Adjusted Hourly Fleet Production: 0.80 Acres/hr Adjusted Hourly Fleet Production: 0.80 Acres/hr	HOURI V PI		ted quantity: <u>N</u>	Tap 2.05.3 MTB				-
Area:NAfeet/secondArea:1.50feet/passAverage Ripping Depth:1.50feet/passAverage Ripping Length:250.00feet/passAverage Ripping Length:250.00feet/passAverage Dozer Speed:88.00feet/minuteAverage Maneuver Time:0.25minutes/passProduction per unit area:0.966acres/hourJob Condition Correction Factors1.00(CAT HB)Job Efficiency:0.83(1 shift/day)Net Correction:0.80Acres/hrAdjusted Hourly Unit Production:0.80Acres/hrJob Efficiency:0.83multiplierAdjusted Hourly Unit Production:0.80Acres/hrJOB TIME AND COST0.80Acres/hr								
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Average Dozer Speed: 88.00 feet/minute Average Maneuver Time: 0.25 minutes/pass Production per unit area: 0.966 acres/hour Job Condition Correction Factors 0.966 Acres/hr Site Altitude: 6,800 feet Altitude Adj: 1.00 (CAT HB) Job Efficiency: 0.83 (1 shift/day) Net Correction: 0.80 Acres/hr Adjusted Hourly Unit Production: 0.80 Acres/hr								
Average Maneuver Time: 0.25 minutes/pass Production per unit area: 0.966 acres/hour Job Condition Correction Factors 0.966 Acres/hr Site Altitude: 6,800 feet Altitude Adj: 1.00 (CAT HB) Job Efficiency: 0.83 (1 shift/day) Net Correction: 0.80 Acres/hr Adjusted Hourly Unit Production: 0.80 Acres/hr JOB TIME AND COST JOB TIME AND COST JOB TIME AND COST								
Job Condition Correction Factors Unadjusted Hourly Unit Production: 0.966 Acres/hr Site Altitude: 6,800 feet Altitude Adj: 1.00 (CAT HB) Job Efficiency: 0.83 (1 shift/day) Net Correction: 0.83 multiplier Adjusted Hourly Unit Production: 0.80 Acres/hr JOB TIME AND COST JOB TIME AND COST JOB TIME AND COST								
Unadjusted Hourly Unit Production:0.966Acres/hrSite Altitude:6,800feetAltitude Adj:1.00(CAT HB)Job Efficiency:0.83(1 shift/day)Net Correction:0.83multiplierAdjusted Hourly Unit Production:0.80Acres/hrAdjusted Hourly Fleet Production:0.80Acres/hrJOB TIME AND COST0.80Acres/hr		Production	n per unit area:	0.966	acres/ho	ur		
Site Altitude: 6,800 feet Altitude Adj: 1.00 (CAT HB) Job Efficiency: 0.83 (1 shift/day) Net Correction: 0.83 multiplier Adjusted Hourly Unit Production: 0.80 Acres/hr Adjusted Hourly Fleet Production: 0.80 Acres/hr JOB TIME AND COST JOB TIME AND COST JOB TIME AND COST	Job Condition	Job Condition Correction Factors						
Altitude Adj: 1.00 (CAT HB) Job Efficiency: 0.83 (1 shift/day) Net Correction: 0.83 multiplier Adjusted Hourly Unit Production: 0.80 Acres/hr Adjusted Hourly Fleet Production: 0.80 Acres/hr JOB TIME AND COST JOB TIME AND COST JOB TIME AND COST	τ	Inadjusted Hourly U	nit Production:	0.966	Acres/hr			
Job Efficiency: 0.83 (1 shift/day) Net Correction: 0.83 multiplier Adjusted Hourly Unit Production: 0.80 Acres/hr Adjusted Hourly Fleet Production: 0.80 Acres/hr JOB TIME AND COST JOB TIME AND COST JOB TIME AND COST								
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Adjusted Hourly Unit Production: 0.80 Acres/hr Adjusted Hourly Fleet Production: 0.80 Acres/hr JOB TIME AND COST Acres/hr						•		
Adjusted Hourly Fleet Production: 0.80 Acres/hr JOB TIME AND COST			-			-		
JOB TIME AND COST			•					
	JOB TIME A	ND COST	5					

Unit cost: \$	431.992	Per acre	Total job cost:	\$691
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Page 44 of 130

Task	description:	Rip North Office P	arking A	rea			
Site: P	eabody Sage (Creek Mine Permi	t Action:	RN2]	Permit/Job#: C20	09087
PRO	JECT IDEN	TIFICATION					
Т	ask #: 033	State: C	Colorado		Abbre	viation: None	
		·	Routt		Fi	lename: 033	
	User: TNL						
	Agency or	organization name: DRM	S				
HOU	IRLY EQUI	PMENT COST					
	Basic M	achine: Cat D10T - 10SU			Horsepower:	574	
	Ripper Attac			_	Shift Basis:	1 per day	
					Data Source:	(CRG)	
<u>Cost l</u>	Breakdown:						
				¢1.40.51	Utilization %		
	,	Ownership Cost/Hour: Operating Cost/Hour:		\$140.61 \$135.35	<u>NA</u> 100		
	Ripper	Ownership Cost/Hour:		\$133.33	NA		
		Operating Cost/Hour:		\$10.80	100		
		Operator Cost/Hour:		\$41.24	NA		
		Total Unit Cost/Hour:		\$346.33			
	,	Total Fleet Cost/Hour:	\$346	.33			
МАТ	TERIAL QU	ANTITIFS	Calaa	4	mathad. Ana		
			Selec	ted estimating	method: Area		
Alterr	nate Methods:						
	A		Volume:	NA	BCY	NA	
Area: 0.	.30	acres Rip D	epth (ft):	1.50	Volume:	726	BCY or CCY
	S	ource of estimated quantity:	Map 2.0)5.3 M1B			
HOU	RLY PROD	UCTION					
Seism							
<u>501311</u>	<u>nc.</u>	Seismic Velocity	/:	NA	feet/seco	nd	
Aroos		·					
Area:		Average Ripping Depth	ı.	1.50	feet/pass		
		Average Ripping Width		8.67	feet/pass		
		Average Ripping Length	ı:	250.00	feet/pass		
		Average Dozer Speed		88.00	feet/minu		
		Average Maneuver Time		0.25	minutes/	•	
		Production per unit area	ı:	0.966	acres/hou	ur	
<u>Job C</u>	ondition Corre	ction Factors					
	Unadj	usted Hourly Unit Production	ı:	0.966	Acres/hr		
		Site Altitude	:	6,800	feet		
		Altitude Ad	j:	1.00	(CAT HI	,	
		Job Efficiency		0.83	(1 shift/d	•	
		Net Correction	n:	0.83	multiplie	er	
		Adjusted Hourly Unit Pro		0.80	Acres/hr		
		Adjusted Hourly Fleet Pro	duction:	0.80	Acres/hr		
JOB	TIME AND	COST					
F	Fleet size:	1 Grader(s)		Total job time	e: 0.	.37 He	ours

Unit cost:\$431.992Per acreTotal job cost:\$130	
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Page 46 of 130

	Task description:	Rip South Powder Mag	azine Pad			
Site:	Peabody Sage	Creek Mine Permit Act	ion: <u>RN2</u>	P	Permit/Job#: C200	9087
<u>P</u>	PROJECT IDEN	TIFICATION				
	Task #: 034 Date: 3/25 User: TNL	/2020 State: Color: County: Routt	ado	Abbrev File	viation: None ename: 034	
	Agency of	organization name: DRMS				
E	HOURLY EQUI	PMENT COST				
	Basic M			Horsepower:	574	
	Ripper Attac	Shment: 3-Shank Ripper		Shift Basis:	1 per day (CRG)	
<u>C</u>	Cost Breakdown:				·····	
		Ownership Cost/Hour:	\$140.61	Utilization % NA		
		Operating Cost/Hour:	\$135.35	100		
		Ownership Cost/Hour:	\$18.34 \$10.80	<u>NA</u> 100		
	Кірреі	Operator Cost/Hour:	\$10.80	 NA		
		Total Unit Cost/Hour:	\$346.33			
		Total Fleet Cost/Hour:	\$346.33			
<u>A</u> eismic: Area:	NA 0.25	Bank Volu acres Rip Depth	(ft): 1.50	BCY Volume:	NA 605	BCY or CC
_		Source of estimated quantity: <u>Management</u>	ap 2.05.3 M1B			
	HOURLY PROE	DUCTION				
<u>د</u>	<u>etsinic.</u>	Seismic Velocity:	NA	feet/secon	nd	
A	Area:		1.50	6 /		
		Average Ripping Depth: Average Ripping Width:	<u>1.50</u> 8.67	feet/pass feet/pass		
		Average Ripping Length:	150.00	feet/pass		
		Average Dozer Speed:	88.00	feet/minu		
		Average Maneuver Time: Production per unit area:	0.25 0.916	minutes/p acres/hou		
J	ob Condition Corre		0.910	ucres/nou		
_		justed Hourly Unit Production:	0.916	Acres/hr		
		Site Altitude:	6,800	feet		
		Altitude Adj:	1.00	(CAT HE	,	
		Job Efficiency:	0.83	(1 shift/da	•	
		Net Correction:	0.83	multiplier	ſ	
		Adjusted Hourly Unit Producti Adjusted Hourly Fleet Producti		Acres/hr Acres/hr		
<u>J</u>	OB TIME AND	COST				
	Fleet size:	1 Grader(s)	Total job tim	ie: 0.	33 Hou	ırs

Unit cost:\$455.286Per acreTotal job cost:\$114		\$114	\$1	Total job cost:	Per acre	\$455.286	Unit cost:
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Page 48 of 130

Task description:	Rip South Covered Stora	nge Area			
Site: Peabody Sage	Creek Mine Permit Action	on: RN2	I	Permit/Job#: <u>C20</u>	09087
PROJECT IDEN	NTIFICATION				
Task #:035		lo		viation: None	
Date: 3/25 User: TNI	5/2020 County: <u>Routt</u>		Fil	ename: 035	
Agency o	r organization name: DRMS				
HOURLY EQU	IPMENT COST				
Basic M			Horsepower:	574	
Ripper Atta	chment: <u>3-Shank Ripper</u>		Shift Basis:	1 per day (CRG)	
Cost Breakdown:				()	
		¢140_c1	Utilization %		
	Ownership Cost/Hour: Operating Cost/Hour:	\$140.61 \$135.35	NA 100		
Ripper	Ownership Cost/Hour:	\$18.34	NA		
	r Operating Cost/Hour:	\$10.80	100		
	Operator Cost/Hour:	\$41.24	NA		
	Total Unit Cost/Hour:	\$346.33			
	Total Fleet Cost/Hour: \$	346.33			
MATERIAL QU Alternate Methods: smic: NA		elected estimating	g method: <u>Area</u> BCY	NA	
Area: 3.00	acres Rip Depth (f		Volume:	7,260	BCY or CC
:	Source of estimated quantity: <u>Map</u>	o 2.05.3 M1B			
HOURLY PRO	DUCTION				
Seismic:				_	
	Seismic Velocity:	NA	feet/seco	nd	
<u>Area:</u>	Average Ripping Depth:	1.50	feet/pass		
	Average Ripping Width:	8.67	feet/pass		
	Average Ripping Length:	250.00	feet/pass		
	Average Dozer Speed:	88.00	feet/minu		
	Average Maneuver Time: Production per unit area:	0.25	minutes/j acres/hou		
Job Condition Corr		0.700	acres/110t	11	
	justed Hourly Unit Production:	0.966	Acres/hr		
Chuc	Site Altitude:	6,800	feet		
	Altitude Adj:	1.00	(CAT HI	3)	
	Job Efficiency:	0.83	(1 shift/d	,	
	Net Correction:	0.83	multiplie	•	
	Adjusted Hourly Unit Productio Adjusted Hourly Fleet Productio		Acres/hr Acres/hr		
JOB TIME AND					
Fleet size:	1 Grader(s)	Total job tim	ne. 3	74 He	ours

Unit cost:	\$431.992	Per acre	Total job cost:	\$1,296
Unit COst.	\$ 4 51.992		Total job cost.	\$1,290

Page 50 of 130

te: Peabody Sa	age Creek Mine	Perm	nit Action:	RN2		Permit/Jo	ob#: <u>C2009</u>	087
PROJECT II	DENTIFICAT	ION						
Task #:	040	State:	Colorado		Abbre	viation:	None	
	3/25/2020		Routt			lename:	040	
	TNL							
Agen	cy or organizatio	n name: DRM	15					
•			15					
	DUIPMENT C							
		Cat D10T - 10SU		_	Horsepower:	1.	574	_
Ripper A	Attachment: <u>3</u>	-Shank Ripper		_	Shift Basis:	-	per day CRG)	_
Cost Double					Data Source:	(CRG)	
Cost Breakdow	<u>n:</u>			1	Utilization %			
	Ownership C	Cost/Hour:		\$140.61	NA			
	Operating C			\$135.35	100			
	oper Ownership C			\$18.34	NA			
Ri	pper Operating C			\$10.80	100			
	1	Cost/Hour:		\$41.24	NA			
	Total Unit C	Cost/Hour:		\$346.33				
	Total Fleet C	Cost/Hour	\$346	.33				
ic NA		Bank	Volume [.]	NA	BCY		NA	
ic: <u>NA</u> ea: 7.10	acres		x Volume: Depth (ft):	NA 1.50	BCY Volume:	17,182	NA	BCY or
		Rip I	Depth (ft):	1.50	Volume:	17,182	NA	_ BCY of
ea: 7.10	Source of est		Depth (ft):	1.50	Volume:	17,182	NA	BCY or
ea: 7.10 HOURLY PF		Rip I	Depth (ft):	1.50	Volume:	17,182	NA	BCY or
ea: 7.10	Source of est	Rip E imated quantity:	Depth (ft): <u>Map 2.0</u>	1.50	Volume:		NA	_ BCY of
ea: 7.10 HOURLY PF Seismic:	Source of est	Rip I	Depth (ft): <u>Map 2.0</u>	1.50 05.3 M1B and	A Volume:		NA	_ BCY or
ea: 7.10 HOURLY PF	Source of est	Rip E imated quantity: Seismic Velocit	Depth (ft): <u>Map 2.0</u> ty:	1.50 05.3 M1B and NA	A feet/seco	ond	NA	_ BCY or
ea: 7.10 HOURLY PF Seismic:	Source of esti RODUCTION Avera	Rip E imated quantity: Seismic Velocit age Ripping Dept	Depth (ft): <u>Map 2.0</u> ty: th:	1.50 05.3 M1B and NA 1.50	A feet/seco	ond	NA	_ BCY or
ea: 7.10 HOURLY PF Seismic:	Source of est RODUCTION Avera Avera	Rip E imated quantity: Seismic Velocit ge Ripping Dept ge Ripping Widt	Depth (ft): <u>Map 2.0</u> ty: th: th: th:	1.50 05.3 M1B and NA 1.50 8.67	A feet/pass	ond S	NA	_ BCY or
ea: 7.10 HOURLY PF Seismic:	Source of est RODUCTION Avera Avera Averag	Rip E imated quantity: Seismic Velocit ge Ripping Dept ge Ripping Widt ge Ripping Lengt	Depth (ft): Map 2.0 ty: th: th: th: th:	1.50 05.3 M1B and NA 1.50	A feet/seco	ond S	NA	_ BCY of
ea: 7.10 HOURLY PF Seismic:	Source of est <u>RODUCTION</u> Avera Avera Averag Ave	Rip E imated quantity: Seismic Velocit ge Ripping Dept ge Ripping Widt	Depth (ft): Map 2.0 ty: th: th:	1.50 05.3 M1B and NA 1.50 8.67 250.00	A feet/seco	ond s s ute	NA	_ BCY of
ea: 7.10 HOURLY PF Seismic:	Source of est RODUCTION Avera Averag Averag Ave Averag	Rip E imated quantity: Seismic Velocit ge Ripping Dept ge Ripping Widt ge Ripping Lengt grage Dozer Spee	Depth (ft): Map 2.0 ty: th: th:	1.50 05.3 M1B and NA 1.50 8.67 250.00 88.00	A feet/seco	ond 5 5 5 9 10 10 10 10 10 10 10 10 10 10 10 10 10	NA	_ BCY or
ea: 7.10 HOURLY PE Seismic: Area:	Source of est RODUCTION Avera Averag Averag Ave Averag	Rip E imated quantity: Seismic Velocit ge Ripping Dept ge Ripping Lengt grage Dozer Spee ge Maneuver Tim ction per unit are	Depth (ft): Map 2.0 ty: th: th:	1.50 05.3 M1B and NA 1.50 8.67 250.00 88.00 0.25	A feet/seco	ond 5 5 5 9 10 10 10 10 10 10 10 10 10 10 10 10 10	NA	_ BCY or
ea: 7.10 HOURLY PF <u>Seismic:</u> <u>Area:</u> Job Condition C	Source of est RODUCTION Avera Avera Averag Ave Averag Produc	Rip E imated quantity: Seismic Velocit ge Ripping Dept ge Ripping Udt ge Ripping Lengt ge Maneuver Tim ction per unit are	Depth (ft): Map 2.0 ty: ty: th: th:	1.50 05.3 M1B and NA 1.50 8.67 250.00 88.00 0.25	A feet/seco	ond s s ute /pass ur	NA	_ BCY or
ea: 7.10 HOURLY PF Seismic: <u>Area:</u> Job Condition C	Source of est RODUCTION Avera Avera Averag Ave Averag Product Correction Factor	Rip E imated quantity: Seismic Velocit ge Ripping Dept ge Ripping Udt ge Ripping Lengt ge Maneuver Tim ction per unit are	Depth (ft): Map 2.0 ty: ty: th: th:	1.50 05.3 M1B and NA 1.50 8.67 250.00 88.00 0.25 0.966	A feet/seco	ond s s ute /pass ur	NA	_ BCY or
ea: 7.10 HOURLY PF Seismic: <u>Area:</u> Job Condition C	Source of est RODUCTION Avera Avera Averag Ave Averag Product Correction Factor	Rip E imated quantity: Seismic Velocit ge Ripping Dept ge Ripping Lengt ge Ripping Lengt ge Maneuver Tim ction per unit are ts y Unit Productio	Depth (ft): Map 2.0 ty: ty: th: th:	1.50 05.3 M1B and NA 1.50 8.67 250.00 88.00 0.25 0.966	A feet/seco feet/pass feet/pass feet/min minutes/ acres/ho	ond s s ute /pass ur	NA	_ BCY or
ea: 7.10 HOURLY PF Seismic: <u>Area:</u> Job Condition C	Source of est RODUCTION Avera Avera Averag Ave Averag Product Correction Factor	Rip E imated quantity: Seismic Velocit ge Ripping Dept ge Ripping Udt ge Ripping Lengt trage Dozer Spee te Maneuver Tim ction per unit are rs y Unit Productio Site Altitud	Depth (ft): Map 2.0 ty: ty: th: th:	1.50 05.3 M1B and 05.3 M1B and NA 1.50 8.67 250.00 88.00 0.25 0.966 0.966 6,800	A feet/pass feet/pass feet/pass feet/min minutes/ acres/ho feet feet	ond s s ute (pass ur B)	NA	_ BCY or
ea: 7.10 HOURLY PF Seismic: <u>Area:</u> Job Condition C	Source of est RODUCTION Avera Avera Averag Ave Averag Product Correction Factor	Rip E imated quantity: Seismic Velocit ge Ripping Dept ge Ripping Udt ge Ripping Lengt rage Dozer Spee ge Maneuver Tim ction per unit are rs y Unit Productio Site Altitud Altitude Ad	Depth (ft): Map 2.0 ty: ty: th: th:	1.50 05.3 M1B and 05.3 M1B and NA 1.50 8.67 250.00 88.00 0.25 0.966 6,800 1.00	A feet/seco feet/pass feet/pass feet/pass feet/pass feet/min minutes/ acres/ho Acres/hr feet (CAT H	ond s s ute (pass ur B) day)	NA	_ BCY of
ea: 7.10 HOURLY PF Seismic: <u>Area:</u> Job Condition C	Source of est RODUCTION Avera Avera Averag Ave Averag Product Correction Factor Jnadjusted Hourly	Rip E imated quantity: Seismic Velocit ge Ripping Dept ge Ripping Udt ge Ripping Lengt crage Dozer Spee ge Maneuver Tim ction per unit are rs y Unit Productio Site Altitud Altitude Ac Job Efficienc	Depth (ft): Map 2.0 ty: ty: th: th:	1.50 05.3 M1B and 05.3 M1B and NA 1.50 8.67 250.00 88.00 0.25 0.966 6,800 1.00 0.83	A feet/pass feet/pass feet/pass feet/pass feet/pass feet/min minutes/ acres/ho Acres/hr feet (CAT H (1 shift/o	ond s s ute (pass ur B) day)	NA	_ BCY or
ea: 7.10 HOURLY PF Seismic: <u>Area:</u> Job Condition C	Source of est RODUCTION Avera Avera Averag Aver Averag Product Correction Factor Jnadjusted Hourly	Rip E imated quantity: Seismic Velocit ge Ripping Dept ge Ripping Udt ge Ripping Lengt rage Dozer Spee te Maneuver Tim ction per unit are rs y Unit Productio Site Altitud Altitude Ad Job Efficienc Net Correctio	Depth (ft): Map 2.0 ty: ty: th: th:	1.50 05.3 M1B and 05.3 M1B and NA 1.50 8.67 250.00 88.00 0.25 0.966 6,800 1.00 0.83 0.83	A feet/seco feet/pass feet/pass feet/pass feet/min minutes/ acres/ho Acres/hr feet (CAT H (1 shift/c multiplic	ond s s ute (pass ur B) day)	NA	_ BCY or
ea: 7.10 HOURLY PF <u>Seismic:</u> <u>Area:</u> Job Condition C U	Source of est RODUCTION Avera Avera Averag Averag Production Correction Factor Junadjusted Hourly Adjusted	Rip I imated quantity: Seismic Velocit ge Ripping Dept ge Ripping Udt ge Ripping Lengt ge Ripping Lengt ge Maneuver Tim ction per unit are y Unit Productio Site Altitud Altitude Ad Job Efficienc Net Correctio d Hourly Unit Pro	Depth (ft): Map 2.0 ty: ty: th: th:	1.50 05.3 M1B and 05.3 M1B and NA 1.50 8.67 250.00 88.00 0.25 0.966 6,800 1.00 0.83 0.80	A Volume: A feet/seco feet/pass feet/pass feet/pass feet/pass feet/min minutes/ acres/ho Acres/hr feet (CAT H (1 shift/c multiplic Acres/hr	ond s s ute (pass ur B) day)	NA	_ BCY or
ea: 7.10 HOURLY PF Seismic: <u>Area:</u> Job Condition C	Source of esti RODUCTION Avera Avera Averag Ave Averag Production Correction Factor Junadjusted Hourly Adjusted Adjusted Adjusted	Rip I imated quantity: Seismic Velocit ge Ripping Dept ge Ripping Udt ge Ripping Lengt ge Ripping Lengt ge Maneuver Tim ction per unit are y Unit Productio Site Altitud Altitude Ad Job Efficienc Net Correctio d Hourly Unit Pro	Depth (ft): Map 2.0 ty: ty: th: th:	1.50 05.3 M1B and 05.3 M1B and NA 1.50 8.67 250.00 88.00 0.25 0.966 6,800 1.00 0.83 0.80	A A feet/secc feet/pass feet/pass feet/pass feet/min minutes/ acres/hr feet (CAT H (1 shift/c multiplic Acres/hr Acres/hr	ond s s ute (pass ur B) day)	NA	-

Unit cost:	\$431.992	Per acre	Total job cost:	\$3,067

Page 52 of 130

te: Peabody Sa	age Creek Mine	e Perm	nit Action:	RN2		Permit/Jo	ob#: C2009	9087
PROJECT II	-							
	041		Colorado		Abbr	eviation:	None	
	3/25/2020		Routt			Filename:	041	
User:	TNL	_ • _						
Agenc	cy or organizatio	on name: DRM	1S					
HOURLY EQ)UIPMENT (COST						
Basi	ic Machine: 0	Cat D10T - 10SU			Horsepower:		574	
Ripper A	Attachment: 3	3-Shank Ripper			Shift Basis:	1	per day	
					Data Source:	((CRG)	
Cost Breakdown	<u>n:</u>							
		~ ~ ~		* • • • • •	Utilization %			
	Ownership			\$140.61	NA	-		
Rin	per Ownership	Cost/Hour:		\$135.35 \$18.34	100 NA	-		
	pper Operating			\$10.80	100	-		
		Cost/Hour:		\$41.24	NA	-		
	Total Unit	Cost/Hour:		\$346.33		=		
	Total Fleet	Cost/Hours	\$346	22				
Alternate Metho c: NA	<u>Das:</u>	Bank	volume:	NA	BCY		NA	
	acres	Rip I	Depth (ft):	NA 1.50	Volume:	11,616	NA	BCY or
c: <u>NA</u> a: <u>4.80</u>	acres Source of es	Rip I timated quantity:	Depth (ft):	1.50	Volume:	11,616		BCY or
c: <u>NA</u> a: <u>4.80</u> HOURLY PR	acres Source of es	Rip I timated quantity:	Depth (ft):	1.50	Volume:	11,616		BCY or
c: <u>NA</u> a: <u>4.80</u>	acres Source of es	Rip I timated quantity:	Depth (ft): <u>Map 2.0</u>	1.50	Volume:			BCY or
c: <u>NA</u> a: <u>4.80</u> <u>HOURLY PR <u>Seismic:</u></u>	acres Source of es	Rip I timated quantity: [Depth (ft): <u>Map 2.0</u>	1.50 05.3 M1B and	Volume:			BCY or
c: <u>NA</u> a: <u>4.80</u> HOURLY PR	acres Source of es RODUCTION	Rip I timated quantity: Seismic Velocit age Ripping Dept	Depth (ft): <u>Map 2.0</u> ty: th:	1.50 05.3 M1B and NA 1.50	Volume: I A feet/sec	ond ss		BCY or
c: <u>NA</u> a: <u>4.80</u> <u>HOURLY PR <u>Seismic:</u></u>	acres Source of es RODUCTION Avera Avera	Rip I timated quantity: Seismic Velocit age Ripping Dept age Ripping Widt	Depth (ft): <u>Map 2.0</u> ty: th: th: <u></u>	1.50 05.3 M1B and NA 1.50 8.67	Volume: I A feet/sec feet/pas feet/pas	ond ss ss		BCY or
c: <u>NA</u> a: <u>4.80</u> <u>HOURLY PR <u>Seismic:</u></u>	acres Source of es RODUCTION Avera Avera	Rip I timated quantity: [Seismic Velocit age Ripping Dept age Ripping Widt ge Ripping Lengt	Depth (ft): Map 2.0 ty: th: th: th: th:	1.50 05.3 M1B and NA 1.50 8.67 250.00	Volume: I A feet/sec feet/pas feet/pas feet/pas feet/pas	ond ss ss ss		BCY or
c: <u>NA</u> a: <u>4.80</u> <u>HOURLY PR <u>Seismic:</u></u>	acres Source of es RODUCTION Avera Avera Avera	Rip E timated quantity: Seismic Velocit age Ripping Dept age Ripping Lengt ge Ripping Lengt erage Dozer Spee	Depth (ft): Map 2.0 ty: th:	1.50 05.3 M1B and NA 1.50 8.67 250.00 88.00	Volume: I A feet/sec feet/pas feet/pas feet/pas feet/pas feet/pas	ond ss ss ss nute		BCY or
c: <u>NA</u> a: <u>4.80</u> <u>HOURLY PR <u>Seismic:</u></u>	acres Source of es CODUCTION Avera Avera Avera Avera	Rip E timated quantity: Seismic Velocit age Ripping Dept age Ripping Widt ge Ripping Lengt erage Dozer Spee ge Maneuver Tim	Depth (ft): Map 2.0 ty: th:	1.50 05.3 M1B and NA 1.50 8.67 250.00 88.00 0.25	Volume: I A feet/sec feet/pas feet/pas feet/pas feet/min feet/min minutes	cond ss ss ss nute s/pass		BCY or
c: <u>NA</u> a: <u>4.80</u> HOURLY PR Seismic: <u>Area:</u>	acres Source of es RODUCTION Avera Avera Avera Avera Produ	Rip E timated quantity: Seismic Velocit age Ripping Dept age Ripping Widt ge Ripping Lengt erage Dozer Spee ge Maneuver Tim action per unit are	Depth (ft): Map 2.0 ty: th:	1.50 05.3 M1B and NA 1.50 8.67 250.00 88.00	Volume: I A feet/sec feet/pas feet/pas feet/pas feet/pas feet/pas	cond ss ss ss nute s/pass		BCY or
c: <u>NA</u> a: <u>4.80</u> HOURLY PR Seismic: <u>Area:</u> Job Condition C	acres Source of es RODUCTION Avera Avera Avera Avera Produ Correction Facto	Rip E timated quantity: Seismic Velocit age Ripping Dept age Ripping Widt ge Ripping Lengt erage Dozer Spee ge Maneuver Tim action per unit are	Depth (ft): Map 2.0 ty: ty: th:	1.50 05.3 M1B and NA 1.50 8.67 250.00 88.00 0.25	Volume: I A feet/sec feet/pas feet/pas feet/pas feet/min feet/min minutes	ond ss ss ss nute s/pass our		BCY or
c: <u>NA</u> a: <u>4.80</u> HOURLY PR Seismic: <u>Area:</u> Job Condition C	acres Source of es RODUCTION Avera Avera Avera Avera Produ Correction Facto	Rip E timated quantity: Seismic Velocit age Ripping Dept age Ripping Uidt ge Ripping Lengt erage Dozer Spee ge Maneuver Tim action per unit are ors ly Unit Productio	Depth (ft): Map 2.0 ty: ty: th:	1.50 05.3 M1B and NA 1.50 8.67 250.00 88.00 0.25 0.966 0.966	Volume: A feet/sec feet/pas feet/pas feet/pas feet/min minutes acres/he Acres/h	ond ss ss ss nute s/pass our		BCY or
c: <u>NA</u> a: <u>4.80</u> HOURLY PR Seismic: <u>Area:</u> Job Condition C	acres Source of es RODUCTION Avera Avera Avera Avera Produ Correction Facto	Rip E timated quantity: Seismic Velocit age Ripping Dept age Ripping Widt ge Ripping Lengt erage Dozer Spee ge Maneuver Tim action per unit are	Depth (ft): Map 2.0 ty: ty: th:	1.50 05.3 M1B and NA 1.50 8.67 250.00 88.00 0.25 0.966	Volume: I A feet/sec feet/pas feet/pas feet/pas feet/pas feet/pas feet/pas feet/pas feet/pas feet/pas	ond ss ss ss nute s/pass our ur		BCY or
c: <u>NA</u> a: <u>4.80</u> HOURLY PR Seismic: <u>Area:</u> Job Condition C	acres Source of es RODUCTION Avera Avera Avera Avera Produ Correction Facto	Rip E timated quantity: Seismic Velocit age Ripping Dept age Ripping Udt ge Ripping Lengt erage Dozer Spee ge Maneuver Tim action per unit are <u>ors</u> ly Unit Productio Site Altitud	Depth (ft): Map 2.0 ty: ty: th:	1.50 05.3 M1B and NA 1.50 8.67 250.00 88.00 0.25 0.966 0.966 6,800	Volume: A feet/sec feet/pas feet/pas feet/pas feet/pas feet/pas feet/min minutes acres/he Acres/h feet	cond ss ss ss nute s/pass our ur IB)		BCY or
c: <u>NA</u> a: <u>4.80</u> HOURLY PR Seismic: <u>Area:</u> Job Condition C	acres Source of es RODUCTION Avera Avera Avera Avera Produ Correction Facto	Rip E timated quantity: Seismic Velocit age Ripping Dept age Ripping Udt ge Ripping Lengt erage Dozer Spee ge Maneuver Tim action per unit are <u>prs</u> ly Unit Productio Site Altitud Altitude Ac	Depth (ft): Map 2.0 ty: ty: th:	1.50 05.3 M1B and 05.3 M1B and NA 1.50 8.67 250.00 88.00 0.25 0.966 6,800 1.00	Volume: I A feet/sec feet/pas	cond ss ss ss sy nute sypass our ur HB) (day)		BCY or
c: <u>NA</u> a: <u>4.80</u> HOURLY PR Seismic: <u>Area:</u> Job Condition C	acres Source of es CODUCTION Avera Avera Avera Avera Produ <u>Correction Facto</u> (nadjusted Hour	Rip E timated quantity: Seismic Velocit age Ripping Dept age Ripping Udt ge Ripping Lengt erage Dozer Spee ge Maneuver Tim action per unit are <u>prs</u> ly Unit Productio Site Altitud Altitude Ac Job Efficienc	Depth (ft): Map 2.0 ty: ty: th:	1.50 05.3 M1B and 05.3 M1B and NA 1.50 8.67 250.00 88.00 0.25 0.966 6,800 1.00 0.83	Volume: I A feet/sec feet/pas	cond ss ss ss sy nute sypass our ur HB) (day)		BCY or
c: <u>NA</u> a: <u>4.80</u> HOURLY PR Seismic: <u>Area:</u> Job Condition C	acres Source of es CODUCTION Avera Avera Avera Produ <u>Correction Facto</u> Inadjusted Hour	Rip E timated quantity: Seismic Velocit age Ripping Dept age Ripping Lengt erage Dozer Spee ge Maneuver Tim action per unit are <u>ors</u> ly Unit Productio Site Altitud Altitude Ac Job Efficienc Net Correctio	Depth (ft): Map 2.0 Aug 2.0	1.50 05.3 M1B and 05.3 M1B and NA 1.50 8.67 250.00 88.00 0.25 0.966 6,800 1.00 0.83 0.83	Volume: I A feet/pas	cond ss ss ss sy nute sypass our ur HB) (day)		BCY or
c: <u>NA</u> a: <u>4.80</u> <u>HOURLY PR</u> <u>Seismic:</u> <u>Area:</u> <u>Job Condition C</u> U	acres Source of es CODUCTION Avera Avera Avera Avera Produ <u>Correction Facto</u> Inadjusted Hour	Rip E timated quantity: Seismic Velocit age Ripping Dept age Ripping Udt ge Ripping Lengt erage Dozer Spee ge Maneuver Tim action per unit are <u>ors</u> ly Unit Productio Site Altitud Altitude Ac Job Efficienc Net Correctio	Depth (ft): Map 2.0 Aug 2.0	1.50 05.3 M1B and 05.3 M1B and 05.3 M1B and 1.50 0.867 250.00 88.00 0.25 0.966 6,800 1.00 0.83 0.80	Volume: I A feet/sec feet/pas	cond ss ss ss sy nute sypass our ur HB) (day)		BCY or
c: <u>NA</u> a: <u>4.80</u> HOURLY PR Seismic: <u>Area:</u> Job Condition C	acres Source of es CODUCTION Avera Avera Avera Avera Produ <u>Correction Facto</u> Inadjusted Hour	Rip E timated quantity: Seismic Velocit age Ripping Dept age Ripping Udt ge Ripping Lengt erage Dozer Spee ge Maneuver Tim action per unit are <u>ors</u> ly Unit Productio Site Altitud Altitude Ac Job Efficienc Net Correctio	Depth (ft): Map 2.0 Aug 2.0	1.50 05.3 M1B and 05.3 M1B and 05.3 M1B and 1.50 0.867 250.00 88.00 0.25 0.966 6,800 1.00 0.83 0.80	Volume: A feet/sec feet/pas feet/pas feet/pas feet/pas feet/min minutes acres/he Acres/he (CAT H (1 shift, multipl Acres/hr	cond ss ss ss sy nute sypass our ur HB) (day)		

Unit cost:	\$431.992	Per acre	Total job cost:	\$2,074

Page 54 of 130

Ta	ask description:	Rip Haul	road D				
Site:	Peabody Sage (Creek Mine	Permit Action:	RN2		Permit/Job#:	C2009087
<u>PR</u>	ROJECT IDEN	TIFICATION					
	Task #: 042 Date: 3/25 User: TNL	/2020 Co	State: Colorado nunty: Routt			eviation: <u>Non</u> ilename: 042	
	Agency or	organization name	: DRMS				
HC	OURLY EOUI	PMENT COST					
	Basic M Ripper Attac	achine: Cat D10'	Г - 10SU Ripper		Horsepower: Shift Basis: Data Source:	574 1 per day (CRG)	/
Cos	st Breakdown:						
		Ownership Cost/Ho		\$140.61	Utilization % NA		
	Ripper	Operating Cost/Ho Ownership Cost/Ho		\$135.35 \$18.34	100 NA		
		Operating Cost/Ho		\$10.80	100		
		Operator Cost/Ho		\$41.24	NA		
		Total Unit Cost/Ho	our:	\$346.33			
		Total Fleet Cost/Ho	our: \$34	6.33			
<u>Alt</u> Seismic: Area:	NA 2.10	acres	Bank Volume: Rip Depth (ft):	NA 1.50	BCY Volume:	<u>N</u>	A BCY or CCY
	S	ource of estimated	quantity: <u>Map 2</u>	.05.3 M1B and	А		
<u>H(</u>	OURLY PROD	DUCTION					
<u>Sei</u>	ismic:	Seismi	c Velocity:	NA	feet/seco	ond	
Are	ea:			1 50	2 /		
		Average Ripp Average Ripp		<u>1.50</u> 8.67	feet/pass feet/pass		
		Average Rippi		250.00	feet/pass		
		Average Do		88.00	feet/min		
		Average Mane Production pe		0.25	minutes/ acres/ho	-	
Ioh	o Condition Corre	1		0.900		ui	
<u> 100</u>		usted Hourly Unit	Ducduction	0.966	Acres/h		
	Olladj	•				L	
			te Altitude: ltitude Adj:	<u>6,800</u> 1.00	feet (CAT H	B)	
			Efficiency:	0.83	(1 shift/	,	
			Correction:	0.83	multipli	•	
		•	y Unit Production: Fleet Production:	0.80 0.80	Acres/hr Acres/hr		
JO	DB TIME AND	COST			-		
	Fleet size:		nder(s)	Total job tim	e: 2	2.62	Hours

Unit cost:	\$431.992	Per acre	Total job cost:	\$907	
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Page 56 of 130

BUI	LDOZER	WORK
DUL		WOME.

: Peabody Sage Creek Mine	Permit Action:	RN2	Permit/Job	#: <u>C2009087</u>
PROJECT IDENTIFICAT	YON			
Task #: 045			Abbrovistion	None
Date: $3/25/2020$	State: <u>Colorado</u> County: Routt		Abbreviation: Filename:	None 045
User: TNL	County		Filename.	045
	-			
Agency or organization	on name: DRMS			
HOURLY EQUIPMENT (<u>COST</u>			
Basic Machine: Cat D10'	Г - 10SU			
Horsepower: 574		-		
Blade Type: Semi-Un		-		
Attachment: 3-shank		_		
Shift Basis: <u>1 per day</u>	1	-		
Data Source: (CRG)		-		
Cost Breakdown:				
		Utilization %		
Ownership Cost/Hour:	\$140.61	NA		
Operating Cost/Hour:	\$135.35	100		
Ripper own. Cost/Hour:	\$18.34	NA		
Ripper op. Cost/Hour:	\$10.80	100		
Operator Cost/Hour:	\$41.24	NA		
-		1111		
	46.33			
Total Fleet Cost/Hour: \$69	02.66			
	Q			
MATERIAL QUANTITIE	<u>5</u>			
Initial Volume: 17,182				
Swell factor: 1.000				
Loose volume: 17,182 LO	CY			
Source of estimated volume:	Division of Reclamation	on Mining & Safety		
Source of estimated swell	Cat Handbook	on, winning & Sulety		
factor:				
HOURLY PRODUCTION				
Average push distance:	250 feet			
Unadjusted hourly	754.3 LCY/hr			
production:				
Motoriola consistences	Deals 11 1	blasted 0.9		
Materials consistency	Rock, well ripped or	Diasted U.8		
description:				
Average push 0 %	,			
gradient:	5			
	00 feet			
<u> </u>				
Material weight: 2,6	50 lbs/LCY			

Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.800	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.3458	

 Adjusted unit
 260.84 LCY/hr

 production:
 521.68 LCY/hr

JOB TIME AND COST

Fleet size:	2 Dozer(s)
Unit cost:	\$1.328/LCY

Total job time:	32.94 Hours
Total job cost:	\$22,814

Page 58 of 130

BULLDOZER	WORK
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Task description:		Haulroad B Reduct			1
: Peabody Sage Cree	k Mine	Permit Action:	RN2	Permit/Jo	ob#: <u>C2009087</u>
PROJECT IDENTIR	ICATION				
Task #: 046	5	State: Colorado		Abbreviation:	None
Date: 3/25/202	0 Co	unty: Routt		Filename:	046
User: TNL					
Agency or orga	anization name	DRMS			
HOURLY EQUIPM	ENT COST				
Basic Machine: C	at D10T - 10SU	Ţ			
	74	, 	-		
	emi-Universal		-		
• •	-shank ripper		-		
	per day		-		
	CRG)		-		
Cost Breakdown:		I	Utilization %		
Ownership Cost/Hour		\$140.61	NA		
Operating Cost/Hour		\$135.35	100		
Ripper own					
Cost/Hour		\$18.34	NA		
Ripper op. Cost/Hour		\$10.80	100		
Operator Cost/Hour		\$41.24	NA		
-		¢ · · · · ·	1111		
Total unit Cost/Hour:	\$346.33				
Total Fleet Cost/Hour:	\$692.66				
MATERIAL QUAN	TITIES				
Initial Volume: 11, Swell factor: 1.0	,616				
	,616 LCY				
Loose volume. 11	,010 LC I				
Source of estimated vo			on, Mining & Safety		
Source of estimated sw	vell Ca	t Handbook			
factor:					
HOURLY PRODUC	TION				
		Faat			
Average push distance					
Unadjusted hourly	754.	3 LCY/hr			
production:					
Matariala consistence		Dock wall rinned as	· blastad 0.8		
Materials consistency		Rock, well ripped or	biasteu 0.0		
description:	<u> </u>			<u> </u>	
Average push	0 %				
gradient:	0 70				
Average site altitude:	6,800 feet				
morage site auturde.	0,000 1001				
Material weight:	2,650 lbs/L	CY			
C C					

b Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.800	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.3458	

production:	260.84 LCY/hr	
Adjusted fleet production:	521.68 LCY/hr	

JOB TIME AND COST

Fleet size:	2 Dozer(s)
Unit cost:	\$1.328/LCY
- (- 1 : - h (:	22.27 Harris

Total job time:	22.27 Hours
Total job cost:	\$15,423

Page 60 of 130

Task description:	Regrade Haulroad D			
Site: Peabody Sage Creek	Mine Permit Action	n: RN2	Permit/Jo	ob#: C2009087
PROJECT IDENTIFI	CATION			
Task #: 047	State: Colorado)	Abbreviation:	None
Date: <u>3/25/2020</u>	County: Routt		Filename:	047
User: <u>TNL</u>				
Agency or organ	ization name: DRMS			
HOURLY EQUIPMEN	NT COST			
Basic Machine: Cat	D10T - 10SU			
Horsepower: 574				
Blade Type: Sen	ni-Universal			
	nank ripper			
	er day			
Data Source: (CR	(G)			
Cost Breakdown:				
Or analysis Cost/Harry	¢140.c1	Utilization %		
Ownership Cost/Hour: Operating Cost/Hour:	\$140.61 \$135.35	NA 100		
Ripper own.				
Cost/Hour:	\$18.34	NA		
Ripper op. Cost/Hour:	\$10.80	100		
Operator Cost/Hour:	\$41.24	NA		
Tetel	¢24622			
Total unit Cost/Hour: Total Fleet Cost/Hour:	\$346.33 \$692.66			
	\$072.00			
MATERIAL QUANTI	TIES			
Initial Volume: 5,178 Swell factor: 1.000				
	5 8 LCY			
Source of estimated volu		ation, Mining & Safety		
Source of estimated swel	ll Cat Handbook			
factor:				
HOURLY PRODUCT	ION			
Average push distance:	250 feet			
Unadjusted hourly production:	754.3 LCY/hr			
Materials consistency description:	Rock, well ripped	or blasted 0.8		
Average push gradient:	0 %			
Average site altitude:	6,800 feet			
Material weight:	2,650 lbs/LCY			

Weight description: Deco	omposed rock - 25% Rock,	75% Earth
Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.800	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.3458	
Adjusted unit 26 production:	60.84 LCY/hr	

521.68 LCY/hr

JOB TIME AND COST

Adjusted fleet

production:

Fleet size:	2 Dozer(s)
Unit cost:	\$1.328/LCY

Total job time:9.93 HoursTotal job cost:\$6,875

Page 62 of 130

Task description:	Regrade Upper Sump			
Site: Peabody Sage Creek	<u>K Mine</u> Permit Action	n: RN2	Permit/Jo	ob#: C2009087
PROJECT IDENTIF	ICATION			
Task #: 050	State: Colorado	0	Abbreviation:	None
Date: <u>3/25/2020</u>	County: <u>Routt</u>		Filename:	050
User: <u>TNL</u>				
Agency or orga	nization name: DRMS			
HOURLY EQUIPME	ENT COST			
Basic Machine: Ca	at D10T - 10SU			
Horsepower: 57	/4			
	emi-Universal			
	shank ripper			
	per day			
Data Source: (C	(RG)			
Cost Breakdown:		Utilization %		
Ownership Cost/Hour:	\$140.61	NA		
Operating Cost/Hour:		100		
Ripper own.		NA		
Cost/Hour:				
Ripper op. Cost/Hour:				
Operator Cost/Hour:	\$41.24	NA		
Total unit Cost/Hour:	\$335.53			
Total Fleet Cost/Hour:	\$335.53			
MATERIAL QUANT	TITIES			
Initial Volume: 3,3	88			
Swell factor: 1.12				
	<u>12 LCY</u>			
		Minine R. C. C.		
Source of estimated vol		ation, Mining & Safety		
Source of estimated swe factor:	ell Cat Handbook			
fuctor.				
HOURLY PRODUC	ΓΙΟΝ			
Average push distance:				
Unadjusted hourly	946.0 LCY/hr			
production:				
Materials consistency	Compacted fill or	embankment () ()		
description:	Compacted III of	emountment 0.7		
second the second				
Average push	0 %			
gradient:				
Average site altitude:	6,800 feet			
Material weight:	2,650 lbs/LCY			
material weight.	2,000 108/ LC I			

Weight description: Deco	omposed rock - 25% Rock, 7	5% Earth
Job Condition Correction Factor	_	Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.3890	
Adjusted unit 36 production:	57.99 LCY/hr	

367.99 LCY/hr

JOB TIME AND COST

Adjusted fleet

production:

Fleet size:	1 Dozer(s)
Unit cost:	\$0.912/LCY

Total job time:10.36 HoursTotal job cost:\$3,475

Page 64 of 130

Task description:	Reg	rade Lower Sump			
te: Peabody Sage Cree	k Mine	Permit Action:	RN2	Permit/Jo	b#: C2009087
PROJECT IDENTIE	TICATI	ON			
Task #: 051	10:111	State: Colorado		Abbreviation:	None
Date: $3/25/202$	0	County: Routt		Filename:	051
User: TNL					
Agency or org	anization	name: DRMS			
HOURLY EQUIPM	ENT CO	DST			
	at D10T				
	74				
1 <u> </u>	emi-Univ	versal			
	-shank rij	oper			
Shift Basis: 1	per day	•			
	CRG)		-		
Cost Breakdown:		I	Utilization 0/		
Ownership Cost/Hour		\$140.61	<u>Utilization %</u> NA		
Ownership Cost/Hour Operating Cost/Hour		\$140.01	<u> </u>		
Ripper own		-			
Cost/Hour		\$18.34	NA		
Ripper op. Cost/Hour		\$0.00	0		
Operator Cost/Hour		\$41.24	NA		
	·	φ·••	1171		
Total unit Cost/Hour:	\$335	.53			
Total Fleet Cost/Hour:					
MATERIAL QUAN	TITIES				
MATENIAL QUAN	IIIICS				
	20				
Swell factor: 1.1	25				
Loose volume: 2,7	23 LCY				
Source of estimated up	1	Division of Dealementi	m Mining & Cofaty		
Source of estimated vo		Division of Reclamation	on, winning & Salety		
Source of estimated sw	en	Cat Handbook			
factor:					
HOUDI V DDODUC	TION				
HOURLY PRODUC					
Average push distance	:	200 feet			
Unadjusted hourly		946.0 LCY/hr			
production:					
Materials consistency		Compacted fill or en	nbankment 0.9		
description:					
Average push	0 %				
gradient:					
Average site altitude:	6,800) feet			
Material weight:	2 651) lbs/LCY			
material weight.	2,050	105/LC1			

Weight description:Dec	composed rock - 25% Rock, 7	75% Earth
Job Condition Correction Facto	<u>r_</u>	Source
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.3890	
Adjusted unit	367.99 LCY/hr	
Adjusted fleet	67 99 I CY/hr	

367.99 LCY/hr

JOB TIME AND COST

production:

Fleet size:	1 Dozer(s)
Unit cost:	\$0.912/LCY

Total job time: 7.40 Hours Total job cost: \$2,482

Page 66 of 130

MOTOR GRADER WORK

: Peabody Sage Creek	Mine P	ermit Action:	RN2]	Permit/Job#: <u>C2009087</u>
PROJECT IDENTIFI	ICATION				
Task #: 052	State:	Colorado		Abbre	viation: None
Date: 3/25/2020	County:	Routt		Fil	lename: 052
User: <u>TNL</u>					
Agency or organ	nization name:	RMS			
HOURLY EQUIPME	ENT COST				
Basic Machine	e: CAT 14M			Horsepower:	259
Ripper Attachmen	t: Multi-Shank R	lipper		Shift Basis:	1 per day
				Data Source:	(CRG)
Cost Breakdown:			1		
Owne	ership Cost/Hour:		\$64.10	Utilization % NA	
	rating Cost/Hour:		\$56.17	100	
	ership Cost/Hour:		\$4.44	NA	
	rating Cost/Hour:		\$0.00	0	
-	erator Cost/Hour:		\$28.52	NA	
Total	Unit Cost/Hour:		\$153.22		
Total	Fleet Cost/Hour:	\$153	.22		
MATERIAL QUANT					
Total Area	to be graded or ripp e of estimated acrea		ble 2.05.3-E2	2-6	acres
Total Area	e of estimated acrea		ble 2.05.3-E2	2-6	acres
Total Area Source	e of estimated acrea	ge: PAP Ta	ble 2.05.3-E2	2-6 mph	acres
Total Area Source	e of estimated acrea <u>FION</u> Average Grader S Selected Applica	ge: <u>PAP Ta</u> peed: ation:	1.75 Ditch build	mph ling/cleaning (0-3 r	
Total Area Source	e of estimated acrea <u>FION</u> Average Grader S Selected Applica Selected Blade A	ge: PAP Ta peed: ation: ngle:	1.75 Ditch build 30	mph ling/cleaning (0-3 degrees	
Total Area Source HOURLY PRODUCT	e of estimated acrea <u>FION</u> Average Grader S Selected Applica Selected Blade A Effective Blade Le	ge: PAP Ta peed: ation: ungle: ength:	1.75 Ditch build 30 12.10	mph ling/cleaning (0-3 degrees feet	
Total Area Source HOURLY PRODUCT Width o	e of estimated acrea <u>FION</u> Average Grader S Selected Applica Selected Blade A Effective Blade Le of blade overlap per	ge: PAP Ta peed: ation: angle: pass:	1.75 Ditch build 30 12.10 2.00	mph ling/cleaning (0-3 degrees	
Total Area Source HOURLY PRODUCT Width o Net grading o	e of estimated acrea <u>FION</u> Average Grader S Selected Applica Selected Blade A Effective Blade Le	ge: PAP Ta peed: ation: angle: pass: pass:	1.75 Ditch build 30 12.10	mph ling/cleaning (0-3 degrees feet feet	mph) - 1.75
Total Area Source HOURLY PRODUCT Width o Net grading o	e of estimated acrea <u>CION</u> Average Grader S Selected Applica Selected Blade A Effective Blade Le of blade overlap per or ripping width per Hourly Unit Produc	ge: PAP Ta peed: ation: angle: pass: pass:	1.75 Ditch build 30 12.10 2.00 10.10 2.1424	mph ling/cleaning (0-3 m degrees feet feet feet feet	mph) - 1.75
Total Area Source HOURLY PRODUCT Width o Net grading o Unadjusted Job Condition Correction	e of estimated acrea <u>FION</u> Average Grader S Selected Applica Selected Blade A Effective Blade Le of blade overlap per or ripping width per Hourly Unit Product <u>Factors</u>	ge: PAP Ta	1.75 Ditch build 30 12.10 2.00 10.10 2.1424	mph ling/cleaning (0-3 m degrees feet feet feet feet acres/hou	mph) - 1.75
Total Area Source HOURLY PRODUCT Width o Net grading o Unadjusted Job Condition Correction Altitude Adj:	e of estimated acrea <u>FION</u> Average Grader S Selected Applica Selected Blade A Effective Blade Le of blade overlap per or ripping width per Hourly Unit Product <u>Factors</u> 1.00	ge: PAP Ta peed: ation: angle: pass: pass: ction: Source (CAT HB	1.75 Ditch build 30 12.10 2.00 10.10 2.1424 S	mph ling/cleaning (0-3 m degrees feet feet feet feet acres/hou	mph) - 1.75
Total Area Source HOURLY PRODUCT Width o Net grading o Unadjusted Job Condition Correction Altitude Adj: Job Efficiency:	e of estimated acrea <u>FION</u> Average Grader S Selected Applica Selected Blade A Effective Blade Le of blade overlap per or ripping width per Hourly Unit Product <u>Factors</u> <u>1.00</u> 0.90	ge: PAP Ta peed: ation: angle: pass: pass: pass: ction: Source (CAT HB (1sh/d, fav	1.75 Ditch build 30 12.10 2.00 10.10 2.1424 S	mph ling/cleaning (0-3 m degrees feet feet feet feet acres/hou	mph) - 1.75
Total Area Source HOURLY PRODUCT Width of Net grading of Unadjusted Job Condition Correction Altitude Adj: Job Efficiency: Net Correction:	e of estimated acrea <u>CION</u> Average Grader S Selected Applica Selected Blade A Effective Blade Le of blade overlap per or ripping width per Hourly Unit Product Factors 1.00 0.90 0.9000	ge: PAP Ta peed: ation: angle: ngth: pass: pass: ction: Source (CAT HB (1sh/d, fav multiplier	1.75 Ditch build 30 12.10 2.00 10.10 2.1424 S	mph ling/cleaning (0-3 degrees feet feet feet acres/hou Site Altitude: <u>6800</u>	mph) - 1.75
Total Area Source HOURLY PRODUCT Width of Net grading of Unadjusted Job Condition Correction Altitude Adj: Job Efficiency: Net Correction:	e of estimated acrea <u>CION</u> Average Grader S Selected Applica Selected Blade A Effective Blade Le of blade overlap per or ripping width per Hourly Unit Product Factors <u>1.00</u> 0.900 djusted Hourly Unit	ge: PAP Ta peed: ation: angle: pass: pass: pass: ction: Source (CAT HB (1sh/d, fav multiplier Production:	1.75 Ditch build 30 12.10 2.00 10.10 2.1424 S) .) .)	mph ling/cleaning (0-3 m degrees feet feet feet acres/hou Site Altitude: <u>6800</u>	mph) - 1.75
Total Area Source HOURLY PRODUCT Width of Net grading of Unadjusted Job Condition Correction Altitude Adj: Job Efficiency: Net Correction:	e of estimated acrea <u>CION</u> Average Grader S Selected Applica Selected Blade A Effective Blade Le of blade overlap per or ripping width per Hourly Unit Product Factors 1.00 0.90 0.9000	ge: PAP Ta peed: ation: angle: pass: pass: pass: ction: Source (CAT HB (1sh/d, fav multiplier Production:	1.75 Ditch build 30 12.10 2.00 10.10 2.1424 S	mph ling/cleaning (0-3 degrees feet feet feet acres/hou Site Altitude: <u>6800</u>	mph) - 1.75
Total Area Source HOURLY PRODUCT Width of Net grading of Unadjusted Job Condition Correction Altitude Adj: Job Efficiency: Net Correction:	e of estimated acrea <u>FION</u> Average Grader S Selected Applica Selected Blade A Effective Blade Le of blade overlap per pr ripping width per Hourly Unit Produce <u>Factors</u> <u>1.00</u> 0.9000 djusted Hourly Unit djusted Hourly Fleet	ge: PAP Ta peed: ation: angle: pass: pass: pass: ction: Source (CAT HB (1sh/d, fav multiplier Production:	1.75 Ditch build 30 12.10 2.00 10.10 2.1424 \$) .) .) 1.9282	mph ling/cleaning (0-3 m degrees feet feet feet acres/hou Site Altitude: <u>6800</u>	mph) - 1.75
Total Area Source HOURLY PRODUCT Width of Net grading of Unadjusted Job Condition Correction Altitude Adj: Job Efficiency: Net Correction: Add Add	e of estimated acrea <u>FION</u> Average Grader S Selected Applica Selected Blade A Effective Blade Le of blade overlap per pr ripping width per Hourly Unit Produce <u>Factors</u> <u>1.00</u> 0.9000 djusted Hourly Unit djusted Hourly Fleet	ge: PAP Ta peed: ation: angle: pass: pass: pass: ction: Source (CAT HB (1sh/d, fav multiplier Production: Production:	1.75 Ditch build 30 12.10 2.00 10.10 2.1424 \$) .) .) 1.9282	mph ling/cleaning (0-3 m degrees feet feet feet cres/hou Site Altitude: <u>6800</u>	mph) - 1.75

Unit cost: \$79.46

per acre

Total job cost:

\$159

Page 68 of 130

Task description:	Backfill and Regr	ade Microv	wave Tower Pad (MR	222)	
e: _ Peabody Sage Creek	Mine Perr	nit Action:	RN2	Permit/Jo	b#: <u>C2009087</u>
PROJECT IDENTIF	ICATION				
Task #: 053	State:	Colorado		Abbreviation:	None
Date: 3/25/2020		Routt		Filename:	053
User: TNL					
Agency or orga	nization name: DRM	ЛS			
HOURLY EQUIPME	ENT COST				
	at D6T LGP				
Horsepower: 20					
	raight				
	shank ripper				
	ber day				
	RG)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:		\$59.16	NA		
Operating Cost/Hour:		\$50.06	100		
Ripper own.		\$6.80	NA		
Cost/Hour:					
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$41.24	NA		
MATERIAL QUANT Initial Volume: 24 Swell factor: 1.1 Loose volume: 27 Source of estimated vol Source of estimated sw factor: 1	25 LCY ume:		on, Mining & Safety		
HOURLY PRODUC	<u>FION</u>				
Average push distance: Unadjusted hourly production:	50 feet 444.6 LCY/h	r			
Materials consistency description:	Compac	ed fill or en	nbankment 0.9		
Average push gradient:	0 %				
Average site altitude:	6,500 feet	_			
Material weight:	2,650 lbs/LCY				

	Decomposed fock - 2570 Rock	, 7570 Latur
Job Condition Correction Fa	actor	Source
Operator Sk	till: 0.900	(AB.AVG.)
Material consistent	cy: 0.900	(CAT HB))
Dozing metho	od: 1.000	(GEN.)
Visibili	ity: 0.800	(POOR)
Job efficien	cy: 0.830	(1 SHIFT/DAY)
Spoil p	ile: 0.800	(FND-RF)
Push gradie	ent: 1.000	(CAT HB)
Altitu	de: 1.000	(CAT HB)
Material Weig	ght: 0.868	(CAT HB)
Blade ty	pe: 1.000	(PAT)
Net correction	on: <u>0.3735</u>	
Adjusted unit production:	166.06 LCY/hr	
Adjusted fleet production:	166.06 LCY/hr	

Weight description: Decomposed rock - 25% Rock, 75% Earth

JOB TIME AND COST

Fleet size:	1 Dozer(s)
Unit cost:	\$0.947/LCY

Total job time:0.16 HoursTotal job cost:\$26

Page 70 of 130

Task description:	Replace Topsoil on Microw	ave Tower Pad		
te: Peabody Sage Creek Min	ne Permit Action:	RN2	Permit/Job#: C20090)87
DDAIECT IDENTIFICA	ΤΙΛΝ			
PROJECT IDENTIFICA				
Task #: 054	State: Colorado		Abbreviation: None	
Date: <u>3/25/2020</u>	County: Routt		Filename: 054	
User: TNL				
Agency or organizat	ion name: DRMS			
HOURLY EQUIPMENT	COST			
Basic Machine: Cat D6	T LGP			
Horsepower: 200		_		
Blade Type: Straigh	t	_		
	k ripper			
Shift Basis: 1 per da				
Data Source: (CRG)	ay and a second s	_		
Cost Breakdown:		_		
		Utilization %		
Ownership Cost/Hour:	\$59.16	NA		
Operating Cost/Hour:	\$50.06	100		
Ripper own.				
Cost/Hour:	\$6.80	NA		
Ripper op. Cost/Hour:	\$0.00	0		
Operator Cost/Hour:	\$41.24	NA		
	157.26			
Total Fleet Cost/Hour: \$1	157.26			
MATERIAL QUANTITI	<u>ES</u>			
Initial Volume: 16				
Swell factor: 1.000				
Loose volume: 16 LCY				
Source of estimated volume:		ion, Mining & Safety		
Source of estimated swell	Cat Handbook			
factor:				
HOURLY PRODUCTION	N			
Average much distance.	50 feet			
Average push distance:	50 feet			
Unadjusted hourly	444.6 LCY/hr			
production:				
Matariala consistence	Doutly concolled to 1	stocknile 1 1		
Materials consistency	Partly consolidated	stockpile 1.1		
description:				
A years as much	0/			
0 1	%			
gradient:	500 6			
Average site altitude:6,	,500 feet			
Material weight: 2,	,550 lbs/LCY			
weight description: Ea	rtn - Dry packed			
---------------------------------	------------------	---------------		
Job Condition Correction Factor) <u>r</u>	Source		
Operator Skill:	0.900	(AB.AVG.)		
Material consistency:	1.100	(CAT HB)		
Dozing method:	1.000	(GEN.)		
Visibility:	0.800	(POOR)		
Job efficiency:	0.830	(1 SHIFT/DAY)		
Spoil pile:	0.800	(FND-RF)		
Push gradient:	1.000	(CAT HB)		
Altitude:	1.000	(CAT HB)		
Material Weight:	0.902	(CAT HB)		
Blade type:	1.000	(PAT)		
Net correction:	0.4744			
Adjusted unit production:	210.92 LCY/hr			
Adjusted fleet production:	210.92 LCY/hr			

Weight description: Earth - Dry packed

Fleet size:	1 Dozer(s)
Unit cost:	\$0.746/LCY

Total job time:	0.08 Hours
Total job cost:	\$12

Site: P	te: Peabody Sage Creek Mine Permit		Permit Act	ion: RN2	I	Permit/Job#: <u>C2</u>	.009087	
PRO	JECT IDENT	IFICATION						
Т	Cask #: 060		State: Colora	ido		viation: None		
	Date: <u>3/27/20</u> User: TNL	<u>J20</u> Co	unty: Routt		F1	ename: 060		
		ranization name	DRMS					
		rganization name						
<u>HOU</u>	JRLY EQUIP	<u>MENT</u>		COST	Shift basis: <u>1 per</u>	<u>day</u>		
				oment Description 637G w/push-pull				
				D8T - 8SU				
	Suppor	t Equipment -Loa	d Area: NA					
	D 1 M		p Area: NA	F 1 4 M				
	Road Main	ntenance – Motor -Water		<u>Г 14М</u> er Tanker, 10,000 (Gal			
		Water	TIUCK. Wa	er Taliker, 10,000	oui.			
Cost	Breakdown:	Scraper Wo	rk Team	Support Eq			e Equipment	
		Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water True	
%Utiliz	ation-machine:	100	100) NA	NA	25		
	ship cost/hour:	\$174.06	\$103.86	5 NA	NA	\$64.10	\$68.	
-	ting cost/hour:	\$190.35	\$82.26		NA	\$14.04	\$25.	
	lization-ripper:	NA	NA		NA	NA	N	
	own. cost/hour:	NA	\$0.00		NA	\$0.00	\$0.	
	op. cost/hour:	NA	\$0.00		NA	\$0.00	\$0.	
1	ator cost/hour:	\$30.86	\$41.24		NA	\$28.52	\$21.	
	Unit Subtotals:	\$395.26	\$227.30		NA	\$106.66	\$115.	
	mber of Units: coup Subtotals:	2 Work:	\$1,017.88	0 Support:	0 \$0.00	1 Maint:	\$222.54	
	-		\$1,017.00	Support.	φ0.00	Ivianit.	\$222.34	
Total	work team cost/	nour: <u>\$1,240.42</u>						
MAT	TERIAL QUA	NTITIES						
	Initial volume:	18,230		Swell fac	ctor: 1.125			
	Loose volume:	20,509	LCY					
		ce of estimated vo f estimated swell		ion of Reclamatior Iandbook	n, Mining & Safety	ý		
HOU	JRLY PRODU	CTION						
				Scraper	Bowl (volume) Ba	asis:		
N	Iaterial weight:	2,550 lbs/LCY			Volume: 24.00		.CY	
	rial description:	Earth - Dry pack	ked		d Volume: 34.00		LCY	
	Rated Payload:	81,600 pounds			Average Volume:54.00LCTAverage Volume:29.00LCY			
	yload Capacity:	32.00 LCY			Capacity: 29.00		LCY	

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6800 feet

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.830	0.830	

Travel Time:

Road Condition: Rutted dirt, little maintenance, no water, 1" tire penetration 4.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	300.00	-10.00	4.00	-6.00	2192	0.20
2	2550.00	-2.10	4.00	1.90	2939	0.91
3	450.00	-2.20	4.00	1.80	2939	0.15

<u>1.00</u> Minutes

<u>0.60</u> Minutes

Haul Time: **1.26** minutes

Total job cost: \$37,608

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	450.00	2.20	4.00	6.20	2638	0.35
2	2550.00	2.10	4.00	6.10	2638	0.97
3	300.00	10.00	4.00	14.00	1073	0.09

Return Time:	1.41	minutes
Total Scraper team cycle time:	4.27	minutes
Adjusted for job conditions:	676.44	LCY/Hour
Selected Number of Scrapers:	2	Scraper(s)
Adjusted single scraper team (unit) hourly production:	676.44	LCY/Hour
Adjusted multiple scraper team (fleet) hourly production:	676.44	LCY/Hour
Unadjusted unit production/hour: 814.99 LCY/Hour Optimal Number of Scrapers per push dozer:		
JOB TIME AND COST		
Fleet size: 1 Team(s) Total job time:	30.32	Hours

Unit cost: _____\$1.834 /LCY

Page 74 of 130

Site: Peabody Sage Cr	eek Mine	Permi	it Action:	RN2	F	Permit/Job#: <u>C2</u>	009087	
PROJECT IDENT	IFICATION							
Task #: 061	S	tate: C	Colorado		Abbrev	viation: None		
Date: 3/27/2	020 Cou	inty: F	Routt		Fil	ename: 061		
User: TNL								
Agency or o	rganization name:	DRM	S					
HOURLY EQUIP	MENT			COSTS	Shift basis: <u>1 per</u>	<u>day</u>		
			Equipme	ent Description				
		craper:	Cat 637	G w/push-pull				
Suppor	- t Equipment -Load	Dozer:	Cat D8' NA	Г - 8SU				
Suppor	-Dump-		NA					
Road Mai	ntenance – Motor C	-	CAT 14					
	-Water	Truck:	Water 1	Tanker, 10,000 G	ial.			
Cost Breakdown:	Scraper Wor	k Team		Support Equ	ipment	Maintenanc	e Equipmen	
	Scraper	Doz	er	Load Area	Dump Area	Motor Grader	Water Tru	
%Utilization-machine:	100		100	NA	NA	25		
Ownership cost/hour:	\$174.06	\$1	03.86	NA	NA	\$64.10	\$68	
Operating cost/hour:	\$190.35	\$	82.26	NA	NA	\$14.04	\$25	
%Utilization-ripper:	NA		NA	NA	NA	NA]	
Ripper own. cost/hour:	NA		\$0.00	NA	NA	\$0.00	\$0	
Ripper op. cost/hour:	NA		\$0.00	NA	NA	\$0.00	\$0	
Operator cost/hour:	\$30.86		641.24	NA	NA	\$28.52	\$21	
Unit Subtotals:	\$395.26	\$2	27.36	NA	NA	\$106.66	\$115	
Number of Units:	2		1	0	0	1		
Group Subtotals:	Work:	\$1,017	7.88	Support:	\$0.00	Maint:	\$222.54	
Total work team cost/	hour: <u>\$1,240.42</u>							
MATERIAL QUA	NTITIES							
Initial volume:	25,490		CCY	Swell fact	tor: <u>1.125</u>			
Loose volume:	28,676		LCY					
	ce of estimated vol				Mining & Safety	/		
Source of	f estimated swell fa	actor:	Cat Hand	lbook				
HOURLY PRODU	CTION							
				Scraper E	Bowl (volume) Ba	usis:		
Material weight: 2,550 lbs/LCY				Struck	Volume: 24.00	L	.CY	
Material description:	Earth - Dry pack	ed		Heaped	Volume: 34.00	L	.CY	
Rated Payload: Payload Capacity:	81,600 pounds 32.00 LCY			Average Adjusted (Average Volume: 29.00 LCY			
					Capacity: 29.00		.CY	

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6800 feet

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.830	0.830	

Travel Time:

Road Condition: <u>Rutted dirt, little maintenance, no water, 1" tire penetration 4.0</u>

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	300.00	-10.00	4.00	-6.00	2192	0.20
2	2550.00	-2.10	4.00	1.90	2939	0.91
3	750.00	-5.30	4.00	-1.30	2972	0.32

<u>1.00</u> Minutes

<u>0.60</u> Minutes

Haul Time: **1.43** minutes

Total job cost: \$57,757

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	750.00	5.30	4.00	9.30	1711	0.51
2	2550.00	2.10	4.00	6.10	2638	1.06
3	300.00	10.00	4.00	14.00	1073	0.09

	Return Time:	1.66	minutes
	Total Scraper team cycle time: Adjusted for job conditions: Selected Number of Scrapers: team (unit) hourly production:	4.69 615.86 2 615.86	minutes LCY/Hour Scraper(s) LCY/Hour
Adjusted multiple scraper t	team (fleet) hourly production:	615.86	LCY/Hour
Unadjusted unit production/hour: Optimal Number of Scrapers per push dozer:	LCY/Hour		
JOB TIME AND COST			
Fleet size: Team(s)	Total job time:	46.56	Hours

Unit cost: \$2.014 /LCY

Site: Peabody Sage Cr	eek Mine	Permit Actio	n: RN2	I	Permit/Job#: <u>C2</u>	009087
PROJECT IDENT	IFICATION					
Task #: 062		State: Colorad	0	Abbrev	viation: None	
Date: 3/27/2 User: TNL	020 Co	unty: Routt		Fil	ename: 062	
	·	DDMG				
Agency or o	rganization name:	DRMS				
HOURLY EQUIP	MENT_		COST	Shift basis: <u>1 per</u>	day	
			nent Description			
			37G w/push-pull 98T - 8SU			
Suppor	t Equipment -Loa		01-050			
	-Dum	p Area: NA				
Road Mai	ntenance – Motor		14M Tanker, 10,000 C	- Lal		
	- water	TTUCK. Wate	1 1 alikel, 10,000 C	Jai.		
Cost Breakdown:	Scraper Wo		Support Equ		Maintenand	
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water T
%Utilization-machine:	100	100	NA	NA	25	
Ownership cost/hour:	\$174.06	\$103.86	NA	NA	\$64.10	\$6
Operating cost/hour:	\$190.35	\$82.26	NA	NA	\$14.04	\$2
%Utilization-ripper:	NA	NA	NA	NA	NA	
Ripper own. cost/hour:	NA	\$0.00	NA	NA	\$0.00	\$
Ripper op. cost/hour:	NA	\$0.00	NA	NA	\$0.00	\$
Operator cost/hour:	\$30.86	\$41.24	NA	NA	\$28.52	\$2
Unit Subtotals:	\$395.26	\$227.36	NA	NA	\$106.66	\$11
Number of Units:	2	1	0	0	1	
Group Subtotals:	Work:	\$1,017.88	Support:	\$0.00	Maint:	\$222.5
Total work team cost/	hour: \$1,240.42					
MATERIAL QUA	NTITIES					
Initial volume:	15,810	CCY	Swell fac	tor: 1.125		
Loose volume:	17,786	LCY				
Sour	ce of estimated vo	olume: Divisio	on of Reclamation,	, Mining & Safety	/	
Source of	f estimated swell f	factor: Cat Ha	ndbook			
HOURLY PRODU	CTION					
	<u> </u>		Scraper I	Bowl (volume) Ba	asis:	
Material weight:	2,550 lbs/LCY		Struck	Volume: 24.00) I	CY
Material description:	Earth - Dry pack	ked	Heaped	Volume: 34.00) I	.CY
Rated Payload:	81,600 pounds 32.00 LCY		Average Adjusted	Volume: 29.00		.CY
Payload Capacity:				Capacity: 29.00		.CY

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6800 feet

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.830	0.830	

Travel Time:

Road Condition: <u>Rutted dirt, little maintenance, no water, 1" tire penetration 4.0</u>

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	750.00	-6.67	4.00	-2.67	2972	0.32
2	1050.00	0.00	4.00	4.00	2394	0.15

<u>1.00</u> Minutes

<u>0.60</u> Minutes

Haul Time: 0.47 minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1050.00	0.00	4.00	4.00	2910	0.52
2	750.00	6.67	4.00	10.67	1434	0.31

Return Time:	0.83	minutes
--------------	------	---------

Total Scraper team cycle time: Adjusted for job conditions:	2.90 996.00	minutes LCY/Hour
Selected Number of Scrapers:	2	Scraper(s)
Adjusted single scraper team (unit) hourly production:	996.00	LCY/Hour
Adjusted multiple scraper team (fleet) hourly production:	996.00	LCY/Hour

Unadjusted unit production/hour: <u>1,200.00</u> LCY/Hour Optimal Number of Scrapers per push

dozer:

Fleet size:	1	Team(s) Total job time:		17.86	Hours
Unit cost:	\$1.245	/LCY	Total job cost:	\$22,151	

Site: Peabody Sage Cro	eek Mine	Perm	it Action:	RN2]	Permit/Job#: <u>C2</u>	009087
PROJECT IDENT	IFICATION						
			~				
Task #: 063 Date: $3/27/20$			Colorado			viation: None	
Date: <u>3/27/20</u> User: TNL		unty: <u>l</u>	Routt		FL	lename: 063	
	• .•	DDM	10				
Agency or or	rganization name:	DRM	15				
HOURLY EQUIPM	<u>MENT</u>			COSTS	Shift basis: <u>1 per</u>	<u>day</u>	
				nt Description			
		craper:		G w/push-pull			
Support	Equipment -Load	Dozer:	Cat D8 NA	1 - 850			
Support	1 1	p Area:	NA				
Road Mair	ntenance – Motor		CAT 14				
	-Water	Truck:	Water T	anker, 10,000 G	al.		
Cost Breakdown:	Scraper Wor	·k Toom		Support Equ	inment	Maintanan	e Equipment
USI DICAKUOWII:	Scraper wor	<u>k Team</u> Doz	zer	Load Area	Dump Area	Motor Grader	Water Truc
%Utilization-machine:	100	-	100	NA	NA	25	2
Ownership cost/hour:	\$174.06	\$1	103.86	NA	NA	\$64.10	\$68.9
Operating cost/hour:	\$190.35		\$82.26	NA	NA	\$14.04	\$25.8
%Utilization-ripper:	NA		NA	NA	NA	NA	N
Ripper own. cost/hour:	NA		\$0.00	NA	NA	\$0.00	\$0.0
Ripper op. cost/hour:	NA		\$0.00	NA	NA	\$0.00	\$0.0
Operator cost/hour:	\$30.86	5	\$41.24	NA	NA	\$28.52	\$21.0
Unit Subtotals:	\$395.26	\$2	227.36	NA	NA	\$106.66	\$115.8
Number of Units:	2		1	0	0	1	
Group Subtotals:	Work:	\$1,01	7.88	Support:	\$0.00	Maint:	\$222.54
Total work team cost/ł	nour: \$1,240.42		1			1	I
MATERIAL QUA	NTITIES						
Initial volume:	22,759		CCY	Swell fact	tor: 1.125		
Loose volume:	25,604		LCY	5 wen hae	1.125		
Sour	ce of estimated vo	lumo		of Paclamation	Mining & Safet	1 7	
	E estimated swell f		Cat Hand			y	
HOURLY PRODU	CTION						
				Scraper E	Bowl (volume) B	asis:	
Material weight:	2,550 lbs/LCY				Volume: 24.00		.CY
Material description:	Earth - Dry pack	ted			Volume: 34.00		CY
Rated Payload:	81,600 pounds			Average	Volume: 29.00) I	.CY
Payload Capacity:	32.00 LCY			Adjusted (Capacity: 29.00		.CY

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6800 feet

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.830	0.830	

Travel Time:

Road Condition: Rutted dirt, little maintenance, no water, 1" tire penetration 4.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	500.00	-6.67	4.00	-2.67	2972	0.23
2	2500.00	-2.00	4.00	2.00	2939	0.85
3	1000.00	0.00	4.00	4.00	2394	0.13

<u>1.00</u> Minutes

<u>0.60</u> Minutes

Haul Time: **1.21** minutes

Total job cost: \$46,731

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1000.00	0.00	4.00	4.00	2910	0.51
2	2500.00	2.00	4.00	6.00	2638	0.75
3	500.00	6.67	4.00	10.67	1434	0.18

	Return Time:	1.44	minutes
Adjusted single screper	4.25 679.62 2 679.62	minutes LCY/Hour Scraper(s) LCY/Hour	
5 0 1	team (unit) hourly production:	679.62	LCY/Hour
Unadjusted unit production/hour: Optimal Number of Scrapers per push dozer:	818.82 LCY/Hour		
JOB TIME AND COST			
Fleet size: <u>1</u> Team(s)	Total job time:	37.67	Hours

Unit cost: _____\$1.825 /LCY

Fage

Task description:	Replace T	opsoil o	n Haulro	ad A/A-1 Reduc	tion		
Site: Peabody Sage Cr	eek Mine	Perm	nit Action	: <u>RN2</u>	H	Permit/Job#: <u>C2</u>	009087
PROJECT IDENT	IFICATION						
Task #: 064	S	State:	Colorado		Abbrev	viation: None	
Date: 3/27/20			Routt			ename: 064	
User: TNL							
Agency or o	rganization name:	DRM	1S				
HOURLY EQUIP	MENT			COSTS	Shift basis: <u>1 per</u>	<u>day</u>	
				ent Description			
		craper: -Dozer:		7G w/push-pull T - 8SU			
Suppor	t Equipment -Loa		NA NA	1 - 850			
	-Dum	p Area:		T - 8SU			
Road Main	ntenance – Motor		CAT 14				
	-Water	Truck:	Water	Tanker, 10,000 G	al.		
Cost Breakdown:	Scraper Wor	rk Team		Support Equ	ipment	Maintenanc	e Equipment
	Scraper	Doz	zer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	100		NA	25	25	2
Ownership cost/hour:	\$174.06	\$	103.86	NA	\$103.86	\$64.10	\$68.9
Operating cost/hour:	\$190.35		\$82.26	NA	\$20.57	\$14.04	\$25.8
%Utilization-ripper:	NA		NA	NA	NA	NA	N
Ripper own. cost/hour:	NA		\$0.00	NA	\$0.00	\$0.00	\$0.0
Ripper op. cost/hour:	NA		\$0.00	NA	\$0.00	\$0.00	\$0.0
Operator cost/hour:	\$30.86		\$41.24	NA	\$41.24	\$28.52	\$21.0
Unit Subtotals:	\$395.26	\$2	227.36	NA	\$165.67	\$106.66	\$115.8
Number of Units:	2		1	0	1	1	
Group Subtotals:	Work:	\$1,01	7.88	Support:	\$165.67	Maint:	\$222.54
Total work team cost/	hour: \$1,406.09						
MATERIAL QUA	NTITIES						
Initial volume:	11,454		CCY	Swell fact	tor: 1.125		
Loose volume:	12,886		LCY				
	ce of estimated vo				Mining & Safety	/	
Source of	f estimated swell f	factor:	Cat Han	dbook			
HOURLY PRODU	CTION						
				Scraper E	Bowl (volume) Ba	asis:	
Material weight:	2,550 lbs/LCY			Struck	Volume: 24.00) L	CY
Material description:	Earth - Dry pack	ked		Heaped	Volume: 34.00) L	.CY
1							CV
Rated Payload: Payload Capacity:	81,600 pounds 32.00 LCY			Average Adjusted (.CY .CY

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6800 feet

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.830	0.830	

Travel Time:

Road Condition: <u>Rutted dirt, little maintenance, no water, 1" tire penetration 4.0</u>

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3728.00	2.00	4.00	6.00	1477	2.60

<u>1.00</u> Minutes

<u>0.60</u> Minutes

Haul Time: **2.60** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3728.00	-2.00	4.00	2.00	2960	1.39
				Return Time:	1.39	minutes
			Total Scraper	team cycle time:	5.59	minutes
			Adjusted f	or job conditions:	516.71	LCY/Hour
			Selected Nur	mber of Scrapers:	2	Scraper(s)
	Adjusted s	ingle scrape	r team (unit) h	ourly production:	516.71	LCY/Hour
	Adjusted mul	tiple scraper	team (fleet) h	ourly production:	516.71	LCY/Hour
0	Unadjusted unit prod ptimal Number of Scrap		622.54	LCY/Hour		
OB TIN	ME AND COST					
Fleet	size: 1	Team(s)	Т	otal job time:	24.94	Hours

Unit cost: \$2.721 /LCY

Total job cost:	\$35,065
Total job cost.	\$35,005

Site: Peabody Sage Cr	eek Mine	Permi	it Action:	RN2	I	Permit/Job#: <u>C2</u>	009087
PROJECT IDENT	IFICATION						
Task #: 065	Sta	ate: C	Colorado		Abbrev	viation: None	
Date: 3/27/2			Routt			ename: 065	
User: TNL							
Agency or o	rganization name:	DRM	S				
HOURLY EQUIP	MENT			COSTS	Shift basis: <u>1 per</u>	day	
			Equipme	ent Description			
		raper:	Cat 637	'G w/push-pull			
		ozer:	Cat D8	Γ - 8SU			
Suppor	t Equipment -Load -Dump		NA Cat D8	T 8SU			
Road Mai	ntenance – Motor Gi		CAT 14				
	-Water T			Tanker, 10,000 C	fal.		
		-		a =			
Cost Breakdown:	Scraper Work Scraper	Team Doz	or	Support Equ Load Area	ipment Dump Area	Maintenance Motor Grader	e Equipment Water Truc
	Scraper	D0Z			Dunip Alea	Motor Grader	
%Utilization-machine:	100	100		NA	25	25	
Ownership cost/hour:	\$174.06		03.86	NA	\$103.86	\$64.10	\$68.
Operating cost/hour:	\$190.35	\$	882.26	NA	\$20.57	\$14.04	\$25.
%Utilization-ripper:	NA		NA	NA	NA	NA	N
Ripper own. cost/hour:	NA		\$0.00	NA	\$0.00	\$0.00	\$0.0
Ripper op. cost/hour:	NA		\$0.00	NA	\$0.00	\$0.00	\$0.0
Operator cost/hour:	\$30.86		541.24	NA	\$41.24	\$28.52	\$21.0
Unit Subtotals:	\$395.26	\$2	227.36	NA	\$165.67	\$106.66	\$115.
Number of Units:	2		1	0	1	1	
Group Subtotals:	Work:	\$1,01	7.88	Support:	\$165.67	Maint:	\$222.54
Total work team cost/	hour: <u>\$1,406.09</u>						
MATERIAL QUA	NTITIES						
Initial volume: Loose volume:	7,743 8,711		CCY LCY	Swell fac	tor: <u>1.125</u>		
	ce of estimated volu f estimated swell fac		Division Cat Hand		Mining & Safety	/	
HOURLY PRODU	UCTION						
				Scraper H	Bowl (volume) Ba	asis:	
Material weight:	2,550 lbs/LCY			Struck	Volume: 24.00) 1	.CY
Material description:	Earth - Dry packed	d			Volume: 34.00		ĊY
Rated Payload:	81,600 pounds			Average	Volume: 29.00		.CY
Payload Capacity:	32.00 LCY			Adjusted (Capacity: 29.00	. T	.CY

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6800 feet

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.830	0.830	

Travel Time:

Road Condition: <u>Rutted dirt, little maintenance, no water, 1" tire penetration 4.0</u>

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3753.00	-3.60	4.00	0.40	2965	1.45

<u>1.00</u> Minutes

<u>0.60</u> Minutes

Haul Time: **1.45** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3753.00	3.60	4.00	7.60	1931	2.03
				Return Time:	2.03	minutes
			Total Scraper	team cycle time:	5.08	minutes
			Adjusted for	or job conditions:	568.58	LCY/Hour
			Selected Nur	nber of Scrapers:	2	Scraper(s)
	Adjusted s	ingle scrape	r team (unit) he	ourly production:	568.58	LCY/Hour
	Adjusted mul	tiple scraper	team (fleet) he	ourly production:	568.58	LCY/Hour
0	Unadjusted unit prod ptimal Number of Scrap		685.04	LCY/Hour		
	ME AND COST					
Fleet	t size: 1	Team(s)	Te	otal job time:	15.32	Hours

 Unit cost:
 \$2.473
 /LCY
 Total job cost:
 \$21,542

CIRCES Cost Estimating Software

Page 84 of 130

Site: Peabody Sage Cr	eek Mine	Perm	it Action:	RN2	I	Permit/Job#: <u>C2</u>	009087
PROJECT IDENT	IFICATION						
Task #: 066	S	State: (Colorado		Abbrey	viation: None	
Date: $3/27/20$			Routt			ename: 066	
User: TNL		<u> </u>					
Agency or of	rganization name:	DRM	S				
HOURLY EQUIP	MENT			COSTS	Shift basis: <u>1 per</u>	day	
				nt Description			
		craper:		G w/push-pull			
Suppor	- t Equipment -Load	-Dozer:	Cat D87 NA	1 - 850			
Suppor		p Area:	Cat D8	Г - 8SU			
Road Main	ntenance – Motor		CAT 14				
	-Water	Truck:	Water T	Canker, 10,000 C	Gal.		
Cost Breakdown:	Scraper Wor	rk Team		Support Equ	inment	Maintenan	ce Equipment
<u>cost breakdown</u> .	Scraper	Doz	zer	Load Area	Dump Area	Motor Grader	Water Truc
%Utilization-machine:	100	100		NA	25	25	2
Ownership cost/hour:	\$174.06	\$1	03.86	NA	\$103.86	\$64.10	\$68.9
Operating cost/hour:	\$190.35	9	\$82.26	NA	\$20.57	\$14.04	\$25.8
%Utilization-ripper:	NA		NA	NA	NA	NA	N
Ripper own. cost/hour:	NA		\$0.00	NA	\$0.00	\$0.00	\$0.0
Ripper op. cost/hour:	NA		\$0.00	NA	\$0.00	\$0.00	\$0.0
Operator cost/hour:	\$30.86	9	641.24	NA	\$41.24	\$28.52	\$21.0
Unit Subtotals:	\$395.26	\$2	227.36	NA	\$165.67	\$106.66	\$115.8
Number of Units:	2		1	0	1	1	
Group Subtotals:	Work:	\$1,01	7.88	Support:	\$165.67	Maint:	\$222.54
Total work team cost/l	nour: \$1,406.09						
MATERIAL QUA	NTITIES						
Initial volume:	3,452		CCY	Swell fac	tor: 1.125		
Loose volume:	3,884		LCY				
	ce of estimated vo				, Mining & Safety	y	
Source of	f estimated swell f	actor:	Cat Hand	ibook			
HOURLY PRODU	CTION						
				Scraper H	Bowl (volume) Ba	asis:	
Material weight:	2,550 lbs/LCY				Volume: 24.00		LCY
Material description:	Earth - Dry pack	ked			Volume: 34.00		LCY
Rated Payload: Payload Capacity:	81,600 pounds 32.00 LCY			Average Adjusted	Volume: <u>29.00</u> Capacity: 29.00		LCY LCY
Pavioad Canacity.				Additisted	anacuty' 29 00		1 Y

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6800 feet

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	1.000	(CAT HB)
Job Efficiency:	0.830	0.830	(CAT HB)
Net Correction:	0.830	0.830	

Travel Time:

Road Condition: <u>Rutted dirt, little maintenance, no water, 1" tire penetration 4.0</u>

Haul Route:

Se	eg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1		3560.00	-2.90	4.00	1.10	2952	1.41

<u>1.00</u> Minutes

<u>0.60</u> Minutes

Haul Time: **1.41** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	3560.00	2.90	4.00	6.90	2240	1.71
				Return Time:	1.71	minutes
			Total Scraper	team cycle time:	4.72	minutes
			Adjusted for	or job conditions:	611.95	LCY/Hour
			Selected Nur	nber of Scrapers:	2	Scraper(s)
	Adjusted s	ingle scrape	r team (unit) ho	ourly production:	611.95	LCY/Hour
	Adjusted mul	tiple scraper	team (fleet) he	ourly production:	611.95	LCY/Hour
0	Unadjusted unit produ ptimal Number of Scrap		737.29	LCY/Hour		
JOB TIN	ME AND COST					
Fleet	t size: 1	Team(s)	То	otal job time:	6.35	Hours
Unit	cost: \$2.298	/LCY	T	otal job cost:	\$8,923	

BULLDOZER WORK

Task description:	Replace Topsoil	on COV11, C	CU31, CCU47, CCU	U58, CCU67, CC	U84,
Site: Peabody Sage Creek	Mine Per	rmit Action:	RN2	Permit/Jo	b#: <u>C2009087</u>
PROJECT IDENTIFI	CATION				
$\begin{array}{r} \text{Task #:} 068\\ \text{Date:} \overline{3/27/2020}\\ \text{User:} \text{TNL} \end{array}$	State: County:	Colorado Routt		Abbreviation: Filename:	None 068
Agency or organ	ization name: DF	RMS			
HOURLY EQUIPME	NT COST				
Horsepower: 574	D10T - 10SU i ni-Universal				
Attachment: 3-sl Shift Basis: 1 pe	hank ripper er day RG)				
Cost Breakdown: Ownership Cost/Hour: Operating Cost/Hour:		\$140.61 \$135.35	Utilization % NA 100		
Ripper own. Cost/Hour:		\$18.34	NA		
Ripper op. Cost/Hour: Operator Cost/Hour:		\$0.00 \$41.24	0 NA		
Total unit Cost/Hour: Total Fleet Cost/Hour:	\$335.53 \$335.53		_		
MATERIAL QUANTInitial Volume:2,25Swell factor:1.12Loose volume:2,54	8	_			
Source of estimated volu Source of estimated swe factor:			, Mining & Safety		
HOURLY PRODUCT	<u>'ION</u>				
Average push distance: Unadjusted hourly production:	200 feet 946.0 LCY/	/hr	_		
Materials consistency description:	Compa	cted fill or emb	ankment 0.9		
Average push gradient:	0 %				
Average site altitude:	6,800 feet				
Material weight:	2,550 lbs/LCY				

weight description: Ea	rui - Dry packed					
Job Condition Correction Factor Source						
Operator Skill	0.750	(AVG.)				
Material consistency:	0.900	(CAT HB))				
Dozing method	1.000	(GEN.)				
Visibility	1.000	(AVG.)				
Job efficiency:	0.830	(1 SHIFT/DAY)				
Spoil pile	. 0.800	(FND-RF)				
Push gradient	1.000	(CAT HB)				
Altitude	1.000	(CAT HB)				
Material Weight	0.902	(CAT HB)				
Blade type:	1.000	(PAT)				
Net correction	. 0.4043					
Adjusted unit production:	382.47 LCY/hr					
Adjusted fleet production:	382.47 LCY/hr					

Weight description: Earth - Dry packed

Fleet size:	1 Dozer(s)	
Unit cost:	\$0.877/LCY	

Total job time:	6.64 Hours
Total job cost:	\$2,229

Page 88 of 130

	BULLDOZE	ER WORK		
Task description: Rep	lace Topsoil on Upper Su	Imp		
ite: Peabody Sage Creek Mine	Permit Action:	RN2	Permit/Jo	b#: <u>C2009087</u>
PROJECT IDENTIFICATIO	ON			
Task #: 069 Date: 3/27/2020 User: TNL	State: Colorado County: Routt		Abbreviation: Filename:	None 069
Agency or organization	name: DRMS			
HOURLY EQUIPMENT CO	<u>DST</u>			
Basic Machine:Cat D10THorsepower:574Blade Type:Semi-UnivAttachment:3-shank ripShift Basis:1 per dayData Source:(CRG)	rersal			
Cost Breakdown:		Utilization %		
Ownership Cost/Hour:	\$140.61	NA		
Operating Cost/Hour:	\$135.35	100		
Ripper own. Cost/Hour:	\$18.34	NA		
Ripper op. Cost/Hour:	\$0.00	0		
Operator Cost/Hour:	\$41.24	NA		
Total unit Cost/Hour:\$335Total Fleet Cost/Hour:\$335				
MATERIAL QUANTITIES				
Initial Volume:2,258Swell factor:1.125Loose volume:2,540 LCY				
Source of estimated volume: Source of estimated swell factor:	Division of Reclamation Cat Handbook	on, Mining & Safety		
HOURLY PRODUCTION				
Average push distance: Unadjusted hourly production:	200 feet 946.0 LCY/hr			
Materials consistency description:	Compacted fill or en	nbankment 0.9		
Average push0 %gradient:) feet			
) lbs/LCY			

weight description: _E	artii - Dry packed					
Job Condition Correction Factor Source						
Operator Skil	l: 0.750	(AVG.)				
Material consistency	0.900	(CAT HB))				
Dozing method	l: 1.000	(GEN.)				
Visibility	1.000	(AVG.)				
Job efficiency	0.830	(1 SHIFT/DAY)				
Spoil pile	e: 0.800	(FND-RF)				
Push gradien	t: 1.000	(CAT HB)				
Altitude	2: 1.000	(CAT HB)				
Material Weight	t: 0.902	(CAT HB)				
Blade type	2: 1.000	(PAT)				
Net correction	n: <u>0.4043</u>					
Adjusted unit production:	382.47 LCY/hr					
Adjusted fleet production:	382.47 LCY/hr					

Weight description: Earth - Dry packed

Fleet size:	1 Dozer(s)	
Unit cost:	\$0.877/LCY	

Total job time:	6.64 Hours
Total job cost:	\$2,229

Page 90 of 130

	<u>]</u>	BULLDOZE	ER WORK		
Task description:	Replace Topsoil	on Lower Su	ımp		
Site: Peabody Sage Creek		rmit Action:		Permit/Jol	o#: C2009087
PROJECT IDENTIFI	CATION				
Task #: 070 Date: 3/27/2020 User: TNL	State:	Colorado Routt		Abbreviation: Filename:	None C087-070
Agency or organ	nization name:	RMS			
HOURLY EQUIPME	NT COST				
Horsepower:574Blade Type:SerAttachment:3-sShift Basis:1 pData Source:(CI	t D10T - 10SU 4 mi-Universal hank ripper er day RG)				
Cost Breakdown:			Utilization %		
Ownership Cost/Hour:		\$140.61	NA		
Operating Cost/Hour: Ripper own.		\$135.35	100		
Cost/Hour:		\$18.34	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$41.24	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour:	\$335.53 \$335.53				
MATERIAL QUANT	ITIES				
Initial Volume:1,61Swell factor:1.12Loose volume:1,81		_			
Source of estimated volu Source of estimated swe factor:			on, Mining & Safety		
HOURLY PRODUCT	TION				
Average push distance: Unadjusted hourly production:	200 feet 946.0 LCY	/hr			
Materials consistency description:	Compa	cted fill or en	nbankment 0.9		
Average push gradient:	0 %				
Average site altitude:	6,800 feet				
Material weight:	2,550 lbs/LCY			_	

weight description: E	arth - Dry packed	
Job Condition Correction Fact	or_	Source
Operator Skill	0.750	(AVG.)
Material consistency	0.900	(CAT HB))
Dozing method	1.000	(GEN.)
Visibility	1.000	(AVG.)
Job efficiency	0.830	(1 SHIFT/DAY)
Spoil pile	: 0.800	(FND-RF)
Push gradient	1.000	(CAT HB)
Altitude	: 1.000	(CAT HB)
Material Weight	0.902	(CAT HB)
Blade type	: 1.000	(PAT)
Net correctior		
Adjusted unit production:	382.47 LCY/hr	
Adjusted fleet production:	382.47 LCY/hr	

Weight description: Earth - Dry packed

Fleet size:	1 Dozer(s)
Unit cost:	\$0.877/LCY

Total job time:	4.74 Hours
Total job cost:	\$1,592

SAFEGUARDING UNDERGROUND OPENINGS

Tas	k description:	Seal Mine Shafts and Port	tals			
ite: Pea	body Sage Creek Mir	e Permit Action:	RN2	P	ermit/Job#:	C2009087
<u>PRC</u>	DJECT IDENTIFIC	ATION				
1	Fask 080 #:	State: Colorado		Abbreviation:	None	
D	Date: 3/27/2020 (ser: TNL	County: Routt		Filename:	080	

UNIT COSTS

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Mine Portal Openings	20'X11' (4)	Adit closure - bulkhead seal (per	4.00	EA	\$4,730.00	\$18,920.00
openings		opening)				
Backfill Portal	20'X11' (4)	Adit closure -	4.00	EA	\$2,105.30	\$8,421.20
Openings		backfilling (per opening)				
Seal Portal	3'X90'	Shaft closure -	30.00	CY	\$15.00	\$450.00
Dewatering Well		backfilling, by hand				
Portal Dewatering	3'X90'	Shaft closure -	1.00	EA	\$16,434.00	\$16,434.00
Well Bottom Plug		monolithic plug (per				
		opening)				

Job Hours: 32.00

Total Cost: \$44,225.20

BOREHOLE SEALING WORK

	Task desc	cription:	Drillhole/Mon	itoring Well	Sealing			
Site:	Peabody	Sage Creek Mine	Per	mit Action:	RN2	P	ermit/Job#:	C2009087
	PROJEC	T IDENTIFICA	TION					
	Task #:	090	State:	Colorado		Abbreviation:	None	
	Date: User:	3/27/2020 TNL	County:	Routt		Filename:	090	

Agency or organization name: DRMS

UNIT COSTS

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Seal Overburden Wells	Portland cement grout (Bag, material cost only94 lb. bag)	6"	5033	220.00	bag	\$13.40	\$2,948.00
Seal Coal Wells	Portland cement grout (Bag, material cost only94 lb. bag)	6"	3723	162.00	bag	\$13.40	\$2,170.80
Seal Underburden Wells	Portland cement grout (Bag, material cost only94 lb. bag)	6"	3973	173.00	bag	\$13.40	\$2,318.20
Seal Exploration Wells	Portland cement grout (Bag, material cost only94 lb. bag)	6"	8600	375.00	bag	\$13.40	\$5,025.00
Cut Casing at Surface	Exposed casing removal - Calculate Circumference in Linear Feet	6"	23'	23.00	LF	\$3.26	\$74.98
Borehole Plug	PVC plug - 6 in. diameter borehole	6"	NA	23.00	EA	\$58.97	\$1,356.22
Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	23.00	EA	\$32.00	\$736.00
Seal Misc Borehole/Well	Portland cement grout (Bag, material cost only94 lb. bag)	12"	1000	175.00	bag	\$13.40	\$2,345.00
Cut Casing at Surface	Exposed casing removal - Calculate Circumference in Linear Feet	12"	4'	4.00	LF	\$3.26	\$13.04
Borehole Plug	PVC plug - 12 in. diameter borehole	12"	NA	4.00	EA	\$151.61	\$606.45
Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	4.00	EA	\$32.00	\$128.00
Drill Rig and Labor	SCHRAMM T450WS	NA	NA	233.00	EA	\$353.14	\$82,281.62

Water Truck	Water Tanker, 2,500 Gal.	NA	NA	233.00	EA	\$48.11	\$11,209.63
Seal Alluvial/Spoil Wells	Bentonite seal - 6 in. (labor, equip, materials)	6"	222.2	7.00	LF	\$5.99	\$41.95
Seal and Abandon 14" Water Pump Borehole (MR20)	Portland cement grout (Bag, material cost only94 lb. bag)	14"	45	6.00	bag	\$13.40	\$80.40
Seal and Abandon 5.625" pump control hole	Portland cement grout (Bag, material cost only94 lb. bag)	5.625"	45	2.00	bag	\$13.40	\$26.80
Bottom Plug (MR20)	PVC plug - 12 in. diameter borehole	14"	NA	1.00	EA	\$151.61	\$151.61
Bottom Plug (MR20)	PVC plug - 6 in. diameter borehole	5.625"	NA	1.00	EA	\$58.97	\$58.97
Borehole Marker (MR20)	Borehole location/identification marker (EA, material cost only)	NA	NA	2.00	EA	\$32.00	\$64.00
Cut Casings (MR20)	Exposed casing removal - Calculate Circumference in Linear Feet	14 & 5.625"	NA	5.28	LF	\$3.26	\$17.21

Job Hours: 233.00

Total Cost: \$111,654.00

REVEGETATION WORK

Task description:		Reseed N	lorth Fa	cilities Area	IS				
]	Peabody	y Sage Creek I	Mine	Per	mit Action:	RN2	Permit/J	ob#:	C2009087
(OJECI	<u>IDENTIFI</u>	<u>CATION</u>						
	Task #:	100		State:	Colorado		Abbreviation:	No	one
	Date:	3/27/2020	C	ounty:	Routt		Filename:	10	0
	User:	TNL						_	
	User:			J _			Filename:	_	10

FERTILIZING

Materials

Units / Acre	Unit	Cost / Unit	Cost /Acre
500.00	pound	\$0.02	\$11.35
		Total Fertilizer Materials Cost/Acre	\$11.35
	Acre	Acre Unit	Acre Unit Cost / Unit 500.00 pound \$0.02 Total Fertilizer

Application

Description Manure, tractor spreader (MEANS 32 91 13.23 4450)		Cost /Acre \$64.47
	Total Fertilizer Application Cost/Acre	\$64.47

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$101.93
Total Tilling Cost/Acre	\$101.93

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Arrowleaf Balsamroot	0.50	0.62	\$35.10
Beardless Wheatgrass - Whitmar	0.50	1.63	\$5.86
Big Bluegrass - Sherman	0.10	2.07	\$0.85
Bitterbrush, Antelope	1.00	0.31	\$19.50
Aster, Engleman's	0.10	0.48	\$19.40
Mountain Brome - Bromar	1.00	1.61	\$3.80
Great Basin Wildrye - Magnar	1.00	4.06	\$11.55
Alfalfa - Ladak (inoculated)	0.10	0.48	\$0.26
Rocky Mountain Fescue	0.10	1.61	\$0.73
Slender Wheatgrass - Native	1.00	3.65	\$4.63
Coneflower, Prairie	1.00	27.18	\$33.00

Streambank Wheatgrass - Sodar	0.50	1.63	\$2.85
Thickspike Wheatgrass - Critana	0.50	1.77	\$3.44
Western Wheatgrass - Native	1.00	2.53	\$6.00
Needlegrass, Green - Lodorm	1.00	4.16	\$11.78
Sagebrush, Mountain or Big	0.25	13.20	\$4.94
Flax, Lewis Blue	0.50	3.32	\$8.25
Sagebrush, Wyoming Big	0.25	14.78	\$5.81
Snowberry, Mountain	0.50	0.86	\$25.25
Penstemon, Palmer	0.10	2.21	\$5.45
Penstemon, Rocky Mountain	0.25	3.92	\$7.38
Yarrow, White	0.10	6.36	\$4.00
Totals Seed Mix	11.35	98.42	\$219.80

Application

Description	Cost /Acre
Drill Seeding (DRMS Survey Cost)	\$232.00
Total Seed Application Co	st/Acre \$232.00

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
					\$
		Totals	Nursery Stoc	ck Cost / Acre	\$0.00

	No. of Acres:	14.35	Cost /Acre:	\$629.55
Estimate	ed Failure Rate:	20%	Cost /Acre*:	\$629.55
*Selected Replanti	ng Work Items:	FERTILIZING,TI	LLING,SEEDING	
Initial Job Cost:	\$9,034.04			
Reseeding Job Cost:	\$1,806.81			
Total Job Cost:	\$10,841			

Job Hours: **7.20**

REVEGETATION WORK

e: _	Peabody	Sage Creek N	<u>fine</u> Pe	ermit Action:	RN2	Permit/Jol	o#: <u>C2009087</u>
PR	OJECT	IDENTIFIC	ATION				
	Task #:	101	State:	Colorado		Abbreviation:	None
	Date:	3/27/2020	County:	Routt		Filename:	101
		TNL					

FERTILIZING

Materials

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

Application

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

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$101.93
Total Tilling Cost/Acre	\$101.93

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Arrowleaf Balsamroot	0.50	0.62	\$35.10
Beardless Wheatgrass - Whitmar	0.50	1.63	\$5.86
Big Bluegrass - Sherman	0.10	2.07	\$0.85
Bitterbrush, Antelope	1.00	0.31	\$19.50
Aster, Engleman's	0.10	0.48	\$19.40
Mountain Brome - Bromar	1.00	1.61	\$3.80
Great Basin Wildrye - Magnar	1.00	4.06	\$11.55
Alfalfa - Ladak (inoculated)	0.10	0.48	\$0.26

Rocky Mountain Fescue	0.10	1.61	\$0.73
Slender Wheatgrass - Native	1.00	3.65	\$4.63
Coneflower, Prairie	1.00	27.18	\$33.00
Streambank Wheatgrass - Sodar	0.50	1.63	\$2.85
Thickspike Wheatgrass - Critana	0.50	1.77	\$3.44
Western Wheatgrass - Native	1.00	2.53	\$6.00
Needlegrass, Green - Lodorm	1.00	4.16	\$11.78
Sagebrush, Mountain or Big	0.25	13.20	\$4.94
Flax, Lewis Blue	0.50	3.32	\$8.25
Sagebrush, Wyoming Big	0.25	14.78	\$5.81
Snowberry, Mountain	0.50	0.86	\$25.25
Penstemon, Palmer	0.10	2.21	\$5.45
Penstemon, Rocky Mountain	0.25	3.92	\$7.38
Yarrow, White	0.10	6.36	\$4.00
Totals Seed Mix	11.35	98.42	\$219.80

Application

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

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
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 Stoc	ek Cost / Acre	\$0.00

No. of Acres:	76.8	Cost /Acre:	\$553.73
Estimated Failure Rate:	20%	Cost /Acre*:	\$553.73
*Selected Replanting Work Items:	TILLING,SEEDIN	IG	

Initial Job Cost:	\$42,526.46
Reseeding Job Cost:	\$8,505.29
Total Job Cost:	\$51,032
Job Hours:	38.40

Page 100 of 130

REVEGETATION WORK

PROJECT IDENTIFICATION Task #: 102 State: Colorado Abbreviation: None Date: 3/27/2020 County: Routt Filename: 102					d Roads	Reseed Reclame	otion:	Fask descrip	Г
Task #:102State:ColoradoAbbreviation:NoneDate:3/27/2020County:RouttFilename:102	C2009087	ob#: _	Permit/Job	RN2	rmit Action:	line Pe	Sage Creek I	Peabody	Site:
Date:3/27/2020County:RouttFilename:102						ATION	<u>IDENTIFI(</u>	<u>ROJECT</u>	<u>Pl</u>
		102	Filename:		Routt	County:			
User:							INL	User:	

FERTILIZING

Materials

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

Application

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

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$101.93
Total Tilling Cost/Acre	\$101.93

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Arrowleaf Balsamroot	0.50	0.62	\$35.10
Beardless Wheatgrass - Whitmar	0.50	1.63	\$5.86
Big Bluegrass - Sherman	0.10	2.07	\$0.85
Bitterbrush, Antelope	1.00	0.31	\$19.50
Aster, Engleman's	0.10	0.48	\$19.40
Mountain Brome - Bromar	1.00	1.61	\$3.80
Great Basin Wildrye - Magnar	1.00	4.06	\$11.55
Alfalfa - Ladak (inoculated)	0.10	0.48	\$0.26
Rocky Mountain Fescue	0.10	1.61	\$0.73
Slender Wheatgrass - Native	1.00	3.65	\$4.63

Coneflower, Prairie	1.00	27.18	\$33.00
Streambank Wheatgrass - Sodar	0.50	1.63	\$2.85
Thickspike Wheatgrass - Critana	0.50	1.77	\$3.44
Western Wheatgrass - Native	1.00	2.53	\$6.00
Needlegrass, Green - Lodorm	1.00	4.16	\$11.78
Sagebrush, Mountain or Big	0.25	13.20	\$4.94
Flax, Lewis Blue	0.50	3.32	\$8.25
Sagebrush, Wyoming Big	0.25	14.78	\$5.81
Snowberry, Mountain	0.50	0.86	\$25.25
Penstemon, Palmer	0.10	2.21	\$5.45
Penstemon, Rocky Mountain	0.25	3.92	\$7.38
Yarrow, White	0.10	6.36	\$4.00
Totals Seed Mix	11.35	98.42	\$219.80

Application

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

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
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				\$0.00	

No. of Acres:	15.2	Cost /Acre:	\$553.73
Estimated Failure Rate:	20%	Cost /Acre*:	\$553.73
*Selected Replanting Work Items:	TILLING,SEEDIN	IG	

Initial Job Cost:	\$8,416.70
Reseeding Job Cost:	\$1,683.34

Total Job Cost:	\$10,100
Job Hours:	7.10

REVEGETATION WORK

Т	ask descrij	otion:	Seed Remaining BRB-2 and	BRB-3 Area		
Site:	Peabody	Sage Creek N	Ine Permit Action:	RN2	Permit/Job	o#: C2009087
<u>PF</u>	ROJECT	<u>IDENTIFIC</u>	CATION			
	Task #:	104	State: Colorado		Abbreviation:	None
	Date:	3/27/2020	County: Routt		Filename:	104
	User:	TNL				

FERTILIZING

Materials

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

Application

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

TILLING

Description	Cost /Acre
	\$
Total Tilling Cost/Acre	\$0.00

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Arrowleaf Balsamroot	0.50	0.62	\$35.10
Beardless Wheatgrass - Whitmar	0.50	1.63	\$5.86
Big Bluegrass - Sherman	0.10	2.07	\$0.85
Bitterbrush, Antelope	1.00	0.31	\$19.50
Aster, Engleman's	0.10	0.48	\$19.40
Mountain Brome - Bromar	1.00	1.61	\$3.80
Great Basin Wildrye - Magnar	1.00	4.06	\$11.55
Alfalfa - Ladak (inoculated)	0.10	0.48	\$0.26
Rocky Mountain Fescue	0.10	1.61	\$0.73

Slender Wheatgrass - Native	1.00	3.65	\$4.63
Coneflower, Prairie	1.00	27.18	\$33.00
Streambank Wheatgrass - Sodar	0.50	1.63	\$2.85
Thickspike Wheatgrass - Critana	0.50	1.77	\$3.44
Western Wheatgrass - Native	1.00	2.53	\$6.00
Needlegrass, Green - Lodorm	1.00	4.16	\$11.78
Sagebrush, Mountain or Big	0.25	13.20	\$4.94
Flax, Lewis Blue	0.50	3.32	\$8.25
Sagebrush, Wyoming Big	0.25	14.78	\$5.81
Snowberry, Mountain	0.50	0.86	\$25.25
Penstemon, Palmer	0.10	2.21	\$5.45
Penstemon, Rocky Mountain	0.25	3.92	\$7.38
Yarrow, White	0.10	6.36	\$4.00
Totals Seed Mix	11.35	98.42	\$219.80

Application

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

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
					\$
Totals Nursery Stock Cost / Acre				\$0.00	

JOB TIME AND COST

No. of Acres:	136.02	Cost /Acre:	\$451.80
Estimated Failure Rate:	0%	Cost /Acre*:	\$451.80
*Selected Replanting Work Items:	SEEDING		

Initial Job Cost: **\$61,453.84**

Reseeding Job Cost:	\$0.00
Total Job Cost:	\$61,454
Job Hours:	68.01

REVEGETATION WORK

Τa	ask descrip	otion:	Seed Phase II Rel	eased BRB	4		
Site:	Peabody	Sage Creek N	Aine Peri	nit Action:	RN2	Permit/Jo	b#: C2009087
<u>PR</u>	OJECT	IDENTIFIC	CATION				
	Task #:	106	State:	Colorado		Abbreviation:	None
	Date:	3/27/2020	County:	Routt		Filename:	106
	User:	TNL					

FERTILIZING

Materials

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

Application

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

TILLING

Description	Cost /Acre
	\$
Total Tilling Cost/Age	* • • •
Total Tilling Cost/Acre	\$0.00

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Arrowleaf Balsamroot	0.50	0.62	\$35.10
Beardless Wheatgrass - Whitmar	0.50	1.63	\$5.86
Big Bluegrass - Sherman	0.10	2.07	\$0.85
Bitterbrush, Antelope	1.00	0.31	\$19.50
Aster, Engleman's	0.10	0.48	\$19.40
Mountain Brome - Bromar	1.00	1.61	\$3.80
Great Basin Wildrye - Magnar	1.00	4.06	\$11.55
Alfalfa - Ladak (inoculated)	0.10	0.48	\$0.26
Rocky Mountain Fescue	0.10	1.61	\$0.73
Slender Wheatgrass - Native	1.00	3.65	\$4.63
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Coneflower, Prairie	1.00	27.18	\$33.00
Streambank Wheatgrass - Sodar	0.50	1.63	\$2.85
Thickspike Wheatgrass - Critana	0.50	1.77	\$3.44
Western Wheatgrass - Native	1.00	2.53	\$6.00
Needlegrass, Green - Lodorm	1.00	4.16	\$11.78
Sagebrush, Mountain or Big	0.25	13.20	\$4.94
Flax, Lewis Blue	0.50	3.32	\$8.25
Sagebrush, Wyoming Big	0.25	14.78	\$5.81
Snowberry, Mountain	0.50	0.86	\$25.25
Penstemon, Palmer	0.10	2.21	\$5.45
Penstemon, Rocky Mountain	0.25	3.92	\$7.38
Yarrow, White	0.10	6.36	\$4.00
Totals Seed Mix	11.35	98.42	\$219.80

Application

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

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
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	s Nursery Stoc	k Cost / Acre	\$0.00

JOB TIME AND COST

No. of Acres:	462.4	Cost /Acre:	\$451.80
Estimated Failure Rate:	0%	Cost /Acre*:	\$451.80
*Selected Replanting Work Items:	SEEDING		

Initial Job Cost:	\$208,912.32
Reseeding Job Cost:	\$0.00

Total Job Cost:	\$208,912
Job Hours:	231.20

DEMOLITION WORK

,	Task description:	Demolish an	d Remove Nor	th Facilities and Ma	terials		
Site:	Peabody Sage Creek Mine	2	Permit Action:	RN2	Permit	/Job#:	C2009087
<u>PROJE</u>	CT IDENTIFICATION						
Task a	#: 110	State:	Colorado		Abbreviation:	None	
Date	e: 3/27/2020	County:	Routt		Filename:	110	
Use	r: TNL						

Agency or organization name: DRMS

UNIT COSTS

Location adjustment: 98.20 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Security Building	12'X40'X10'	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	4,800.00	CF	\$0.19	\$902.40
Bathhouse	42'X40'X10'	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	16,800.00	CF	\$0.19	\$3,158.40
Bathhouse Floor	42'X40'	Demo. and on-site disposal in existing pit, 4 in. thick - Max. 10,000 ft. haul	1,680.00	SF	\$0.60	\$1,005.98
Bathhouse Footers	84'X76'	Demo. and on-site disposal in existing pit, 1.5 ft. x 2 ft Max. 10,000 ft. haul	160.00	LF	\$5.39	\$862.24
Temporary Bathhouse	24'X70'X10'	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	16,800.00	CF	\$0.19	\$3,158.40
Temporary Bathhouse Floor	24'X70'	Demo. and on-site disposal in existing pit, 4 in. thick - Max. 10,000 ft. haul	1,680.00	SF	\$0.60	\$1,005.98
Diesel Tank Removal	20,000g	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	2.00	EA	\$1,050.00	\$2,100.00
Diesel Tank Sludge Removal	5% of 20,000g	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	\$227.50	\$227.50
Diesel Tank Dry Ice	20,000g	Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	300.00	LB	\$1.95	\$585.00
Unleaded Fuel Tank Removal	2,000g	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$760.00	\$760.00
Unleaded Fuel Tank Sludge Removal	5% of 2,000g	Remove sludge, water, and rem. product from	1.00	EA	\$227.50	\$227.50

		tank - 3,000 to 5,000				
Unleaded Fuel Tank Dry Ice	2,000g	gal. Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	30.00	LB	\$1.95	\$58.50
Used Oil Tank Removal	2,000g(3)	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	3.00	EA	\$760.00	\$2,280.00
Used Oil Tank Sludge Removal	5% of 2,000g	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	3.00	EA	\$227.50	\$682.50
Unleaded Fuel Tank Dry Ice	2,000g	Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	90.00	LB	\$1.95	\$175.50
Mag Cholide Tank Removal	2,500g	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$760.00	\$760.00
North Facilities Tank Pads	120 CY	Slab on grade, concrete, demolition only - Mesh reinforcing	120.00	CY	\$120.50	\$14,460.00
North Facilites Septic Tank	1,000G	Comprehensive storage tank removal, non- leaking - 3,000 to 5,000 gal. tank	1.00	EA	\$3,445.30	\$3,445.30
North Facilities Dosing Tank	1,000G	Comprehensive storage tank removal, non- leaking - 3,000 to 5,000 gal. tank	1.00	EA	\$3,445.30	\$3,445.30
Vehicle Maintenance Shop	140'X80'X20'	Bldg. (MN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	224,000.00	CF	\$0.22	\$48,160.00
Vehicle Maintenance Shop Floor	140'X80'	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 10,000 ft. haul	11,200.00	SF	\$0.90	\$10,059.84
Parts Building	110'X70'X20'	Bldg. (MN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	154,000.00	CF	\$0.22	\$33,110.00
Parts Building Floor	110'X70'	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 10,000 ft. haul	7,700.00	SF	\$0.90	\$6,916.14
Electrical Parts Building	30'X22'X10'	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	6,600.00	CF	\$0.19	\$1,240.80
Electrical Parts Building Floor	30'X22'	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 10,000 ft. haul	660.00	SF	\$0.90	\$592.81
Lean-To Building	100'X12'X10'	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	1,200.00	CF	\$0.19	\$225.60

Office Building	60'X50'X10'	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 10,000	30,000.00	CF	\$0.19	\$5,640.00
Office Building Floor	60'X50'	ft. haul Demo. and on-site disposal in existing pit, 6 in. thick - Max. 10,000 ft. haul	3,000.00	SF	\$0.90	\$2,694.60
Engineering Trailer	55'X10'X10'	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	5,500.00	CF	\$0.19	\$1,034.00
Engineering Trailer Floor	55'X10'	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 10,000 ft. haul	550.00	SF	\$0.90	\$494.01
Welding Shop	90'X56'X15'	Bldg. (MN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	75,600.00	CF	\$0.22	\$16,254.00
Welding Shop Floor	90'X56'	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 10,000 ft. haul	5,040.00	SF	\$0.90	\$4,526.93
PM Shop	120'X42'X15'	Bldg. (MN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	75,600.00	CF	\$0.22	\$16,254.00
PM Shop Floor	120'X42'	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 10,000 ft. haul	5,040.00	SF	\$0.90	\$4,526.93
Lube Storage Building	44'X18'X10'	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	7,920.00	CF	\$0.19	\$1,488.96
Lube Storage Building Floor	44'X18'	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 10,000 ft. haul	792.00	SF	\$0.90	\$711.37
Wadge Pond 002 Pump Facility	20'X10'X8'	Bldg. (SN) demo./on- site disposal in existing pit or cut - Max. 10,000 ft. haul	1,600.00	CF	\$0.19	\$300.80
Wadge Pond 002 Pump Facility Pad	20'X10'	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	200.00	SF	\$1.80	\$359.26
Wadge Pond 002 Pump Facility Precast Blocks	20'X20'	Wall, block, demolition only, 12 in. thick - No reinforcing	400.00	SF	\$0.98	\$392.00
Electrical Substation Pads	12'X30'	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 10,000 ft. haul	360.00	SF	\$0.90	\$323.35
North Facilites Propane Tanks	1,000g (5)	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	5.00	EA	\$760.00	\$3,800.00

North Facilites Propane Tank Saddles	4'X8'X1'	Demo. and on-site disposal in existing pit, 12 in. thick - Max.	160.00	SF	\$3.75	\$600.74
		10,000 ft. haul				
Remove Fencing	20,000LF	Fencing, barbed wire, - 3 strand	20,000.00	LF	\$1.53	\$30,600.00
Remove Fencing	1100LF	Fencing, chain link, including posts and fabric - to 6 ft. high	1,100.00	LF	\$2.68	\$2,948.00
Remove Powerlines	5 Miles	Utility Poles, Wood 35' - 45' high (each pole)	26.00	EA	\$265.00	\$6,890.00
Culvert 52A	30"	Pipe, corrugated metal (CMP) - 30 in. diameter pipe	40.00	LF	\$7.66	\$306.32
Culvert SC-23	24"	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	20.00	LF	\$5.94	\$118.89
Culvert 64A	24"	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	40.00	LF	\$5.94	\$237.78
Culvert 53A	12"	Pipe, corrugated metal (CMP) - 12 in. diameter pipe	40.00	LF	\$3.38	\$135.30
Culvert 54A	18"	Pipe, corrugated metal (CMP) - 18 in. diameter pipe	40.00	LF	\$4.58	\$183.27
Culvert 55A	18"	Pipe, corrugated metal (CMP) - 18 in. diameter pipe	40.00	LF	\$4.58	\$183.27
Culvert 13A	18"	Pipe, corrugated metal (CMP) - 18 in. diameter pipe	60.00	LF	\$4.58	\$274.90
Culvert 59A	18"	Pipe, corrugated metal (CMP) - 18 in. diameter pipe	40.00	LF	\$4.58	\$183.27
Culvert 9A	48"	Pipe, corrugated metal (CMP) - 48 in. diameter pipe	80.00	LF	\$13.31	\$1,065.09
Culvert 12A	30"	Pipe, corrugated metal (CMP) - 30 in. diameter pipe	60.00	LF	\$7.66	\$459.49
Culvert A8	18"	Pipe, corrugated metal (CMP) - 18 in. diameter pipe	40.00	LF	\$4.58	\$183.27
Culvert 31A	18"	Pipe, corrugated metal (CMP) - 18 in. diameter pipe	60.00	LF	\$4.58	\$274.90
Pond 002 Valve Building (MR17)	20'X12'X10'	Bldg. (SN) demo./on- site disposal in excavated pit - Max. 10,000 ft. haul	2,400.00	CF	\$0.20	\$487.20
Pond 002 Valve Building floor (MR17)	20'X12'X6"	Demo. and on-site disposal in existing pit, 6 in. thick - Max. 10,000 ft. haul	240.00	SF	\$0.90	\$215.57
Pond 002 Valve Building Foundation	8'X10"	Demo. and on-site disposal in existing pit, 1.0 ft. x 2 ft Max. 10,000 ft. haul	64.00	LF	\$3.59	\$229.93

				Total Cost	
		Subtotal		(adjusted for	
Job Hours:	134.00	(unadjusted):	\$243,983.09	location):	\$239,591.39

DEMOLITION WORK

	Task description:	Demolish an	d Remove Sou	th Facilites and Str	ructures		
Site:	Peabody Sage Creek Min	e	Permit Action:	RN2	Permit	/Job#: <u>C2009087</u>	
<u>PROJE</u>	CT IDENTIFICATION						
Task	#: 111	State:	Colorado		Abbreviation:	None	
Dat	e: 3/27/2020	County:	Routt		Filename:	111	
Use	r: TNL	-					

Agency or organization name: DRMS

UNIT COSTS

Location adjustment: 98.20 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Million Gallon Water Tank	85'dX24'	Bldg. (MN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	133,600.00	CF	\$0.22	\$28,724.00
Million Gallon Water Tank Pad	85'dX1'	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	5,682.00	SF	\$1.80	\$10,206.58
Milllon Gallon Water Tank Footer	85'd	Demo. and on-site disposal in existing pit, 1.0 ft. x 2 ft Max. 10,000 ft. haul	85.00	LF	\$3.59	\$305.38
Remove 20.000g Diesel Tank	20,000	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	1.00	EA	\$1,050.00	\$1,050.00
Remove 20,000g Diesel Tank Sludge	5% of 20,000g	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	1.00	EA	\$379.00	\$379.00
Dry Ice for Inert Transport 20,000g Diesel Tank	20,000g	Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	300.00	LB	\$1.95	\$585.00
Remove 10,000g Diesel Tanks	10,000g(2)	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	2.00	EA	\$1,050.00	\$2,100.00
Remove 10,000g Diesel Tank Sludge	5% of 10,000g(2)	Remove sludge, water, and rem. product from tank - 9,000 to 12,000 gal.	2.00	EA	\$379.00	\$758.00
Dry Ice for Inert Transport	10,000g(2)	Insert dry ice (CO2) into tank to	300.00	LB	\$1.95	\$585.00

10,000g Diesel Tanks		produce inert gas - 1.5 lbs./100 gal.				
Remove 5,000g Diesel Tank	5,000g	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$760.00	\$760.00
Remove 5,000g Diesel Tank Sludge	5% of 5,000	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	\$227.50	\$227.50
Dry Ice for Inert Transport 5,000g Diesel Tank	5,000g	Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	75.00	LB	\$1.95	\$146.25
Remove 2,000g Unleaded Fuel Tank	2,000g	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	1.00	EA	\$760.00	\$760.00
Remove 2,000g Unleaded Tank Sludge	5% of 2,000	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	1.00	EA	\$227.50	\$227.50
Dry Ice for Inert Transport 2,000g Unleaded Tank	2,000g	Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	30.00	LB	\$1.95	\$58.50
Remove 2,000 Oil Tanks	2,000g (6)	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	6.00	EA	\$760.00	\$4,560.00
Remove 2,000g Oil Tank Sludge	5% of 2,000g(6)	Remove sludge, water, and rem. product from tank - 3,000 to 5,000 gal.	6.00	EA	\$227.50	\$1,365.00
Dry Ice for Inert Transport 2,000g Oil Tank	2,000g(6)	Insert dry ice (CO2) into tank to produce inert gas - 1.5 lbs./100 gal.	180.00	LB	\$1.95	\$351.00
Remove Mag Chloride Tanks	2,500g(2)	Haul tank to certified salvage dump - 3,000 to 5,000 gal. tank	2.00	EA	\$760.00	\$1,520.00
Remove Propane Tank	20,000g	Haul tank to certified salvage dump - 9,000 to 12,000 gal. tank	1.00	EA	\$1,050.00	\$1,050.00
Remove Propane Tank Saddles	8'X4'X1'	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	64.00	SF	\$3.75	\$240.29
Fuel Storage and Oil Storage Tank Pads	120 CY	Slab on grade, concrete, demolition only - Mesh reinforcing	120.00	CY	\$120.50	\$14,460.00

Portal Entry	30'X30'	Bldg. (MN)	18,000.00	CF	\$0.20	\$3,652.20
Fan Housing		demo./on-site				
		disposal in				
		existing pit or cut - Max. 50 ft. push				
Pad Fan	30'X30'X20'	Bldg. (MN)	18,000.00	CF	\$0.20	\$3,652.20
Housing		demo./on-site				
Pad Fan Pad		disposal in				
		existing pit or cut				
	31'X70'X2'	- Max. 50 ft. push Demo. and on-site	2,170.00	SF	\$1.73	\$3,756.27
	51 A/0 A2	disposal in	2,170.00	ЪГ	\$1.75	\$5,750.27
		existing pit, 12 in.				
		thick - Max. 50				
		ft. push				
Pad Fan	7'X7'X11'	Demo. and on-site	92.00	LF	\$10.88	\$1,001.10
Footers		disposal in				
		excavated pit, 2.0 ft. x 3 ft Max.				
		50 ft. push				
Pad Fan Motor	10'X10'	Bldg. (SN)	1,000.00	CF	\$0.18	\$178.00
		demo./on-site				
		disposal in				
		existing pit or cut				
Electrical	160'X160'	- Max. 50 ft. push Demo. and on-site	25,600.00	SF	\$1.20	\$30,658.56
Substation Pad	100 A100	disposal in	23,000.00	51	\$1.20	\$30,038.30
Substation Fud		existing pit, 8 in.				
		thick - Max.				
		10,000 ft. haul				
Electrical	600 LF	Fencing, chain	600.00	LF	\$2.68	\$1,608.00
Substation Fencing		link, including posts and fabric -				
reneing		to 6 ft. high				
Utility Building	30'X40'X12'	Bldg. (SN)	14,400.00	CF	\$0.19	\$2,707.20
		demo./on-site				
		disposal in				
		existing pit or cut				
		- Max. 10,000 ft. haul				
Utility Building	30'X40'	Demo. and on-site	1,200.00	SF	\$1.20	\$1,437.12
Floor		disposal in				
		existing pit, 8 in.				
		thick - Max.				
Compressor	140'X40'X16'	10,000 ft. haul Bldg. (MN)	89,600.00	CF	\$0.22	\$19,264.00
Building	140 A40 A10	demo./on-site	07,000.00	Cr	Φ0.22	φ19,204.00
B		disposal in				
		existing pit or cut				
		- Max. 10,000 ft.				
9	140177401	haul	F (00.00	C.E.	¢1.20	ф. П О - П -
Compressor Building Floor	140'X40'	Demo. and on-site	5,600.00	SF	\$1.20	\$6,706.56
		disposal in existing pit, 8 in.				
		thick - Max.				
		10,000 ft. haul				
Waste	250'X8'X6"	Demo. and on-site	2,000.00	SF	\$2.82	\$5,649.60
Handling and		disposal in				
Recycle Area		existing pit, 6 in.				

		thick - Max.				
Waste Handling and Recycle Area Pad	100'X150'	10,000 ft. haulDemo. and on-sitedisposal inexisting pit, 6 in.thick - Max.	15,000.00	SF	\$0.90	\$13,473.00
Waste Handling and	50'X150'	10,000 ft. haul Bldg. (SN) demo./on-site	7,500.00	CF	\$0.19	\$1,410.00
Recycle Area Roof		disposal in existing pit or cut - Max. 10,000 ft. haul				
Portal Conveyor	100LF	OBSOLETE- Conveyor, overland, including supports - 5 ft. W x 6 ft. H housing	100.00	LF	\$17.60	\$1,760.00
Transfer Conveyor	700LF	OBSOLETE- Conveyor, overland, including supports - 5 ft. W x 6 ft. H housing	700.00	LF	\$17.60	\$12,320.00
Radial Staker Conveyor	150LF	OBSOLETE- Conveyor, elevated, including supports - 5 ft. W x 6 ft. H housing	150.00	LF	\$44.51	\$6,676.35
Temporary Conveyor Supports	67 CY	Slab on grade, concrete, demolition only - No reinforcing	67.00	CY	\$88.50	\$5,929.50
Mine Portal Heaters (Bury in Pit)	2 Each	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 50 ft. push	10.00	CF	\$0.18	\$1.78
Rock Dust Tanks (2)	1131 SF	Bldg. (MN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	1,131.00	CF	\$0.22	\$243.17
Rock Dust Tank Pads (2)	22 CY	Slab on grade, concrete, demolition only - Rod reinforcing	22.00	CY	\$159.50	\$3,509.00
Electrical Metering Station	30'X30'	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	900.00	CF	\$0.19	\$169.20
Electrical Metering Station Pad	30'X30'	Demo. and on-site disposal in existing pit, 6 in.	900.00	SF	\$0.90	\$808.38

		thick - Max.				
D 1 D		10,000 ft. haul	10.00	CE	¢0.10	¢1.70
Portal Pump Station (Buried in Pit)	36.5'X36'	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 50 ft. push	10.00	CF	\$0.18	\$1.78
Covered Storage Building	150'X30'X20'	Bldg. (MN) demo./on-site disposal in	90,000.00	CF	\$0.22	\$19,350.00
Covered Storage Pylons	2'd	existing pit or cut - Max. 10,000 ft. haul Demo. and on-site disposal in	160.00	LF	\$3.59	\$574.83
		existing pit, 1.0 ft. x 2 ft Max. 10,000 ft. haul				
Covered Storage Building	200'X30'X20'	Bldg. (MN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	120,000.00	CF	\$0.22	\$25,800.00
Covered Storage Pylons	2'D	Demo. and on-site disposal in existing pit, 1.0 ft. x 2 ft Max. 10,000 ft. haul	180.00	LF	\$3.59	\$646.69
Covered Storage Buildings (2)	200'X50'X20'	Bldg. (MN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	400,000.00	CF	\$0.22	\$86,000.00
Covered Storage Pylons	2'D	Demo. and on-site disposal in existing pit, 1.0 ft. x 2 ft Max. 10,000 ft. haul	360.00	LF	\$3.59	\$1,293.37
South Facilities Powerlines	9100LF	Utility Poles, Wood 35' - 45' high (each pole)	10.00	EA	\$265.00	\$2,650.00
Powder Magazines (2)	16'X12'X10'(2)	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 10,000 ft. haul	3,840.00	CF	\$0.19	\$721.92
Powder Magazine Fence	450 LF	Fencing, chain link, including posts and fabric - 8 ft. to 10 ft. high	450.00	LF	\$3.12	\$1,404.00
Culvert 15A	54"(2)	Pipe, corrugated metal (CMP) - 60 in. diameter pipe	120.00	LF	\$17.90	\$2,147.86
Culvert SC-20	24"	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	60.00	LF	\$5.94	\$356.66

Culvert SC-19	54"	Pipe, corrugated metal (CMP) - 60	90.00	LF	\$17.90	\$1,610.89
Culvert SC-17	36"	in. diameter pipe Pipe, corrugated metal (CMP) - 36	60.00	LF	\$9.23	\$553.84
Culvert SC-9 (Buried in Pit)	36"	in. diameter pipe Pipe, corrugated metal (CMP) - 36	1.00	LF	\$9.23	\$9.23
Culvert SC-24 (Buried in Pit)	6"	in. diameter pipe Pipe, corrugated metal (CMP) - 8	1.00	LF	\$2.58	\$2.58
Culvert SC-22	36"	in. diameter pipe Pipe, corrugated metal (CMP) - 36	60.00	LF	\$9.23	\$553.84
Culvert SC-21	24"	in. diameter pipe Pipe, corrugated metal (CMP) - 24	40.00	LF	\$5.94	\$237.78
Culvert SC-13	18"	in. diameter pipe Pipe, corrugated metal (CMP) - 18 in diameter pipe	40.00	LF	\$4.58	\$183.27
Culvert SC-18	24"	in. diameter pipe Pipe, corrugated metal (CMP) - 24 in. diameter pipe	20.00	LF	\$5.94	\$118.89
Culvert SC-25	8"	Pipe, corrugated metal (CMP) - 8 in. diameter pipe	10.00	LF	\$2.58	\$25.75
Culvert SC-16	48"	Pipe, corrugated metal (CMP) - 48 in. diameter pipe	100.00	LF	\$13.31	\$1,331.36
Culvert SC-10	36"	Pipe, corrugated metal (CMP) - 36 in. diameter pipe	240.00	LF	\$9.23	\$2,215.37
Culvert SC-15	36"	Pipe, corrugated metal (CMP) - 36 in. diameter pipe	60.00	LF	\$9.23	\$553.84
Culvert SC-11	18"	Pipe, corrugated metal (CMP) - 18 in. diameter pipe	80.00	LF	\$4.58	\$366.54
Culvert SC-12	18"	Pipe, corrugated metal (CMP) - 18 in. diameter pipe	40.00	LF	\$4.58	\$183.27
Culvert SC-14	48"(2)	Pipe, corrugated metal (CMP) - 48 in. diameter pipe	160.00	LF	\$13.31	\$2,130.18
Pumphouse Pad (MR20)	6'X'6X1'	Demo. and on-site disposal in existing pit, 12 in. thick - Max. 10,000 ft. haul	36.00	SF	\$1.80	\$64.67
Pumphouse Building (MR20)	4'X4'X8'	Bldg. (SN) demo./on-site disposal in existing pit or cut - Max. 200 ft. push	128.00	CF	\$0.18	\$23.30
Remove Culvert SC-27	24"	Pipe, corrugated metal (CMP) - 24 in. diameter pipe	25.00	LF	\$5.94	\$148.61

Demolish and	8'x8'x8'	Demo. and on-site	64.00	SF	\$1.20	\$76.65
Remove		disposal in				
Microwave		existing pit, 8 in.				
Tower		thick - Max.				
Foundation		10,000 ft. haul				
Demolish and	10'x25'	Bldg. (SN)	250.00	CF	\$0.19	\$47.00
Remove		demo./on-site				
Microwave		disposal in				
Tower		existing pit or cut				
		- Max. 10,000 ft.				
		haul				
Demo	30x50	Cat D8T - 8SU	0.50	EA	\$227.36	\$113.68
temporary tent						
MR32						

				Total Cost	
		Subtotal		(adjusted for	
Job Hours:	190.00	(unadjusted):	\$348,487.84	location):	\$342,215.06

EQUIPMENT MOBILIZATION/DEMOBILIZATION

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Task #: 120 State: Colorado Abbreviation: None Date:	Peabody Sage	Creek Mine	Permit	Action: RN2			Permit/Job#: <u>C</u>	2009087		
Date: $3/27/2020$ County: Routt Filename: 120 User: TNL	PROJECT IDEN	<u>NTIFICATI</u>	<u>ON</u>							
User: TNL Agency or organization name: DRMS EQUIPMENT TRANSPORT RIG COST Shift basis: 1 per day Cost Data Source: CRG Data Truck Tractor Description: GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWER 400 HP (2ND HALF, 2006) Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT TRAILER (25T, 50T, AND 100T) Cost Breakdown: Available Rig Capacities 0-25 Tons 26-50 Tons 51+ Tons Ownership Cost/Hour: \$23.63 \$23.63 \$23.63 Ownership Cost/Hour: \$23.63 \$23.63 \$23.63 Ownership Cost/Hour: \$23.63 \$23.63 \$23.63 Machine Weight/ Operating Cost/Hour: \$23.63 \$23.63 Machine Weight/ Oothr/unit Cost/hr/unit Cost/hr/(hour: \$23.63 Cost/hr/unit Cost/hr/	Task #: 120		State: Co	olorado		Abbre	eviation: None			
User: TNL DRMS Agency or organization name: DRMS EQUIPMENT TRANSPORT RIG COST Shift basis: 1 per day Cost Data Source: CRG Data Truck Tractor Description: GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWER 400 HP (2ND HALF, 2006) Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT TRAILER (25T, 50T, AND 100T) Cost Breakdown: Available Rig Capacities 0-25 Tons 26-50 Tons 51+ Tons Ownership Cost/Hour: \$\$23.63 \$\$23.63 \$\$23.63 Operating Cost/Hour: \$\$23.63 \$\$23.63 \$\$23.63 Operating Cost/Hour: \$\$23.63 \$\$23.63 Ownership Cost/Hour: \$\$23.63 \$\$23.63 Machine Weight/ Cost/hr/ Inter Cost/hr/ Inter Cost/hr / Inter Machine Weight/ Cost/hr/ Inter Cost/hr / Inter <th <="" colspan="2" td=""><td></td><td></td><td>County: Ro</td><td>outt</td><td></td><td></td><td></td><td></td></th>	<td></td> <td></td> <td>County: Ro</td> <td>outt</td> <td></td> <td></td> <td></td> <td></td>				County: Ro	outt				
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(TONS) fleet Cat D10T - 10SU 84.53 \$140.61 \$141.54 6 \$1,692.90 \$849.24 \$1,500.0 Cat 637G w/push- pull 59.59 \$174.06 \$141.54 4 \$1,262.40 \$566.16 \$1,000.0 CAT 972H 28.00 \$46.54 \$123.81 1 \$170.35 \$123.81 \$250.00 CAT 980H 33.12 \$52.71 \$123.81 2 \$353.04 \$247.62 \$500.00 Cat D9T - 9SU 60.01 \$121.49 \$141.54 2 \$526.06 \$283.08 \$500.00 Cat D8T - 8SU 47.71 \$103.86 \$123.81 1 \$227.67 \$123.81 \$250.00 Cat 772 36.80 \$84.06 \$123.81 1 \$227.67 \$123.81 \$250.00 SCHRAMM 35.00 \$113.31 \$123.81 1 \$227.67 \$123.81 \$250.00 T450WS - - - - - - - Drill/Broadcast 25.00 <t< td=""><td>Description</td><td></td><td>-</td><td>Cost/hr/unit</td><td>Size</td><td></td><td>Cost/hr/ fleet</td><td>Cost/ fleet</td></t<>	Description		-	Cost/hr/unit	Size		Cost/hr/ fleet	Cost/ fleet		
Cat 637G w/push- pull 59.59 \$174.06 \$141.54 4 \$1,262.40 \$566.16 \$1,000.0 CAT 972H 28.00 \$46.54 \$123.81 1 \$170.35 \$123.81 \$250.00 CAT 972H 33.12 \$52.71 \$123.81 2 \$353.04 \$247.62 \$500.00 Cat D9T - 9SU 60.01 \$121.49 \$141.54 2 \$526.06 \$283.08 \$500.00 Cat D8T - 8SU 47.71 \$103.86 \$123.81 1 \$227.67 \$123.81 \$250.00 Cat 772 36.80 \$84.06 \$123.81 1 \$207.87 \$123.81 \$250.00 SCHRAMM 35.00 \$113.31 \$123.81 1 \$207.87 \$123.81 \$250.00 Drill/Broadcast 25.00 \$113.31 \$123.81 1 \$237.12 \$123.81 \$250.00 Seeder with 7 \$168.95 \$123.81 1 \$237.12 \$123.81 \$250.00 Water Tanker, 41.10 \$68.95 \$123.81 1 \$192.76 \$123.81 \$250.00 Uotool Gal. <		(TONS)				fleet				
pull 28.00 \$46.54 \$123.81 1 \$170.35 \$123.81 \$250.00 CAT 972H 28.00 \$46.54 \$123.81 2 \$353.04 \$247.62 \$500.00 CAT 980H 33.12 \$52.71 \$123.81 2 \$353.04 \$247.62 \$500.00 Cat D9T - 9SU 60.01 \$121.49 \$141.54 2 \$526.06 \$283.08 \$500.00 Cat D8T - 8SU 47.71 \$103.86 \$123.81 1 \$227.67 \$123.81 \$250.00 Cat 772 36.80 \$84.06 \$123.81 1 \$227.67 \$123.81 \$250.00 SCHRAMM 35.00 \$113.31 \$123.81 1 \$227.12 \$123.81 \$250.00 SCHRAMM 35.00 \$113.31 \$123.81 1 \$237.12 \$123.81 \$250.00 Drill/Broadcast 25.00 \$18.15 \$67.39 1 \$85.54 \$67.39 \$250.00 Seeder with - - - - -	Cat D10T - 10SU	84.53	\$140.61	\$141.54	6	\$1,692.90	\$849.24	\$1,500.00		
CAT 980H 33.12 \$52.71 \$123.81 2 \$353.04 \$247.62 \$500.00 Cat D9T - 9SU 60.01 \$121.49 \$141.54 2 \$526.06 \$283.08 \$500.00 Cat D8T - 8SU 47.71 \$103.86 \$123.81 1 \$227.67 \$123.81 \$250.00 Cat 772 36.80 \$84.06 \$123.81 1 \$207.87 \$123.81 \$250.00 SCHRAMM 35.00 \$113.31 \$123.81 1 \$207.87 \$123.81 \$250.00 Drill/Broadcast 25.00 \$113.31 \$123.81 1 \$237.12 \$123.81 \$250.00 Seeder with -	-	59.59	\$174.06	\$141.54	4	\$1,262.40	\$566.16	\$1,000.00		
Cat D9T - 9SU 60.01 \$121.49 \$141.54 2 \$526.06 \$283.08 \$500.00 Cat D8T - 8SU 47.71 \$103.86 \$123.81 1 \$227.67 \$123.81 \$250.00 Cat 772 36.80 \$84.06 \$123.81 1 \$207.87 \$123.81 \$250.00 SCHRAMM 35.00 \$113.31 \$123.81 1 \$207.87 \$123.81 \$250.00 Drill/Broadcast 25.00 \$113.31 \$123.81 1 \$237.12 \$123.81 \$250.00 Seeder with 7 \$67.39 1 \$85.54 \$67.39 \$250.00 Water Tanker, 41.10 \$68.95 \$123.81 1 \$192.76 \$123.81 \$250.00 Udder Tanker, 41.10 \$68.95 \$123.81 1 \$192.76 \$123.81 \$250.00	CAT 972H				1		\$123.81	\$250.00		
Cat D8T - 8SU 47.71 \$103.86 \$123.81 1 \$227.67 \$123.81 \$250.00 Cat 772 36.80 \$84.06 \$123.81 1 \$207.87 \$123.81 \$250.00 SCHRAMM 35.00 \$113.31 \$123.81 1 \$237.12 \$123.81 \$250.00 Drill/Broadcast 25.00 \$18.15 \$67.39 1 \$85.54 \$67.39 \$250.00 Water Tanker, 41.10 \$68.95 \$123.81 1 \$192.76 \$123.81 \$250.00 Under Tanker, 41.10 \$68.95 \$123.81 1 \$192.76 \$123.81 \$250.00								\$500.00		
Cat 772 36.80 \$84.06 \$123.81 1 \$207.87 \$123.81 \$250.00 SCHRAMM T450WS 35.00 \$113.31 \$123.81 1 \$237.12 \$123.81 \$250.00 Drill/Broadcast Seeder with Tractor 25.00 \$18.15 \$67.39 1 \$85.54 \$67.39 \$250.00 Water Tanker, 10,000 Gal. 41.10 \$68.95 \$123.81 1 \$192.76 \$123.81 \$250.00										
SCHRAMM T450WS 35.00 \$113.31 \$123.81 1 \$237.12 \$123.81 \$250.00 Drill/Broadcast Seeder with Tractor 25.00 \$18.15 \$67.39 1 \$85.54 \$67.39 \$250.00 Water Tanker, 10,000 Gal. 41.10 \$68.95 \$123.81 1 \$192.76 \$123.81 \$250.00										
T450WS Image: Constraint of the sector o										
Seeder with Tractor Image: Constraint of the second s	T450WS									
Tractor Image: Constraint of the system of the		25.00	\$18.15	\$67.39	1	\$85.54	\$67.39	\$250.00		
Water Tanker, 10,000 Gal. 41.10 \$68.95 \$123.81 1 \$192.76 \$123.81 \$250.00										
10,000 Gal.		41.10	¢ < 0, 0,7	¢102.01	1	¢100 74	¢102.01	¢250.00		
		41.10	\$68.95	\$123.81	1	\$192.76	\$123.81	\$250.00		
	Cat 324D L 9'-8"	27.33	\$46.78	\$123.81	1	\$170.59	\$123.81	\$250.00		
Stick Cat 770D 37.54 \$80.59 \$123.81 8 \$1,635.20 \$990.48 \$2,000.43		27.54	¢90.50	¢102.01	0	¢1.625.00	¢000.49	\$2,000.00		

CAT 14M

23.57

\$64.10

\$67.39

2

Subtotals: \$7,024.48 \$3,881.61 \$7,750.00

\$134.78

\$262.98

\$500.00

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Generic 10-12 cy, 6x4	\$97.89	6	\$587.34	\$587.34
Flatbed Truck, 4x2, 15K GVW	\$22.48	1	\$22.48	\$22.48
Fuel Tanker, 6x4, 210 HP	\$42.46	1	\$42.46	\$42.46
Lube Truck, 6x4, 250 HP	\$50.41	1	\$50.41	\$50.41
		Subtotals:	\$702.69	\$702.69

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region: Total one-way travel distance:	HAYDEN 10.00	miles
Average Travel Speed:	30.00	mph
Total Non-Roadable Mob/Demob Cost * '* two round trips with haul rig:	\$36,819.69	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	\$468.46	
-		

Transportation Cycle Time:

Non-Roadable Equipment	Roadable Equipment
0.33	0.33
0.33	0.33
0.50	NA
0.50	NA
1.67	0.67
	Equipment 0.33 0.33 0.50 0.50

JOB TIME AND COST

Total job time: **3.33** Hours

Total job cost: \$37,288

SITE MAINTENANCE

•	Task description:	Site Maintenance During I	iability Period		
Site:	Peabody Sage Creek Mi	ne Permit Action:	RN2	Permit	/Job#: <u>C2009087</u>
PROJE	CT IDENTIFICATION	<u>1</u>			
Task ‡	#: 125	State: Colorado		Abbreviation:	None
Date	e: 3/27/2020	County: Routt		Filename:	125
Use	r: TNL				
	Agency or organization	tion name: DRMS			
<u>UNIT CO</u>	<u>DSTS</u>				

Maintenance Item	Hours per Year	Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Rill and Gully Repair	40.00	CAT 14M	400.00	EA	\$148.79	\$59,516.00

Job Hours: 400.00

Total Cost: \$59,516.00

REVEGETATION WORK

Task description: Weed Managment Over Liability Period						
Site: Peabody	Sage Creek N	fine Permit Action:	RN2	Permit/Job	#: <u>C2009087</u>	
PROJECT	IDENTIFIC	ATION				
Task #:	126	State: Colorado		Abbreviation:	None	
Date:	3/27/2020	County: Routt		Filename:	126	
User:	TNL					
User:				Filename:	126	

FERTILIZING

Materials

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

Application

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

TILLING

Description	Cost /Acre
	\$
Total Tilling Cost/Acre	\$0.00

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
			\$
Totals Seed Mix	0.00	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
Herbicide - 2,4D @ 1.0 pt/ac	150.00	ACRE	\$2.74	\$411.00
Total Mulch Materials Cost/Acre				\$411.00

Application

Description		Cost /Acre
Weed spray, hand, aquatic area, nox. [DMG]		\$170.90
	Total Mulch Application Cost/Acre	\$170.90

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:	17.1	Cost /Acre:	\$581.90
Estimated Failure Rate:	0%	Cost /Acre*:	\$581.90
*Selected Replanting Work Items:	MULCHING		

Initial Job Cost:	\$9,950.49
Reseeding Job Cost:	\$0.00
Total Job Cost:	\$9,950
Job Hours:	0.00

SITE MAINTENANCE

	Task description:	Water Moni	toring During	Liability Period		
Site:	Peabody Sage Creek Min	ne	Permit Action:	RN2	Permit	/Job#: <u>C2009087</u>
<u>PROJE</u>	CCT IDENTIFICATION	I				
Task	#: 127	State:	Colorado		Abbreviation:	None
Dat		County:	Routt		Filename:	C087-127
	3:10:17 PM					
Use	er: TNL					

Agency or organization name: DRMS

UNIT COSTS

Maintenance Item	Hours per Year	Menu Selection	Quantity	Unit	Unit Cost	Total Cost
NPDES Site 003 - Sampling \$/Hr	0.25	USER PROVIDED ITEM	2.50	EA	\$48.60	\$121.50
NPDES Site 004 - Sampling \$/Hr	0.50	USER PROVIDED ITEM	5.00	EA	\$48.60	\$243.00
NPDES Site 002 - Sampling \$/Hr	0.25	USER PROVIDED ITEM	2.50	EA	\$48.60	\$121.50
GW Monitoring Wells (15)	2.00	USER PROVIDED ITEM	300.00	EA	\$57.40	\$17,220.00
Grassy Creek Upstream - Sampling \$/Hr	0.50	USER PROVIDED ITEM	5.00	EA	\$48.60	\$243.00
Grassy Creek Downstream - Sampling \$/Hr	0.50	USER PROVIDED ITEM	5.00	EA	\$48.60	\$243.00
Sampling Containers - 7 Sets	1.00	USER PROVIDED ITEM	7.00	EA	\$36.00	\$252.00
Lab Analysis - for 20 Sites/year	1.00	USER PROVIDED ITEM	200.00	EA	\$187.00	\$37,400.00

Job Hours: 60.00

Total Cost: \$55,844.00

Page 127 of 130

TRUCK/LOADER TEAM WORK

				per and Lower	I		
Site: Peabody Sage Cree	k Mine	Pern	nit Actio	n: RN2		Permit/Job#:	C2009087
PROJECT IDENTIF	FICATION						
Task #: 128		State:	Colorado	0	Abb	previation: N	one
Date: 3/27/2020	0 0	County:	Routt			Filename: 12	28
User: TNL							
Agency or orga	anization nam	e: DRM	/IS				
HOURLY EQUIPMI	ENT COST				Shift ba	sis: <u>1 per day</u>	
			Eq	uipment Descri	iption		
Truck	k Loader Tear	n -Truck:	Gener	ric 10-12 cy, 6x	1		
		-Loader:	CAT	973D			
Support E	Equipment -Lo		NA				
Pood Mainta	-Du enance –Moto	mp Area:	NA NA				
Koau Mainte		er Truck:	NA				
		of fruck.	INA				
Cost Breakdown:	Truck/Loa		INA	Support	Equipment	Mainter	nance Equipment
Cost Breakdown:				Support Load Area	Equipment Dump Area	Mainter Motor Grader	nance Equipment Water Truck
	Truck/Loa	der Team Track		* *	· ·	Motor	Water Truck
6Utilization-machine:	Truck/Loa Truck	der Team Track Loader		Load Area	Dump Area	Motor Grader	Water Truck
6Utilization-machine:	Truck/Load Truck 100	der Team Track Loader \$6	20	Load Area NA	Dump Area NA	Motor Grader NA	Water Truck NA NA
6Utilization-machine: Ownership cost/hour: Operating cost/hour: %Utilization-riper:	Truck/Loa Truck 100 \$19.51	der Team Track Loader \$6	20 58.72	Load Area NA NA	Dump Area NA NA	Motor Grader NA NA	Water Truck NA NA NA
6Utilization-machine: Ownership cost/hour: Operating cost/hour:	Truck/Loa Truck 100 \$19.51 \$46.51	der Team Track Loader \$6 \$1	20 58.72 3.37	Load Area NA NA NA	Dump Area NA NA NA	Motor Grader NA NA NA	Water Truck NA NA NA NA
6Utilization-machine: Ownership cost/hour: Operating cost/hour: %Utilization-riper: Ripper own.	Truck/Loa Truck 100 \$19.51 \$46.51 NA	der Team Track Loader \$6 \$1 \$	20 58.72 3.37 0	Load Area NA NA NA NA	Dump Area NA NA NA NA	Motor Grader NA NA NA NA	Water Truck NA NA NA NA NA
6Utilization-machine: Ownership cost/hour: Operating cost/hour: %Utilization-riper: Ripper own. cost/hour:	Truck/Loa Truck 100 \$19.51 \$46.51 NA NA	der Team Track Loader \$6 \$1 \$ \$	20 58.72 3.37 0 50.00	Load Area NA NA NA NA NA	Dump Area NA NA NA NA NA	Motor Grader NA NA NA NA NA	Water Truck NA NA NA NA NA NA
6Utilization-machine: Ownership cost/hour: Operating cost/hour: %Utilization-riper: Ripper own. cost/hour: Ripper op. cost/hour:	Truck/Loa Truck 100 \$19.51 \$46.51 NA NA NA	der Team Track Loader \$6 \$1 \$ \$ \$ \$4 \$4	20 58.72 3.37 0 50.00 50.00	Load Area NA NA NA NA NA NA	Dump Area NA NA NA NA NA	Motor Grader NA NA NA NA NA	Water Truck NA NA NA NA NA NA NA
%Utilization-machine: Ownership cost/hour: Operating cost/hour: %Utilization-riper: %Utilization-riper: Ripper own. cost/hour: Ripper op. cost/hour: Operator cost/hour:	Truck/Loa Truck 100 \$19.51 \$46.51 NA NA NA NA	der Team Track Loader \$6 \$1 \$ \$ \$ \$4 \$4	20 58.72 3.37 0 50.00 50.00 40.65	Load Area NA NA NA NA NA NA NA	Dump Area NA NA NA NA NA NA	Motor Grader NA NA NA NA NA NA	Water Truck NA NA NA NA NA NA NA NA

Total work team cost/hour: <u>\$518.85</u>

MATERIAL QUANTITIES

Initial volume:	5,485	CCY	Swell factor:	1.090	
Loose volume:	5,979	LCY			_
Source	e of estimated volume:	Division of	f Reclamation, Min	ing & Safety	
Source of	estimated swell factor:	Cat Handb	ook		
Ν	Material Purchase Cost:	\$0.00			
	Total Cost:	\$0.00			

HOURLY PRODUCTION

Truck Capacity:

Truck Par	yload ((weight)	Basis:

Material weight:2,600Pounds/LCYDescription:Clay and gravel - Wet

Rated Payload:	35,400	Pounds
Payload Capacity:	13.62	LCY

Time:

Truck Bed (volume) Basis: Struck Volume: Heaped Volume: Average Volume: Adjusted Volume:	10.00 12.00 11.00 12.00	LCY LCY LCY LCY				
Final	Fruck Volume	Based on Number	of Loader Passes:	9.22	LCY	
Loading Tool Capacity			D		N 74	
	4 4 9 9			ket Size Class:	NA	
Rated Capacity:	4.190	LCY (heaped		0 1200() 1 100		-
Bucket Fill Factor:	1.100 4.609	Other - rock/	dirt mixtures (10	00-120%) 1.100		=
Adjusted Capacity:	4.009					
Job Condition Corrections:	<u>-</u>		Site Altitude (ft.):	: <u>6800</u> feet		
	Truck	Loader	Source			
Altitude Adj:	1.000	1.000	(CAT HI			
Job Efficiency:	0.830	0.830	(CAT HI			
Net Correction:	0.830	0.830				
Loading Tool Cycle Time:		Number of Loading	Tool Passas Pag	uirad to Fill		nassas
			g 1001 Fasses Req	Truck:	2	passes
Excavators and Front Shove	<u>ls:</u>					
Machine Cycle Time v						
Selected Value v		<u> </u>				
Track Loaders – Cycle Time Elements (min.):						
•				-		
Load: 0.050	N	Ianeuver: 0.200		Dump: 0.	055	
Wheel and Track	k Loaders - Un	adjusted Basic Loa		oad, dump, maneuver):	0.305 min	utes
Cycle Time Factors				Factor (min.)) Source	
Material:	Mixed mate	rial 0.02		0.020	(Cat HB)	
Stockpile:	No adjustme	ent - factor not app	licable 0.00	0.000	(Cat HB)	
Truck Ownership:	Common ov 0.04	vnership of trucks	and loaders -	-0.040	(Cat HB)	
Operation:		operation 0.04		0.040	(Cat HB)	_
Dump Target:	Nominal tar			0.000	(Cat HB)	_
		Net Cycle T	ime Adjustment:	0.020	minutes	
			der Cycle Time:	0.325	minutes	
		Net Load	Time per Truck:	0.380	minutes	
Truck Cycle Time:						
Truck Exchange Time	e: 0.50	Minutes	Adjusted	for site altitude:	0.500	Minutes
Truck Load Time	e: 0.380	Minutes	Adjusted	for site altitude:	0.380	Minutes
Truck Maneuver and Dum	p 0.90	Minutes	Adjusted	for site altitude:	0.900	Minutes

Truck Travel (Haul & Return) Time: maintained 2.0 Road Condition: Hard, smooth, stabilized, surfaced, watered,

Haul Route Seg #	Haul Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
50g #	(Ft)	Grade (70)	(%)	(%)	(fpm)	Time (min)	
1	36960.00	0.00	2.00	2.00	2868	12.983	
				Haul Time:	12.983	minutes	
Return Rou	ite:				-		
Seg #	Haul Distance	Grade (%)	Roll. Res	Total Res	Velocity	Travel	
	(Ft)		(%)	(%)	(fpm)	Time (min)	
1	36960.00	0.00	2.00	2.00	2905	12.748	
				Return Time:			s
			Total Tru	ck Cycle Time:	27.51	1 minute	S
Loading Too	ol unit						
	628.50	LCY/Hour		Adjusted for job efficiency: <u>521.66</u> LCY/Hou			LCY/Hour
Yruck Unit Produ	20.10	LCY/Hour		Adjusted for jo	ob efficiency:	16.69	LCY/Hour
ptimal No. of Tr	rucks: 31	Truck(s)		Selected Numb	er of Trucks:	6	Truck(s)
Adjusted hourly truck team production: 100.12 LCY/Hou						Hour	
Adjusted single truck/loader team production: 10						.12 LCY/Hour	
	I	Adjusted multiple	truck/loader	team productio	n: 100.	12 LCY/	Hour
JOB TIM	IE AND COST						
Float	size: 1	Team(s)	Т	otal job time:	59.72	2 Hou	ırs
Fleet							