

COST SUMMARY WORK

Task description: Technical Revision 74 Cost Summary

Site: Elk Creek Mine

Permit Action: Technical Revision 74

Permit/Job#: C1981022

PROJECT IDENTIFICATION

Task #: 360

State: Colorado

Abbreviation: None

Date: 8/8/2013

County: Delta

Filename: C022-360

User: BFB

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
361	Plug and Seal 9 Gob Vent Boreholes	BOREHOLE	1	36.00	\$11,070.46
362	Regrade Drill Pads	DOZER	1	16.83	\$4,198.39
363	Regrade Light-Use Roads	DOZER	1	22.44	\$5,597.85
364	Replace Topsoil from Stockpile to Drill Pads	DOZER	1	10.80	\$2,693.35
365	Replace Topsoil from Stockpile to Light-Use Roads	DOZER	1	14.40	\$3,591.50
366	Broadcast Seed Drill Pads	REVEGE	1	1.00	\$3,849.02
367	Broadcast Seed Light-Use Roads	REVEGE	1	1.88	\$5,132.02
<u>SUBTOTALS:</u>				103.35	\$36,132.59

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02%

Total = \$729.88

Performance bond: 1.05%

Total = \$379.39

Job superintendent: 59.50 hrs

Total = \$3,891.90

Profit: 10.00%

Total = \$3,613.26

TOTAL O & P = \$8,614.43

CONTRACT AMOUNT (direct + O & P) = \$44,747.02

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): 0.00

Total = 0.00

Engineering work and/or contract/bid preparation: 4.61%

Total = \$2,062.84

Reclamation management and/or administration: 3.58%

\$1,601.94

CONTINGENCY: 0.00

Total = \$0.00

TOTAL INDIRECT COST = \$12,279.21

TOTAL BOND AMOUNT (direct + indirect) = \$48,411.80

BOREHOLE SEALING WORKTask description: **Plug and Seal 9 Gob Vent Boreholes**Site: **Elk Creek Mine**Permit Action: **Technical Revision 74**Permit/Job#: **C1981022****PROJECT IDENTIFICATION**Task #: **361**State: **Colorado**Abbreviation: **None**Date: **8/8/2013**County: **Delta**Filename: **C022-361**User: **BFB**Agency or organization name: **DRMS****UNIT COSTS**

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Bottom plug	PVC plug - 10 in. diameter borehole	9.625"	50' Each	9.00	EA	\$96.54	\$868.86
- Fill Holes with Cement	Portland cement grout (Bag, material cost only...94 lb. bag)	9.625"	450 feet	114.00	bag	\$11.50	\$1,311.00
- Cut Casing at Surface	Exposed casing removal - 8 to 14 in. diameter steel pipe (LF)	9.625"	NA	23.00	LF	\$8.81	\$202.63
- Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	9.00	EA	\$2.81	\$25.29
- Drill Rig Time	ATLAS COPCO ROC F9-11,5.0 in.	NA	NA	36.00	EA	\$201.28	\$7,246.08
- Water Truck Time	Water Tanker, 3,500 Gal.	NA	NA	36.00	EA	\$39.35	\$1,416.60

Job Hours: 36.00**Total Cost: \$11,070.46**

BULLDOZER WORKTask description: **Regrade Drill Pads**Site: **Elk Creek Mine**Permit Action: **Technical Revision 74**Permit/Job#: **C1981022****PROJECT IDENTIFICATION**Task #: **362**State: **Colorado**Abbreviation: **None**Date: **8/8/2013**County: **Delta**Filename: **C022-362**User: **BFB**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D9T - 9SU**Horsepower: **405**Blade Type: **Semi-Universal**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$69.88	NA
Operating Cost/Hour:	\$142.13	100
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$37.41	NA

Total unit Cost/Hour: **\$249.42**Total Fleet Cost/Hour: **\$249.42****MATERIAL QUANTITIES**Initial Volume: **7,260**Swell factor: **1.125**Loose volume: **8,168 LCY**Source of estimated volume: **Division of Reclamation, Mining & Safety**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **100 feet**Unadjusted hourly production: **1,243.2 LCY/hr**Materials consistency description: **Consolidated stockpile 1.0**Average push gradient: **5 %**Average site altitude: **8,200 feet**Material weight: **2,650 lbs/LCY**Weight description: **Decomposed rock - 25% Rock, 75% Earth****Job Condition Correction Factor**Operator Skill: **0.750**Source**(AVG.)**Material consistency: **1.000****(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:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3903

Adjusted unit production: 485.22 LCY/hr
Adjusted fleet production: **485.22** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.514/LCY

Total job time: **16.83** Hours
Total job cost: **\$4,198.39**

BULLDOZER WORKTask description: **Regrade Light-Use Roads**Site: **Elk Creek Mine**Permit Action: **Technical Revision 74**Permit/Job#: **C1981022****PROJECT IDENTIFICATION**Task #: **363**State: **Colorado**Abbreviation: **None**Date: **8/8/2013**County: **Delta**Filename: **C022-363**User: **BFB**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D9T - 9SU**Horsepower: **405**Blade Type: **Semi-Universal**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	\$69.88	NA
Operating Cost/Hour:	\$142.13	100
Ripper op. Cost/Hour:	\$0.00	0
Operator Cost/Hour:	\$37.41	NA

Total unit Cost/Hour: **\$249.42**Total Fleet Cost/Hour: **\$249.42****MATERIAL QUANTITIES**Initial Volume: **9,680**Swell factor: **1.125**Loose volume: **10,890 LCY**Source of estimated volume: **Division of Reclamation, Mining & Safety**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **100 feet**Unadjusted hourly production: **1,243.2 LCY/hr**Materials consistency description: **Consolidated stockpile 1.0**Average push gradient: **5 %**Average site altitude: **8,200 feet**Material weight: **2,650 lbs/LCY**Weight description: **Decomposed rock - 25% Rock, 75% Earth****Job Condition Correction Factor**Operator Skill: **0.750**Source**(AVG.)**Material consistency: **1.000****(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:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3903

Adjusted unit production: 485.22 LCY/hr

Adjusted fleet production: **485.22 LCY/hr**

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.514/LCY

Total job time: **22.44 Hours**
Total job cost: **\$5,597.85**

BULLDOZER WORKTask description: **Replace Topsoil from Stockpile to Drill Pads**Site: **Elk Creek Mine**Permit Action: **Technical Revision 74**Permit/Job#: **C1981022****PROJECT IDENTIFICATION**Task #: **364**State: **Colorado**Abbreviation: **None**Date: **8/8/2013**County: **Delta**Filename: **C022-364**User: **BFB**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**Basic Machine: **Cat D9T - 9SU**Horsepower: **405**Blade Type: **Semi-Universal**Attachment: **NA**Shift Basis: **1 per day**Data Source: **(CRG)****Cost Breakdown:**

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$69.88</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$142.13</u>	<u>100</u>
Ripper op. Cost/Hour:	<u>\$0.00</u>	<u>0</u>
Operator Cost/Hour:	<u>\$37.41</u>	<u>NA</u>

Total unit Cost/Hour: **\$249.42**Total Fleet Cost/Hour: **\$249.42****MATERIAL QUANTITIES**Initial Volume: **4,840**Swell factor: **1.125**Loose volume: **5,445 LCY**Source of estimated volume: **Division of Reclamation, Mining & Safety**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**Average push distance: **100 feet**Unadjusted hourly production: **1,243.2 LCY/hr**Materials consistency description: **Consolidated stockpile 1.0**Average push gradient: **5 %**Average site altitude: **8,200 feet**Material weight: **2,550 lbs/LCY**Weight description: **Earth - Dry packed****Job Condition Correction Factor**Operator Skill: **0.750****Source****(AVG.)**Material consistency: **1.000****(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:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4056

Adjusted unit production: 504.24 LCY/hr

Adjusted fleet production: **504.24 LCY/hr**

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.495/LCY

Total job time: **10.80 Hours**
Total job cost: **\$2,693.35**

BULLDOZER WORKTask description: **Replace Topsoil from Stockpile to Light-Use Roads**Site: **Elk Creek Mine**Permit Action: **Technical Revision 74**Permit/Job#: **C1981022****PROJECT IDENTIFICATION**Task #: **365**State: **Colorado**Abbreviation: **None**Date: **8/8/2013**County: **Delta**Filename: **C022-365**User: **BFB**Agency or organization name: **DRMS****HOURLY EQUIPMENT COST**

Basic Machine: **Cat D9T - 9SU**
 Horsepower: **405**
 Blade Type: **Semi-Universal**
 Attachment: **NA**
 Shift Basis: **1 per day**
 Data Source: **(CRG)**

Cost Breakdown:

		<u>Utilization %</u>
Ownership Cost/Hour:	<u>\$69.88</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$142.13</u>	<u>100</u>
Ripper op. Cost/Hour:	<u>\$0.00</u>	<u>0</u>
Operator Cost/Hour:	<u>\$37.41</u>	<u>NA</u>

Total unit Cost/Hour: **\$249.42**Total Fleet Cost/Hour: **\$249.42****MATERIAL QUANTITIES**

Initial Volume: **6,454**
 Swell factor: **1.125**
 Loose volume: **7,261 LCY**

Source of estimated volume: **Division of Reclamation, Mining & Safety**Source of estimated swell factor: **Cat Handbook****HOURLY PRODUCTION**

Average push distance: **100 feet**
 Unadjusted hourly production: **1,243.2 LCY/hr**

Materials consistency description: **Consolidated stockpile 1.0**

Average push gradient: **5 %**
 Average site altitude: **8,200 feet**

Material weight: **2,550 lbs/LCY**Weight description: **Earth - Dry packed****Job Condition Correction Factor**

		<u>Source</u>
Operator Skill:	<u>0.750</u>	<u>(AVG.)</u>
Material consistency:	<u>1.000</u>	<u>(CAT HB)</u>

Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4056

Adjusted unit production: 504.24 LCY/hr

Adjusted fleet production: **504.24 LCY/hr**

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.495/LCY

Total job time: **14.40 Hours**
Total job cost: **\$3,591.50**

REVEGETATION WORKTask description: **Broadcast Seed Drill Pads**Site: **Elk Creek Mine**Permit Action: **Technical Revision 74**Permit/Job#: **C1981022****PROJECT IDENTIFICATION**Task #: **366**State: **Colorado**Abbreviation: **None**Date: **8/8/2013**County: **Delta**Filename: **C022-366**User: **BFB**Agency or organization name: **DRMS****FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Superphosphate, 0-20-0 with 12% S	90.00	pound	\$0.23	\$20.88
			Total Fertilizer Materials Cost/Acre	\$20.88

Application

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	\$52.71
Total Fertilizer Application Cost/Acre	\$52.71

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Beardless Wheatgrass - Whitmar	1.50	4.89	\$15.36
Indian Ricegrass - Native	0.50	1.62	\$3.37
Mountain Brome - Bromar	2.00	3.21	\$6.80
Sandberg Bluegrass - VNS	1.50	31.85	\$13.02
Coreopsis, Lance Leafed	0.15	3.84	\$4.60
Western Wheatgrass - Arriba	2.00	5.05	\$7.36
Prairie Junegrass	0.25	13.29	\$8.60
Penstemon, Rocky Mountain	0.15	2.35	\$5.06
Yarrow, White	0.05	3.18	\$1.25
Totals Seed Mix	8.10	69.28	\$65.42

Application

Description	Cost /Acre
Broadcast seeding [DMG]	\$261.28
Total Seed Application Cost/Acre	\$261.28

MULCHING and MISCELLANEOUS**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Hay, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$265.00	\$530.00
Total Mulch Materials Cost/Acre				\$530.00

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$65.89
Power mulcher (MEANS 32 91 13.16 0250)	\$86.68
Total Mulch Application Cost/Acre	\$152.57

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:	3	Cost /Acre:	\$1,082.86
Estimated Failure Rate:	50%	Cost /Acre*:	\$400.29
*Selected Replanting Work Items:	FERTILIZING,SEEDING		

Initial Job Cost:	\$3,248.58
Reseeding Job Cost:	\$600.44
Total Job Cost:	\$3,849.02
Job Hours:	1.00

REVEGETATION WORKTask description: **Broadcast Seed Light-Use Roads**Site: **Elk Creek Mine**Permit Action: **Technical Revision 74**Permit/Job#: **C1981022****PROJECT IDENTIFICATION**Task #: **367**State: **Colorado**Abbreviation: **None**Date: **8/8/2013**County: **Delta**Filename: **C022-367**User: **BFB**Agency or organization name: **DRMS****FERTILIZING****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Superphosphate, 0-20-0 with 12% S	90.00	pound	\$0.23	\$20.88
			Total Fertilizer Materials Cost/Acre	\$20.88

Application

Description	Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)	\$52.71
Total Fertilizer Application Cost/Acre	\$52.71

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Beardless Wheatgrass - Whitmar	1.50	4.89	\$15.36
Indian Ricegrass - Native	0.50	1.62	\$3.37
Mountain Brome - Bromar	2.00	3.21	\$6.80
Sandberg Bluegrass - VNS	1.50	31.85	\$13.02
Coreopsis, Lance Leafed	0.15	3.84	\$4.60
Western Wheatgrass - Arriba	2.00	5.05	\$7.36
Prairie Junegrass	0.25	13.29	\$8.60
Penstemon, Rocky Mountain	0.15	2.35	\$5.06
Yarrow, White	0.05	3.18	\$1.25
Totals Seed Mix	8.10	69.28	\$65.42

Application

Description	Cost /Acre
Broadcast seeding [DMG]	\$261.28
Total Seed Application Cost/Acre	\$261.28

MULCHING and MISCELLANEOUS**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Hay, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$265.00	\$530.00
Total Mulch Materials Cost/Acre				\$530.00

Application

Description	Cost /Acre
Crimping, with tractor {DMG survey data}	\$65.89
Power mulcher (MEANS 32 91 13.16 0250)	\$86.68
Total Mulch Application Cost/Acre	\$152.57

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres:	4	Cost /Acre:	\$1,082.86
Estimated Failure Rate:	50%	Cost /Acre*:	\$400.29
*Selected Replanting Work Items:	FERTILIZING,SEEDING		

Initial Job Cost:	\$4,331.44
Reseeding Job Cost:	\$800.58
Total Job Cost:	\$5,132.02
Job Hours:	1.88