

COST SUMMARY WORK

Task description: **Bond Increase**

Site: **Incas Mine**

Permit Action: **2012 Inspection**

Permit/Job#: **M1986076**

PROJECT IDENTIFICATION

Task #: **000**

State: **Colorado**

Abbreviation: **None**

Date: **11/23/2012**

County: **La Plata**

Filename: **M076-000**

User: **KAP**

Agency or organization name: **DRMS**

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Backfill and Grade compact open pit area, first phase	LOADER	2	12.47	\$2,442.00
002	Grade or compact contour depression fill area, first phase	LOADER	2	8.95	\$1,753.00
003	Grade and rip reworkd mine dump areas, first phase	EXCAVATE	1	27.13	\$2,754.00
004	Grade and rip stormwater controls, first phase	EXCAVATE	1	1.89	\$193.00
005	Grade and contour non-permanent roads, first phase	EXCAVATE	1	4.36	\$443.00
006	Install contour furrows on slopes, first phase	EXCAVATE	1	18.07	\$1,835.00
007	Replace topsoil over graded open pit area, first phase	LOADER	2	2.00	\$392.00
008	Replace topsoil over graded contour depression, first phase	LOADER	2	0.60	\$117.00
009	Replace topsoil over grade stormwater cont., first phase	LOADER	2	0.24	\$47.00
010	Seal existing underground openings	MINESEAL	1	0.00	\$1,852.00
011	Revegetate	REVEGE	1	0.00	\$2,997.98
012	Dispose of backfill debris, remove chemicals and containers	DEMOLISH	1	10.00	\$2,240.48
014	Mobilize/Demobilize	MOBILIZE	1	7.20	\$4,592.46
015	Neutralize cyanide leach circuit	VATDETOX	1	4.92	\$227.00
<u>SUBTOTALS:</u>				97.83	\$21,885.92

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 0.00%
Performance bond: 0.00%
Job superintendent: 49.98 hrs
Profit: 10.00%

Total = \$0.00

Total = \$0.00

Total = \$2,963.81

Total = \$2,188.59

TOTAL O & P = \$5,152.40

CONTRACT AMOUNT (direct + O & P) = \$27,038.32

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): 0.00
Engineering work and/or contract/bid preparation: 10.00%
Reclamation management and/or administration: 0.00%

Total = 0.00

Total = \$2,703.83

\$0.00

CONTINGENCY: 0.00Total = \$0.00

TOTAL INDIRECT COST = \$7,856.23

TOTAL BOND AMOUNT (direct + indirect) = \$29,742.15

WHEEL LOADER – LOAD AND CARRY WORKTask description: Backfill and Grade compact open pit area, first phaseSite: Incas MinePermit Action: 2012 InspectionPermit/Job#: M1986076**PROJECT IDENTIFICATION**Task #: 001State: ColoradoAbbreviation: NoneDate: 11/23/2012County: La PlataFilename: M076-001User: KAPAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: CAT 938HHorsepower: 172Attachment 1: ROPS CabShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		Utilization %
Ownership Cost/Hour:	\$22.07	NA
Operating Cost/Hour:	\$37.34	100
Operator Cost/Hour:	\$38.49	NA
Total Unit Cost/Hour:	\$97.90	
Total Fleet Cost/Hour:	\$195.79	

MATERIAL QUANTITIESInitial volume: 3,371

CCY

Swell factor: 1.335Loose volume: 4,500

LCY

Source of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Loader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.483 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Bank or broken material 0.04	0.040	(Cat HB)
Stockpile:	Conveyor or dozer piled 10 ft. high or less 0.01	0.010	(Cat HB)
Truck Ownership:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		0.010	minutes
Adjusted Basic Cycle Time:		0.493	minutes

Rolling Resistance – Road ConditionsHaul: Soft, rutted dirt, no maintenance or water, 4" tire penetration 8.0Return: Soft, rutted dirt, no maintenance or water, 4" tire penetration 8.0**Haul and Return Time**

	Length (feet)	Grade Res. (%)	Rolling Res. (%)	Total Res. (%)	Travel Time (minutes)	Source
Haul Route:	175	0.00	8.00	8.00	0.1959	(Cat HB)
Return Route:	175	0.00	8.00	8.00	0.1781	(Cat HB)

Total Travel Time: 0.3740 minutes
 Total Cycle Time: 0.8665 minutes

Load Bucket Capacity

Rated Capacity: 3.90 LCY (heaped)
 Bucket Fill Factor: 0.875 Blasted rock - well blasted (80 - 95%) 0.875
 Adjusted Capacity: 3.41 LCY

Job Condition Correction FactorsSite Altitude: 10800 feet

		Source
Altitude Adj:	<u>0.92</u>	(CAT HB)
Job Efficiency:	<u>0.83</u>	(1 shift/day)
Net Correction:	<u>0.76</u>	multiplier

Unadjusted Hourly Unit Production: 236.30 LCY/Hour
 Adjusted Hourly Unit Production: 180.44 LCY/Hour
 Adjusted Hourly Fleet Production: 360.88 LCY/Hour

JOB TIME AND COST

Fleet size: 2 Loader(s) Total job time: 12.47 Hours
 Unit cost: \$0.543 /LCY Total job cost: \$2,442.00

WHEEL LOADER – LOAD AND CARRY WORKTask description: Grade or impact contour depression fill area, first phaseSite: Incas Mine Permit Action: 2012 Inspection Permit/Job#: M1986076PROJECT IDENTIFICATION

Task #: 002 State: Colorado Abbreviation: None
 Date: 11/23/2012 County: La Plata Filename: M076-002
 User: KAP

Agency or organization name: DRMSHOURLY EQUIPMENT COST

Basic Machine: CAT 938H Horsepower: 172
 Attachment 1: ROPS Cab Shift Basis: 1 per day
 Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$22.07	NA
Operating Cost/Hour:	\$37.34	100
Operator Cost/Hour:	\$38.49	NA
Total Unit Cost/Hour:	\$97.90	
Total Fleet Cost/Hour:	\$195.79	

MATERIAL QUANTITIES

Initial volume: 2,420 CCY Swell factor: 1.335
 Loose volume: 3,231 LCY

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

HOURLY PRODUCTIONLoader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.483 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Bank or broken material 0.04	0.040	(Cat HB)
Stockpile:	Conveyor or dozer piled 10 ft. high or less 0.01	0.010	(Cat HB)
Truck Ownership:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		0.010	minutes
Adjusted Basic Cycle Time:		0.493	minutes

Rolling Resistance – Road Conditions

Haul: Soft, rutted dirt, no maintenance or water, 4" tire penetration 8.0
 Return: Soft, rutted dirt, no maintenance or water, 4" tire penetration 8.0

Haul and Return Time

	Length (feet)	Grade Res. (%)	Rolling Res. (%)	Total Res. (%)	Travel Time (minutes)	Source
Haul Route:	175	0.00	8.00	8.00	0.1959	(Cat HB)
Return Route:	175	0.00	8.00	8.00	0.1781	(Cat HB)

Total Travel Time: 0.3740 minutes
Total Cycle Time: 0.8665 minutes

Load Bucket Capacity

Rated Capacity: 3.90 LCY (heaped)
Bucket Fill Factor: 0.875 Blasted rock - well blasted (80 - 95%) 0.875
Adjusted Capacity: 3.41 LCY

Job Condition Correction Factors

Site Altitude: 10800 feet

Altitude Adj:	<u>0.92</u>	Source
Job Efficiency:	<u>0.83</u>	(CAT HB)
Net Correction:	<u>0.76</u>	(1 shift/day)
		multiplier

Unadjusted Hourly Unit Production: 236.30 LCY/Hour
Adjusted Hourly Unit Production: 180.44 LCY/Hour
Adjusted Hourly Fleet Production: 360.88 LCY/Hour

JOB TIME AND COST

Fleet size: 2 Loader(s) Total job time: 8.95 Hours
Unit cost: \$0.543 /LCY Total job cost: \$1,753.00

HYDRAULIC EXCAVATOR WORK

Task description: Grade and rip reworekd mine dump areas, first phase

Site: Incas Mine

Permit Action: 2012 Inspection

Permit/Job#: M1986076

PROJECT IDENTIFICATION

Task #: 003

State: Colorado

Abbreviation: None

Date: 11/23/2012

County: La Plata

Filename: M076-003

User: KAP

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat 319D L 8'-10" Stick

Attachment 1: ROPS Cab

Horsepower: 125

Weight (MT): 19.55

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	<u>\$22.27</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$40.56</u>	<u>100</u>
Operator Cost/Hour:	<u>\$38.67</u>	<u>NA</u>
Total Unit Cost/Hour:	<u>\$101.51</u>	
Total Fleet Cost/Hour:	<u>\$101.51</u>	

MATERIAL QUANTITIES

Initial volume: 2,775

CCY

Swell factor: 1.000

Loose volume: 2,775

LCY

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

Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Excavator Cycle Time (load bucket, swing loaded, dump bucket, swing empty):

Basic Job Condition Description: AVERAGE

Secondary Job Condition within Basic Description: AVERAGE

Cycle Time Value: 0.282 minutes

Load Bucket Capacity

Bucket Size Class: Medium

Rated Capacity: 1.10 LCY (heaped)

Bucket Fill Factor: 0.675 Rock - Well blasted (60% - 75%) 0.675

Adjusted Capacity: 0.74 LCY

Job Condition Correction Factors

Site Altitude: 10800 feet

Altitude Adj:	<u>0.78</u>	Source (CAT HB)
Job Efficiency:	<u>0.83</u>	(1 shift/day)
Net Correction:	<u>0.65</u>	multiplier

Unadjusted Hourly Unit Production: 157.98 LCY/Hour

Adjusted Hourly Unit Production: 102.28 LCY/Hour

Adjusted Hourly Fleet Production: 102.28 LCY/Hour

JOB TIME AND COST

Fleet size: 1 Excavator Total job time: 27.13 Hours

Unit cost: \$0.993 /LCY Total job cost: \$2,754.00

HYDRAULIC EXCAVATOR WORK

Task description: Grade and rip stormwater controls, first phase

Site: Incas Mine Permit Action: 2012 Inspection Permit/Job#: M1986076

PROJECT IDENTIFICATION

Task #: 004 State: Colorado Abbreviation: None
Date: 11/23/2012 County: La Plata Filename: M076-004
User: KAP

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat 319D L 8'-10" Stick Horsepower: 125
Attachment 1: ROPS Cab Weight (MT): 19.55
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	<u>\$22.27</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$40.56</u>	<u>100</u>
Operator Cost/Hour:	<u>\$38.67</u>	<u>NA</u>
Total Unit Cost/Hour:	<u>\$101.51</u>	
Total Fleet Cost/Hour:	<u>\$101.51</u>	

MATERIAL QUANTITIES

Initial volume: 194 CCY Swell factor: 1.000
Loose volume: 194 LCY

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

HOURLY PRODUCTION

Excavator Cycle Time (load bucket, swing loaded, dump bucket, swing empty):

Basic Job Condition Description: AVERAGE
Secondary Job Condition within Basic Description: AVERAGE
Cycle Time Value: 0.282 minutes

Load Bucket Capacity

Rated Capacity: 1.10 LCY (heaped) Bucket Size Class: Medium
Bucket Fill Factor: 0.675 Rock - Well blasted (60% - 75%) 0.675
Adjusted Capacity: 0.74 LCY

Job Condition Correction Factors

Site Altitude: 10800 feet

		Source
Altitude Adj:	<u>0.78</u>	<u>(CAT HB)</u>
Job Efficiency:	<u>0.83</u>	<u>(1 shift/day)</u>
Net Correction:	<u>0.65</u>	<u>multiplier</u>

Unadjusted Hourly Unit Production: 157.98 LCY/Hour
Adjusted Hourly Unit Production: 102.28 LCY/Hour
Adjusted Hourly Fleet Production: 102.28 LCY/Hour

JOB TIME AND COST

Fleet size: 1 Excavator Total job time: 1.90 Hours
Unit cost: \$0.993 /LCY Total job cost: \$193.00

HYDRAULIC EXCAVATOR WORK

Task description: Grade and contour non-permanent roads, first phase

Site: Incas Mine

Permit Action: 2012 Inspection

Permit/Job#: M1986076

PROJECT IDENTIFICATION

Task #: 005

State: Colorado

Abbreviation: None

Date: 11/23/2012

County: La Plata

Filename: M076-005

User: KAP

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat 319D L 8'-10" Stick

Attachment 1: ROPS Cab

Horsepower: 125

Weight (MT): 19.55

Shift Basis: 1 per day

Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$22.27	NA
Operating Cost/Hour:	\$40.56	100
Operator Cost/Hour:	\$38.67	NA
Total Unit Cost/Hour:	\$101.51	
Total Fleet Cost/Hour:	\$101.51	

MATERIAL QUANTITIES

Initial volume: 446

CCY

Swell factor: 1.000

Loose volume: 446

LCY

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

Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Excavator Cycle Time (load bucket, swing loaded, dump bucket, swing empty):

Basic Job Condition Description: AVERAGE

Secondary Job Condition within Basic Description: AVERAGE

Cycle Time Value: 0.282 minutes

Load Bucket Capacity

Bucket Size Class: Medium

Rated Capacity: 1.10 LCY (heaped)

Bucket Fill Factor: 0.675 Rock - Well blasted (60% - 75%) 0.675

Adjusted Capacity: 0.74 LCY

Job Condition Correction Factors

Site Altitude: 10800 feet

Altitude Adj:	<u>0.78</u>	Source (CAT HB)
Job Efficiency:	<u>0.83</u>	(1 shift/day)
Net Correction:	<u>0.65</u>	multiplier

Unadjusted Hourly Unit Production: 157.98 LCY/Hour

Adjusted Hourly Unit Production: 102.28 LCY/Hour

Adjusted Hourly Fleet Production: 102.28 LCY/Hour

JOB TIME AND COST

Fleet size: 1 Excavator Total job time: 4.36 Hours

Unit cost: \$0.993 /LCY Total job cost: \$443.00

HYDRAULIC EXCAVATOR WORK

Task description: INstall contour furrows on slopes, first phase

Site: Incas Mine

Permit Action: 2012 Inspection

Permit/Job#: M1986076

PROJECT IDENTIFICATION

Task #: 006

State: Colorado

Abbreviation: None

Date: 11/23/2012

County: La Plata

Filename: M076-006

User: KAP

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat 319D L 8'-10" Stick
Attachment 1: ROPS Cab

Horsepower: 125
Weight (MT): 19.55
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	<u>\$22.27</u>	<u>NA</u>
Operating Cost/Hour:	<u>\$40.56</u>	<u>100</u>
Operator Cost/Hour:	<u>\$38.67</u>	<u>NA</u>
Total Unit Cost/Hour:	<u>\$101.51</u>	
Total Fleet Cost/Hour:	<u>\$101.51</u>	

MATERIAL QUANTITIES

Initial volume: 1,849 CCY Swell factor: 1.000
Loose volume: 1,849 LCY

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

HOURLY PRODUCTION

Excavator Cycle Time (load bucket, swing loaded, dump bucket, swing empty):

Basic Job Condition Description: AVERAGE
Secondary Job Condition within Basic Description: AVERAGE
Cycle Time Value: 0.282 minutes

Load Bucket Capacity

Rated Capacity: 1.10 LCY (heaped) Bucket Size Class: Medium
Bucket Fill Factor: 0.675 Rock - Well blasted (60% - 75%) 0.675
Adjusted Capacity: 0.74 LCY

Job Condition Correction Factors

Site Altitude: 10800 feet

Altitude Adj:	<u>0.78</u>	Source
Job Efficiency:	<u>0.83</u>	(CAT HB)
Net Correction:	<u>0.65</u>	(1 shift/day)
		multiplier

Unadjusted Hourly Unit Production: 157.98 LCY/Hour
Adjusted Hourly Unit Production: 102.28 LCY/Hour
Adjusted Hourly Fleet Production: 102.28 LCY/Hour

JOB TIME AND COST

Fleet size: 1 Excavator Total job time: 18.08 Hours
Unit cost: \$0.993 /LCY Total job cost: \$1,835.00

WHEEL LOADER – LOAD AND CARRY WORKTask description: Replace topsoil over graded open pit area, first phaseSite: Incas MinePermit Action: 2012 InspectionPermit/Job#: M1986076PROJECT IDENTIFICATIONTask #: 007State: ColoradoAbbreviation: NoneDate: 11/23/2012County: La PlataFilename: M076-007User: KAPAgency or organization name: DRMSHOURLY EQUIPMENT COSTBasic Machine: CAT 938HHorsepower: 172Attachment 1: ROPS CabShift Basis: 1 per dayData Source: (CRG)Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$22.07	NA
Operating Cost/Hour:	\$37.34	100
Operator Cost/Hour:	\$38.49	NA
Total Unit Cost/Hour:	\$97.90	
Total Fleet Cost/Hour:	\$195.79	

MATERIAL QUANTITIESInitial volume: 807

CCY

Swell factor: 1.125Loose volume: 908

LCY

Source of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat HandbookHOURLY PRODUCTIONLoader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.483 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Bank or broken material 0.04	0.040	(Cat HB)
Stockpile:	Conveyor or dozer piled 10 ft. high or less 0.01	0.010	(Cat HB)
Truck Ownership:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		0.010	minutes
Adjusted Basic Cycle Time:		0.493	minutes

Rolling Resistance – Road ConditionsHaul: Soft, rutted dirt, no maintenance or water, 4" tire penetration 8.0Return: Soft, rutted dirt, no maintenance or water, 4" tire penetration 8.0Haul and Return Time

	Length (feet)	Grade Res. (%)	Rolling Res. (%)	Total Res. (%)	Travel Time (minutes)	Source
Haul Route:	175	0.00	8.00	8.00	0.1959	(Cat HB)
Return Route:	175	0.00	8.00	8.00	0.1781	(Cat HB)

Total Travel Time: 0.3740 minutes
 Total Cycle Time: 0.8665 minutes

Load Bucket Capacity

Rated Capacity: 3.90 LCY (heaped)
 Bucket Fill Factor: 1.100 Other - rock/dirt mixtures (100-120%) 1.100
 Adjusted Capacity: 4.29 LCY

Job Condition Correction Factors

Site Altitude: 10800 feet

		Source
Altitude Adj:	<u>0.92</u>	(CAT HB)
Job Efficiency:	<u>0.83</u>	(1 shift/day)
Net Correction:	<u>0.76</u>	multiplier

Unadjusted Hourly Unit Production: 297.07 LCY/Hour
 Adjusted Hourly Unit Production: 226.84 LCY/Hour
 Adjusted Hourly Fleet Production: 453.68 LCY/Hour

JOB TIME AND COST

Fleet size: 2 Loader(s) Total job time: 2.00 Hours
 Unit cost: \$0.432 /LCY Total job cost: \$392.00

WHEEL LOADER – LOAD AND CARRY WORKTask description: Replace topsoil over graded contour depression, first phaseSite: Incas MinePermit Action: 2012 InspectionPermit/Job#: M1986076**PROJECT IDENTIFICATION**Task #: 008State: ColoradoAbbreviation: NoneDate: 11/23/2012County: La PlataFilename: M076-008User: KAPAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: CAT 938HHorsepower: 172Attachment 1: ROPS CabShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		Utilization %
Ownership Cost/Hour:	\$22.07	NA
Operating Cost/Hour:	\$37.34	100
Operator Cost/Hour:	\$38.49	NA
Total Unit Cost/Hour:	\$97.90	
Total Fleet Cost/Hour:	\$195.79	

MATERIAL QUANTITIESInitial volume: 242

CCY

Swell factor: 1.125Loose volume: 272

LCY

Source of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Loader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.483 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Bank or broken material 0.04	0.040	(Cat HB)
Stockpile:	Conveyor or dozer piled 10 ft. high or less 0.01	0.010	(Cat HB)
Truck Ownership:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		0.010	minutes
Adjusted Basic Cycle Time:		0.493	minutes

Rolling Resistance – Road ConditionsHaul: Soft, rutted dirt, no maintenance or water, 4" tire penetration 8.0Return: Soft, rutted dirt, no maintenance or water, 4" tire penetration 8.0**Haul and Return Time**

	Length (feet)	Grade Res. (%)	Rolling Res. (%)	Total Res. (%)	Travel Time (minutes)	Source
Haul Route:	175	0.00	8.00	8.00	0.1959	(Cat HB)
Return Route:	175	0.00	8.00	8.00	0.1781	(Cat HB)

Total Travel Time: 0.3740 minutes
Total Cycle Time: 0.8665 minutes

Load Bucket Capacity

Rated Capacity: 3.90 LCY (heaped)
Bucket Fill Factor: 1.100 Other - rock/dirt mixtures (100-120%) 1.100
Adjusted Capacity: 4.29 LCY

Job Condition Correction Factors

Site Altitude: 10800 feet

Altitude Adj:	<u>0.92</u>	Source
Job Efficiency:	<u>0.83</u>	(CAT HB)
Net Correction:	<u>0.76</u>	(1 shift/day)
		multiplier

Unadjusted Hourly Unit Production: 297.07 LCY/Hour
Adjusted Hourly Unit Production: 226.84 LCY/Hour
Adjusted Hourly Fleet Production: 453.68 LCY/Hour

JOB TIME AND COST

Fleet size: 2 Loader(s) Total job time: 0.60 Hours
Unit cost: \$0.432 /LCY Total job cost: \$117.00

WHEEL LOADER – LOAD AND CARRY WORKTask description: Replace topsoil over grade stormwater cont., first phaseSite: Incas MinePermit Action: 2012 InspectionPermit/Job#: M1986076**PROJECT IDENTIFICATION**Task #: 009State: ColoradoAbbreviation: NoneDate: 11/23/2012County: La PlataFilename: M076-009User: KAPAgency or organization name: DRMS**HOURLY EQUIPMENT COST**Basic Machine: CAT 938HHorsepower: 172Attachment 1: ROPS CabShift Basis: 1 per dayData Source: (CRG)**Cost Breakdown:**

		Utilization %
Ownership Cost/Hour:	\$22.07	NA
Operating Cost/Hour:	\$37.34	100
Operator Cost/Hour:	\$38.49	NA
Total Unit Cost/Hour:	\$97.90	
Total Fleet Cost/Hour:	\$195.79	

MATERIAL QUANTITIESInitial volume: 97

CCY

Swell factor: 1.125Loose volume: 109

LCY

Source of estimated volume: Division of Reclamation, Mining & SafetySource of estimated swell factor: Cat Handbook**HOURLY PRODUCTION**Loader Cycle Time: Unadjusted Basic Cycle Time (load, dump, maneuver): 0.483 minutes

Cycle Time Factors		Factor (min.)	Source
Material:	Bank or broken material 0.04	0.040	(Cat HB)
Stockpile:	Conveyor or dozer piled 10 ft. high or less 0.01	0.010	(Cat HB)
Truck Ownership:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Operation:	Constant operation -0.04	-0.040	(Cat HB)
Dump Target:	No adjustment - factor not applicable 0.00	0.000	(Cat HB)
Net Cycle Time Adjustment:		0.010	minutes
Adjusted Basic Cycle Time:		0.493	minutes

Rolling Resistance – Road ConditionsHaul: Soft, rutted dirt, no maintenance or water, 4" tire penetration 8.0Return: Soft, rutted dirt, no maintenance or water, 4" tire penetration 8.0**Haul and Return Time**

	Length (feet)	Grade Res. (%)	Rolling Res. (%)	Total Res. (%)	Travel Time (minutes)	Source
Haul Route:	175	0.00	8.00	8.00	0.1959	(Cat HB)
Return Route:	175	0.00	8.00	8.00	0.1781	(Cat HB)

Total Travel Time: 0.3740 minutes
 Total Cycle Time: 0.8665 minutes

Load Bucket Capacity

Rated Capacity: 3.90 LCY (heaped)
 Bucket Fill Factor: 1.100 Other - rock/dirt mixtures (100-120%) 1.100
 Adjusted Capacity: 4.29 LCY

Job Condition Correction FactorsSite Altitude: 10800 feet

Altitude Adj:	<u>0.92</u>	Source
Job Efficiency:	<u>0.83</u>	(CAT HB)
Net Correction:	<u>0.76</u>	(1 shift/day)
		multiplier

Unadjusted Hourly Unit Production: 297.07 LCY/Hour
 Adjusted Hourly Unit Production: 226.84 LCY/Hour
 Adjusted Hourly Fleet Production: 453.68 LCY/Hour

JOB TIME AND COST

Fleet size: 2 Loader(s) Total job time: 0.24 Hours
 Unit cost: \$0.432 /LCY Total job cost: \$47.00

SAFEGUARDING UNDERGROUND OPENINGS

Task description: Seal existing underground openings

Site: Incas Mine

Permit Action: 2012 Inspection

Permit/Job#: M1986076

PROJECT IDENTIFICATION

Task #: 010

State: Colorado

Abbreviation: None

Date: 11/23/2012

County: La Plata

Filename: M076-010

User: KAP

Agency or organization name: DRMS

UNIT COSTS

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Adit 1, entry portions	5'H x 4.5'W x 25'L	Adit closure - backfilling (per opening)	1.00	EA	\$1,852.00	\$1,852.00

Job Hours: 0.00

Total Cost: \$1,852.00

REVEGETATION WORKTask description: RevegetateSite: Incas MinePermit Action: 2012 InspectionPermit/Job#: M1986076PROJECT IDENTIFICATIONTask #: 011State: ColoradoAbbreviation: NoneDate: 11/23/2012County: La PlataFilename: M076-011User: KAPAgency or organization name: DRMSFERTILIZING**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
10-34-0, 18-46-0, 5-10-5	250.00	pound	\$0.32	\$80.00
			Total Fertilizer Materials Cost/Acre	\$80.00

Application

Description	Cost /Acre
Push rotary spreader (MEANS 32 01 90.13 0110)	\$85.38
Total Fertilizer Application Cost/Acre	\$85.38

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$92.35
Total Tilling Cost/Acre	\$92.35

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Arizona Fescue - Redondo	0.90	10.33	\$9.72
Mountain Brome - Bromar	3.80	6.11	\$12.65
Pubescent Wheatgrass - Luna	2.80	5.79	\$6.13
Sheep Fescue - Covar	0.80	12.49	\$2.62
Thickspike Wheatgrass - Critana	2.20	7.78	\$11.13
Totals Seed Mix	10.50	42.49	\$42.26

Application

Description	Cost /Acre
Broadcast seeding [DMG]	\$255.76

Total Seed Application Cost/Acre	\$255.76
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MULCHING and MISCELLANEOUS**Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Straw, delivered {MEANS 31 25 14.16 1200}	1.00	TON	\$164.00	\$164.00
Total Mulch Materials Cost/Acre				\$164.00

Application

Description	Cost /Acre
Power mulcher (MEANS 32 91 13.16 0250)	\$79.71
Total Mulch Application Cost/Acre	\$79.71

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: <u>3</u>	Cost /Acre: <u>\$799.46</u>
Estimated Failure Rate: <u>25%</u>	Cost /Acre*: <u>\$799.46</u>
*Selected Replanting Work Items: <u>FERTILIZING,TILLING,SEEDING,MULCHING</u>	
Initial Job Cost: <u>\$2,398.38</u>	
Reseeding Job Cost: <u>\$599.60</u>	
Total Job Cost: <u>\$2,997.98</u>	
Job Hours: <u>0.00</u>	

DEMOLITION WORK

Task description: Dispose f backfill devris, remove chemicals and containers

Site: Incas Mine

Permit Action: 2012 Inspection

Permit/Job#: M1986076

PROJECT IDENTIFICATION

Task #: 012

State: Colorado

Abbreviation: None

Date: 11/23/2012

County: La Plata

Filename: M076-012

User: KAP

Agency or organization name: DRMS

UNIT COSTS

Location adjustment: 94.00 %

Structure or Item Description	Dimensions	Demolition Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Surface piping (waster supply)	500LF x 1" diam, plastic	Push demolished materials/rubble/debris into pit - Max. 100 ft. push	500.00	CY	\$0.46	\$229.00
Above ground wiring	1000 LF plus supports	Push demolished materials/rubble/debris into pit - Max. 100 ft. push	1,000.00	CY	\$0.46	\$458.00
Misc. equipment parts	10' x 10' x 20'	Push demolished materials/rubble/debris into pit - Max. 100 ft. push	74.00	CY	\$0.46	\$33.89
Opened container processing chemicals	2 55-gal. drums	Hazardous waste removal - Drum solids/liquids, per drum, (1-6 drum job)	2.00	DRUM	\$415.65	\$831.30
Sludges, residue, solvents, mill circuit	2 55-gal. drums	Hazardous waste removal - Drum solids/liquids, per drum, (1-6 drum job)	2.00	DRUM	\$415.65	\$831.30

Job Hours: 10.00

Subtotal
(unadjusted): \$2,383.49

Total Cost
(adjusted for location): \$2,240.48

MILLING CIRCUIT/CYANIDE VAT LEACH DETOXIFICATION WORKTask description: Neutralize cyanide leach circuitSite: Incas MinePermit Action: 2012 InspectionPermit/Job#: M1986076PROJECT IDENTIFICATIONTask #: 015State: ColoradoAbbreviation: NoneDate: 11/23/2012County: La PlataFilename: M076-015User: KAPAgency or organization name: DRMSHOURLY EQUIPMENT COSTShift basis: 1 per day

Description	
Pumping Equipment:	Diaphragm pump, 3 in.
- Unit 1:	NA
- Unit 2:	NA
- Unit 3:	NA
- Unit 4:	NA
- Unit 5:	NA

Cost Breakdown:

Detoxification Support Equipment

	Pumping Equip	Unit 1 Equip	Unit 2 Equip	Unit 3 Equip	Unit 4 Equip	Unit 5 Equip
	Pumping					
%Utilization-machine:	100	NA	NA	NA	NA	NA
Ownership cost/hour:	\$1.28	NA	NA	NA	NA	NA
Operating cost/hour:	\$2.17	NA	NA	NA	NA	NA
Ripper op. cost/hour:	NA	NA	NA	NA	NA	NA
Operator cost/hour:	\$19.42	NA	NA	NA	NA	NA
Unit Subtotals:	\$22.87	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Number of Units:	1	0	0	0	0	0
Group Subtotals:	\$22.87	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Total work team cost/hour: \$22.87MILLING CIRCUIT/VAT LEACH QUANTITIES

Maximum Circuit Volume = 1,000.00 gallons
Initial Cyanide Concentration = 15.00 PPM
Solution Unit Weight = 10.00 pounds/gallons
Total Solution Weight = 10,000 pounds
Total Cyanide Quantity = 0.15 pounds

Source of leach pad volume/pore space data: AM-02Source of CN Concentration Data: AM-02PUMPING TIME

Total Quantity of Rinse Water = 3 required rinses
3,000 gallons
Maximum Pump Capacity = 6,000 gph/pump unit
Suction Head = 8 feet
Discharge Head = 8 feet
Total Head = 16 feet

Unadjusted Pump Capacity =	4,020	gph/pump team
Equipment setup/takedown time =	4.00	hours

Site Altitude =	10,800	feet
Altitude Adjustment Factor =	0.8800	(DRMS est.)
Job/Pump Efficiency Factor =	0.9167	(55 min./hr.)
Net Adjustment =	0.8067	multiplier
Adjusted Pump Capacity =	3,243	gph
Total Pumping Time =	0.93	hours
Total Job Time =	4.93	hours

MATERIALS COSTS

	Description	Unit	Unit Cost	Quantity	Total Cost
Processing Water:	ADEQUATE PROCESS WATER AVAILABLE ON SITE AT NO COST	NA	\$0.00	0.00	\$0.00
Neutralizing Reagent:	Hydrogen peroxide (cyanide oxidation)	Pound	\$2.10	0.60	\$1.26
Misc Material 1:	NO MISCELLANEOUS MATERIALS REQUIRED	NA	\$0.00	0.00	\$0.00
Misc Material 2:	NO MISCELLANEOUS MATERIALS REQUIRED	NA	\$0.00	0.00	\$0.00

Total Materials Cost: **\$1.26**

Reagent Concentration (% Active Ingredient) =	50.00%
Required Ratio of Reagent Quantity to CN Quantity =	4.00:1 ratio

MISCELLANEOUS ITEMS

Description	Unit	Unit Cost	Quantity	Total Cost
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Total Materials Cost: **\$0.00****JOB TIME AND COST**

Total job time:	4.93	hours
Unit cost:	\$0.227	/Hour
Total job cost:	\$227.00	

EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: Mobilize/DemobilizeSite: Incas Mine Permit Action: 2012 Inspection Permit/Job#: M1986076**PROJECT IDENTIFICATION**

Task #: 014 State: Colorado Abbreviation: None
 Date: 11/23/2012 County: La Plata Filename: M076-014
 User: KAP

Agency or organization name: DRMS**EQUIPMENT TRANSPORT RIG COST**

Shift basis: 1 per day
 Cost Data Source: CRG Data

Truck Tractor Description: GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED, 400 HP (2ND HALF, 2006)Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT TRAILER (25T, 50T, AND 100T)**Cost Breakdown:**

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$16.63	\$18.37	\$22.33
Operating Cost/Hour:	\$44.38	\$46.13	\$50.07
Operator Cost/Hour:	\$27.66	\$27.66	\$27.66
Helper Cost/Hour:	\$0.00	\$25.39	\$25.39
Total Unit Cost/Hour:	\$88.67	\$117.55	\$125.45

NON ROADABLE EQUIPMENT:

Machine Description	Weight/ Unit (TONS)	Owner ship Cost/hr/ unit	Haul Rig Cost/hr/unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet	DOT Permit Cost/ fleet
CAT 938H	16.34	\$22.07	\$88.67	2	\$221.49	\$177.34	\$500.00
Cat 319D L 8'-10" Stick	21.50	\$22.27	\$88.67	1	\$110.94	\$88.67	\$250.00
Power Mulcher (Reinco M90)	6.00	\$7.03	\$88.67	1	\$95.70	\$88.67	\$0.00

Subtotals: **\$428.13** **\$354.68** **\$750.00**

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Flatbed Truck, 4x2, 15K GVW	\$45.57	1	\$45.57	\$45.57
Light Duty Pickup, 4x4, 3/4 T.	\$34.08	1	\$34.08	\$34.08

Subtotals: **\$79.65** **\$79.65**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	<u>DURANGO</u>	
Total one-way travel distance:	<u>20.00</u>	miles
Average Travel Speed:	<u>25.00</u>	mph

Total Non-Roadable Mob/Demob Cost *	<u>\$4,465.02</u>
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* two round trips with haul rig:

Total Roadable Mob/Demob Cost **	<u>\$127.44</u>
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** one round trip, no haul rig:

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	<u>0.80</u>	<u>0.80</u>
Return Time (Hours):	<u>0.80</u>	<u>0.80</u>
Loading Time (Hours):	<u>1.00</u>	<u>NA</u>
Unloading Time (Hours):	<u>1.00</u>	<u>NA</u>
Subtotals:	<u>3.60</u>	<u>1.60</u>

JOB TIME AND COST

Total job time:	<u>7.20</u>	Hours
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Total job cost:	<u>\$4,592.46</u>
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