



**COLORADO DIVISION OF RECLAMATION, MINING AND SAFETY**  
**MINERALS PROGRAM INSPECTION REPORT**  
**PHONE: (303) 866-3567**

The Division of Reclamation, Mining and Safety has conducted an inspection of the mining operation noted below. This report documents observations concerning compliance with the terms of the permit and applicable rules and regulations of the Mined Land Reclamation Board.

<b>MINE NAME:</b> Bachelor Mines (Syracuse Portal)	<b>MINE/PROSPECTING ID#:</b> M-1980-170	<b>MINERAL:</b> Silver	<b>COUNTY:</b> Ouray
<b>INSPECTION TYPE:</b> Monitoring	<b>INSPECTOR(S):</b> Wallace H. Erickson	<b>INSP. DATE:</b> December 3, 2012	<b>INSP. TIME:</b> 15:00
<b>OPERATOR:</b> Bachelor Silver Mines Company	<b>OPERATOR REPRESENTATIVE:</b> Carl Dismant	<b>TYPE OF OPERATION:</b> 110(2) - Hard Rock Limited Impact	

<b>REASON FOR INSPECTION:</b> Normal I&E Program	<b>BOND CALCULATION TYPE:</b> Complete Bond	<b>BOND AMOUNT:</b> \$6,256.00
<b>DATE OF COMPLAINT:</b> NA	<b>POST INSP. CONTACTS:</b> None	<b>JOINT INSP. AGENCY:</b> None
<b>WEATHER:</b> Cloudy	<b>INSPECTOR'S SIGNATURE:</b> <i>Wallace H. Erickson</i>	<b>SIGNATURE DATE:</b> December 27, 2012

**The following inspection topics were identified as having Problems or Possible Violations. OPERATORS SHOULD READ THE FOLLOWING PAGES CAREFULLY IN ORDER TO ASSURE COMPLIANCE WITH THE TERMS OF THE PERMIT AND APPLICABLE RULES AND REGULATIONS. If a Possible Violation is indicated, you will be notified under separate cover as to when the Mined Land Reclamation Board will consider possible enforcement action.**

**GENERAL INSPECTION TOPICS**

The following list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each

(AR) RECORDS----- <u>N</u>	(FN) FINANCIAL WARRANTY----- <b>PB</b>	(RD) ROADS----- <u>Y</u>
(HB) HYDROLOGIC BALANCE----- <u>Y</u>	(BG) BACKFILL & GRADING----- <u>Y</u>	(EX) EXPLOSIVES----- <u>N</u>
(PW) PROCESSING WASTE/TAILING---- <u>Y</u>	(SF) PROCESSING FACILITIES----- <u>Y</u>	(TS) TOPSOIL----- <u>NA</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>Y</u>	(FW) FISH & WILDLIFE----- <u>Y</u>	(RV) REVEGETATION---- <u>N</u>
(SM) SIGNS AND MARKERS----- <u>Y</u>	(SP) STORM WATER MGT PLAN---- <u>Y</u>	(SB) COMPLETE INSP---- <u>N</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>Y</u>	(SC) EROSION/SEDIMENTATION-- <u>Y</u>	(RS) RECL PLAN/COMP-- <u>Y</u>
(AT) ACID OR TOXIC MATERIALS----- <u>Y</u>	(OD) OFF-SITE DAMAGE----- <u>Y</u>	(ST) STIPULATIONS----- <u>N</u>

Y = Inspected and found in compliance / N = Not inspected / NA = Not applicable to this operation / PB = Problem cited / PV = Possible violation cited

**INSPECTION TOPIC:** Financial Warranty

**PROBLEM:** The Division has reviewed the current cost of reclamation totaling \$7,692.49. Therefore, the existing \$6,256 financial warranty is not adequate to reclaim the site in accordance with the approved reclamation plan. This is a failure to maintain the proper financial warranty amount to complete reclamation of the affected lands pursuant to C.R.S. 34-32.5-117(4)(b) of the Act.

**CORRECTIVE ACTIONS:** Pursuant to Hard Rock/Metal Mining Rule 4.2.1(2), the Operator shall submit adequate financial warranty, totaling not less than \$7,692.49, within 60 days, due February 25, 2013.

**CORRECTIVE ACTION DUE DATE:** February 25, 2013

**OBSERVATIONS**

This inspection occurred as part of the Division's routine monitoring program for permitted operations. The Bachelor Mines (Syracuse Portal) is approved for 4.35 acres affected lands, which include the historic Syracuse Portal and its waste rock stockpile (mine dump or mined materials) resulting from the original excavation of the adit, circa 1880's. Affected lands will be reclaimed to support wildlife habitat and recreation post-mining land use. The Division holds \$6,256 financial warranty. This report is accompanied by seven photos and an updated reclamation cost estimation totaling \$7,692.49.

The permit was issued September 25, 1980. All affected lands, including the portal, mine dump, roads, mine related structures, and the mine drainage ditch existed prior to the permit. Topsoil was not salvaged during the pre-law activities and is not available for reclamation purposes. The original mine plan was to relocate the mine dump materials to the Camp Bird Mill for metallurgical processing. Permit records do not verify whether mined materials were brought to the surface or if any mined materials were removed from site subsequent to permit issuance. The original reclamation plan discussed converting the mine to a tourist mine, which was accomplished after the landowner became the successor Operator (SO-01 approved July 8, 1988). Tourist activity was dormant during the inspection.

As shown in the photos, current conditions appear similar to the descriptions of the pre-permit disturbance provided in the original application documents. The portal discharge was estimated at 250-300 gallons per minute and was routed to the south end of the permit area as indicated in the application documents. Mine drainage appeared clear; no evidence of iron staining or metals precipitation was observed. Aquatic plants were thriving throughout all portions of the discharge ditch. Mine drainage ultimately reports to Lake Lenore Estates and does not discharge directly to a live stream channel.

The Division has reviewed the current cost of reclamation totaling \$7,692.49. Please find enclosed eight pages of summary and work sheets utilized by the Division to calculate the cost of reclamation. Therefore, the existing \$6,256 financial warranty appears insufficient to ensure the completion of reclamation. Pursuant to Rule 4.2.1(2), the Operator shall have 60 days, due February 25, 2013, to submit \$1,436.49 additional bond, to ensure a total financial warranty not less than \$7,692.49, or complete portions of the reclamation plan and thereby reduce the current cost of reclamation to ensure the sufficiency of the existing bond.

**Inspection Contact Address**

Carl Dismant  
Bachelor Silver Mines Company  
P.O. Box 965  
Ouray, CO 81427

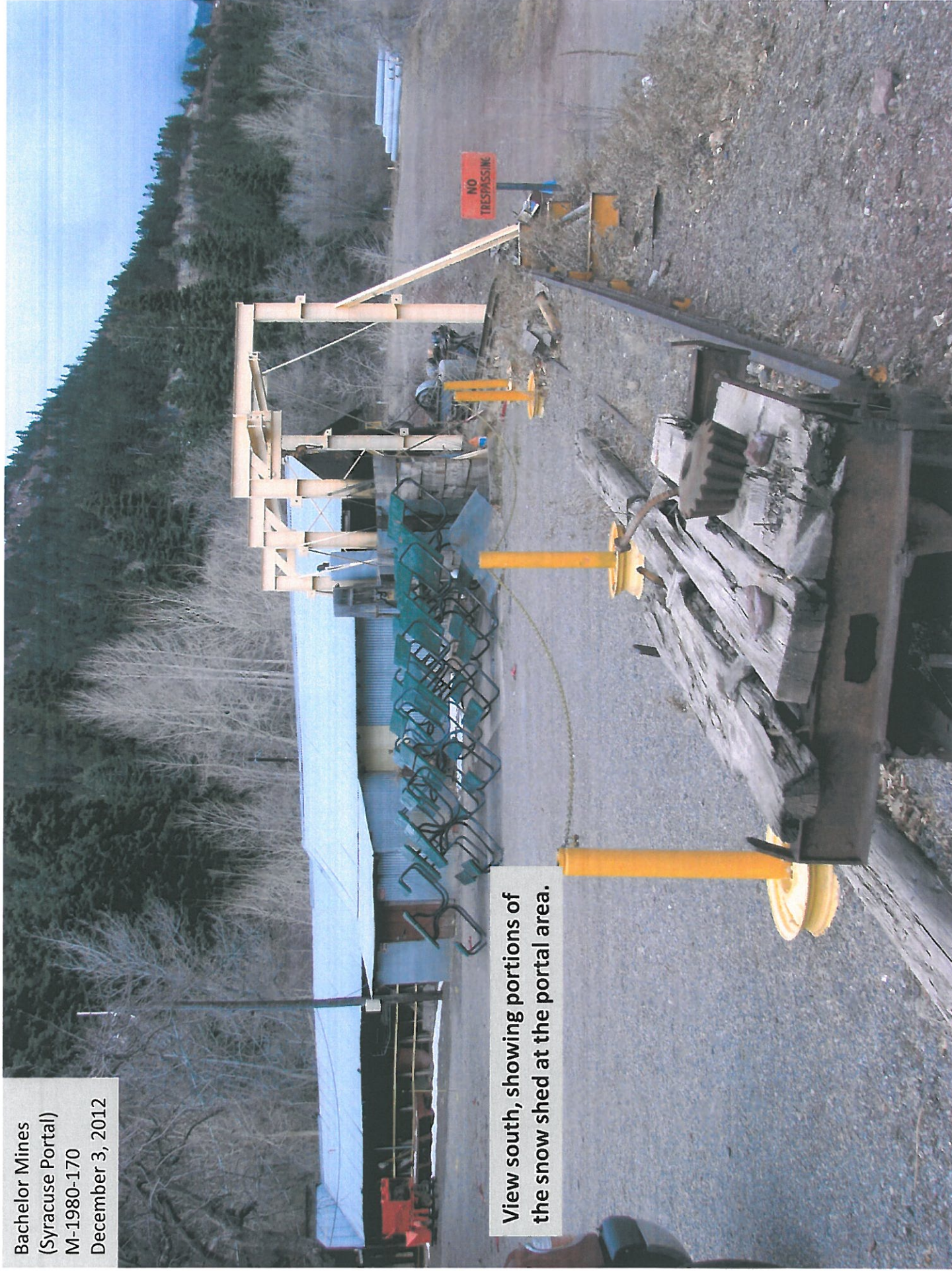
Enclosure: 7 photos; and  
reclamation cost estimation totaling \$7,692.49.

cc w/enclosure: Russ Means, DRMS GJFO



Bachelor Mines  
(Syracuse Portal)  
M-1980-170  
December 3, 2012

View south, showing portions of  
the snow shed at the portal area.





Bachelor Mines  
(Syracuse Portal)  
M-1980-170  
December 3, 2012

View east, showing the portal.  
Portal discharge was estimated  
at 250-300 gallons per minute.

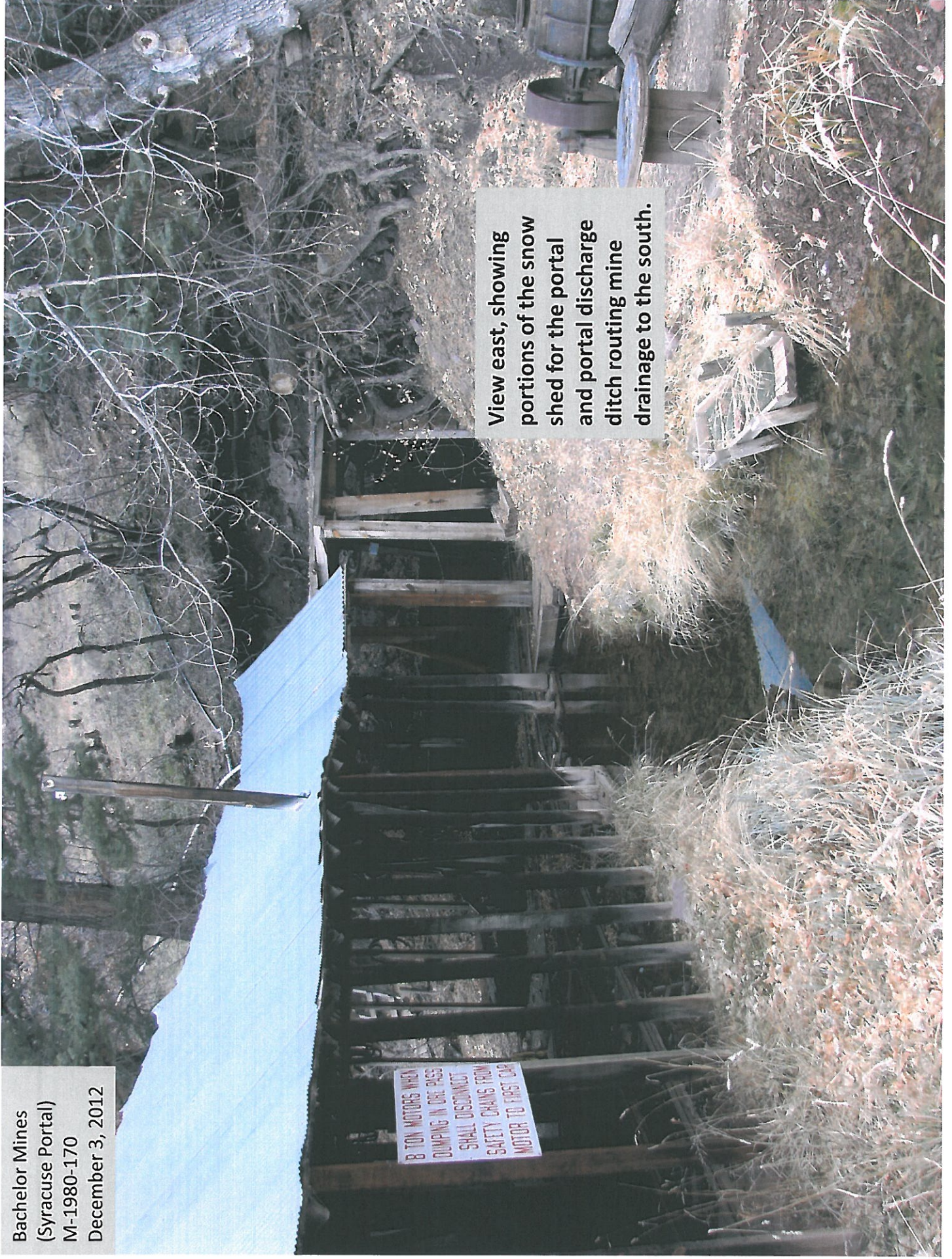




Bachelor Mines  
(Syracuse Portal)  
M-1980-170  
December 3, 2012

View east, showing  
portions of the snow  
shed for the portal  
and portal discharge  
ditch routing mine  
drainage to the south.

8 TON MOTORS WHEN  
DUMPING IN DIRT PASS  
SHALL DISCONNECT  
SAFETY CHAINS FROM  
MOTOR TO FIRST CAR





Bachelor Mines  
(Syracuse Portal)  
M-1980-170  
December 3, 2012



Mine drainage appeared clear; evidence of iron staining or precipitation of metals was not observed. Aquatic vegetation appeared to be thriving in all portions of the mine discharge ditch.



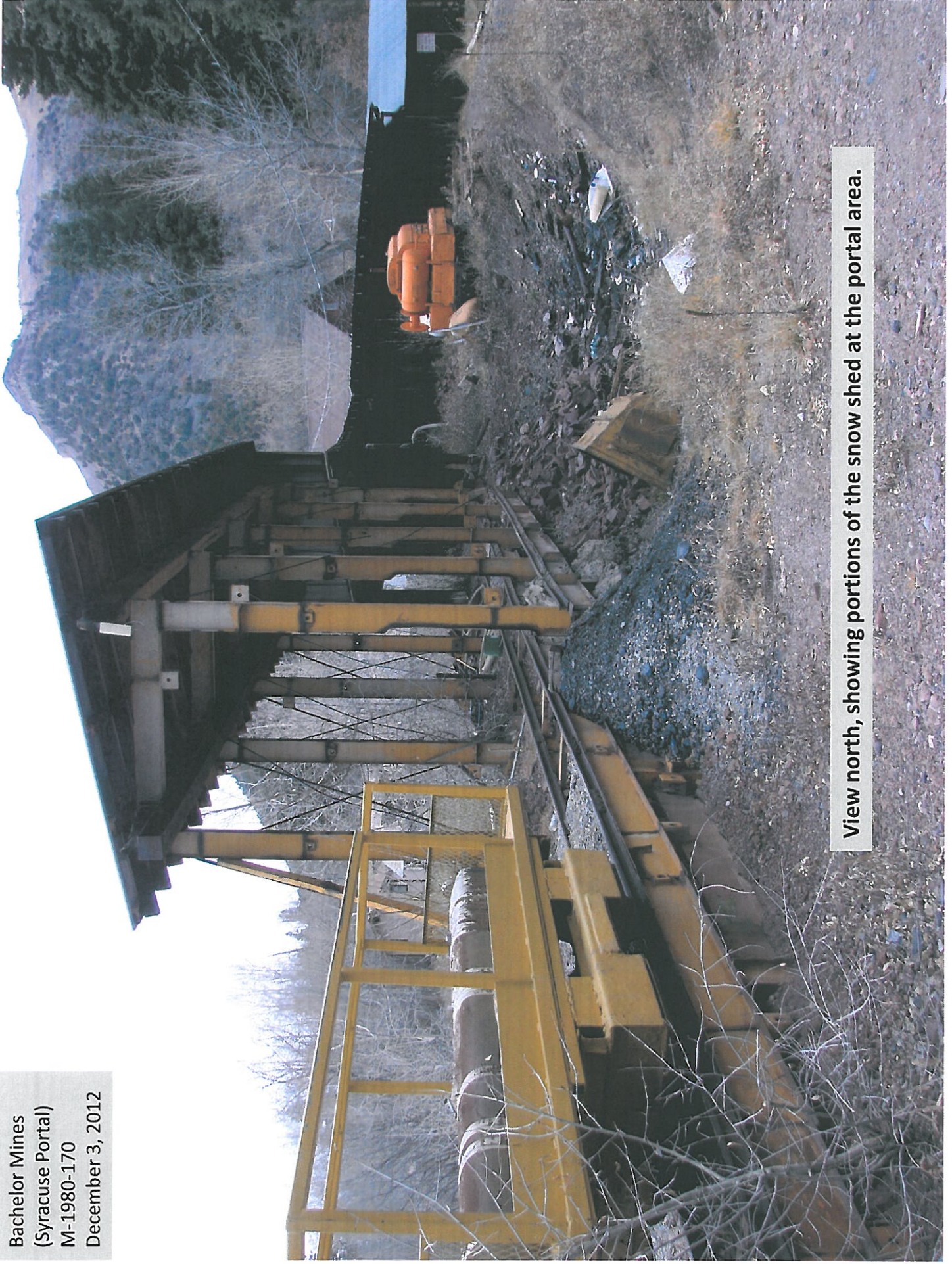
Bachelor Mines  
(Syracuse Portal)  
M-1980-170  
December 3, 2012

Sediment pond for mine  
drainage was located at the far  
south end of the permit area.  
Discharge from the sediment  
pond is routed to Lake Lenore.





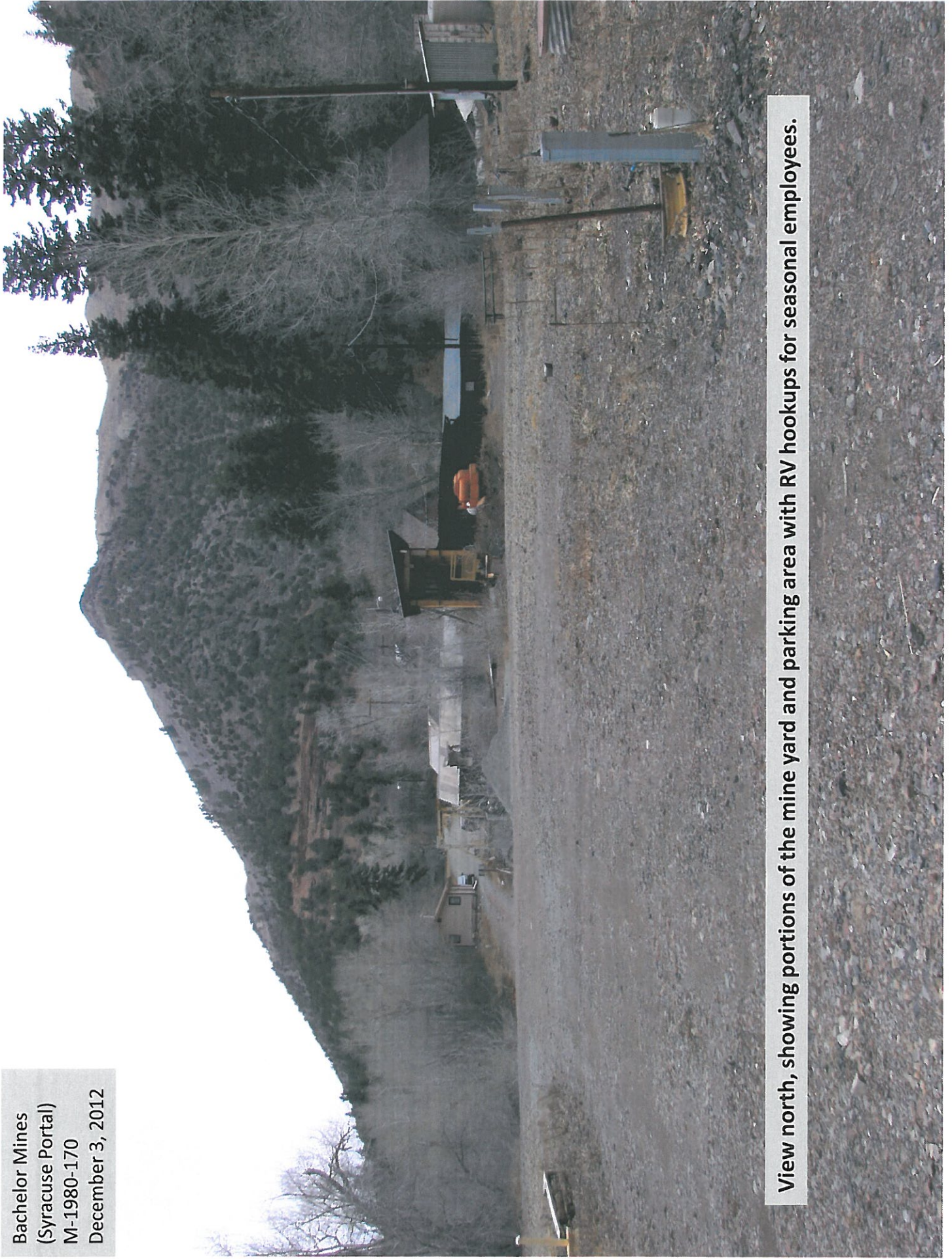
Bachelor Mines  
(Syracuse Portal)  
M-1980-170  
December 3, 2012



View north, showing portions of the snow shed at the portal area.



Bachelor Mines  
(Syracuse Portal)  
M-1980-170  
December 3, 2012



View north, showing portions of the mine yard and parking area with RV hookups for seasonal employees.



## COST SUMMARY WORK

Task description: Summary of tasks and associated costs

Site: Bachelor Mines (Syracuse Portal)

Permit Action: Routine update

Permit/Job#: M1980170

### PROJECT IDENTIFICATION

Task #: 000  
Date: 12/14/2012  
User: WHE

State: Colorado  
County: Ouray

Abbreviation: None  
Filename: M170-000

Agency or organization name: DRMS

### TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Safeguard portal	MINESEAL	1	0.00	\$3,500.00
002	Slope reduction	EXCAVATE	1	11.75	\$854.00
003	Revegetate slope reduction areas	REVEGE	1	0.00	\$611.06
004	Haul reclamation equipment to and from job site	MOBILIZE	1	2.60	\$771.64
005	Dispose debris, on-site burial	DEMOLISH	1	0.00	\$321.48
<b><u>SUBTOTALS:</u></b>				<b>14.35</b>	<b>\$ \$6,058.18</b>

### INDIRECT COSTS

#### OVERHEAD AND PROFIT:

Liability insurance: 2.02  
Performance bond: 1.05  
Job superintendent: 0.00  
Profit: 10.00

Total = \$122.38  
Total = \$63.61  
Total = \$0.00  
Total = \$605.82

TOTAL O & P = \$791.81

CONTRACT AMOUNT (direct + O & P) = \$6,849.99

#### LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): 500.00  
Engineering work and/or contract/bid preparation: 0.00  
Reclamation management and/or administration: 5.00

Total = 500.00  
Total = \$0.00  
Total = \$342.50

CONTINGENCY: 0.00 Total = \$0.00

TOTAL INDIRECT COST = \$1,634.31

**TOTAL BOND AMOUNT (direct + indirect) = \$7,692.49**



## SAFEGUARDING UNDERGROUND OPENINGS

Task description: Safeguard portal

Site: Bachelor Mines (Syracuse Portal)

Permit Action: Routine update

Permit/Job#: M1980170

### PROJECT IDENTIFICATION

Task #: 001  
Date: 12/14/2012  
User: WHE

State: Colorado  
County: Ouray

Abbreviation: None  
Filename: M170-001

Agency or organization name: DRMS

### UNIT COSTS

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Portal with mine drainage	10 x 10	Adit closure - grated door (per opening)	1.00	EA	\$3,500.00	\$3,500.00

Job Hours: 0.00

Total Cost: \$3,500.00



## HYDRAULIC EXCAVATOR WORK

Task description: Slope reduction

Bachelor Mines (Syracuse  
Site: Portal)

Permit Action:  
Routine update

Permit/Job#: M1980170

### PROJECT IDENTIFICATION

Task #: 002  
Date: 12/14/2012  
User: WHE

State: Colorado  
County: Ouray

Abbreviation: None  
Filename: M170-002

Agency or organization name: DRMS

### HOURLY EQUIPMENT COST

Basic Machine: Cat 307D 7'-3" Stick  
Attachment 1: ROPS Cab

Horsepower: 56  
Weight (MT): 7.23  
Shift Basis: 1 per day  
Data Source: (CRG)

#### Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	\$15.06	NA
Operating Cost/Hour:	\$18.88	100
Operator Cost/Hour:	\$38.67	NA
Total Unit Cost/Hour:	\$72.62	
Total Fleet Cost/Hour:	\$72.62	

### MATERIAL QUANTITIES

Initial volume: 1,366 CCY Swell factor: 1.000  
Loose volume: 1,366 LCY

Source of estimated volume: DRMS cost estimation 1/31/02  
Source of estimated swell factor: NA

### 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: 0.242 minutes

#### Load Bucket Capacity

Rated Capacity: 0.59 LCY (heaped)  
Bucket Fill Factor: 1.100 Other - rock/dirt mixtures (100-120%) 1.100  
Adjusted Capacity: 0.65 LCY

Bucket Size Class: Large

#### Job Condition Correction Factors

Site Altitude: 8050 feet

Altitude Adj: 0.87 Source  
Job Efficiency: 0.83 (CAT HB)  
Net Correction: 0.72 (1 shift/day)  
multiplier

Unadjusted Hourly Unit Production: 160.91 LCY/Hour  
Adjusted Hourly Unit Production: 116.19 LCY/Hour  
Adjusted Hourly Fleet Production: 116.19 LCY/Hour

### JOB TIME AND COST

Fleet size: 1 Excavator Total job time: 11.76 Hours

Unit cost: \$0.625 /LCY Total job cost: \$854.00



REVEGETATION WORKTask description: Revegetate slope reduction areasSite: Bachelor Mines (Syracuse Portal)Permit Action: Routine updatePermit/Job#: M1980170PROJECT IDENTIFICATIONTask #: 003  
Date: 12/14/2012  
User: WHEState: Colorado  
County: OurayAbbreviation: None  
Filename: M170-003Agency or organization name: DRMSFERTILIZINGMaterials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
10-34-0, 18-46-0, 5-10-5	200.00	pound	\$0.32	\$64.00
			<b>Total Fertilizer Materials Cost/Acre</b>	<b>\$64.00</b>

Application

Description	Cost /Acre
Hand spread (MEANS 32 01 90.13 0100)	\$498.76
<b>Total Fertilizer Application Cost/Acre</b>	<b>\$498.76</b>

TILLING

Description	Cost /Acre
Hand raking (MEANS 32 91 13.23 0250)	\$1,197.90
<b>Total Tilling Cost/Acre</b>	<b>\$1,197.90</b>

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Orchardgrass - Latar	0.60	7.44	\$1.30
Creeping Red Fescue - Cindy	0.50	6.31	\$0.75
Smooth Brome - Manchar	0.60	2.00	\$1.16
Yellow Sweet Clover - Madrid	0.60	3.58	\$1.50
Slender Wheatgrass - Pryor	2.50	9.13	\$7.55
Timothy - Climax	1.50	43.04	\$1.70
<b>Totals Seed Mix</b>	<b>6.30</b>	<b>71.50</b>	<b>\$13.95</b>

Application

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Description	Cost /Acre
Broadcast seeding [DMG]	\$255.76
<b>Total Seed Application Cost/Acre</b>	<b>\$255.76</b>

**MULCHING and MISCELLANEOUS****Materials**

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - Curtail @ 4.0 pt/ac	1.00	ACRE	\$15.90	\$15.90
<b>Total Mulch Materials Cost/Acre</b>				<b>\$15.90</b>

**Application**

Description	Cost /Acre
Weed spray, hand, aquatic area, nox. [DMG]	\$175.77
<b>Total Mulch Application Cost/Acre</b>	<b>\$175.77</b>

**NURSERY STOCK PLANTING**

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

**JOB TIME AND COST**

No. of Acres:	0.25	Cost /Acre:	\$2,222.04
Estimated Failure Rate:	10%	Cost /Acre*:	\$2,222.04
*Selected Replanting Work Items:	FERTILIZING,TILLING,SEEDING,MU LCHING		
Initial Job Cost:	\$555.51		
Reseeding Job Cost:	\$55.55		
Total Job Cost:	\$611.06		
Job Hours:	0.00		



EQUIPMENT MOBILIZATION/DEMOBILIZATIONTask description: Haul reclamation equipment to and from job siteSite: Bachelor Mines (Syracuse Portal)Permit Action: Routine updatePermit/Job#: M1980170PROJECT IDENTIFICATIONTask #: 004  
Date: 12/14/2012  
User: WHEState: Colorado  
County: OurayAbbreviation: None  
Filename: M170-004Agency or organization name: DRMSEQUIPMENT TRANSPORT RIG COSTShift basis: 1 per day  
Cost Data Source: CRG DataTruck 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 446D	9.80	\$17.87	\$88.67	1	\$106.54	\$88.67	\$250.00
Subtotals:					<b>\$106.54</b>	<b>\$88.67</b>	<b>\$250.00</b>

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Subtotals:			<b>\$0.00</b>	<b>\$0.00</b>



**EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region:	OURAY	
Total one-way travel distance:	3.00	miles
Average Travel Speed:	20.00	mph

Total Non-Roadable Mob/Demob Cost *	\$771.64
** two round trips with haul rig:	
Total Roadable Mob/Demob Cost **	\$0.00
** one round trip, no haul rig:	

**Transportation Cycle Time:**

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.15	0.15
Return Time (Hours):	0.15	0.15
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	1.30	0.30

**JOB TIME AND COST**

Total job time:	2.60	Hours
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Total job cost:	\$771.64
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## DEMOLITION WORK

Task description: Dispose debris, on-site burial

Site: Bachelor Mines (Syracuse Portal)

Permit Action: Routine update

Permit/Job#: M1980170

### PROJECT IDENTIFICATION

Task #: 005  
Date: 12/14/2012  
User: WHE

State: Colorado  
County: Ouray

Abbreviation: None  
Filename: M170-005

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
Misc debris	10 x 10 x 20	Bldg. (SN) demo./on-site disposal in excavated pit - Max. 200 ft. push	2,000.00	CF	\$0.17	\$342.00

Job Hours: 0.00

Subtotal  
(unadjusted): \$342.00

Total Cost  
(adjusted for location): \$321.48