



August 3, 2016

Mr. Dustin Czapla  
Colorado Division of Reclamation Mining and Safety  
101 South 3<sup>rd</sup>, Suite 301  
Grand Junction, Colorado 81501

**RECEIVED**

AUG 05 2016  
GRAND JUNCTION FIELD OFFICE  
DIVISION OF  
RECLAMATION MINING & SAFETY

**Re: Technical Revision (TR-8) Request**

Reclamation of Little Deadwood Gulch and Chief Portal  
May Day Idaho Mine Complex  
Permit No. M-1981-185  
112d-1 Reclamation Permit  
Board Order Signed-March 3, 2016

Gentlemen:

The following is Wildcat Mining Corporation (Wildcat) technical Revision (TR-8)<sup>1</sup> requesting approval of the proposed Little Deadwood Gulch drainage modification to the April 1, 2013 approved remedial plan (TR-5). The original drainage plan was designed by Carroll & Lange-Manhard (Manhard) and submitted to the Division on March 18, 2013.

Wildcat pursuant the Colorado Mined Land Reclamation Board (Board) Order dated March 3, 2016, committed to initiating site remedial activities on or before May 15, 2016 and to complete site remedial activities on or before July 1, 2016. On June 22, 2016 the Board approved an extension of the completion date for culvert installation on or before October 15, 2016. The extension was extended to permit Wildcat Mining Corporation the time to obtain permit approval from the Army Corp of Engineers and the U.S. Environmental Protection agency.

On June 28, 2016, Wildcat Mining Corporation submitted a Chief Portal "As-Built" report summarizing historical permitting and portal and Incas road stability. All approved remedial activities were completed on June 28, 2016. TR-8 is submitted pursuant Minerals Rules and Regulations for Hard Rock, Metal and Designated Mining Operations section 1.5.3 and section 1.9.1.

---

<sup>1</sup> Reclamation of Little Deadwood Gulch and Chief Portal

*Wildcat Mining Corporation*  
3926 North State Hwy 67  
Sedalia, Colorado 80135  
303.832.7664

On July 20, 2016, Wildcat signed a DOJ Consent Decree which required the implementation of an approved EPA/Army Corp of Engineers restoration plan (Attachment A). The plan is consistent with the CDRMS approved reclamation plan approved April 1<sup>st</sup>, 2013.

If approved, TR-8 will be initiated upon EPA/Corp permit approval.

TR-5.2 field construction will be under the direction of Mr. Daniel Madruga (PE) and the supervision of Mr. George M.L. Robison (CPG-5022). The following summarizes proposed drainage and construction modification from the proposed design.

1. The 24 inches is capable of conveying the peak flow from a 10 year-24 hour storm of 19.5 cubic feet per second (cfs) (Manhard, 2013)<sup>2</sup> (See Table 1);
2. The flow rate from the culvert is estimated to be 12 feet per second and will be discharge on a rip rap apron.
3. Culvert installation will be approximately 120 feet long, with end sections, wing walls and a trash rack.
4. Because the manway (portal) depth exceeded original design depth estimates, Wildcat proposes to install the 24 inch culvert in LDG to a depth approximately 2 to 7 feet at average grade of 10 percent. (See Figure 1 and 2) The 24 inch culvert will convey upgradient water (10year 24 hour storm) through the fill.
5. Water discharged from the 24 inch pipe will be installed approximately 7 feet below the down gradient fill crest of the alluvium. Riprap (D50-12 inch) will be installed at the discharge point to control erosion.
6. Alter the TR-05 culvert alignment to the east approximately 10 feet (away from the 66 inch manway entrance) to accommodate the installation of gravity blocks (Photo 1) in front of the manway (Figure 3) See Photo 2;
7. To provide stability to LDG alluvial materials outside of the portal manway, gravity blocks will be placed immediately upgradient and parallel to of the manway portal. The upgradient block extension will be approximately 4 feet and approximately 16 feet long to be constructed at an angle of 20-30 degrees away from the manway portal. (See photo 2 and Figure 3). No blocks will be placed on the down gradient side of the 66 inch culvert to allow a ramp to be constructed to permit rescue crews to gain access to the manway.
8. Install 12 inch sub drain at the entrance of the 66 inch culvert to drain collected water from the manway portal and water that may seep from the adjacent alluvium. Water from

---

<sup>2</sup> Appendix A Little Deadwood Gulch Drainage Analysis –Technical Revision-5, Carroll & Lange-Manhard, March, 2013

the manway entrance will be gravity drained a downgradient point near the crest of the LDG bench. (See Photo 2)

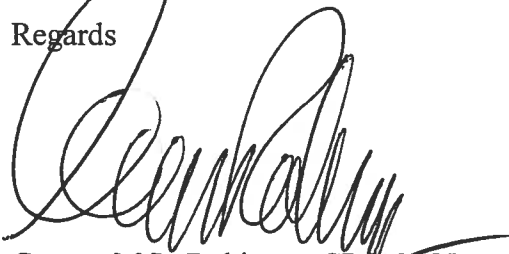
9. A trapezoidal channel (Table 2)) (Photo 3 and 4) will be constructed to convey the 87 cfs peak flow of from the 100 year-24 hour storm (Manhard, 2013). The bottom width will be approximately 9 feet, side slopes 4H:1V, 2 feet deep and with a channel bottom width of 2 feet;
10. The disturbed area will be reclaimed as approved in accordance with TR-5 approved design;
11. BMPs (wattles, silt fences, rip rap) will be installed to stabilize the reclaimed surface and in accordance with the original plan (TR-05-April 1, 2013).
12. Debris and wood will be removed and disposed off-site.

All minor changes to the approved plan are approved by a registered professional engineer and the engineer of record.

Wildcat requests acceptance of Technical Revision 8 as outlined above.

In accordance with Section 1.5.3 (2), Wildcat has enclosed a check for the amount of **\$1,006.00** as the fee to process the TR.

Regards

A handwritten signature in black ink, appearing to read 'George M.L. Robinson', written over a horizontal line.

George M.L. Robinson-CPG-2055

President

Wildcat Mining Corporation

**Figures**

Figure 1- 24 inch CMP and 4-6 inch sub drain alignment, Little Deadwood Gulch Drainage

Figure 2 –Proposed TR-8 Drainage Alignment

Figure 3 –Little Deadwood Gulch Drainage Conceptual Plan View Illustration

**Tables**

Table 1 –Culvert Design Calculations -10 year 24 hour storm event

Table 2 –Trapezoidal Design Calculations -100 year 24 hour storm event

**Photos**

Photo 1-Little Deadwood Gulch Gravity Blocks

Photo 2-Manway Drainage Control

Photo 3-Little Deadwood Gulch Upgradient Alignment

Photo 4-Little Deadwood Gulch Downgradient Alignment

**Attachment**

Attachment A-LDG Restoration Plan

## **Figures**

Figure 1- 24 inch CMP and 4-6 inch sub drain installation alignment, Little Deadwood Gulch Drainage

Figure 2 –Proposed TR-5.2 Drainage Alignment

Figure 3 –Little Deadwood Gulch Drainage Conceptual Plan View Illustration

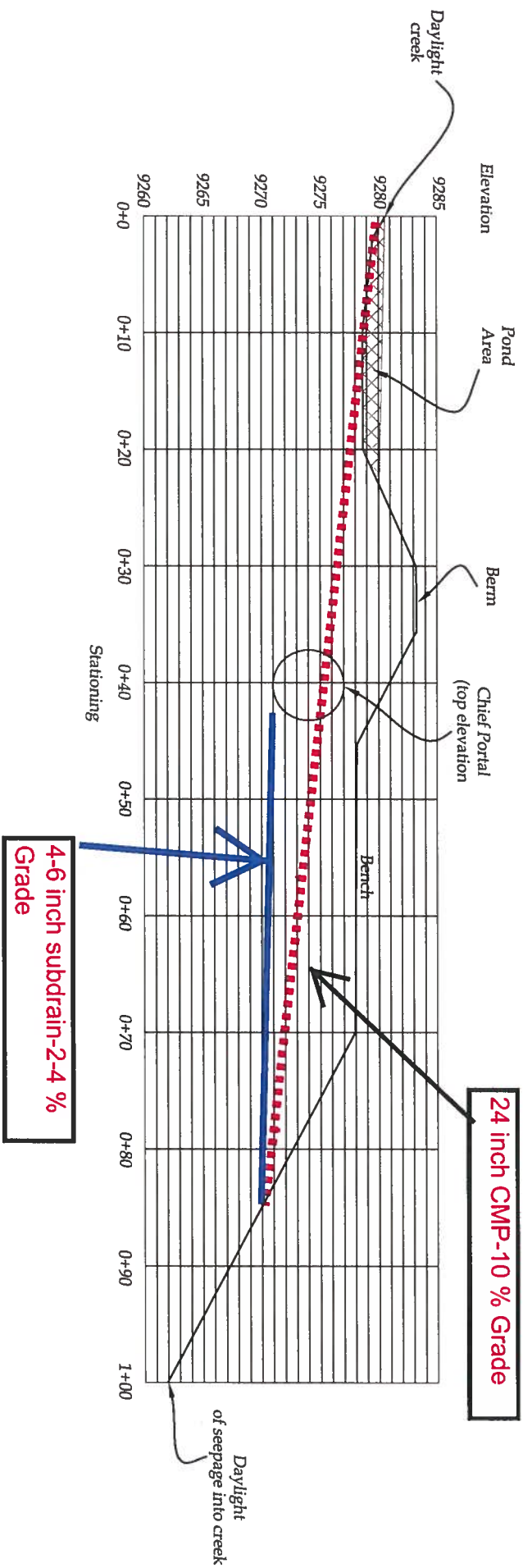
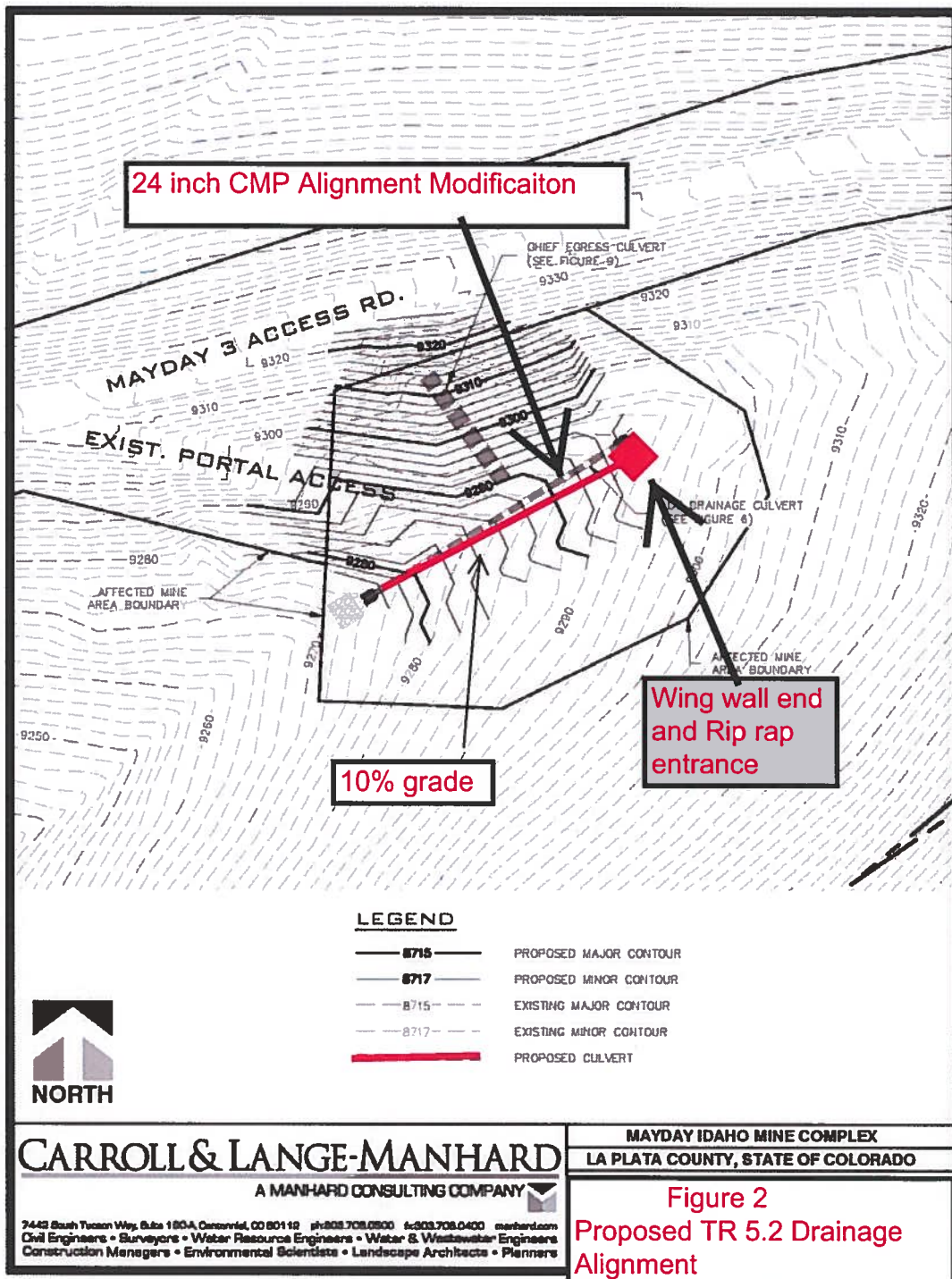
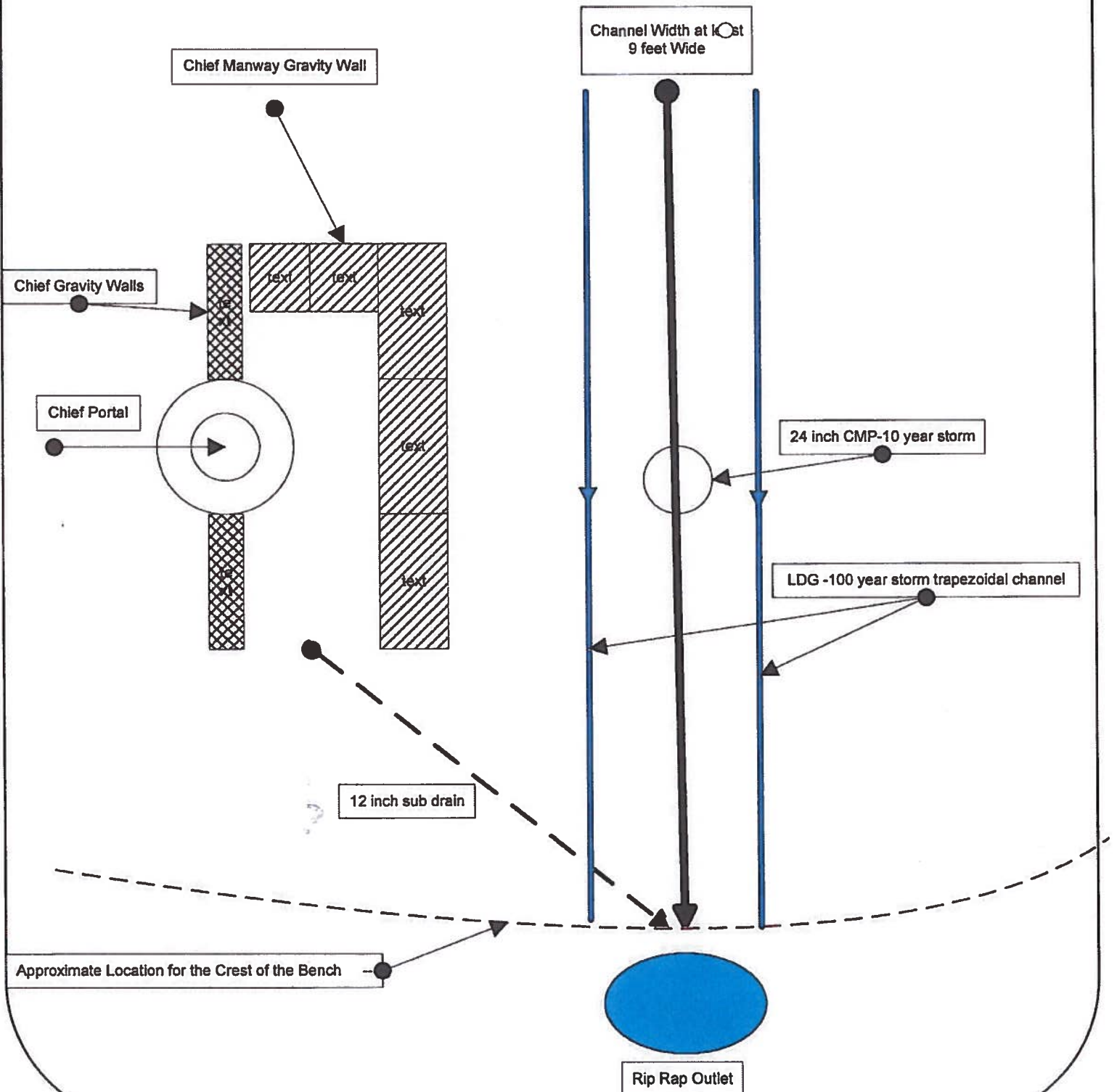


Figure 1  
24 inch CMP and 4-6 inch sub drain Installation Alignment  
Chief-Little Deadwood Gulch Drainage



Dwg Name: P:\Vmeduc\dwg\Eng\Final Drawings\DRMS TRs\p - Chief Portal TR Drawings\Figure 7 Highway Grading Plan.dwg Updated By: smadruaga 17-13

**Figure 3**  
**Little Deadwood Gulch Drainage Conceptual Plan View Illustration**





## **Tables**

Table 1 –Culvert Design Calculations -10 year 24 hour storm event

Table 2 –Trapezoidal Design Calculations -100 year 24 hour storm event

## **Photos**

Photo 1-Gravity Blocks

Photo 2-Manway Drainage Control

Photo 3-Little Deadwood Gulch Upgradient Drainage

Photo 4-Little Deadwood Gulch Upgradient Drainage



- **LITTLE DEADWOOD GULCH  
DRAINAGE ANALYSIS**

**Table**  
**Chief Channel Design Calculations**  
**Wildcat Mining Company**  
**Durango, Colorado**

Annual Rainfall 19.9 inches  
 Snowfall 68.8 inches  
 Average Temp High 62.7 inches  
 Average Temp Low 29.9 inches  
 Rain fall low May  
 Rain fall high August  
 Pan Evaporation 37.8 inches

**Peak Flow (Type II Storm-Steep Slope >16% slope  
 Figure D-2)**

**NRCS Runoff Curve Number 58**

Return Period	Rainfall Duration	Rainfall Amount	Runoff	Drainage	
				Area (acres)	CFS/inch
2	24	1.25	0.00	311	150
10	24	2.5	0.13	311	150
25	24	3.5	0.45	311	150
100	24	3.78	0.58	311	150
Drainage Area		Sq feet	Acres		
		311	311		
		acres			

**Reference**

U.S. Department of Commerce, 1961, Technical Paper 40-Rainfall Frequency Atlas of the United States for Durations from 30 minutes to 24 hours and Return Periods from 1 to 100 years. Washington , D.C.

Wilkes, S. Glade and Erke C. King, 1975, Procedures for Determining Peak Flows in Colorado, Incorporateds and Supplements Technica Release No. 55 Urban Hydrology for Small Water

Soil Conservation Service, Soil Conservation Naltion Engineering Handbook, Section 4- Hydrology NEH-4.

**Culvert Master**

## Culvert Calculator Report Chief LDG Culvert

Solve For: Discharge

Culvert Summary			
Allowable HW Elevation	9,294.00 ft	Headwater Depth/Height	2.00
Computed Headwater Eleva	9,294.00 ft	Discharge	29.44 cfs
Inlet Control HW Elev.	9,294.00 ft	Tailwater Elevation	9,273.20 ft
Outlet Control HW Elev.	9,293.60 ft	Control Type	Inlet Control
Grades			
Upstream Invert	9,290.00 ft	Downstream Invert	9,273.15 ft
Length	102.90 ft	Constructed Slope	0.163751 ft/ft
Hydraulic Profile			
Profile	S2	Depth, Downstream	0.80 ft
Slope Type	Steep	Normal Depth	0.78 ft
Flow Regime	Supercritical	Critical Depth	1.85 ft
Velocity Downstream	25.17 ft/s	Critical Slope	0.014663 ft/ft
Section			
Section Shape	Circular	Mannings Coefficient	0.013
Section Material	Concrete	Span	2.00 ft
Section Size	24 inch	Rise	2.00 ft
Number Sections	1		
Outlet Control Properties			
Outlet Control HW Elev.	9,293.60 ft	Upstream Velocity Head	1.46 ft
Ke	0.20	Entrance Loss	0.29 ft
Inlet Control Properties			
Inlet Control HW Elev.	9,294.00 ft	Flow Control	N/A
Inlet Type	Groove end projecting	Area Full	3.1 ft <sup>2</sup>
K	0.00450	HDS 5 Chart	1
M	2.00000	HDS 5 Scale	3
C	0.03170	Equation Form	1
Y	0.69000		

## Chief Bench Max Flow

### Project Description

Friction Method	Manning Formula
Solve For	Discharge

### Input Data

Roughness Coefficient	0.069	
Channel Slope	20.000	%
Normal Depth	1.00	ft
Left Side Slope	4.00	ft/ft (H:V)
Right Side Slope	4.00	ft/ft (H:V)
Bottom Width	10.00	ft

### Results

Discharge	113.00	ft³/s
Flow Area	14.00	ft²
Wetted Perimeter	18.25	ft
Hydraulic Radius	0.77	ft
Top Width	18.00	ft
Critical Depth	1.32	ft
Critical Slope	0.07132	ft/ft
Velocity	8.07	ft/s
Velocity Head	1.01	ft
Specific Energy	2.01	ft
Froude Number	1.61	
Flow Type	Supercritical	

### GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

### GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	1.00	ft
Critical Depth	1.32	ft
Channel Slope	20.000	%

## Chief Bench 100-year Flow

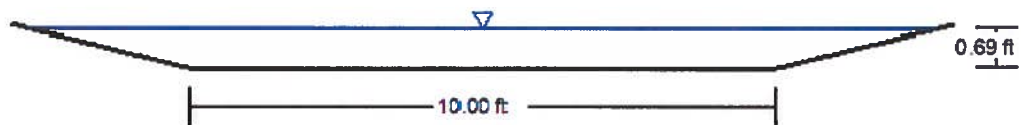
### Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

### Input Data

Roughness Coefficient	0.069
Channel Slope	20.000 %
Normal Depth	0.69 ft
Left Side Slope	4.00 ft/ft (H:V)
Right Side Slope	4.00 ft/ft (H:V)
Bottom Width	10.00 ft
Discharge	57.60 ft <sup>3</sup> /s

### Cross Section Image



V: 1  
H: 1

## **Photos**

Photo 1-Gravity Blocks

Photo 2-Manway Drainage Control

Photo 3-Little Deadwood Gulch Upgradient Drainage

Photo 4-Little Deadwood Gulch Upgradient Drainage



# Photo 1

## Gravity Blocks

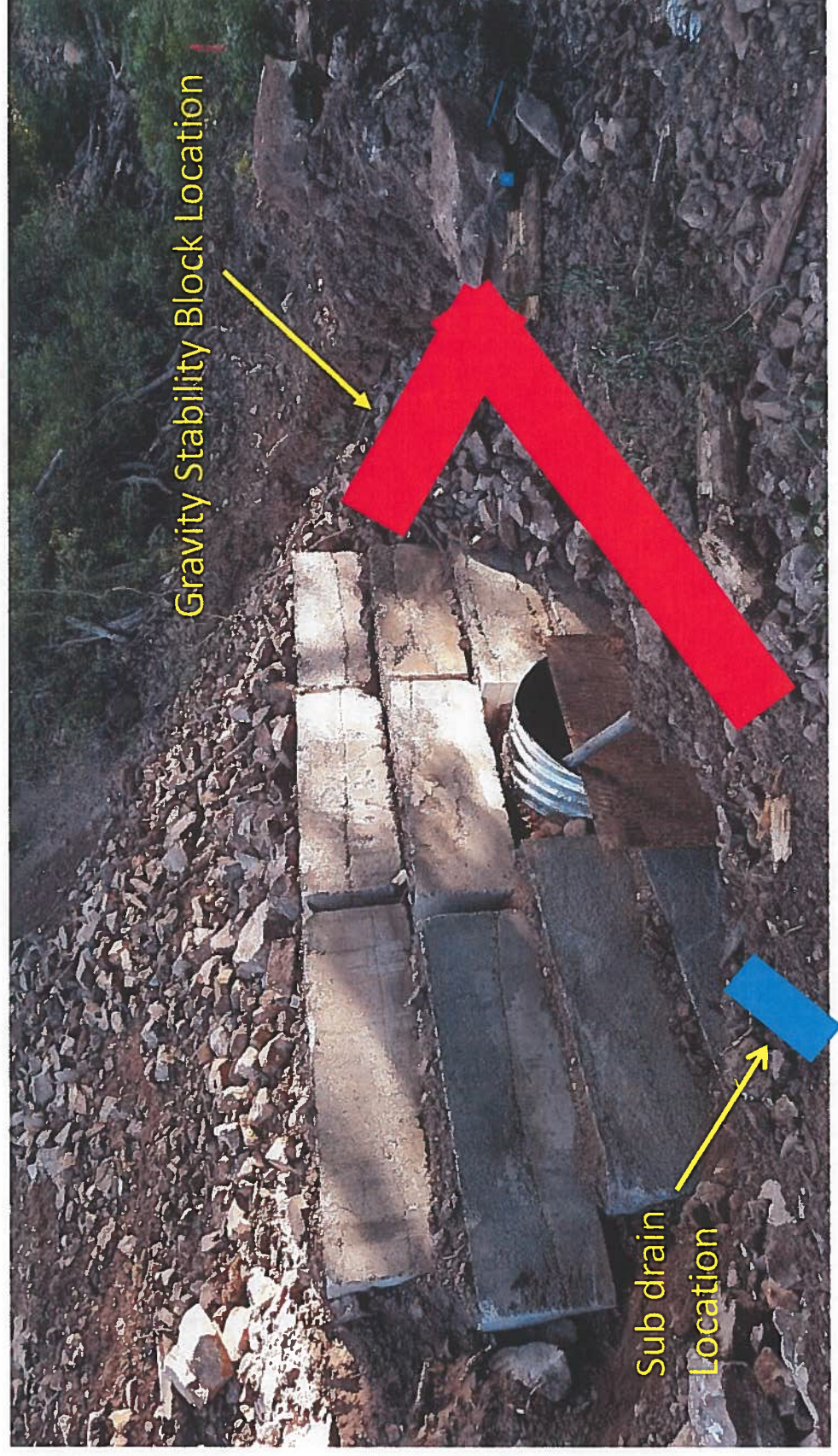


TR-05.2-Little Deadwood Gulch Drainage



# Photo 2

## Manway –Drainage Control





## Photo 3

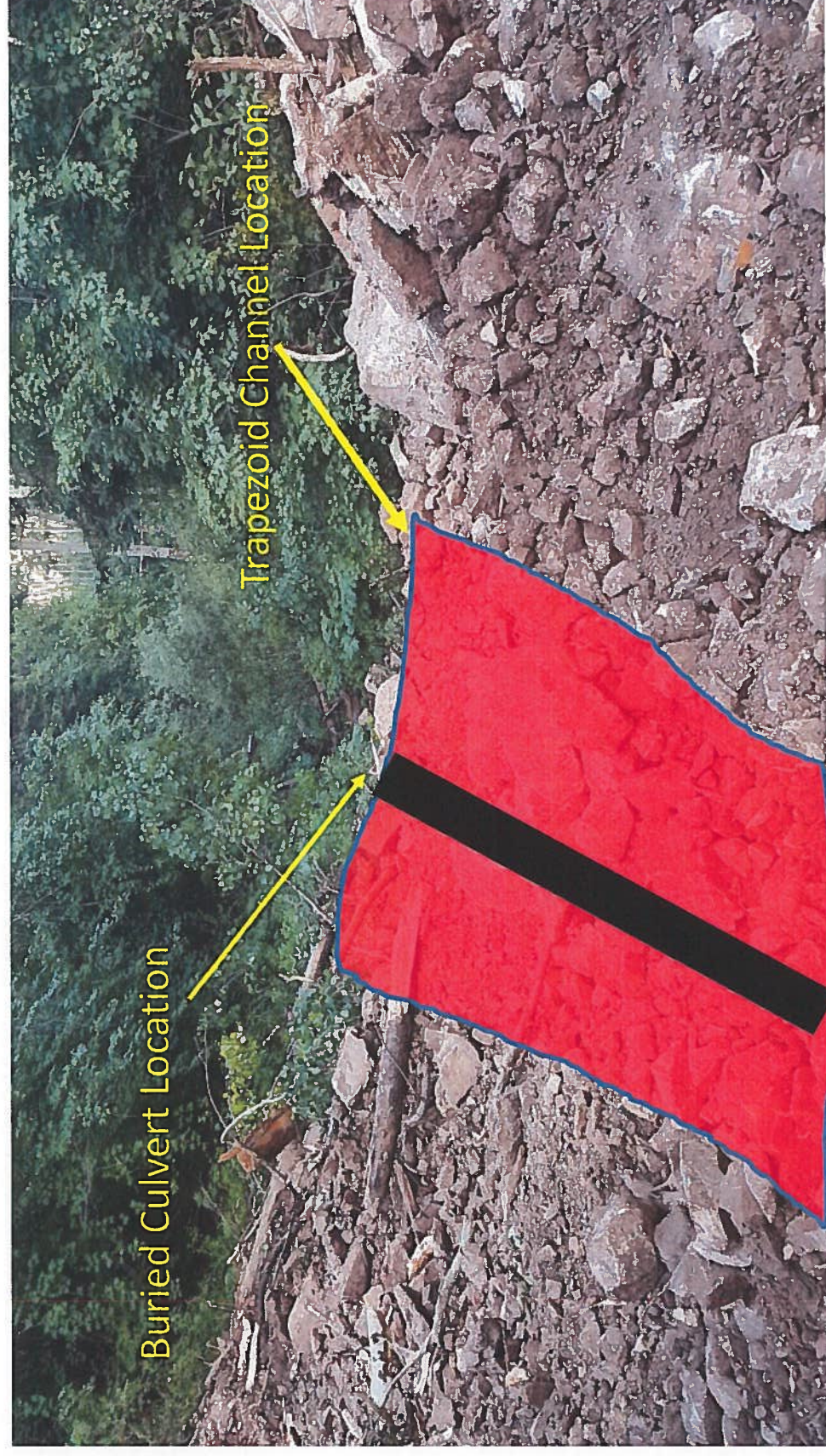
### Little Deadwood Gulch-Upgradient Drainage Alignment





## Photo 4

### Little Deadwood Gulch-Down Gradient Drainage Alignment



TR-05.2-Little Deadwood Gulch Drainage

## **Attachment**

### **Attachment A-LDG Restoration Plan**



March 18, 2013

Mr. Dustin Czapla  
Division of Reclamation, Mining and Safety  
101 South 3<sup>rd</sup> Street, Suite 301  
Grand Junction, CO 81501

## INTRODUCTION

This Work Plan presents Wildcat Mining Corporation's (Wildcat) approach to remove run-of-mine rock that was placed within the Little Deadwood Gulch (LDG), install a culvert to convey the flows in the LDF and create a bench area for egress from the Chief Portal (Phase 1). After material has been removed from the LDG and the bench has been graded, Wildcat will stabilize the highwall above the Chief Portal and repair the manway exit used for emergency escape from the mine and for mine ventilation.

Wildcat is proposing to operate the May Day Idaho Mine Complex and activated MSHA mine identification (ID) number 05-03674. Wildcat will implement the corrective actions described herein when all of the following conditions have been met:

1. Colorado Division of Reclamation, Mining and Safety (DRMS) approval of this work plan;
2. Approval of Wildcat's Restoration Plan (which includes this Work Plan) from the U.S. Army Corp of Engineers (USACE) and the U.S. Environmental Protection Agency (EPS);
3. Suitable construction weather and ground conditions.

Historical mining activities constructed the Chief Portal and disposed run-of-mine rock in the Little Deadwood Gulch drainage channel. A portion of the drainage channel was further disturbed in 2009. In early 2010, a cease and desist order to conduct any mining related activities, including operating equipment without written authorization from DRMS was issued to Wildcat. Wildcat has followed the cease and desist order and has been unable to complete any modifications to the LDG since that time.

Additionally, the U.S. Environmental Protection Agency (EPA) issued an order to Wildcat on April 9, 2012 for compliance for minor fills in waters of the U.S. Wildcat has prepared a separate restoration plan as required by the EPA. The work in this restoration plan will be consistent with the work outlined in this work plan. The EPA will be responsible for verifying compliance with Section 404 of the Clean Water Act.

After a site investigation by DRMS, an order was issued (MV-2010-020) for constructing an illegal portal, the Chief Portal, near the existing May Day 3 level. Wildcat submitted as Exhibit D, Attachment D-4 to its amended Section 112d permit application the Chief Drainage Channel Reclamation Work Plan (the Original Work Plan). This Original Work Plan generally addressed existing drainage conditions, construction activities required to remove disposed rock from the LDG and stabilization activities after construction was completed. Additional information was required at the time of approval of the Original Work Plan, including a geotechnical stability analysis that demonstrates that the proposed means of stabilization of the Chief Portal will have an acceptable factor of safety and the removal of all mine waste

from the LDG. Wildcat committed to submitting a Technical Revision (TR) for review and approval by DRMS once the additional information was available.

The proposed work to remove debris from the Little Deadwood Gulch and stabilize the highwall above the Chief Portal will be broken into two phases as outlined below:

*Phase 1 – Removal of mine debris from Little Deadwood Gulch:*

1. Installation of erosion and sediment control BMP's at the site.
2. Remove approximately 550 cubic yards of unauthorized fill from the LDG. Removed material will be stockpiled and used for stabilization of the highwall above the Chief Portal.
3. Installation of a 24" culvert to allow the LDG to flow along its historical path.
4. Grade a bench area above the culvert that will provide vehicular access to the emergency manway for the Chief Portal and install BMP's to prevent erosion while vegetation establishes.
5. Complete riparian and channel restoration activities required by the Restoration Plan that was prepared for the EPA. This work in the Wetland Restoration Plan is beyond the requirements of this TR and will be overseen by the EPA and/or the USACE.

*Phase 2 – Stabilize the highwall above the Chief Portal*

1. Remove debris and loose dirt from the area immediately above the portal entrance. All loose dirt removed will be stockpiled for use in reconstruction of the highwall. Trees, roots and trash remove during this portion of the project will be disposed in a landfill.
2. Reconstruct the highwall above the Chief Portal to meet the recommendations stated in the Rule 6.5 Geotechnical Stability Report – Chief Portal, dated March 16, 2013, prepared by Wildcat Mining Corporation (the Geotechnical Stability Report), completed by J. Erich Rauber, PE.
3. Extend the portal opening, through the use of a 66" pipe to the toe of the backfilled slope.
4. Stabilize the existing access road to May Day 3 and the portal access road. Stabilization includes scarifying, moisture treating and compaction of the existing road alignment.
5. Installation of final BMP's to re-establish vegetation and stabilize the disturbed areas.

## **WORK PLAN**

The following presents a corrective action work plan to remove debris from the LDG, install a culvert within the channel, stabilize the highwall and access road immediately above the Chief Portal and repair the emergency manway exit at the Chief Portal. Additional investigations were initiated to evaluate the soil conditions in the immediate vicinity of the Chief Portal. Based on those recommendations, the following design has been prepared to meet the conditions imposed by DRMS as part of the conditionally approved 112d permit. This TR uses current geotechnical and topographic data to further refine the design that was presented in the Original Work Plan and prepare the final construction documents for the Little Deadwood Gulch and Chief Portal.

## Phase 1 Scope of Work

### Design Analysis:

To determine the amount of run-of-mine rock that was placed within the drainage way of the LDG that will be removed, an analysis was completed of the slopes and cross sections of the Gulch upstream and downstream of the disturbed area. Cross sections were cut on a 25-foot interval to determine approximate side slopes of the Gulch in an undisturbed state as well as to determine the approximate longitudinal grade prior to rock being placed within the Gulch. The existing profile of the Gulch and the cross sections are shown in Appendix B, Figures 1, 2, 2A and 2B.

Based on this analysis, it was determined that the side slope on the west side of the Gulch was approximately 4:1 and the side slope on the east side of the drainage way varies from approximately 2:1 to approximately 8:1. The longitudinal slope of the Gulch flattens in front of the Chief Portal to about 15%, with longitudinal slopes of approximately 25% upstream and 30% downstream of the portal area. Using these parameters, the approximate configuration of the LDG would be as shown in Figure 4 – Proposed Little Deadwood Gulch Grading (see Appendix B). It will be necessary to cut the area along the channel per Figure 4 to remove the debris from the channel prior to placing the culvert in the channel and grading the bench over the culvert.

A drainage analysis was completed for the LDG (at this point in the drainage way) to determine the maximum flows that could be conveyed by a 24" culvert (vertical constraints prohibit a larger pipe). The Little Deadwood Gulch has a tributary area of approximately 311 acres and a 10-year and 100-year, 24 hour flow of 19.5 and 87 cubic feet per second (cfs), respectively. Using these numbers, a CulvertMaster calculation was completed and it was determined that a 24" RCP could convey 29.4 cfs. The remaining run-off will overtop the pipe and flow across the bench. The bench area has been graded as a trapezoidal channel with a 1-foot depth and a minimum bottom width of 10 feet. Calculations were run on a channel of these dimensions and it was determined that 113 cfs could be conveyed. During a 100-year event, 57.6 cfs would overtop the culvert, so there will be approximately 0.3 feet of freeboard during this storm event. Drainage calculations are shown in Appendix A.

### Construction of Improvements:

Prior to the start of construction, wetlands within the project area will be delineated and clearly marked to meet the EPA order and remain in compliance with the Clean Water Act. After wetlands have been delineated, construction will begin with installation of necessary runoff and erosion BMP controls as shown on Figure 3 – Initial SWMP in Appendix B. Following installation of these controls, grading operations will begin by removing debris from the LDG to meet the proposed grading shown in Figure 4.

It is estimated that approximately 550 cubic yards will be excavated from the LDG. As shown in Figure 5 – Stockpile Areas, all of the excavated material to be stockpiled will be transported to May Day 3 for storage and to construct the bench and to repair the highwall above the Chief Portal. The stockpile will be surrounded with silt fence and, if it will remain undisturbed for more than 30 days, seeded and mulched.

After the material has been removed from the LDG, a 24" RCP culvert will be installed as shown in Figure 6 – Little Deadwood Gulch Culvert Plan & Profile. A bench will be graded over the top of the pipe to provide emergency egress from the Chief portal. The proposed grading of this bench is also shown on Figure 6.

After completion of grading activities, all disturbed areas will need to be stabilized to prevent erosion. Rock Check Dams will be placed along the flow line of the channel above and below the culvert to slow the velocity of run-off and prevent scouring. Seeding and mulch will be placed on all disturbed areas. Due to the high probability that water will flow through this area, it is recommended that slopes greater than 3:1 disturbed during grading activities be covered with erosion control blankets. Erosion control measures are shown on Figure 7 – Interim SWMP.



## **Phase 2 Scope of Work**

After work within the LDG has been completed, as outlined above, construction will proceed to stabilizing the highwall and the access road immediately above the existing portal and repair of the existing manway exit from the mine. A geotechnical stability report was completed on March 16, 2013 by Wildcat Mining Corporation that gives recommendations on how to stabilize the highwall.

### Geotechnical Investigation:

The Rule 6.5 Geotechnical Stability Report – Chief Portal, dated March 16, 2013, prepared by Wildcat Mining Corporation (the Geotechnical Stability Report) was completed by J. Erich Rauber, PE to provide recommendations to stabilize the highwall above the Chief Portal. The full Geotechnical Stability Report can be found in Appendix D.

The subsurface investigation included excavating five test pits, two on the bench in front of the portal and three along the existing access road to May Day 3, and performing moisture content, Atterberg Limits and compaction tests on samples taken from each of the test pits. Based on this analysis, the Geotechnical Stability Report made the following recommendations for the reconstruction of the highwall in Section 5.0 – Recommendations:

- Loose fill and debris should be removed from the highwall area and a buttress should be constructed to establish a pad on which the portal improvements can be supported. A typical detail of the buttress can be found in the Appendix of the Geotechnical Stability Report.
- The finished slope of the highwall shall not exceed 1.5:1.
- Fill materials should be free of organic material with the largest particle sizes less than six inches. Fill should be placed in layers of eight inches or less, moisture conditioned and compacted.

Additional recommendations were provided for the repair of the portal entrance and repair of the Portal Access Road.

### Construction of Improvements:

Reconstruction of the highwall will start with the removal of trees, vegetation, debris and loose dirt and rock from the collapsed area above the portal. The trees, vegetation and debris will be hauled off-site and disposed of in a landfill. The loose dirt and rock will be stockpiled with the material removed from the LDG on May Day 3.

Once the highwall has been cleared, the Contractor will reconstruct the slope to meet the design prepared in Figure 8 – Highwall Grading Plan (see Appendix C) and the recommendations of the Geotechnical Stability Report.

The portal opening will need to be extended as part of the reconstruction of the highwall because the proposed slope will completely cover the existing opening. To extend this emergency exit, a 66-inch pipe will be installed at a 11% slope from the proposed retaining wall to a point that catches inside the existing opening. A plan and profile of this design has been provided in Figure 9 – Chief Portal Plan & Profile.

The portal access road and the existing access road above the Chief Portal will need to be stabilized after the grading of the highwall has been completed. The alignment and elevations of both of these access roads will remain the same, but both roads will need to be scarified, moisture treated and compacted to meet the recommendations of the Geotechnical Stability Report.

The contractor will need to place erosion control measures (BMP's) on the proposed improvements as work is completed. Slopes will need to be stabilized with seeding and mulching or hydromulch with a tackifier. All disturbed slopes steeper than 3:1 shall also have erosion control blankets to prevent

stormwater run-off from washing the seed and mulch or hydromulch off of the slope prior to vegetation becoming established. Erosion control measures are shown on Figure 10 – Final SWMP.

At the completion of mining operations, the improvements discussed in this work plan will be left in place. Maintenance will be performed on the culvert to repair any damage that occurred during mining operations and disturbed areas will be reseeded. The seeded areas will be planted with the seed mix summarized in the approved mine permit (shown below) and steep slopes will be protected with erosion control blankets to prevent erosion while the seed is establishing.

Seed Mix (pending approval from USACE/EPA):

- 35% Slender Wheatgrass (7 lbs/ac)
- 35% Mountain Brome (7 lbs/ac)
- 10% Blue Bunch Wheat Grass (2 lbs/ac)
- 10% Canadian Wild Rye (2 lbs/ac)
- 10% Lewis Flax (2 lbs/ac)