

# Construction Completion Report

## 2010 Highland Mine Reclamation Project

### Silverbow County, Montana



Prepared for:  
Montana Department of Environmental Quality  
P.O. Box 200901  
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Montana DEQ Contract No. 410022

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## ACRONYMS AND ABBREVIATIONS

AAA Construction	AAA Construction of Missoula, LLC
ABA	Acid Base Accounting
ARAR	Applicable or Relevant and Appropriate Requirement
BHMC	Butte Highlands Mining Company
BMP	Best Management Practice
CY	Cubic yard
DEQ	Montana Department of Environmental Quality
EEE/CA	Expanded Engineering Evaluation and Cost Analysis
LF	Linear Foot
LS	Lump Sum
MWCB	Mine Waste Cleanup Bureau
RI	Reclamation Investigation
RPR	Resident Project Representative
RTI	Renewable Technologies, Inc.
RWP	Reclamation Work Plan
SY	Square Yard
TerraGraphics	TerraGraphics Environmental Engineering, Inc.
TP	Tailings Pile
USFS	United States Department of Agriculture Forest Service
WR	Waste Rock

## 1 Introduction

TerraGraphics Environmental Engineering, Inc. (TerraGraphics) received Task Orders 13 and 24 under contract number 407041 from the Montana Department of Environmental Quality (DEQ)/Mine Waste Cleanup Bureau (MWCB) to prepare for construction at the Highland Mine site.

Under Task Order 13 an addendum to the Expanded Engineering Evaluation/Cost Analysis (EEE/CA) (TerraGraphics, 2009) was prepared to:

- Identify the preferred reclamation alternative;
- Review and update the preferred alternative's compliance with Applicable or Relevant and Appropriate Requirements (ARARs);
- Update the cost estimate for the preferred alternative;
- Estimate the waste volumes; and
- Identify all local, state, and federal agencies that will be contacted to implement the preferred alternative.

In addition, under Task Order 13, TerraGraphics prepared the engineering design for the preferred reclamation alternative including drawings and technical specifications, construction bid documents, and an engineer's cost estimate.

Under Task Order 24 TerraGraphics provided support to DEQ with the pre-construction process, with survey coordination, and during construction. During the pre-construction process, TerraGraphics provided assistance with the bidding process, review and evaluation of bids, and the pre-award and pre-construction conferences. Survey coordination assistance was provided to DEQ for the preparation of a site survey task order. During construction TerraGraphics provided the following support to DEQ:

- Reviewed Contractor submittals;
- Provided clarification and interpretation of contract documents;
- Prepared Work Directives and Change Orders as directed by DEQ;
- Prepared daily construction reports;
- Attended project-related meetings;
- Visited the site regularly to review progress; and
- Assessed Contractor's compliance with contract requirements.

Finally, under Task Order 24, TerraGraphics prepared this Construction Completion Report.

Construction activities were carried out between August 3, 2010 and October 7, 2010. This Construction Completion Report includes documentation of reclamation activities implemented during the 2010 Highland Mine Reclamation Project.

## 1.1 Project Description

The Highland Mine is an abandoned hard rock mine site listed on the DEQ/MWCB's Abandoned Hard Rock Mine Priority Sites List. The Highland Mine site (PA No. 47-028) ranked 11<sup>th</sup> out of 134 sites listed in need of reclamation.

The focus of this project was to consolidate and cap mine waste to prevent future contamination to the headwaters of Basin Creek, which is a source of the Butte municipal water system.

The project consisted of:

- Constructing a lined channel change of Basin Creek.
- Excavating, relocating, combining, and regrading three tailings piles (TP1, TP2, and TP3).
- Capping and regrading of waste rock pile (WR1).
- Constructing diversion ditches.
- Seeding and mulching disturbed areas.
- Constructing fence.
- Constructing a portion of the Continental Divide Trail to United States Forest Service (USFS) standards.
- Clearing and backfilling subsidence features.

## 1.2 Project Location

The Highland Mine site is located approximately 19 miles south of Butte, in the Highland Mountain Range, Silver Bow County, Montana (Figure 1). The entire historic Highland Mine is comprised of eight patented mining claims within and bordered by lands administered by the USFS/Deerlodge National Forest, Butte Ranger District. For the purposes of this project and this report, references to the "Highland Mine site" are limited only to the Main Ripple Claim (MS#10742) where the project took place. The Main Ripple Claim and the 2010 Highland Mine Reclamation Project are located in Township 1 North, Range 7 West, Section 31; Latitude 45°47'46" N, Longitude 112°30'57" W. Site elevation ranges between 7,300 and 8,000 feet above mean sea level.



### 1.3 Site Mining History

During the 1930s, the Butte Highlands Mining Company (BHMC) consolidated several older claims, known as the Butte Highlands Mine, and began large-scale mining and milling. The Butte Highlands Mine was comprised of three properties: the Only Chance, Murphy, and J. B. Thompson mines. The properties are located on Nevin Hill, a three-way divide between Fish Creek, Moose Creek, and Basin Creek, in Sections 31 and 32 of Township 1 North, Range 7 West. In more recent years, several other claims were staked, including: Main Ripple, Island, Purchase, Red Mountain, Main Chance, and Only Chance (RTI, 1996 and 1997).

BHMC proposed a “Main Tunnel” at the 600-foot level beginning on the Main Ripple Claim, which would under-cut the Murphy and Only Chance claims, thereby draining them of water. The “Main Tunnel” began approximately 1,000 feet northwest of the Murphy Claim on the Main Ripple Claim and extended over 2,600 feet. When the Main Ripple was patented in 1938, several buildings and structures were located near the adit. These included a frame mill building, a blacksmith shop, a carpenter shop, and six frame buildings of unidentified function (RTI, 1996 and 1997).

In December 1933, BHMC announced plans to build a mill at the mine. The mill was financed by the sale of 35,000 shares of stock at \$0.25 per share; the shares were donated by a stockholder specially for the purpose of building a mill. The 100-ton cyanide mill was built at the head of Basin Creek. In 1936, the mine was forced to close the mill and rebuild in the Moose Creek drainage in order to protect Butte’s municipal water supply. The Moose Creek mill was located approximately 1.5 miles southwest of the mine (RTI, 1996 and 1997).

The Butte Highlands Mine closed in April 1942, in accordance with Federal Order L-208 because there was not enough quality ore to justify the cost of operating the mill. Production at the Highland Mine between November 1937 and April 1942 was over 75,000 tons of ore, valued at \$1,225,732.00, giving the mine a net profit of \$90,000.00 (RTI, 1996 and 1997).

### 1.4 Waste Characteristics

The Highland Mine site was comprised of one waste rock pile, one discharging collapsed adit, several tailings piles, and several collapsed structures. Discharge from the adit makes up a majority of the Basin Creek headwaters. These waters drain to Basin Creek Reservoir, which contributes to the city of Butte’s water supply system. The risk analysis completed during the Reclamation Investigation (RI) identified the adit discharge as the principal source of concern and surface water as the primary pathway of concern (Pioneer, 1997a). WR1 contained arsenic, copper, and mercury at concentrations greater than three times background soil concentrations, and the tailings piles were all high in arsenic, copper, mercury, and iron. Montana Human Health Standards for mercury were exceeded in surface water at the adit discharge point and several hundred feet downstream from the adit. Acid Base Accounting (ABA) results obtained for WR1 indicated a significant neutralization potential coupled with low sulfur content in the waste; consequently, the dump was not considered a potential acid producer (Pioneer, 1996 and 1997b).

## 1.5 Project Objectives

The objective of this reclamation project was to eliminate or greatly reduce the contaminants leaching from sources within the Highland Mine site and discharging into Basin Creek.

This was accomplished by consolidating and capping site wastes, rerouting Basin Creek, and providing surface drainage controls. The tailings and waste rock piles that had potential to contact surface water were consolidated into an on-site repository and capped with a 3-foot thick layer of clean cover soil material that was imported onto the site. The channel of Basin Creek was relocated outside of the repository limits and lined with an impervious liner and riprap material to maintain separation of surface water from waste rock material. Diversion ditches were constructed to divert up-gradient surface water away from the repository. The diversion ditches were also constructed to redirect surface water runoff from the waste repository away from Basin Creek.

## 2 Responsible Parties

The following sections provide an outline of responsible parties for the 2010 Highland Mine Reclamation Project, including State coordinators and private contractors.

### 2.1 DEQ Coordination

The DEQ/MWCB project manager was Pebbles Clark, Reclamation Specialist. Her address, phone, and fax numbers are:

Montana Department of Environmental Quality  
Mine Waste Cleanup Bureau  
1100 North Last Chance Gulch  
P.O. Box 201001  
Helena, Montana 59620-0901  
Phone: (406) 841-5028  
Fax: (406) 841-5024

### 2.2 Engineering Plan

TerraGraphics was responsible for the engineering design and preparing the bid documents, plans, and specifications. The TerraGraphics project manager and Engineer was Jamie Mongoven. The address, phone, and fax numbers for the TerraGraphics Helena office are:

TerraGraphics Environmental Engineering, Inc.  
15 West 6<sup>th</sup> Avenue, 3<sup>rd</sup> Floor, Power Block West  
Helena, Montana 59601  
Phone: (406) 441-5441  
Fax: (406) 441-5443

### 2.3 Construction Monitoring

TerraGraphics provided construction monitoring for this project. Jamie Mongoven of TerraGraphics was the Engineer during construction of the project. Resident Project Representatives (RPRs) provided daily monitoring of construction activities. Dan Klima was the RPR from August 3 to August 16 and from September 22 to September 30, and Mike Sauer carried out these duties from August 17 to Sept 21.

### 2.4 Construction Surveying

Construction volumetric surveying was performed by:

Brown & Associates, Inc.  
200 Garrison Avenue  
Butte, Montana 59701  
Phone: (406) 723-6574

and

DJ&A, P.C .  
3203 South Russell Street  
Missoula, Montana 59801  
Phone: (406) 721-4320  
Fax: (406) 549-6371

## **2.5 Contractor**

The successful low bidder was AAA Construction of Missoula, LLC (AAA Construction). The designated on-site superintendent for AAA Construction was Brady Nelson. The Contractor's contact information is:

AAA Construction of Missoula, LLC  
3376 Trails End Road  
P.O. Box 3932  
Missoula, Montana 59806  
Phone: (406) 251-4995  
Fax: (406) 251-0456

## **2.6 Subcontractors**

All subcontracted services were subcontracted by AAA Construction. Quality Landscape Seeding, Inc., of Plains, Montana was subcontracted to provide seeding, fertilizing, and mulching. Rocky Mountain Fencing of Jackson, Montana was subcontracted to provide fencing. Contact information for these Subcontractors is as follows:

Quality Landscape Seeding, Inc.  
191 Lower Lynch Creek Road  
Plains, Montana 59859  
Phone: (406) 826-7300  
Fax: (406) 826-7301  
E-mail: seeding@montana.com

Rocky Mountain Fencing  
P.O. Box 788  
Jackson, Montana 59736  
Phone 1: (406) 834-3141  
Phone 2: (406) 491-2139  
E-mail: rmfencing@live.com

### **3 Reclamation Construction Events**

This section presents the notable events, project costs, and contract dates for the 2010 Highland Mine Reclamation Project.

#### **3.1 Pre-Bid Conference**

The 2010 Highland Mine Reclamation Project pre-bid conference was held at the site on June 15, 2010. The purpose of the pre-bid conference was to familiarize prospective bidders with the various locations and aspects of the work and to allow prospective bidders to ask questions about the project. Representatives of DEQ/MWCB, TerraGraphics, potential prime contractors, potential subcontractors, and potential material vendors and suppliers attended the conference.

#### **3.2 Bid Opening**

Bids were opened by DEQ/MWCB at its office located at 1100 North Last Chance Gulch in Helena, Montana, on June 25, 2010. Three qualified bids were received. The bids ranged from \$342,645.00 to \$500,358.75, with the low bid submitted by AAA Construction of Missoula, LLC in the amount of \$342,645.00. The engineer's estimate was \$288,834.32. The bid tabulations are included in Appendix B.

#### **3.3 Contract Award**

A pre-award meeting between DEQ/MWCB, TerraGraphics, and AAA Construction was held on July 1, 2010, at the DEQ administration office in Helena, Montana. The purpose of the pre-award meeting was to discuss the Contractor's qualifications to complete the project, the Contractor's understanding of the contract documents, and any concerns about the project. A Notice of Award was issued to the low bidder, AAA Construction on July 1, 2010. The Notice of Award is included in Appendix C.

Pre-award meeting attendees were:

Pebbles Clark, DEQ/MWCB  
Devin Clary, DEQ/MWCB  
Mike Glenn, DEQ/MWCB  
Jamie Mongoven, TerraGraphics  
Brady Nelson, AAA Construction

The pre-award meeting minutes are in Appendix D.

#### **3.4 Contract Agreement**

An agreement for Contract No. 410022 was issued July 1, 2010, between AAA Construction and DEQ and became effective on July 7, 2010. DEQ/MWCB issued the Notice to Proceed to AAA Construction on August 2, 2010. The Notice to Proceed required work to begin no later

than August 3, 2010 and required all work be completed within 45 consecutive calendar days, with a completion date of September 16, 2010. The Notice to Proceed is included in Appendix C.

### 3.5 Construction Start-Up

A pre-construction meeting between DEQ/MWCB, TerraGraphics, and AAA Construction (Contractor) was held on July 29, 2010, at the DEQ administration in Helena, Montana. The purpose of the pre-construction meeting was to establish a working understanding among the parties as to the work; the requirements of the contract documents; schedules; and procedures for handling shop drawings and other submittals, processing applications for payment, and maintaining required records.

Pre-construction meeting attendees were:

Pebbles Clark, DEQ/MWCB  
Jamie Mongoven, TerraGraphics  
Brady Nelson, AAA Construction  
Wes Swailing, AAA Construction  
Brady Nelson, Jr., AAA Construction

The pre-construction meeting minutes are in Appendix D. The Contractor began mobilizing to the site on August 2, 2010.

### 3.6 Work Directives and Change Orders

Four work directives and three Change Orders were written for the 2010 Highland Mine Reclamation Project. Copies of the Change Orders and related documentation are in Appendix E. Copies of all work directives are in Appendix F.

- **Work Directive No. 1** – Contractor was directed to clear and fill three subsidence features on the east end of the site. This work was completed at the lump sum price of \$1,240.
- **Work Directive No. 2** – Contractor was directed to construct a total of 340 feet of type 2 ditch on the north north/east side (uphill) of WR1. This section of type 2 ditch was constructed in lieu of the type 1 ditch as shown on the original contract plans. This work was paid per the unit price for type 2 ditch.
- **Work Directive No. 3** – Contractor was directed to place 30 cubic yards (CY) of road mix material on Highland Road adjacent to the tailings piles TP1, TP2, and TP3 excavation areas. This work was completed at the lump sum price of \$1,193.00.
- **Work Directive No. 4** – Contractor was directed to grade approximately 4.0 miles of Highland Road starting at the USFS gate and continuing to the Highland Mine site. This work was completed at the lump sum price of \$2,000.00.
- **Change Order No. 1** – Executed on October 12, 2010, Change Order No. 1 included costs for changes directed under Work Directive Nos. 1, 3, and 4 and compensated the Contractor for filling in subsidence features on the site, placing road mix on the Highland

Road within the Highland Mine site, and grading Highland Road. This Change Order also added 11 calendar days to the contract time to account for the additional work. This Change Order added \$4,433.00 to the contract price.

- **Change Order No. 2** – Executed on October 12, 2010, Change Order No. 2 extended the contract time by five calendar days to account for weather days. This Change Order did not change the contract price.
- **Change Order No. 3** – Executed on October 27, 2010, Change Order No. 3 reconciled the contract quantities and added six days to the contract time to complete work. This Change Order subtracted \$3,972.15 from the contract price.

The Change Orders for this project totaled \$460.85, an increase of 0.134 percent of the original contract price. The final contract price was \$343,105.85. The three Change Orders added 22 days to the contract period, resulting in a total contract period of 67 calendar days with a final contract end date of October 8, 2010.

### 3.7 Weather Days and Work Suspensions

There were several work suspensions during construction in 2010. Five weather days were issued when work could not be conducted due to adverse weather conditions. The weather days are listed below:

- Work was suspended on August 30, 2010, due to rain and mud at the site.
- Work was suspended for three days from September 9 through 11, 2010, due to rain and mud at the site.
- Work was suspended on September 18, 2010, due to rain and mud at the site.

### 3.8 Requests for Payment

AAA Construction made three requests for payment during the project, as summarized below. Copies of these payment requests are in Appendix G.

- **Payment Request No. 1** was for the period August 3 through August 10, 2010. The net payment of \$23,745.15 was the requested amount less a five percent plus \$1,000 retainage and a one percent tax withholding. Payment Request No. 1 was approved on August 13, 2010.
- **Payment Request No. 2** was for the period August 11 through August 27, 2010. The net payment, after a five percent retainage and a one percent tax withholding, was \$78,235.49. Payment Request No. 2 was approved on September 3, 2010.
- **Payment Request No. 3** was for the period August 28 through October 8, 2010. The net payment, including the requested amount plus the retainage from the previous pay requests less a one percent tax withholding, was \$ 237,694.15. Payment Request No. 3 was approved on October 27, 2010.

The total amount paid to AAA Construction was \$339,674.79.

### **3.9 Substantial Completion**

AAA Construction reached substantial completion on September 30, 2010, after Jamie Mongoven (TerraGraphics), Pebbles Clark (DEQ/MWCB), and Brady Nelson (AAA Construction) conducted a site inspection on September 30, 2010.

Five outstanding items were noted during the site inspection. These items were provided to AAA Construction in the form of a punch list attached to the Certificate of Substantial Completion. A copy of the Certificate of Substantial Completion is provided in Appendix H.

### **3.10 Closeout Documentation**

AAA Construction completed the outstanding work items included on the punch list. A final site inspection was conducted on October 12, 2010 by Pebbles Clark (DEQ/MWCB) and Jamie Mongoven (TerraGraphics) to ensure the punch list items were completed.

The following project construction closeout forms were executed on the dates outlined below:

- Contractor's Certificate of Completion, September 30, 2010.
- Affidavit on Behalf of Contractor, October 11, 2010.
- Consent of Surety Company to Final Payment, October 12, 2010.
- Certificate of Acceptance, October 19, 2010.

Copies of these executed forms are in Appendix H.

### **3.11 Final Payment**

The final payment of \$237,694.15 in response to Payment Request No. 3 by AAA Construction was approved by Pebbles Clark (DEQ/MWCB) on October 27, 2010. The final payment request included:

- Payment for outstanding work items,
- The release of the retainage withheld, and
- Reconciled contract pay quantities to reflect the actual quantities of work completed for each pay item.

The final contract price was \$343,105.85. The total amount paid to AAA Construction, less a one percent tax withholding, was \$339,674.79.

## 4 Construction

The following section summarizes the reclamation construction and describes the project plan, major equipment used, and construction activities.

### 4.1 Description of Construction Activities

Final construction activities consisted of the following work:

- Construct barrier fence between Basin Creek and work area.
- Install Best Management Practices (BMPs).
- Clear and grub site.
- Remove material from TP1, TP2, and TP3 and combine with WR1.
- Regrade and reclaim footprint of removed TP1, TP2 and TP3.
- Remove and dispose of debris from site.
- Grade and compact WR1 and material from TP1, TP2, and TP3 in an on-site repository.
- Place 5,965 CY of clean cover material on WR1.
- Place 150 CY of clean cover material on TP1, TP2, and TP3.
- Realign and install 135 ft of channel improvements for adit discharges and Basin Creek.
- Construct surface diversion ditches around WR1.
- Fertilize, seed, and mulch disturbed areas consisting of approximately two acres.
- Construct fence around site and install two gates.
- Construct approximately 790 feet of Continental Divide Trail.
- Obliterate and reclaim two entrance roads into the site.
- Remove barrier fence.
- Place road mix on Highland Road.
- Grade Highland Road.
- Clear and fill three subsidence areas above WR1 (east and uphill).

## 4.2 Major Equipment List

A list of major equipment used on the 2010 Highland Reclamation Project is presented in Table 1.

**Table 1. Major Equipment List  
2010 Highland Mine Reclamation Project**

<b>Description</b>	<b>Number</b>
CAT 300L Excavator	1
Case 821E Loader	1
Cat 938 Backhoe	1
Mini Excavator	1
CAT D8K Dozer	1
CAT D3 Dozer	1
CAT Loader	2
End Dump Trucks	3
Belly/side Dump Trucks	5
Water Truck	1

### 4.3 Construction Activities

Copies of the on-site RPR's daily reports are in Appendix J. These daily logs detail observed site conditions and reclamation activities performed during construction. Weekly summaries of construction and oversight activities are provided below.

#### **August 1-7, 2010:**

Contractor mobilized equipment onto the site on August 3, 2010, commenced clearing and grubbing activities, installed BMPs, and cleared an area for staging. Contractor located a nearby landowner willing to accept slash from site. An on-site progress meeting with Contractor, Engineer, and DEQ/MWCB was held on August 6, 2010.

#### **August 8-14, 2010:**

Contractor removed debris consisting of collapsed structures and other miscellaneous debris. These materials were hauled off-site and disposed of in a landfill. Contractor started and finished excavation of TP1 and placement of excavated materials at WR1. Concrete located within WR1 was removed and hauled to a landfill. Contractor started clearing and grubbing TP2 and TP3. Contractor started construction of the Continental Divide Trail. Contractor began hauling material from TP2 and TP3 to WR1. An on-site progress meeting with Contractor, Engineer, and DEQ/MWCB was held on August 11, 2010.

#### **August 15-21, 2010:**

Contractor continued to haul material from TP2 and TP3 to WR1. Grading for the WR1, TP1, TP2, and TP3 repository subgrade was completed. Surveyor, Dan Brown of Brown and Associates, Inc., was on site and completed the survey of the subgrade. Grade stakes were set to meet required thickness of cover soil. Contractor started hauling cover soil material from the Contractor's borrow site for cover soil. Mixing of cover soil with hydrated lime to raise the pH of the cover soil material was completed prior to shipping the material to the site. Contractor began placing 8-inch to 12-inch loose lifts of cover soil material on TP1, TP2, and TP3. A D4 dozer was used to compact the cover material as it was placed by tracking up and down the slopes. Contractor placed 8-inch to 12-inch loose lifts of cover soil material on WR1 and compacted by tracking with a D8 dozer. An on-site progress meeting with Contractor, Engineer, and DEQ/MWCB was held on August 19, 2010.

#### **August 22-28, 2010:**

Rain over the weekend slowed placement of cover soil material on WR1 on August 23, 2010. The rest of the week was dry and airborne dust became an issue; therefore, a water truck was utilized to water the road to mitigate dust. Contractor continued to haul and place cover soil on WR1. Mixing of cover soil with hydrated lime to raise the pH of the cover soil material was completed prior to shipping the material to the site. Fence installation began on August 25, 2010. An on-site progress meeting with Contractor, Engineer, and DEQ/MWCB was held on August 25, 2010.

#### **August 29-September 4, 2010:**

Contractor continued to haul and place cover soil on WR1. Mixing of cover soil with hydrated lime to raise the pH of the cover soil material was completed prior to shipping the material to the site. An on-site progress meeting with Contractor and Engineer was held on September 2, 2010.

**September 5-11, 2010:**

Work was suspended on September 6, 2010, due to excessive rain over the weekend. On September 7, 2010, Contractor continued to haul and place cover soil on WR1. Mixing of cover soil with hydrated lime to raise the pH of the cover soil material was completed prior to shipping the material to the site. School started and haul restrictions were put in place by the USFS. Fencing of the site continued.

**September 12-18, 2010:**

Contractor continued to haul and place cover soil on WR1. Mixing of cover soil with hydrated lime to raise the pH of the cover soil material was completed prior to shipping the material to the site. Compaction was tested by Pioneer Technical Services Inc. (Pioneer) and met contract specifications. TerraGraphics staked type 2 ditch for Contractor. Contractor continued fencing the site. The gates were finished this week. Contractor began clearing and grubbing channel change area. On September 15, 2010, equipment broke down and Contractor stopped work early. An on-site progress meeting with Contractor and Engineer was held on September 13, 2010. Placement of riprap started on the type 2 ditches. Construction of the type 1 ditches commenced. An on-site progress meeting with Contractor, Engineer, and DEQ/MWCB was held on September 16, 2010. On the night of September 17, 2010, it rained enough to make the site too wet to work productively the next day and work was called off by the Contractor.

**September 19-25, 2010:**

Contractor continued to construct type 1 and type 2 ditches. Channel change construction continued. Pumping for the temporary diversion of Basin Creek started. An on-site progress meeting with Contractor, Engineer, and DEQ/MWCB was held on September 23, 2010. The Contractor's owner was not on site for this progress meeting. Another meeting was held in Helena with Contractor's owner, Engineer, and DEQ/MWCB to discuss schedule and work progress to date. Contractor worked through the weekend.

**September 26-October 2, 2010:**

Contractor began de-mobilizing unnecessary equipment from the site. Channel change construction continued. Contractor finished work on the Continental Divide Trail, types 1 and 2 ditches, fences, and channel change; placed gravel berm bags; and removed pump from the temporary diversion. An on-site progress meeting with Contractor, Engineer, and DEQ/MWCB was held on September 28, 2010. During this progress meeting the final punch list was generated and the Certificate of Substantial Completion was signed. Contractor reclaimed access roads to site, finished fences, and seeded all reclaimed roads. Barrier fence was removed. Final survey was completed on September 30, 2010, by DJ&A, P.C. Contractor finished demobilizing equipment from site.

### **October 3-9, 2010:**

October 7, 2010 was the final day of construction. Contractor finished seeding, mulching, and placement of fiber rolls on site.

### **4.4 Material Submittals**

All materials submitted were approved by Engineer before they were used at the site. Material submittals are included in Appendix I.

### **4.5 Quantities Completed**

Work items were bid on a lump sum and unit price basis. Payment was made based on the actual quantity of each bid item completed. Table 2 summarizes the bid items, bid item unit prices, units of measurement, estimated quantities, payment requests, and actual quantities completed, as well as the difference between the actual and estimated quantities. Actual quantities and volumes were determined by construction oversight personnel and by a post-construction survey of the site completed by DJ&A, P.C. A pre-construction survey of the site was completed by DJ&A, P.C. in November 2009.

Notable bid items that varied significantly from the estimated bid quantity are listed below:

**Bid Item 3a, Excavation of TP1, TP2, and TP3** – 967 CY of material was excavated from the tailings piles instead of the 695 CY estimated. An interim survey completed by Brown & Associates, Inc. verified yardage actually removed from TP1, TP2, and TP3 and placed in WR1. This bid item was originally developed to remove three tailings piles located next to Highland Road and combine this material with WR1. During excavation additional contaminated material was discovered beneath the tailings piles.

**Bid Item 3c, Construction of Type 1 Ditch** – 345 feet instead of the estimated 826 feet of type 1 ditch was constructed. The construction of this ditch would have disturbed more area and impacted more old growth trees around the site. To save as many trees as possible, the type 2 ditch was constructed on the uphill edge of the construction limits of WR1.

**Bid Item 3d, Construction of Type 2 Ditch** – 480 feet instead of the 137 feet of type 2 ditch was constructed. The construction of this ditch disturbed less area, reduced the impact to old growth trees around the site, and provided a greater barrier to prevent erosion. An additional 343 feet of type 2 ditch was constructed in lieu of the type 1 ditch.

**Bid Item 5e, Riprap** – 262.1 CY instead of the estimated 103 CY of riprap was placed. Additional type 2 ditch construction and channel change required more riprap to be placed.

**Bid Item 6, Cover Soil** – 955 CY less cover soil was placed on the site due to the reduction in area of disturbance.

**Bid Item 11, Fiber Rolls** – A total of 875 feet of fiber rolls was placed, 575 feet more than the initial estimate of 300 feet. The addition of fiber rolls to the face of WR1 for use as water brakes was deemed necessary to help with the retention of seed on WR1 and to help prevent erosion.

**Bid Item 12, Barrier Fence** – An additional 150 feet of barrier fence was installed to prevent contamination of Basin Creek from construction activities.



## 5 Project Costs

The following sections outline and summarize all engineering and construction costs for the 2010 Highland Mine Reclamation Project.

Engineering services provided in the years leading up to and during the 2010 Highland Mine Reclamation Project included: site investigation activities; preparation of a Reclamation Work Plan (RWP), a RI, an EEE/CA and EEE/CA Addendum; a site visit, engineering design and bid document preparation, construction oversight, and construction completion report preparation totaling \$202,930.98. The total cost for engineering services is summarized in Table 3.

**Table 3. Engineering Services Cost Summary  
2010 Highland Mine Reclamation Project**

<b>Engineering Service</b>	<b>Year</b>	<b>Cost</b>
RWP, RI, EEE/CA (Pioneer Technical Services, Inc.)	1996/1997	\$58,219.00
Initial Site Visit (TerraGraphics)	2009	\$1,000.00
EEE/CA Addendum, Reclamation Engineering Design and Bid Document Preparation (TerraGraphics)	2009/2010	\$54,492.84
Construction Engineering Administration, Oversight, and Report Preparation (TerraGraphics)	2010	\$89,219.14
<b>Total Engineering Services</b>		<b>\$202,930.98</b>

AAA Construction’s original bid to complete work was \$342,645.00. With three Change Orders, that amount increased by \$460.85. The total construction cost for the project was \$343,105.85. The total construction costs are summarized in Table 4.

**Table 4. Construction Cost Summary  
2010 Highland Mine Reclamation Project**

<b>DEQ Contract No. 410022</b>	
AAA Construction Original Contract	\$342,645.00
<b>Change Orders</b>	
Change Order No. 1	\$4,433.00
Change Order No. 2	\$0.00
Change Order No. 3	-\$3,972.15
Total Change Orders	\$460.85
<b>Total Construction Cost</b>	<b>\$343,105.85</b>

The engineering and construction costs for the project are summarized in Table 5.

**Table 5. Analysis Of Engineering and Construction Costs  
2010 Highland Mine Reclamation Project**

<b>Engineering Services</b>	<b>Amount</b>	<b>Percentage Of Total Construction Costs</b>	<b>Percentage of Total Eng. &amp; Const. Project Costs</b>
RWP, RI, and EEE/CA (Pioneer Technical Services, Inc.)	\$58,219.00	17.0%	10.7%
Initial Site Visit (TerraGraphics)	\$1,000.00	0.3%	0.2%
EEE/CA Addendum, Reclamation Engineering Design and Bid Document Preparation (TerraGraphics)	\$54,492.84	15.9%	10.0%
Construction Engineering Administration, Oversight, and Report Preparation (TerraGraphics)	\$89,219.14	26.0%	16.3%
<b>Total Engineering Costs</b>	<b>\$202,930.98</b>	<b>59.1%</b>	<b>37.2%</b>
<b>Construction Services</b>	<b>Amount</b>	<b>Percentage Of Total Construction Costs</b>	<b>Percentage Of Total Project Costs</b>
AAA Construction, Contract No. 410022	\$342,645.00	99.9%	62.8%
Change Orders	\$460.85	0.1%	0.1%
<b>Total Construction Costs</b>	<b>\$343,105.85</b>	<b>100.0%</b>	<b>62.8%</b>
<b>Total Engineering and Construction Costs</b>	<b>\$546,036.83</b>	<b>-</b>	<b>100.00%</b>

## **6 Project Summary**

Reclamation activities at the Highland Mine site included: combining tailings and waste rock into one location; compaction and grading of these materials; grading and placing a clean cover soil cap over the regraded and compacted material; constructing diversion ditches; constructing a new lined and armored channel for Basin Creek; seeding; mulching; fencing; backfilling of subsidence features; and construction of a trail.

The successful bidder for the reclamation contract was AAA Construction. AAA Construction's original contract bid was \$342,645.00; four work directives and three Change Orders resulted in a change to the total contract of \$460.85. The total project engineering cost was \$202,930.98. The total project construction cost was \$343,105.85. The total engineering and construction project cost was \$546,036.83.

The Highland Mine site addressed by this action has been reclaimed according to the contract design and specifications. Exposure hazards associated with this site have been mitigated to the extent practicable.

### **6.1 Site Maintenance**

Seeding and mulching of the site were completed in October 2010. The site will be checked by DEQ/MWCB personnel periodically according to a schedule to be determined by DEQ/MWCB. Reclaimed areas of the Highland Mine site are susceptible to erosion before vegetation becomes established and should be monitored for signs of soil movement, sloughing, and channeling. Any areas exhibiting signs of erosion before vegetation becomes established should be repaired. These repairs would likely include repairing cover soil, reseeding, and applying straw mulch. Areas where vegetation does not become established may be reseeded and mulched. Construction of additional erosion control including rock protection, fiber rolls, or silt barriers may be helpful to limit erosion and sedimentation in susceptible areas.

### **6.2 Construction Diary and Photo Log**

The construction diary and photographic log of the construction are included in Appendix J.

### **6.3 As-Constructed Drawings**

As-Constructed drawings are in Appendix A.

## 7 References

Pioneer Technical Services, Inc. (Pioneer). 1996. Final Reclamation Work Plan for the Highland Mine. March 1996.

Pioneer. 1997a. Final Reclamation Investigation Report for the Highland Mine Site. January 1997.

Pioneer. 1997b. Final Expanded Engineering Evaluation/Cost Analysis for the Highland Mine Site. March 1997.

Renewable Technologies, Inc. (RTI). 1996. Highland (PA No. 47-028) Highland Mining District, Abandoned Mines Hazardous Materials Inventory, Past and Present Land Ownership/Mine Operators Investigation, Phase I. March 1996.

RTI. 1997. Highland Mine and Mill Site (24SB589) Cultural Resource Inventory and Evaluation. January 1997.

TerraGraphics. 2009. Highland Mine, Silver Bow County, MT Final Expanded Engineering Evaluation/Cost Analysis Addendum. Technical Memorandum. Prepared for Pebbles Clark, Montana Department of Environmental Quality. November 9, 2009.

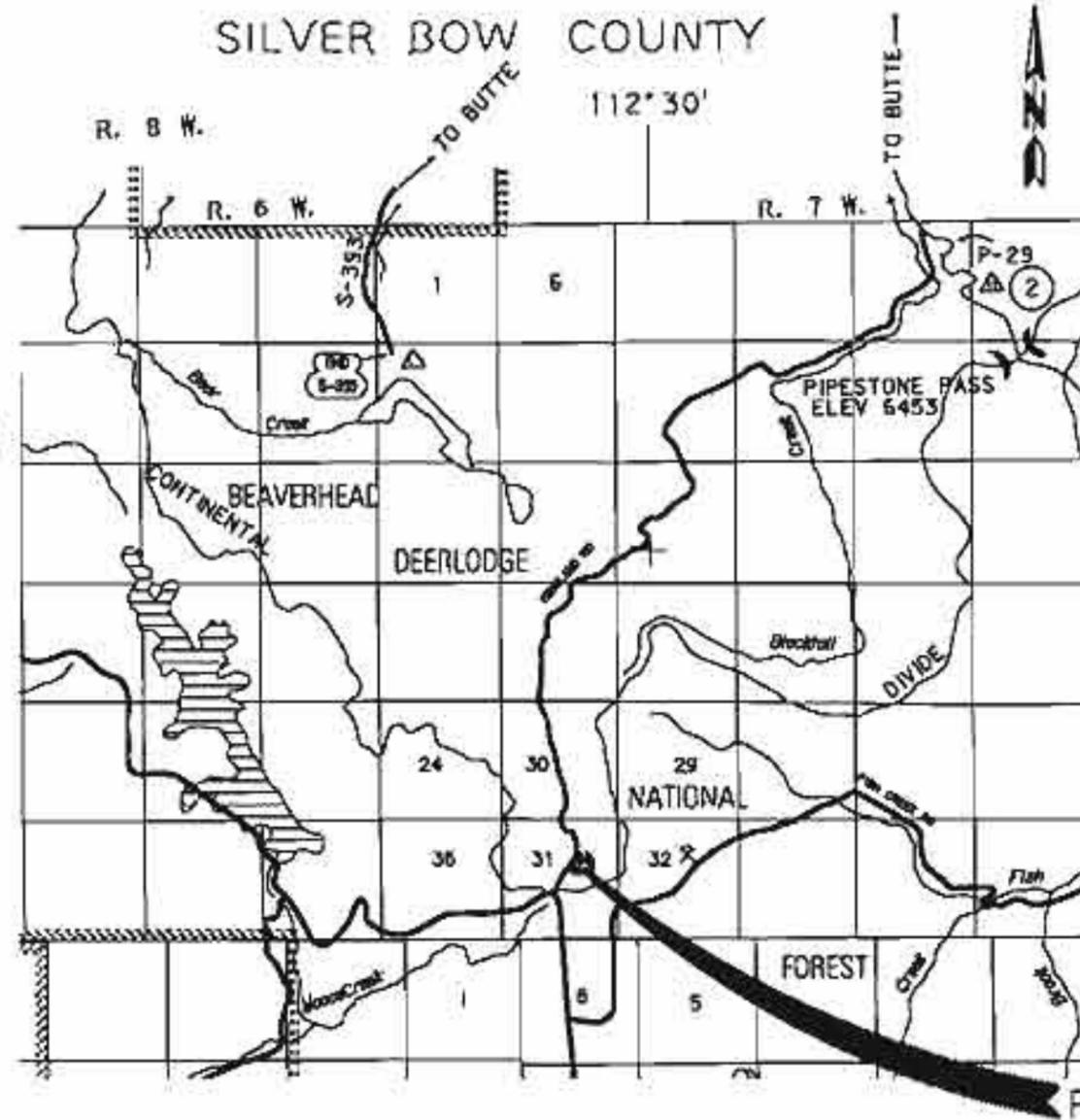
**APPENDIX A**  
**AS-CONSTRUCTED DRAWINGS**



PROJECT LOCATION

# 2010 HIGHLAND MINE RECLAMATION

PREPARED FOR:  
**MINE WASTE CLEANUP BUREAU**  
**MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY**  
 HELENA, MONTANA  
 MAY 2010  
 AS-CONSTRUCTED OCTOBER 2010



PROJECT LOCATION

## SHEET INDEX

SHEET TITLE:	SHEET INDEX #
COVER SHEET - VICINITY MAP AND INDEX	A.1
CONTROL TRAVERSE - SURVEY NOTES	A.2
PLAN SHEET 1 - SITE MAP	C.1
PRE CONSTRUCTION SITE CONTOUR MAP	C.1A
CONSTRUCTION DETAILS 1 - TAILINGS PILE TP1 PLAN AND SECTIONS	C.2
CONSTRUCTION DETAILS 2 - TAILINGS PILES TP2-TP3 PLAN AND SECTIONS	C.3
CONSTRUCTION DETAILS 3 - WASTE ROCK PILE 1 (WR1) PLAN AND SECTIONS	C.4
CONSTRUCTION DETAILS 4 - WASTE ROCK PILE 1 (WR1) PLAN AND SECTIONS	C.5
CONSTRUCTION DETAILS 5 - CHANNEL CHANGE	C.6
DETAIL SHEET 1 - WASTE ROCK PILE (WR1) COVER AND GRAVEL BERM DETAILS	D.1
DETAIL SHEET 2 - TYPICAL DIVERSION DITCH SECTIONS	D.2
DETAIL SHEET 3 - SOIL BINDER DETAILS	D.3
DETAIL SHEET 4 - EROSION CONTROL MAT AND SLOPE ROUGHENING DETAILS	D.4
DETAIL SHEET 5 - FENCING DETAILS	D.5
DETAIL SHEET 6 - CHANNEL CHANGE AND LINER INSTALLATION DETAILS	D.6
DETAIL SHEET 7 - MULCH, KELLY HUMP, AND FIBER ROLLS DETAILS	D.7
DETAIL SHEET 8 - TRAIL DETAILS	D.8

## LEGEND

EXISTING	FINAL	OTHER
3/4" x 3/4" REBAR WITH 2" ALUM. CAP, MET'D DIMS OF 3/4" x 3/4" x 3/4" REBAR WITH 1-1/4" RNC, MET'D DIMS	3/4" x 3/4" REBAR WITH 2" ALUM. CAP, MET'D DIMS OF 3/4" x 3/4" x 3/4" REBAR WITH 1-1/4" RNC, MET'D DIMS	MUDH CONTOUR AS-CONSTRUCTED
FOUND 1-1/4" YPC MET'D MESSING 14537 IS	FOUND 1-1/4" YPC MET'D MESSING 14537 IS	MUDH CONTOUR AS-CONSTRUCTED
FOUND 1-1/4" YPC MET'D MESSING 14537 IS	FOUND 1-1/4" YPC MET'D MESSING 14537 IS	REPOSITORY OUTLINE
FOUND 1-1/4" YPC MET'D MESSING 14537 IS	FOUND 1-1/4" YPC MET'D MESSING 14537 IS	NEW BARRICADE FENCE
FOUND 4" x 4" CONCRETE RIGHT-OF-WAY MARKER	FOUND 4" x 4" CONCRETE RIGHT-OF-WAY MARKER	NEW FENCE
FOUND 1-1/4" YPC MET'D TRIANGLE END. SIGN PLS	FOUND 1-1/4" YPC MET'D TRIANGLE END. SIGN PLS	TYPE 3 BERM
FOUND 5/8" REBAR	FOUND 5/8" REBAR	
APPROXIMATE LOCATION OF FOUND 1-1/4" YPC MET'D TRIANGLE END. SIGN PLS	APPROXIMATE LOCATION OF FOUND 1-1/4" YPC MET'D TRIANGLE END. SIGN PLS	
SLIP HOE	SLIP HOE	
MHC AXI	MHC AXI	
POST	POST	
UTILITY POLE	UTILITY POLE	
MAJOR CONTOUR, EXISTING	MAJOR CONTOUR, EXISTING	
MINOR CONTOUR, EXISTING	MINOR CONTOUR, EXISTING	
CONTOUR, CONCRETE	CONTOUR, CONCRETE	
CLEVERT	CLEVERT	
BOTTOM OF DITCH	BOTTOM OF DITCH	
EDGE OF ROAD	EDGE OF ROAD	
EDGE OF WATER	EDGE OF WATER	
EXISTING WIRE FENCE	EXISTING WIRE FENCE	
OVERHEAD POWER	OVERHEAD POWER	
RECLAIMED BALL	RECLAIMED BALL	
BOTTOM OF STREAM	BOTTOM OF STREAM	
SHOULDER	SHOULDER	

AS-CONSTRUCTED OCTOBER 2010

NOT TO SCALE



DRAWN:	JCM	PROJECT NO.:	09211
ENGINEER:	JCM	SCALE:	AS SHOWN
CHECKED:	TLS	APPROVED:	5/24/2010
		DATE:	2/15/2011

COVER SHEET

VICINITY MAP AND INDEX

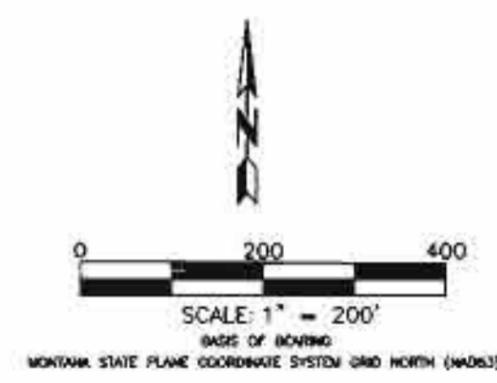
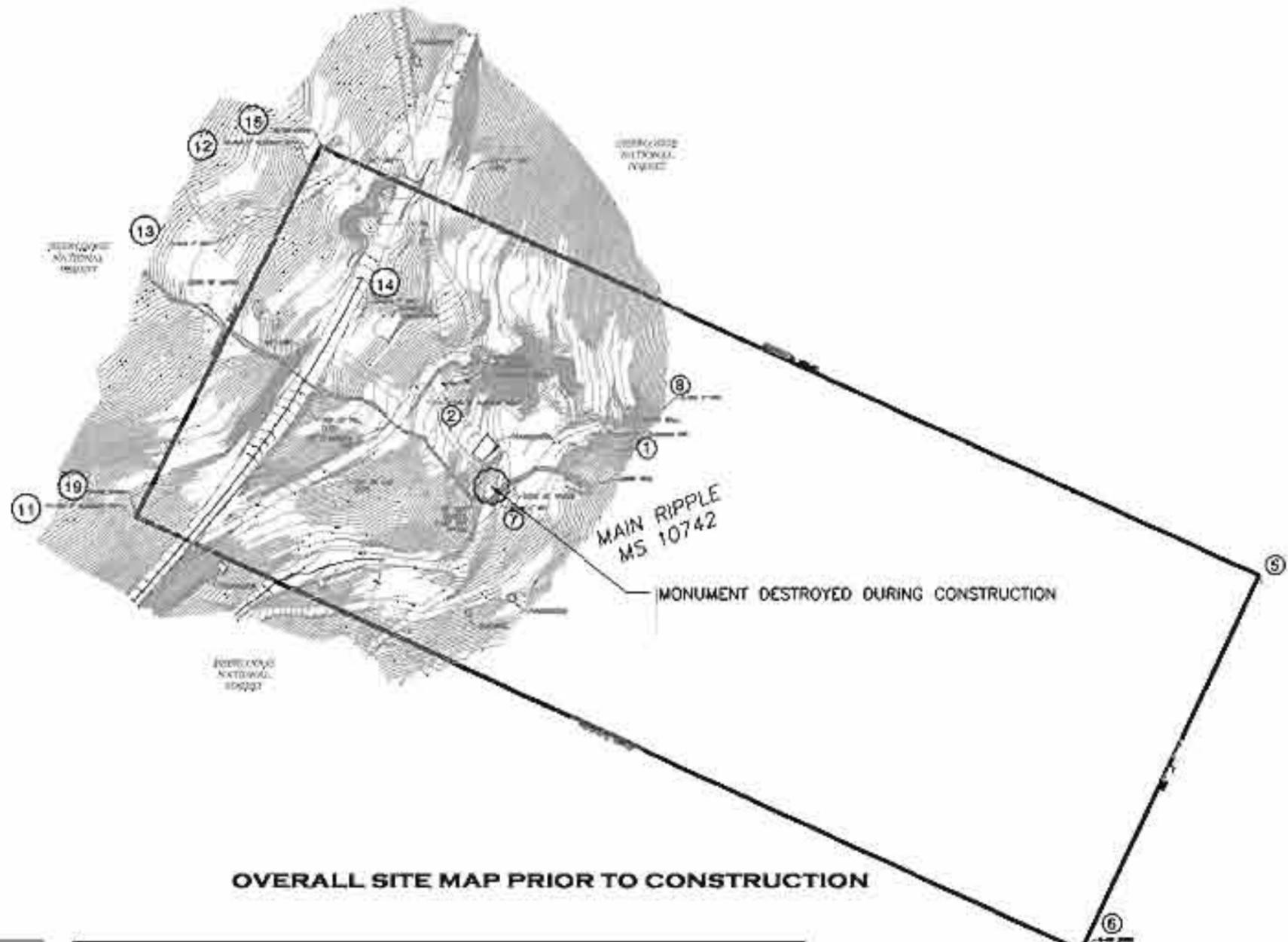
2010 HIGHLAND MINE  
 RECLAMATION PROJECT

A.1

DATE: 2/15/2011

**SURVEYORS' REPORT**

1. SURVEYS AND MAPPING CONDUCTED AND PREPARED BY JCM, P.C. CONSULTING ENGINEERS AND LAND SURVEYORS, MISSOULA, MONTANA, BY THE MONTH OF OCTOBER 2010.
2. PROJECT CONTROL WAS ESTABLISHED BY JCM, P.C. THIS MAPPING WAS PREPARED BY JCM, P.C.
3. HORIZONTAL AND VERTICAL CONTROL IS BASED ON THE FOLLOWING SYSTEMS:
  - A) HORIZONTAL CONTROL - LOCAL DATUM PLANE COORDINATE SYSTEM IN METERS/FEET.
  - B) VERTICAL CONTROL - NORTH AMERICAN DATUM (NAD 83) IN U.S. SURVEY FEET.
  - C) SURVEY POINTS COORDINATES AND MAPPING ARE BASED ON A LOCAL DATUM PLANE COORDINATE SYSTEM TO TRANSFORM TO THE HORIZONTAL/VERTICAL CONTROL. SURVEY POINT COORDINATE SYSTEMS, MAPPING AND POINTS FROM CONTROL POINT IS USED A SCALE FACTOR OF 1/1000000.00.
  - D) BASIS OF MAPPING IS BENCH MARKS WITH PLANS AND HEIGHTS. THE CONVERSIONS FROM LOCAL DATUM PLANE TO NAD 83 AND VERTICALLY TO THE NATIONAL DATUM PLANE IS  $-17.123147''$  TO ADJUST FROM LOCAL DATUM TO THE NATIONAL DATUM. THE MAPPING AND POINTS FROM CONTROL POINT IS CONVERSIONS  $1/1000000.00$ .
4. PROPERTY BOUNDARY PROVIDED IS BASED UPON SURVEY CONTROL POINTS FROM PROPERTY CONTROL AT POINTS 11, 7, 8 AND 6.
5. EPOCH/DATE MAPPING CONTROL POINTS IN THE FIELD. CONTROL WAS ESTABLISHED USING SURVEYING ON 2D LINE SURVEY COMPASS AND SOFTWARE PLANNING AND EPOCH/DATE SURVEYING WERE ESTABLISHED USING SURVEYING ON 2D LINE SURVEY COMPASS 2010.



**OVERALL SITE MAP PRIOR TO CONSTRUCTION**

DEQ HIGHLANDS MINE (BUTTE, MT.)  
 HORIZONTAL DATUM LOCAL DATUM COORDINATE SYSTEM  
 UNITS: INTERNATIONAL FEET  
 VERTICAL DATUM NAVD83  
 UNITS: U.S. SURVEY FEET  
 SURVEY NOTE: All horizontal and vertical mapping positions are by conventional instrumentation, based on ground control which have GPS observations based on the 3d three National Geospatial Survey Continuously Operating Reference Stations (CORS) utilizing the Geoid03 geoid model.  
 This map has been prepared under the direct supervision of a registered professional land surveyor.

NUMBER	LOCAL PLANE COORDINATE (S.F. FEET)		NORTH DATUM PLANE (METERS) (S.F. FEET)		ELECTED COORDINATES (NAD83)		ELEVATION (U.S. SURVEY FEET)	DESCRIPTION
	NORTHING	EASTING	GRID NORTH	GRID EAST	LATITUDE	LONGITUDE		
1	87874.10	110614.00	87874.10	110614.00	49°41'46.4390''N	112°20'56.7093''W	7207.75	1" ALUMINUM CAP
2	87881.11	110602.34	87881.11	110602.34	49°41'46.4863''N	112°20'56.5566''W	7204.31	1" ALUMINUM CAP
3	87845.36	110606.00	87845.36	110606.00	49°41'25.0912''N	112°21'06.3389''W	7202.41	1" IRON
4	87824.88	110671.00	87824.88	110671.00	49°41'24.0864''N	112°21'37.4342''W	7206.84	1" IRON
5	87821.01	110670.81	87821.01	110670.81	49°41'44.8888''N	112°20'42.1928''W	7248.60	NO STONE
6	87780.22	110687.47	87780.22	110687.47	49°41'36.3810''N	112°20'48.8316''W	7221.84	NO STONE
7	87802.44	110620.00	87802.44	110620.00	49°41'42.0000''N	112°20'58.0000''W	7200.00	1" IRON
8	87882.30	110602.00	87882.30	110602.00	49°41'46.1470''N	112°20'56.8820''W	7202.30	1" IRON
11	87842.18	110610.00	87842.18	110610.00	49°41'46.9978''N	112°21'06.2878''W	7241.00	1" ALUMINUM CAP
12	87834.80	110622.00	87834.80	110622.00	49°41'36.0000''N	112°21'30.0000''W	7200.00	1" ALUMINUM CAP
13	87887.00	110600.00	87887.00	110600.00	49°41'46.9918''N	112°21'06.0000''W	7200.00	1" IRON
14	87820.47	110606.00	87820.47	110606.00	49°41'07.8400''N	112°21'30.0000''W	7200.00	1" IRON
18	87802.22	110602.00	87802.22	110602.00	49°41'36.3810''N	112°21'31.7171''W	7201.84	NO STONE
19	87864.00	110610.00	87864.00	110610.00	49°41'46.9920''N	112°21'06.9117''W	7242.00	NO STONE

1/4	SEC.	T.	R.
31	T.1N.	R.7W.	
SHEET 1 of 3			
SEVIER, GOW COUNTY			
PRINCIPAL MERIDIAN			

AS-CONSTRUCTED OCTOBER 2010



DRAWN:	JCM	PROJECT NO.:	09211
ENGINEER:	JCM	SCALE:	AS SHOWN
CHECKED:	TLS	APPROVED:	5/24/2010
		DATE:	1/28/2011

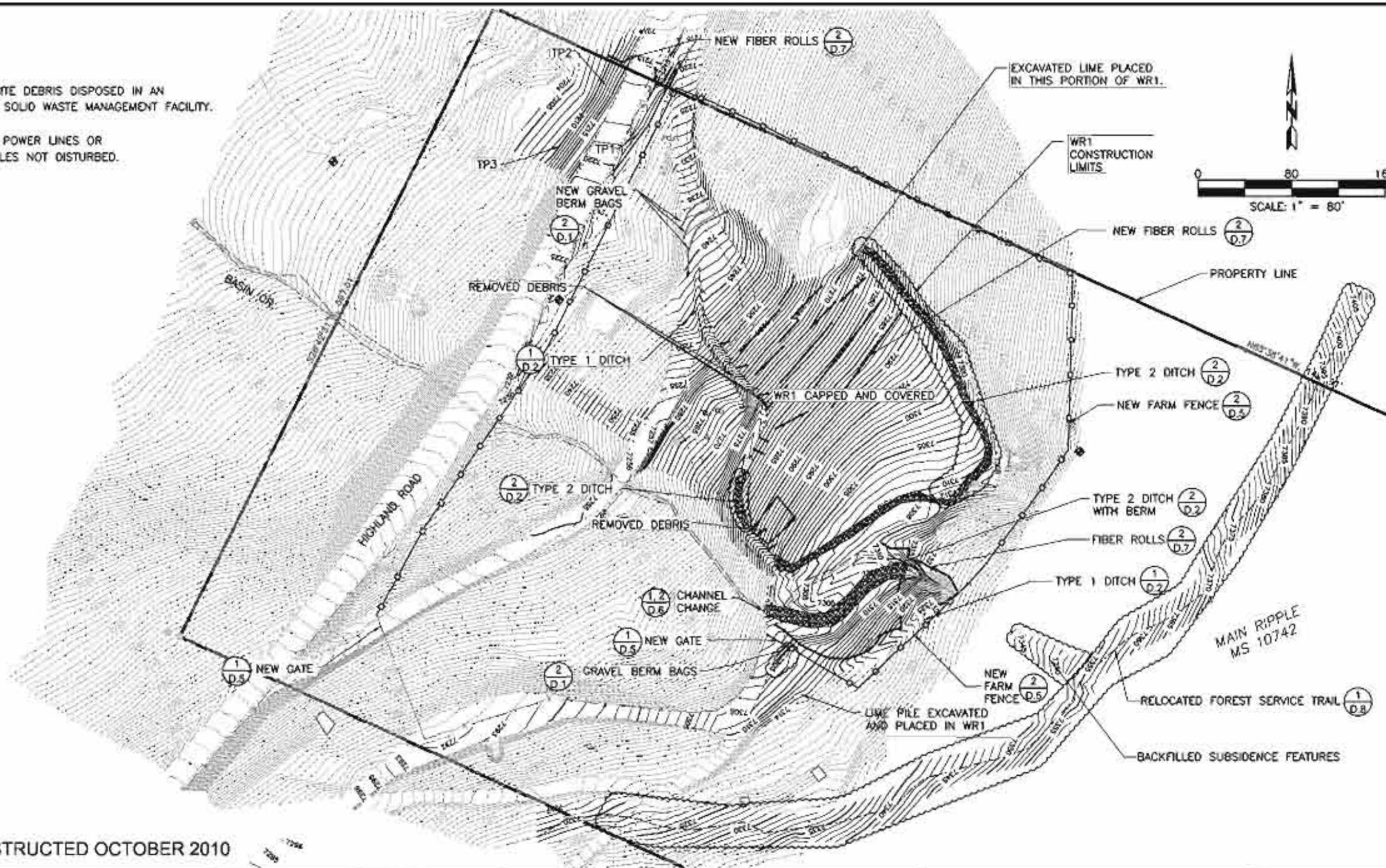
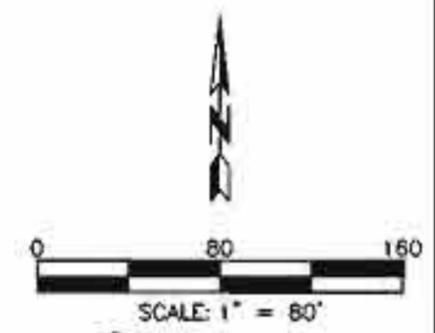
CONTROL TRAVERSE
SURVEY NOTES

2010 HIGHLAND MINE RECLAMATION PROJECT

A.2
DATE: 1/28/2011

NOTE:  
EXISTING SITE DEBRIS DISPOSED IN AN  
APPROVED SOLID WASTE MANAGEMENT FACILITY.

OVERHEAD POWER LINES OR  
POWER POLES NOT DISTURBED.



AS-CONSTRUCTED OCTOBER 2010



DRAWN:	JCM	PROJECT NO.:	09211
ENGINEER:	JCM	SCALE:	AS SHOWN
CHECKED:	TLS	APPROVED:	5/24/2010
		DATE:	1/28/2011

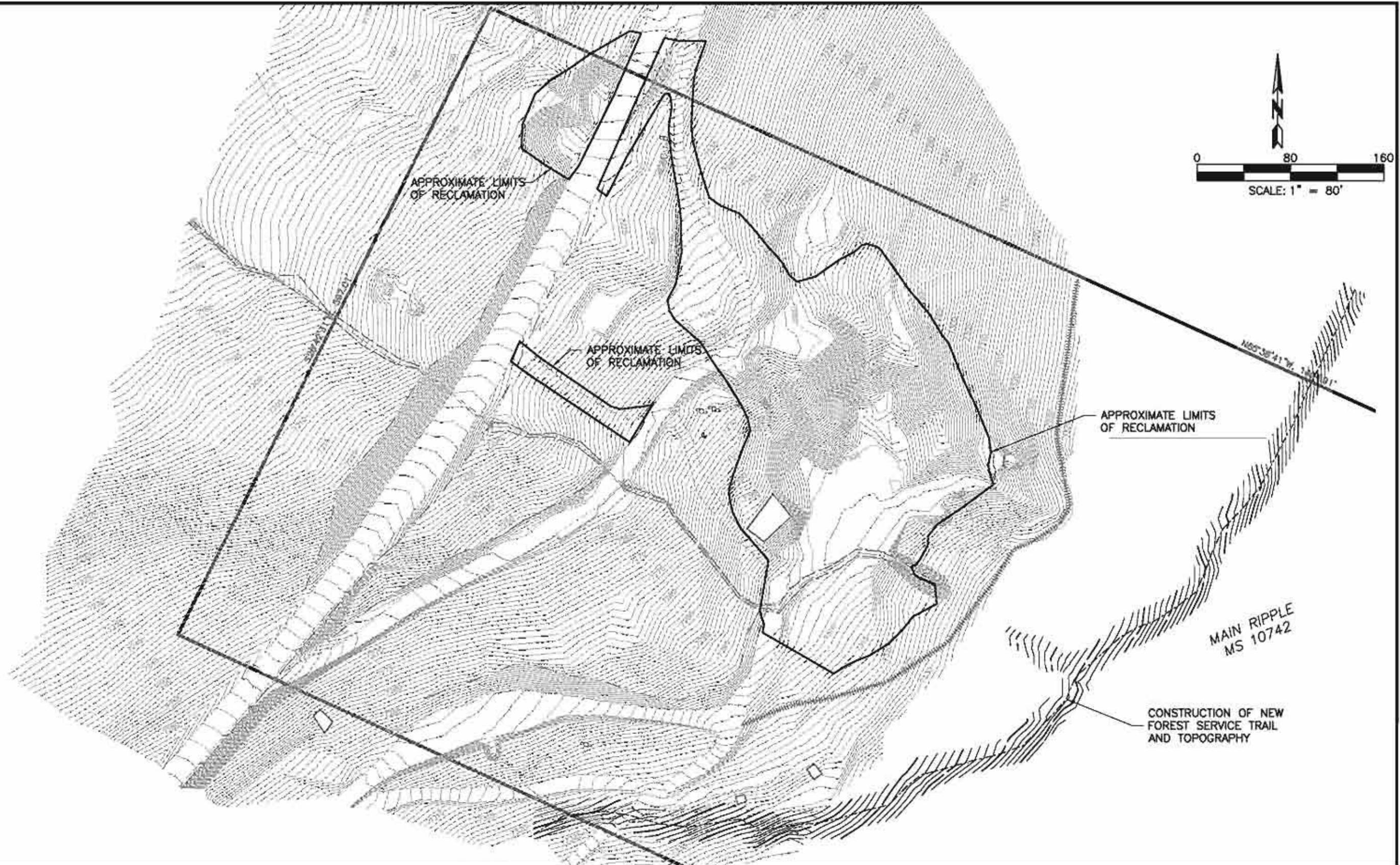
PLAN SHEET 1

SITE MAP

2010 HIGHLAND MINE  
RECLAMATION PROJECT

C.1

DATE: 1/28/2011

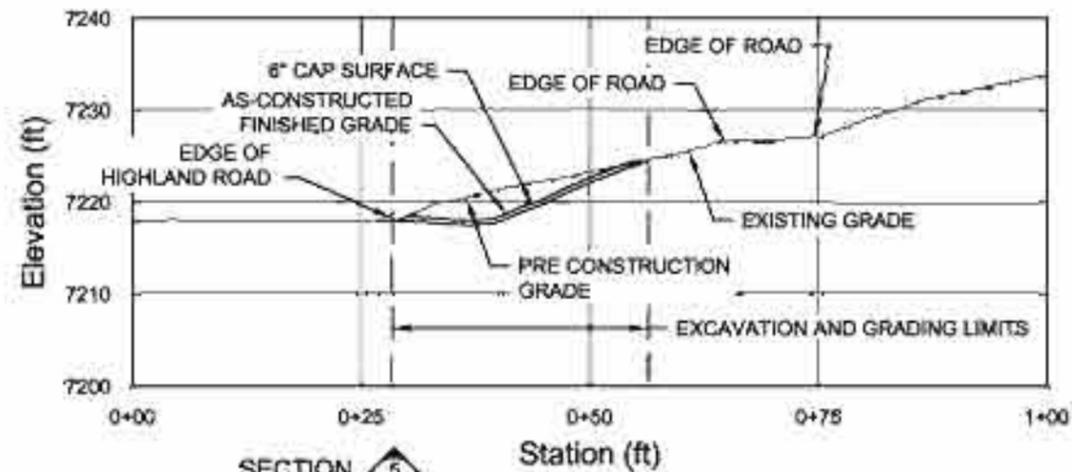


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CHECKED:	TLS	APPROVED:	1/27/2011
DATE:		DATE:	1/28/2011

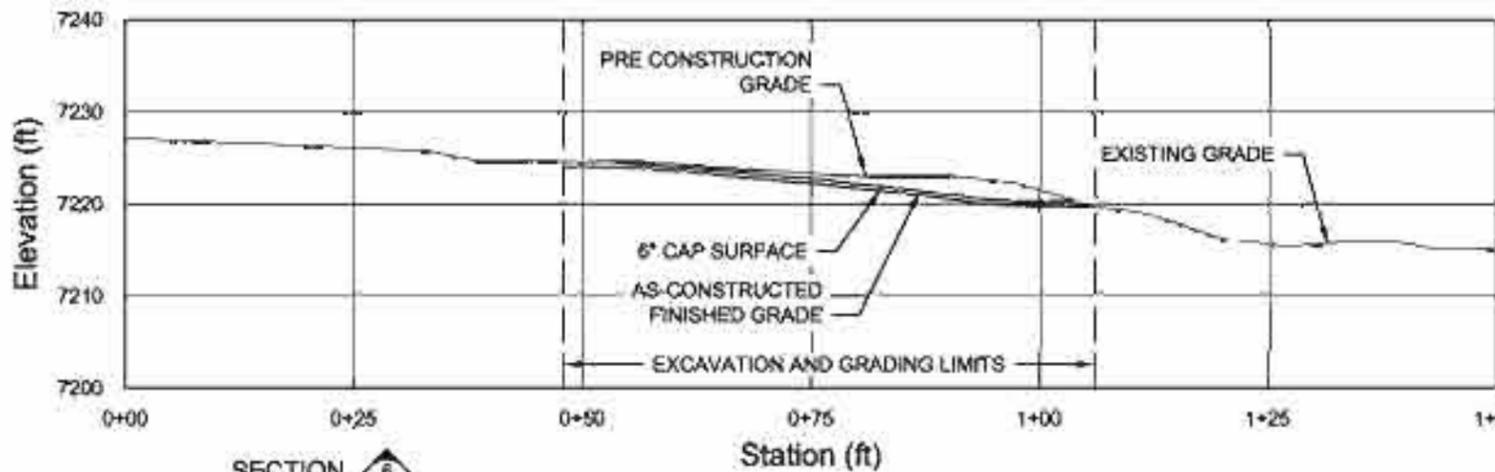
PLAN SHEET 1A  
 PRE CONSTRUCTION SITE CONTOUR MAP

2010 HIGHLAND MINE  
 RECLAMATION PROJECT

C.1A
DATE: 1/28/2011

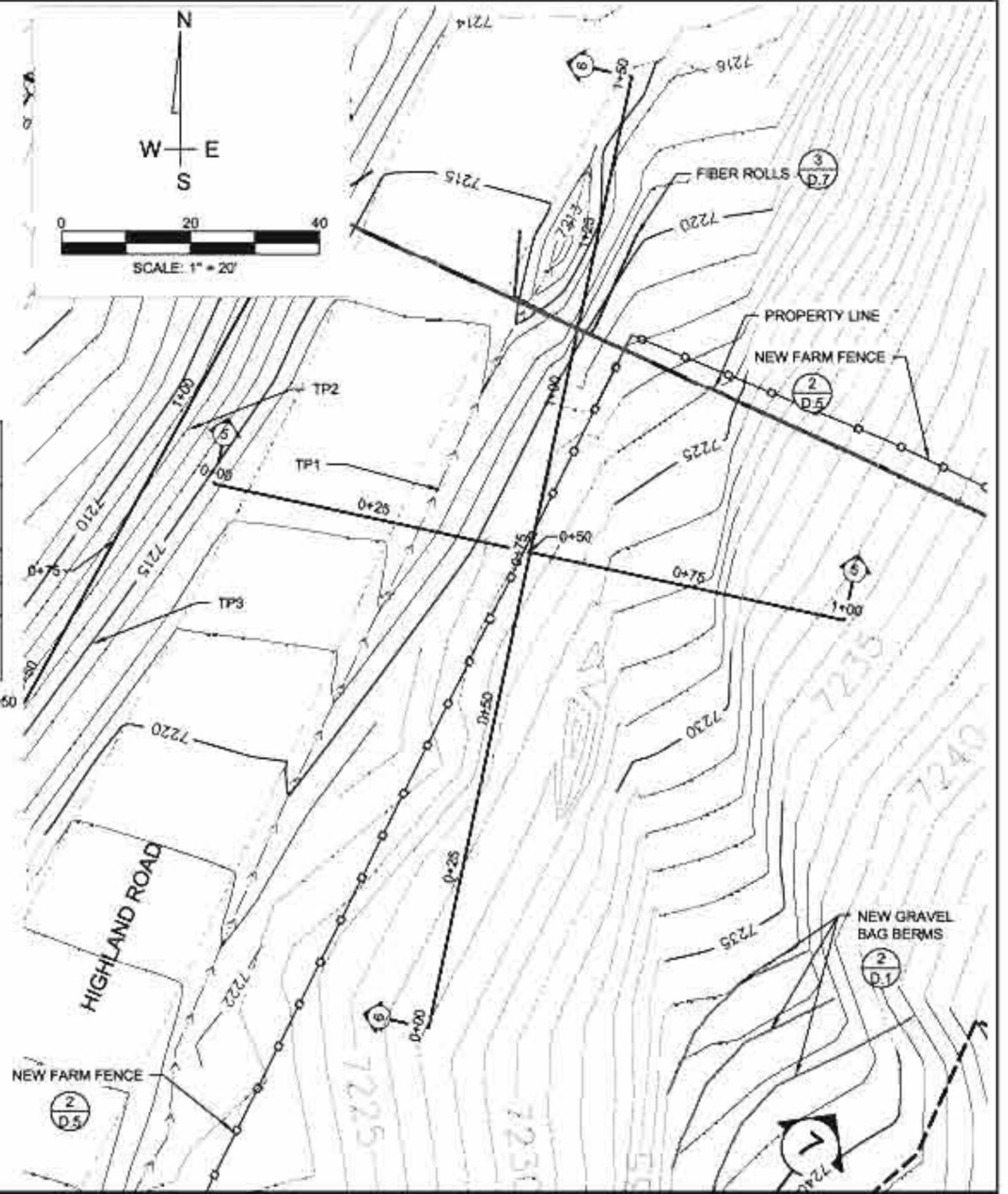


SECTION 5  
1" = 20'



SECTION 6  
1" = 20'

NOTE:  
 TP1 EXCAVATED AND PLACED IN WR1.  
 EXCAVATION COVERED WITH 6" CAP SURFACE CONSISTING OF COVER SOIL, SEED, AND MULCH.  
 DEPTH OF EXCAVATION IS APPROXIMATE, ACTUAL DEPTH MAY VARY BASED ON ENGINEER'S INSPECTION.



AS-CONSTRUCTED OCTOBER 2010

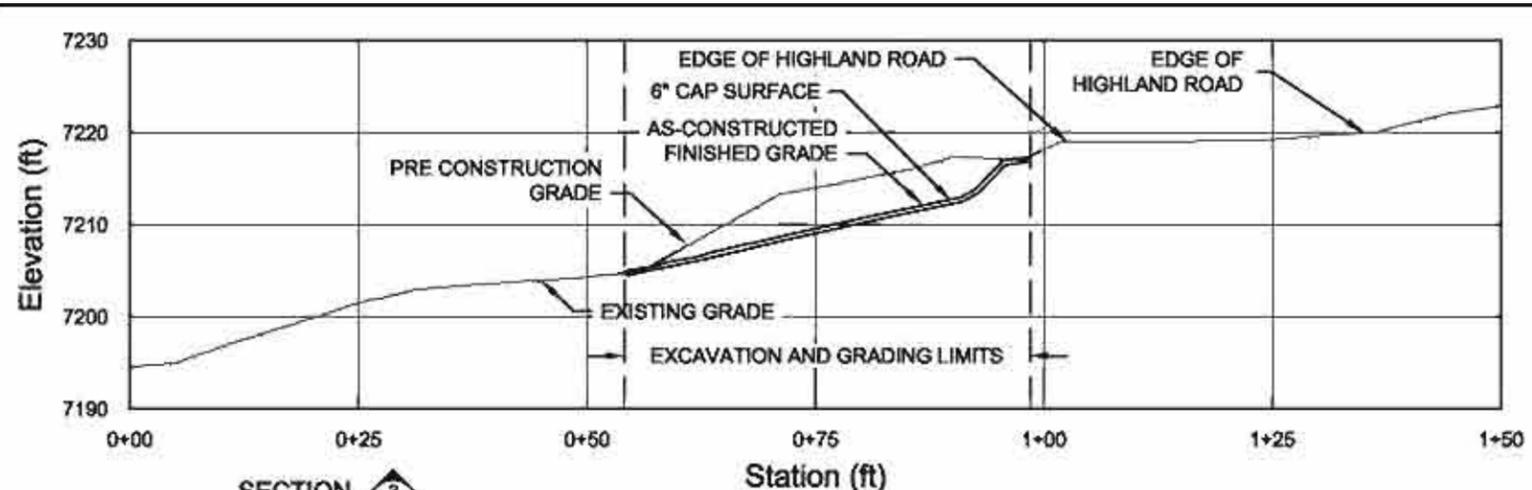


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ENGINEER:	JCM	SCALE:	AS SHOWN
CHECKED:	TLS	APPROVED:	1/24/2010
		DATE:	1/28/2011

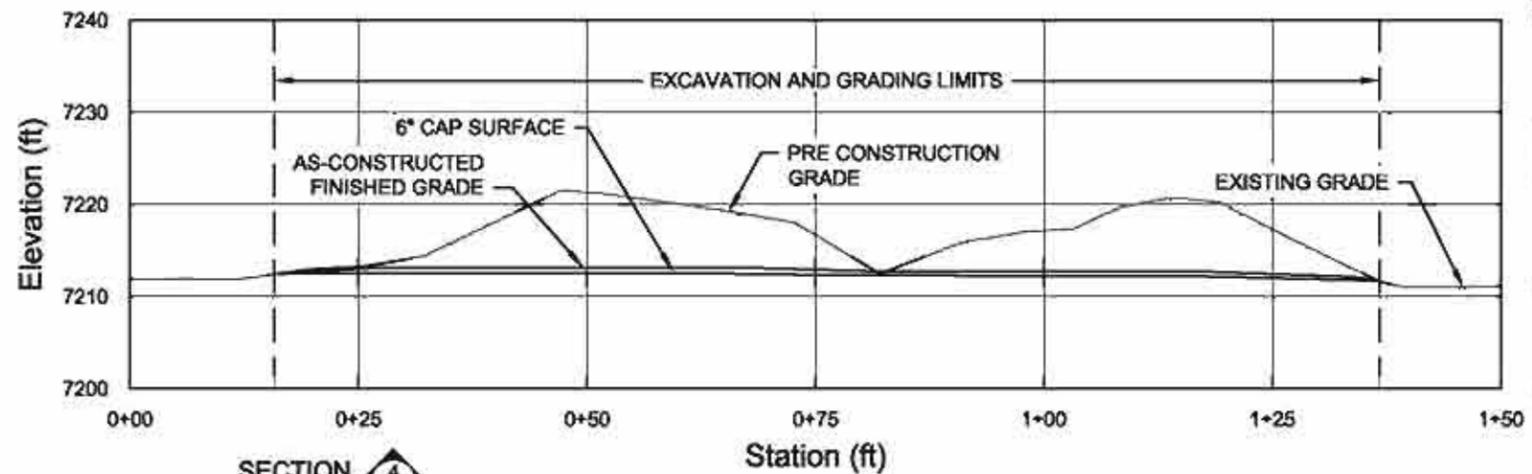
CONSTRUCTION DETAILS 1  
 TAILINGS PILE TP1 PLAN AND SECTIONS

2010 HIGHLAND MINE  
 RECLAMATION PROJECT

C.2  
 DATE: 1/28/2011

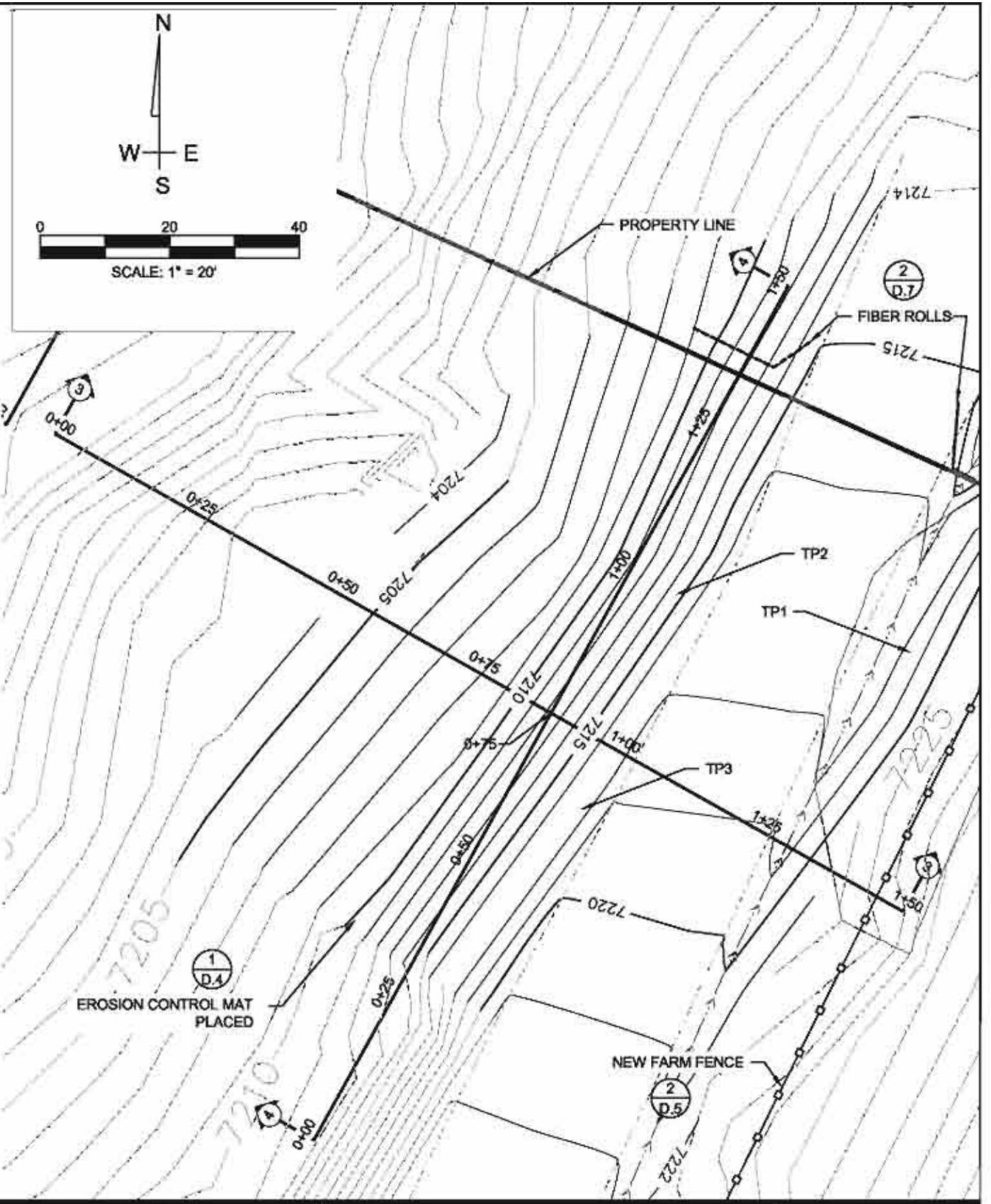


SECTION 3  
1" = 20'



SECTION 4  
1" = 20'

NOTE:  
TP1 EXCAVATED AND PLACED IN WR1.  
EXCAVATION COVERED WITH 6" CAP SURFACE CONSISTING OF COVER SOIL, SEED, AND MULCH.  
DEPTH OF EXCAVATION IS APPROXIMATE, ACTUAL DEPTH MAY VARY BASED ON ENGINEER'S INSPECTION.



AS-CONSTRUCTED OCTOBER 2010

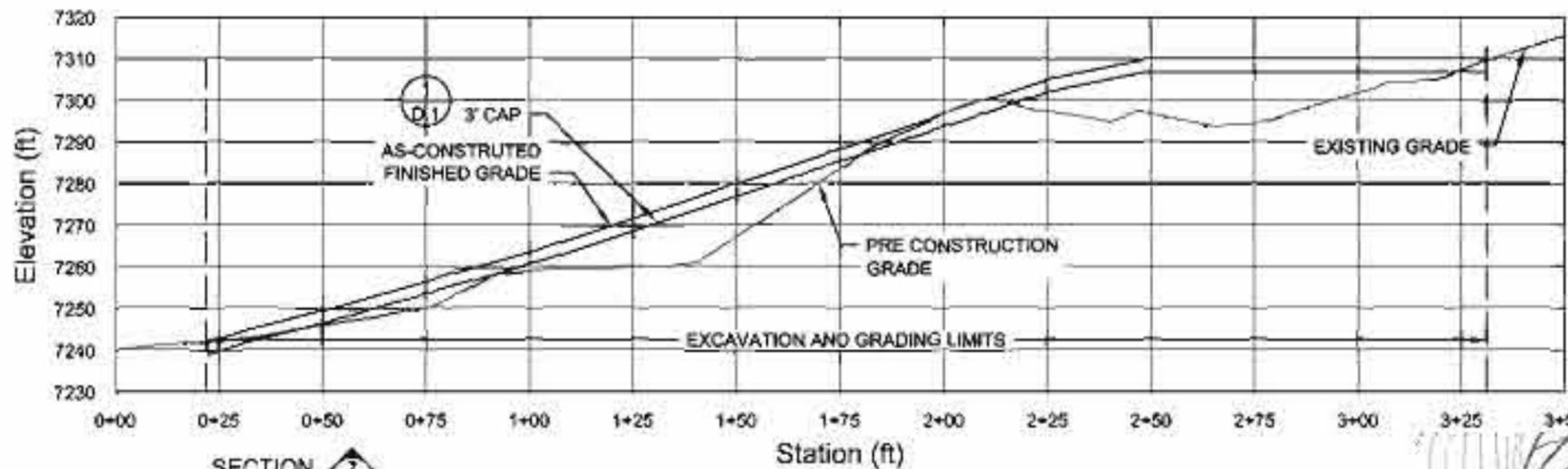


DRAWN:	JCM	PROJECT NO.:	09211
ENGINEER:	JCM	SCALE:	AS SHOWN
CHECKED:	TLS	APPROVED:	5/24/2010
		DATE:	1/28/2011

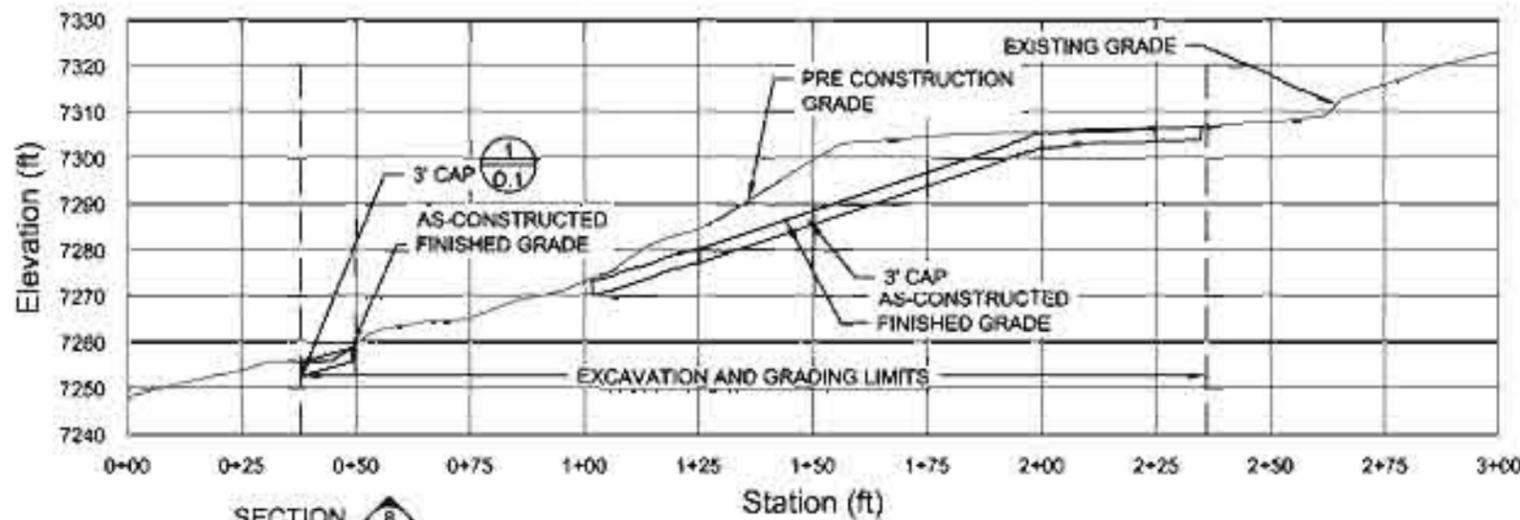
CONSTRUCTION DETAILS 2  
TAILINGS PILES TP2-TP3 PLAN AND SECTIONS

2010 HIGHLAND MINE RECLAMATION PROJECT

C.3  
DATE: 1/28/2011

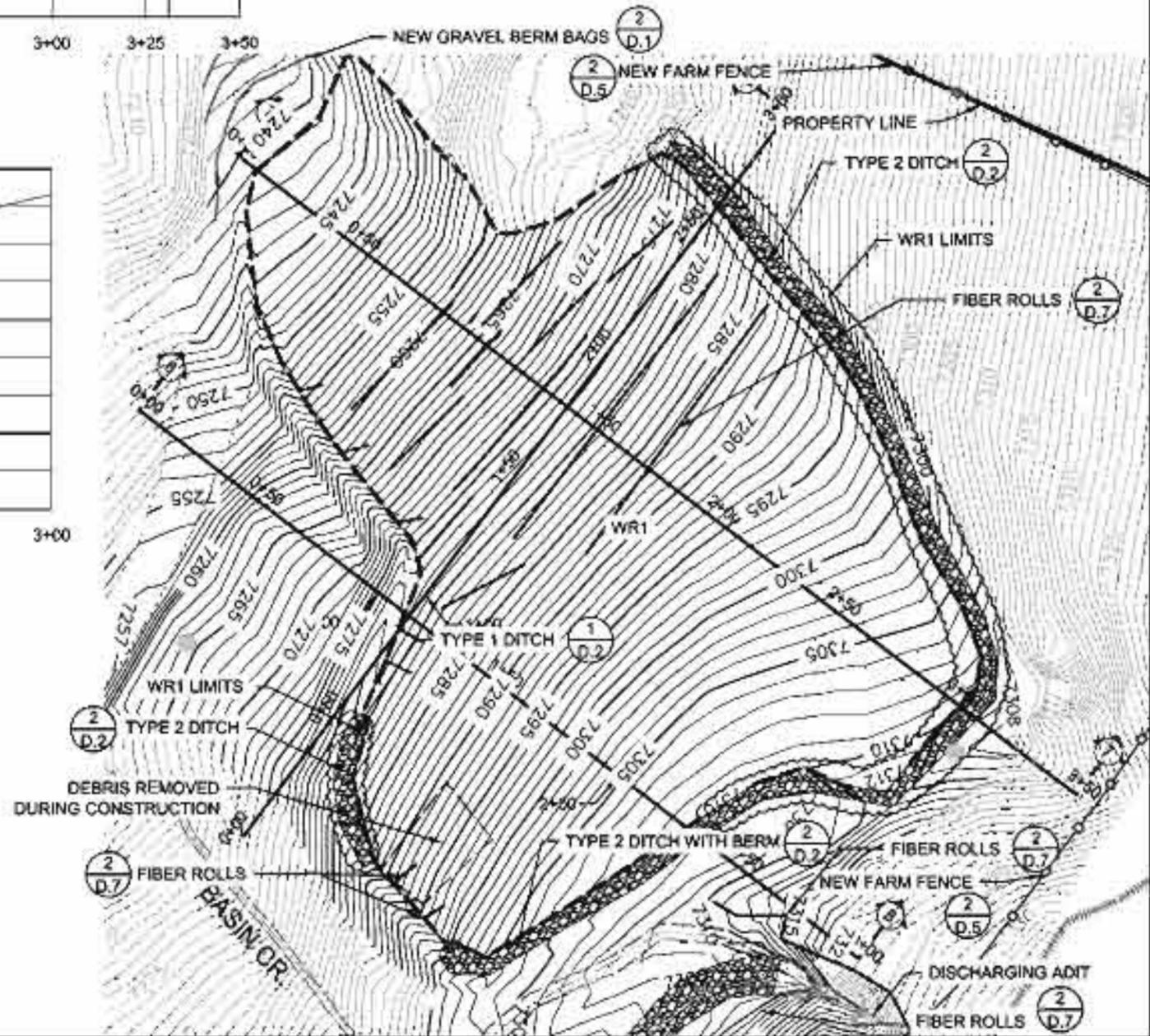
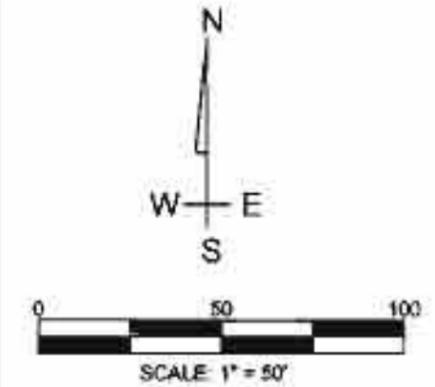


SECTION 7  
1" = 40'



SECTION 8  
1" = 40'

NOTE:  
EXCAVATED TAILINGS PILES PLACED IN WR1.  
WR1 GRADED AND COVER SOIL APPLIED PER DETAILS.  
ENGINEER WILL STAKE CONSTRUCTION LIMITS.



AS-CONSTRUCTED OCTOBER 2010

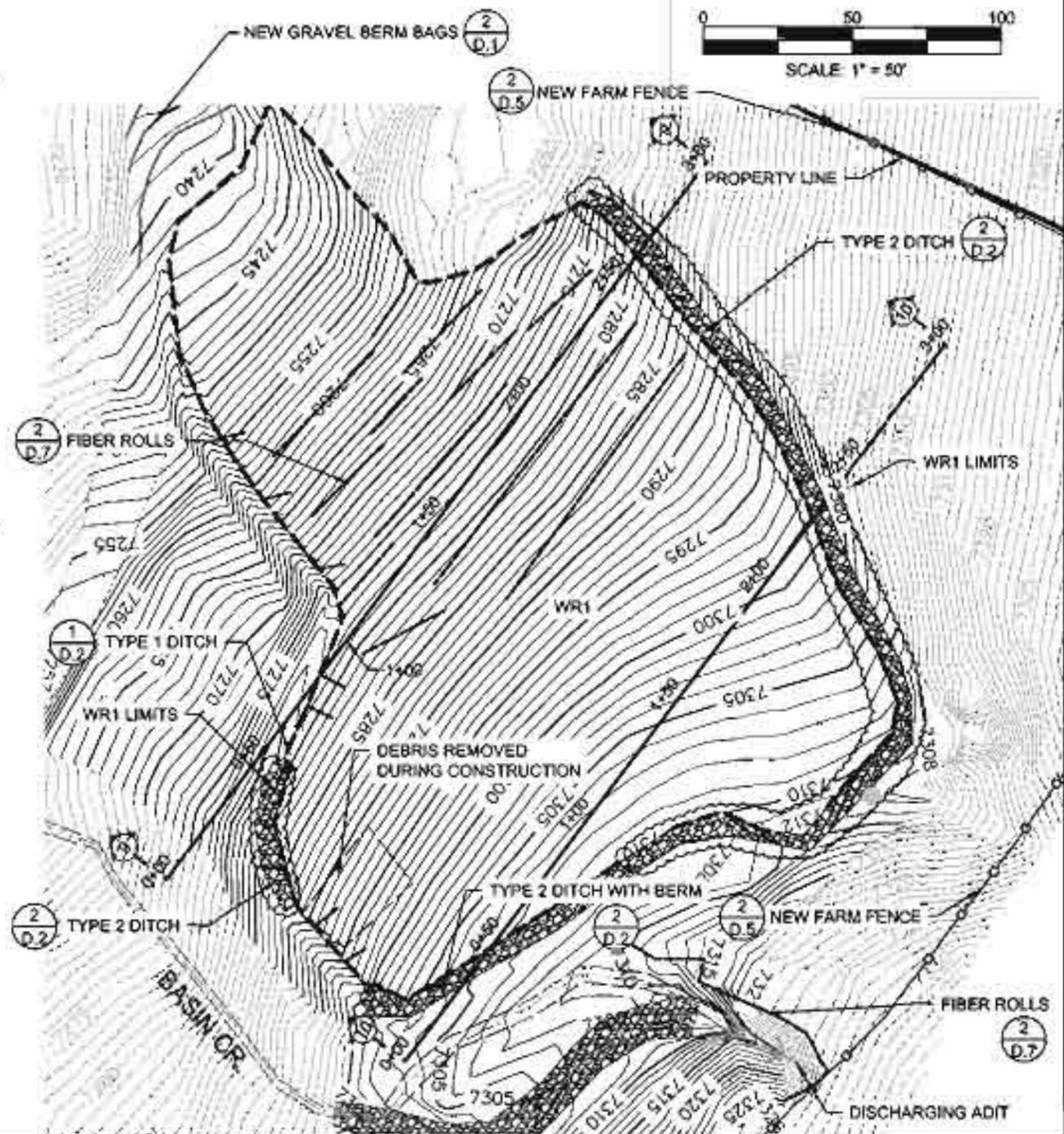
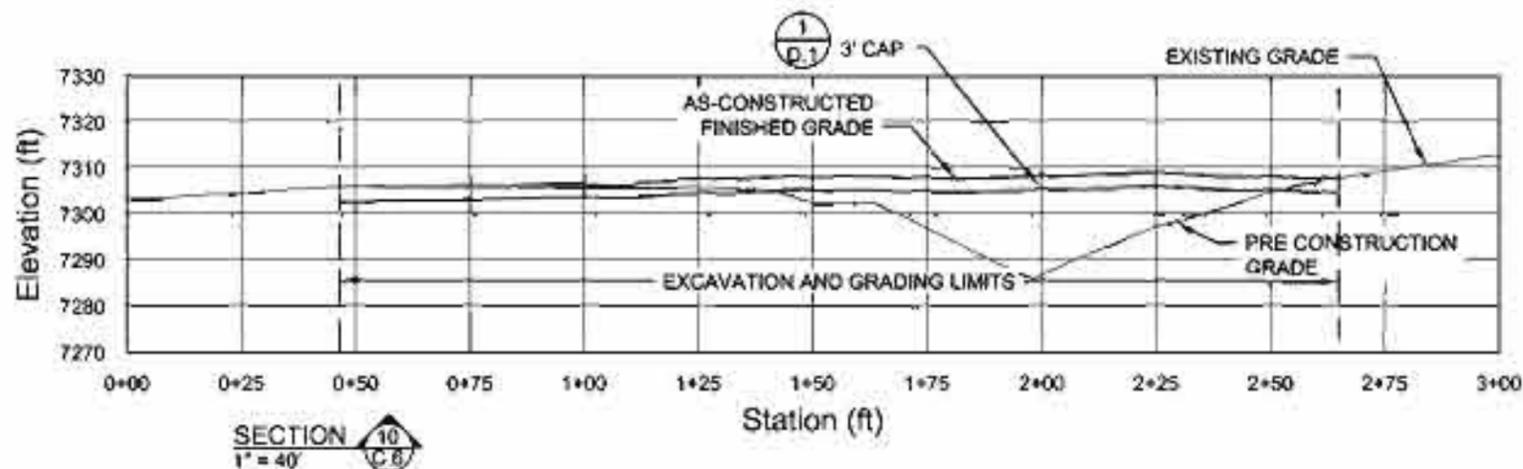
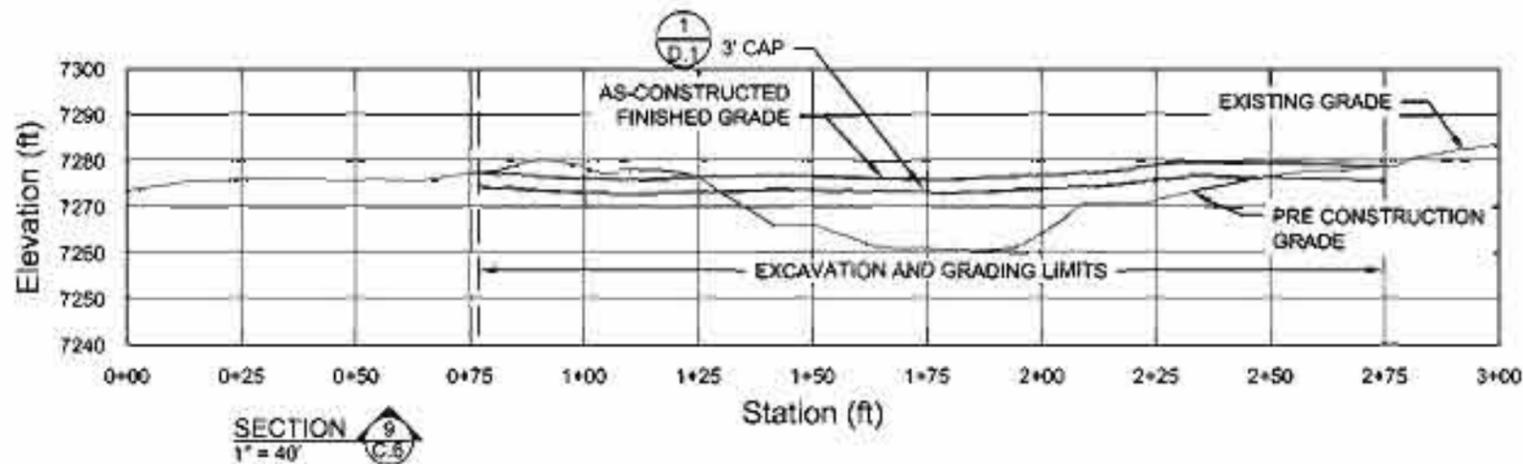


DRAWN	JCM	PROJECT NO.:	09211
ENGINEER	JCM	SCALE	AS SHOWN
CHECKED	TLS	APPROVED:	5/24/2010
		DATE:	1/28/2011

CONSTRUCTION DETAILS 3  
WASTE ROCK PILE 1 (WR1) PLAN AND SECTIONS

2010 HIGHLAND MINE RECLAMATION PROJECT

C.4	
DATE	1/28/2011



NOTE:  
EXCAVATED TAILINGS PILES PLACED IN WR1.  
WR1 GRADED AND COVER SOIL APPLIED PER DETAILS.

AS-CONSTRUCTED OCTOBER 2010

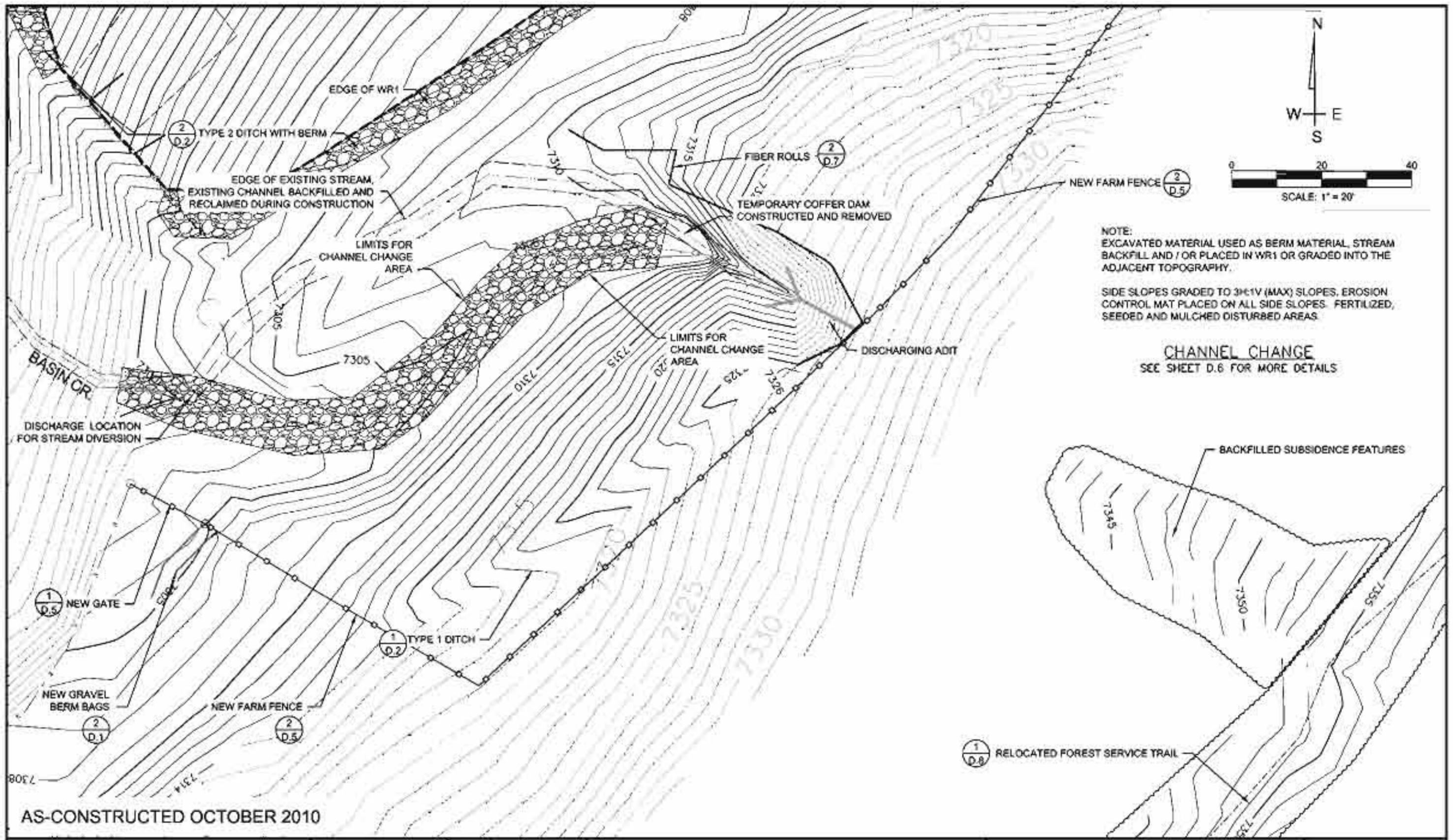


DRAWN	JCM	PROJECT NO.:	09211
ENGINEER	JCM	SCALE	AS SHOWN
CHECKED	TLS	APPROVED:	5/24/2010
		DATE:	1/28/2011

CONSTRUCTION DETAILS 4  
WASTE ROCK PILE 1 (WR1) PLAN AND SECTIONS

2010 HIGHLAND MINE  
RECLAMATION PROJECT

C.5
DATE: 1/28/2011



AS-CONSTRUCTED OCTOBER 2010



DRAWN	JCM	PROJECT NO.:	09211
ENGINEER	JCM	SCALE	AS SHOWN
CHECKED:	TLB	APPROVED:	5/24/2010
		DATE:	1/28/2011

CONSTRUCTION DETAILS 5

CHANNEL CHANGE

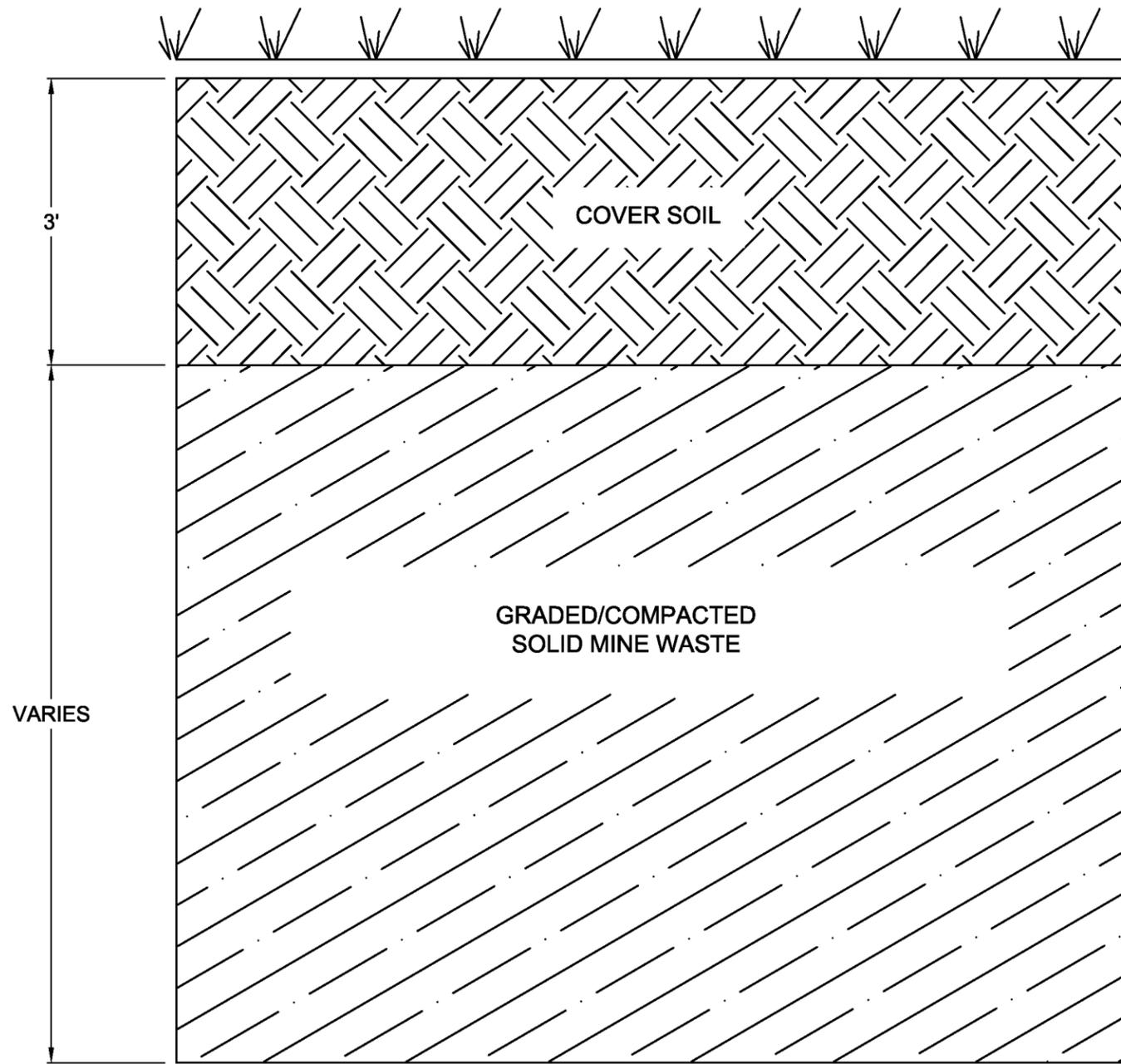
2010 HIGHLAND MINE  
RECLAMATION PROJECT

C.6

DATE 5/28/2011

**TYPICAL CAP AND COVER  
FOR WR 1**

1  
D.1



COVER SOIL  
AS DESCRIBED IN TECHNICAL SPECIFICATION 310.

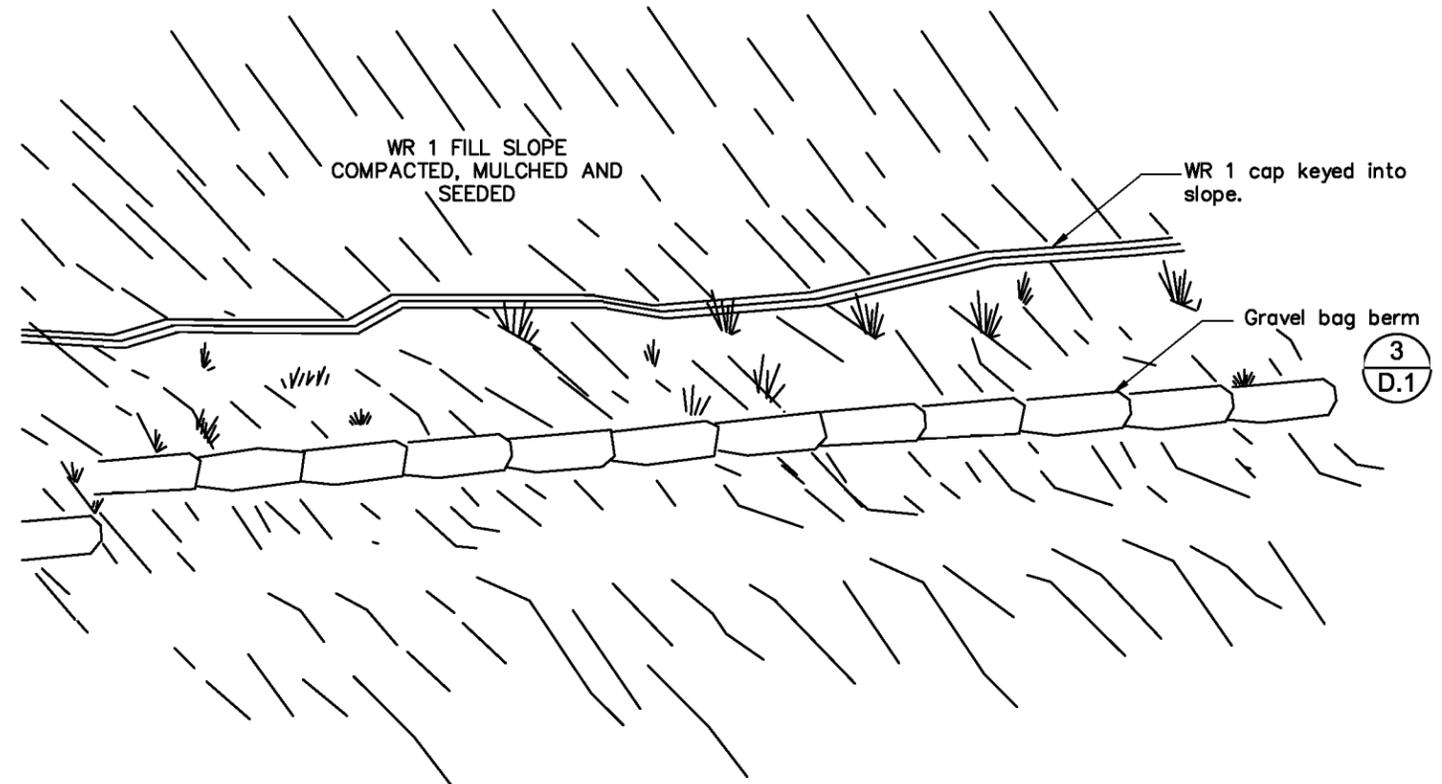
NATIVE SOIL

VARIES

AS-CONSTRUCTED OCTOBER 2010

**GRAVEL BERM BAGS**

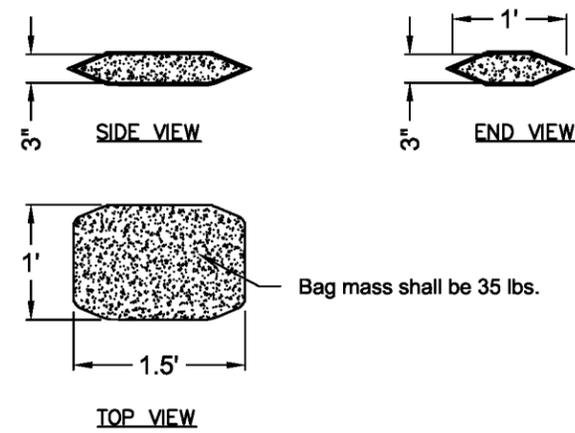
2  
D.1



3  
D.1

**GRAVEL BERM BAGS**

3  
D.1



Bag mass shall be 35 lbs.

USE WOVEN BURLAP MATERIAL TO CONSTRUCT THE GRAVEL BERM BAGS. BAG MATERIAL SHALL HAVE A MINIMUM UNIT WEIGHT OF 0.25 POUNDS PER SQUARE YARD (LB/SY), MULLEN BURST STRENGTH EXCEEDING 300 POUNDS PER SQUARE INCH (PSI), AND AN ULTRAVIOLET STABILIZATION EXCEEDING 70%.

NOTE:  
FILL GRAVEL BERM BAGS APPROXIMATELY 75% FULL WITH GRAVEL CONSISTING OF 100% PASSING THE 1/2-INCH SCREEN AND 10% MAXIMUM PASSING THE NO. 4 SIEVE. FILL MATERIAL SHALL BE EITHER PIT RUN OR CRUSHED AGGREGATE. FILL MATERIAL SHALL BE APPROVED BY THE ENGINEER PRIOR TO BAG CONSTRUCTION.



DRAWN:	JCM	PROJECT NO.:	09211
ENGINEER:	JCM	SCALE:	NTS
CHECKED:	TLS	APPROVED:	5/24/2010
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DETAIL SHEET 1

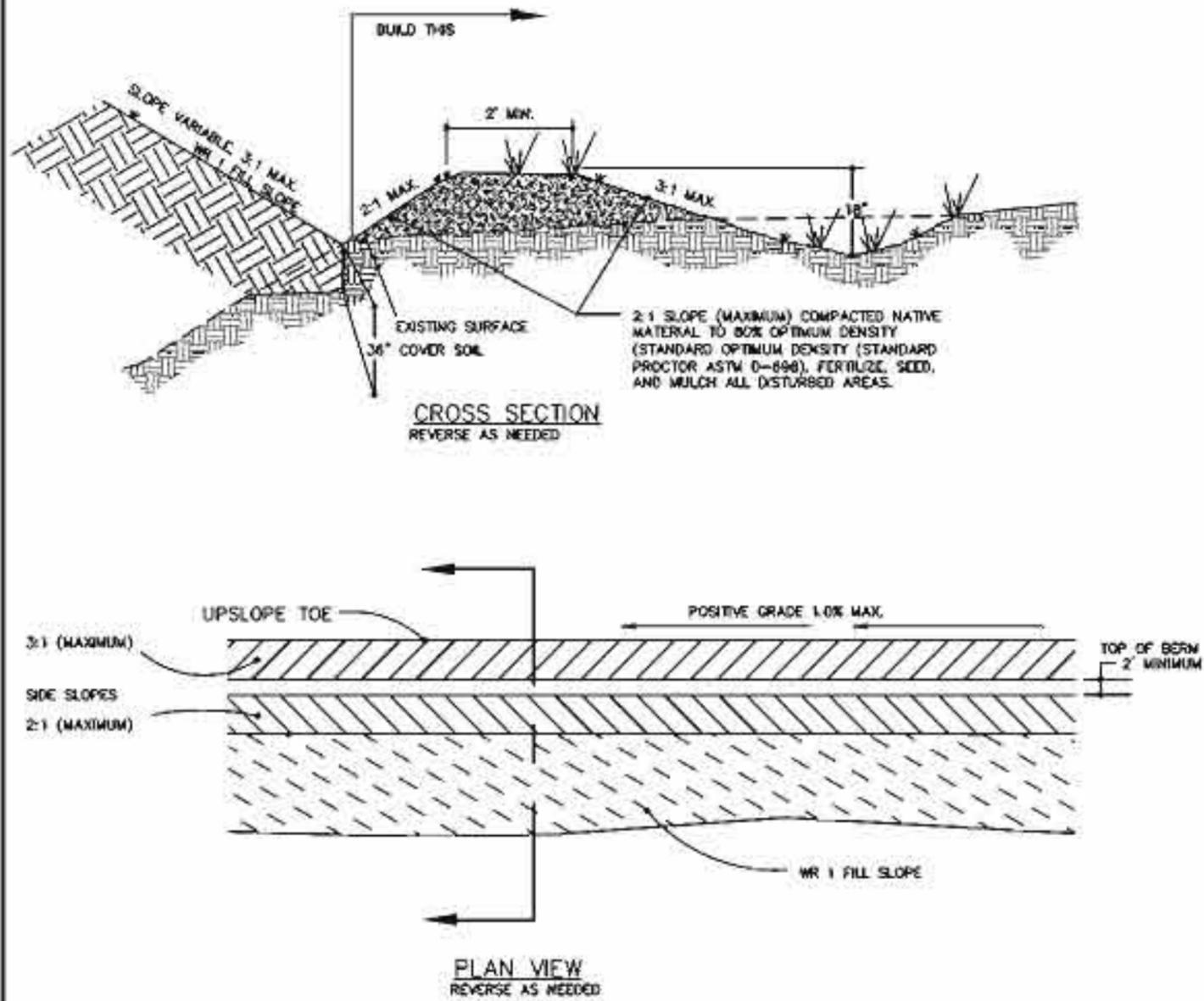
WASTE ROCK PILE (WR1) COVER AND  
GRAVEL BERM DETAILS

2010 HIGHLAND MINE  
RECLAMATION PROJECT

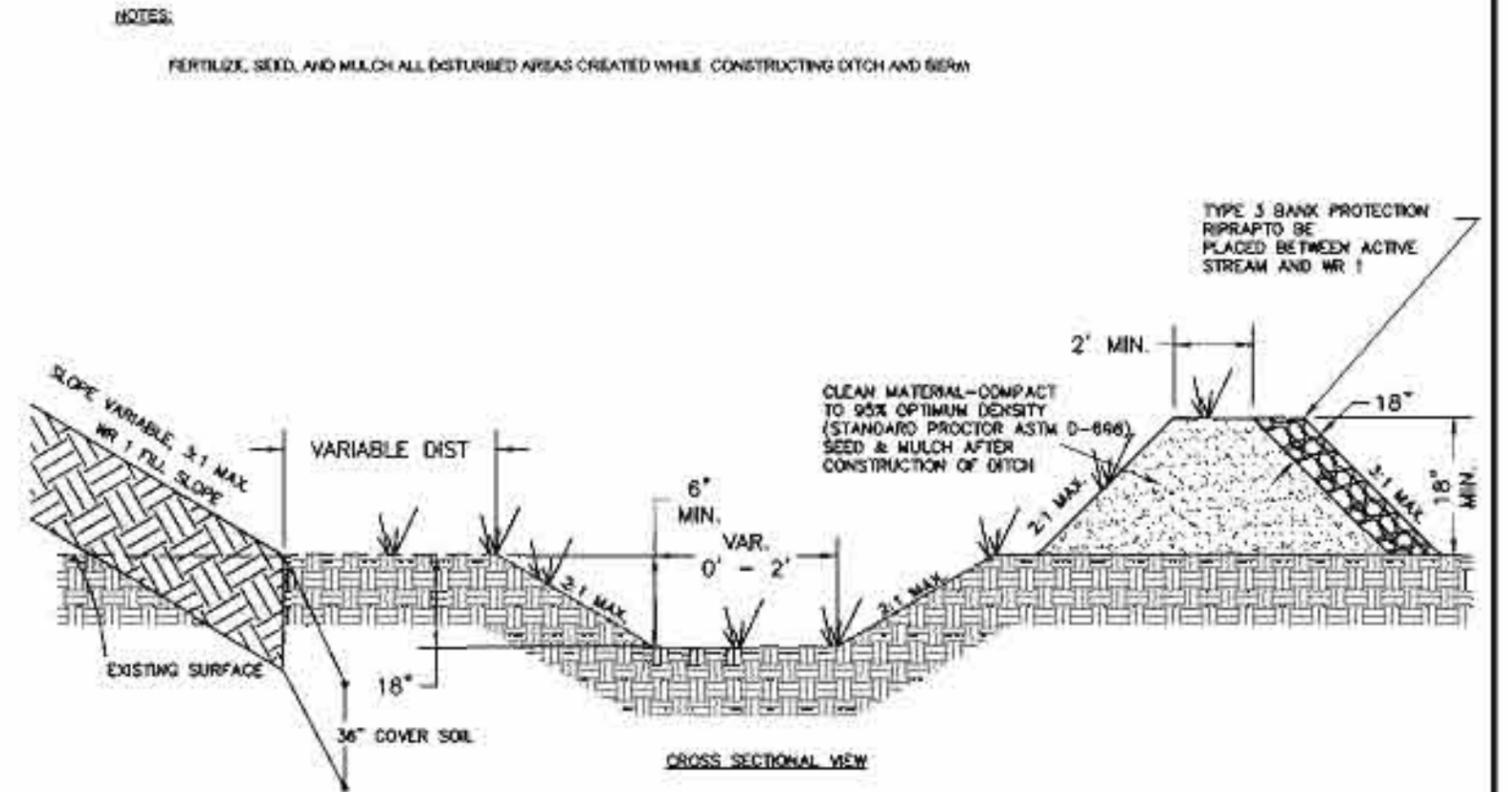
D.1

DATE: 1/28/2011

TYPE 1 DITCH 1  
D.2



TYPE 2 DITCH WITH BERM 2  
D.2



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DETAIL SHEET 2

TYPICAL DIVERSION DITCH SECTIONS

2010 HIGHLAND MINE  
RECLAMATION PROJECT

D.2

DATE: 1/28/2011

**SOIL BINDERS**

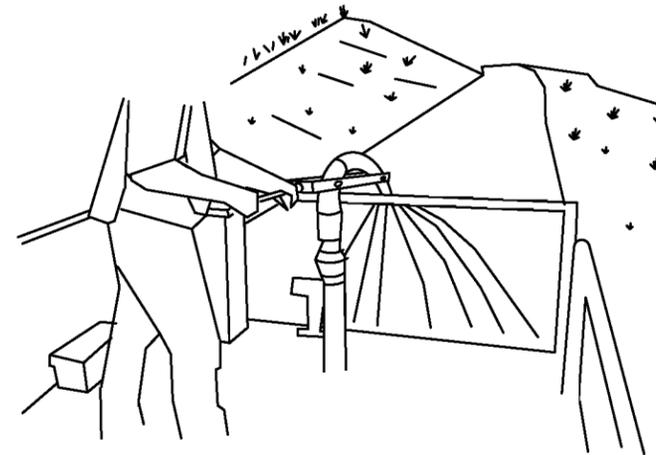
1  
D.3

SOIL BINDERS CONSIST OF APPLYING AND MAINTAINING POLYMERIC OR LIGNIN SULFONATE SOIL STABILIZERS OR EMULSIONS. SOIL BINDERS ARE MATERIALS APPLIED TO THE SOIL SURFACE TO TEMPORARILY PREVENT WATER-INDUCED EROSION OF EXPOSED SOILS ON CONSTRUCTION SITES. SOIL BINDERS TYPICALLY ALSO PROVIDE DUST, WIND AND SOIL STABILIZATION BENEFITS.

DUE TO THE TEMPORARY NATURE OF SOIL BINDERS, REAPPLICATION MAY BE REQUIRED OVER AREAS WITH PEDESTRIAN AND VEHICLE TRAFFIC.

SOIL BINDER TYPE AND APPLICATION PROCEDURES REQUIRE THE ENGINEER'S APPROVAL PRIOR TO PLACEMENT. APPLY PER MANUFACTURER'S SPECIFICATIONS.

REAPPLY SOIL BINDERS, AS SPECIFIED BY THE ENGINEER, IN HIGH TRAFFIC AREAS AND FOLLOWING RAIN EVENTS TO ENSURE AN ADEQUATELY MAINTAINED SURFACE.



PROPERTIES OF SOIL BINDERS FOR EROSION CONTROL				
CHEMICALS	COPOLYMER	LIGNIN SULFONATE	PSYLLIUM	GUAR
COMMENTS	FORMS SEMIPERMEABLE TRANSPARENT CRUST. RESISTS ULTRAVIOLET RADIATION & MOISTURE INDUCED BREAKDOWN.	PAPER INDUSTRY WASTE PRODUCT. ACTS AS DISPERSING AGENT. BEST IN DRY CLIMATES. CAN BE SLIPPERY.	EFFECTIVE ON DRY, HARD SOILS. FORMS A CRUST.	EFFECTIVE ON DRY, HARD SOILS. FORMS A CRUST.
RELATIVE COST	HIGH	MODERATE	LOW	LOW
ENVIRONMENTAL HAZARD	LOW	LOW	LOW	LOW
PENETRATION	MODERATE	MODERATE	HIGH	HIGH
EVAPORATION	MODERATE	MODERATE	MODERATE	MODERATE
LEACHING RESISTANCE	LOW	HIGH	HIGH	HIGH
ABRASION RESISTANCE	HIGH	LOW	MODERATE	MODERATE
LONGEVITY	1 TO 2 YEARS	6 MONTHS TO 1 YEAR	3 TO 6 MONTHS	3 TO 6 MONTHS
MINIMUM CURING TIME BEFORE RAIN	24 HOURS	24 HOURS	24 HOURS	24 HOURS
COMPATIBILITY WITH EXISTING VEGETATION	GOOD	POOR	POOR	POOR
MODE OF DEGRADATION	CHEMICALLY DEGRADABLE	BIOLOGICALLY/PHYSICALLY/CHEMICALLY	BIOLOGICALLY DEGRADABLE	BIOLOGICALLY DEGRADABLE
LABOR INTENSIVE	NO	NO	NO	NO
SPECIALIZED APPL. EQUIPMENT	YES	YES	YES	YES
LIQUID/POWDER	LIQUID	POWDER	POWDER	POWDER
SURFACE CRUSTING	YES	YES, BUT DISSOLVED ON REWETTING	YES, BUT DISSOLVED ON REWETTING	YES, BUT DISSOLVED ON REWETTING
CLEAN-UP	SOLVENTS	SOLVENTS	WATER	WATER
EROSION CONTROL APPLICATION RATE	APPLY 85-105 GAL./ACRE	APPLY 600-700 GAL./ACRE	APPLY 150 LB./ACRE WITH 500-2000 LB./ACRE FIBER MULCH	APPLY 100-200 LB./ACRE WITH 500-2000 LB./ACRE FIBER MULCH
DUST CONTROL APPLICATION RATE	APPLY 30-55 GAL./ACRE	LOOSEN SURFACE 1-2 INCHES. NEED 4-8% FINES. APPLY 50-200 GAL./ACRE	APPLY 150 LB./ACRE	APPLY 40-60 LB./ACRE

AS-CONSTRUCTED OCTOBER 2010



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ENGINEER:	JCM	SCALE:	NTS
CHECKED:	TLS	APPROVED:	5/24/2010
		DATE:	1/28/2011

DETAIL SHEET 3
SOIL BINDER DETAILS

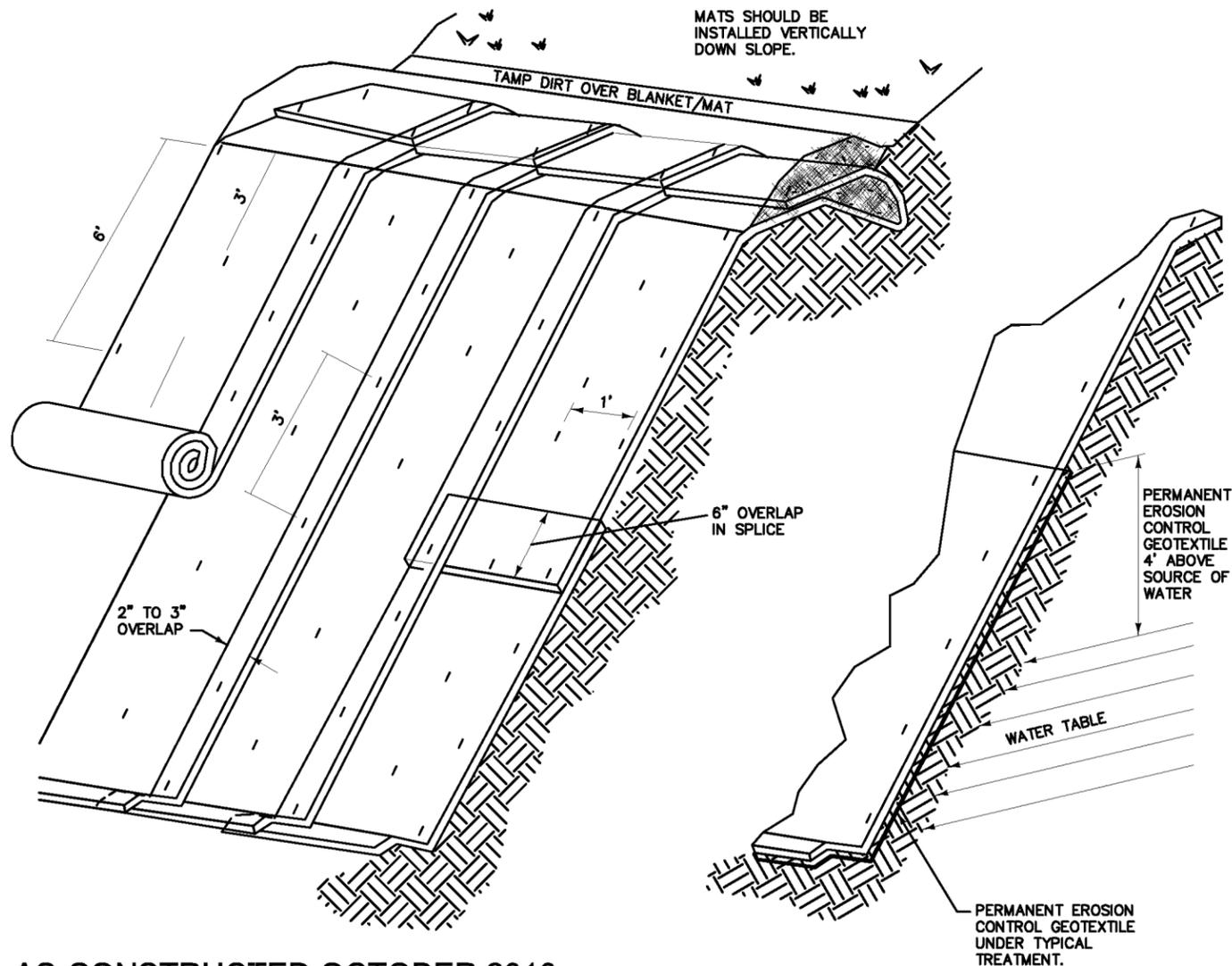
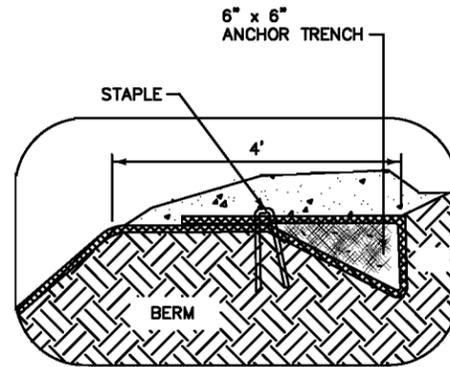
2010 HIGHLAND MINE RECLAMATION PROJECT
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D.3
DATE: 1/28/2011

**NOTE:**

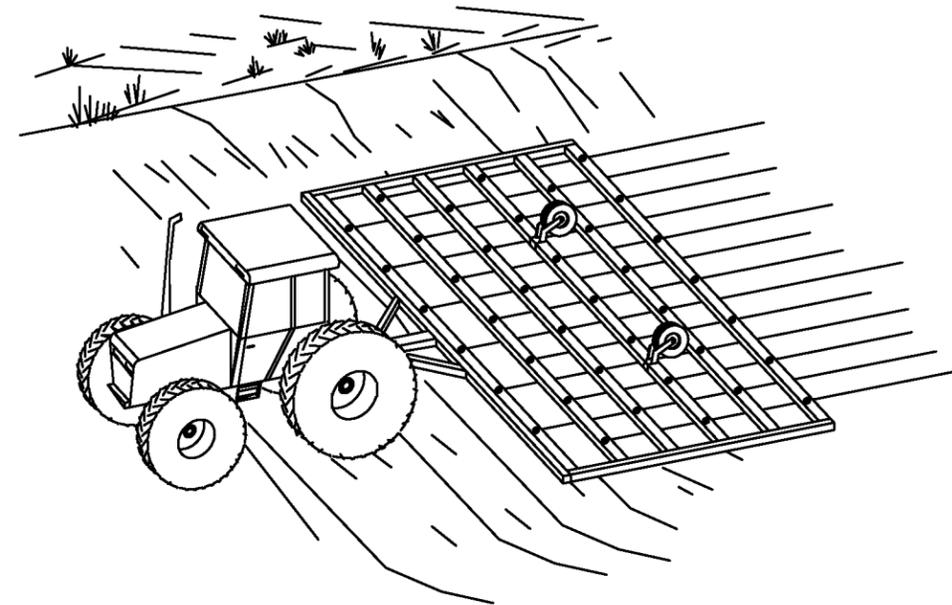
APPLY EROSION CONTROL MATS TO ALL SLOPES GREATER THEN 1.5:1.

INSTALL EROSION CONTROL BLANKETS/MATS IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND TECHNICAL SPECIFICATIONS.

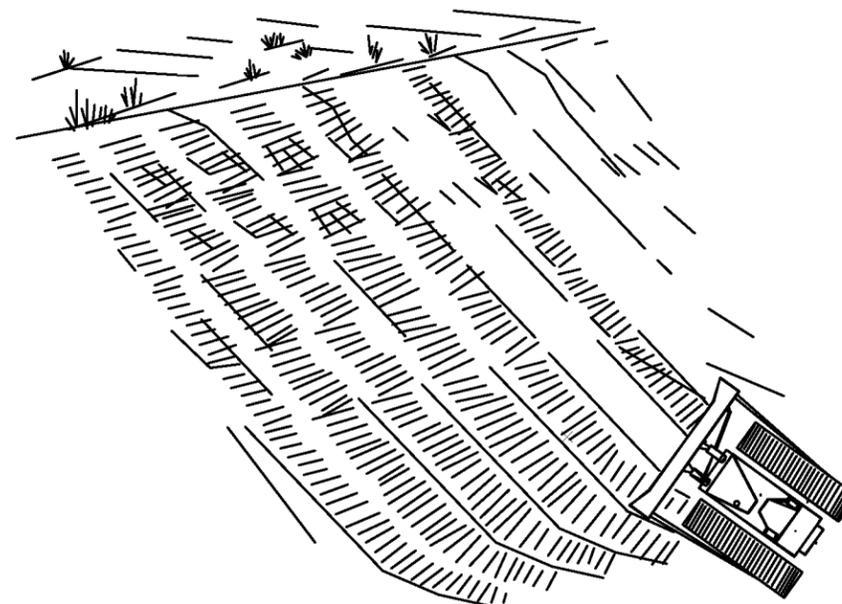


ALL SLOPES STEEPER THAN 3:1 AND GREATER THAN 5 VERTICAL FEET REQUIRE SLOPE ROUGHENING, EXCLUDING ROCK SLOPES THAT CANNOT BE EXCAVATED BY RIPPING. ROUGHEN DISTURBED SLOPES OR LEAVE IN A ROUGHENED CONDITION.

APPROPRIATE SUPPLEMENTS INCLUDE SOIL STABILIZATION TREATMENT OR BMPs SUCH AS TEMPORARY SEEDING OR EROSION SEEDING. WHEN FILL SLOPES ARE WITHIN 50 FT. OF SURFACE WATER, EARTH DIKES/DRAINAGE SWALES & LINED DITCHES AND/OR A SEDIMENT CONTROL BMPs ARE REQUIRED.



ROUGHEN SLOPES WITH HEAVY EQUIPMENT OR LEAVE IN ROUGHENED CONDITION



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DETAIL SHEET 4

EROSION CONTROL MAT AND SLOPE ROUGHENING DETAILS

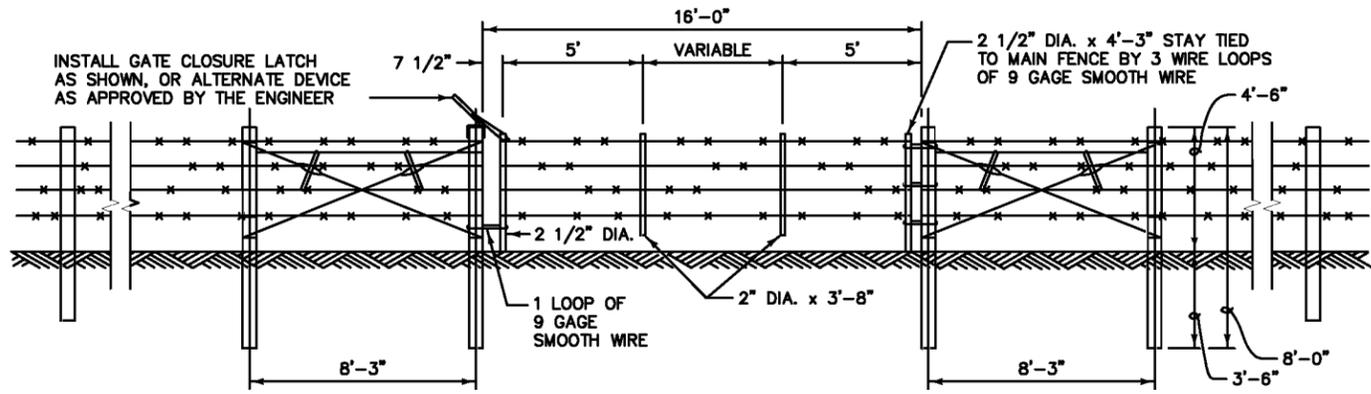
2010 HIGHLAND MINE RECLAMATION PROJECT

D.4

DATE: 1/28/2011

FARM ENTRANCE GATES

1  
D.5



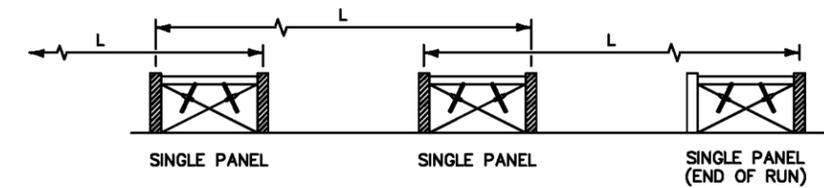
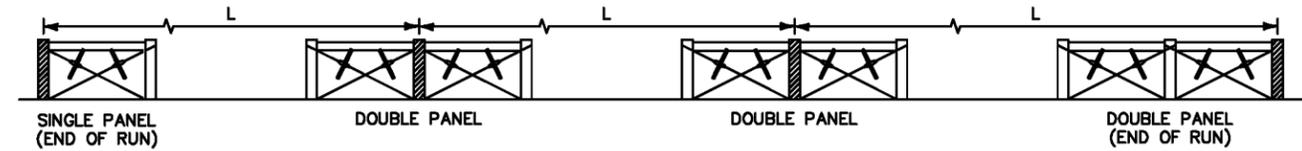
WIRE FARM ENTRANCE GATE

NOTES:  
ALL GATES ARE 16'-0" WIDE UNLESS OWNERSHIP AGREEMENT STATES OTHERWISE.  
ALL GATES WILL HAVE A SINGLE OR DOUBLE PANEL AT EACH END AS INDICATED ON THIS SHEET.

NOTE:  
USE SAME WIRE SCHEME ON GATE AS THAT USED ON FENCE.

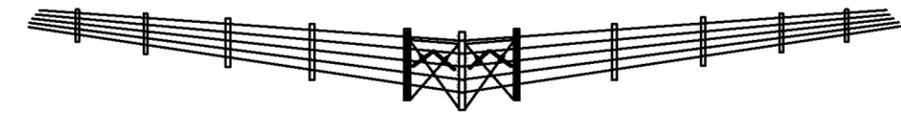
FENCE DETAILS

2  
D.5



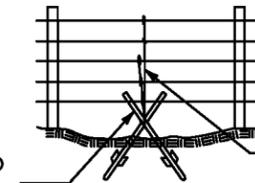
FENCE TYPE	RUN = L	PANELS REQUIRED
WOVEN BARBED	LESS THAN 33'	NONE
	33' - 330' OVER 330' TO 660' MAX.	SINGLE DOUBLE
BARBED	LESS THAN 66'	NONE
	66' - 660' OVER 660' TO 990' MAX.	SINGLE DOUBLE

NOTE:  
TIE OFF ON ALL CROSS HATCHED OR SHADED POSTS.



DOUBLE PANEL AT FENCE CORNER OR ANGLE BREAK

FENCE PANEL TYPES

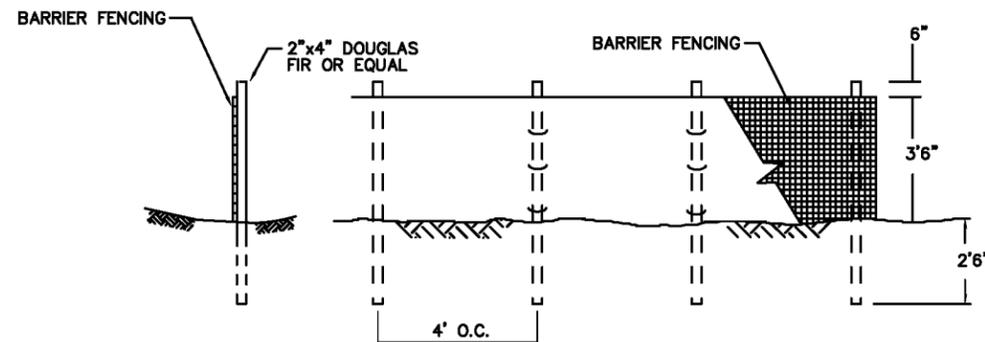


METAL LINE POSTS DRIVEN INTO GROUND AT LEAST THREE FEET

THREE STRANDS OF 9 GAGE WIRE TIED AROUND ALL WIRES AND AROUND THE JUNCTION OF THE METAL POSTS

BARRIER FENCE

3  
D.5



NOTE:  
ALL BARRIER FENCE REMOVED AT COMPLETION OF CONSTRUCTION

NOTES:  
ATTACH BARBED WIRES TO PANEL POSTS BY WRAPPING AROUND THE POST AT LEAST TWO TIMES, THEN WRAPPING AROUND ITSELF FIVE TIMES.

TO ATTACH WOVEN WIRE TO AN END POST, REMOVE TWO OR THREE VERTICAL STAY WIRES FROM THE END OF THE FENCE. PLACE THE FIRST COMPLETE VERTICAL STAY WIRE AGAINST THE POST. START AT THE MIDDLE OF THE HORIZONTAL LINE WIRES, WRAPPING AROUND THE END POST AT LEAST TWO TIMES AND THEN WRAPPING AROUND ITSELF FIVE TIMES.

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DETAIL SHEET 5

FENCING DETAILS

2010 HIGHLAND MINE RECLAMATION PROJECT

D.5

DATE: 1/28/2011

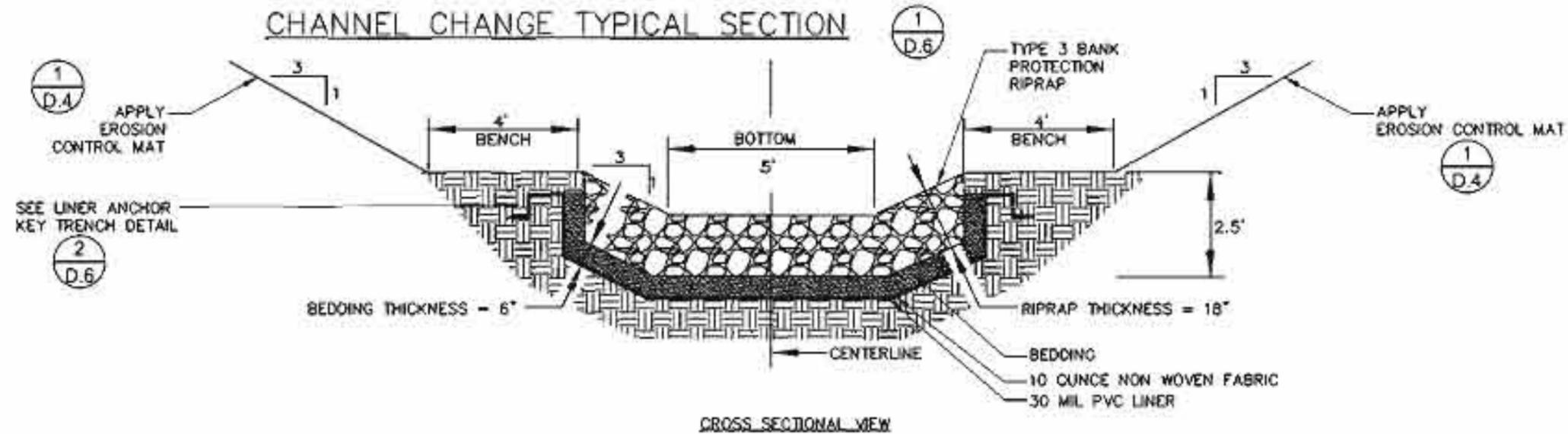
**NOTES:**

1. ALL TREES, STUMPS, BRUSH AND DEBRIS SHALL BE REMOVED FROM THE CONSTRUCTION AREA AND DISPOSED OF PROPERLY.

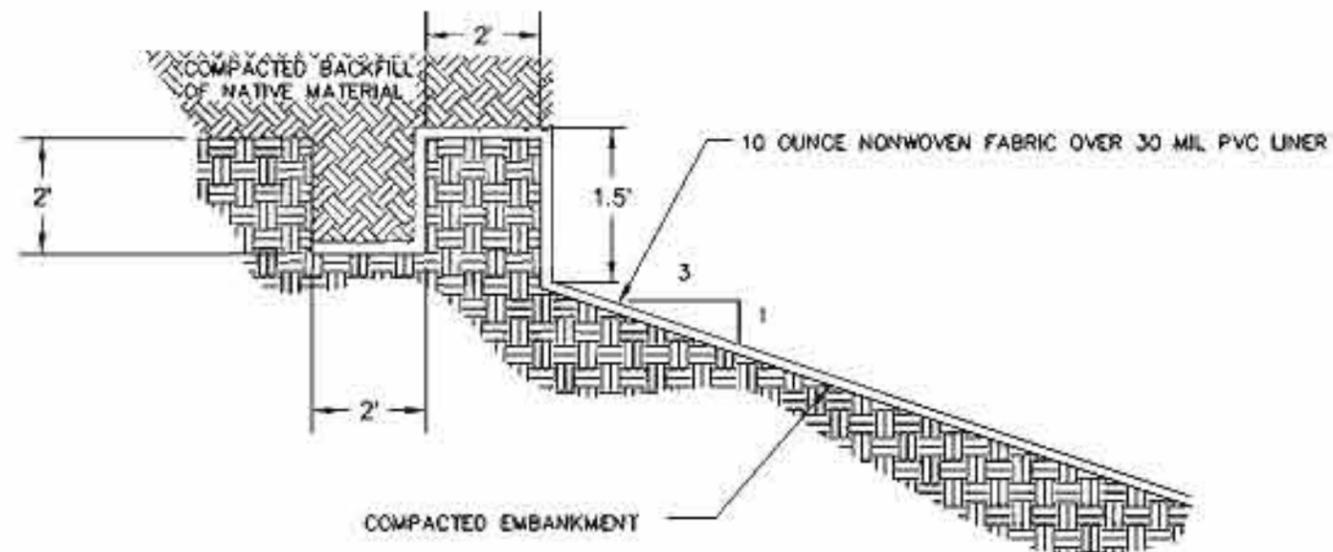
2. RIPRAP SHALL MEET TECHNICAL SPECIFICATIONS. AGGREGATE SHALL MEET COARSE AGGREGATE GRADATIONS CA-2 OR CA-3. ROCK SHALL BE PLACED ACCORDING TO TECHNICAL SPECIFICATIONS 530.

3. SPOIL MATERIAL FROM CONSTRUCTION WILL BE DEPOSITED ON THE UPHILL SIDE OR OTHERWISE SPREAD SO AS NOT TO ALLOW OVERLAND FLOW OF WATER INTO THE STREAM CHANNEL. ANY EARTH FILL SHALL BE COMPACTED TO PREVENT DIFFERENTIAL SETTLEMENT IN THE COMPLETED CHANNEL. THE CHANNEL WILL BE CONSTRUCTED TO THE SPECIFIED GRADE, WIDTH AND DEPTH.

4. IF THE SPOIL MATERIAL CONTAINS WASTE ROCK OR TAILINGS MATERIALS, IT SHALL BE PLACED WITHIN THE WR 1. IF THE MATERIAL IS SUITABLE FOR USE AS COVER SOIL, THEN IT CAN BE USED FOR COVER WITH ENGINEER'S APPROVAL.



**LINER SYSTEM AND ANCHOR KEY TRENCH DETAIL**



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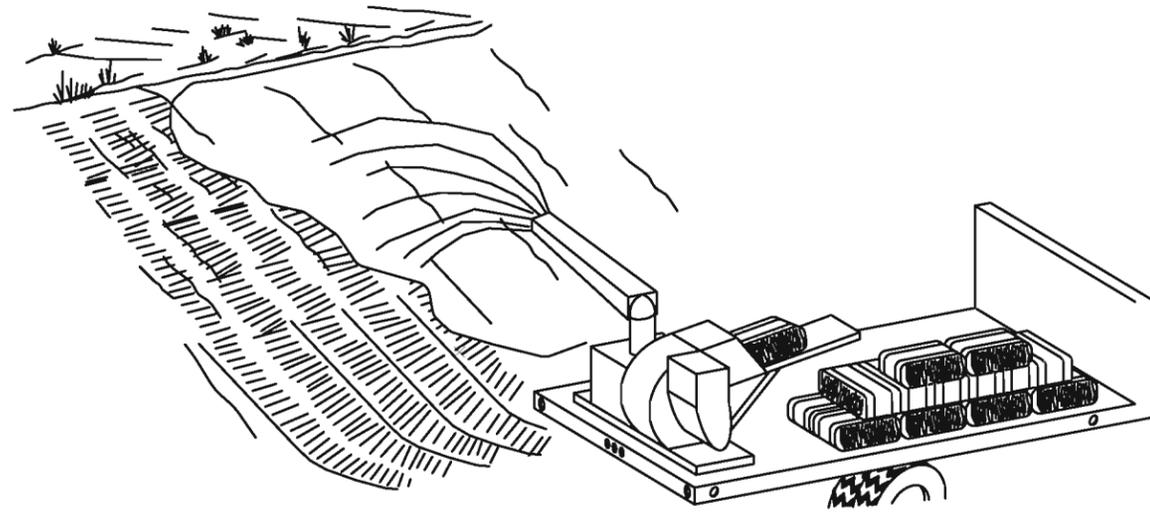
DRAWN:	JCM	PROJECT NO.:	09211
ENGINEER:	JCM	SCALE:	NTS
CHECKED:	TLS	APPROVED:	5/24/2010
		DATE:	1/28/2011

DETAIL SHEET 6  
CHANNEL CHANGE AND LINER  
INSTALLATION DETAILS

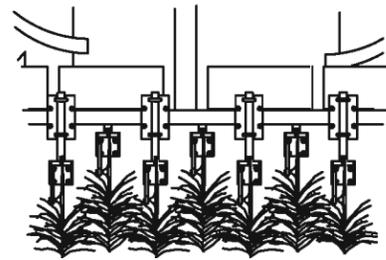
2010 HIGHLAND MINE  
RECLAMATION PROJECT

D.6  
DATE: 1/28/2011

STRAW MULCH (1/D.7)



STRAW BLOWER



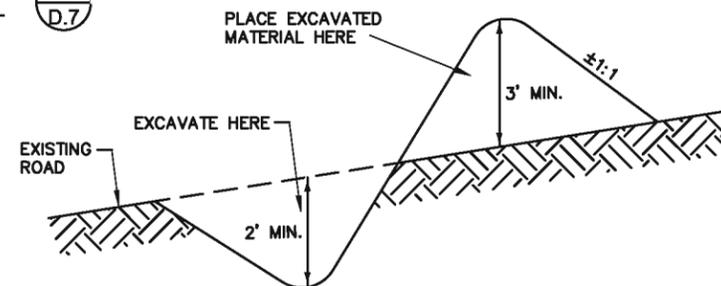
STRAW CRIMPING

KELLY HUMP (3/D.7)

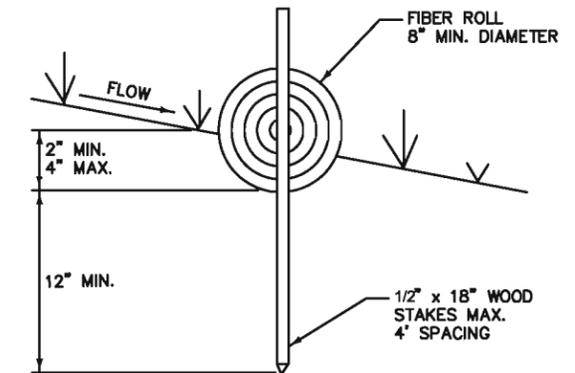
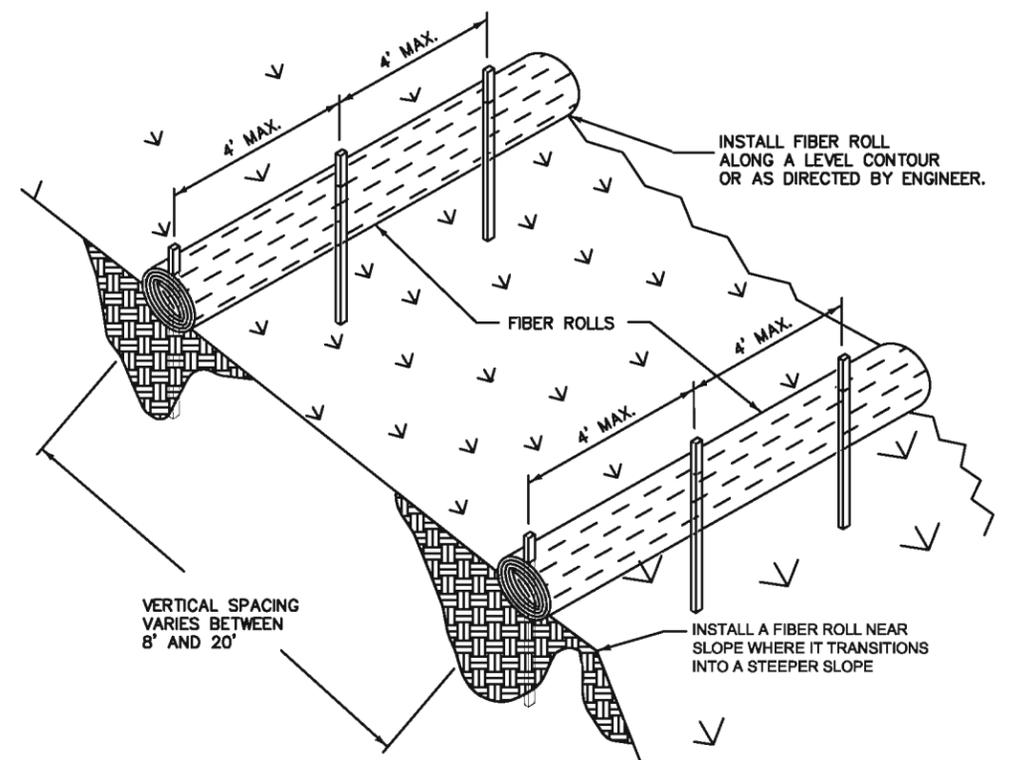
NOTES:

EXCAVATION AND KELLY HUMP SHALL EXTEND FULL WIDTH OF ROAD.

EXCAVATION SHALL DRAIN FREELY.



FIBER ROLLS (2/D.7)



AS-CONSTRUCTED OCTOBER 2010



DRAWN:	JCM	PROJECT NO.:	09211
ENGINEER:	JCM	SCALE:	NTS
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		DATE:	1/28/2011

DETAIL SHEET 7

MULCH, KELLY HUMP, AND FIBER ROLLS DETAILS

2010 HIGHLAND MINE RECLAMATION PROJECT

D.7

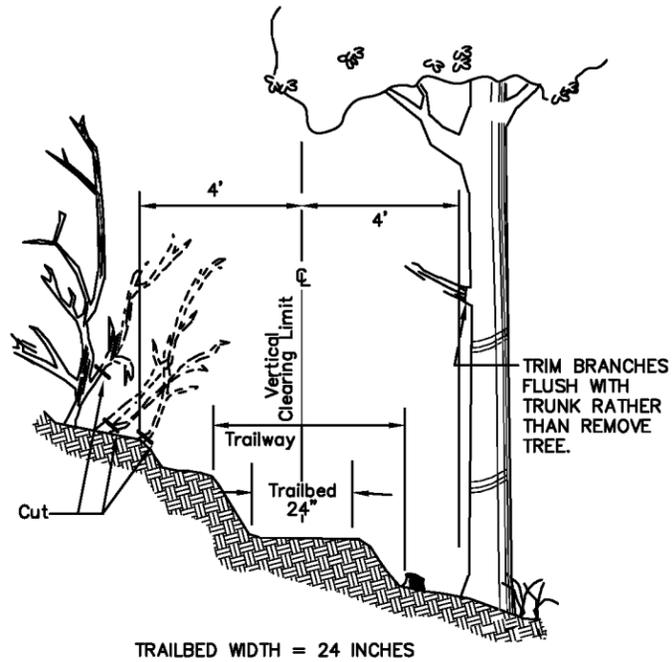
DATE: 1/28/2011

TRAIL DETAIL

1  
D.8

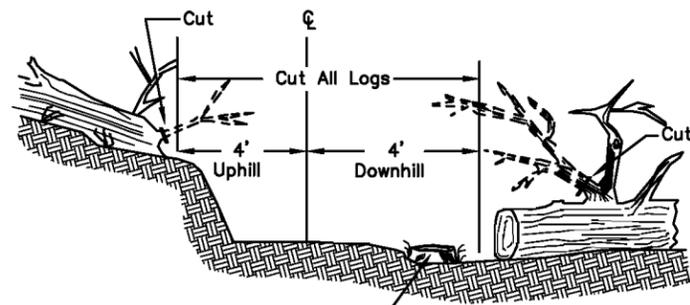
DO NOT REMOVE TREES OVER 10 INCHES DIAMETER IF THEY ARE OVER 4 FEET FROM THE CENTERLINE (BOTH SIDES).

REMOVE ALL TREES 4 INCHES OR LESS IN DIAMETER IF THEY ARE WITHIN 7 FEET OF CENTERLINE (BOTH SIDES).



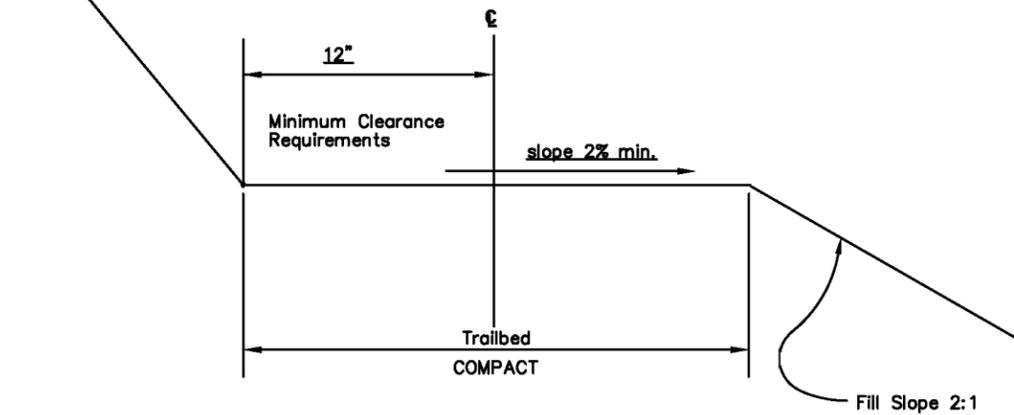
TRAILBED WIDTH = 24 INCHES

TRIM BRANCHES FLUSH WITH TRUNK RATHER THAN REMOVE TREE.



STUMP HEIGHT SHALL BE 6" REGARDLESS OF UPHILL OR DOWNHILL LOCATION OR SIDESLOPE

Backslope Ratio—Horizontal:Vertical  
Rock 2:1  
Common 1.5:1



AS-CONSTRUCTED OCTOBER 2010



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		DATE:	1/28/2011

DETAIL SHEET 8

TRAIL DETAILS

2010 HIGHLAND MINE  
RECLAMATION PROJECT

D.8

DATE: 1/28/2011

**APPENDIX B**  
**BID TABULATIONS**

**Highland Mine Reclamation Project Contract 410022**

<b>BID TABULATION</b>				<b>Engineers Estimate</b>		<b>AAA Construction</b>		<b>Blackfoot Slate &amp; Stone Inc.</b>		<b>R.E. Miller &amp; Sons</b>	
<i>Bid Item</i>	<i>ESTIMATED QUANTITY</i>	<i>UNIT</i>	<i>DESCRIPTION</i>	<i>UNIT PRICE</i>	<i>TOTAL PRICE</i>	<i>UNIT PRICE</i>	<i>TOTAL PRICE</i>	<i>UNIT PRICE</i>	<i>TOTAL PRICE</i>	<i>UNIT PRICE</i>	<i>TOTAL PRICE</i>
1	1	LS	MOBILIZATION, DEMOBILIZATION, BONDING, AND INSURANCE	\$28,600.00	\$28,600.00	\$25,000.00	\$25,000.00	\$ 39,000.00	\$39,000.00	\$36,000.00	\$36,000.00
2	1	LS	CLEARING AND GRUBBING	\$5,720.00	\$5,720.00	\$15,000.00	\$15,000.00	\$16,500.00	\$16,500.00	\$19,000.00	\$19,000.00
3	XXXXXX	XX	EXCAVATION AND EMBANKMENT	--	--	--	--	--	--	--	--
3a.	695	CY	Excavation of TP1, TP2, and TP3	\$13.81	\$9,594.48	\$15.00	\$10,425.00	\$17.25	\$11,988.75	\$5.50	\$3,822.50
3b.	2	AC	Grading	\$3,960.00	\$7,920.00	\$2,000.00	\$4,000.00	\$12,500.00	\$25,000.00	\$7,200.00	\$14,400.00
3c.	826	LF	Construction of Type 1 Ditch	\$17.60	\$14,537.60	\$20.00	\$16,520.00	\$12.15	\$10,035.90	\$4.50	\$3,717.00
3d.	137	LF	Construction of Type 2 Ditch	\$35.20	\$4,822.40	\$30.00	\$4,110.00	\$43.80	\$6,000.60	\$6.50	\$890.50
4	1	LS	ADIT DISCHARGE DIVERSION	\$7,375.50	\$7,375.50	\$4,500.00	\$4,500.00	\$8,500.00	\$8,500.00	\$8,000.00	\$8,000.00
5	XXXXXX	XX	CHANNEL CHANGE	--	--	--	--	--	--	--	--
5a.	125	LF	Channel Change Excavation	\$27.50	\$3,437.50	\$30.00	\$3,750.00	\$56.00	\$7,000.00	\$15.00	\$1,875.00
5b.	385	SY	30 Mil PVC Liner	\$2.77	\$1,067.22	\$15.00	\$5,775.00	\$6.75	\$2,598.75	\$13.50	\$5,197.50
5c.	385	SY	10 Ounce Nonwoven Fabric	\$2.29	\$880.88	\$5.00	\$1,925.00	\$9.35	\$3,599.75	\$3.25	\$1,251.25
5d.	36	CY	Bedding Material	\$30.25	\$1,089.00	\$25.00	\$900.00	\$48.50	\$1,746.00	\$35.00	\$1,260.00
5e.	103	CY	Riprap	\$106.81	\$11,001.43	\$40.00	\$4,120.00	\$53.50	\$5,510.50	\$70.00	\$7,210.00
6	7070	CY	COVER SOIL	\$21.79	\$154,062.37	\$28.00	\$197,960.00	\$29.42	\$207,999.40	\$48.00	\$339,360.00
7	2	AC	SLOPE ROUGHENING	\$440.00	\$880.00	\$1,000.00	\$2,000.00	\$1,000.00	\$2,000.00	\$1,100.00	\$2,200.00
8	2	AC	FERTILIZE AND SEED DISTURBED AREAS	\$715.00	\$1,430.00	\$2,000.00	\$4,000.00	\$3,750.00	\$7,500.00	\$3,000.00	\$6,000.00
9	2	AC	STRAW MULCH	\$275.00	\$550.00	\$2,000.00	\$4,000.00	\$5,000.00	\$10,000.00	\$3,000.00	\$6,000.00
10	190	LF	GRAVEL BERM BAGS	\$17.60	\$3,344.00	\$10.00	\$1,900.00	\$10.25	\$1,947.50	\$10.00	\$1,900.00
11	300	LF	FIBER ROLLS	\$5.23	\$1,567.50	\$6.00	\$1,800.00	\$5.00	\$1,500.00	\$10.00	\$3,000.00
12	300	LF	BARRIER FENCE	\$29.70	\$8,910.00	\$5.00	\$1,500.00	\$8.30	\$2,490.00	\$7.00	\$2,100.00
13	220	SY	EROSION CONTROL MAT	\$4.97	\$1,093.84	\$3.00	\$660.00	\$6.80	\$1,496.00	\$10.00	\$2,200.00
14	1	LS	OBLITERATE AND RECLAIM ROADWAY	\$770.00	\$770.00	\$3,000.00	\$3,000.00	\$1,200.00	\$1,200.00	\$1,500.00	\$1,500.00
15	XXXXXX	XX	FENCE	--	--	--	--	--	--	--	--
15a.	1850	LF	Construct New Farm Fence	\$2.38	\$4,395.60	\$8.00	\$14,800.00	\$6.75	\$12,487.50	\$5.50	\$10,175.00
15b.	2	EA	Gates	\$104.50	\$209.00	\$400.00	\$800.00	\$200.00	\$400.00	\$250.00	\$500.00
16	1	LS	LANDFILL DEBRIS DISPOSAL	\$8,800.00	\$8,800.00	\$3,000.00	\$3,000.00	\$5,500.00	\$5,500.00	\$20,000.00	\$20,000.00
17	560	LF	TRAIL	\$12.10	\$6,776.00	\$20.00	\$11,200.00	\$4.50	\$2,520.00	\$5.00	\$2,800.00
			<b>TOTAL BID</b>		<b>\$288,834.32</b>		<b>\$342,645.00</b>		<b>\$394,520.65</b>		<b>\$500,358.75</b>

**APPENDIX C**  
**CONTRACT DOCUMENTS**

## NOTICE OF AWARD

TO: AAA Construction of Missoula LLC

DATE: July 1, 2010

3376 Trails End Road

PROJECT: 2010 Highland Mine Reclamation Project

Missoula, Montana 59803

DEQ Contract No.: 410022

**PROJECT DESCRIPTION:** The reclamation plan involves excavation of relatively small tallings piles (TP1, TP2, and TP3), placing the excavated material at the base of Waste Rock Pile 1 (WR1), regrading WR1, and covering WR1 with cover soil. A discharging adit that forms the headwaters of Basin Creek is also located on site. A portion of the discharging adit channel shall be routed around WR1, lined, riprapped, and flow directed into the new channel. Disturbance areas shall be fertilized, seeded, and mulched.

The Owner has considered the Bid submitted by you for the above-described Work in response to its Invitation for Bid dated June 25, 2010 and Instructions to Bidders.

You are hereby notified that your bid has been accepted for items in the amount of \$342,645.00.

Within five (5) days after receipt of this Notice of Award (Saturdays, Sundays and legal holidays excluded) or as Owner and Contractor otherwise mutually agree, you are required (Article 13, Instructions to Bidders) to execute and deliver to Owner a copy of the Acceptance of Notice of Award, all executed copies of the Agreement and the properly issued and effective Performance and Payment Bonds, Certificates of Insurance and copies of applicable insurance policies.

If you fail to execute said Agreement and to furnish said Bonds and Insurance within five (5) days from the date of this Notice, said Owner will be entitled to consider all your rights (arising out of the Owner's acceptance of your Bid) as abandoned and to forfeit your Bid Bond. The Owner will be entitled to exercise such other and further rights as may be granted by law.

Please return an acknowledged copy of this Notice of Award to the Owner.

Dated 1st day of July, 2010.

OWNER:

DEPARTMENT OF ENVIRONMENTAL QUALITY

By: Pete Ueh  
Title: Reclamation Specialist / Project Manager

## ACCEPTANCE OF NOTICE OF AWARD

Receipt of the above Notice of Award is hereby acknowledged this 1 day of July, 2010.

CONTRACTOR:

AAA Const. of Missoula LLC  
By: Bruce J. Nelson  
Title: MANAGER

## AGREEMENT

OWNER: The Montana Department of Environmental Quality

CATEGORY OF IMPROVEMENTS: Mine Waste Reclamation

CONTRACT TITLE: 2010 Highland Mine Reclamation Project

CONTRACT NUMBER: DEQ Contract No. 410022

THIS AGREEMENT made as of the \_\_\_\_\_ 1st \_\_\_\_\_ day of \_\_\_\_\_ July \_\_\_\_\_, 2010, by and between the Montana Department of Environmental Quality, hereinafter called Owner, and AAA Construction of Missoula LLC with legal address and principal place of business at 3376 Trails End Road, Missoula, Montana 59803 hereinafter called Contractor. Owner and Contractor in consideration of the mutual covenants hereinafter set forth, agree as follows:

### ARTICLE 1. WORK

1.1 Contractor shall perform the work as indicated in the Contract Documents. The work is summarized in the Special Provisions.

### ARTICLE 2. ENGINEER

2.1 TerraGraphics Environmental Engineering Inc., 302 North Last Chance Gulch, Suite 409, Helena, MT, 59601, will act as Engineer in connection with completion of the work in accordance with the Contract Documents, unless another engineer is designated by Owner.

### ARTICLE 3. CONTRACT TIMES

3.1 The work will commence as provided in Article 2 of the Conditions of the Contract. All Work shall be substantially complete, as defined in the General Conditions, **within forty-five (45) consecutive calendar days**, as adjusted under Article 12 of the Contract Documents.

3.2 Contractor agrees that the work shall be prosecuted regularly, diligently and uninterruptedly at such rate of progress as will insure full completion thereof within the Contract Times stated above. It is expressly understood and agreed that the Contract Times are reasonable for the completion of the work, taking into consideration the average climatic range and usual industrial conditions prevailing in this locality.

### ARTICLE 4. CONTRACT PRICE

4.1 Owner will pay Contractor for performance of the work in accordance with the Contract Documents in current funds at the Total Contract Price appearing in the Contractor's Bid Form attached to this Agreement.

### ARTICLE 5. APPLICATIONS FOR PAYMENT

5.1 Contractor shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

## ARTICLE 6. PROGRESS AND FINAL PAYMENTS

6.1 Owner will make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment as recommended by Engineer, monthly during construction as provided below.

All progress payments will be on the basis of the progress of the work provided for in Paragraph 14.02 of the General Conditions.

6.2 Prior to Substantial Completion, and so long as Contractor is performing by the terms of the Agreement, progress payments will be in an amount equal to 95 percent of the value of the work completed, less, in each case, the aggregate of payments previously made [less the additional retainage of \$1000 dollars per Section 18-2-404(2)]. Owner reserves the right, without prejudice to any other remedy, to increase the retainage, if Owner determines that Contractor is not performing in accordance with the terms of this Agreement.

6.3 Upon Substantial Completion of the principal elements of the Work, Owner may, at its discretion, deliver a portion of the retainage to Contractor.

6.4 Upon final inspection and acceptance of all of the work, in accordance with Paragraph 14.07. of the General Conditions, Owner will pay the remainder of the Contract Price as recommended by Engineer, retaining \$1,000 until termination of the Agreement as required by Section 18-2-404(2), MCA.

## ARTICLE 7. LIQUIDATED DAMAGES

7.1 Owner and Contractor acknowledge that time is of the essence in the performance of the work required under this Agreement and that Owner will suffer financial and other losses if the work is not completed within the Contract Times (specified in Article 3 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions). They also recognize the delay, expense, and difficulty involved in proving, in a legal or arbitration proceeding, the actual loss suffered by Owner if the work is not completed on time. Accordingly, to avoid the time, expense, delay, and difficulty in proving or disputing such damages and to provide certainty and predictability for both parties, Owner and Contractor agree that Contractor shall pay Owner as liquidated damages for delay (and not as a penalty) the amount of \$750.00 per day for each day beyond the Contract Time that the work is not substantially complete.

The completion dates specified here are subject to adjustment in accordance with Paragraph 12.03 of the General Conditions, provided that Contractor shall furnish Owner the required notification of such delays in accordance with Paragraph 12.02 of the General Conditions.

## ARTICLE 8. CONTRACT DOCUMENTS

8.1 The Contract Documents which, together with this executed document, comprise the Agreement between Owner and Contractor are attached hereto and made a part hereof and consist of the following:

8.1.1 The Instructions to Bidders;

8.1.2 Contractor's submitted Bid Form and Questionnaire Responses, together with any properly and timely submitted amendments or supplements thereto, and other documentation requested by Owner and submitted by Contractor with the Bid or prior to the Notice of Award;

8.1.3 The required and properly issued Construction Performance Bond, Construction Payment Bond and other required bonds and certificates of insurance;

- 8.1.4 Notice of Award;
- 8.1.5 Notice to Proceed;
- 8.1.6 General Conditions, EJCDC Document 1910-8, 1996 Edition (modified);
- 8.1.7 Supplementary Conditions, Parts I and II;
- 8.1.8 Special Provisions;
- 8.1.9 Technical Specifications;
- 8.1.10 Drawings: Sheet A.1. through A.2, C.1 through C.7, and D.1 through D.8
- 8.1.11 Addenda numbers \_\_\_\_ - \_\_\_\_ through \_\_\_\_ - \_\_\_\_ modifying documents which are part of this Agreement; and
- 8.1.12 All properly executed or issued amendments and modifications of this Agreement, including Written Amendments, Change Orders, Work Change Directives, Field Orders or Engineer's written interpretations and clarifications issued after execution of this Agreement.

#### ARTICLE 9. LIAISONS

9.1 Notices to be given by one party to the other shall, unless the Contract Documents provide otherwise, be sent to the following contacts for each party. Required written notices shall be sent by registered or certified mail, return receipt requested, or by similar service. A party may change a contact person(s) or address given below by notifying the other party in writing.

For DEQ/Owner:

Department of Environmental Quality  
Attention: Pebbles Clark  
Remediation Division  
P.O. Box 201001  
1100 N. Last Chance Gulch  
Helena, MT 59620  
(406) 841-5028

For Contractor:

AAA Construction of Missoula LLC  
Attention: Brady Nelson  
3376 Trails End Road  
Missoula, MT 59803  
(406) 251-4995

with a copy to:

Department of Environmental Quality  
Attention: Mr. Thomas E. Root - Legal Counsel  
P.O. Box 201001  
1100 N. Last Chance Gulch  
Helena, MT 59620  
(406) 841-5022

#### ARTICLE 10. MISCELLANEOUS

10.1 Terms used in this Agreement which are defined in Article 1 of the Conditions of the Contract shall have the meanings assigned in the Conditions of the Contract.

10.2 Neither Owner nor Contractor shall, without the prior written consent of the other, assign or sublet in whole or in part his/her interest under any of the Contract Documents; and, specifically but without limitation, Contractor shall not assign any monies due or to become due without the prior written consent of Owner. In case Contractor, with Owner's written consent, assigns all or any part of any monies due or to become due under this Contract, the instrument of assignment shall contain a clause providing that the right of the assignee in and to any monies due or to become due to Contractor shall be subject to prior claims of all persons, firms, and corporations for services rendered or materials supplied for the performance of the work called for in this Contract.

10.3 Owner and Contractor each binds himself, his/her partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

10.4 The Contract Documents constitute the entire agreement between Owner and Contractor and, except as expressly provided in the Contract Documents themselves, may be altered, amended, or repealed only by a Written Modification signed by both parties.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement. All portions of the Contract Documents have been signed or identified by Owner and Contractor or by Engineer on their behalf.

This Agreement shall become effective on July 07, 2010.

**OWNER:**

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

By: Richard H. Oppen

RICHARD H. OPPER  
Director  
1520 E. Sixth Avenue  
PO Box 200901  
Helena, MT 59620-0901

By: Vicki J. Woodrow

VICKI J. WOODROW  
Contracts Officer  
Financial Services  
1520 E. Sixth Avenue, P.O. Box 200901  
Helena, MT 59620-0901

Approved for legal content by:

Thomas E. Root

Thomas E. Root  
Legal Counsel, DEQ

**CONTRACTOR:**

Name: AAA Construction of Missoula LLC

By: 

(CORPORATE SEAL)(If Applicable)

Name: Brady G. Nelson

Title: Manager

Address: 3376 Trails End Road, Missoula, MT 59803

Note: If Contractor is a corporation, a certificate evidencing the principal's authority to sign on behalf of the corporation must accompany the executed Agreement.



# PAYMENT BOND

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

**CONTRACTOR (Name and Address):**

AAA Construction of Missoula, LLC  
PO Box 3932, Missoula, MT 59806

**OWNER (Name and Address):**

Montana Department Of Environmental Quality  
1520 East 6Th Ave, Helena, MT 59620

**SURETY (Name and Address of Principal Place of Business)**

Lexon Insurance Company  
10002 Shelbyville Rd., Ste. 100, Louisville, KY 40223

**CONTRACT**

Date: 07/01/2010

Amount: \$342,645.00

**Descriptions (Name and Location):**

2010 Highland Mine Reclamation Project

**BOND**

Bond Number: 1056611

Date (Not earlier than Contract Date): 07/09/2010

Amount: \$342,645.00

Modifications to this Bond Form: none

Surety and Contractor, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Performance Bond to be duly executed on its behalf by its authorized officer, agent or representative.

**CONTRACTOR AS PRINCIPAL**

Company:

AAA Construction of Missoula, LLC

Signature: [Signature] (Seal)

Name and Title: MANAGER

**SURETY**

Lexon Insurance Company (Seal)

Surety's Name and Corporate Seal

By:

Signature and Title [Signature] Jana Pisani Attorney-in-Fact  
(Attach Power of Attorney)

(Space is provided below for signatures of additional parties, if required.)

Witness:

[Signature]  
Signature and Title Gina Knowles Administrative Specialist

**CONTRACTOR AS PRINCIPAL**

Company:

Signature: \_\_\_\_\_ (Seal)

Name and Title: \_\_\_\_\_

**SURETY**

\_\_\_\_\_  
(Seal)

Surety's Name and Corporate Seal

By:

Signature and Title \_\_\_\_\_  
(Attach Power of Attorney)

Attest:

Signature and Title \_\_\_\_\_

E/CDC No. C-615 (2002 Edition)

Originally prepared through the joint efforts of Surety Association of America, Engineers Joint Contract Documents Committee, the Associated General Contractors of America, and the American Institute of Architects, the American Subcontractors Association, and the Associated Specialty Contractors.

1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to Owner to pay for labor, materials, and equipment furnished by Claimants for use in the performance of the Contract, which is incorporated herein by reference.
2. With respect to Owner, this obligation shall be null and void if Contractor:
  - 2.1 Promptly make payment, directly or indirectly, for all sums due Claimants, and
  - 2.2 Defends, indemnifies and holds harmless Owner from all claims, demands, liens or suits alleging non-payment by Contractor by any person or entity who furnished labor, materials or equipment for use in the performance of the Contract, provided Owner has promptly notified Contractor and Surety (at the addresses described in Paragraph 12) of any claims, demands, liens or suits and tendered defense of such claims, demands, liens or suits to Contractor and Surety, and provided there is no Owner Default.
3. With respect to Claimants, this obligation shall be null and void if Contractor promptly makes payment, directly or indirectly, for all sums due.
4. The Surety shall have no obligation to Claimants under this Bond until:
  - 4.1 Claimants who are employed by or have a direct contract with Contractor have given notice to Surety (at the addresses described in Paragraph 12) and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.
  - 4.2 Claimants who do not have a direct contract with Contractor:
    1. Have furnished written notice to Contractor and sent a copy, or notice thereof, to Owner, within 90 days after having last performed labor or last furnished materials or equipment included in the claim stating, with the substantial accuracy, the amount of the claim and the name of the party to whom the materials were furnished or supplied or for whom the labor was done or performed; and
    2. Have either received a rejection in whole or in part from Contractor, or not received within 30 days of furnishing the above notice any communication from Contractor by which Contractor had indicated the claim will be paid directly or indirectly; and
    3. Not having been paid within the above 30 days, have sent a written notice to Surety and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to Contractor.
5. If a notice by a claimant required by Paragraph 4 is provided by Owner to Contractor or to Surety, that is sufficient compliance.
6. When the Claimant has satisfied the conditions of Paragraph 4, Surety shall promptly and at Surety's expense take the following actions:
  - 6.1 Send an answer to the Claimant, with a copy to Owner, within 45 days after receipt of the claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed.
  - 6.2 Pay or arrange for payment of any undisputed amounts.
7. Surety's total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payment made in good faith by Surety.
8. Amounts owed by Owner to Contractor under the Contract shall be used for the performance of the Contract and to satisfy claims, if any, under any performance bond. By Contractor furnishing and Owner accepting this Bond, they agree that all funds owned by Contractor in the performance of the Contract are dedicated to satisfy obligations of Contractor and Surety under this Bond, subject to Owner's priority to use the funds for the completion of the Work.
9. Surety shall not be liable to Owner, Claimants or other for obligations of Contractor that are unrelated to the Contract. Owner shall not be liable for payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.
10. Surety hereby waives notice of any change, including changes of time, to the Contract or to related Subcontracts, purchase orders and other obligations.
11. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the location in which the Work or part of the Work is located or after the expiration of one year from the date (1) on which the Claimant gave the notice required by Paragraph 4.1 or Paragraph 4.2.3, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to a surety as a defendant in the jurisdiction of the suit shall be applicable.
12. Notice to Surety, Owner or Contractor shall be mailed or delivered to the addresses shown on the signature page. A trial receipt of notice by Surety, Owner or Contractor, however accomplished, shall be sufficient compliance as of the date received at the address shown on the signature page.
13. Where this Bond has been furnished to comply with a statutory requirement in the location in which the Contract was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory Bond and not as a common law bond.
14. Upon request of any person or entity appearing to be a potential beneficiary of this Bond, Contractor shall promptly furnish a copy of this Bond or shall permit a copy to be made.
15. DEFINITIONS
  - 15.1 Claimant: An individual or entity having a direct contract with Contractor or with a first-tier subcontractor of Contractor to furnish labor, materials or equipment for use in the performance of the Contract. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Contract, architectural and engineering services required for performance of the Work of Contractor and Contractor's Subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials or equipment were furnished.
  - 15.2 Contract: The agreement between Owner and Contractor identified on the signature page, including all Contract Documents and changes thereto.
  - 15.3 Owner Default: Failure of Owner, which has neither been remedied nor waived, to pay Contractor as required by the Contract or to perform and complete or comply with the other terms thereof.

**FOR INFORMATION ONLY - Name, Address and Telephone**  
**Surety Agency or Broker**  
**Owner's Representative (engineer or other party)**

# ALL-PURPOSE ACKNOWLEDGMENT

State of Nevada\_

County of Washoe

On 7/9/10\_, before me, Robin Lee Kennedy\_\_\_, Notary Public,

personally appeared Jana Pisani\_\_\_\_\_,

(Here insert name and title of the officer)

who proved to me the basis of satisfactory evidence to be the person (s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she /they executed the same in his/her/their authorized capacity (ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of Nevada that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

  
Signature of Notary Public

(Notary Seal)



## ADDITIONAL OPTIONAL INFORMATION

### INSTRUCTIONS FOR COMPLETING THIS FORM

#### DESCRIPTION OF THE ATTACHED DOCUMENT

\_\_\_\_\_  
(Title or description of attached document)

\_\_\_\_\_  
(Title or description of attached document continued)

Number of Pages \_\_\_\_\_ Document Date \_\_\_\_\_

\_\_\_\_\_  
(Additional Information)

- State and County information must be the State and County where the document signer(s) personally appeared before the notary public for acknowledgement.
- Date of notarization must be the date that the signer(s) personally appeared which must also be the same date the acknowledgement is completed.
- The notary public must print his or her name as it appears within his or her commission followed by a comma and then your title (notary public).
- Print the name(s) of document signer(s) who personally appear at the time of notarization.
- Indicate the correct singular or plural forms by crossing off incorrect forms (i.e. ~~he/she/they~~ is/are) or circling the correct forms. Failure to correctly indicate this information may lead to rejection of document recording.
- The notary seal impression must be clear and photographically reproducible. Impression must not cover text or lines. If seal impression smudges, re-seal if a sufficient area permits, otherwise complete a different acknowledgement form.
- Signature of the notary public must match the signature on file with the office of the county clerk.
  - ❖ Additional information is not required but could help to ensure this acknowledgement is not misused or attached to a different document.
  - ❖ Indicate title or type of attached document, number of pages and date.
  - ❖ Indicate the capacity claimed by the signer. If the claimed capacity is a corporate Officer, indicate the title (i.e. CEO, CFO, Secretary).
- Securely attach this document to the signed document.

#### CAPACITY CLAIMED BY THE SIGNER

- Individual (s)
- Corporate Officer

\_\_\_\_\_  
(Title)

- Partner (s)
- Attorney-in-Fact
- Trustee(s)
- Other \_\_\_\_\_

POWER OF ATTORNEY

LX - 034708

Lexon Insurance Company

KNOW ALL MEN BY THESE PRESENTS, that LEXON INSURANCE COMPANY, a Texas Corporation, with its principal office in Louisville, Kentucky, does hereby constitute and appoint: Dick L. Rottman, Bradley A. Pearce, Janice Bowman, \*\*

Amy Simpson, Kathy Harshbarger, Patti Miller, Jana Pisani \*\*\*\*\*

its true and lawful Attorney(s)-In-Fact to make, execute, seal and deliver for, and on its behalf as surety, any and all bonds, undertakings or other writings obligatory in nature of a bond.

This authority is made under and by the authority of a resolution which was passed by the Board of Directors of LEXON INSURANCE COMPANY on the 1st day of July, 2003 as follows:

Resolved, that the President of the Company is hereby authorized to appoint and empower any representative of the Company or other person or persons as Attorney-In-Fact to execute on behalf of the Company any bonds, undertakings, policies, contracts of indemnity or other writings obligatory in nature of a bond not to exceed \$ 2,000,000.00 Two million dollars \*\*\*\*\* dollars, which the Company might execute through its duly elected officers, and affix the seal of the Company thereto. Any said execution of such documents by an Attorney-In-Fact shall be as binding upon the Company as if they had been duly executed and acknowledged by the regularly elected officers of the Company. Any Attorney-In-Fact, so appointed, may be removed for good cause and the authority so granted may be revoked as specified in the Power of Attorney.

Resolved, that the signature of the President and the seal of the Company may be affixed by facsimile on any power of attorney granted, and the signature of the Vice President, and the seal of the Company may be affixed by facsimile to any certificate of any such power and any such power or certificate bearing such facsimile signature and seal shall be valid and binding on the Company. Any such power so executed and sealed and certificate so executed and sealed shall, with respect to any bond of undertaking to which it is attached, continue to be valid and binding on the Company.

IN WITNESS THEREOF, LEXON INSURANCE COMPANY has caused this instrument to be signed by its President, and its Corporate Seal to be affixed this 2nd day of July, 2003.



LEXON INSURANCE COMPANY

BY [Signature] David E. Campbell President

ACKNOWLEDGEMENT

On this 2nd day of July, 2003, before me, personally came David E. Campbell to me known, who being duly sworn, did depose and say that he is the President of LEXON INSURANCE COMPANY, the corporation described in and which executed the above instrument; that he executed said instrument on behalf of the corporation by authority of his office under the By-laws of said corporation.

OFFICIAL SEAL MAUREEN K. AYE Notary Public, State of Illinois My Commission Expires 09/21/13

[Signature] Maureen K. Aye Notary Public

CERTIFICATE

I, the undersigned, Secretary of LEXON INSURANCE COMPANY, A Texas Insurance Company, DO HEREBY CERTIFY that the original Power of Attorney of which the foregoing is a true and correct copy, is in full force and effect and has not been revoked and the resolutions as set forth are now in force.

Signed and Sealed at Lombard, Illinois this 9th Day of July, 2010.



[Signature] Donald D. Buchanan Secretary

WARNING: Any person who knowingly and with intent to defraud any insurance company or other person, files an application for insurance or statement of claim containing any materially false information, or conceals for the purpose of misleading, information concerning any fact material thereto, commits a fraudulent insurance act, which is a crime and subjects such person to criminal and civil penalties.

# PERFORMANCE BOND

Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

**CONTRACTOR (Name and Address):**

AAA Construction of Missoula, LLC  
PO Box 3932, Missoula, MT 59806

**OWNER (Name and Address):**

Montana Department Of Environmental Quality  
1520 East 6Th Ave, Helena, MT 59620

**SURETY (Name and Address of Principal Place of Business):**

Lexon Insurance Company  
10002 Shelbyville Rd., Ste. 100, Louisville, KY 40223

**CONTRACT**

**Date:** 07/01/2010

**Amount:** \$342,645.00

**Description (Name and Location):**

2010 Highland Mine Reclamation Project

**BOND**

**Bond Number:** 1056611

**Date (Not earlier than Contract Date):** 07/09/2010

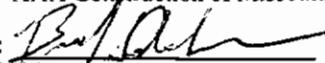
**Amount:** \$342,645.00

**Modifications to this Bond Form:** none

Surety and Contractor, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Performance Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

**CONTRACTOR AS PRINCIPAL**

**Company:** AAA Construction of Missoula, LLC

**Signature:**  (Seal)

**Name and Title:** MANAGER

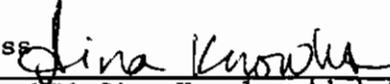
**SURETY**

Lexon Insurance Company \_\_\_\_\_ (Seal)

**Surety's Name and Corporate Seal**

**By:**   
**Signature and Title:** Jana Pisan Attorney-in-Fact  
(Attach Power of Attorney)

(Space is provided below for signatures of additional parties, if required.)

**Witness:**   
**Signature and Title:** Gina Knowles Administrative Specialist

**CONTRACTOR AS PRINCIPAL**

**Company:**

**Signature:** \_\_\_\_\_ (Seal)

**Name and Title:**

**SURETY**

\_\_\_\_\_  
(Seal)

**Surety's Name and Corporate Seal**

**By:** \_\_\_\_\_  
**Signature and Title:**  
(Attach Power of Attorney)

**Attest:** \_\_\_\_\_  
**Signature and Title:**

EJCDC No. C-410 (2002 Edition)

Originally prepared through the joint efforts of the Surety Association of America, Engineers Joint Contract Documents Committee, the Associated General Contractors of America, and the American Institute of Architects.

1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to Owner for the performance of the Contract, which is incorporated herein by reference.

2. If Contractor performs the Contract, Surety and Contractor have no obligation under this Bond, except to participate in conferences as provided in Paragraph 3.1.

3. If there is no Owner Default, Surety's obligation under this Bond shall arise after:

3.1. Owner has notified Contractor and Surety, at the addresses described in Paragraph 10 below, that Owner is considering declaring a Contractor Default and has requested and attempted to arrange a conference with Contractor and Surety to be held not later than 15 days after receipt of such notice to discuss methods of performing the Contract. If Owner, Contractor and Surety agree, Contractor shall be allowed a reasonable time to perform the Contract, but such an agreement shall not waive Owner's right, if any, subsequently to declare a Contractor Default; and

3.2. Owner has declared a Contractor Default and formally terminated Contractor's right to complete the Contract. Such Contractor Default shall not be declared earlier than 20 days after Contractor and Surety have received notice as provided in Paragraph 3.1; and

3.3. Owner has agreed to pay the Balance of the Contract Price to:

1. Surety in accordance with the terms of the Contract;
2. Another contractor selected pursuant to Paragraph 4.3 to perform the Contract.

4. When Owner has satisfied the conditions of Paragraph 3, Surety shall promptly and at Surety's expense take one of the following actions:

4.1. Arrange for Contractor, with consent of Owner, to perform and complete the Contract; or

4.2. Undertake to perform and complete the Contract itself, through its agents or through independent contractors; or

4.3. Obtain bids or negotiated proposals from qualified contractors acceptable to Owner for a contract for performance and completion of the Contract, arrange for a contract to be prepared for execution by Owner and Contractor selected with Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Contract, and pay to Owner the amount of damages as described in Paragraph 6 in excess of the Balance of the Contract Price incurred by Owner resulting from Contractor Default; or

4.4. Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:

1. After investigation, determine the amount for which it may be liable to Owner and, as soon as practicable after the amount is determined, tender payment thereof to Owner; or
2. Deny liability in whole or in part and notify Owner citing reasons therefor.

5. If Surety does not proceed as provided in Paragraph 4 with reasonable promptness, Surety shall be deemed to be in default on this Bond 15 days after receipt of an additional written notice from Owner to Surety demanding that Surety perform its obligations under this Bond, and Owner shall be entitled to enforce any remedy available to Owner. If Surety proceeds as provided in Paragraph 4.4, and Owner refuses the payment tendered or Surety has denied liability, in whole or in part, without further notice Owner shall be entitled to enforce any remedy available to Owner.

6. After Owner has terminated Contractor's right to complete the Contract, and if Surety elects to act under Paragraph 4.1, 4.2, or 4.3 above, then the responsibilities of Surety to Owner shall not be greater than those of Contractor under the Contract, and the responsibilities of Owner to Surety shall not be greater than those of Owner under the Contract. To a limit of the amount of this Bond, but subject to commitment by Owner of the Balance of the Contract Price to mitigation of costs and damages on the Contract, Surety is obligated without duplication for:

6.1. The responsibilities of Contractor for correction of defective Work and completion of the Contract;

6.2. Additional legal, design professional, and delay costs resulting from Contractor's Default, and resulting from the actions or failure to act of Surety under Paragraph 4; and

6.3. Liquidated damages, or if no liquidated damages are specified in the Contract, actual damages caused by delayed performance or non-performance of Contractor.

7. Surety shall not be liable to Owner or others for obligations of Contractor that are unrelated to the Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than Owner or its heirs, executors, administrators, or successors.

8. Surety hereby waives notice of any change, including changes of time, to Contract or to related subcontracts, purchase orders, and other obligations.

9. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the Work or part of the Work is located and shall be instituted within two years after Contractor Default or within two years after Contractor ceased working or within two years after Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

10. Notice to Surety, Owner, or Contractor shall be mailed or delivered to the address shown on the signature page.

11. When this Bond has been furnished to comply with a statutory requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory requirement shall be deemed deleted herefrom and provisions conforming to each statutory requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

12. Definitions.

12.1. Balance of the Contract Price: The total amount payable by Owner to Contractor under the Contract after all proper adjustments have been made, including allowance to Contractor of any amounts received or to be received by Owner in settlement of insurance or other Claims for damages to which Contractor is entitled, reduced by all valid and proper payments made to or on behalf of Contractor under the Contract.

12.2. Contract: The agreement between Owner and Contractor identified on the signature page, including all Contract Documents and changes thereto.

12.3. Contractor Default: Failure of Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Contract.

12.4. Owner Default: Failure of Owner, which has neither been remedied nor waived, to pay Contractor as required by the Contract or to perform and complete or comply with the other terms thereof.

FOR INFORMATION ONLY - Name, Address and Telephone  
Surety Agency or Broker  
Owner's Representative (engineer or other party)

# ALL-PURPOSE ACKNOWLEDGMENT

State of Nevada\_

County of Washoe

On 7/9/10\_, before me, Robin Lee Kennedy\_\_\_, Notary Public,

personally appeared Jana Pisani\_\_\_\_\_,  
(Here insert name and title of the officer)

who proved to me the basis of satisfactory evidence to be the person (s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she /they executed the same in his/her/their authorized capacity (ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of Nevada that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

*Robin Lee Kennedy*  
\_\_\_\_\_  
Signature of Notary Public

(Notary Seal)



## ADDITIONAL OPTIONAL INFORMATION

### INSTRUCTIONS FOR COMPLETING THIS FORM

<b>DESCRIPTION OF THE ATTACHED DOCUMENT</b>
_____ (Title or description of attached document)
_____ (Title or description of attached document continued)
Number of Pages _____ Document Date _____
_____ (Additional Information)

<b>CAPACITY CLAIMED BY THE SIGNER</b>
<input type="radio"/> Individual (s)
<input type="radio"/> Corporate Officer
_____ (Title)
<input type="radio"/> Partner (s)
<input checked="" type="radio"/> Attorney-in-Fact
<input type="radio"/> Trustee(s)
<input type="radio"/> Other _____

- State and County information must be the State and County where the document signer(s) personally appeared before the notary public for acknowledgement.
- Date of notarization must be the date that the signer(s) personally appeared which must also be the same date the acknowledgement is completed.
- The notary public must print his or her name as it appears within his or her commission followed by a comma and then your title (notary public).
- Print the name(s) of document signer(s) who personally appear at the time of notarization.
- Indicate the correct singular or plural forms by crossing off incorrect forms (i.e. ~~he/she/they~~, is/~~are~~) or circling the correct forms. Failure to correctly indicate this information may lead to rejection of document recording.
- The notary seal impression must be clear and photographically reproducible. Impression must not cover text or lines. If seal impression smudges, re-seal if a sufficient area permits, otherwise complete a different acknowledgement form.
- Signature of the notary public must match the signature on file with the office of the county clerk.
  - ❖ Additional information is not required but could help to ensure this acknowledgement is not misused or attached to a different document.
  - ❖ Indicate title or type of attached document, number of pages and date.
  - ❖ Indicate the capacity claimed by the signer. If the claimed capacity is a corporate Officer, indicate the title (i.e. CEO, CFO, Secretary).
- Securely attach this document to the signed document.

# Lexon Insurance Company

KNOW ALL MEN BY THESE PRESENTS, that **LEXON INSURANCE COMPANY**, a Texas Corporation, with its principal office in Louisville, Kentucky, does hereby constitute and appoint: Dick L. Rottman, Bradley A. Pearce, Janice Bowman, \*\*

Amy Simpson, Kathy Harshbarger, Patti Miller, Jana Pisani \*\*\*\*\*

its true and lawful Attorney(s)-In-Fact to make, execute, seal and deliver for, and on its behalf as surety, any and all bonds, undertakings or other writings obligatory in nature of a bond.

This authority is made under and by the authority of a resolution which was passed by the Board of Directors of **LEXON INSURANCE COMPANY** on the 1st day of July, 2003 as follows:

Resolved, that the President of the Company is hereby authorized to appoint and empower any representative of the Company or other person or persons as Attorney-In-Fact to execute on behalf of the Company any bonds, undertakings, policies, contracts of indemnity or other writings obligatory in nature of a bond not to exceed \$ 2,000,000.00 Two million dollars \*\*\*\*\* dollars, which the Company might execute through its duly elected officers, and affix the seal of the Company thereto. Any said execution of such documents by an Attorney-In-Fact shall be as binding upon the Company as if they had been duly executed and acknowledged by the regularly elected officers of the Company. Any Attorney-In-Fact, so appointed, may be removed for good cause and the authority so granted may be revoked as specified in the Power of Attorney.

Resolved, that the signature of the President and the seal of the Company may be affixed by facsimile on any power of attorney granted, and the signature of the Vice President, and the seal of the Company may be affixed by facsimile to any certificate of any such power and any such power or certificate bearing such facsimile signature and seal shall be valid and binding on the Company. Any such power so executed and sealed and certificate so executed and sealed shall, with respect to any bond of undertaking to which it is attached, continue to be valid and binding on the Company.

IN WITNESS THEREOF, **LEXON INSURANCE COMPANY** has caused this instrument to be signed by its President, and its Corporate Seal to be affixed this 2nd day of July, 2003.



**LEXON INSURANCE COMPANY**

BY *David E. Campbell*  
David E. Campbell  
President

### ACKNOWLEDGEMENT

On this 2nd day of July, 2003, before me, personally came David E. Campbell to me known, who being duly sworn, did depose and say that he is the President of **LEXON INSURANCE COMPANY**, the corporation described in and which executed the above instrument; that he executed said instrument on behalf of the corporation by authority of his office under the By-laws of said corporation.

**"OFFICIAL SEAL"**  
**MAUREEN K. AYE**  
Notary Public, State of Illinois  
My Commission Expires 09/21/13

*Maureen K. Aye*  
Maureen K. Aye  
Notary Public

### CERTIFICATE

I, the undersigned, Secretary of **LEXON INSURANCE COMPANY**, A Texas Insurance Company, DO HEREBY CERTIFY that the original Power of Attorney of which the foregoing is a true and correct copy, is in full force and effect and has not been revoked and the resolutions as set forth are now in force.

Signed and Sealed at Lombard, Illinois this 9<sup>th</sup> Day of July, 20 10



*Donald D. Buchanan*  
Donald D. Buchanan  
Secretary

**"WARNING: Any person who knowingly and with intent to defraud any insurance company or other person, files an application for insurance or statement of claim containing any materially false information, or conceals for the purpose of misleading, information concerning any fact material thereto, commits a fraudulent insurance act, which is a crime and subjects such person to criminal and civil penalties."**



# CERTIFICATE OF LIABILITY INSURANCE

OP ID BO  
AAACO-3

DATE (MM/DD/YYYY)

07/23/10

<b>PRODUCER</b>  Western States Ins - Missoula P O Box 4386 Missoula MT 59806 Phone: 406-721-1000 Fax: 406-721-9230	THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.	
	<b>INSURED</b>  US Dept of Intr Ofc of Surface Mining Reclamation & Enforcement & Timberline Resources Corp & all officers, agents & employee 1100 N Last Chance Gulch Helena MT 59620-0901	<b>INSURERS AFFORDING COVERAGE</b>
	INSURER A: <b>Scottsdale Insurance</b>	
	INSURER B:	
	INSURER C:	
	INSURER D:	
	INSURER E:	

## COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR ADD'L LTR INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YYYY)	POLICY EXPIRATION DATE (MM/DD/YYYY)	LIMITS	
A	GENERAL LIABILITY	BINDERBT	08/02/10	10/02/10	EACH OCCURRENCE	\$ 1,000,000
	<input type="checkbox"/> COMMERCIAL GENERAL LIABILITY				DAMAGE TO RENTED PREMISES (Ea occurrence)	\$
	<input type="checkbox"/> CLAIMS MADE <input checked="" type="checkbox"/> OCCUR				MED EXP (Any one person)	\$
	<input checked="" type="checkbox"/> Owner/Cont Prot.				PERSONAL & ADV INJURY	\$
	GEN'L AGGREGATE LIMIT APPLIES PER:				GENERAL AGGREGATE	\$ 3,000,000
	<input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC				PRODUCTS - COMP/OP AGG	\$
	AUTOMOBILE LIABILITY				COMBINED SINGLE LIMIT (Ea accident)	\$
	<input type="checkbox"/> ANY AUTO				BODILY INJURY (Per person)	\$
	<input type="checkbox"/> ALL OWNED AUTOS				BODILY INJURY (Per accident)	\$
	<input type="checkbox"/> SCHEDULED AUTOS				PROPERTY DAMAGE (Per accident)	\$
	<input type="checkbox"/> HIRED AUTOS					
	<input type="checkbox"/> NON-OWNED AUTOS					
	GARAGE LIABILITY				AUTO ONLY - EA ACCIDENT	\$
	<input type="checkbox"/> ANY AUTO				OTHER THAN EA ACC	\$
					AUTO ONLY: AGG	\$
	EXCESS / UMBRELLA LIABILITY				EACH OCCURRENCE	\$
	<input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE				AGGREGATE	\$
						\$
	<input type="checkbox"/> DEDUCTIBLE					\$
	<input type="checkbox"/> RETENTION \$					\$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY				WC STATU-TORY LIMITS	OTH-ER
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? <input type="checkbox"/> Y/N				E.L. EACH ACCIDENT	\$
	(Mandatory In Mt)				E.L. DISEASE - EA EMPLOYEE	\$
	If yes, describe under SPECIAL PROVISIONS below				E.L. DISEASE - POLICY LIMIT	\$
	OTHER					

### DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

OCP for Timberline Resource Corp, for US Dept of Interior Office of Surface Mining regarding: 2010 Highland Mine Reclamation Project, Silver Bow County, MT

### CERTIFICATE HOLDER

AAA Construction of Msla, LLC PO Box 3932 Missoula MT 59806	<b>AAACON1</b>
<b>CANCELLATION</b> SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL <u>10</u> DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.	
AUTHORIZED REPRESENTATIVE <i>Barbara J Terayn</i>	

## **IMPORTANT**

If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

## **DISCLAIMER**

This Certificate of Insurance does not constitute a contract between the issuing insurer(s), authorized representative or producer, and the certificate holder, nor does it affirmatively or negatively amend, extend or alter the coverage afforded by the policies listed thereon.



# CERTIFICATE OF LIABILITY INSURANCE

OP ID BO  
AAACO-3

DATE (MM/DD/YYYY)

07/23/10

<b>PRODUCER</b> Western States Ins - Missoula P O Box 4386 Missoula MT 59806 Phone: 406-721-1000 Fax: 406-721-9230	THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.	
	<b>INSURERS AFFORDING COVERAGE</b>	<b>NAIC #</b>
<b>INSURED</b> AAA Construction of Msla, LLC Brady Nelson PO Box 3932 Missoula MT 59806	INSURER A: Arch Insurance	
	INSURER B: Employers Mutual Casualty Co	
	INSURER C: Liberty Northwest Ins Corp	
	INSURER D:	
	INSURER E:	

### COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR ADD'L LTR	INSRC	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YYYY)	POLICY EXPIRATION DATE (MM/DD/YYYY)	LIMITS	
A	X	GENERAL LIABILITY	CSPKG00066900	07/20/10	07/20/11	EACH OCCURRENCE	\$ 1,000,000
		<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY				DAMAGE TO RENTED PREMISES (Ea occurrence)	\$ 100,000
		<input type="checkbox"/> CLAIMS MADE <input checked="" type="checkbox"/> OCCUR				MED EXP (Any one person)	\$ 5,000
		<input checked="" type="checkbox"/> pollution				PERSONAL & ADV INJURY	\$ 1,000,000
		GEN'L AGGREGATE LIMIT APPLIES PER:	CSPKG00066900	07/20/10	07/20/11	GENERAL AGGREGATE	\$ 2,000,000
		<input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC				PRODUCTS - COMP/OP AGG	\$ 2,000,000
						Pollution	\$1,000,000
B	X	AUTOMOBILE LIABILITY	3E5401811	04/01/10	04/01/11	COMBINED SINGLE LIMIT (Ea accident)	\$ 1,000,000
		<input type="checkbox"/> ANY AUTO				BODILY INJURY (Per person)	\$
		<input checked="" type="checkbox"/> ALL OWNED AUTOS				BODILY INJURY (Per accident)	\$
		<input type="checkbox"/> SCHEDULED AUTOS				PROPERTY DAMAGE (Per accident)	\$
		<input checked="" type="checkbox"/> HIRED AUTOS				AUTO ONLY - EA ACCIDENT	\$
		<input checked="" type="checkbox"/> NON-OWNED AUTOS				OTHER THAN AUTO ONLY: EA ACC	\$
						AGG	\$
A	X	EXCESS / UMBRELLA LIABILITY	CSFXS0066900	07/20/10	07/20/11	EACH OCCURRENCE	\$ 1,000,000
		<input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE				AGGREGATE	\$ 1,000,000
		<input type="checkbox"/> DEDUCTIBLE					\$
		RETENTION \$					\$
C		WORKERS COMPENSATION AND EMPLOYERS' LIABILITY	WC41NC18156	06/30/10	06/30/11	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER	
		ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)				E.L. EACH ACCIDENT	\$ 1,000,000
		If yes, describe under SPECIAL PROVISIONS below				E.L. DISEASE - EA EMPLOYEE	\$ 1,000,000
						E.L. DISEASE - POLICY LIMIT	\$ 1,000,000
B		OTHER	3C5401811	04/01/10	04/01/11	Installat	\$25,000
		Employers Mutual C				BR	

### DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

Dept of Environmental Quaility, US Dept of Interior Office of Surface Mining, TerraGraphics Environmental Engineering, Inc, 302 N Last Chance Gulch, Ste 409, Helena, MT 59601 & Timberline Resources Corp, 101 E Lakeside, Coeur d'Alene, ID 83814 are additional insureds on general liability, pollution, umbrella and auto policies with respect to a written contract with them

### CERTIFICATE HOLDER

-----1

Dept of Environmental Quaility  
 US Dept of Interior Office of Surface Mining  
 1100 N Last Chance Gulch  
 Helena MT 59620-0901

### CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE  
*Barbara Gray*

## **IMPORTANT**

If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

## **DISCLAIMER**

This Certificate of Insurance does not constitute a contract between the issuing insurer(s), authorized representative or producer, and the certificate holder, nor does it affirmatively or negatively amend, extend or alter the coverage afforded by the policies listed thereon.

**NOTEPAD:**

HOLDER CODE -----1

AAACO-3

PAGE 3

INSURED'S NAME AAA Construction of Mala, LLC

OPID BO

DATE 07/23/10

regarding: 2010 Highland Mine Reclamation Project, Silver Bow County, MT



**APPENDIX D**  
**MEETING MINUTES**

**2010 HIGHLAND MINE RECLAMTION PROJECT**  
**DEQ Contract No. 410022**  
**Pre-Award Conference: July 1, 2010, 1:00 PM - 2:30 P.M.**  
**Meeting Minutes**

**INTRODUCTIONS (attendees)**

- Pebbles Clark, DEQ Project Manager
- Devin Cleary, DEQ Project Manager
- Mike Glenn, DEQ Project Manager
- Jamie Mongoven, Terragraphics Engineer
- Brady Nelson, AAA Construction of Missoula LLC, Contractor

**TOPICS DISCUSSED**

- ITB ARTICLE 12.4: Pre-Award Meeting
  - Bidder's qualifications under ITB Article 1 and 11
    - *Contractor met the bidder's requirements.*
  - Bidder's organization and equipment and source of materials
    - *Contractor shall notify DEQ/Engineer prior to mobilizing equipment on to the site.*
  - Bidder's anticipated construction schedule
    - *Contractor shall submit construction schedule at pre-con meeting*
  - Bidder's understanding and interpretation of Contract Documents and Specifications
  - Bidder's proposed wage rates for project
    - *Discussed Davis Bacon wages.*
  - Bidder's proposed use of Subcontractors and Owner's approval
    - *Contractor submitted subcontractor list*
  - Any unbalanced portions of the Bid as determined by Engineer
    - *Engineer had no concerns for bid items*
  - Bidder's efforts to comply with small business, minority business, and women business enterprise utilization goals.
    - *Landscaping sub is owned by a female.*
- Special Provisions, Articles 1-26
  - *DEQ and contractor read through all bid items*
- Submittals & Due Dates
  - Submittals Checklist
  - All submittals shall be submitted to Engineer and approved/reviewed before Owner will issue Notice to Proceed
  - Submittals Due at Pre-Award Conference
  - Submittals Due at Pre-Construction Meeting
  - Submittal Expectations and Completeness
- Proposed Project Approach, Section II of Bid Form – Need more detailed description, sequencing, etc
  - *The contractor shall submit an expanded explanation of the work*

- Section III: Proposed Project Schedule – Need a proposed project schedule with more detail than what was submitted
  - *Construction Schedule shall be submitted at the Pre-Con meeting*
  - *Schedule will be considered flexible and shall be updated throughout construction.*
- Bid Form, Section III – since questions 2, 3, and 4 were left blank, does this mean “none”?
  - *The owner’s wife is the other legal signer for the company.*
- AAA Construction experience with earth moving work and channel reconstruction work
  - *Contractor gave some examples of other construction projects with similar work.*
- Inspection of equipment prior to coming on site.
  - *Contractor shall provide notification of equipment moving on to the site to be inspected for weeds.*

#### **TENTATIVE SCHEDULE OF UPCOMING EVENTS**

- Pre-Con meeting 7-13-2010 at 1:00.
- Tentative start of Construction 7-22-10.

#### **DOCUMENTS SIGNED**

- Notice of Award form was signed by contractor and DEQ
- Agreement was signed by contractor

2010 HIGHLAND MINE RECLAMATION PROJECT  
SILVER BOW COUNTY  
DEQ CONTRACT NO. 410022

**Pre-Construction Conference:  
July 29, 2010, 10:00 A.M. – 11:00 A.M.  
DEQ LCG, Helena Montana  
Meeting Minutes**

**AGENDA**

- 1. Introductions/Key Personnel**
  - Owner – MDEQ, Pebbles Clark, Project Manager
  - Engineer – Terragraphics, Jamie Mongoven, Lead Project Engineer
  - Dan Klima - Resident Project Representative – Terragraphics
  - Contractor – AAA Construction of Missoula, Brady Nelson, Manager
    - Wesley Swailing – Construction foreman
    - Brady Nelson Jr – Operator
  
- 2. Project Overview/Construction Bidding Documents, Specifications, and Drawings Questions**
  - Standard General Conditions of the Construction Contract
  - Special Provisions
  - Technical Specifications
  - Construction Drawings
  - Pay Requests on 30 day cycle
    - *Pay requests will be due on the 27<sup>th</sup> of the month*
  - 45 day consecutive day construction contract
    - *Starting on August 3<sup>rd</sup>.*
  - \$750 per day liquidated damages
  - Montana Prevailing Wage Rates for Heavy & Highway Construction / Davis- Bacon. AAA Construction must submit copies of employee pay stubs showing their hourly rate to ensure compliance. Submit monthly with pay request.
    - *AAA will send certified payroll with payment request.*
  
- 3. Construction Schedule**
  - Overall schedule – AAA Construction shall submit revised schedule upon request from Engineer
  - Daily/weekly schedule and coordination with Engineer
    - *First week will be Tuesday through Friday.*
  - Working hours
    - *AAA will work generally 7:00 am – 5:30 pm*
  - No work on weekends without prior approval in writing from DEQ
  
- 4. Submittals**
  - Submittal Status
    - *Updated Coversoil submittal is on the FTP site and is acceptable.*
  - Material certifications
    - *Contractor shall provide seeding tags*
  - Substitutions – all substitution requests must be submitted in writing and approved in writing by DEQ (materials, work hours, etc.)
    - *Contractor will contact landscaping subcontractor to fill out substitution forms.*
    - *DEQ will fill out coversoil substitution request form.*
  
- 5. Interaction and Cooperation**
  - Communication
    - *RPR will be on site full time and will be available for any correspondence to the Owner and Engineer*

- *On-site construction meetings shall be held every Thursday at 10:00 AM except the for the first week of construction.*
- Responsiveness
- Work Directive – agreed upon prior to work being performed
  - *All work directives will be signed by all parties prior to work starting.*
- Change Order - agreed upon prior to work being performed

#### **6. Health and Safety**

- Site Safety Officer(s)
- Health and Safety Plans - include 40-hr training certification
- Regular Safety Meetings
  - *Staff meeting shall be handled every day as per H&S Plan*

#### **7. Quantity Measurement and Quality Control**

- Terragraphics will determine the quantity measurement of each bid item
- Weekly quantity reconciliation meeting between AAA Construction and Engineer
- Terragraphics will stake initial control points
- AAA Construction shall ensure compliance with design grades per Quality Control Plan
  - *Grades shall be set by TG according to the schedule submitted.*
- If a survey boundary point is removed during excavation, Contractor is responsible for replacement, including survey if necessary

#### **8. Site Access/Security**

- Staging Area
- Parking areas
- Authorized/unauthorized visitors

#### **8. Priorities**

- Human health and safety
  - hazardous materials
  - PPE (hard hat, steel toes, safety glasses, orange vests, ear protection when needed)
  - Heavy equipment
  - Water
  - FS Roads
- Equipment Weed Inspection
- Dust control
  - *Contractor shall have a water truck available on site and will develop a pool in the channel to draw water for fire suppression and dust control.*
- Quality construction
- BMPs
  - *BMPs shall be installed prior to work commencing in crucial areas.*

**APPENDIX E**  
**CHANGE ORDERS**

# CHANGE ORDER

**PROJECT TITLE: 2010 Highland Mine Reclamation Project**

**CHANGE ORDER NO.: 1**

**DEQ Contract No.: 410022**

**CONTRACT DATE: August 3, 2010**

**OWNER: Montana Department of Environmental Quality**

**CONTRACTOR: AAA Construction of Missoula LLC**

**Change Orders must include an itemized cost breakdown. You shall comply with the following changes from the Contract Documents. (Show separate costs for materials, labor, equipment, and miscellaneous. Show percent where applicable.)**

ITEM NO.	DESCRIPTION OF CHANGES - ESTIMATED QUANTITIES & UNITS	COST OF CHANGES					TOTAL COST
		MAT'LS.	LABOR	EQUIP.	MISC.	TOTAL UNIT COST	
1-1	Work Directive No. 1: Fill in subsidence features. 3 Contract days added.	-	\$70.00 per hour	\$85.00 per hour	8 hrs Equip. 8 hrs labor	\$1,240.00	\$1,240.00
1-2	Work Directive No. 3: Supply materials and equipment and place and spread road mix on Highland Road. 4 Contract days added				LUMP SUM	\$1,193.00	\$1,193.00
1-3	Work Directive No. 4: Grade Highland Rd. 4 Contract days added				LUMP SUM	\$2,000.00	\$2,000.00
<b>TOTAL COST</b>						<b>\$4,433.00</b>	
<b>GRAND TOTAL - THIS CHANGE ORDER</b>						<b>\$4,433.00</b>	

<b>Original Contract Price:</b>	<b>\$ 342,645.00</b>
<b>Current Contract Price Adjusted by Previous Change Order:</b>	<b>\$ 342,645.00</b>
<b>Cost this Change Order (+ or -):</b>	<b>\$ + 4,433.00</b>
<b>New Contract Price including this Change Order:</b>	<b>\$ 347,078.00</b>

The completion date as set forth in the Contract Documents shall be increased by 11 calendar days.

The date for completion of all work will be September 27, 2010.

**Description and Justification for Change:**

1. Fill in subsidence features located near trail on north end of site to reduce public risk.
2. Place road mix on Highland Rd. in area where tailings piles were excavated and road edge was backfilled.
3. Grade Highland Rd. to repair damage caused by construction activities.

---

**SURETY CONSENT**

The Surety hereby consents to the aforementioned Contract Change Order and agrees that its bond or bonds shall apply and extend to the Contract as thereby modified or amended per this Change Order.

COUNTERSIGNED BY MONTANA  
RESIDENT AGENT

SURETY

Ared Than

Lexon Insurance Company

By: Kelley T. Seal

Seal

Recommended by:

Tommy King

Engineer

9/30/10

Date

Accepted by:

Boyd S. Apple

Contractor

9/30/10

Date

Approved by:

Patricia Clark

Owner

10/12/10

Date

## CHANGE ORDER

**PROJECT TITLE: 2010 Highland Mine Reclamation Project**

**CHANGE ORDER NO.: 2**

**DEQ Contract No.: 410022**

**CONTRACT DATE: August 3, 2010**

**OWNER: Montana Department of Environmental Quality**

**CONTRACTOR: AAA Construction of Missoula LLC**

**Change Orders must include an itemized cost breakdown. You shall comply with the following changes from the Contract Documents. (Show separate costs for materials, labor, equipment, and miscellaneous. Show percent where applicable.)**

ITEM NO.	DESCRIPTION OF CHANGES - ESTIMATED QUANTITIES & UNITS	COST OF CHANGES					TOTAL COST
		MAT'LS.	LABOR	EQUIP.	MISC.	TOTAL UNIT COST	
2-1	Weather Day: August 30, 2010. 1 Contract day added.	-	-	-	-	-	\$0.00
2-2	Weather Day: September 9, 2010. 1 Contract day added.	-	-	-	-	-	\$0.00
2-3	Weather Day: September 10, 2010. 1 Contract day added.	-	-	-	-	-	\$0.00
2-4	Weather Day: September 11, 2010. 1 Contract day added.	-	-	-	-	-	\$0.00
2-5	Weather Day: September 18, 2010. 1 Contract day added	-	-	-	-	-	\$0.00
<b>TOTAL COST</b>							<b>\$0.00</b>
<b>GRAND TOTAL - THIS CHANGE ORDER</b>							<b>\$0.00</b>

<b>Original Contract Price:</b>	<b>\$ 342,645.00</b>
<b>Current Contract Price Adjusted by Previous Change Order:</b>	<b>\$ 347,078.00</b>
<b>Cost this Change Order (+ or -):</b>	<b>\$ 0.00</b>
<b>New Contract Price including this Change Order:</b>	<b>\$ 347,078.00</b>

The completion date as set forth in the Contract Documents shall be increased by 5 calendar days.

The date for completion of all work will be October 2, 2010.

Description and Justification for Change:

1. Weather days due to rain and muddy site conditions.

---

**SURETY CONSENT**

The Surety hereby consents to the aforementioned Contract Change Order and agrees that its bond or bonds shall apply and extend to the Contract as thereby modified or amended per this Change Order.

COUNTERSIGNED BY MONTANA  
RESIDENT AGENT

SURETY

By: \_\_\_\_\_

Seal

Recommended by: \_\_\_\_\_

*Jim M*  
\_\_\_\_\_  
Engineer

10/12/10

Date

Accepted by: \_\_\_\_\_

*Bob [Signature]*  
\_\_\_\_\_  
Contractor

10/12/10

Date

Approved by: \_\_\_\_\_

*Patricia [Signature]*  
\_\_\_\_\_  
Owner

10/12/10

Date

# CHANGE ORDER

PROJECT TITLE: 2010 Highland Mine Reclamation Project

CHANGE ORDER NO.: 3

DEQ Contract No.: 410022

CONTRACT DATE: August 3, 2010

OWNER: Montana Department of Environmental Quality

CONTRACTOR: AAA Construction of Missoula LLC

Change Orders must include an itemized cost breakdown. You shall comply with the following changes from the Contract Documents. (Show separate costs for materials, labor, equipment, and miscellaneous. Show percent where applicable.)

ITEM NO.	DESCRIPTION OF CHANGES - ESTIMATED QUANTITIES & UNITS	COST OF CHANGES					TOTAL COST
		MAT'LS.	LABOR	EQUIP.	MISC.	UNIT COST	
3-1	Reconciliation of Bid Item 1: Mobilization, Demobilization, Bonding, and Insurance	0.0				\$25,000.00	\$0.00
3-2	Reconciliation of Bid Item 2: Clearing and Grubbing	0.0				\$15,000.00	\$0.00
3-3	Reconciliation of Bid Item 3a: Excavation of TP1, TP2, and TP3	272.0				\$15.00	\$4,080.00
3-4	Reconciliation of Bid Item 3b: Grading	0.0				\$2,000.00	\$0.00
3-5	Reconciliation of Bid Item 3c: Construction of Type 1 Ditch	-481.0				\$20.00	(\$9,620.00)
3-6	Reconciliation of Bid Item 3d: Construction of Type 2 Ditch	343.0				\$30.00	\$ 10,290.00
3-7	Reconciliation of Bid Item 4: Adit Discharge Diversion	0.0				\$4,500.00	\$ 0.00
3-8	Reconciliation of Bid Item 5a: Channel Change Excavation	10.0				\$30.00	\$ 300.00
3-9	Reconciliation of Bid Item 5b: 30 Mil PVC Liner	133.3				\$15.00	\$ 2,000.00
3-10	Reconciliation of Bid Item 5c: 10 Ounce Nonwoven Fabric	133.3				\$5.00	\$ 666.67
3-11	Reconciliation of Bid Item 5d: Bedding Material	0.0				\$25.00	\$ 0.00
3-12	Reconciliation of Bid Item 5e: Riprap	159.1				\$40.00	\$ 6,362.96
3-13	Reconciliation of Bid Item 6: Cover Soil	-955.0				\$28.00	(\$26,740.00)
3-14	Reconciliation of Bid Item 7: Slope Roughening	0.05				\$1,000.00	\$ 48.99
3-15	Reconciliation of Bid Item 8: Fertilize and Seed Disturbed Areas	0.05				\$2,000.00	\$ 97.98
3-16	Reconciliation of Bid Item 9: Straw Mulch	-0.2				\$2,000.00	(\$ 433.75)
3-17	Reconciliation of Bid Item 10: Gravel Berm Bags	-40.0				\$10.00	(\$ 400.00)

3-18	Reconciliation of Bid Item 11: Fiber Rolls	575.0				\$6.00	\$ 3,450.00 -	
3-19	Reconciliation of Bid Item 12: Barrier Fence	150.0				\$5.00	\$ 750.00 -	
3-20	Reconciliation of Bid Item 13: Erosion Control Mat	197.0				\$3.00	\$ 591.00 -	
3-21	Reconciliation of Bid Item 14: Obliterate and Reclaim Roadway	0.0				\$3,000.00	\$ 0.00	
3-22	Reconciliation of Bid Item 15a: Construct New Farm Fence	-2.0				\$8.00	(\$ 16.00) -	
3-23	Reconciliation of Bid Item 15b: Gates	0.0				\$400.00	\$ 0.00	
3-24	Reconciliation of Bid Item 16: Landfill Debris Disposal	0.0				\$3,000.00	\$ 0.00	
3-25	Reconciliation of Bid Item 17: Trail	230.0				\$20.00	\$ 4,600.00 -	
<b>TOTAL COST</b>								<b>(\$3,972.15)</b>
<b>GRAND TOTAL - THIS CHANGE ORDER</b>								<b>(\$3,972.15)</b>

**Original Contract Price:** \$ 342,645.00  
**Current Contract Price Adjusted by Previous Change Order:** \$ 347,078.00  
**Cost this Change Order (+ or -):** \$ (\$3,972.15)  
**New Contract Price including this Change Order:** \$ 343,105.85

The completion date as set forth in the Contract Documents shall be increased by 6 calendar days.

The date for completion of all work will be October 8, 2010.

**Description and Justification for Change:**

1. Reconciliation of bid pay quantities to final pay quantities.
2. Work Directive No. 2, issued 09/02/2010, increased the quantity of Bid Item No. 3d and increased the number of Contract days by two (2) days. Replace Type 1 ditch with Type 2 ditch to construct a ditch that is less susceptible to erosion caused by runoff from the drainage located near the eastern portion of WR1 and reduce impacts to surrounding vegetation.
3. Four (4) additional Contract days added to compensate for scheduling delays with the seeder subcontractor.

**SURETY CONSENT**

The Surety hereby consents to the aforementioned Contract Change Order and agrees that its bond or bonds shall apply and extend to the Contract as thereby modified or amended per this Change Order.

**COUNTERSIGNED BY MONTANA  
RESIDENT AGENT**

**SURETY**

\_\_\_\_\_  
By: \_\_\_\_\_

Seal

Recommended by: James McManis 10/21/10  
Engineer Date

Accepted by: David A. Stelmach AAA Const. of Missouri LLC 10/25/10  
Contractor Date

Approved by: P. H. H. H. Uak 10/27/10  
Owner Date

**APPENDIX F**  
**WORK DIRECTIVES**

# WORK DIRECTIVE CHANGE

(Instructions on Reverse Side)

No. 01

PROJECT: 2010 Highland Mine Reclamation Project DATE OF ISSUANCE: 08/25/2010

CONTRACTOR: AAA Construction of Missoula  
Missoula, Montana

OWNER: Montana DEQ, Mine Waste Cleanup Bureau  
DEQ Contract No.: 410022

CONTRACT FOR: AML Reclamation

ENGINEER: TerraGraphics Environmental Engineering Inc.

You are directed to proceed promptly with the following change(s):

Description: Contractor shall clear vegetation from three (3) subsidence features located approx. 150 feet east of the discharging adit and backfill the subsidence features with native material located onsite. The subsidence features shall be marked in the field by Engineer and Engineer shall approve native material prior to use. Contractor shall place the native material in the subsidence features at a depth consistent with surrounding topography and then mound the native material over the subsidences. Contractor shall use a skid steer and one (1) laborer to complete the work. The skid steer shall be charged at a rate of \$ 85 per hour for a maximum of 8 hours which shall include equipment maintenance, fuel, operator wages and benefits. The laborer shall be charged at a rate of \$ 70<sup>00</sup> per hour for a maximum of 8 hours which shall include wages and benefits

Purpose of Work Directive Change: The purpose is to fill subsidence features near the Continental Divide trail, which may cause a safety hazard.

Attachments: None

If a claim is made that the above change(s) have affected Contract Price or Contract Time, any claim for a Change Order based thereon will involve one of the following methods of determining the effect of the change(s).

Method of determining change in Contract Price:

- Time and Materials
- Unit Prices
- Lump Sum
- Other \_\_\_\_\_

Method of determining change in Contract Time:

- Contractor's Records
- Engineer's Records
- Other \_\_\_\_\_

Estimated increase in Contract Price:  
\$ 1,240.00. If the change involves an increase, the estimated amount is not to be exceeded without further authorization.

Estimated increase in Contract Time: 3 days. If the change involves an increase, the estimated time is not to be exceeded without further authorization.

TerraGraphics  
RECOMMENDED:

By: Eric May  
Engineer

DEQ MWCB-AML  
AUTHORIZED:

By: Patricia Ward  
Owner

ACCEPTED:

By: [Signature]  
Contractor

## WORK DIRECTIVE CHANGE

### INSTRUCTIONS

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#### A. GENERAL INFORMATION

This document was developed for use in situations involving changes in the Work which, if not processed expeditiously, might delay the Project. These changes are often initiated in the field and may affect the Contract Price or the Contract Time. This is not a Change Order, but only a directive to proceed with Work that may be included in a subsequent Change Order.

For supplemental instructions and minor changes not involving a change in the Contract Price or the Contract Time, a Field Order may be issued.

#### B. COMPLETING THE WORK DIRECTIVE CHANGE

Engineer initiates the form, including a description of the items involved and attachments.

Based on conversations between Engineer and Contractor, Engineer to indicate the following and attach the same hereto:

**METHOD OF DETERMINING CHANGE, IF ANY, IN CONTRACT PRICE:** Indicate the method to be used in determining the final cost of Work involved and the net effect on the Contract Price. If the change involves an increase in the Contract Price and the estimated amount is approached before the additional or changed work is completed, another Work Directive Change must be issued to change the time or Contractor may stop the changed Work when the estimated time is reached. If the Work Directive Change is not likely to change the Contract Price, the space for estimated increase (decreased) should be marked "Not Applicable".

**METHOD OF DETERMINING CHANGE, IF ANY, IN CONTRACT TIME:** Indicate the method to be used in determining the change in Contract Time and the estimated increase or decrease in Contract Time. If the change involves an increase in the Contract Time and the estimated time is approached before additional or changed Work is completed, another Work Directive Change must be issued to change the time or Contractor may stop the changed Work when the estimated time is reached. If the Work Directive Change is not likely to change the Contract Time, the space for estimated increase (decrease) should be marked "Not Applicable".

Once Engineer has completed and signed this form, all copies should be sent to Owner for authorization because Engineer alone does not have authority to authorize changes in Price or Time. Once authorized by Owner, a copy should be sent by Engineer to Contractor.

Once the Work covered by this directive is completed for final cost and time determined, Contractor should submit documentation for inclusion in a Change Order.

**THIS IS A DIRECTIVE TO PROCEED WITH A CHANGE THAT MAY AFFECT THE CONTRACT PRICE OR THE CONTRACT TIME. A CHANGE ORDER, IF ANY, SHOULD BE CONSIDERED PROMPTLY.**

# WORK DIRECTIVE CHANGE

(Instructions on Reverse Side)

No. 02

PROJECT: 2010 Highland Mine Reclamation Project DATE OF ISSUANCE: 09/02/2010

CONTRACTOR: AAA Construction of Missoula  
P.O. Box 3832  
Missoula, Montana 59806

OWNER: Montana DEQ, Mine Waste Cleanup Bureau  
DEQ Contract No.: 410022

CONTRACT FOR: AML Reclamation

ENGINEER: TerraGraphics Environmental Engineering Inc.

You are directed to proceed promptly with the following change(s):

Description: Contractor shall construct a total of 340 feet of Type 2 Ditch on the uphill (north / northeast side) portion of WR1 as shown on the attached drawing. This Type 2 ditch shall be constructed in place of the 340 ft of Type 1 Ditch as shown in the Contract document. Payment shall be made under Bid Item No. 3d: Construction of Type 2 Ditch.

Purpose of Work Directive Change: The purpose is to construct a diversion ditch that is less susceptible to erosion caused by runoff from the drainage located near the eastern portion of WR1, and reduce impacts to surrounding vegetation.

Attachments: Type 2 ditch location drawing  
Contract Price Increase Cost Estimate

If a claim is made that the above change(s) have affected Contract Price or Contract Time, any claim for a Change Order based thereon will involve one of the following methods of determining the effect of the change(s).

Method of determining change in Contract Price:

- Time and Materials
- Unit Prices
- Lump Sum
- Other \_\_\_\_\_

Estimated increase in Contract Price: \$ 3,400. If the change involves an increase, the estimated amount is not to be exceeded without further authorization.

Method of determining change in Contract Time:

- Contractor's Records
- Engineer's Records
- Other \_\_\_\_\_

Estimated increase in Contract Time: 2 days. If the change involves an increase, the estimated time is not to be exceeded without further authorization.

TERRA GRAPHICS  
RECOMMENDED:

By: [Signature]  
Engineer

ACCEPTED:

By: [Signature]  
Contractor

[Signature]  
AUTHORIZED:

By: [Signature]  
Owner

## WORK DIRECTIVE CHANGE

### INSTRUCTIONS

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#### A. GENERAL INFORMATION

This document was developed for use in situations involving changes in the Work which, if not processed expeditiously, might delay the Project. These changes are often initiated in the field and may affect the Contract Price or the Contract Time. This is not a Change Order, but only a directive to proceed with Work that may be included in a subsequent Change Order.

For supplemental instructions and minor changes not involving a change in the Contract Price or the Contract Time, a Field Order may be issued.

#### B. COMPLETING THE WORK DIRECTIVE CHANGE

Engineer initiates the form, including a description of the items involved and attachments.

Based on conversations between Engineer and Contractor, Engineer to indicate the following and attach the same hereto:

**METHOD OF DETERMINING CHANGE, IF ANY, IN CONTRACT PRICE:** Indicate the method to be used in determining the final cost of Work involved and the net effect on the Contract Price. If the change involves an increase in the Contract Price and the estimated amount is approached before the additional or changed work is completed, another Work Directive Change must be issued to change the time or Contractor may stop the changed Work when the estimated time is reached. If the Work Directive Change is not likely to change the Contract Price, the space for estimated increase (decreased) should be marked "Not Applicable".

**METHOD OF DETERMINING CHANGE, IF ANY, IN CONTRACT TIME:** Indicate the method to be used in determining the change in Contract Time and the estimated increase or decrease in Contract Time. If the change involves an increase in the Contract Time and the estimated time is approached before additional or changed Work is completed, another Work Directive Change must be issued to change the time or Contractor may stop the changed Work when the estimated time is reached. If the Work Directive Change is not likely to change the Contract Time, the space for estimated increase (decrease) should be marked "Not Applicable".

Once Engineer has completed and signed this form, all copies should be sent to Owner for authorization because Engineer alone does not have authority to authorize changes in Price or Time. Once authorized by Owner, a copy should be sent by Engineer to Contractor.

Once the Work covered by this directive is completed for final cost and time determined, Contractor should submit documentation for inclusion in a Change Order.

**THIS IS A DIRECTIVE TO PROCEED WITH A CHANGE THAT MAY AFFECT THE CONTRACT PRICE OR THE CONTRACT TIME. A CHANGE ORDER, IF ANY, SHOULD BE CONSIDERED PROMPTLY.**



**2010 Highland Mine Reclamation Project**  
**DEQ Contract No. 410022**  
**Work Directive No. 2**  
**Contract Price/Cost Increase Estimate**

**CONTRACT QUANTITIES AND PRICE**

<b>Bid Item</b>	<b>Bid Item Description</b>	<b>Original Estimated Quantity</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Contract Price</b>
	Construction of Type 1				
3c.	Ditch	826	LF	\$20.00	\$16,520.00
	Construction of Type 2				
3d.	Ditch	137	LF	\$30.00	\$4,110.00

**WORK DIRECTIVE NO. 2: Replace Type 1 Ditch w/ Type 2 Ditch on north/northeast side of WR1**

<b>Bid Item</b>	<b>Bid Item Description</b>	<b>Work Directive No. 2 Change in Quantity</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Change in Contract Price</b>
	Construction of Type 1				
3c.	Ditch	-340	LF	\$20.00	-\$6,800.00
	Construction of Type 2				
3d.	Ditch	340	LF	\$30.00	\$10,200.00
<b>NET ESTIMATED INCREASE IN CONTRACT PRICE</b>					<b>\$3,400.00</b>

# WORK DIRECTIVE CHANGE

(Instructions on Reverse Side)

No. 03

PROJECT: 2010 Highland Mine Reclamation Project DATE OF ISSUANCE: 09/23/2010

CONTRACTOR: AAA Construction of Missoula  
P.O. Box 3932  
Missoula, Montana 59805

OWNER: Montana DEQ, Mine Waste Cleanup Bureau

DEQ Contract No.: 410022

CONTRACT FOR: AML Reclamation

ENGINEER: TerraGraphics Environmental Engineering Inc.

You are directed to proceed promptly with the following change(s):

Description: Contractor shall place 30 cubic yards of 1/2-1 inch road mix on Highland Road along the portion of road next to the TP1, TP2, and TP3 excavation areas as shown on the attached Drawing. The work shall be paid as a lump sum of \$1,193.00 and payment shall include all materials, equipment, equipment maintenance, fuel, and operator wages and benefits necessary to complete the above stated work.

Purpose of Work Directive Change: The purpose of this directive is to re-establish the Forest Service road to the same or better condition in the areas which were disturbed during construction of this project.

Attachments: Road mix placement area Drawing.

If a claim is made that the above change(s) have affected Contract Price or Contract Time, any claim for a Change Order based thereon will involve one of the following methods of determining the effect of the change(s).

Method of determining change in Contract Price:

- Time and Materials
- Unit Prices
- Lump Sum
- Other \_\_\_\_\_

Method of determining change in Contract Time:

- Contractor's Records
- Engineer's Records
- Other \_\_\_\_\_

Estimated increase in Contract Price:  
\$ 1,193.00. If the change involves an increase, the estimated amount is not to be exceeded without further authorization.

Estimated increase in Contract Time: 4 days. If the change involves an increase, the estimated time is not to be exceeded without further authorization.

Terragraphics Environmental Engineering  
RECOMMENDED:

By: [Signature]  
Engineer

DEQ MWCB-AML  
AUTHORIZED:

By: [Signature]  
Owner

ACCEPTED:

By: [Signature]  
Contractor

## WORK DIRECTIVE CHANGE

### INSTRUCTIONS

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#### A. GENERAL INFORMATION

This document was developed for use in situations involving changes in the Work which, if not processed expeditiously, might delay the Project. These changes are often initiated in the field and may affect the Contract Price or the Contract Time. This is not a Change Order, but only a directive to proceed with Work that may be included in a subsequent Change Order.

For supplemental instructions and minor changes not involving a change in the Contract Price or the Contract Time, a Field Order may be issued.

#### B. COMPLETING THE WORK DIRECTIVE CHANGE

Engineer initiates the form, including a description of the items involved and attachments.

Based on conversations between Engineer and Contractor, Engineer to indicate the following and attach the same hereto:

**METHOD OF DETERMINING CHANGE, IF ANY, IN CONTRACT PRICE:** Indicate the method to be used in determining the final cost of Work involved and the net effect on the Contract Price. If the change involves an increase in the Contract Price and the estimated amount is approached before the additional or changed work is completed, another Work Directive Change must be issued to change the time or Contractor may stop the changed Work when the estimated time is reached. If the Work Directive Change is not likely to change the Contract Price, the space for estimated increase (decrease) should be marked "Not Applicable".

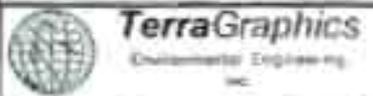
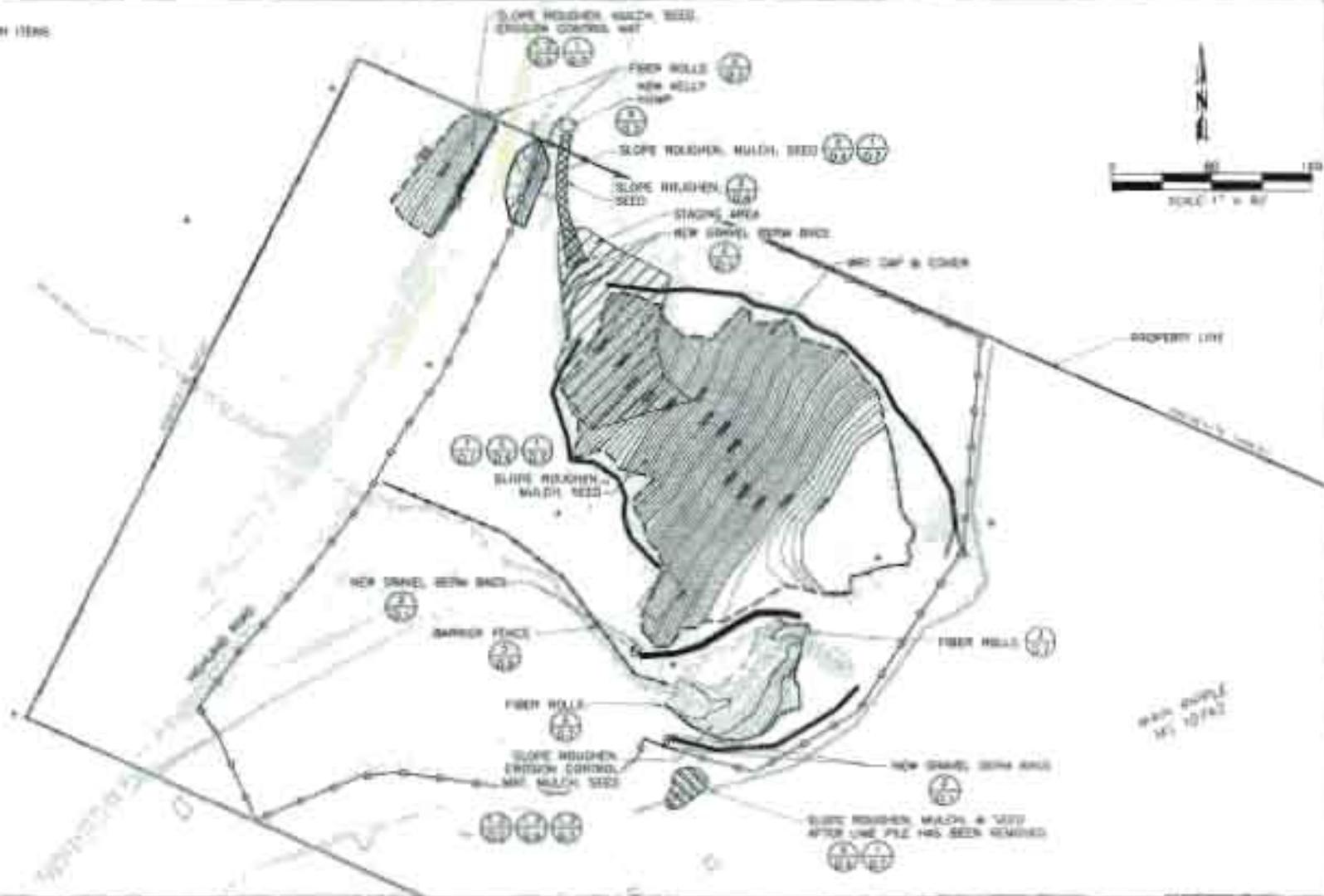
**METHOD OF DETERMINING CHANGE, IF ANY, IN CONTRACT TIME:** Indicate the method to be used in determining the change in Contract Time and the estimated increase or decrease in Contract Time. If the change involves an increase in the Contract Time and the estimated time is approached before additional or changed Work is completed, another Work Directive Change must be issued to change the time or Contractor may stop the changed Work when the estimated time is reached. If the Work Directive Change is not likely to change the Contract Time, the space for estimated increase (decrease) should be marked "Not Applicable".

Once Engineer has completed and signed this form, all copies should be sent to Owner for authorization because Engineer alone does not have authority to authorize changes in Price or Time. Once authorized by Owner, a copy should be sent by Engineer to Contractor.

Once the Work covered by this directive is completed for final cost and time determined, Contractor should submit documentation for inclusion in a Change Order.

**THIS IS A DIRECTIVE TO PROCEED WITH A CHANGE THAT MAY AFFECT THE CONTRACT PRICE OR THE CONTRACT TIME. A CHANGE ORDER, IF ANY, SHOULD BE CONSIDERED PROMPTLY.**

NOTE:  
ENGINEER WILL START CONSTRUCTION ITEMS  
PRIOR TO CONSTRUCTION



DATE	04	REVISION	001
DESIGNER	AK	SCALE	AS SHOWN
CHECKED	KL	APPROVED	AS SHOWN
		DATE	10/20/10

PLAN SHEET 7  
BMP SITE MAP

2010 HIGHLAND MINE  
RECLAMATION PROJECT

C.2  
DATE 10/20/10

# WORK DIRECTIVE CHANGE

(Instructions on Reverse Side)

No. 04

PROJECT: 2010 Highland Mine Reclamation Project DATE OF ISSUANCE: 09/28/2010

CONTRACTOR: AAA Construction of Missoula  
P.O. Box 3932  
Missoula, Montana 59806

OWNER: Montana DEQ, Mine Waste Cleanup Bureau

DEQ Contract No.: 410022

CONTRACT FOR: AML Reclamation

ENGINEER: TerraGraphics Environmental Engineering Inc.

You are directed to proceed promptly with the following change(s):

Description: Contractor shall grade Highland Road (FS Road 84) starting at the FS gate located at the County/FS road boundary and ending at the intersection of Highland Road and Camp Creek Road (FS Road 8520) as show on the attached Drawing. Contractor shall use a grader and one (1) operator to complete the work. The work shall be paid as a lump sum of \$2,000.00 and payment shall include mobing and demobing all equipment to site, all equipment, equipment maintenance, fuel, and operator wages and benefits necessary to complete the above stated work.

Purpose of Work Directive Change: To return road to preconstruction conditions.

Attachments: Section of road to be graded Drawing.

If a claim is made that the above change(s) have affected Contract Price or Contract Time, any claim for a Change Order based thereon will involve one of the following methods of determining the effect of the change(s).

Method of determining change in Contract Price:

- Time and Materials  
 Unit Prices  
 Lump Sum  
 Other \_\_\_\_\_

Method of determining change in Contract Time:

- Contractor's Records  
 Engineer's Records  
 Other \_\_\_\_\_

Estimated increase in Contract Price:  
\$ 2,000.00. If the change involves an increase, the estimated amount is not to be exceeded without further authorization.

Estimated increase in Contract Time: 4 days. If the change involves an increase, the estimated time is not to be exceeded without further authorization.

TerraGraphics Environmental Engineering  
RECOMMENDED:

By: June Wj  
Engineer

DEQ MWCB-AML  
AUTHORIZED:

By: Patricia Clark  
Owner

ACCEPTED:

By: Brad Nelson  
Contractor

## WORK DIRECTIVE CHANGE

### INSTRUCTIONS

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#### A. GENERAL INFORMATION

This document was developed for use in situations involving changes in the Work which, if not processed expeditiously, might delay the Project. These changes are often initiated in the field and may affect the Contract Price or the Contract Time. This is not a Change Order, but only a directive to proceed with Work that may be included in a subsequent Change Order.

For supplemental instructions and minor changes not involving a change in the Contract Price or the Contract Time, a Field Order may be issued.

#### B. COMPLETING THE WORK DIRECTIVE CHANGE

Engineer initiates the form, including a description of the items involved and attachments.

Based on conversations between Engineer and Contractor, Engineer to indicate the following and attach the same hereto:

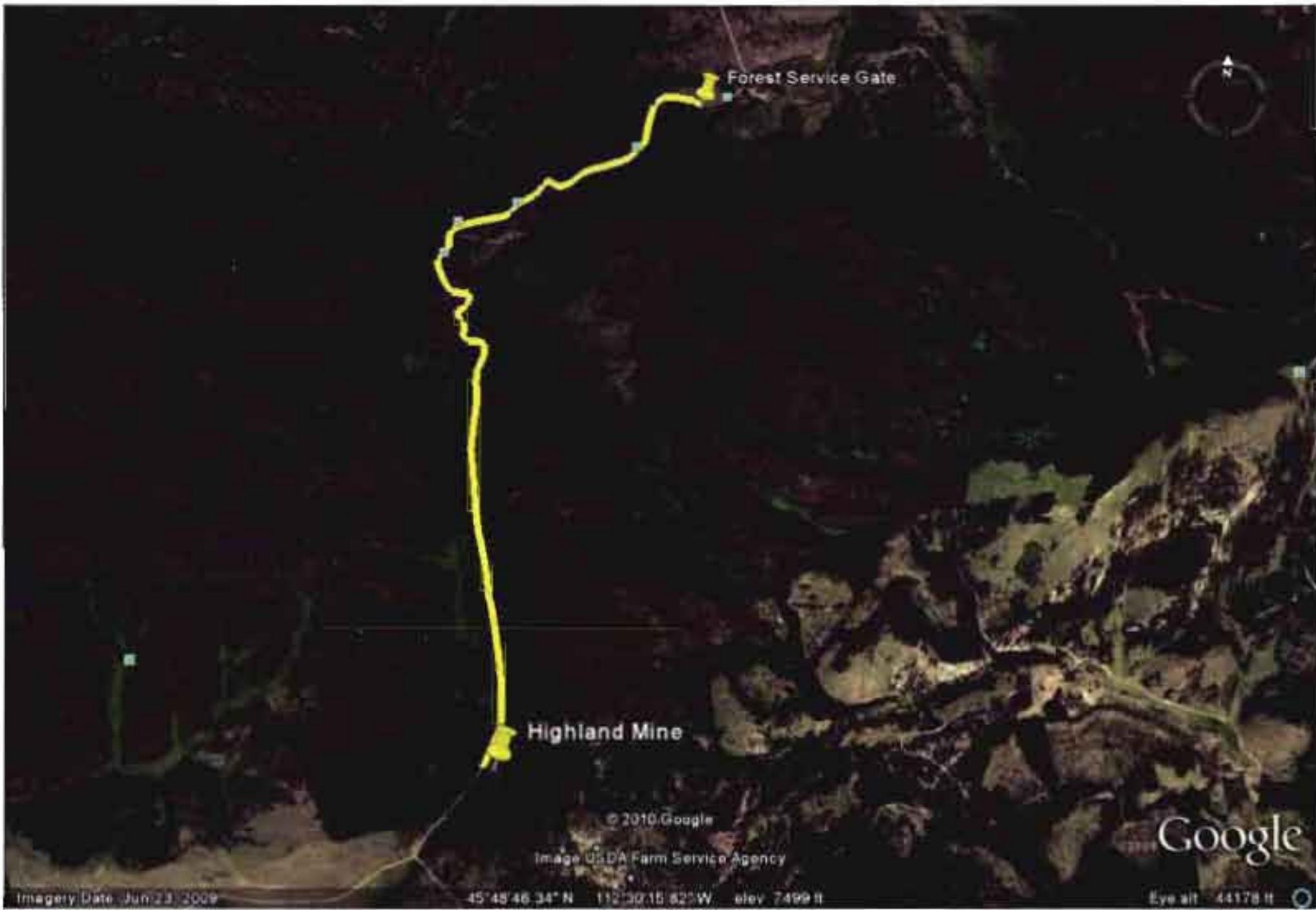
**METHOD OF DETERMINING CHANGE, IF ANY, IN CONTRACT PRICE:** Indicate the method to be used in determining the final cost of Work involved and the net effect on the Contract Price. If the change involves an increase in the Contract Price and the estimated amount is approached before the additional or changed work is completed, another Work Directive Change must be issued to change the time or Contractor may stop the changed Work when the estimated time is reached. If the Work Directive Change is not likely to change the Contract Price, the space for estimated increase (decrease) should be marked "Not Applicable".

**METHOD OF DETERMINING CHANGE, IF ANY, IN CONTRACT TIME:** Indicate the method to be used in determining the change in Contract Time and the estimated increase or decrease in Contract Time. If the change involves an increase in the Contract Time and the estimated time is approached before additional or changed Work is completed, another Work Directive Change must be issued to change the time or Contractor may stop the changed Work when the estimated time is reached. If the Work Directive Change is not likely to change the Contract Time, the space for estimated increase (decrease) should be marked "Not Applicable".

Once Engineer has completed and signed this form, all copies should be sent to Owner for authorization because Engineer alone does not have authority to authorize changes in Price or Time. Once authorized by Owner, a copy should be sent by Engineer to Contractor.

Once the Work covered by this directive is completed for final cost and time determined, Contractor should submit documentation for inclusion in a Change Order.

**THIS IS A DIRECTIVE TO PROCEED WITH A CHANGE THAT MAY AFFECT THE CONTRACT PRICE OR THE CONTRACT TIME. A CHANGE ORDER, IF ANY, SHOULD BE CONSIDERED PROMPTLY.**



Forest Service Gate

Highland Mine

© 2010 Google

Image by USDA Farm Service Agency

Google

Imagery Date: Jun 23, 2009

45°48'46.34" N 112°30'15.62" W elev. 7499 ft

Eye alt 44178 ft

**APPENDIX G**  
**PAYMENT REQUESTS**

### DEQ PAYMENT REQUEST

PAYMENT REQUEST NO. 1

PAYMENT PERIOD: 08/07/2010 -08/10/2010 <sup>3 pc</sup>

PROJECT NAME: 2010 Highland Mine Reclamation Project

DEQ CONTRACT NO.: 410022

NAME OF THE CONTRACTOR: AAA Construction of Missoula LLC

ADDRESS OF THE CONTRACTOR: P.O. Box 3932, Missoula, MT 59806

PAYMENT SUMMARY INFORMATION							
DATE	PAYMENT REQUEST #	EARNED	RETAINAGE WITHHELD*	RETAINAGE RELEASED	GROSS PAYMENT	TAX 1%	NET PAYMENT
8/11/2010	1	\$ 26,300.00	\$ 2,315.00		\$ 23,985.00	\$ 239.85	\$ 23,745.15
			\$ -		\$ -	\$ -	\$ -
			\$ -		\$ -	\$ -	\$ -
			\$ -		\$ -	\$ -	\$ -
	FINAL REQUEST		\$ -	\$ -	\$ -	\$ -	\$ -
<b>TOTAL TO DATE</b>		\$ 26,300.00	\$ 2,315.00	\$ -	\$ 23,985.00	\$ 239.85	\$ 23,745.15

DATE	CONTRACT PRICE SUMMARY	
8/2/2010	Original	\$ 342,645.00
<b>CONTRACT PRICE TO DATE</b>		\$ 342,645.00

MISCELLANEOUS INFORMATION	
TOTAL UNCOMPLETED TO DATE	92.32%
PERCENT COMPLETE TO DATE	7.68%

\*RETAINAGE WITHHELD IS 5% PLUS \$1,000  
LIGHTLY SHADED AREAS ARE AUTOMATICALLY CALCULATED

CURRENT PAYMENT REQUEST	
EARNED	\$ 26,300.00
RETAINAGE WITHHELD	\$ 2,315.00
RETAINAGE RELEASED	\$ -
GROSS PAYMENT	\$ 23,985.00
TAX (1%)	\$ 239.85
NET PAYMENT	\$ 23,745.15

<b>REQUESTED BY:</b>	CONTRACTOR: <u>AAA Const of Missoula</u>
	SIGNATURE: <u>[Signature]</u>
	DATE: <u>8/11/10</u>
<b>RECOMMENDED BY:</b>	ENGINEER: <u>[Signature]</u>
	COMPANY: <u>TERRACON</u>
	DATE: <u>8/11/10</u>
<b>APPROVED BY:</b>	OWNER: <u>DEQ MWC B-AMS</u>
	SIGNATURE: <u>[Signature]</u>
	DATE: <u>08/13/2010</u>

**2010 Highland Mine Reclamation Project**

<b>BID TABULATION</b>				<b>AAA Construction of Missoula Co.</b>		<b>Pay Request No. 1</b>			<b>Totals</b>		
<i>Bid Item</i>	<i>ESTIMATED QUANTITY</i>	<i>UNIT</i>	<i>DESCRIPTION</i>	<i>UNIT PRICE</i>	<i>TOTAL PRICE</i>	<i>% Complete</i>	<i>Quantity</i>	<i>Present Dollars</i>	<i>% Complete</i>	<i>Quantity</i>	<i>Present Dollars</i>
1	1	LS	MOBILIZATION, DEMOBILIZATION, BONDING, AND INSURANCE	\$25,000.00	\$25,000.00	50.0%	0.5	\$12,500.00	50.0%	0.5	\$12,500.00
2	1	LS	CLEARING AND GRUBBING	\$15,000.00	\$15,000.00	75.0%	0.75	\$11,250.00	75.0%	0.75	\$11,250.00
3	XXXXXX	XX	EXCAVATION AND EMBANKMENT								
3a.	695	CY	Excavation of TP1, TP2, and TP3	\$15.00	\$10,425.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00
3b.	2	AC	Grading	\$2,000.00	\$4,000.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00
3c.	826	LF	Construction of Type 1 Ditch	\$20.00	\$16,520.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00
3d.	137	LF	Construction of Type 2 Ditch	\$30.00	\$4,110.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00
4	1	LS	ADIT DISCHARGE DIVERSION	\$4,500.00	\$4,500.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00
5	XXXXXX	XX	CHANNEL CHANGE								
5a.	125	LF	Channel Change Excavation	\$30.00	\$3,750.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00
5b.	385	SY	30 Mil PVC Liner	\$15.00	\$5,775.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00
5c.	385	SY	10 Ounce Nonwoven Fabric	\$5.00	\$1,925.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00
5d.	36	CY	Bedding Material	\$25.00	\$900.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00
5e.	103	CY	Riprap	\$40.00	\$4,120.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00
6	7070	CY	COVER SOIL	\$28.00	\$197,960.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00
7	2	AC	SLOPE ROUGHENING	\$1,000.00	\$2,000.00	0.0%	0	\$0.00	0.0%	0.0	\$0.00
8	2	AC	FERTILIZE AND SEED DISTURBED AREAS	\$2,000.00	\$4,000.00	0.0%	0	\$0.00	0.0%	0.0	\$0.00
9	2	AC	STRAW MULCH	\$2,000.00	\$4,000.00	0.0%	0	\$0.00	0.0%	0.0	\$0.00
10	190	LF	GRAVEL BERM BAGS	\$10.00	\$1,900.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00
11	300	LF	FIBER ROLLS	\$6.00	\$1,800.00	16.7%	50	\$300.00	16.7%	50.0	\$300.00
12	300	LF	BARRIER FENCE	\$5.00	\$1,500.00	150.0%	450.0	\$2,250.00	150.0%	450.0	\$2,250.00
13	220	SY	EROSION CONTROL MAT	\$3.00	\$660.00	0.0%	0	\$0.00	0.0%	0.0	\$0.00
14	1	LS	OBLITERATE AND RECLAIM ROADWAY	\$3,000.00	\$3,000.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00
15	XXXXXX	XX	FENCE								
15a.	1850	LF	Construct New Farm Fence	\$8.00	\$14,800.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00
15b.	2	EA	Gates	\$400.00	\$800.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00
16	1	LS	LANDFILL DEBRIS DISPOSAL	\$3,000.00	\$3,000.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00
17	560	LF	TRAIL	\$20.00	\$11,200.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00
<b>TOTAL BID =</b>					\$342,645.00						
<b>TOTAL PAY REQUEST No. 1 CONTRACT PRICE =</b>					\$342,645.00	7.68%		\$26,300.00	7.68%		\$26,300.00

### DEQ PAYMENT REQUEST

PAYMENT REQUEST NO. 2

PAYMENT PERIOD: 08/11/2010 -08/27/2010

PROJECT NAME: 2010 Highland Mine Reclamation Project

DEQ CONTRACT NO.: 410022

NAME OF THE CONTRACTOR: AAA Construction of Missoula LLC

ADDRESS OF THE CONTRACTOR: P.O. Box 3932, Missoula, MT 59806

PAYMENT SUMMARY INFORMATION							
DATE	PAYMENT REQUEST #	EARNED	RETAINAGE WITHHELD*	RETAINAGE RELEASED	GROSS PAYMENT	TAX 1%	NET PAYMENT
8/11/2010	1	\$26,300.00	\$ 2,315.00		\$ 23,985.00	\$ 239.85	\$ 23,745.15
8/27/2010	2	\$83,185.00	\$ 4,159.25		\$ 79,025.75	\$ 790.26	\$ 78,235.49
			\$ -		\$ -	\$ -	\$ -
			\$ -		\$ -	\$ -	\$ -
	<b>FINAL REQUEST</b>			\$ -	\$ -	\$ -	\$ -
<b>TOTAL TO DATE</b>		\$ 109,485.00	\$ 6,474.25	\$ -	\$ 103,010.75	\$ 1,030.11	\$ 101,980.64

DATE	CONTRACT PRICE SUMMARY	
8/2/2010	Original	\$ 342,645.00
<b>CONTRACT PRICE TO DATE</b>		<b>\$ 342,645.00</b>

MISCELLANEOUS INFORMATION	
TOTAL UNCOMPLETED TO DATE	68.05%
PERCENT COMPLETE TO DATE	31.95%

\*RETAINAGE WITHHELD IS 5% PLUS \$1,000  
LIGHTLY SHADED AREAS ARE AUTOMATICALLY CALCULATED

CURRENT PAYMENT REQUEST	
EARNED	\$ 83,185.00
RETAINAGE WITHHELD	\$ 4,159.25
RETAINAGE RELEASED	\$ -
GROSS PAYMENT	\$ 79,025.75
TAX (1%)	\$ 790.26
NET PAYMENT	\$ 78,235.49

**REQUESTED BY:** CONTRACTOR: Buff Stohr AAA Const. of Missoula LLC  
SIGNATURE: Buff Stohr  
DATE: 9/1/10

**RECOMMENDED BY:** ENGINEER: Jim Wj  
COMPANY: TERRAGRAPHS  
DATE: 8/30/10

**APPROVED BY:** OWNER: DEQ MWC B-AML  
SIGNATURE: Pete Clark  
DATE: 09/03/2010

**2010 Highland Mine Reclamation Project**

BID TABULATION				AAA Construction of Missoula Co.		Pay Request No. 1			Pay Request No. 2			Totals		
Bid Item	ESTIMATED QUANTITY	UNIT	DESCRIPTION	UNIT PRICE	TOTAL PRICE	% Complete	Quantity	Present Dollars	% Complete	Quantity	Present Dollars	% Complete	Quantity	Present Dollars
1	1	LS	MOBILIZATION, DEMOBILIZATION, BONDING, AND INSURANCE	\$25,000.00	\$25,000.00	50.0%	0.5	\$12,500.00	0.0%	0.0	\$0.00	50.0%	0.5	\$12,500.00
2	1	LS	CLEARING AND GRUBBING	\$15,000.00	\$15,000.00	75.0%	0.75	\$11,250.00	0.0%	0.0	\$0.00	75.0%	0.75	\$11,250.00
3	XXXXXX	XX	EXCAVATION AND EMBANKMENT											
3a.	695	CY	Excavation of TP1, TP2, and TP3	\$15.00	\$10,425.00	0.0%	0.0	\$0.00	139.1%	967.0	\$14,505.00	139.1%	967.0	\$14,505.00
3b.	2	AC	Grading	\$2,000.00	\$4,000.00	0.0%	0.0	\$0.00	50.0%	1.0	\$2,000.00	50.0%	1.0	\$2,000.00
3c.	826	LF	Construction of Type 1 Ditch	\$20.00	\$16,520.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00
3d.	137	LF	Construction of Type 2 Ditch	\$30.00	\$4,110.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00
4	1	LS	ADIT DISCHARGE DIVERSION	\$4,500.00	\$4,500.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00
5	XXXXXX	XX	CHANNEL CHANGE											
5a.	125	LF	Channel Change Excavation	\$30.00	\$3,750.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00
5b.	385	SY	30 Mil PVC Liner	\$15.00	\$5,775.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00
5c.	385	SY	10 Ounce Nonwoven Fabric	\$5.00	\$1,925.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00
5d.	36	CY	Bedding Material	\$25.00	\$900.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00
5e.	103	CY	Riprap	\$40.00	\$4,120.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00
6	7070	CY	COVER SOIL	\$28.00	\$197,960.00	0.0%	0.0	\$0.00	33.4%	2,360.0	\$66,080.00	33.4%	2,360.0	\$66,080.00
7	2	AC	SLOPE ROUGHENING	\$1,000.00	\$2,000.00	0.0%	0	\$0.00	0.0%	0	\$0.00	0.0%	0.0	\$0.00
8	2	AC	FERTILIZE AND SEED DISTURBED AREAS	\$2,000.00	\$4,000.00	0.0%	0	\$0.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00
9	2	AC	STRAW MULCH	\$2,000.00	\$4,000.00	0.0%	0	\$0.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00
10	190	LF	GRAVEL BERM BAGS	\$10.00	\$1,900.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00
11	300	LF	FIBER ROLLS	\$6.00	\$1,800.00	16.7%	50	\$300.00	0.0%	0.0	\$0.00	16.7%	50.0	\$300.00
12	300	LF	BARRIER FENCE	\$5.00	\$1,500.00	150.0%	450.0	\$2,250.00	0.0%	0.0	\$0.00	150.0%	450.0	\$2,250.00
13	220	SY	EROSION CONTROL MAT	\$3.00	\$660.00	0.0%	0	\$0.00	90.9%	200.0	\$600.00	90.9%	200.0	\$600.00
14	1	LS	OBLITERATE AND RECLAIM ROADWAY	\$3,000.00	\$3,000.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00
15	XXXXXX	XX	FENCE											
15a.	1850	LF	Construct New Farm Fence	\$8.00	\$14,800.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00
15b.	2	EA	Gates	\$400.00	\$800.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00
16	1	LS	LANDFILL DEBRIS DISPOSAL	\$3,000.00	\$3,000.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00
17	560	LF	TRAIL	\$20.00	\$11,200.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00
			<b>TOTAL BID =</b>		\$342,645.00									
			<b>TOTAL PAY REQUEST No. 1 CONTRACT PRICE (no changer orders) =</b>		\$342,645.00	7.68%		\$26,300.00						
			<b>TOTAL PAY REQUEST No. 2 CONTRACT PRICE (no change orders) =</b>		\$342,645.00				24.28%		\$83,185.00	31.95%		\$109,485.00

## DEQ PAYMENT REQUEST

**FINAL PAYMENT REQUEST**

**PAYMENT PERIOD: 08/28/2010-10/8/2010**

**PROJECT NAME: 2010 Highland Mine Reclamation Project**

**DEQ CONTRACT NO.: 410022**

**NAME OF THE CONTRACTOR: AAA Construction of Missoula LLC**

**ADDRESS OF THE CONTRACTOR: P.O. Box 3932, Missoula, MT 59806**

PAYMENT SUMMARY INFORMATION							
DATE	PAYMENT REQUEST #	EARNED	RETAINAGE WITHHELD*	RETAINAGE RELEASED	GROSS PAYMENT	TAX 1%	NET PAYMENT
8/11/2010	1	\$26,300.00	\$ 2,315.00		\$ 23,985.00	\$ 239.85	\$ 23,745.15
8/27/2010	2	\$83,185.00	\$ 4,159.25		\$ 79,025.75	\$ 790.26	\$ 78,235.49
			\$ -		\$ -	\$ -	\$ -
			\$ -		\$ -	\$ -	\$ -
10/18/2010	<b>FINAL REQUEST</b>	\$233,620.85	\$ 6,474.25	\$ 6,474.25	\$ 240,095.10	\$ 2,400.95	\$ 237,694.15
<b>TOTAL TO DATE</b>		<b>\$ 343,105.85</b>	<b>\$ 6,474.25</b>	<b>\$ 6,474.25</b>	<b>\$ 343,105.85</b>	<b>\$ 3,431.06</b>	<b>\$ 339,674.79</b>

DATE	CONTRACT PRICE SUMMARY	
8/2/2010	Original	\$ 342,645.00
10/12/2010	CO #1	\$4,433.00
10/12/2010	CO #2	\$ -
10/18/2010	CO #3	\$ (3,972.15)
<b>CONTRACT PRICE TO DATE</b>		<b>\$ 343,105.85</b>

MISCELLANEOUS INFORMATION	
TOTAL UNCOMPLETED TO DATE	0.00%
PERCENT COMPLETE TO DATE	100.00%

\*RETAINAGE WITHHELD IS 5% PLUS \$1,000  
LIGHTLY SHADED AREAS ARE AUTOMATICALLY CALCULATED

CURRENT PAYMENT REQUEST	
EARNED	\$ 233,620.85
RETAINAGE WITHHELD	\$ -
RETAINAGE RELEASED	\$ 6,474.25
GROSS PAYMENT	\$ 240,095.10
TAX (1%)	\$ 2,400.95
NET PAYMENT	\$ 237,694.15

**REQUESTED BY:** CONTRACTOR: BRADY C. NELSON AAA CONST. of Missoula LLC  
SIGNATURE: [Signature]  
DATE: 10/25/10

**RECOMMENDED BY:** ENGINEER: [Signature]  
COMPANY: TERRAGRAPHICS  
DATE: 10/21/10

**APPROVED BY:** OWNER: DEQ MWCRA-AML  
SIGNATURE: [Signature]  
DATE: 10/27/10



**APPENDIX H**  
**PROJECT COMPLETION FORMS**

# CONTRACTOR'S CERTIFICATE OF COMPLETION

TO (Owner): Montana DEQ MWCB

DATE: September 30, 2010

PROJECT TITLE: 2010 Highland Mine Reclamation Project

DEQ Contract No. 410022

ATTN: Engineer, Jamie Mongoven

CONTRACT DATE: August 3, 2010

FROM: AAA Construction of Missoula, LLC

(Firm or Corporation)

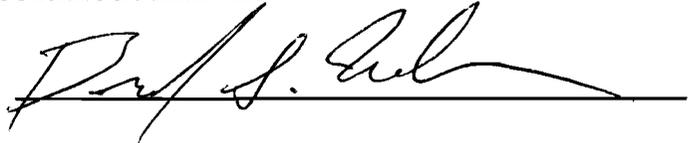
This is to certify that I, Brady Nelson, am an authorized official of AAA Construction of Missoula, LLC, working in the capacity of Manager/Owner and have been properly authorized by said firm or corporation to sign the following statements pertaining to the subject contract:

I know of my own personal knowledge, and do hereby certify, that the work of the contract described above has been performed, and materials used and installed in every particular, in accordance with, and in conformity to, the Contract Plans and Specifications.

The contract work is now complete in all parts and requirements and ready for your substantial completion inspection.

I understand that neither the determination of the Engineer that the work is complete nor the acceptance thereof by the Owner shall operate as a bar to claim against the Contractor under the terms of the guarantee provisions of the Contract Documents.

CONTRACTOR:



By: Manager/Owner

Title

- Distribution:
1. Project Manager
  2. Engineer
  3. File

# CERTIFICATE OF SUBSTANTIAL COMPLETION

TO: Montana Department of Environmental Quality OWNER

PROJECT TITLE: 2010 Highland Mine Reclamation Project

DEQ Contract No. 410022

CONTRACT DATE: August 3, 2010

LOCATION: Highland Mine, Silver Bow  
County, MT

PROJECT OR PART SHALL INCLUDE: \_\_\_\_\_  
2010 Highland Mine Reclamation Project

CONTRACTOR: AAA Construction of Missoula,  
LLC

ADDRESS: 3376 Trails End Road, PO Box 3932,  
Missoula, MT 59806

TELEPHONE NO: (406) 240-3672

SUBSTANTIAL COMPLETION DATE: September 30, 2010

DEQ INSPECTION DATE: \_\_\_\_\_

ENGINEER: TerraGraphics Environmental Engineering, Inc.

PERFORMANCE BOND NO: 1056611

DATE OF BOND: July 9, 2010

SURETY: Lexon Insurance Company

MONTANA AGENT: Kelly Tenold, Western States Insurance

ADDRESS: 316 Main St., Stevensville, MT 59870

The Work performed under this Contract has been inspected by authorized representatives of the Owner, Contractor, and Engineer, and the Project (or specified part of the Project, as indicated above) is hereby declared to be substantially completed on the above date.

#### DEFINITION OF SUBSTANTIAL COMPLETION

The date of substantial completion of a project or specified area of a project is the date when the construction is sufficiently completed, in accordance with the contract documents, as modified by any change orders agreed to by the parties, so the Owner can occupy or use it for the purpose for which it is intended.

A tentative list of items to be completed is appended hereto. This list is not exhaustive, and the failure to include an item on it does not alter the responsibility of the Contractor to complete all the Work in accordance with the Contract Documents.

ENGINEER: TerraGraphics Environmental Engineering, Inc.

By [Signature] 9/30/10  
Authorized Representative Date

The Contractor accepts the above Certificate of Substantial Completion and agrees to complete and correct the items on the tentative list within the time indicated.

CONTRACTOR: AAA Construction of Missoula, LLC

By [Signature] 9/30/10  
Authorized Representative Date

The Owner accepts the Project or specified area of the Project as substantially complete and will assume full possession of the project or specified area at \_\_\_\_\_ (time), on \_\_\_\_\_ (date). The responsibility for heat, utilities, security, and insurance under the Contract Documents shall be as set forth under "Remarks" below.

OWNER: Montana Department of Environmental Quality

By [Signature] 9/30/10  
Authorized Representative Date

**Remarks: (Attach additional sheet, if necessary)**

Punch list to be completed prior to final walk-through.

1. Install Kelly-hump at the north end of the site across reclaimed road.
2. Complete Seeding and Mulching of site
3. Install bank stabilization fabric near channel change
4. Install straw wattle across WR1.
5. Complete grading of forest service road.

Final walk-through scheduled for Oct. 12, 2010 at 10:00 a.m.

**AFFIDAVIT ON BEHALF OF CONTRACTOR**

STATE OF Montana )

DEQ Contract No.: 410022

COUNTY OF Silver Bow )

: ss

DATE: October 14, 2010

I certify to the best of my knowledge and belief that all work has been performed and materials supplied in strict conformance with the terms and conditions of the corresponding contract documents between Montana Department of Environmental Quality, the Owner, and AAA Construction of Missoula, LLC, the Contractor, dated August 3, 2010 for the 2010 Highland Mine Reclamation Project, DEQ Contract No. 410022, and further declare that all bills for materials, supplies, utilities, and for all other things furnished or caused to be furnished by the above-named Contractor and used in the execution of the above Contract have been fully paid, and there are no unpaid claims or demands of State Agencies, subcontractors, materialmen, mechanics, laborers or any others resulting from or arising out of work done or ordered to be done by said Contractor under the above-identified Contract.

In consideration of the prior and final payments made and all payments made for authorized changes, the Contractor releases and forever discharges the Owner from any and all obligations and liabilities arising by virtue of said Contract and authorized changes between the parties hereto, either verbal or in writing, and any and all claims and demands of every kind and character whatsoever against the Owner, arising out of or in any way relating to said Contract, and authorized changes.

This affidavit is made for the purpose of inducing the Owner to make Final Payment under the terms of the Contract, relying on the truth and statements contained therein.

Dated this 11 day of October, 2010, at Missoula, Montana.

CONTRACTOR: AAA Construction of Missoula, LLC

By: [Signature]  
Title: MANAGER

Subscribed and sworn to before me this 11 day of October, 2010.

(SEAL)

[Signature]  
Notary Public for the State of Montana  
Residing at MISSOULA, MT.  
My commission expires 8-1-2011

**CONSENT OF  
SURETY COMPANY  
TO FINAL PAYMENT**  
(From AIA Document G707)

OWNER [ ]  
ENGINEER [ ]  
CONTRACTOR [ ]  
SURETY [ ]  
OTHER [ ]

PROJECT: 2010 Highland Mine Reclamation Project

TO (Owner)

Montana Dept. of Environmental Quality  
Remediation Division  
Mine Waste Cleanup Bureau  
P.O. Box 200901  
Helena, MT 59620-0901

DEQ Contract No.: 410022

CONTRACT FOR: Reclamation Construction

CONTRACT DATE: August 3, 2010

CONTRACTOR: *AAA Construction of Missoula, LLC*

In accordance with the provisions of the contract between the Owner and the Contractors indicated above,

The, Lexon Insurance Company, 10002 Shelbyville Rd., Ste. 100, Louisville, KY 40223, SURETY COMPANY, on bond of, AAA Construction of Missoula, LLC, CONTRACTOR, hereby approves of the final payment to the Contractor, and agrees that final payment to the Contractor shall not relieve the Surety Company of any of its obligations to Montana Department of Environmental Quality, P.O. Box 200901, Helena, MT 59620-0901, OWNER, as set forth in the said Surety Company's bond.

IN WITNESS WHEREOF, the Surety Company has hereunto set its hand this 12 day of October, 2010.

Lexon Insurance Company  
Surety Company

Attest:  
(Seal)

*Kelley J. Zell*  
Signature of Authorized Representative

*Attorney in Fact*  
Title

NOTE: This form is to be used as a companion document to the Affidavit on Behalf of Contractor (current edition)

**RECEIVED**

OCT 19 2010

Dept. of Environmental Quality  
Remediation Division

# Lexon Insurance Company

KNOW ALL MEN BY THESE PRESENTS, that **LEXON INSURANCE COMPANY**, a Texas Corporation, with its principal office in Louisville, Kentucky, does hereby constitute and appoint:

Spencer F. Thomas, Kelly Tenold, Carly Schneidenbach, Ryan Elliott

its true and lawful Attorney(s)-In-Fact to make, execute, seal and deliver for, and on its behalf as surety, any and all bonds, undertakings or other writings obligatory in nature of a bond.

This authority is made under and by the authority of a resolution which was passed by the Board of Directors of **LEXON INSURANCE COMPANY** on the 1st day of July, 2003 as follows:

Resolved, that the President of the Company is hereby authorized to appoint and empower any representative of the Company or other person or persons as Attorney-In-Fact to execute on behalf of the Company any bonds, undertakings, policies, contracts of indemnity or other writings obligatory in nature of a bond not to exceed \$2,500,000.00, Two-million five hundred thousand dollars, which the Company might execute through its duly elected officers, and affix the seal of the Company thereto. Any said execution of such documents by an Attorney-In-Fact shall be as binding upon the Company as if they had been duly executed and acknowledged by the regularly elected officers of the Company. Any Attorney-In-Fact, so appointed, may be removed for good cause and the authority so granted may be revoked as specified in the Power of Attorney.

Resolved, that the signature of the President and the seal of the Company may be affixed by facsimile on any power of attorney granted, and the signature of the Vice President, and the seal of the Company may be affixed by facsimile to any certificate of any such power and any such power or certificate bearing such facsimile signature and seal shall be valid and binding on the Company. Any such power so executed and sealed and certificate so executed and sealed shall, with respect to any bond of undertaking to which it is attached, continue to be valid and binding on the Company.

IN WITNESS THEREOF, **LEXON INSURANCE COMPANY** has caused this instrument to be signed by its President, and its Corporate Seal to be affixed this 2nd day of July, 2003.



**LEXON INSURANCE COMPANY**

BY *David E. Campbell*  
David E. Campbell  
President

### ACKNOWLEDGEMENT

On this 2nd day of July, 2003, before me, personally came David E. Campbell to me known, who being duly sworn, did depose and say that he is the President of **LEXON INSURANCE COMPANY**, the corporation described in and which executed the above instrument; that he executed said instrument on behalf of the corporation by authority of his office under the By-laws of said corporation.

**"OFFICIAL SEAL"**  
**MAUREEN K. AYE**  
Notary Public, State of Illinois  
My Commission Expires 09/21/13

*Maureen K. Aye*  
Maureen K. Aye  
Notary Public

### CERTIFICATE

I, the undersigned, Secretary of **LEXON INSURANCE COMPANY**, A Texas Insurance Company, DO HEREBY CERTIFY that the original Power of Attorney of which the foregoing is a true and correct copy, is in full force and effect and has not been revoked and the resolutions as set forth are now in force.

Signed and Sealed at Lombard, Illinois this 12 Day of October, 20 10.



*Donald D. Buchanan*  
Donald D. Buchanan  
Secretary

**"WARNING: Any person who knowingly and with intent to defraud any insurance company or other person, files an application for insurance or statement of claim containing any materially false information, or conceals for the purpose of misleading, information concerning any fact material thereto, commits a fraudulent insurance act, which is a crime and subjects such person to criminal and civil penalties."**

# CERTIFICATE OF ACCEPTANCE

TO: Mine Waste Cleanup Bureau, State of Montana, Department of Environmental Quality (OWNER)

PROJECT TITLE: 2010 Highland Mine Reclamation Project

DEQ Contract No. 410022

CONTRACT DATE: August 3, 2010

LOCATION: Highland Mine, Silver Bow

County

PROJECT OR PART SHALL INCLUDE: \_\_\_\_\_

2010 Highland Mine Reclamation Project

CONTRACTOR: AAA Construction of Missoula,

LLC

ADDRESS: 3376 Trails End Road, PO Box 3932

Missoula, MT 59806

TELEPHONE NO: (406) 240-3672

FINAL ACCEPTANCE DATE: 10/19/2010

DEQ INSPECTION DATE: October 12, 2010

ENGINEER: TerraGraphics Environmental Engineering, Inc.

PERFORMANCE BOND NO: 1056611

DATE OF BOND: July 9, 2010

SURETY: Lexon Insurance Company

MONTANA AGENT: Kelly Tenold, Western States Insurance

ADDRESS: 316 Main St., Stevensville, MT 59870

The Work performed under this Contract has been inspected by authorized representatives of the Owner, Contractor, and Engineer, and the Project (or specified part of the Project, as indicated above) is hereby declared to be totally completed and accepted on the above date.

ENGINEER: TerraGraphics Environmental Engineering, Inc.

By [Signature]

Authorized Representative

10/12/10

Date

The Contractor accepts the above Certificate of Acceptance and agrees to abide by the conditions of the one-year warranty period which began on the substantial completion date.

CONTRACTOR: AAA Construction of Missoula, LLC

By [Signature]

Authorized Representative

10/12/10

Date

The Owner accepts the Project as totally complete, and final payment is due to the Contractor as provided in the contract documents.

OWNER: Montana Department of Environmental Quality

By [Signature]

Authorized Representative

10/19/10

Date

**APPENDIX I**  
**MATERIAL SUBMITTALS**

# SUBSTITUTION REQUEST FORM

TO: DEQ Remediation Division / Mine Waste Cleanup Bureau

PROJECT: **2010 Highland Mine Reclamation Project**  
**DEQ Contract No. 410022**

We hereby submit for your consideration the following product instead of the specified item for the above project.

<u>Section</u>	<u>Paragraph</u>	<u>Specified Item</u>
<u>Section III, Special Provisions</u>	<u>(E) Description of Individual Bid Items</u>	<u>Bid Item No. 6: Cover Soil</u>

Proposed Substitution: Lime amendment to imported cover soil to meet pH specification required per Technical Specification 310: Cover Soil.

Attach complete technical data, including laboratory tests, if applicable. Include complete information on changes to Drawings and/or Specifications which proposed substitution will require for its proper installation. **(Fill in blanks below. Use additional sheets if necessary.)**

- A. Does the substitution affect dimensions shown on Drawings? No
- B. Will the undersigned pay for changes to building design, including engineering and detailing costs caused by the requested substitution? No
- C. What affect does substitution have on other trades? None
- D. State differences between proposed substitution and specified item: Cover soil from MSE offsite borrow area does not meet the pH requirements of technical specification 310: Cover Soil. Contractor proposes to add lime to the soil to meet the pH specification. See attached documentation for laboratory analytical data specifying the required liming rate and Contractors methods for lime incorporation into the cover soil.
- E. Manufacturer's guarantees for the proposed and specified items are: NA

       Same        Different (explain on attachment)

The undersigned states that the function, appearance, and quality are equivalent or superior to the specified item.

Submitted by:  
  
\_\_\_\_\_  
Signature

Checked by Engineer:  
 Accepted       Accepted as Noted  
 Not Accepted       Received too Late

AAA Construction of Missoula LLC  
Firm

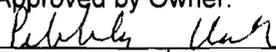
By   
\_\_\_\_\_

Date 8/2/2010

Remarks I HAVE INSPECT SIGHT & REVIEWED MITIGATION PROCEDURE AND APPROVE PLAN & COVER SOIL SOURCE.

3376 Trails End Rd, Missoula, MT 59806  
Address

Date 8/2/10  
Telephone (406) 240-3672

Approved by Owner:  
  
Date 8/2/2010

# AAA CONSTRUCTION OF MISSOULA, LLC

General Contractor  
P.O. Box 3932  
Missoula, MT 59806

---

Telephone 406 251-4995  
Fax 406 251-0456

July 28, 2010

TetraGraphics  
Jamie Mongoven

As per conversation yesterday I am rewriting my soil amendment. I am using the rate from MSE Lab Services which would amend the soil as discussed. The rate of Type S Hydrated Calcium Carbonate Lime needed to treat entire yardage amount would be 2.55 pounds per yard of material or 9 tons of lime for entire yardage needed, we will test soil when loaded with the lime. We will use excavator or loader, we will spread approx 20 yards of topsoil and spread 50 pound bag over soil and mix, then load into truck. Attached is MSE report.

Thank you,

Brady Nelson  
AAA Construction of Missoula, LLC

**FAXED**  
H2L MC

**MSE Lab Services**

Date: 26-Jul-10

CLIENT: AAA Construction of Missoula, LLC  
Lab Order: 1007118  
Project: HIGHLAND MINE  
Lab ID: 1007118-001

Client Sample ID: TP008  
Collection Date: 7/19/2010  
Matrix: SOIL

Analyses	Result	MDL	Rpt Limit	Qualifier	Units	DF	Date Analyzed
<b>SMP SINGLE BUFFER METHOD-LIMING REQ.</b>		<b>USDA-SMP</b>		Analyst: dk			
Liming Requirement	3.7	0	7.1		None	1	7/26/2010
pH	8.2	0.1	0.5		SU	1	7/26/2010

Post-It® Fax Note	7671	Date	7/26	# of pages	4
To	Brady Nelson	From	M. Cameron		
Co./Dept.		Co.			
Phone #		Phone #			
Fax #	406 251 0466	Fax #			

MC Review

<b>Qualifiers:</b>	E	Value above quantization range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the Reporting Limit	LMR	Reporting Limit
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit (MDL)

**MSE** MSE-TA Analytical Laboratory

P.O. Box 4078  
200 Technology Way  
Butte, MT 59701

Lab: 406-494-7334  
Fax: 406-494-7230  
tsbinfo@mse-ta.com

**MSE Lab Services**

Date: 26-Jul-10

CLIENT: AAA Construction of Missoula, LLC Client Sample ID: TP007  
 Lab Order: 1007116 Collection Date: 7/19/2010  
 Project: HIGHLAND MINE  
 Lab ID: 1007116-002 Matrix: SOIL

Analyses	Result	MDL	Rpt Limit	Qualifier	Units	DF	Date Analyzed
<b>SMP SINGLE BUFFER METHOD-LIMING REQ.</b>		<b>USDA-SMP</b>		Analyst: dk			
Liming Requirement	ND	0	7.1		None	1	7/26/2010
pH	7.2	0.1	0.5		SU	1	7/26/2010

MC Review

<b>Qualifiers:</b>	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the Reporting Limit	Limit	Reporting Limit
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit (MDL)

**MSE** MSE-TA Analytical Laboratory

P.O. Box 4078  
 200 Technology Way  
 Butte, MT 59701

Lab: 406-494-7334  
 Fax: 406-494-7230  
 labinfo@mee-ta.com

**MSE Lab Services**

Date: 26-Jul-10

**CLIENT:** AAA Construction of Missoula, LLC      **Client Sample ID:** TP008  
**Lab Order:** 1007116      **Collection Date:** 7/19/2010  
**Project:** HIGHLAND MINE  
**Lab ID:** 1007116-003      **Matrix:** SOIL

Analyses	Result	MDL	Rpt Limit	Qualifier	Units	DF	Date Analyzed
<b>SMP SINGLE BUFFER METHOD-LIMING REQ.</b>		<b>USDA-SMP</b>		<b>Analyst: dk</b>			
Liming Requirement	2.8	0	7.1		acre	1	7/26/2010
pH	6.4	0.1	0.5		SU	1	7/26/2010

*MC* Review

Qualifiers:	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the Reporting Limit	Limit	Reporting Limit
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit (MDL)

 MSE-TA Analytical Laboratory

P.O. Box 4078  
200 Technology Way  
Butte, MT 59701

Lab: 406-494-7334  
Fax: 406-494-7230  
labinfo@mse-ta.com

RECEIVED 07/28/2010 15:35 4062510456  
 AAA 4064415443  
 TERRAGRAPHICS #0686 P.005/008

Table 5 - 2.50-Calibrations for lime requirement for the surface 20 cm of soil using the SMP buffer pH method.

Soil SMP buffer pH	Desired Soil pH			
	7	6.5	6	Organic Soil 5.2
Amount of 100 % CaCO <sub>3</sub> required (tons ac <sup>-1</sup> )				
6.8	1.1	0.9	0.8	0.6
6.7	1.8	1.6	1.3	1
6.6	2.4	2	1.7	1.3
6.5	3.1	2.6	2.1	1.7
6.4	4	3.4	2.8	2.1
6.3	4.7	4	3.3	2.5
6.2	5.4	4.6	3.7	2.9
6.1	6	5	4.1	3.2
6	6.8	5.7	4.7	3.6
5.9	7.7	6.5	5.3	4.1
5.8	8.3	7	5.7	4.4
5.7	9	7.6	6.2	4.7
5.6	9.7	8.2	6.7	5.2
5.5	10.4	8.8	7.2	5.5
5.4	11.3	9.6	7.8	6
5.3	11.9	10	8.2	6.3
5.2	12.7	10.7	8.7	6.7
5.1	13.6	11.5	9.2	7.1

Based on 8 inch furrow slice weighing 2.4 million pounds. From Eckert 1988.

**Highland\_Borrow Area Map**  
**MSE Technologies**  
**200 Technology Way**  
**Butte, MT 59702**



**Highland\_Borrow Area Map**  
**MSE Technologies**  
**200 Technology Way**  
**Butte, MT 59702**



**Highland\_Borrow Area Map**  
**MSE Technologies**  
**200 Technology Way**  
**Butte, MT 59702**



MSE4, 48" bgs

TP006, 20" bgs

MSE1, Not Analyzed

MSE3, 10" bgs

MSE2, 10" bgs

TP007, 16" bgs

TP008, 24" bgs



Wednesday, July 14, 2010



Brady Nelson  
AAA Construction of Missoula, LLC  
P.O. Box 3932  
Missoula, MT 59806

RE: HIGHLAND MINE

Work Order: 1007012

Dear Brady Nelson:

MSE Lab Services received 3 sample(s) on 7/2/2010 for the analyses presented in the following report.

Please find enclosed analytical results for the sample(s) received at the MSE Laboratory.

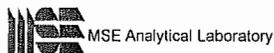
If you have any questions regarding these test results, please feel free to call.

Sincerely,

A handwritten signature in black ink that reads 'Marcee Cameron'.

Marcee Cameron  
Laboratory Director/ Chemist  
406-494-7334

Enclosure



P.O. Box 4078  
200 Technology Way  
Butte, MT 59701

Lab: 406-494-7334  
Fax: 406-494-7230  
labinfo@mse-ta.com

---

**E-MAILED**  
7/14 MC

**MSE Lab Services**

Date: 14-Jul-10

**CLIENT:** AAA Construction of Missoula, LLC  
**Lab Order:** 1007012  
**Project:** HIGHLAND MINE  
**Lab ID:** 1007012-001

**Client Sample ID:** SS 2-10"  
**Collection Date:** 7/2/2010 10:15:00 AM  
**Matrix:** SOIL

Analyses	Result	MDL	Rpt Limit	Qualifier	Units	DF	Date Analyzed
<b>ICP-MS METALS, SOLID SAMPLES</b>		<b>SW6020</b>		<b>SW3050B</b>			Analyst: <b>SW</b>
Arsenic	4.59	0.090	0.310		mg/Kg-dry	2	7/8/2010
Cadmium	0.637	0.005	0.021		mg/Kg-dry	2	7/8/2010
Copper	15.0	0.085	0.258		mg/Kg-dry	2	7/8/2010
Lead	6.97	0.009	0.041		mg/Kg-dry	2	7/8/2010
Manganese	294	0.020	0.062		mg/Kg-dry	2	7/8/2010
Zinc	37.3	0.189	0.620		mg/Kg-dry	2	7/8/2010
<b>AVAILABLE POTASSIUM</b>		<b>MSA13-3.3.1</b>		<b>MSA33-8.3</b>			Analyst: <b>MC</b>
Available Potassium	173	0.8	5.4		mg/Kg-dry	5	7/12/2010
<b>AVAILABLE NITROGEN</b>		<b>MSA33-8.3</b>		<b>MSA33-8.3</b>			Analyst: <b>kgw</b>
Nitrogen, Nitrate-Nitrite	1.06	0.150	1.50	J	mg/Kg	5	7/6/2010
<b>AVAILABLE PHOSPHORUS</b>		<b>MSA24-5.4.1</b>		<b>MSA24-5.4.1</b>			Analyst: <b>kgw</b>
Available Phosphorus	0.5	0.1	0.5		mg/Kg-dry	1	7/8/2010
<b>ELECTRICAL CONDUCTIVITY - SOILS</b>		<b>MSA10-2.3.1/10-3.3</b>					Analyst: <b>dk</b>
EC	424.0	0.5	1.0		µmhos/cm	1	7/7/2010
<b>ORGANIC MATTER-WALKLEY BLACK</b>		<b>OM_WALKLEYBLACK</b>					Analyst: <b>dk</b>
Organic Matter - Walkley Black	0.92	0.09	0.20		%	1	7/9/2010
<b>PERCENT SATURATION</b>		<b>USDA-27A</b>					Analyst: <b>MC</b>
Percent Saturation	42.1		0.1		%	1	7/14/2010
<b>PH (SATURATION EXTRACT)</b>		<b>MSA10-2.3.1/10-3.2</b>					Analyst: <b>dk</b>
pH (saturation extract)	7.24	0.10	0.50		SU	1	7/7/2010
<b>RAPID HYDROMETER (2 HOUR) MOD ASA 15-5</b>		<b>MSA15-5</b>					Analyst: <b>dk</b>
% Clay	14.0	0.1	0.1		%	1	7/6/2010
% Sand	74.0	0.1	0.1		%	1	7/6/2010
% Silt	12.0	0.1	0.1		%	1	7/6/2010
Soil Class	SANDY LOAM				%	1	7/6/2010
<b>PERCENT MOISTURE</b>		<b>D2216</b>					Analyst: <b>dk</b>
Percent Moisture	7.89	0.01	0.05		wt%	1	7/2/2010

*SW*

**Review**

<b>Qualifiers:</b>	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the Reporting Limit	Limit	Instrument Reporting Limit
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit (MDL)



MSE-TA Analytical Laboratory

P.O. Box 4078  
 200 Technology Way  
 Butte, MT 59701

Lab: 406-494-7334  
 Fax: 406-494-7230  
 labinfo@mse-ta.com

**MSE Lab Services**

Date: 14-Jul-10

**CLIENT:** AAA Construction of Missoula, LLC  
**Lab Order:** 1007012  
**Project:** HIGHLAND MINE  
**Lab ID:** 1007012-002

**Client Sample ID:** SS 3-10"  
**Collection Date:** 7/2/2010 10:15:00 AM  
**Matrix:** SOIL

Analyses	Result	MDL	Rpt Limit	Qualifier	Units	DF	Date Analyzed
<b>ICP-MS METALS, SOLID SAMPLES</b>		<b>SW6020</b>		<b>SW3050B</b>			Analyst: <b>SW</b>
Arsenic	18.5	0.090	0.312		mg/Kg-dry	2	7/8/2010
Cadmium	1.11	0.005	0.021		mg/Kg-dry	2	7/8/2010
Copper	32.0	0.085	0.260		mg/Kg-dry	2	7/8/2010
Lead	12.5	0.009	0.042		mg/Kg-dry	2	7/8/2010
Manganese	391	0.020	0.062		mg/Kg-dry	2	7/8/2010
Zinc	49.6	0.190	0.624		mg/Kg-dry	2	7/8/2010
<b>AVAILABLE POTASSIUM</b>		<b>MSA13-3.3.1</b>		<b>MSA33-8.3</b>			Analyst: <b>MC</b>
Available Potassium	232	0.8	5.5		mg/Kg-dry	5	7/12/2010
<b>AVAILABLE NITROGEN</b>		<b>MSA33-8.3</b>		<b>MSA33-8.3</b>			Analyst: <b>kgw</b>
Nitrogen, Nitrate-Nitrite	1.22	0.150	1.50	J	mg/Kg	5	7/6/2010
<b>AVAILABLE PHOSPHORUS</b>		<b>MSA24-5.4.1</b>		<b>MSA24-5.4.1</b>			Analyst: <b>kgw</b>
Available Phosphorus	7.5	0.5	2.7		mg/Kg-dry	5	7/8/2010
<b>ELECTRICAL CONDUCTIVITY - SOILS</b>		<b>MSA10-2.3.1/10-3.3</b>					Analyst: <b>dk</b>
EC	124.0	0.5	1.0		µmhos/cm	1	7/7/2010
<b>ORGANIC MATTER-WALKLEY BLACK</b>		<b>OM_WALKLEYBLACK</b>					Analyst: <b>dk</b>
Organic Matter - Walkley Black	1.88	0.09	0.20		%	1	7/9/2010
<b>PERCENT SATURATION</b>		<b>USDA-27A</b>					Analyst: <b>MC</b>
Percent Saturation	43.1		0.1		%	1	7/14/2010
<b>PH (SATURATION EXTRACT)</b>		<b>MSA10-2.3.1/10-3.2</b>					Analyst: <b>dk</b>
pH (saturation extract)	6.17	0.10	0.50		SU	1	7/7/2010
<b>RAPID HYDROMETER (2 HOUR) MOD ASA 15-5</b>		<b>MSA15-5</b>					Analyst: <b>dk</b>
% Clay	16.0	0.1	0.1		%	1	7/6/2010
% Sand	72.0	0.1	0.1		%	1	7/6/2010
% Silt	12.0	0.1	0.1		%	1	7/6/2010
Soil Class	SANDY LOAM				%	1	7/6/2010
<b>PERCENT MOISTURE</b>		<b>D2216</b>					Analyst: <b>dk</b>
Percent Moisture	8.40	0.01	0.05		wt%	1	7/2/2010

**Review**

<b>Qualifiers:</b>	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the Reporting Limit	Limit	Instrument Reporting Limit
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit (MDL)

**MSE Lab Services**

Date: 14-Jul-10

**CLIENT:** AAA Construction of Missoula, LLC  
**Lab Order:** 1007012  
**Project:** HIGHLAND MINE  
**Lab ID:** 1007012-003

**Client Sample ID:** SS 4-48"  
**Collection Date:** 7/2/2010 10:15:00 AM  
**Matrix:** SOIL

Analyses	Result	MDL	Rpt Limit	Qualifier	Units	DF	Date Analyzed
<b>ICP-MS METALS, SOLID SAMPLES</b>		<b>SW6020</b>		<b>SW3050B</b>			Analyst: <b>SW</b>
Arsenic	54.0	0.087	0.301		mg/Kg-dry	2	7/8/2010
Cadmium	2.02	0.005	0.020		mg/Kg-dry	2	7/8/2010
Copper	85.3	0.082	0.251		mg/Kg-dry	2	7/8/2010
Lead	27.0	0.009	0.040		mg/Kg-dry	2	7/8/2010
Manganese	639	0.020	0.060		mg/Kg-dry	2	7/8/2010
Zinc	87.1	0.183	0.602		mg/Kg-dry	2	7/8/2010
<b>AVAILABLE POTASSIUM</b>		<b>MSA13-3.3.1</b>		<b>MSA33-8.3</b>			Analyst: <b>MC</b>
Available Potassium	329	0.8	5.3		mg/Kg-dry	5	7/12/2010
<b>AVAILABLE NITROGEN</b>		<b>MSA33-8.3</b>		<b>MSA33-8.3</b>			Analyst: <b>kgw</b>
Nitrogen, Nitrate-Nitrite	119	0.150	1.50		mg/Kg	5	7/6/2010
<b>AVAILABLE PHOSPHORUS</b>		<b>MSA24-5.4.1</b>		<b>MSA24-5.4.1</b>			Analyst: <b>kgw</b>
Available Phosphorus	32.6	0.5	2.6		mg/Kg-dry	5	7/8/2010
<b>ELECTRICAL CONDUCTIVITY - SOILS</b>		<b>MSA10-2.3.1/10-3.3</b>					Analyst: <b>dk</b>
EC	2870	0.5	1.0		µmhos/cm	1	7/7/2010
<b>ORGANIC MATTER-WALKLEY BLACK</b>		<b>OM_WALKLEYBLACK</b>					Analyst: <b>dk</b>
Organic Matter - Walkley Black	2.42	0.09	0.20		%	1	7/9/2010
<b>PERCENT SATURATION</b>		<b>USDA-27A</b>					Analyst: <b>MC</b>
Percent Saturation	44.6		0.1		%	1	7/14/2010
<b>PH (SATURATION EXTRACT)</b>		<b>MSA10-2.3.1/10-3.2</b>					Analyst: <b>dk</b>
pH (saturation extract)	4.31	0.10	0.50		SU	1	7/7/2010
<b>RAPID HYDROMETER (2 HOUR) MOD ASA 15-5</b>		<b>MSA15-5</b>					Analyst: <b>dk</b>
% Clay	14.0	0.1	0.1		%	1	7/6/2010
% Sand	78.0	0.1	0.1		%	1	7/6/2010
% Silt	8.0	0.1	0.1		%	1	7/6/2010
Soil Class	SANDY LOAM				%	1	7/6/2010
<b>PERCENT MOISTURE</b>		<b>D2216</b>					Analyst: <b>dk</b>
Percent Moisture	5.09	0.01	0.05		wt%	1	7/2/2010

**Review**

<b>Qualifiers:</b>	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the Reporting Limit	Limit	Instrument Reporting Limit
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit (MDL)

## QA/QC SUMMARY REPORT

**Client:** AAA Construction of Missoula, LLC  
**Project:** HIGHLAND MINE

**Work Order:** 1007012  
**BatchID:** 3400

Analyte	Result	RL	Units	Spike Lvl	% Rec	Low Limit	High Limit	RPD	RPD Limit	Qualifier
<i>Sample ID: 3400-PB</i>										
Nitrogen, Nitrate-Nitrit	ND	1.50	mg/Kg							
<i>Method: MSA33-8.3 Batch ID: 3400 Analysis Date: 7/6/2010</i>										
<i>Sample ID: 3400-LCS</i>										
Nitrogen, Nitrate-Nitrit	180	6.00	mg/Kg	205.0	87.8	80	120			
<i>Method: MSA33-8.3 Batch ID: 3400 Analysis Date: 7/6/2010</i>										
<i>Sample ID: 1007012-001A-D</i>										
Nitrogen, Nitrate-Nitrit	0.985	1.50	mg/Kg					0	35	J
<i>Method: MSA33-8.3 Batch ID: 3400 Analysis Date: 7/6/2010</i>										

 Review

**Qualifiers:** NA Sample conc. Is > 4\*spike level

S Spike Recovery outside accepted recovery limits

## QA/QC SUMMARY REPORT

**Client:** AAA Construction of Missoula, LLC  
**Project:** HIGHLAND MINE

**Work Order:** 1007012  
**BatchID:** 3414

Analyte	Result	RL	Units	Spike Lvl	% Rec	Low Limit	High Limit	RPD	RPD Limit	Qualifier
<i>Sample ID: PB-3414</i>										
Available Phosphorus	ND	0.5	mg/Kg							
<i>Method: MSA24-5.4.1 Batch ID: 3414 Analysis Date: 7/8/2010</i>										
<i>Sample ID: LCS-3414</i>										
Available Phosphorus	69.7	5.0	mg/Kg	62.70	111	80	120			
<i>Method: MSA24-5.4.1 Batch ID: 3414 Analysis Date: 7/8/2010</i>										
<i>Sample ID: 1007012-001A-D</i>										
Available Phosphorus	0.5	0.5	mg/Kg-dry					0	35	



Review

**Qualifiers:** NA Sample conc. Is > 4\*spike level

S Spike Recovery outside accepted recovery limits

## QA/QC SUMMARY REPORT

**Client:** AAA Construction of Missoula, LLC  
**Project:** HIGHLAND MINE

**Work Order:** 1007012  
**BatchID:** 3426

Analyte	Result	RL	Units	Spike Lvl	% Rec	Low Limit	High Limit	RPD	RPD Limit	Qualifier
<i>Sample ID: 3426-BLANK</i>										
Available Potassium	ND	1.0	mg/Kg							
<i>Method: MSA13-3.3.1 Batch ID: 3426 Analysis Date: 7/12/2010</i>										
<i>Sample ID: LCS @ INST</i>										
Available Potassium	1.8	1.0	mg/L	2.000	89.9	80	120			
<i>Method: MSA13-3.3.1 Batch ID: 3426 Analysis Date: 7/12/2010</i>										
<i>Sample ID: 1007012-001A-DUP</i>										
Available Potassium	173	5.4	mg/Kg-dry					0.338	35	

 Review

**Qualifiers:** NA Sample conc. Is > 4\*spike level

S Spike Recovery outside accepted recovery limits

## QA/QC SUMMARY REPORT

**Client:** AAA Construction of Missoula, LLC  
**Project:** HIGHLAND MINE

**Work Order:** 1007012  
**BatchID:** 3427

Analyte	Result	RL	Units	Spike Lvl	% Rec	Low Limit	High Limit	RPD	RPD Limit	Qualifier
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Sample ID: 3427-PB-UNFILTERED			Method: SW6020		Batch ID: 3427		Analysis Date: 7/8/2010			
Arsenic	ND	0.150	mg/Kg							
Cadmium	ND	0.010	mg/Kg							
Copper	ND	0.125	mg/Kg							
Lead	ND	0.020	mg/Kg							
Manganese	0.010	0.030	mg/Kg							J
Zinc	ND	0.300	mg/Kg							

Sample ID: 3427-PB-FILTERED			Method: SW6020		Batch ID: 3427		Analysis Date: 7/8/2010			
Arsenic	ND	0.150	mg/Kg							
Cadmium	ND	0.010	mg/Kg							
Copper	ND	0.125	mg/Kg							
Lead	ND	0.020	mg/Kg							
Manganese	0.015	0.030	mg/Kg							J
Zinc	0.131	0.300	mg/Kg							J

Sample ID: LCS-3427			Method: SW6020		Batch ID: 3427		Analysis Date: 7/8/2010			
Arsenic	142	0.143	mg/Kg	142.9	99.2	80	120			
Cadmium	165	0.010	mg/Kg	173.3	95.2	80	120			
Copper	84.8	0.119	mg/Kg	79.05	107	80	120			
Lead	188	0.019	mg/Kg	185.7	101	80	120			
Manganese	419	0.029	mg/Kg	384.8	109	80	120			
Zinc	253	0.286	mg/Kg	245.7	103	80	120			

Sample ID: 1007012-001A-MS			Method: SW6020		Batch ID: 3427		Analysis Date: 7/8/2010			
Arsenic	163	0.310	mg/Kg-dry	155.1	102	75	125			
Cadmium	174	0.021	mg/Kg-dry	188.2	91.9	75	125			
Copper	103	0.258	mg/Kg-dry	85.82	103	75	125			
Lead	203	0.041	mg/Kg-dry	201.6	97.1	75	125			
Manganese	739	0.062	mg/Kg-dry	417.7	107	75	125			
Zinc	300	0.620	mg/Kg-dry	266.8	98.3	75	125			

Sample ID: 1007012-001A-MSD			Method: SW6020		Batch ID: 3427		Analysis Date: 7/8/2010			
Arsenic	171	0.310	mg/Kg-dry	155.1	107	75	125	4.92	20	
Cadmium	185	0.021	mg/Kg-dry	188.2	98.0	75	125	6.33	20	
Copper	108	0.258	mg/Kg-dry	85.82	108	75	125	3.79	20	
Lead	218	0.041	mg/Kg-dry	201.6	105	75	125	7.15	20	
Manganese	762	0.062	mg/Kg-dry	417.7	112	75	125	3.05	20	
Zinc	313	0.620	mg/Kg-dry	266.8	103	75	125	4.39	20	

Sample ID: 1007012-001A-MST			Method: SW6020		Batch ID: 3427		Analysis Date: 7/8/2010			
Arsenic	169	0.310	mg/Kg-dry	155.1	106	75	125	3.61	20	
Cadmium	180	0.021	mg/Kg-dry	188.2	95.2	75	125	3.52	20	
Copper	103	0.258	mg/Kg-dry	85.82	103	75	125	0.502	20	

 Review

**Qualifiers:** NA Sample conc. Is > 4\*spike level

S Spike Recovery outside accepted recovery limits

## QA/QC SUMMARY REPORT

**Client:** AAA Construction of Missoula, LLC  
**Project:** HIGHLAND MINE

**Work Order:** 1007012  
**BatchID:** 3427

Analyte	Result	RL	Units	Spike Lvl	% Rec	Low Limit	High Limit	RPD	RPD Limit	Qualifier
<i>Sample ID: 1007012-001A-MST</i>										
			<i>Method: SW6020</i>		<i>Batch ID: 3427</i>		<i>Analysis Date: 7/8/2010</i>			
Lead	210	0.041	mg/Kg-dry	201.6	101	75	125	3.60	20	
Manganese	737	0.062	mg/Kg-dry	417.7	106	75	125	0.269	20	
Zinc	302	0.620	mg/Kg-dry	266.8	99.2	75	125	0.762	20	

 Review

**Qualifiers:** NA Sample conc. Is > 4\*spike level      S Spike Recovery outside accepted recovery limits

## QA/QC SUMMARY REPORT

**Client:** AAA Construction of Missoula, LLC  
**Project:** HIGHLAND MINE

**Work Order:** 1007012  
**BatchID:** R13125

Analyte	Result	RL	Units	Spike Lvl	% Rec	Low Limit	High Limit	RPD	RPD Limit	Qualifier
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<i>Sample ID: 1007012-001A-D</i>		<i>Method: D2216</i>		<i>Batch ID: R13125</i>		<i>Analysis Date: 7/2/2010</i>				
Percent Moisture	8.70	0.05	wt%					9.74	35	

 **Review**

**Qualifiers:** NA Sample conc. Is > 4\*spike level

S Spike Recovery outside accepted recovery limits

### QA/QC SUMMARY REPORT

**Client:** AAA Construction of Missoula, LLC  
**Project:** HIGHLAND MINE

**Work Order:** 1007012  
**BatchID:** R13141

Analyte	Result	RL	Units	Spike Lvl	% Rec	Low Limit	High Limit	RPD	RPD Limit	Qualifier
<i>Sample ID: 1007012-001A-D</i>										
			<i>Method: MSA15-5</i>		<i>Batch ID: R13141</i>		<i>Analysis Date: 7/6/2010</i>			
% Clay	14.0	0.1	%					0	20	
% Sand	74.0	0.1	%					0	20	
% Silt	12.0	0.1	%					0	20	
Soil Class	SANDY LOAM		%							

 Review

**Qualifiers:** NA Sample conc. Is > 4\*spike level

S Spike Recovery outside accepted recovery limits

## QA/QC SUMMARY REPORT

**Client:** AAA Construction of Missoula, LLC  
**Project:** HIGHLAND MINE

**Work Order:** 1007012  
**BatchID:** R13159

Analyte	Result	RL	Units	Spike Lvl	% Rec	Low Limit	High Limit	RPD	RPD Limit	Qualifier
<i>Sample ID: 1007012-003A-D</i>										
EC	2480	1.0	µmhos/cm					14.6	35	
<i>Method: MSA10-2.3.1/ Batch ID: R13159 Analysis Date: 7/7/2010</i>										
<i>Sample ID: SCSTND Q5729</i>										
EC	1393	1.0	µmhos/cm	1412	98.7	80	120			
<i>Method: MSA10-2.3.1/ Batch ID: R13159 Analysis Date: 7/7/2010</i>										
<i>Sample ID: SC LCS Q5709</i>										
EC	621.0	1.0	µmhos/cm	669.0	92.8	80	120			
<i>Method: MSA10-2.3.1/ Batch ID: R13159 Analysis Date: 7/7/2010</i>										
<i>Sample ID: BLANK</i>										
EC	ND	1.0	µmhos/cm							
<i>Method: MSA10-2.3.1/ Batch ID: R13159 Analysis Date: 7/7/2010</i>										
<i>Sample ID: 1007012-003A-D</i>										
pH (saturation extract)	4.19	0.50	SU					2.82	35	
<i>Method: MSA10-2.3.1/ Batch ID: R13159 Analysis Date: 7/7/2010</i>										
<i>Sample ID: PH-LCS Q5661</i>										
pH (saturation extract)	7.71	0.50	SU	7.650	101	80	120			
<i>Method: MSA10-2.3.1/ Batch ID: R13159 Analysis Date: 7/7/2010</i>										
<i>Sample ID: BLANK</i>										
pH (saturation extract)	7.38	0.50	SU							
<i>Method: MSA10-2.3.1/ Batch ID: R13159 Analysis Date: 7/7/2010</i>										

 Review

**Qualifiers:** NA Sample conc. Is > 4\*spike level

S Spike Recovery outside accepted recovery limits

## QA/QC SUMMARY REPORT

**Client:** AAA Construction of Missoula, LLC  
**Project:** HIGHLAND MINE

**Work Order:** 1007012  
**BatchID:** R13177

Analyte	Result	RL	Units	Spike Lvl	% Rec	Low Limit	High Limit	RPD	RPD Limit	Qualifier
<i>Sample ID: 1007012-001A-D</i>										
Organic Matter - Walkl	0.92	0.20	%					0.0498	35	
<i>Method: OM_WALKLE Batch ID: R13177 Analysis Date: 7/9/2010</i>										
<i>Sample ID: LCS Q5683</i>										
Organic Matter - Walkl	0.57	0.20	%	0.5965	95.1	70.7	109			
<i>Method: OM_WALKLE Batch ID: R13177 Analysis Date: 7/9/2010</i>										
<i>Sample ID: A-BLK</i>										
Organic Matter - Walkl	ND	0.20	%							
<i>Method: OM_WALKLE Batch ID: R13177 Analysis Date: 7/9/2010</i>										

Review

**Qualifiers:** NA Sample conc. Is > 4\*spike level

S Spike Recovery outside accepted recovery limits

### QA/QC SUMMARY REPORT

**Client:** AAA Construction of Missoula, LLC  
**Project:** HIGHLAND MINE

**Work Order:** 1007012  
**BatchID:** R13212

Analyte	Result	RL	Units	Spike Lvl	% Rec	Low Limit	High Limit	RPD	RPD Limit	Qualifier
<i>Sample ID: 1007012-003A-D      Method: USDA-27A      Batch ID: R13212      Analysis Date: 7/14/2010</i>										
Percent Saturation	43.2	0.1	%					3.4	20	

 Review

**Qualifiers:** NA Sample conc. Is > 4\*spike level

S Spike Recovery outside accepted recovery limits



MSE Technology Applications, Inc.  
Laboratory Services

# CHAIN OF CUSTODY

MSE WORK ORDER # 1007012

Company Name: AAA Craft Movers LLC  
 Address: PO Box 3932  
 City: Missoula MT State: MT ZIP: 59806  
 Phone: 406 251 4995  
 Fax: 406 251 0456

Project Manager: DEBBIE CLARK  
 Project Name and Number: WIGHTLAND MUSE  
 Email Address:  
 Purchase Order #:  
 Sampler Name and Phone #:

ANALYSIS REQUESTED

SEE ATTACHED

REMARKS

Turnaround Time (TAT) / Reporting

Standard  
 Next Day\*  
 2<sup>nd</sup> Day\*  
 Other\*

\*All rush order requests must have prior approval

Phone  
 Mail  
 Fax  
 Email

SAMPLE ID	LAB ID	DATE	TIME	RECEIVED BY (Signature)	DATE	TIME	COMPANY	PRINTED NAME
SS 2 - 10"		7/21/10	10:15	<i>[Signature]</i>	7/21/10	1025	MSE	M. Cameron
SS 3 - 10"								
SS 4 - 48"								
cc: pelark@emt.gov samiz.mongovern@terragraphics.com								
RELINQUISHED BY (Signature)	DATE	TIME	RECEIVED BY (Signature)	DATE	TIME	COMPANY	PRINTED NAME	
<i>[Signature]</i>			<i>[Signature]</i>					
PRINTED NAME	DATE	TIME	RECEIVED BY (Signature)	DATE	TIME	COMPANY	PRINTED NAME	
Same Mowbray			<i>[Signature]</i>					
RELINQUISHED BY (Signature)	DATE	TIME	RECEIVED BY (Signature)	DATE	TIME	COMPANY	PRINTED NAME	
RELINQUISHED BY (Signature)	DATE	TIME	RECEIVED BY (Signature)	DATE	TIME	COMPANY	PRINTED NAME	

Inspection Checklist

Received Intact?  Y  N

Labels & Chains Agree?  Y  N

Containers Sealed?  Y  N

Cooler Sealed?  Y  N

Delivery Method: HIP

Temperature (°C): NR

Preservative: NR

Date & Time: 7/21/10

Inspected By: MC

MSE LABORATORY SERVICES  
 200 Technology Way, P.O. Box 4078  
 Butte, MT 59701  
 PH: (406) 494-7334 / FAX: (406) 494-7128  
 labinfo@mse-la.com

MSE Lab Services

Sample Receipt Checklist

Client Name AAA\_CONSTR

Date and Time Received: 7/2/2010 10:45:32 AM

Work Order Number 1007012

RcptNo: 1

Received by MC

COC\_ID:

CoolerID:

Checklist completed by M. Cameron 7/2/10

Reviewed by SW 7/2/10

Matrix: Carrier name Hand-Delivered

- Shipping container/cooler in good condition? Yes [ ] No [ ] Not Present [x]
Custody seals intact on shipping container/cooler? Yes [ ] No [ ] Not Present [x]
Custody seals intact on sample bottles? Yes [ ] No [ ] Not Present [x]
Chain of custody present? Yes [x] No [ ]
Chain of custody signed when relinquished and received? Yes [x] No [ ]
Chain of custody agrees with sample labels? Yes [x] No [ ]
Samples in proper container/bottle? Yes [x] No [ ]
Sample containers intact? Yes [x] No [ ]
Sufficient sample volume for indicated test? Yes [x] No [ ]
All samples received within holding time? Yes [x] No [ ]
Container/Temp Blank temperature in compliance? Yes [ ] No [x]
Water - VOA vials have zero headspace? No VOA vials submitted [x] Yes [ ] No [ ]
Water - pH acceptable upon receipt? Yes [ ] No [ ] Blank [x]

Adjusted? no n/a soil Checked by MC

Any No and/or NA (not applicable) response must be detailed in the comments section be

Client contacted Date contacted: Person contacted

Contacted by: Regarding:

Comments: TEMP = N/A (SOIL)

Corrective Action



Invoice No: 1007012

REMIT TO: MSE Lab Services
Accounts Receivable
P.O. Box 4078
Butte, MT 59702
TEL: (406) 494-7177

INVOICE

INV DATE: July 14, 2010
Print DATE: July 14, 2010

Invoice TO: AAA Construction of Missoula
P.O. Box 3932
Missoula, MT 59806

PO Number:

Attn:
Phone: (406) 251-4995
Work Order: 1007012 Order Name HIGHLAND MINE

Date Reported: 7/14/2010
Date Received 7/2/2010

Table with 8 columns: Item, Remarks, Matrix, Qty, Unit Price, Mult, Quoted, Test Total. Rows include items like AVAILABLE N, P, AND K, ELECTRICAL CONDUCTIVITY - SOILS, ICP-MS METALS, SOLID SAMPLES, etc.

Subtotal: \$762.00

Misc Charges: \$0.00

INVOICE Total: \$762.00

Friday, July 23, 2010



Brady Nelson  
AAA Construction of Missoula, LLC  
P.O. Box 3932  
Missoula, MT 59806

RE: HIGHLAND MINE

Work Order: 1007116

Dear Brady Nelson:

MSE Lab Services received 3 sample(s) on 7/19/2010 for the analyses presented in the following report.

Please find enclosed analytical results for the sample(s) received at the MSE Laboratory.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

A handwritten signature in cursive script that reads 'Marcee Cameron'.

Marcee Cameron  
Laboratory Director/ Chemist  
406-494-7334

Enclosure

CC:  
Pebbles Clark  
Jamie Mongoven



P.O. Box 4078  
200 Technology Way  
Butte, MT 59701

Lab: 406-494-7334  
Fax: 406-494-7230  
labinfo@mse-la.com

**E-MAILED**  
7/23 MC

**MSE Lab Services**

Date: 23-Jul-10

CLIENT: AAA Construction of Missoula, LLC  
 Lab Order: 1007116  
 Project: HIGHLAND MINE  
 Lab ID: 1007116-001

Client Sample ID: TP006  
 Collection Date: 7/19/2010

Matrix: SOIL

Analyses	Result	MDL	Rpt Limit	Qualifier	Units	DF	Date Analyzed
<b>ICP-MS METALS, SOLID SAMPLES</b>		<b>SW6020</b>		<b>SW3050B</b>		Analyst: SW	
Arsenic	31.0	0.092	0.317		mg/Kg-dry	2	7/21/2010
Cadmium	1.80	0.006	0.021		mg/Kg-dry	2	7/21/2010
Copper	47.1	0.087	0.264		mg/Kg-dry	2	7/21/2010
Lead	17.3	0.010	0.042		mg/Kg-dry	2	7/21/2010
Manganese	552	0.021	0.063		mg/Kg-dry	2	7/21/2010
Zinc	72.2	0.193	0.635		mg/Kg-dry	2	7/21/2010
<b>PH (SATURATION EXTRACT)</b>		<b>MSA10-2.3.1/10-3.2</b>				Analyst: dk	
pH (saturation extract)	5.08	0.10	0.50		SU	1	7/20/2010
<b>PERCENT MOISTURE</b>		<b>D2216</b>				Analyst: YF	
Percent Moisture	9.98	0.01	0.05		wt%	1	7/19/2010

*Cef* Review

**Qualifiers:** E Value above quantitation range H Holding times for preparation or analysis exceeded  
 J Analyte detected below the Reporting Limit Limit Reporting Limit  
 MDL Method Detection Limit ND Not Detected at the Method Detection Limit (MDL)

**MSE Lab Services**

Date: 23-Jul-10

CLIENT: AAA Construction of Missoula, LLC  
 Lab Order: 1007116  
 Project: HIGHLAND MINE  
 Lab ID: 1007116-002

Client Sample ID: TP007  
 Collection Date: 7/19/2010

Matrix: SOIL

Analyses	Result	MDL	Rpt Limit	Qualifier	Units	DF	Date Analyzed
<b>ICP-MS METALS, SOLID SAMPLES</b>		<b>SW6020</b>		<b>SW3050B</b>			Analyst: SW
Arsenic	12.3	0.086	0.295		mg/Kg-dry	2	7/21/2010
Cadmium	0.937	0.005	0.020		mg/Kg-dry	2	7/21/2010
Copper	24.8	0.081	0.246		mg/Kg-dry	2	7/21/2010
Lead	10.9	0.009	0.039		mg/Kg-dry	2	7/21/2010
Manganese	391	0.019	0.059		mg/Kg-dry	2	7/21/2010
Zinc	48.8	0.180	0.590		mg/Kg-dry	2	7/21/2010
<b>PH (SATURATION EXTRACT)</b>		<b>MSA10-2.3.1/10-3.2</b>					Analyst: dk
pH (saturation extract)	7.04	0.10	0.50		SU	1	7/20/2010
<b>PERCENT MOISTURE</b>		<b>D2216</b>					Analyst: YF
Percent Moisture	3.20	0.01	0.05		wt%	1	7/19/2010

*U.P.* Review

<b>Qualifiers:</b>	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the Reporting Limit	Limit	Reporting Limit
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit (MDL)

**MSE Lab Services**

Date: 23-Jul-10

CLIENT: AAA Construction of Missoula, LLC  
 Lab Order: 1007116  
 Project: HIGHLAND MINE  
 Lab ID: 1007116-003

Client Sample ID: TP008  
 Collection Date: 7/19/2010

Matrix: SOIL

Analyses	Result	MDL	Rpt Limit	Qualifier	Units	DF	Date Analyzed
<b>ICP-MS METALS, SOLID SAMPLES</b>		<b>SW6020</b>		<b>SW3050B</b>			Analyst: SW
Arsenic	23.1	0.088	0.304		mg/Kg-dry	2	7/21/2010
Cadmium	1.29	0.005	0.020		mg/Kg-dry	2	7/21/2010
Copper	38.0	0.083	0.254		mg/Kg-dry	2	7/21/2010
Lead	14.4	0.009	0.041		mg/Kg-dry	2	7/21/2010
Manganese	452	0.020	0.061		mg/Kg-dry	2	7/21/2010
Zinc	62.9	0.185	0.609		mg/Kg-dry	2	7/21/2010
<b>PH (SATURATION EXTRACT)</b>		<b>MSA10-2.3.1/10-3.2</b>					Analyst: dk
pH (saturation extract)	4.86	0.10	0.50		SU	1	7/20/2010
<b>PERCENT MOISTURE</b>		<b>D2216</b>					Analyst: YF
Percent Moisture	6.10	0.01	0.05		wt%	1	7/19/2010

*W. J. Smith* Review

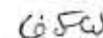
Qualifiers:	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the Reporting Limit	Limit	Reporting Limit
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit (MDL)

## QA/QC SUMMARY REPORT

**Client:** AAA Construction of Missoula, LLC  
**Project:** HIGHLAND MINE

**Work Order:** 1007116  
**BatchID:** 3470

Analyte	Result	RL	Units	Spike Lvl	% Rec	Low Limit	High Limit	RPD	RPD Limit	Qualifier
<i>Sample ID: 3470-PB-UNFILTERED</i>										
			<i>Method: SW6020</i>	<i>Batch ID: 3470</i>		<i>Analysis Date: 7/21/2010</i>				
Arsenic	ND	0.150	mg/Kg							
Cadmium	ND	0.010	mg/Kg							
Copper	0.050	0.125	mg/Kg							J
Lead	0.005	0.020	mg/Kg							J
Manganese	0.059	0.030	mg/Kg							
Zinc	ND	0.300	mg/Kg							
<i>Sample ID: 3470-PB-FILTERED</i>										
			<i>Method: SW6020</i>	<i>Batch ID: 3470</i>		<i>Analysis Date: 7/21/2010</i>				
Arsenic	ND	0.150	mg/Kg							
Cadmium	0.008	0.010	mg/Kg							J
Copper	0.053	0.125	mg/Kg							J
Lead	0.009	0.020	mg/Kg							J
Manganese	0.104	0.030	mg/Kg							
Zinc	0.378	0.300	mg/Kg							
<i>Sample ID: 3470-LCS</i>										
			<i>Method: SW6020</i>	<i>Batch ID: 3470</i>		<i>Analysis Date: 7/21/2010</i>				
Arsenic	169	0.143	mg/Kg	150.0	113	80	120			
Cadmium	204	0.010	mg/Kg	182.0	112	80	120			
Copper	87.9	0.119	mg/Kg	83.00	106	80	120			
Lead	215	0.019	mg/Kg	195.0	110	80	120			
Manganese	455	0.029	mg/Kg	404.0	113	80	120			
Zinc	289	0.286	mg/Kg	258.0	112	80	120			
<i>Sample ID: 1007116-003A-MS</i>										
			<i>Method: SW6020</i>	<i>Batch ID: 3470</i>		<i>Analysis Date: 7/21/2010</i>				
Arsenic	192	0.304	mg/Kg-dry	159.7	106	75	125			
Cadmium	202	0.020	mg/Kg-dry	193.8	104	75	125			
Copper	113	0.254	mg/Kg-dry	88.39	85.3	75	125			
Lead	224	0.041	mg/Kg-dry	207.7	101	75	125			
Manganese	829	0.061	mg/Kg-dry	430.3	87.5	75	125			
Zinc	336	0.609	mg/Kg-dry	274.8	99.5	75	125			
<i>Sample ID: 1007116-003A-MSD</i>										
			<i>Method: SW6020</i>	<i>Batch ID: 3470</i>		<i>Analysis Date: 7/21/2010</i>				
Arsenic	197	0.304	mg/Kg-dry	159.7	109	75	125	2.56	20	
Cadmium	211	0.020	mg/Kg-dry	193.8	108	75	125	4.16	20	
Copper	121	0.254	mg/Kg-dry	88.39	93.5	75	125	6.23	20	
Lead	237	0.041	mg/Kg-dry	207.7	107	75	125	5.46	20	
Manganese	856	0.061	mg/Kg-dry	430.3	93.9	75	125	3.25	20	
Zinc	354	0.609	mg/Kg-dry	274.8	106	75	125	5.17	20	
<i>Sample ID: 1007116-003A-MST</i>										
			<i>Method: SW6020</i>	<i>Batch ID: 3470</i>		<i>Analysis Date: 7/21/2010</i>				
Arsenic	191	0.304	mg/Kg-dry	159.7	105	75	125	0.657	20	
Cadmium	209	0.020	mg/Kg-dry	193.8	107	75	125	3.10	20	
Copper	121	0.254	mg/Kg-dry	88.39	93.5	75	125	6.23	20	


 Review

**Qualifiers:** NA Sample conc. is > 4\*spike level

S Spike Recovery outside accepted recovery limits

## QA/QC SUMMARY REPORT

**Client:** AAA Construction of Missoula, LLC  
**Project:** HIGHLAND MINE

**Work Order:** 1007116  
**BatchID:** 3470

Analyte	Result	RL	Units	Spike Lvl	% Rec	Low Limit	High Limit	RPD	RPD Limit	Qualifier
<i>Sample ID: 1007116-003A-MST</i>										
			<i>Method: SW6020</i>		<i>Batch ID: 3470</i>		<i>Analysis Date: 7/21/2010</i>			
Lead	243	0.041	mg/Kg-dry	207.7	110	75	125	8.34	20	
Manganese	881	0.061	mg/Kg-dry	430.3	99.6	75	125	6.10	20	
Zinc	355	0.609	mg/Kg-dry	274.8	106	75	125	5.52	20	

*GSW* Review

**Qualifiers:** NA Sample conc. is > 4\*spike level

S Spike Recovery outside accepted recovery limits

## QA/QC SUMMARY REPORT

**Client:** AAA Construction of Missoula, LLC  
**Project:** HIGHLAND MINE

**Work Order:** 1007116  
**BatchID:** R13287

Analyte	Result	RL	Units	Spike Lvl	% Rec	Low Limit	High Limit	RPD	RPD Limit	Qualifier
<i>Sample ID: 1007116-001AD</i>										
<i>Method: D2216</i>										
<i>Batch ID: R13287</i>										
<i>Analysis Date: 7/19/2010</i>										
Percent Moisture	9.96	0.05	wt%					0.199	35	

*GFV* Review

**Qualifiers:** NA Sample conc. is > 4\*spike level

S Spike Recovery outside accepted recovery limits

## QA/QC SUMMARY REPORT

**Client:** AAA Construction of Missoula, LLC  
**Project:** HIGHLAND MINE

**Work Order:** 1007116  
**BatchID:** R13298

Analyte	Result	RL	Units	Spike Lvl	% Rec	Low Limit	High Limit	RPD	RPD Limit	Qualifier
<i>Sample ID: 1007116-003A-D</i>										
pH (saturation extract)	4.43	0.50	SU					9.26	35	
<i>Method: MSA10-2.3.1/ Batch ID: R13298 Analysis Date: 7/20/2010</i>										
<i>Sample ID: PH-LCS Q5661</i>										
pH (saturation extract)	7.73	0.50	SU	7.600	102	80	120			
<i>Method: MSA10-2.3.1/ Batch ID: R13298 Analysis Date: 7/20/2010</i>										

 Review

**Qualifiers:** NA Sample conc. is > 4\*spike level      S Spike Recovery outside accepted recovery limits



MSE Technology Applications, Inc.  
Laboratory Services

# CHAIN OF CUSTODY

MSE WORK ORDER #

Company Name:

AAA CONSTRUCTION

Project Manager:

BRADY NELSON

Address:

Project Name and Number:

City:

State:

Zip:

Email Address:

Phone:

Purchase Order #:

Fax:

Sampler Name and Phone #:

ANALYSIS REQUESTED

T-ABCdGpBMDZ  
RH

REMARKS

Turnaround Time (TAT) / Reporting

Standard order  
Next Day\*  
2nd Day\*  
Other ASAP  
BY 7/19/02

\*All rush order requests must have prior approval

Phone  
Mail  
Fax  
Email

SAMPLE ID

LAB ID

DATE

TIME

TPOOL

7/19

TPOD7

TPOD8

7/19

RELINQUISHED BY (Signature)

Sam M...

DATE

7/19/02

TIME

11:00

RECEIVED BY (Signature)

M. Cameron

PRINTED NAME

Sam M...

COMPANY

TERREGRAPHS

PRINTED NAME

M. Cameron

RELINQUISHED BY (Signature)

PRINTED NAME

COMPANY

PRINTED NAME

RELINQUISHED BY (Signature)

PRINTED NAME

DATE

TIME

RECEIVED BY (Signature)

COMPANY

PRINTED NAME

DATE

TIME

### Inspection Checklist

Received Intact?  Y  N

Labels & Chains Agree?  Y  N

Containers Sealed?  Y  N

Cooler Sealed?  Y  N

Delivery Method: H/D

Temperature (°C): N/A

Preservative: N/A

Date & Time: 7/19

Inspected By: MC

MSE LABORATORY SERVICES  
200 Technology Way, P.O. Box 4078  
Butte, MT 59701  
PH: (406) 494-7334 / FAX: (406) 494-7128  
labinfo@mse-ta.com

# MSE Lab Services

## Sample Receipt Checklist

Client Name **AAA\_CONSTR**

Date and Time Received: **7/19/2010 11:26:07 AM**

Work Order Number **1007116**

RcptNo: **1**

Received by **MC**

COC\_ID:

CoolerID:

Checklist completed by M. Cameron 7/19/10  
Signature Date

Reviewed by [Signature] 7-23-10  
Initials Date

Matrix: Carrier name Hand-Delivered

- Shipping container/cooler in good condition? Yes  No  Not Present
- Custody seals intact on shipping container/cooler? Yes  No  Not Present
- Custody seals intact on sample bottles? Yes  No  Not Present
- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time? Yes  No
- Container/Temp Blank temperature in compliance? Yes  No
- Water - VOA vials have zero headspace? Yes  No  Blank
- No VOA vials submitted  Yes  No
- Water - pH acceptable upon receipt? Yes  No  Blank

Adjusted? ND - n/a Checked by MC  
soil

Any No and/or NA (not applicable) response must be detailed in the comments section below

Client contacted \_\_\_\_\_ Date contacted: \_\_\_\_\_ Person contacted \_\_\_\_\_

Contacted by: \_\_\_\_\_ Regarding: \_\_\_\_\_

Comments: **TEMP = N/A (SOIL)**

Corrective Action \_\_\_\_\_



Invoice No: 1007116

REMIT TO: MSE Lab Services  
Accounts Receivable  
P.O. Box 4078  
Butte, MT 59702  
TEL: (406) 494-7177

# INVOICE

INV DATE: July 23, 2010  
Print DATE: July 23, 2010

Invoice TO: AAA Construction of Missoula  
P.O. Box 3932  
Missoula, MT 59806

PO Number:

Attn: Brady Nelson  
Phone: (406) 251-4995

Date Reported: 7/23/2010

Work Order: 1007116 Order Name: HIGHLAND MINE

Date Received: 7/19/2010

Item	Remarks	Matrix	Qty	Unit Price	Mult	Quoted	Test Total
ICP-MS METALS, SOLID SAMPLES		Solid	3	\$180.00	0.4	\$72.00	\$216.00
pH (Saturation Extract)		Soil	3	\$16.00		\$16.00	\$48.00
SW846 3050B PREP - SOILS		Sediment	3	\$15.00		\$15.00	\$45.00

Miscellaneous Charge Summary			
Item	Unit	Qty	Total
RUSH SURCHARGE		1	

Subtotal: \$309.00

Surcharge: 50.00%  
Misc Charges: \$0.00

**INVOICE Total: \$463.50**



**Date:**  
**Project Name:**  
**Project Location:**  
**Contractor:**  
**Material Type:** sy S150 Short-Term Straw Double Net Erosion Control Blanket

**CERTIFICATE OF COMPLIANCE**  
**NORTH AMERICAN GREEN S150; SHORT-TERM DOUBLE NET EROSION CONTROL BLANKET**

North American Green, Inc. certifies that the S150 Short-Term Double Net Straw Erosion Control Blanket has the properties and characteristics detailed below:

The S150 is a short-term double net straw erosion control and revegetation blanket manufactured by North American Green, Poseyville, Indiana USA using 100% agricultural straw at a rate of 0.50 lb/yd<sup>2</sup> (0.27 kg/m<sup>2</sup>) ± 10%. The top and bottom netting of the S150 are of a lightweight photodegradable with a minimum net weight of 1.50 lbs/1000 ft<sup>2</sup> (0.73 kg/100 m<sup>2</sup>) and 0.50 x 0.50 inch (1.27 x 1.27 cm) openings. The netting and straw mulch are sewn together with degradable thread. North American Green ships S150 blankets in orange color-coded packaging.

The blanket is manufactured with a colored thread stitched along both outer edges (approximately 2-5 inches [5-12.5 cm] from the edge) to ensure proper material overlapping.

The North American Green S150 erosion control blanket should be used following proper soil preparation, fertilization and seeding. The S150 is designed to temporarily control soil erosion on newly seeded areas until vegetative growth can occur. The S150 is appropriate for use on moderate to steep slopes and areas with medium runoff.

**S150 is Available with the Following Physical Specifications per Roll [English Units (Metric Units)]**

<b>Width</b>	4.0 ft (2.03 m)	6.67 ft (2.03 m)	16.0 ft (4.87 m)
<b>Length</b>	135.0 ft (41.14 m)	108.0 ft (32.92 m)	108.0 ft (32.92 m)
<b>Weight ± 10%</b>	30.0 lbs (13.60 kg)	40.0 lbs (18.14 kg)	96.0 lbs (43.54 kg)
<b>Area</b>	60.0 yd <sup>2</sup> (50.16 m <sup>2</sup> )	80.0 yd <sup>2</sup> (66.89 m <sup>2</sup> )	192.0 yd <sup>2</sup> (165.53 m <sup>2</sup> )

**Roll Widths Also Available Upon Special Request**

<b>Width</b>	8.0 ft (2.43 m)	13.3 ft (4.05 m)
<b>Length</b>	108.0 ft (32.92 m)	108.0 ft (32.92 m)
<b>Weight ± 10%</b>	48.0 lbs (21.77 kg)	80.0 lbs (32.28 kg)
<b>Area</b>	96.0 yd <sup>2</sup> (80.26 m <sup>2</sup> )	160.0 yd <sup>2</sup> (133.78 m <sup>2</sup> )

**Product Participant of:**



Stitch Spacing for All Rolls = 1.50 inches (3.81 cm)

To the best of our knowledge, the information above is accurate.

  
 Jill Pack  
 North American Green  
 Manager of Technical Services

Inbox

From: rntfencing@live.com  
To: Max <max@aaa.mt.net>  
Subject: Re: Highland Reclamation Job  
Date: Sun, 11 Jul 2010 20:57:41 -0600

---

This letter is a submittal for material to be used in constructing fences for DFO Highland area reclamation project.

- 1) Railfence wire- will be zinc coated meeting requirements of ASTM A-121. Barbs to be 4 to 5 inches apart. Minimum weight of zinc coating shall be class 5. Wire shall consist of two twisted strands of 12 1/2 gauge wire.
- 2) Steel posts- posts shall meet the requirements of ASTM A-701. Posts shall be 8 foot long. Metal shall have maximum carbon content of 0.2%. Posts shall weigh 1.33 lbs. per L.F. of post.
- 3) Wood posts- all wood posts will be treated with a solution conforming to AWPFA standards.

All materials used will be made in the U.S.A. and purchased from Quality Supply. Certifications for materials to be provided to project manager.

Thank you. If you need anything else, please call:  
406-480-2139 Cell  
406-834-3141 Home

From: Max  
Sent: Friday, July 09, 2010 11:47 AM  
To: rntfencing@live.com  
Subject: Re: Highland Reclamation Job

Chris,

Attached is the information I talked to you about.  
We need certificate of insurance as listed, also worker comp certificate of insurance.  
We have your Certificate of Contactor Registration and EIN number.

Thank you.

Cindy Nelson  
Admin Manager  
AAA Construction of Missoula, LLC

STOP Sediment

in its tracks with

SedimentSTOP®



**SedimentSTOP**  
BEST AVAILABLE Filtration System

Manufactured by NORTH AMERICAN GREEN

the Versatile

SEDIMENT  
CONTROL  
SOLUTION

North American Green's SedimentSTOP® Biodegradable Filtration System is a temporary sediment filtration device that provides highly effective sediment control for a wide range of applications.



SedimentSTOP consists of a 70% straw / 30% coconut fiber matrix reinforced with a 100% biodegradable netting that is rolled from edge to edge to create a seamless temporary, water permeable three-dimensional sediment filtration structure.

A Best Management Practice that reduces soil loss caused by stormwater runoff, SedimentSTOP traps soil particles while allowing water to pass through, protecting waterways, sidewalks and roads from sediment accumulation.

SedimentSTOP assists engineers, specifiers and contractors in complying with many NPDES Phase II rules and other environmental regulations.

**SedimentSTOP saves soil, time, and money in applications that include:**

- Forest Fire Rehabilitation
- Bioengineering Projects
- Active Jobsites – Commercial/New Home Construction
- Ski Slopes
- Highway Construction
- Industrial Sites
- Pipeline Revegetation
- Steep Slopes
- Wet Areas
- Edging/Perimeter Control



VERSATILE

# the SedimentSTOP<sup>®</sup> ADVANTAGE

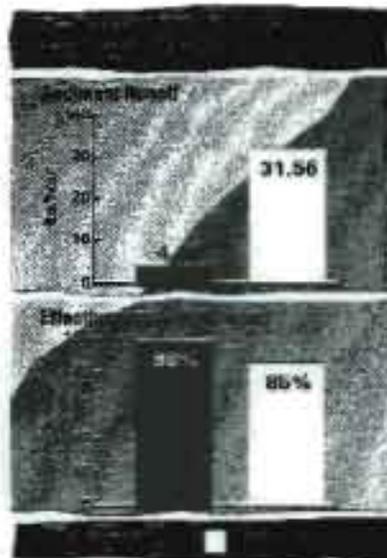
SedimentSTOP dramatically reduces surface sheet erosion, and offers significantly greater filtration capabilities and sediment retention than wattles, straw bales or silt fences. And unlike wattles, which use a single netting on the outside to encapsulate the fiber fill, SedimentSTOP utilizes multiple layers of netting to eliminate the possibility of failure if the outer netting is ever damaged.



SedimentSTOP is more porous than a wattle, allowing it to perform as a buffer strip that slows water and filters sediment. In the event that water does flow over the top, SedimentSTOP has an attached Splash Apron, which reduces rill formation and potential down slope erosion.



Wattles create a dam-like structure that causes water to back up and flow over the top, resulting in potentially severe erosion on the down slope side of the wattle.



SedimentSTOP was put to the test against straw wattles in research recently conducted at Utah State University's Water Research Facility.

Three 20-ft. long plots of sandy loam soil were set at a 2:1 gradient. SedimentSTOP rolls with a 9-inch diameter were placed at the mid-point and 7 ft. from the bottom of one plot, straw wattles of the same diameter were similarly placed on a second plot, and one plot was left unprotected as the control. Sediment runoff was then collected and measured as each plot was exposed to 4 inches of rainfall over a one-hour period.

The sediment control effectiveness of SedimentSTOP versus the wattles was significant. While 31.56 lbs. of sediment was collected from the plot with straw wattles, only 4.16 lbs. of sediment was collected from the plot protected by SedimentSTOP. Compared to the bare soil control plot, the straw wattles were only 85% effective, while the SedimentSTOP was independently proven to be 98% effective at reducing sediment runoff!

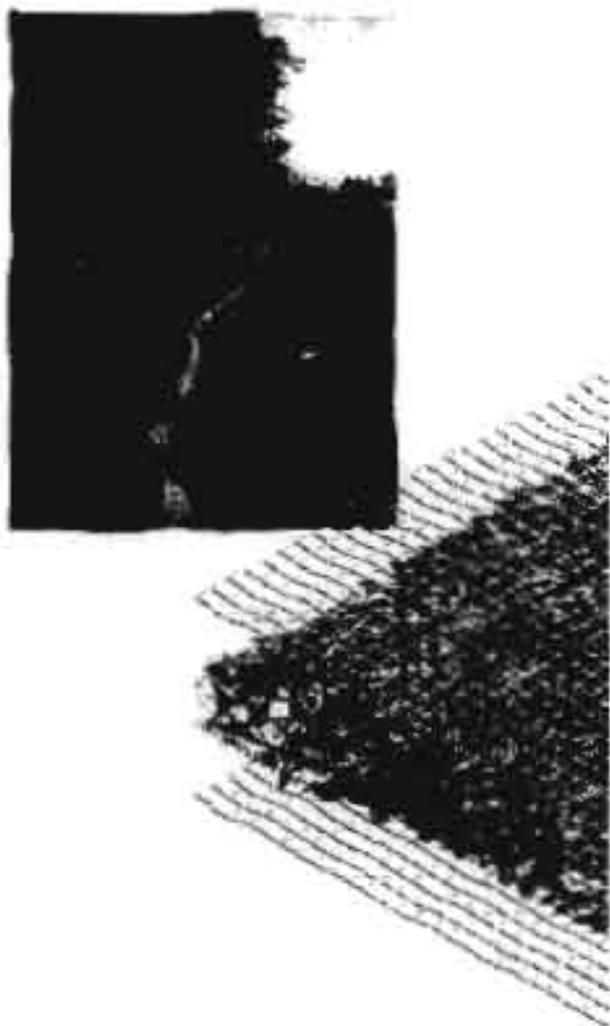
## EFFECTIVE

Biofriendly

SEDIMENT  
CONTROL

SedimentSTOP is an environmentally friendly, 100% biodegradable product. It can be incorporated with a variety of planting techniques such as live planting, live staking and seed incorporation. The leno woven net enables its jute strands to move independently of each other, allowing the net openings to expand as necessary. This flexibility, combined with the 100% biodegradability, minimizes the risk of accidental wildlife entrapment.

Because it leaves absolutely no synthetic residues on site, SedimentSTOP is ideal for use in bioengineering projects, wetland mitigation, riparian area protection, shaded areas, stream bank restorations and environmentally-sensitive areas where synthetic-netted products may pose a threat to wildlife. By eliminating the need to return to the jobsite to remove the sediment control structure, SedimentSTOP saves you time, money and potential headaches.



NATURAL

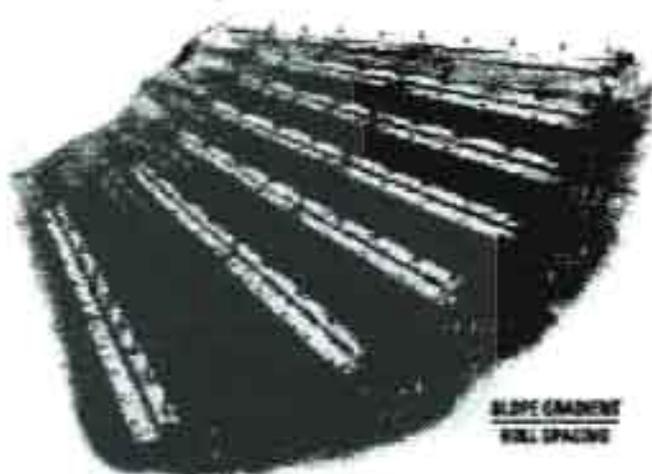
## SedimentSTOP<sup>®</sup> is

## EASY TO INSTALL

SedimentSTOP is easy to install, and features a two to three year functional lifespan. The structurally sound net-reinforced layers prevent failures – even if the outer netting wrap is damaged during or after installation.

SedimentSTOP is easily field fabricated for greater flexibility to specific site requirements. It is extremely flexible and readily conforms to the ground surface, minimizing undercutting. Longer, 50-foot finished roll length reduces the number of overlaps, and its less woven natural jute net allows easier contouring to the soil. The short, lightweight packaged rolls are easily transported over difficult terrain and to remote areas.

Finished roll diameter can also be increased, if necessary, by simply adding other organic materials such as grass clippings, pine needles, straw, or leaves.



This illustration provides general guidelines to assist in the design, installation and spacing of SedimentSTOP. These guidelines may require modification due to variation in soil type, rainfall intensity or duration, and amount of runoff affecting the application site. As slope gradient increases the spacing between the SedimentSTOP structures should increase. For example, on a slope with a gradient of 0.1 – 0.15 (1%), the SedimentSTOP structures should be installed 20 feet apart. However, on a slope with a gradient of 0.7 – 1:1 the spacing should be reduced to 10 feet.

### HERE'S HOW IT IS DONE!

#### Step 1

Dig a 2" deep x 6" wide anchor trench along the contour of the slope or across the swale.

#### Step 2

Position the SedimentSTOP<sup>®</sup> packaged roll perpendicular to the trench so the double-netted portion covers the anchor trench and extends downslope one foot beyond the anchor trench. (This forms the Splash Apron<sup>™</sup>) Unroll to cover the trench.

#### Step 3

Secure SedimentSTOP material into the anchor trench with a row of staples, and then secure the downslope edge of the Splash Apron with another row of staples 12" apart.

#### Step 4

Roll the remaining SedimentSTOP material from the upslope edge into the anchor trench. (If a thicker roll is needed, simply add organic materials across the product with prior to rolling.)

#### Step 5

Once the product has been rolled up, secure it to the soil surface using wooden stakes 2' on center.

*NOTE: The complete installation instructions are printed on each package of SedimentSTOP<sup>®</sup>.*

### PACKAGED ROLLS

Width - 8.67 ft (2.63 m)

Length - 50.00 ft (15.24 m)

Weight - 55.70 lbs (25.30 kg) ± 10%

Matrix - 70% Straw Fiber

1.225 lbs/yd<sup>2</sup> (0.560 kg/m<sup>2</sup>)

30% Coconut Fiber

0.525 lbs/yd<sup>2</sup> (0.240 kg/m<sup>2</sup>)

Outer Netting - less woven jute net

Splash Apron Top Hat - 2.00 ft less woven jute net

### FINISHED INSTALLED STRUCTURE

Diameter - Approximately 3.00 in (0.22 m)

Length - 50 linear feet (15.2 m)

Downhill Splash Apron Length - 1.00 ft (0.30 m)

## EASY

If you are thinking about  
 using wattles, you need  
 to STOP and consider

the advantages of using

## SedimentSTOP.

When you compare  
 the benefits of using  
 SedimentSTOP  
 against other  
 sediment filtration  
 methods, you'll see  
 that there really is no  
 comparison.

	SedimentSTOP	Straw Wattle	Silt Fence
Reduces Rill formation	YES		
Allows Water Filtration	YES		
No Special Equipment Needed	YES	YES	
Seamless Joints	YES		YES
Used on Slopes >2:1	YES	YES	
Customizable Lengths	YES		YES

SedimentSTOP is economical, delivers exceptional performance, and is easily installed. Contact North American Green today for even more reasons to stop using wattles and start using SedimentSTOP.



### SedimentSTOP

BIODEGRADABLE Filtration System

Manufactured by NORTH AMERICAN GREEN



EROSION CONTROL, Storm  
 Erosion SOLUTIONS

A **BRUNNEN** Company

14648 Highway 41 North  
 Evansville, Indiana 47715 U.S.A.

800-772-2040 | 812-867-8632 | [www.nagreen.com](http://www.nagreen.com)



## PELLETIZED STRAW, LLC CERTIFICATE OF COMPLIANCE

CERTIFICATE OF COMPLIANCE  
Patent Pending

Manufacturer: Pelletized Straw, LLC · 3676 W 9000N Rd · Manteno, IL 60950

Pelletized Straw, LLC certifies that Hydro Straw<sup>®</sup> contains the following properties and characteristics:

### DESCRIPTION-

Hydrostraw is a hydroseeding mulch with a specially formulated composition of natural or recycled straw fiber, tackifier, organic fibers, and special binding agents.

### SPECIFICATIONS-

Fiber shall be produced from a natural or recycled straw fiber; these materials should be free from plastic materials or other non bio-degradable substances. Fiber shall be of such character that the fiber will disperse into uniform slurry when mixed with water. Water content of the fiber not to exceed 14 percent of the dry mass fiber. The percentage of moisture content of the fiber shall be clearly marked on the package. Fiber shall be colored green, and shall not stain concrete or other surfaces. Fiber and other mulch ingredients shall be free from growth or germination inhibiting ingredients. Mulch Fiber shall be applied as a slurry solution by means of hydroseeding.

Physical Characteristics	
Toxicity	Non-Toxic
Applied Color	Green
Surface Tension	Material will evenly disperse and suspend when agitated in water
Absorbancy	When sprayed uniformly at the recommended rate, the mulch fibers form an absorbent mulch cover which will allow percolation of water and increased water infiltration to the underlying soil matrix
Solubility	Mulch Fibers are non water soluble
Application Rate	2000 lbs/acre

### APPLICATION RATES & MIXING RATES

- 60 lbs per 100 Gallons for hose work
- 75 lbs per 100 gallons for tower work
- 2,000 lbs/ac - Turf
- 3,000-4,000 lbs/ac - Erosion Control

It is imperative that the mulch be applied at the specified rate: too wet of a mixture will cause the fibers to be buried. Mulch Fiber shall be applied as a slurry solution by means of hydroseeding. Mulch Fiber shall be applied at the specified rate per the specifications in a uniform manner. Care shall be exercised to ensure that the mulch application is uniform and even throughout the seeded area; mulch shall not be bunched or clumped up on the site. Care shall also be taken as to not create a shadowing effect on the site, mulch applications shall be started on the windward side of the project.

Packaging and Shipping Data	
Bag Size	11.5" x 17" x 25"
Bag Weight	50 lbs.
Pallet	40 bags (52W x 45D x 96H)
Full Truck	22 Pallets, 880 Bags
Packaging	Moisture resistant packaging

Physical Properties	
Moisture Content	12.0% +/- 2.0%
Organic Matter	96.1% +/- 3.0%
PH	06.8 +/- 0.5
Carbon/Nitrogen Ratio	60.1 +/- 2.0%
Soluble Salts	1.70%
Average Fiber Length	1/2" +/- 1/4"

### WARRANTY-

Pelletized Straw, LLC warrants that its products are free from defects and will perform as stated in this literature. If our product does not meet products specifications, notice of failure must be received within 15 days of failure. Pelletized Straw, LLC will not warrant that the product will perform under unlimited circumstances that are caused by soil conditions, installation, and/or weather variables.



## TECHNICAL DATA SHEET

### Polyvinyl Chloride (PVC) Geomembrane

Properties	Test Method (ASTM)	Units (English)	220	230	240	250	260
Thickness	D1593	mm	30	30	40	50	60
Specific Gravity (Minimum)	D792 (A)	g/cm <sup>3</sup>	1.20	1.20	1.20	1.20	1.20
Tensile Strength @ break (minimum)	D882 (Method A)	psi	48	73	97	121	145
Elongation @ break	D882 (Method A)	%	350	350	400	425	450
Modulus @ 100%	D882	psi	23	34	41	50	60
Tear Resistance (minimum)	D1004 (Die C)	lb.	6.5	8.5	10.5	13	15
Hydrostatic Resistance (minimum)	D751 (A)	Psi	68	100	120	150	180
Low Temperature (pass)	D1799	F°	-15	-20	-20	-20	-20
Dimensional Stability (maximum change)	D1204	%	4.0	3.0	3.0	3.0	3.0
Water Extraction (Loss, maximum)	D3083	%	0.15	0.15	0.20	0.20	0.20
Volatile Loss (Loss, maximum)	D1303	%	0.9	0.7	0.5	0.5	0.5
Panel Width Multiplier	N/A	in.	85.25	85.25	85.25	72	72
Weight	N/A	lb/ft <sup>2</sup>	0.131	0.195	0.258	0.324	0.389
Maximum Panel Dimensions	N/A	ft <sup>2</sup>	± 33,635	± 22,660	± 17,083	± 13,620	± 11,325
Total Weight per Panel	N/A	lb.	± 4,400	± 4,400	± 4,400	± 4,400	± 4,400

Data provided for informational purposes only. Integra Plastics assumes no responsibility if the above data is used for design or other performance criteria.





P O Box 3445, Butte, MT 59702  
www.pioneer-technical.com

February 19, 2010

Mr. Duane Logan  
Pioneer Technical Services  
307 E. Park, Suite 421  
Anaconda, MT 59711

RE: Opportunity Ponds RA Construction Oversight  
Pioneer Technical Services Project No. 14005

Dear Mr. Logan,

On February 9<sup>th</sup>, Paul Bushnell and Steve Whitford of Pioneer Technical Services performed field gradation testing at the S&N Concrete Pit near Anaconda. The purpose of the testing was to determine if the stockpile meets the riprap requirements for the Opportunity Ponds RDU 8 RAWP/FDR project. The specifications are for Riprap Type 1, Type 2, and Type 3.

Four samples of material, weighing approximately 4,000 pounds each, were collected using an excavator. Care was taken to ensure the samples were representative of the stockpile. The individual samples were measured by passing individual sieves over the cobble- and boulder-sized particles and weighed. We noted that some particles within the stockpile were larger than 2 feet in diameter. These large particles were not encountered within our four samples.

Table 1 presents our average results from the field testing.

Table 1 - S&N Riprap Gradation (2-9-10)

Particle Size		Percent Passing
500 mm	20"	100
450 mm	18"	99
400 mm	16"	98
350 mm	14"	97
325 mm	13"	93
300 mm	12"	87
275 mm	11"	82
260 mm	10"	78
225 mm	9"	65
200 mm	8"	53
175 mm	7"	38
160 mm	6"	23
125 mm	5"	15
100 mm	4"	5
50 mm	2"	0

**ANACONDA**  
307 East Park Street, Suite 421  
Anaconda, MT 59711  
Phone (406) 563-9371  
Fax (406) 563-9372

**BUTTE**  
63 1/2 West Broadway  
Butte, MT 59701  
Phone (406) 782-5177  
Fax (406) 782-5866

**BILLINGS**  
1925 Grand Avenue, Suite 100  
Billings, MT 59102  
Phone (406) 543-4805  
Fax (406) 543-4655

**HELENA**  
201 East Broadway, Suite C  
Helena, MT 59601  
Phone (406) 457-8252  
Fax (406) 442-1158



P.O. Box 3445, Butte, MT 59702  
www.pioneer-technical.com

The grain size distribution curves presenting the S&N Concrete riprap and the Riprap Type 1, Type 2 and Type 3 banding requirements are included with this report. The samples fall most closely within the Riprap Type 1 band while being too fine for Riprap Type 2 and too coarse for Type 3.

We thank you for using Pioneer Technical Services for your geotechnical and materials testing requirements. If you have any questions regarding these results, please contact Todd Lorenzen or Paul Bushnell at (406) 443-6053.

Sincerely,  
PIONEER TECHNICAL SERVICES, INC.

Todd Lorenzen, P.E.  
Senior Geotechnical Engineer

Paul Bushnell  
Materials Testing Supervisor

**ANACONDA**  
107 East Park Street, Suite 421  
Anaconda, MT 59711  
Phone (406) 563-9373  
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1923 Grand Avenue, Suite 100  
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Fax (406) 543-4658

**HELENA**  
201 East Broadway, Suite C  
Helena, MT 59601  
Phone (406) 457-8252  
Fax (406) 442-1758

Blended Seed No. 10-00001165

Date: 09/15/10

Sold To: Quality Landscape Seeding, Inc.

Lbs.	Variety & Species	Lot No.	Pure	Germ	HD	Viable	Tested	Org	%Vet
1.09	Bluegrass, Curby - V.N.S.	13,263a19	92.03	30.00	50.00	80	08/16/10	WA	7.30
2.99	Fescue, Idaho - (A) Winchester	SD4-WIN-15	96.35	36.00	26.00	62	08/13/10	WA	18.80
5.08	Streambank Wheatgrass - C) Sohar	BG3217-8	98.34	0.00	0.00	96 TZ	03/12/10	WY	36.33
0.49	Prairie Junegrass - V.N.S.	A0903	90.50	0.00	0.00	91 TZ	02/03/10	CN	3.23
4.41	Bottlebrush Squirttail - (A) Tom Jan Creek	09-0-1	86.90	0.00	0.00	94 TZ	01/14/10	MT	27.87

Bruce Seed Farm, Inc  
91 Lower Deep Creek  
Townsend MT 59644  
806-266-3103

1/16 - AAA Construction / 1.6 Acres

Crop: 0.15  
Weeds: 0.16  
Noxious: NONE FOUND  
Restricted: NONE FOUND  
Seed Ratio:

Inert: 6.17  
Hard: 0.00

Dorm: 9.03  
Purge: 13.75

--see back of card for disclaimer of warranties--

September 9, 2010

Mr. Brady Nelson  
AAA Construction  
P.O. Box 3932  
Missoula, MT 59806

**RE: Highlands Mine Reclamation  
Pioneer Technical Services Project No. 14718**

Dear Mr. Nelson;

On September 8<sup>th</sup>, a sample from the Highlands Mine Reclamation Project was delivered to our ASTM/AASHTO/USACOE accredited materials testing laboratory. The sample was referenced as "Top Soil" and given Lab No. 9658. The testing request consisted of:

- Proctor Moisture/Density Relationships (ASTM D698, Method A).

Table 1 presents our testing results.

**Table 1 –Proctor Moisture/Density Relationships**

Lab No.	Material Description	Sample Location	Max. Dry Density (lb/ft <sup>3</sup> )	Optimum Moisture (%)
9658	Clayey Sand	Ore St. Dillon Mt	121.6	11.0

The Proctor curve is included with this report. We thank you for using Pioneer Technical Services for your geotechnical and materials testing requirements. If you have any questions regarding these results, please contact Todd Lorenzen or Paul Bushnell at (406) 443-6053.

Sincerely,  
PIONEER TECHNICAL SERVICES, INC.

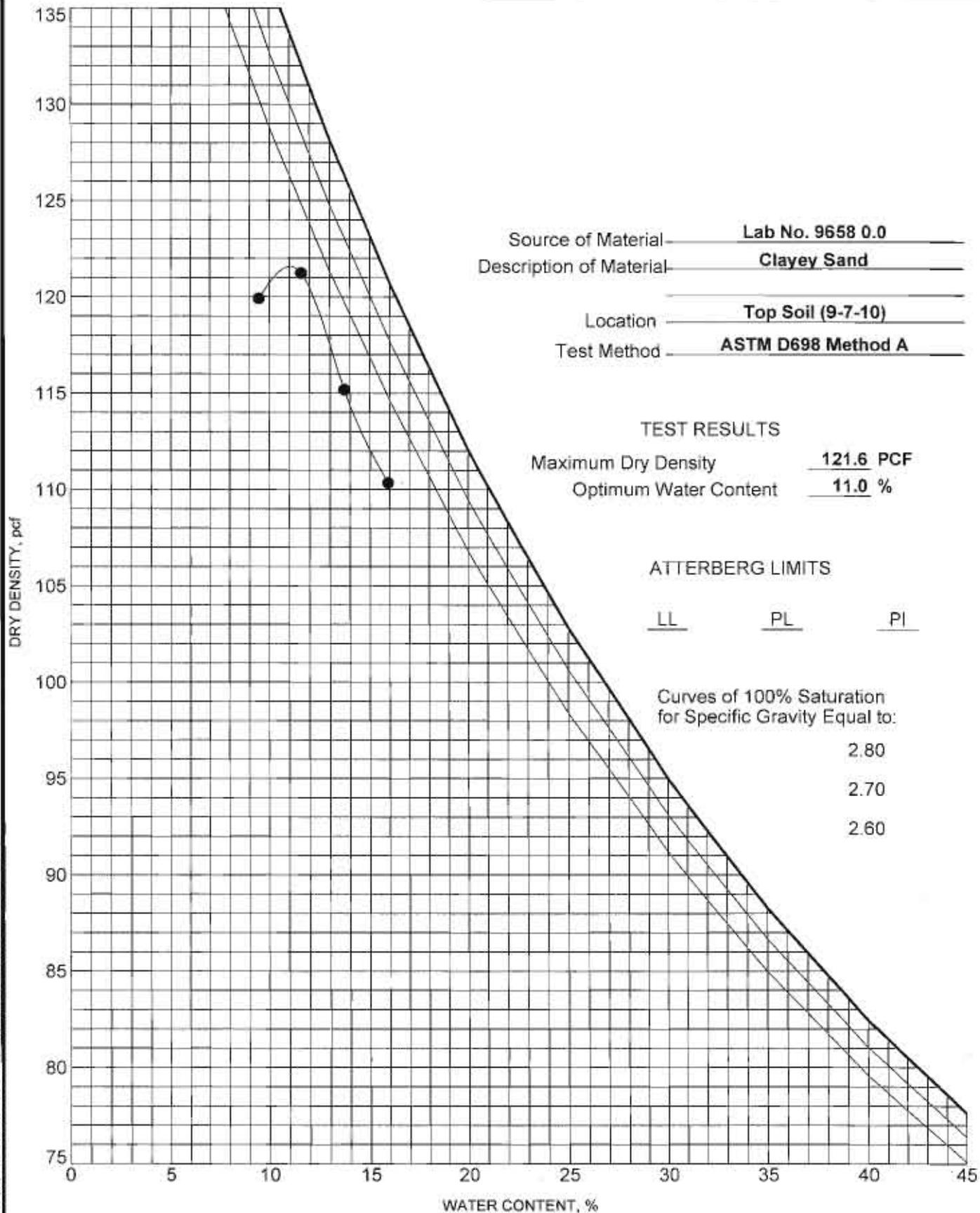


Todd Lorenzen, P.E.  
Senior Geotechnical Engineer



Paul Bushnell  
Materials Testing Supervisor

US COMPACTION ASTM HIGHLANDS MINE RECLAMATION - 14718.GPJ PIONEER.GDT 9/9/10



Source of Material Lab No. 9658 0.0  
Description of Material Clayey Sand  
Location Top Soil (9-7-10)  
Test Method ASTM D698 Method A

**TEST RESULTS**

Maximum Dry Density 121.6 PCF  
Optimum Water Content 11.0 %

**ATTERBERG LIMITS**

LL      PL      PI

Curves of 100% Saturation  
for Specific Gravity Equal to:  
2.80  
2.70  
2.60



**MOISTURE-DENSITY RELATIONSHIP**

Project: Highlands Mine Reclamation  
Number: 14718

Brady Nelson  
AAA Construction  
PO Box 3932  
Missoula, MT 59806

Project: 14718 - Highlands Mine Reclamation  
Inspector: K Richards  
Inspection Date: 9-14-10

As requested, Pioneer Technical Services performed on-site density testing in accordance with current applicable standards. Minimum required compaction is 90%. The results obtained are as follows:

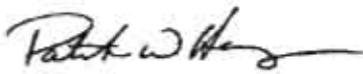
Test	Location	Depth (in)	Wet Density	Percent Moisture	Dry Density	Material Type	% Compaction	Pass or Fail
1	Center of Northwest Quadrant	12	124.1	12.9	109.9	A	90	Pass
2	5' North of Center of Northwest Quadrant	12	125.9	13.0	111.4	A	92	Pass
3	Southwest Quadrant	12	124.9	13.7	109.9	A	90	Pass
4	Southeast Quadrant	12	124.6	14.0	109.3	A	90	Pass
5	Northeast Quadrant	12	128.8	16.7	110.4	A	91	Pass

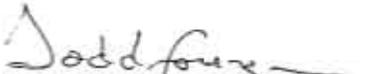
Material Type: A: 121.6 @ 11.0% Lab no. 9658 - Ore Street Dillon, MT, Clayey Sand

Pioneer Technical Services (PTS) arrived on site at 3:00 p.m. Crew was hauling cap soil onto site. Cap soil was inspected for compactions. Five tests were taken and all met the minimum required 90% compaction. Contractor was notified of results.

If you have any questions concerning this report (14718 001n 9-14), please call us at (406) 443-6053.

Respectfully submitted,  
PIONEER TECHNICAL SERVICES

  
Patrick Henry  
Construction Field Testing Supervisor

  
Todd Lorenzen, P.E.  
Sr. Geotechnical Engineer

**APPENDIX J**  
**CONSTRUCTION DIARY AND PHOTOGRAPH LOG**

**2010 Highland Mine Reclamation Project  
CONSTRUCTION LOG**

<b>DEQ CONTRACT NO.</b>	410022		
<b>RPR</b>	Dan Klima		
<b>DEQ PROJECT MANAGER:</b>	Pebbles Clark	<b>DATE:</b>	August 3, 2010
<b>ENGINEER:</b>	Jamie Mongoven	<b>DAY:</b>	Tuesday
<b>CONSTRUCTION CONTRACTOR:</b>	AAA Construction, Missoula Montana		
<b>WEATHER:</b>	Clear Sunny-Afternoon Thunderstorms		
<b>TEMP:</b>	60-75	°F	

**PERSONNEL ON SITE:**

<b>TG</b>	<b>RPR :</b>	Dan Klima	<b>RPR Arrival time:</b>	8am	<b>Mileage:</b>	80
	<b>Other :</b>		<b>Departure Time:</b>	6pm	<b>Mileage:</b>	80
<b>DEQ:</b>	<b>RPM:</b>	None				
	<b>Other :</b>					
<b>Contractor Arrival:</b>	<b>Supt:</b>	Wes				
	<b>Other:</b>	Brady Sr. Brady Jr. + 2 laborers/operators				
<b>Other:</b>	Forest Service (Joslin Dodge) about Road Permits					

**EQUIPMENT ON SITE:**

#	Description	#	Description	#	
1.	CAT 330L Excavator	1	7. Truck and Lowboy	1	
2.	John Deer Loader	1	8.		
3.	CAT D8K	1	9.		
4.	Cat 200	1	10.		
5.	Water Truck	1	11.		
6.	Haul/Dump Trucks	3	12.		
<b>Contractor Arrival:</b>		9am	<b>Contractor Departure:</b>		0:00

**CONSTRUCTION ACTIVITIES:**

Walked site to familiarize with AAA crew. Checked out construction limits with contractor. Went over erosion control measures with contractor. Talked and pointed out survey control points, clearing limits, and new creek diversion stakes. Also stated that the stakes are AAA responsibility and they need to protect them and not to disturb the control if at all possible. Talked about safety plan and stressed to Wes that there is overhead power within the project. Also noted that they need some sort of traffic control signage. They said that signs will be on site today. Stated that there can not be any work close to the creek until BMP's are in place. Work didn't start until after 12:00 pm today. Erosion control measures were being taken at the end of the day.  
Started Clearing and Gubbing.

**ISSUES/CONCERNS:**

**Equipment seems to be in bad shape and old. CAT 300 Excavator broke some hydraulic lines to the thumb on the bucket. The dozer D8 seems to be under-powered and running badly. We will have to pay attention to these issues as time goes on.**

**PHOTOS TAKEN:**

- No. 1: Started clearing and grubbing operations at base of WR1.
- No. 2: Piling slash at base of WR1.
- No. 3: Clearing and grubbing operations at base of WR1.



Photo Date: 8-3-10  
No. 1

Direction: Looking  
North

Description: Started  
clearing and grubbing  
operations at base of  
WR 1.



Photo Date: 8-3-10  
No. 2

Direction: Looking  
North

Description: Piling  
slash at base of WR 1.



Photo Date: 8-3-10  
No. 3

Direction: Looking  
North

Description: Clearing  
and grubbing  
operations at base of  
WR 1.

**2010 Highland Mine Reclamation Project  
CONSTRUCTION LOG**

<b>DEQ CONTRACT NO.</b>	410022		
<b>RPR</b>	Dan Klima		
<b>DEQ PROJECT MANAGER:</b>	Pebbles Clark	<b>DATE:</b>	August 4, 2010
<b>ENGINEER</b>	Jamie Mongoven	<b>DAY:</b>	Wednesday
<b>CONSTRUCTION CONTRACTOR:</b>	AAA Construction, Missoula Montana		
<b>WEATHER:</b>	Overcast-Partly Cloudy Afternoon		
<b>TEMP:</b>	55-75	°F	

**PERSONNEL ON SITE:**

<b>TG</b>	<b>RPR :</b>	Dan Klima	<b>RPR Arrival time:</b>	8am	<b>Mileage:</b>	80
	<b>Other :</b>		<b>Departure Time:</b>	6pm	<b>Mileage:</b>	80
<b>DEQ:</b>	<b>RPM:</b>	None				
	<b>Other :</b>					
<b>Contractor Arrival:</b>	<b>Supt:</b>	Wes Swalling, Brady Nelson, Sr.				
	<b>Other:</b>	Brady Nelson Jr. Brian Baird, Chuck Miller, Dick Herbel, George Cobell				
<b>Other:</b>						

**EQUIPMENT ON SITE:**

	Description	#	Description	#	
1.	CAT 330L Excavator	1	7. Truck and Lowboy	0	
2.	John Deer Loader	1	8.		
3.	CAT D8K	1	9.		
4.	Cat 200	1	10.		
5.	Water Truck	1	11.		
6.	Haul/Dump Trucks	3	12.		
<b>Contractor Arrival:</b>		8am	<b>Contractor Departure:</b>		6pm

**CONSTRUCTION ACTIVITIES:**

Clearing and grubbing continued. Installed BMPs: silt fence and straw waddles. Started to push the tailings piles to make room and create a landing area to bring up the dump trucks to offload the slash created by the clearing and grubbing. Installed traffic control devices on forest service road.

**ISSUES/CONCERNS:**

**PHOTOS TAKEN:**

- No. 1: Clearing and grubbing.
- No. 2: Clearing and grubbing.
- No. 3: Clearing an area so they can load trucks with slash to be removed.
- No. 4: Dozer pushing the tailings creating a flat area.
- No. 5: Looking North from the top of the site. Pushing tailings material downhill making access for dump trucks.
- No. 6: Installation of silt fence along the stream.
- No. 7: Silt fence installation.
- No. 8: Clearing and grubbing, top of Highland Mine site.
- No. 9: Looking North from the top of Highland Mine site tailing area.
- No. 10: Looking East from top of mine site where the audit and old outbuildings used to be.
- No. 11: Looking at the top of the Highland Mine site.
- No. 12: Traffic Control going South.
- No. 13: Traffic Control going North.



Photo Date: 8-4-10  
No. 1

Direction: Looking  
North

Description: Clearing  
and grubbing.



Photo Date: 8-4-10  
No. 2

Direction: Looking East

Description: Clearing  
and grubbing.



Photo Date: 8-4-10  
No. 3

Direction: Looking  
South

Description: Clearing  
an area so they can load  
trucks with slash to be  
removed.



Photo Date: 8-4-10  
No. 4

Direction: Looking  
South

Description: Dozer  
pushing the tailings  
creating a flat area



Photo Date: 8-4-10  
No. 5

Direction: Looking  
North

Description: Looking  
North from the top of  
the site. Pushing  
tailings material  
downhill making access  
for dump trucks.



Photo Date: 8-4-10  
No. 6

Direction: Looking  
West

Description:  
Installation of silt fence  
along the stream



Photo Date: 8-4-10  
No. 7

Direction: Looking  
South

Description: Silt fence  
installation.



Photo Date: 8-4-10  
No. 8

Direction: Looking  
South

Description: Clearing  
and grubbing, top of  
Highland Mine site.



Photo Date: 8-4-10  
No. 9

Direction: Looking  
North

Description: Looking  
North from the top of  
Highland Mine site  
tailing area.



Photo Date: 8-4-10  
No. 10

Direction: Looking East

Description: Looking  
East from top of mine  
site where the audit and  
old outbuildings used to  
be.



Photo Date: 8-4-10  
No. 11

Direction: Looking  
South

Description: Looking  
at the top of the  
Highland Mine site



Photo Date: 8-4-10  
No. 12

Direction: Looking  
South toward site

Description: Traffic  
Control going South.



Photo Date: 8-4-10  
No. 13

Direction: Looking  
North toward site

Description: Traffic  
Control going North.

**2010 Highland Mine Reclamation Project  
CONSTRUCTION LOG**

<b>DEQ CONTRACT NO.</b>	410022		
<b>RPR</b>	Dan Klima		
<b>DEQ PROJECT MANAGER:</b>	Pebbles Clark	<b>DATE:</b>	August 5, 2010
<b>ENGINEER</b>	Jamie Mongoven	<b>DAY:</b>	Thursday
<b>CONSTRUCTION CONTRACTOR:</b>	AAA Construction, Missoula Montana		
<b>WEATHER:</b>	Clear		
<b>TEMP:</b>	55-75	°F	

<b>PERSONNEL ON SITE:</b>						
<b>TG</b>	<b>RPR :</b>	Dan Klima	<b>RPR Arrival time:</b>	8am	<b>Mileage:</b>	80
	<b>Other :</b>		<b>Departure Time:</b>	6pm	<b>Mileage:</b>	80
<b>DEQ:</b>	<b>RPM:</b>	Pebbles Clark, Devon Cleary				
	<b>Other :</b>					
<b>Contractor Arrival:</b>	<b>Supt:</b>	Wes Swalling, Brady Nelson, Sr.				
	<b>Other:</b>	Brady Nelson Jr. Brian Baird, Chuck Miller, Dick Herbel, George Cobell				
<b>Other:</b>						

<b>EQUIPMENT ON SITE:</b>					
	<b>Description</b>	<b>#</b>	<b>Description</b>	<b>#</b>	
1.	CAT 330L Excavator	1	7. Truck and Lowboy	0	
2.	John Deer Loader	1	8.		
3.	CAT D8K	1	9.		
4.	Cat 200	1	10.		
5.	Water Truck	1	11.		
6.	Haul/Dump Trucks	3	12.		
<b>Contractor Arrival:</b>		7am	<b>Contractor Departure:</b>		6pm

**CONSTRUCTION ACTIVITIES:**  
 Clearing and grubbing. Installing erosion control, silt fence and straw waddles. Hauling all slash off to a site down the road. Brady found and worked out a deal with a land owner who is willing to accept the slash on his land to burn later this fall. Silt fence will be completed this AM. Clearing and grubbing should wrap up by weeks end. They are about 2/3 done with tree removal.

**ISSUES/CONCERNS:**

**PHOTOS TAKEN:**  
 No. 1: Installation of silt fence on upper mine site along creek.  
 No. 2: Clearing and grubbing, removal of stump and roots.  
 No. 3: Looking North toward the Butte Valley. Clearing and grubbing.  
 No. 4: Staging area and main entrance into construction site.  
 No. 5: Clearing and grubbing.



Photo Date: 8-5-10  
No. 1

Direction: Looking  
South

Description:  
Installation of silt fence  
on upper mine site  
along creek.



Photo Date: 8-5-10  
No. 2

Direction: Looking  
North

Description: Clearing  
and grubbing, removal  
of stump and roots.



Photo Date: 8-5-10  
No. 3

Direction: Looking  
North

Description: Looking  
North toward the Butte  
Valley. Clearing and  
grubbing.



Photo Date: 8-5-10  
No. 4

Direction: Looking  
West

Description: Staging  
area and main entrance  
into construction site.



Photo Date: 8-5-10  
No. 5

Direction: Looking  
North

Description: Clearing  
and grubbing.

**2010 Highland Mine Reclamation Project  
CONSTRUCTION LOG**

<b>DEQ CONTRACT NO.</b>	410022		
<b>RPR</b>	Jamie Mongoven		
<b>DEQ PROJECT MANAGER:</b>	Pebbles Clark	<b>DATE:</b>	8/6/2010
<b>ENGINEER</b>	Jamie Mongoven	<b>DAY:</b>	Friday
<b>CONSTRUCTION CONTRACTOR:</b>	AAA Construction, Missoula Montana		
<b>WEATHER:</b>	Clear		
<b>TEMP:</b>	48-75	°F	

<b>PERSONNEL ON SITE:</b>						
<b>TG</b>	<b>RPR :</b>	Jamie Mongoven	<b>RPR Arrival time:</b>	7am	<b>Mileage:</b>	35
	<b>Other :</b>		<b>Departure Time:</b>	6pm	<b>Mileage:</b>	35
<b>DEQ:</b>	<b>RPM:</b>	Pebbles Clark, Joslyn Dodge				
	<b>Other :</b>					
<b>Contractor Arrival:</b>	<b>Supt:</b>	Wes Swalling, Brady Nelson, Sr.				
	<b>Other:</b>	Brady Nelson Jr. Brian Baird, Chuck Miller, Dick Herbel				
<b>Other:</b>						

<b>EQUIPMENT ON SITE:</b>					
	<b>Description</b>	<b>#</b>		<b>Description</b>	<b>#</b>
1.	CAT 330L Excavator	1	7.	Truck and Lowboy	0
2.	John Deer Loader	1	8.		
3.	CAT D8K	1	9.		
4.	Cat 200	1	10.		
5.	Water Truck	1	11.		
6.	Haul/Dump Trucks	3	12.		
<b>Contractor Arrival:</b>		7am	<b>Contractor Departure:</b>		6pm

**CONSTRUCTION ACTIVITIES:**

Active clearing and grubbing. Installing erosion control and straw waddles. Hauled some slash off site. Removing concrete abutments today along with some metal from around site. Starting clearing TP1, 2 & 3.

Forest Service walked the trail with contractor and DEQ. Approximately 750 feet of trail will be constructed by AAA.

No accidents today. Traffic was light on main road in the morning.

**ISSUES/CONCERNS:**

Will need construction staking by the end of next week.  
Weekly meeting is scheduled for Wednesday.

**PHOTOS TAKEN:**

No. 1: Pebbles Clark on site.  
No. 2: Lower section of WR1 facing south/ staging area.  
No. 3: Facing South. Upper section of WR1.  
No. 4: Slash pile in staging area.  
No. 5: Staging area.  
No. 6: D4 parked at the top of WR1.  
No. 7: Looking East. Bottom of WR1.  
No. 8: Looking South. Staging area.



Photo Date: 8-6-10  
No. 1

Direction: Looking East

Description: Pebbles  
Clark on site.



Photo Date: 8-6-10  
No. 2

Direction: Looking  
North

Description: Lower  
section of WR1 facing  
south/ staging area.



Photo Date: 8-6-10  
No. 3

Direction: Looking  
North

Description: Facing  
South. Upper section  
of WR1.



Photo Date: 8-6-10  
No. 4

Direction: Looking  
North

Description: Slash pile  
in staging area.



Photo Date: 8-6-10  
No. 5

Direction: Looking  
North

Description: Staging  
area.



Photo Date: 8-6-10  
No. 6

Direction: Looking East

Description: D4 parked  
at the top of WR1.



Photo Date: 8-6-10  
No. 7

Direction: Looking East

Description: Looking  
East. Bottom of WR1.



Photo Date: 8-6-10  
No. 8

Direction: Looking  
South

Description: Looking  
South. Staging area.

**2010 Highland Mine Reclamation Project  
CONSTRUCTION LOG**

<b>DEQ CONTRACT NO.</b>	410022		
<b>RPR</b>	Dan Klima		
<b>DEQ PROJECT MANAGER:</b>	Pebbles Clark	<b>DATE:</b>	August 9, 2010
<b>ENGINEER</b>	Jamie Mongoven	<b>DAY:</b>	Monday
<b>CONSTRUCTION CONTRACTOR:</b>	AAA Construction, Missoula Montana		
<b>WEATHER:</b>	Overcast, Cool		
<b>TEMP:</b>	55-75	°F	

**PERSONNEL ON SITE:**

<b>TG</b>	<b>RPR :</b>	Dan Klima	<b>RPR Arrival time:</b>	8am	<b>Mileage:</b>	80
	<b>Other :</b>		<b>Departure Time:</b>	6pm	<b>Mileage:</b>	80
<b>DEQ:</b>	<b>RPM:</b>					
	<b>Other :</b>					
<b>Contractor Arrival:</b>	<b>Supt:</b>	Wes Swalling,				
	<b>Other:</b>	Brady Nelson Jr. Brian Baird, Chuck Miller, Dick Herbel				

**Other:**

**EQUIPMENT ON SITE:**

	Description	#	Description	#
1.	CAT 330L Excavator	1	7. Truck and Lowboy	0
2.	John Deer Loader	1	8.	
3.	CAT D8K	1	9.	
4.	Cat 200	1	10.	
5.	Water Truck	1	11.	
6.	Haul/Dump Trucks	2	12.	
<b>Contractor Arrival:</b>		7am	<b>Contractor Departure:</b>	
			6pm	

**CONSTRUCTION ACTIVITIES:**

Clearing and grubbing, Removal of collapsed structures and concrete to the landfill. Continuing subgrade work on the north side of construction site. Removal of TP 1 along Highland Road. Transporting the material from TP 1 to WR 1.

**ISSUES/CONCERNS:**

**PHOTOS TAKEN:**

- No. 1: Looking South toward the main tailings pile.
- No. 2: Top of mine site. Working on sub-grade.
- No. 3: Looking South. Starting to build an access road so the dump trucks can haul off the wood to the landfill.
- No. 4: Looking South. Building access road sub-grade.
- No. 5: Looking up at the top of the site. Right below the boom of the excavator is where the access road being built.
- No. 6: Removal of TP 1 along Highland Road.
- No. 7: Removal of TP 1 along Highland Road.



Photo Date: 8-9-10  
No. 1

Direction: Looking  
South

Description: Looking  
South toward the main  
tailings pile.



Photo Date: 8-9-10  
No. 2

Direction: Looking East

Description: Top of  
mine site. Working on  
sub-grade.



Photo Date: 8-9-10  
No. 3

Direction: Looking  
South

Description: Looking  
South. Starting to build  
an access road so the  
dump trucks can haul  
off the wood to the  
landfill.



Photo Date: 8-9-10  
No. 4

Direction: Looking  
South

Description: Looking  
South. Building access  
road sub-grade.



Photo Date: 8-9-10  
No. 5

Direction: Looking  
South

Description: Looking  
up at the top of the site.  
Right below the boom  
of the excavator is  
where the access road  
being built.



Photo Date: 8-9-10  
No. 6

Direction: Looking East

Description: Removal  
of TP 1 along Highland  
Road.



Photo Date: 8-9-10  
No. 7

Direction: Looking  
South

Description: Removal  
of TP 1 along Highland  
Rd.

**2010 Highland Mine Reclamation Project  
CONSTRUCTION LOG**

<b>DEQ CONTRACT NO.</b>	410022		
<b>RPR</b>	Dan Klima		
<b>DEQ PROJECT MANAGER:</b>	Pebbles Clark	<b>DATE:</b>	August 10, 2010
<b>ENGINEER</b>	Jamie Mongoven	<b>DAY:</b>	Tuesday
<b>CONSTRUCTION CONTRACTOR:</b>	AAA Construction, Missoula Montana		
<b>WEATHER:</b>	Clear Cool, Afternoon T-Storms		
<b>TEMP:</b>	55-75	°F	

**PERSONNEL ON SITE:**

<b>TG</b>	<b>RPR :</b>	Dan Klima	<b>RPR Arrival time:</b>	8am	<b>Mileage:</b>	80
	<b>Other :</b>		<b>Departure Time:</b>	6pm	<b>Mileage:</b>	80
<b>DEQ:</b>	<b>RPM:</b>					
	<b>Other :</b>					
<b>Contractor Arrival:</b>	<b>Supt:</b>	Wes Swalling, Brady Nelson Sr.				
	<b>Other:</b>	Brady Nelson Jr. Brian Baird, Chuck Miller, Dick Herbel				
<b>Other:</b>						

**EQUIPMENT ON SITE:**

	Description	#	Description	#	
1.	CAT 330L Excavator	1	7. Truck and Lowboy	0	
2.	John Deer Loader	1	8. Mini-Excavator	1	
3.	CAT D8K	1	9.		
4.	Cat 200	1	10.		
5.	Water Truck	1	11.		
6.	Haul/Dump Trucks	2	12.		
<b>Contractor Arrival:</b>		7am	<b>Contractor Departure:</b>		6pm

**CONSTRUCTION ACTIVITIES:**

Clearing and grubbing. Removal of collapsed structures and concrete to the land fill. Continue to remove TP 1 along Highland Road. Transporting the tailings up on site to WR 1. Clearing and grubbing TP 2. Removal of material and transport to WR 1. Started on the Forest Service trail with a mini-excavator; progress is slow.

**ISSUES/CONCERNS:**

Not sure if the mini-excavator is the right tool for making the Forest Service trail. It seems to be making a bigger mess and does not appear to be keeping the impact low on the ground.

**PHOTOS TAKEN:**

- No. 1: Porta-John is on site!
- No. 2: TP 1
- No. 3: TP 2 - clearing and grubbing.
- No. 4: TP 2 - clearing and grubbing.
- No. 5: TP 2 - clearing and grubbing.
- No. 6: Forest Service trail-building.
- No. 7: Forest Service trail-building.
- No. 8: Upper building site. Removal of building foundation footings.
- No. 9: Upper building site. Removal of building foundation footings.



Photo Date: 8-10-10  
No. 1

Direction: Looking East

Description: Porta-  
John is on site!



Photo Date: 8-10-10  
No. 2

Direction: Looking  
North

Description: TP 1



Photo Date: 8-10-10  
No. 3

Direction: Looking  
West

Description: TP 2 -  
clearing and grubbing.



Photo Date: 8-10-10  
No. 4

Direction: Looking  
North

Description: TP 2 -  
clearing and grubbing.



Photo Date: 8-10-10  
No. 5

Direction: Looking  
South

Description: TP 2 -  
clearing and grubbing.



Photo Date: 8-10-10  
No. 6

Direction: Looking  
North

Description: Forest  
Service trail-building.



Photo Date: 8-10-10  
No. 7

Direction: Looking  
North

Description: Forest  
Service trail-building.



Photo Date: 8-10-10  
No. 8

Direction: Looking  
North

Description: Upper  
Building site. Removal  
of building foundation  
footings.



Photo Date: 8-10-10  
No. 9

Direction: Looking  
North

Description: Upper  
Building site. Removal  
of building foundation  
footings.

**2010 Highland Mine Reclamation Project  
CONSTRUCTION LOG**

<b>DEQ CONTRACT NO.</b>	410022		
<b>RPR</b>	Dan Klima		
<b>DEQ PROJECT MANAGER:</b>	Pebbles Clark	<b>DATE:</b>	August 11, 2010
<b>ENGINEER</b>	Jamie Mongoven	<b>DAY:</b>	Wednesday
<b>CONSTRUCTION CONTRACTOR:</b>	AAA Construction, Missoula Montana		
<b>WEATHER:</b>	Clear Cool, Afternoon T-Storms		
<b>TEMP:</b>	50-75	°F	

**PERSONNEL ON SITE:**

<b>TG</b>	<b>RPR :</b>	Dan Klima	<b>RPR Arrival time:</b>	8am	<b>Mileage:</b>	80
	<b>Other :</b>	Jamie Mongoven	<b>Departure Time:</b>	6pm	<b>Mileage:</b>	80
<b>DEQ:</b>	<b>RPM:</b>	Pebbles Clark				
	<b>Other :</b>					
<b>Contractor Arrival:</b>	<b>Supt:</b>	Wes Swalling, Brady Nelson Sr.				
	<b>Other:</b>	Brady Nelson Jr. Brian Baird, Chuck Miller, Dick Herbel				
<b>Other:</b>						

**EQUIPMENT ON SITE:**

	Description	#	Description	#	
1.	CAT 330L Excavator	1	7. Truck and Lowboy	0	
2.	John Deer Loader	1	8. Mini-Excavator	1	
3.	CAT D8K	1	9.		
4.	Cat 200	1	10.		
5.	Water Truck	1	11.		
6.	Haul/Dump Trucks	2	12.		
<b>Contractor Arrival:</b>		7am	<b>Contractor Departure:</b>		6pm

**CONSTRUCTION ACTIVITIES:**

Clearing and grubbing TP 2. Began removal of material and transport from TP 2 and placed on WR 1. Continuing work on Forest Service trail. Hauling of garbage and wood to the landfill continued.

**ISSUES/CONCERNS:**

The site is very wet this morning. It seems the site got massive amounts of rain last night. Brian, who is camping up the road, said that it down poured for about 2 hours last night. Also mentioned that they should be using chocks on the dump trucks when they are parked for safety.

**PHOTOS TAKEN:**

- No. 1: Hauling off material from TP 2.
- No. 2: TP 1 completed and ready for topsoil.
- No. 3: Loading material from TP 2, being moved to WR 1.
- No. 4: Removal of TP 2.
- No. 5: Removal of TP 2.



Photo Date: 8-11-10  
No. 1

Direction: Looking  
North

Description: Hauling  
off material from TP 2.



Photo Date: 8-11-10  
No. 2

Direction: Looking  
North

Description: TP 1  
completed and ready  
for topsoil.



Photo Date: 8-11-10  
No. 3

Direction: Looking  
West

Description: Loading  
material from TP 2,  
being moved to WR 1.



Photo Date: 8-11-10  
No. 4

Direction: Looking  
West

Description: Removal  
of TP 2.



Photo Date: 8-11-10  
No. 5

Direction: Looking  
West

Description: Removal  
of TP 2.

**2010 Highland Mine Reclamation Project  
CONSTRUCTION LOG**

<b>DEQ CONTRACT NO.</b>	410022		
<b>RPR</b>	Dan Klima		
<b>DEQ PROJECT MANAGER:</b>	Pebbles Clark	<b>DATE:</b>	August 12, 2010
<b>ENGINEER</b>	Jamie Mongoven	<b>DAY:</b>	Thursday
<b>CONSTRUCTION CONTRACTOR:</b>	AAA Construction, Missoula Montana		
<b>WEATHER:</b>	Clear Cool, Afternoon T-Storms		
<b>TEMP:</b>	50-75	°F	

**PERSONNEL ON SITE:**

<b>TG</b>	<b>RPR :</b>	Dan Klima	<b>RPR Arrival time:</b>	8am	<b>Mileage:</b>	80
	<b>Other :</b>	Jamie Mongoven	<b>Departure Time:</b>	6pm	<b>Mileage:</b>	80
<b>DEQ:</b>	<b>RPM:</b>					
	<b>Other :</b>					
<b>Contractor Arrival:</b>	<b>Supt:</b>	Wes Swalling, Brady Nelson Sr.				
	<b>Other:</b>	Brady Nelson Jr. Brian Baird, Chuck Miller, Dick Herbel				
<b>Other:</b>						

**EQUIPMENT ON SITE:**

	Description	#	Description	#	
1.	CAT 330L Excavator	1	7. Truck and Lowboy	0	
2.	John Deer Loader	1	8. Mini-Excavator	1	
3.	CAT D8K	1	9.		
4.	Cat 200	1	10.		
5.	Water Truck	1	11.		
6.	Haul/Dump Trucks	2	12.		
<b>Contractor Arrival:</b>		7am	<b>Contractor Departure:</b>		6pm

**CONSTRUCTION ACTIVITIES:**

Moving material from TP 2 to WR 1. In the morning the contractor stated that they expected to complete TP 2 excavation by the end of the day. Grading the sub-grade on the WR 1 with the D8 dozer; getting the site ready for survey. Excavator is working the perimeter; establishing the key or toe of slope for the top soil. They did not finish TP 2 soil removal. Contractor used two dump trucks from site to haul firewood back to Missoula at 2:00 pm and dump trucks were not available for soil removal the rest of the day. Advised contractor that this material has to be moved and completed no later than Monday afternoon due to surveyor scheduled to be onsite.

**ISSUES/CONCERNS:**

Received info that the Forest Service representative is not impressed with the trail construction at this point. TerraGraphics has passed the info on to Wes, the job superintendent.

**PHOTOS TAKEN:**

- No. 1: Looking East, uphill to the main adit.
- No. 2: Looking West, downhill from the main adit.
- No. 3: Looking South across mine site.
- No. 4: Bottom of Highland Mine site, pushing TP 2 material uphill.
- No. 5: Highland Mine site, looking South.
- No. 6: Excavation of TP 2.
- No. 7: Removal of TP 2.
- No. 8: Removal of TP 2.
- No. 9: The top of Highland Mine site tailing area.
- No. 10: Top of WR 1 north construction limits.
- No. 11: Top of the WR 1. Construction of sub-grade.



Photo Date: 8-12-10  
No. 1

Direction: Looking East

Description: Looking East, uphill to the main adit.



Photo Date: 8-12-10  
No. 2

Direction: Looking West

Description: Looking West, downhill from the main adit.



Photo Date: 8-12-10  
No. 3

Direction: Looking  
South

Description: Looking  
South across mine site.



Photo Date: 8-12-10  
No. 4

Direction: Looking  
South

Description: Bottom of  
Highland Mine site,  
pushing TP 2 material  
uphill.



Photo Date: 8-12-10  
No 5.

Direction: Looking  
South

Description: Highland  
Mine site, looking  
South.



Photo Date: 8-12-10  
No 6.

Direction: Looking  
North

Description:  
Excavation of TP 2.



Photo Date: 8-12-10  
No. 7

Direction: Looking  
South

Description: Removal  
of TP 2.



Photo Date: 8-12-10  
No. 8

Direction: Looking  
South

Description: Removal  
of TP 2.



Photo Date: 8-12-10  
No. 9

Direction: Looking  
West

Description: The top of  
Highland Mine site  
tailing area.



Photo Date: 8-12-10  
No. 10

Direction: Looking East

Description: Top of  
WR 1 north  
construction limits



Photo Date: 8-12-10  
No. 11

Direction: Looking  
South

Description: Top of the  
WR 1. Construction of  
sub grade.

**2010 Highland Mine Reclamation Project  
CONSTRUCTION LOG**

<b>DEQ CONTRACT NO.</b>	410022		
<b>RPR</b>	Dan Klima		
<b>DEQ PROJECT MANAGER:</b>	Pebbles Clark	<b>DATE:</b>	August 16, 2010
<b>ENGINEER</b>	Jamie Mongoven	<b>DAY:</b>	Monday
<b>CONSTRUCTION CONTRACTOR:</b>	AAA Construction, Missoula Montana		
<b>WEATHER:</b>	Clear		
<b>TEMP:</b>	50-75	°F	

**PERSONNEL ON SITE:**

<b>TG</b>	<b>RPR :</b>	Dan Klima	<b>RPR Arrival time:</b>	8am	<b>Mileage:</b>	80
	<b>Other :</b>	Jamie Mongoven	<b>Departure Time:</b>	6pm	<b>Mileage:</b>	80
<b>DEQ:</b>	<b>RPM:</b>					
	<b>Other :</b>					
<b>Contractor Arrival:</b>	<b>Supt:</b>	Wes Swalling, Brady Nelson Sr.				
	<b>Other:</b>	Brady Nelson Jr. Brian Baird, Chuck Miller, Dick Herbel				
<b>Other:</b>						

**EQUIPMENT ON SITE:**

	Description	#	Description	#	
1.	CAT 330L Excavator	1	7. Truck and Lowboy	0	
2.	John Deer Loader	1	8. Mini-Excavator	1	
3.	CAT D8K	1	9.		
4.	Cat 200	1	10.		
5.	Water Truck	1	11.		
6.	Haul/Dump Trucks	2	12.		
<b>Contractor Arrival:</b>	7am		<b>Contractor Departure:</b>	6pm	

**CONSTRUCTION ACTIVITIES:**

Continue to move material from TP 2 and TP 3 to WR 1. This was completed by early afternoon. Grading and compacting the sub-grade on WR 1 with the D8 dozer. Getting the site ready for interim survey.  
Excavator is working the perimeter; establishing the key or toe of slope for the top soil. Finished sub-grade on WR 1, TP 1, 2 and 3. Site is ready for interim survey.

**ISSUES/CONCERNS:**

**PHOTOS TAKEN:**

- No. 1: Toe of slope key in, south side.
- No. 2: Toe of slope key in, south side.
- No. 3: WR 1 toe slope key in.
- No. 4: WR 1 toe slope key in.
- No. 5: Sub-grade compaction.
- No. 6: Sub-grade compaction.
- No. 7: TP 2 material being stockpiled to be blended into sub-grade of WR 1.
- No. 8: Complete site panoramic morning.
- No. 9: Complete site panoramic afternoon.



Photo Date: 8-16-10  
No. 1

Direction: Looking  
South

Description: Toe of  
slope key in, South  
side.



Photo Date: 8-16-10  
No. 2

Direction: Looking  
South

Description: Toe of  
slope key in, South  
side.



Photo Date: 8-16-10  
No. 3

Direction: Looking  
North

Description: WR 1 toe  
slope key in.



Photo Date: 8-16-10  
No. 4

Direction: Looking  
North

Description: WR 1 toe  
slope key in.



Photo Date: 8-16-10  
No. 5

Direction: Looking  
North

Description: Sub-grade  
compaction.



Photo Date: 8-16-10  
No. 6

Direction: Looking  
West

Description: Sub-grade  
compaction.



Photo Date: 8-16-10  
No. 7

Direction: Looking  
West

Description: TP 2  
material being  
stockpiled to be  
blended into sub-grade  
of WR 1.



Photo Date: 8-16-10  
No. 8

Direction: Looking East

Description: Complete  
site panoramic  
morning.



Photo Date: 8-16-10  
No. 9

Direction: Looking East

Description: Complete  
site panoramic  
afternoon.

**2010 Highland Mine Reclamation Project  
CONSTRUCTION LOG**

<b>DEQ CONTRACT NO.</b>	410022		
<b>RPR</b>	Mike Sauer		
<b>DEQ PROJECT MANAGER:</b>	Pebbles Clark	<b>DATE:</b>	August 17, 2010
<b>ENGINEER</b>	Jamie Mongoven	<b>DAY:</b>	Tuesday
<b>CONSTRUCTION CONTRACTOR:</b>	AAA Construction, Missoula Montana		
<b>WEATHER:</b>	Clear		
<b>TEMP:</b>	50-75	°F	

<b>PERSONNEL ON SITE:</b>						
<b>TG</b>	<b>RPR :</b>	Mike Sauer	<b>RPR Arrival time:</b>	8am	<b>Mileage:</b>	40
	<b>Other :</b>		<b>Departure Time:</b>	6pm	<b>Mileage:</b>	
<b>DEQ:</b>	<b>RPM:</b>					
	<b>Other :</b>					
<b>Contractor Arrival:</b>	<b>Supt:</b>	Wes Swalling, Brady Nelson Sr.				
	<b>Other:</b>	Brady Nelson Jr. Brian Baird, Chuck Miller, Dick Herbel				
<b>Other:</b>						

<b>EQUIPMENT ON SITE:</b>					
	<b>Description</b>	<b>#</b>		<b>Description</b>	<b>#</b>
1.	CAT 330L Excavator	1	7.	Truck and Lowboy	1
2.	John Deer Loader	1	8.	Mini-Excavator	0
3.	CAT D8K	1	9.		
4.	Cat 200	1	10.		
5.	Water Truck	1	11.		
6.	Haul/Dump Trucks	2	12.		
	<b>Contractor Arrival:</b>	7am		<b>Contractor Departure:</b>	6pm

**CONSTRUCTION ACTIVITIES:**  
 Surveyor on site conducting Iterim topo survey to record subgrade surface. Have track-walked WR 1 in appropriate manner prior to placing import. Removed debris from lime pile and loaded on trucks. Have done some rough grading on TP 1, 2, and 3 area. Graded haul road for access to top of WR 1 for import of cover material.

**ISSUES/CONCERNS:**

**PHOTOS TAKEN:**  
 No. 1: Rough grade ditch adjacent to Forest Service road TP 1.  
 No. 2: Rough grade and track walking adjacent to road TP 2 and 3.  
 No. 3: Sub-grade track walked in WR 1.  
 No. 4: Sub-grade track walked in WR 1.  
 No. 5: Sub-grade track walked in WR 1.  
 No. 6: Collapsed load out to be removed.  
 No. 7: Debris separated from lime pile.  
 No. 8: Loading out material from lime pile.



Photo Date: 8-17-10  
No. 1

Direction: Looking  
South

Description: Rough  
grade ditch adjacent  
to Forest Service road  
TP 1.



Photo Date: 8-17-10  
No. 2

Direction: Looking  
South

Description: Rough  
grade and track walking  
adjacent to road TP 2  
and 3.



Photo Date: 8-17-10  
No. 3

Direction: Looking  
South

Description: Sub-grade  
track-walked in WR 1.



Photo Date: 8-17-10  
No. 4

Direction: Looking East

Description: Sub-grade  
track-walked in WR 1.



Photo Date: 8-17-10

Direction: Looking East

Description: Sub-grade track-walked in WR 1.



Photo Date: 8-17-10

Direction: Looking North

Description: Collapsed load-out to be removed.



Photo Date: 8-17-10

Direction: Looking South

Description: Debris separated from lime pile.



Photo Date: 8-17-10

Direction: Looking South

Description: Loading out material from lime pile.

**2010 Highland Mine Reclamation Project  
CONSTRUCTION LOG**

<b>DEQ CONTRACT NO.</b>	410022		
<b>RPR</b>	Mike Sauer		
<b>DEQ PROJECT MANAGER:</b>	Pebbles Clark	<b>DATE:</b>	August 18, 2010
<b>ENGINEER</b>	Jamie Mongoven	<b>DAY:</b>	Wednesday
<b>CONSTRUCTION CONTRACTOR:</b>	AAA Construction, Missoula Montana		
<b>WEATHER:</b>	Clear		
<b>TEMP:</b>	50-75	°F	

**PERSONNEL ON SITE:**

<b>TG</b>	<b>RPR :</b>	Mike Sauer	<b>RPR Arrival time:</b>	7am	<b>Mileage:</b>	60
	<b>Other :</b>		<b>Departure Time:</b>	5pm	<b>Mileage:</b>	
<b>DEQ:</b>	<b>RPM:</b>					
	<b>Other :</b>					
<b>Contractor Arrival:</b>	<b>Supt:</b>	Wes Swalling, Brady Nelson Sr.				
	<b>Other:</b>	Brady Nelson Jr. Brian Baird, Chuck Miller, Dick Herbel				
<b>Other:</b>						

**EQUIPMENT ON SITE:**

	Description	#	Description	#
1.	CAT 330L Excavator	1	7. Truck and Lowboy	1
2.	John Deer Loader	1	8. Mini-Excavator	0
3.	CAT D8K	1	9.	
4.	Cat 200	1	10.	
5.	Water Truck	1	11.	
6.	Haul/Dump Trucks	2	12.	
<b>Contractor Arrival:</b>		7am	<b>Contractor Departure:</b>	
			6pm	

**CONSTRUCTION ACTIVITIES:**

Contractor starting excavation on the west side of Highland Road; preparing site for clean soil and erosion control mat to cover removal area TP 2 & 3. Completed adequate sub-grade; staked and is ready for cover soil. Re-graded east side TP 1 per my request and is ready for cover soil. Staked and placed cover soil to uncompacted depth of 10 inches and are grading and tracking in with D-4. Have completed placing cover material on TP 1 and track-walked in for compaction acceptable. Importing cover soil for TP 2 & 3 and placing to depth of 10 inches prior to compaction.

**ISSUES/CONCERNS:**

**PHOTOS TAKEN:**

- No. 1: Placing cover soil on TP 2 & 3.
- No. 2: Constructing key-in for placement of cover soil.
- No. 3: Fine grade prior to cover.
- No. 4: Fine grade prior to cover TP 2 & 3.
- No. 5: Fine grade prior to cover.
- No. 6: Fine grading TP 1, placing cover material.
- No. 7: Rough grade TP 1.
- No. 8: Rough grade TP 1.
- No. 9: Fine grade track-walked in TP 1.



Photo Date: 8-18-10  
No. 1

Direction: Looking  
South

Description: Placing  
cover soil on TP 2 & 3.



Photo Date: 8-18-10  
No. 2

Direction: Looking  
South

Description:  
Constructing key-in for  
placement of cover soil.



Photo Date: 8-18-10  
No. 3

Direction: Looking  
South

Description: Fine grade  
prior to cover.



Photo Date: 8-18-10  
No. 4

Direction: Looking  
South

Description: Fine grade  
prior to cover TP 2 & 3.



Photo Date: 8-18-10  
No. 5

Direction: Looking  
South

Description: Fine grade  
prior to cover.



Photo Date: 8-18-10  
No. 6

Direction: Looking  
South

Description: Fine  
grading TP 1, placing  
cover material.



Photo Date: 8-18-10  
No. 7

Direction: Looking  
North

Description: Rough  
grade TP 1.



Photo Date: 8-18-10  
No. 8

Direction: Looking  
South

Description: Rough  
grade TP 1.



Photo Date: 8-18-10  
No. 9

Direction: Looking  
South

Description: Fine grade  
track-walked in TP 1.

**2010 Highland Mine Reclamation Project  
CONSTRUCTION LOG**

<b>DEQ CONTRACT NO.</b>	410022		
<b>RPR</b>	Mike Sauer		
<b>DEQ PROJECT MANAGER:</b>	Pebbles Clark	<b>DATE:</b>	August 19, 2010
<b>ENGINEER</b>	Jamie Mongoven	<b>DAY:</b>	Thursday
<b>CONSTRUCTION CONTRACTOR:</b>	AAA Construction, Missoula Montana		
<b>WEATHER:</b>	Clear		
<b>TEMP:</b>	50-75	°F	

**PERSONNEL ON SITE:**

<b>TG</b>	<b>RPR :</b>	Mike Sauer	<b>RPR Arrival time:</b>	7am	<b>Mileage:</b>	40
	<b>Other :</b>		<b>Departure Time:</b>	7pm	<b>Mileage:</b>	
<b>DEQ:</b>	<b>RPM:</b>					
	<b>Other :</b>					
<b>Contractor Arrival:</b>	<b>Supt:</b>	Wes Swalling, Brady Nelson Sr.				
	<b>Other:</b>	Brady Nelson Jr. Brian Baird, Chuck Miller, Dick Herbel				
<b>Other:</b>						

**EQUIPMENT ON SITE:**

	Description	#	Description	#	
1.	CAT 330L Excavator	1	7. Truck and Lowboy	1	
2.	John Deer Loader	1	8. Mini-Excavator	0	
3.	CAT D8K	1	9.		
4.	Cat 200	1	10.		
5.	Water Truck	1	11.		
6.	Haul/Dump Trucks	2	12.		
<b>Contractor Arrival:</b>		7am	<b>Contractor Departure:</b>		6pm

**CONSTRUCTION ACTIVITIES:**

Arrived on site. Contractor working on TP 2 & 3; placing cover material with excavator. Jamie Mongoven, TG and Pebbles Clark, MDEQ arrived on site for construction meeting. Walked site and discussed schedule concern with Brady, AAA Construction; relayed to him that they needed to have cover soil on WR 1 by end of next week to stay on schedule and that there was a lot of work left. Pebbles discussed additional work, more ditch and placing fill in depressions adjacent to trail and the prospect of additional days. Pebbles expressed her concerns about the poor quality of work on the trail. Brady stated they would make it right. We covered the necessity of a water diversion plan required by contract 5 days prior to starting channel diversion with Brady and Wes.

Talked about the soil amendments required on cover soil. Mike will be monitoring that more closely. Brady stated they would place cover soil in 3 foot lift. Discussed this with Wes, AAA and he assured us that one foot lifts and tracked or wheel rolled in would be placement method. Brady stated they may go to 5 eight hour days for cover soil import; yet to be determined. We also discussed material sources for bedding under channel diversion and rip rap.

Question was raised about whether the rip rap was round or angular. Went to cover material pile and told people running loader requirements for blending soil and I will monitor periodically. Moved excavator to borrow site to load cover soil and stock pile top 18 inches of cover soil stock pile to use at a later date. Explained to him about blending soil. Cover soil placement complete on TP 2 & 3. Contractor excavated tie-in trench for erosion control mat. Installed erosion control mat on TP 2 & 3 and pinned in place. Worked until 7 PM to complete. Left site.

**ISSUES/CONCERNS:**

**PHOTOS TAKEN:**

- No. 1: Erosion control mat installed on TP 2 and TP 3.
- No. 2: Cover soil blending process, digging out measured material and mixing with excavator before loading into truck.
- No. 3: Off-loading of excavator to cover soil borrow area.
- No. 4: TP 2 and TP 3 finished grade prior to erosion control mat placement.
- No. 5: Temporary bridge crossing construction Basin Creek near adit.
- No. 6: Installation of silt fence along the stream.
- No. 7: Installing erosion control mat in TP 2 and TP 3.



Photo Date: 8-19-10  
No. 1

Direction: Looking  
South

Description: Erosion  
control mat installed on  
TP 2 and TP 3.



Photo Date: 8-19-10  
No. 2

Direction: Looking East

Description: Cover soil  
blending process,  
digging out measured  
material and mixing  
with excavator before  
loading into truck.



**MOVING EXCAVATOR TO PREPARE STOCK PILE**

Photo Date: 8-19-10  
No. 3

Direction: Looking  
South

Description: Off-  
loading of excavator to  
cover soil borrow area.



**COVER SOIL READY FOR MAT**

Photo Date: 8-19-10  
No. 4

Direction: Looking  
South

Description: TP 2 and  
TP 3 finished grade  
prior to erosion control  
mat placement.



Photo Date: 8-19-10  
No. 5

Direction: Looking East

Description:  
Temporary bridge  
crossing construction  
on Basin Creek near  
adit.

**SUPPORT BEAMS FOR TEMPORARY BRIDGE**



Photo Date: 8-19-10  
No. 6

Direction: Looking  
South

Description:  
Installation of silt fence  
along the stream

**TEMPORARY HAUL ROAD TO TOP OF WR 1**



Photo Date: 8-19-10  
No. 7

Direction: Looking  
South

Description: Installing  
erosion control mat in  
TP 2 and TP 3.

**2010 Highland Mine Reclamation Project  
CONSTRUCTION LOG**

<b>DEQ CONTRACT NO.</b>	410022		
<b>RPR</b>	Mike Sauer		
<b>DEQ PROJECT MANAGER:</b>	Pebbles Clark	<b>DATE:</b>	August 23, 2010
<b>ENGINEER</b>	Jamie Mongoven	<b>DAY:</b>	Monday
<b>CONSTRUCTION CONTRACTOR:</b>	AAA Construction, Missoula Montana		
<b>WEATHER:</b>	Clear		
<b>TEMP:</b>	35-58	°F	

**PERSONNEL ON SITE:**

<b>TG</b>	<b>RPR :</b>	Mike Sauer	<b>RPR Arrival time:</b>	7am	<b>Mileage:</b>	72
	<b>Other :</b>		<b>Departure Time:</b>	5pm	<b>Mileage:</b>	
<b>DEQ:</b>	<b>RPM:</b>					
	<b>Other :</b>					
<b>Contractor Arrival:</b>	<b>Supt:</b>	Wes Swalling, Brady Nelson Sr.				
	<b>Other:</b>	Brady Nelson Jr. Brian Baird, Chuck Miller, Dick Herbel				
<b>Other:</b>						

**EQUIPMENT ON SITE:**

	Description	#	Description	
1.	CAT 330L Excavator	1	7. Truck and Lowboy	1
2.	John Deer Loader	1	8. Cat 938 loader	1
3.	CAT D8K	1	9. Case 821E loader	1
4.	Cat 200	1	10. Side dumps	3
5.	Water Truck	1	11.	
6.	Haul/Dump Trucks	4	12.	
<b>Contractor Arrival:</b>	7am		<b>Contractor Departure:</b>	6pm

**CONSTRUCTION ACTIVITIES:**

Arrived on site 7:00 am. It rained over night and site is muddy. Contractor's crew started showing up at 7:30 am. First truck with pup arrived about 9:00 am and dumped. Trucks arriving sporadically. Contractor is spreading soil with D8 and walking it in for compaction. Went to cover soil borrow site. Verified soil was being blended to specification. Contractor placing cover soil with case loader and wheel-rolling it in. Added one more dump truck with pup to operation. Advised contractor he needs more trucks to be efficient. Placing about one foot lifts and wheel rolling in is working well; compaction looks adequate. Used D8 to track-walk and water fill to acheive compaction at end of day. Left site.

**ISSUES/CONCERNS:**

**PHOTOS TAKEN:**

- No. 1: Placing first lift of cover soil on WR 1.
- No. 2: Delivery of cover soil to bottom of WR 1.
- No. 3: Delivery of cover soil to bottom of WR 1.
- No. 4: Delivery of cover soil to bottom of WR 1.
- No. 5: Delivery of cover soil to bottom of WR 1.
- No. 6: Load cover soil from borrow site. Blending cover soil with hydrated lime. Hydrated lime is contained in 40 lb. bags shown.
- No. 7: Loading operation of cover soil, spreading lime on pile prior to loading.
- No. 8: Loading operation of cover soil, mixing lime on pile prior to blending and loading.
- No. 9: Wheel loader used to place cover soil on WR 1 after delivery from trucks.



Photo Date: 8-23-10  
No. 1

Direction: Looking East

Description: Placing  
first lift of cover soil on  
WR 1.



Photo Date: 8-23-10  
No. 2

Direction: Looking  
North

Description: Delivery  
of cover soil to bottom  
of WR 1.

**Importing cover material with side dump**



Photo Date: 8-23-10  
No. 3

Direction: Looking  
North

Description: Delivery  
of cover soil to bottom  
of WR 1.



Photo Date: 8-23-10  
No. 4

Direction: Looking  
North

Description: Delivery  
of cover soil to bottom  
of WR 1.



Photo Date: 8-23-10  
No. 5

Direction: Looking  
South

Description: Delivery  
of cover soil to bottom  
of WR 1.



Photo Date: 8-23-10  
No. 6

Direction: Looking  
South

Description: Load  
cover soil from borrow  
site. Blending cover  
soil with hydrated lime.  
Hydrated lime is  
contained in 40 lb. bags  
shown.

**Blending and loading cover soil**



Photo Date: 8-23-10  
No. 7

Direction: Looking  
South

Description: Loading  
operation of cover soil,  
spreading lime on pile  
prior to loading.



Photo Date: 8-23-10  
No. 8

Direction: Looking  
South

Description: Loading  
operation of cover soil,  
mixing lime on pile  
prior to blending and  
loading.



821 case loader being used to place cover soil and walk in for compaction

Photo Date: 8-23-10  
No. 9

Direction: Looking  
North

Description: Wheel  
loader used to place  
cover soil on WR 1  
after delivery from  
trucks.

**2010 Highland Mine Reclamation Project  
CONSTRUCTION LOG**

<b>DEQ CONTRACT NO.</b>	410022		
<b>RPR</b>	Mike Sauer		
<b>DEQ PROJECT MANAGER:</b>	Pebbles Clark	<b>DATE:</b>	August 25, 2010
<b>ENGINEER</b>	Jamie Mongoven	<b>DAY:</b>	Wednesday
<b>CONSTRUCTION CONTRACTOR:</b>	AAA Construction, Missoula Montana		
<b>WEATHER:</b>	Clear		
<b>TEMP:</b>	35-58	°F	

**PERSONNEL ON SITE:**

<b>TG</b>	<b>RPR :</b>	Mike Sauer	<b>RPR Arrival time:</b>	7am	<b>Mileage:</b>	68
	<b>Other :</b>		<b>Departure Time:</b>	5pm	<b>Mileage:</b>	
<b>DEQ:</b>	<b>RPM:</b>					
	<b>Other :</b>					
<b>Contractor Arrival:</b>	<b>Supt:</b>	Wes Swalling, Brady Nelson Sr.				
	<b>Other:</b>	Brady Nelson Jr. Brian Baird, Chuck Miller, Dick Herbel				
<b>Other:</b>						

**EQUIPMENT ON SITE:**

	Description	#	Description	
1.	CAT 330L Excavator	1	7. Truck and Lowboy	1
2.	John Deer Loader	1	8. Cat 938 loader	1
3.	CAT D8K	1	9. Case 821E loader	1
4.	Cat 200	1	10. Side dumps	2
5.	Water Truck	1	11.	
6.	Haul/Dump Trucks	4	12.	
<b>Contractor Arrival:</b>		7am	<b>Contractor Departure:</b>	
			6pm	

**CONSTRUCTION ACTIVITIES:**

Arrived on site 7:00 am, Contractor arrived 7:30 am. Put in additional stakes for fence line. Trucks arrived 8:30 am and have Brady driving water truck. Placing cover soil with 821 Case loader and wheel rolling in for compaction. Second load of water going on road at 9:30 am. Expressed necessity for full time water truck yesterday. Visit from Pebbles Clark, MDEQ, and Jamie Mongoven, TG brought work change directive for filling low areas above adit. Discussed pay request. Discussed dust control and speed limit concerns as well as using rest area to turn around. Brady, Contractor said he was aware of concerns and was addressing them. Fence sub contractor on site; two men. Bringing in cover soil is on-going. Left site 5:00 pm.

Construction Quantities Measured  
bid item 6 cover soil - TP 1 50 cy. - TP 2&3 96 cy  
bid item 13 erosion control mat - 347 sq. yd.

**ISSUES/CONCERNS:**

**PHOTOS TAKEN:**

No. 1: Fine grading cover soil on WR 1.  
No. 2: Delivering cover soil and hauling cover soil on WR 1.  
No. 3: Placing cover soil on WR 1.



8-25-10 Fine grading around some stakes for grade

Photo Date: 8-25-10  
No. 1

Direction: Looking  
West

Description: Fine  
grading cover soil on  
WR 1.



8-25-10 Side dump delivering cover soil to WR1

Photo Date: 8-25-10  
No. 2

Direction: Looking  
North

Description:  
Delivering cover soil  
and hauling cover soil  
on WR 1.



**8-25-10 Placing soil on upper 1/3 of WR1**

Photo Date: 8-25-10  
No. 3

Direction: Looking  
North

Description: Placing  
cover soil on WR 1.

**2010 Highland Mine Reclamation Project  
CONSTRUCTION LOG**

<b>DEQ CONTRACT NO.</b>	410022		
<b>RPR</b>	Mike Sauer		
<b>DEQ PROJECT MANAGER:</b>	Pebbles Clark	<b>DATE:</b>	August 26, 2010
<b>ENGINEER</b>	Jamie Mongoven	<b>DAY:</b>	Thursday
<b>CONSTRUCTION CONTRACTOR:</b>	AAA Construction, Missoula Montana		
<b>WEATHER:</b>	Clear		
<b>TEMP:</b>	38-90	°F	

**PERSONNEL ON SITE:**

<b>TG</b>	<b>RPR :</b>	Mike Sauer	<b>RPR Arrival time:</b>	7am	<b>Mileage:</b>	111
	<b>Other :</b>		<b>Departure Time:</b>	5pm	<b>Mileage:</b>	
<b>DEQ:</b>	<b>RPM:</b>					
	<b>Other :</b>					
<b>Contractor Arrival:</b>	<b>Supt:</b>	Wes Swalling, Brady Nelson Sr.				
	<b>Other:</b>					

**EQUIPMENT ON SITE:**

	Description	#	Description	
1.	CAT 330L Excavator	1	7. Truck and Lowboy	1
2.	John Deer Loader	1	8. Cat 938 loader	1
3.	CAT D8K	1	9. Case 821E loader	1
4.	Cat D3	1	10. Side dumps	3
5.	Water Truck	1	11. Belly Dumps	3
6.	Haul/Dump Trucks	3	12.	
<b>Contractor Arrival:</b>		7am	<b>Contractor Departure:</b>	
			6pm	

**CONSTRUCTION ACTIVITIES:**

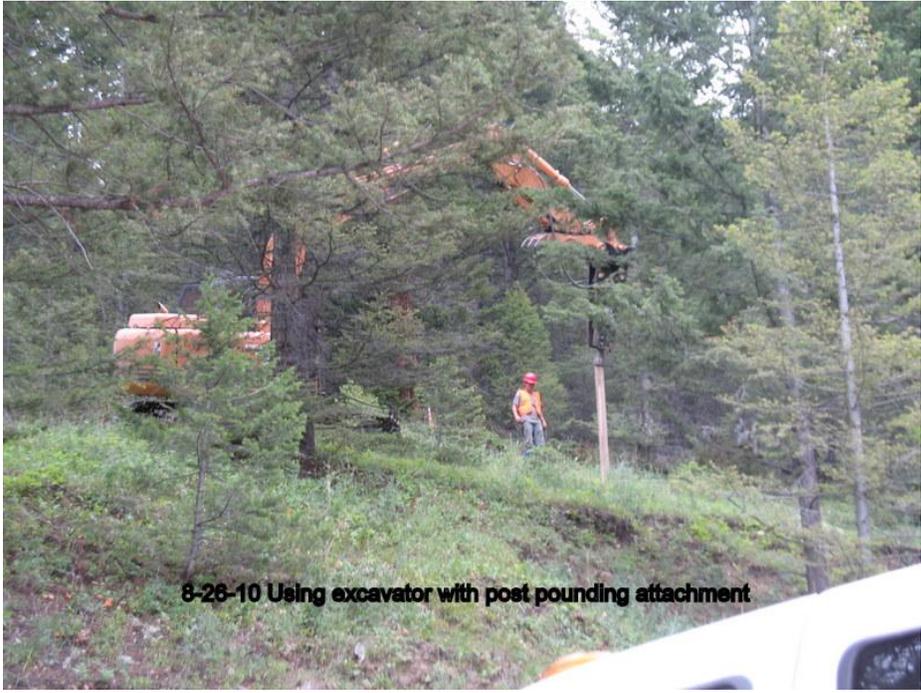
Arrived on site 7:00 am. Contractor arrived 7:00 am; has water truck running and started watering road at 7:30 am. First truck arrived at 8:10 am; Contractor has more trucks hauling today; three belly dumps that can dump on top and improve efficiency. Fence contractor started installing posts.

At 11:30 am went to cover soil borrow site to observe if soil was being blended properly and if water truck was being effective. Placing cover material with Case loader and wheel-rolling it in for compaction. Contractor continuing to do fine grading with D3 as needed. More efficient today. Left site.

**ISSUES/CONCERNS:**

**PHOTOS TAKEN:**

- No. 1: Installing corner posts with excavator.
- No. 2: Edge of WR 1; close to grade.
- No. 3: Belly dump delivering cover soil to top of WR 1.
- No. 4: Fine grading south edge of WR 1.
- No. 5: Installing fence posts east of WR 1.



**8-26-10 Using excavator with post pounding attachment**

Photo Date: 8-26-10  
No. 1

Direction: Looking East

Description: Installing corner posts with excavator.

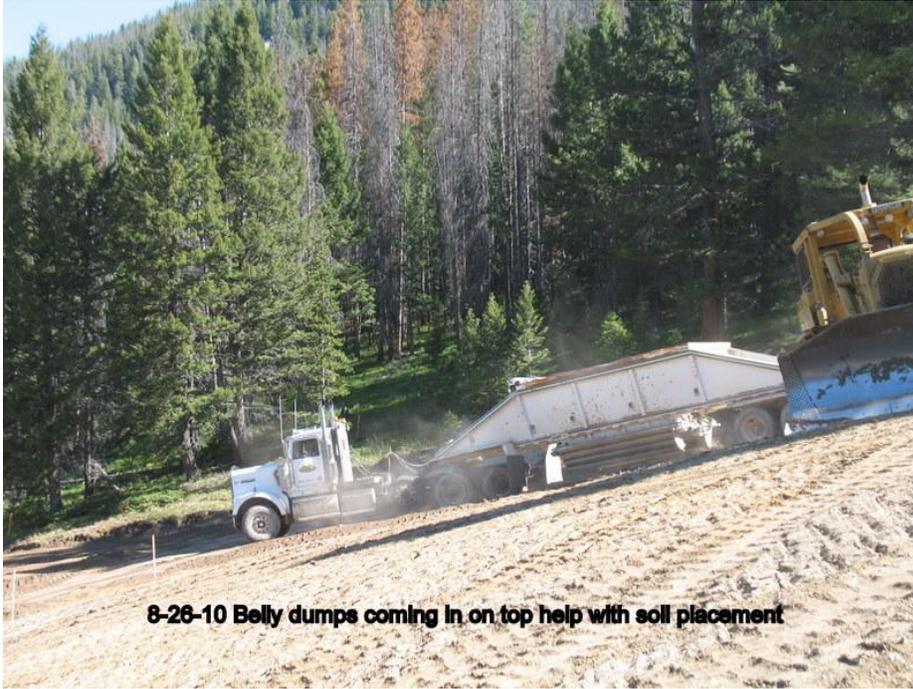


**8-26-10 The outside edge is close to grade, making progress**

Photo Date: 8-26-10  
No. 2

Direction: Looking North

Description: Edge of WR 1; close to grade.



**8-26-10 Belly dumps coming in on top help with soil placement**

Photo Date: 8-26-10  
No. 3

Direction: Looking  
North

Description: Belly  
dump delivering cover  
soil to top of WR 1.



**8-26-10 fine grading with D3**

Photo Date: 8-26-10  
No. 4

Direction: Looking  
South

Description: Fine  
grading south edge of  
WR 1.



Photo Date: 8-26-10  
No. 5

Direction: Looking East

Description: Installing  
fence posts East of  
WR 1.

**2010 Highland Mine Reclamation Project  
CONSTRUCTION LOG**

<b>DEQ CONTRACT NO.</b>	410022		
<b>RPR</b>	Mike Sauer		
<b>DEQ PROJECT MANAGER:</b>	Pebbles Clark	<b>DATE:</b>	August 27, 2010
<b>ENGINEER</b>	Jamie Mongoven	<b>DAY:</b>	Friday
<b>CONSTRUCTION CONTRACTOR:</b>	AAA Construction, Missoula Montana		
<b>WEATHER:</b>	Clear		
<b>TEMP:</b>	45-80	°F	

**PERSONNEL ON SITE:**

<b>TG</b>	<b>RPR :</b>	Mike Sauer	<b>RPR Arrival time:</b>	7am	<b>Mileage:</b>	40
	<b>Other :</b>		<b>Departure Time:</b>	3pm	<b>Mileage:</b>	
<b>DEQ:</b>	<b>RPM:</b>					
	<b>Other :</b>					
<b>Contractor Arrival:</b>	<b>Supt:</b>	Wes Swalling, Brady Nelson Sr.				
	<b>Other:</b>	Brady Nelson Jr. Brian Baird, Chuck Miller, Dick Herbel				
<b>Other:</b>						

**EQUIPMENT ON SITE:**

	Description	#	Description	
1.	CAT 330L Excavator	1	7. Truck and Lowboy	1
2.	John Deer Loader	1	8. Cat 938 loader	1
3.	CAT D8K	1	9. Case 821E loader	1
4.	Cat D3	1	10. Side dumps	2
5.	Water Truck	1	11. Belly Dumps	1
6.	Haul/Dump Trucks	2	12.	
<b>Contractor Arrival:</b>		7am	<b>Contractor Departure:</b>	
			3pm	

**CONSTRUCTION ACTIVITIES:**

Arrived on site 7:00 am. Contractor arrived 7:00 am and is placing cover soil with Case loader. Wes Swalling not on site today.  
 Brady intends to work until 2:00 pm. Trucks are sporadic in arrival times today. AAA quit at 3:00 pm.  
 I told Brady that dust control was inadequate and they needed to do better.  
 Left site.

**ISSUES/CONCERNS:**

**PHOTOS TAKEN:**

No. 1: Placing cover soil with wheel loader near top of WR 1.  
 No. 2: Grading cover soil near top of WR 1.  
 No. 3: Placing cover soil with wheel loader near top of WR 1.



**8-27-10 placing cover soil**

Photo Date: 8-27-10  
No. 1

Direction: Looking  
West

Description: Placing  
cover soil with wheel  
loader near top of  
WR 1.



**8-27-10 Making progress**

Photo Date: 8-27-10  
No. 2

Direction: Looking  
South

Description: Grading  
cover soil near top of  
WR 1.



Photo Date: 8-27-10  
No. 3

Direction: Looking  
West

Description: Placing  
cover soil with wheel  
loader near top of  
WR 1.

**2010 Highland Mine Reclamation Project  
CONSTRUCTION LOG**

<b>DEQ CONTRACT NO.</b>	410022		
<b>RPR</b>	Mike Sauer		
<b>DEQ PROJECT MANAGER:</b>	Pebbles Clark	<b>DATE:</b>	August 30, 2010
<b>ENGINEER</b>	Jamie Mongoven	<b>DAY:</b>	Monday
<b>CONSTRUCTION CONTRACTOR:</b>	AAA Construction, Missoula Montana		
<b>WEATHER:</b>	overcast and showers		
<b>TEMP:</b>	38	°F	

<b>PERSONNEL ON SITE:</b>						
<b>TG</b>	<b>RPR :</b>	Mike Sauer	<b>RPR Arrival time:</b>	7am	<b>Mileage:</b>	40
	<b>Other :</b>		<b>Departure Time:</b>	9am	<b>Mileage:</b>	
<b>DEQ:</b>	<b>RPM:</b>					
	<b>Other :</b>					
<b>Contractor Arrival:</b>	<b>Supt:</b>	Wes Swalling, Brady Nelson Sr.				
	<b>Other:</b>	Brady Nelson Jr. Brian Baird, Chuck Miller, Dick Herbel				
<b>Other:</b>						

<b>EQUIPMENT ON SITE:</b>					
	<b>Description</b>	<b>#</b>		<b>Description</b>	
1.	CAT 330L Excavator	1	7.	Truck and Lowboy	1
2.	John Deer Loader	1	8.	Cat 938 loader	1
3.	CAT D8K	1	9.	Case 821E loader	1
4.	Cat D3	1	10.	Side dumps	2
5.	Water Truck	1	11.	Belly Dumps	1
6.	Haul/Dump Trucks	2	12.		
	<b>Contractor Arrival:</b>	7am		<b>Contractor Departure:</b>	

**CONSTRUCTION ACTIVITIES:**  
 Arrived on site 7:00 am. Waited for contractor, got call at 8:30 am: Brady decided it was too wet to work. Correct; site was too wet to work. Asked about getting inclement weather day. Told him to make a written request to owner and engineer. Left site 9:00 am

**ISSUES/CONCERNS:**

**PHOTOS TAKEN:**

**2010 Highland Mine Reclamation Project  
CONSTRUCTION LOG**

<b>DEQ CONTRACT NO.</b>	410022		
<b>RPR</b>	Mike Sauer		
<b>DEQ PROJECT MANAGER:</b>	Pebbles Clark	<b>DATE:</b>	August 31, 2010
<b>ENGINEER</b>	Jamie Mongoven	<b>DAY:</b>	Tuesday
<b>CONSTRUCTION CONTRACTOR:</b>	AAA Construction, Missoula Montana		
<b>WEATHER:</b>	overcast		
<b>TEMP:</b>	33-55		

**PERSONNEL ON SITE:**

<b>TG</b>	<b>RPR :</b>	Mike Sauer	<b>RPR Arrival time:</b>	7am	<b>Mileage:</b>	48
	<b>Other :</b>		<b>Departure Time:</b>	7pm	<b>Mileage:</b>	
<b>DEQ:</b>	<b>RPM:</b>					
	<b>Other :</b>					
<b>Contractor Arrival:</b>	<b>Supt:</b>	Wes Swalling, Brady Nelson Sr.				
	<b>Other:</b>	Brady Nelson Jr. Brian Baird, Chuck Miller, Dick Herbel				
<b>Other:</b>						

**EQUIPMENT ON SITE:**

	Description	#	Description	
1.	CAT 330L Excavator	1	7. Truck and Lowboy	1
2.	John Deer Loader	1	8. Cat 938 loader	1
3.	CAT D8K	1	9. Case 821E loader	1
4.	Cat D3	1	10. Side dumps	2
5.	Water Truck	1	11. Belly Dumps	2
6.	Haul/Dump Trucks	2	12.	
<b>Contractor Arrival:</b>		7am	<b>Contractor Departure:</b>	
			7pm	

**CONSTRUCTION ACTIVITIES:**

Arrived on site 7:00 am. Contractor on site. Site is muddy. Bringing in trucks and dumping at bottom of grade. First truck arrived at 9:10 am. Wes is having to stock pile material in order to get trucks in and out, but is making some headway.

Brady is not on site, but passed on to Wes road hauling time restrictions now that school has started. Trucks hauled steadily all day.

Stock piled material until 4:30 am and then started placing with loader and grading with D8. Concerned with threat of rain and wanted it on WR 1 to address concern. Left site.

**ISSUES/CONCERNS:**

**PHOTOS TAKEN:**

No. 1: Grading cover soil near top of WR 1 with D8.

No. 2: Grading cover soil near top of WR 1 with D6. Looking from bottom of WR 1, water is still standing in some areas.

No. 3: Looking from bottom of WR 1. Water is still standing in some areas.

No. 4: Grading cover soil near top of WR 1 with D8, very muddy.



Photo Date: 8-31-10  
No. 1

Direction: Looking  
South

Description: Grading  
cover soil near top of  
WR 1 with D8.



Photo Date: 8-31-10  
No. 2

Direction: Looking East

Description: Grading  
cover soil near top of  
WR 1 with D6.  
Looking from bottom  
of WR 1, water is still  
standing in some areas.



Photo Date: 8-31-10  
No. 3

Direction: Looking East

Description: Looking from bottom of WR 1. Water is still standing in some areas.



Photo Date: 8-31-10  
No. 4

Direction: Looking West

Description: Grading cover soil near top of WR 1 with D8, very muddy.

**2010 Highland Mine Reclamation Project  
CONSTRUCTION LOG**

<b>DEQ CONTRACT NO.</b>	410022		
<b>RPR</b>	Mike Sauer		
<b>DEQ PROJECT MANAGER:</b>	Pebbles Clark	<b>DATE:</b>	September 1, 2010
<b>ENGINEER</b>	Jamie Mongoven	<b>DAY:</b>	Wednesday
<b>CONSTRUCTION CONTRACTOR:</b>	AAA Construction, Missoula Montana		
<b>WEATHER:</b>	overcast		
<b>TEMP:</b>	44/50 F		

**PERSONNEL ON SITE:**

<b>TG</b>	<b>RPR :</b>	Mike Sauer	<b>RPR Arrival time:</b>	7am	<b>Mileage:</b>	87
	<b>Other :</b>		<b>Departure Time:</b>	5pm	<b>Mileage:</b>	
<b>DEQ:</b>	<b>RPM:</b>					
	<b>Other :</b>					
<b>Contractor Arrival:</b>	<b>Supt:</b>	Wes Swalling, Brady Nelson Sr.				
	<b>Other:</b>	Brady Nelson Jr. Brian Baird, Chuck Miller, Dick Herbel				
<b>Other:</b>						

**EQUIPMENT ON SITE:**

	Description	#	Description	
1.	CAT 330L Excavator	1	7. Truck and Lowboy	1
2.	John Deer Loader	1	8. Cat 938 loader	1
3.	CAT D8K	1	9. Case 821E loader	1
4.	Cat D3	1	10. Side dumps	2
5.	Water Truck	1	11. Belly Dumps	2
6.	Haul/Dump Trucks	3	12.	
<b>Contractor Arrival:</b>		7am	<b>Contractor Departure:</b>	

**CONSTRUCTION ACTIVITIES:**

Arrived on site 7:00 am, Contractor on site. Have placed most of import from yesterday on SW side of WR 1 and wheel-rolled in. Spoke with Wes about necessity to give us written description of creek bypass plan five days prior to work. I also reminded Brady of diversion plan. Stated he would draw it up and fax to TG and MDEQ. Brady signed pay request and work change directive. Went in to cover soil pile and monitored blending. Trucks arriving regularly all day; fair progress. Placed cover soil with loader and rough grading with D3, wheel rolling in for compaction. Left site.

**ISSUES/CONCERNS:**

**PHOTOS TAKEN:**

- No. 1: Looking West from the top of WR 1 at trucks delivering cover soil. Still very wet.
- No. 2: Loading cover soil from stockpile.
- No. 3: Loader mixing cover soil at Cover soil stockpile.
- No. 4: D6 grading cover soil on south side of WR 1.



**9-1-10 Trucks hauling in cover soil**

Photo Date: 9-1-10  
No. 1

Direction: Looking  
West

Description: Looking  
West from the top of  
WR 1 at trucks  
delivering cover soil.  
Still very wet.



**9-1-10 Loading blended cover soil**

Photo Date: 9-1-10  
No. 2

Direction: Looking  
South

Description: Loading  
cover soil from  
stockpile.



**9-1-10 Excavator blending and stockpiling cover soil**

Photo Date: 9-1-10  
No. 3

Direction: Looking  
South

Description: Loader  
mixing cover soil at  
cover soil stockpile.



**9-1-10 Rough grading soil on WR1**

Photo Date: 9-1-10  
No. 4

Direction: Looking  
South

Description: D6  
grading cover soil on  
south side of WR 1.

**2010 Highland Mine Reclamation Project  
CONSTRUCTION LOG**

<b>DEQ CONTRACT NO.</b>	410022		
<b>RPR</b>	Mike Sauer		
<b>DEQ PROJECT MANAGER:</b>	Pebbles Clark	<b>DATE:</b>	September 2, 2010
<b>ENGINEER</b>	Jamie Mongoven	<b>DAY:</b>	Thursday
<b>CONSTRUCTION CONTRACTOR:</b>	AAA Construction, Missoula Montana		
<b>WEATHER:</b>	clear		
<b>TEMP:</b>	32/50 F		

<b>PERSONNEL ON SITE:</b>			
<b>TG</b>	<b>RPR :</b>	Mike Sauer	<b>RPR Arrival time:</b> 7:00   <b>Mileage:</b> 40
	<b>Other :</b>		<b>Departure Time:</b> 15:00   <b>Mileage:</b>
<b>DEQ:</b>	<b>RPM:</b>		
	<b>Other :</b>		
<b>Contractor Arrival:</b>	<b>Supt:</b>	Wes Swalling, Brady Nelson Sr.	
	<b>Other:</b>	Brady Nelson Jr. Brian Baird, Chuck Miller, Dick Herbel	
<b>Other:</b>			

<b>EQUIPMENT ON SITE:</b>			
	<b>Description</b>	<b>#</b>	<b>Description</b>
1.	CAT 330L Excavator	1	7. Truck and Lowboy
2.	John Deer Loader	1	8. Cat 938 loader
3.	CAT D8K	1	9. Case 821E loader
4.	Cat D3	1	10. Side dumps
5.	Water Truck	1	11. Belly Dumps
6.	Haul/Dump Trucks	3	12.
	<b>Contractor Arrival:</b>	8:30	<b>Contractor Departure:</b>

**CONSTRUCTION ACTIVITIES:**  
 Arrived on site 7:00 am, Contractor on site at 8:30 am.  
 Trucks start arriving 9:15 am. Wes not on site today. Placing cover soil with loader and rough grading with D3. Jamie, TG arrived for construction meeting. Spoke with Brady, AAA about scheduling concerns and additional days given for weather and additional work. Discussed design of additional ditch and staking. Will stake ditch for AAA next week. Jamie left site 11:00 am.  
 Will stake alignment for ditch next week. Work on placing cover soil ongoing. Left site.

**ISSUES/CONCERNS:**

**PHOTOS TAKEN:**  
 No. 1: Blending cover soil at borrow site.  
 No. 2: Placing and grading cover soil on WR 1 near center of WR 1.  
 No. 3: Cover soil borrow site side-dump.



Photo Date: 9-2-10  
No. 1

Direction: Looking East

Description: Blending  
cover soil at borrow  
site.



Photo Date: 9-2-10  
No. 2

Direction: Looking  
West

Description: Placing  
and grading cover soil  
on WR 1 near center of  
WR 1.

9-2-10 side-dump truck leaving Haul site in town



Photo Date: 9-2-10  
No. 3

Direction: Looking  
West

Description: Cover soil  
borrow site side-dump.

**2010 Highland Mine Reclamation Project  
CONSTRUCTION LOG**

<b>DEQ CONTRACT NO.</b>	410022		
<b>RPR</b>	Mike Sauer		
<b>DEQ PROJECT MANAGER:</b>	Pebbles Clark	<b>DATE:</b>	September 7, 2010
<b>ENGINEER</b>	Jamie Mongoven	<b>DAY:</b>	Tuesday
<b>CONSTRUCTION CONTRACTOR:</b>	AAA Construction, Missoula Montana		
<b>WEATHER:</b>	clear		
<b>TEMP:</b>	32/50 F		

**PERSONNEL ON SITE:**

<b>TG</b>	<b>RPR :</b>	Mike Sauer	<b>RPR Arrival time:</b>	7:00	<b>Mileage:</b>	46
	<b>Other :</b>		<b>Departure Time:</b>	17:00		
<b>DEQ:</b>	<b>RPM:</b>					
	<b>Other :</b>					
<b>Contractor Arrival:</b>	<b>Supt:</b>	Brady Nelson Sr.				
	<b>Other:</b>	Brady Nelson Jr. Brian Baird, Chuck Miller, Dick Herbel				
<b>Other:</b>						

**EQUIPMENT ON SITE:**

	Description	#	Description	
1.	CAT 330L Excavator	1	7. Truck and Lowboy	1
2.	John Deer Loader	1	8. Cat 938 loader	1
3.	CAT D8K	1	9. Case 821E loader	1
4.	Cat D3	1	10. Side dumps	2
5.	Water Truck	1	11. Belly Dumps	
6.	Haul/Dump Tri	3	12.	
<b>Contractor Arrival:</b>		7:00	<b>Contractor Departure:</b>	

**CONSTRUCTION ACTIVITIES:**

Arrived at cover soil pile 7:15 am. Spoke with Brady about water truck and compaction tests required on WR 1. Went to site. Spoke with Dick and contractor. Worked until 2:00 pm on Friday with only three trucks with pups. Spoke with Brady about updated construction schedule and relayed to him that TG wanted 4 compaction test on cover soil. Brady said he had submitted diversion plan and had asked for permission to work this weekend. Placing cover soil with case loader and rough grading with D3. Water truck is watering road. Spoke with Brady about submitting cost to magnesium chloride the road. Checked cover soil pile. Need to blend more to finish. Left Site.

**ISSUES/CONCERNS:**

**PHOTOS TAKEN:**

- No. 1: Cover soil on WR 1 near stream.
- No. 2: Placing cover soil on WR 1 with wheel loader.
- No. 3: Placing cover soil on WR 1 with wheel loader and grading with D4.

Rough grading cover soil



Photo Date: 9-7-10  
No. 1

Direction: Looking  
North

Description: Cover soil  
on WR 1 near stream.

Wheel rolling placed soil for compaction



Photo Date: 9-7-10  
No. 2

Direction: Looking  
North

Description: Placing  
cover soil on WR 1  
with wheel loader.

Placing cover soil with loader



Photo Date: 9-7-10  
No. 3

Direction: Looking  
South

Description: Placing  
cover soil on WR 1  
with wheel loader and  
grading with D4.

**2010 Highland Mine Reclamation Project  
CONSTRUCTION LOG**

<b>DEQ CONTRACT NO.</b>	410022		
<b>RPR</b>	Mike Sauer		
<b>DEQ PROJECT MANAGER:</b>	Pebbles Clark	<b>DATE:</b>	September 8, 2010
<b>ENGINEER</b>	Jamie Mongoven	<b>DAY:</b>	Wednesday
<b>CONSTRUCTION CONTRACTOR:</b>	AAA Construction, Missoula Montana		
<b>WEATHER:</b>	ptly cldy		
<b>TEMP:</b>	45-57 F		

**PERSONNEL ON SITE:**

<b>TG</b>	<b>RPR :</b>	Mike Sauer	<b>RPR Arrival time:</b>	7am	<b>Mileage:</b>	78
	<b>Other :</b>		<b>Departure Time:</b>	17:00		
<b>DEQ:</b>	<b>RPM:</b>					
	<b>Other :</b>					
<b>Contractor Arrival:</b>	<b>Supt:</b>	Brady Nelson Sr.				
	<b>Other:</b>	Brady Nelson Jr. Brian Baird, Chuck Miller, Dick Herbel				
<b>Other:</b>						

**EQUIPMENT ON SITE:**

	Description	#	Description	
1.	CAT 330L Excavator	1	7. Truck and Lowboy	1
2.	John Deer Loader	1	8. Cat 938 loader	1
3.	CAT D8K	1	9. Case 821E loader	1
4.	Cat D3	1	10. Side dumps	2
5.	Water Truck	1	11. Belly Dumps	
6.	Haul/Dump Trucks	3	12.	
<b>Contractor Arrival:</b>		7am		

**CONSTRUCTION ACTIVITIES:**

Arrived at cover soil pile and called Brady to make sure only blended soil came to site. Arrived at Highland site 7:45 am; water truck is already watering road. First truck arrived 9:10 am. Trucks arrived regularly all day. Went to cover soil borrow site and soil was being blended. Placing cover soil with loader and fine grading with D3. About 95% complete on WR1. Spoke with Brady about updated schedule. Stated he would try and get us one by tomorrow. Also asked about magnesium chloride on road. Said about \$14,000. Left site, checked on cover soil on way home.

**ISSUES/CONCERNS:**

**PHOTOS TAKEN:**

- No. 1: Finishing cover soil on WR 1.
- No. 2: Fence corner near south end of WR 1.
- No. 3: Fine grading WR 1.
- No. 4: Final lift of cover soil on WR 1.

9-8-10 Bringing cover soil up to final grade



Photo Date: 9-8-10  
No. 1

Direction: Looking  
South

Description: Finishing  
cover soil on WR 1.



9-8-10 Fence corners and braces going in

Photo Date: 9-8-10  
No. 2

Direction: Looking  
South

Description: Fence  
corner near south end  
of WR 1.

9-8-10 Fine grading of cover soil



Photo Date: 9-8-10  
No. 3

Direction: Looking  
North

Description: Fine  
grading WR 1.

9-8-10 final lift of coversoil



Photo Date: 9-8-10  
No. 4

Direction: Looking  
West

Description: Final lift  
of cover soil on WR 1.

**2010 Highland Mine Reclamation Project  
CONSTRUCTION LOG**

<b>DEQ CONTRACT NO.</b>	410022		
<b>RPR</b>	Mike Sauer		
<b>DEQ PROJECT MANAGER:</b>	Pebbles Clark	<b>DATE:</b>	September 13, 2010
<b>ENGINEER</b>	Jamie Mongoven	<b>DAY:</b>	Monday
<b>CONSTRUCTION CONTRACTOR:</b>	AAA Construction, Missoula Montana		
<b>WEATHER:</b>	Sunny		
<b>TEMP:</b>	31-68		

**PERSONNEL ON SITE:**

<b>TG</b>	<b>RPR :</b>	Mike Sauer	<b>RPR Arrival time:</b>	7:30	<b>Mileage:</b>	40
	<b>Other :</b>	Jamie Mongoven	<b>Departure Time:</b>	5:00 PM		
<b>DEQ:</b>	<b>RPM:</b>	Pebbles Clark, Devon Cleary				
	<b>Other :</b>					
<b>Contractor Arrival:</b>	<b>Supt:</b>	Brady Nelson ,Wes Swalling				
	<b>Other:</b>	Brian Baird, Chuck Miller, Dick Herbal				
<b>Other:</b>						

**EQUIPMENT ON SITE:**

	Description	#	Description	
1.	CAT 330L Excavator	1	7. Truck and Lowboy	1
2.	John Deer Loader	1	8. Cat 938 loader	1
3.	CAT D8K	1	9. Case 821E loader	1
4.	Cat D3	1	10. Side dumps	1
5.	Water Truck	1	11. Belly Dumps	
6.	Haul/Dump Trucks	3	12.	
	<b>Contractor Arrival:</b>	7:30		

**CONSTRUCTION ACTIVITIES:**

Arrived on site 7:25 am. Wes arrived at 7:30 am; discussed placement of Type 2 ditch. Jamie arrived approx 8:00 am and he and I staked Type 1 and 2 ditch for AAA. Talked with Brady about amount of cover soil needed to finish and Brady stated they have been adding stripped top soil to cover soil being brought in. Fence contractor has hung wire and installed gates. Fence is about 75% complete. Wes is placing material to construct Type 2 ditch. Pebbles Clark and Devon Cleary, MDEQ visited site at approx. 1:45 pm; discussed seeding possibilities, schedule and proper completion of trail. Spoke with Brady about getting application rate of magnesium chloride and the certification for the seed mix. Left site.

**ISSUES/CONCERNS:**

**PHOTOS TAKEN:**

- No. 1: Placing material to build berm for Type 2 ditch with riprap.
- No. 2: Finishing grading near top of WR 1.
- No. 3: Importing soil at base of WR 1.
- No. 4: Fence along county road.
- No. 5: Fence along county road above TP 1.
- No. 6: Fence gate near top of WR 1.

9-13-10 Placing Soil for type 2 ditch



Photo Date: 9-13-10  
No. 1

Direction: Looking  
West

Description: Placing  
material to build berm  
for Type 2 ditch with  
riprap.



9-13-10 Finishing up fine grading on WR1

Photo Date: 9-13-10  
No. 2

Direction: Looking  
North

Description: Finishing  
grading near top of  
WR 1.



9-13-10 Importing cover soil on WR1

Photo Date: 9-13-10  
No. 3

Direction: Looking  
West

Description: Importing  
soil at base of WR 1.



9-13-10 Some of the wire installed on fence

Photo Date: 9-13-10  
No. 4

Direction: Looking  
South

Description: Fence  
along county road.



Photo Date: 9-13-10  
No. 5

Direction: Looking  
South

Description: Fence  
along county road  
above TP 1.



Photo Date: 9-13-10  
No. 6

Direction: Looking  
South

Description: Fence  
gate near top of WR 1.

**2010 Highland Mine Reclamation Project  
CONSTRUCTION LOG**

<b>DEQ CONTRACT NO.</b>	410022		
<b>RPR</b>	Mike Sauer		
<b>DEQ PROJECT MANAGER:</b>	Pebbles Clark	<b>DATE:</b>	September 14, 2010
<b>ENGINEER</b>	Jamie Mongoven	<b>DAY:</b>	Tuesday
<b>CONSTRUCTION CONTRACTOR:</b>	AAA Construction, Missoula Montana		
<b>WEATHER:</b>	Sunny/thunder shower		
<b>TEMP:</b>	45-65		

**PERSONNEL ON SITE:**

<b>TG</b>	<b>RPR :</b>	Mike Sauer	<b>RPR Arrival time:</b>	7:25	<b>Mileage:</b>	83
	<b>Other :</b>		<b>Departure Time:</b>	16:00		
<b>DEQ:</b>	<b>RPM:</b>					
	<b>Other :</b>					
<b>Contractor Arrival:</b>	<b>Supt:</b>	Brady Nelson ,Wes Swalling				
	<b>Other:</b>	Brian Baird, Chuck Miller,				
<b>Other:</b>						

**EQUIPMENT ON SITE:**

	Description	#	Description	
1.	CAT 330L Excavator	1	7. Truck and Lowboy	1
2.	John Deer Loader	1	8. Cat 938 loader	1
3.	CAT D8K	1	9. Case 821E loader	1
4.	Cat D3	1	10. Side dumps	
5.	Water Truck	1	11. Belly Dumps	
6.	Haul/Dump Trucks	3	12.	
<b>Contractor Arrival:</b>		7:00		

**CONSTRUCTION ACTIVITIES:**

Arrived on site 7:25 am. Wes and Chuck on site placing backfill on side of Highland Road to complete cover of TP removal area. Brady arrived 8:30 am and said he would get magnesium chloride and seed information to MDEQ today. Trucks bringing in soil for Type 1 and 2 ditch. Brady shaping ditch with D3. Took compaction tests ranged from high 80's to 90 plus. Rain started around 3:30 pm and got too wet to carry soil up onto grade.

**ISSUES/CONCERNS:**

**PHOTOS TAKEN:**

- No. 1: Compaction testing of WR 1. Four tests were completed and all passed specifications in the contract.
- No. 2: Grading in Type 2 ditch adjacent to Basin Cr.
- No. 3: Placing final lift of topsoil on WR 1. Clearing limit stake shown below tree.
- No. 4: Importing final lift of topsoil to cover WR 1.



9-14-10 Compaction test being taken

Photo Date: 9-14-10  
No. 1

Direction: Looking  
North

Description:  
Compaction testing of  
WR 1. Four tests were  
completed and all  
passed specifications in  
the contract.



9-14-10 Grading type 2 ditch

Photo Date: 9-14-10  
No. 2

Direction: Looking  
South

Description: Grading  
in Type 2 ditch adjacent  
to Basin Cr.



Photo Date: 9-14-10  
No. 3

Direction: Looking  
South

Description: Placing  
final lift of topsoil on  
WR 1. Clearing limit  
stake shown below tree.

9-14-10 Top soil being placed



Photo Date: 9-14-10  
No. 4

Direction: Looking  
West

Description: Importing  
final lift of topsoil to  
cover WR 1.

9-14-10 Importing top soil

**2010 Highland Mine Reclamation Project  
CONSTRUCTION LOG**

<b>DEQ CONTRACT NO.</b>	410022		
<b>RPR</b>	Mike Sauer		
<b>DEQ PROJECT MANAGER:</b>	Pebbles Clark	<b>DATE:</b>	September 15, 2010
<b>ENGINEER</b>	Jamie Mongoven	<b>DAY:</b>	Wednesday
<b>CONSTRUCTION CONTRACTOR:</b>	AAA Construction, Missoula Montana		
<b>WEATHER:</b>	Pebbles Clark		
<b>TEMP:</b>	45-65	partly cloudy	

**PERSONNEL ON SITE:**

<b>TG</b>	<b>RPR :</b>	Mike Sauer	<b>RPR Arrival time:</b>	7:30	<b>Mileage:</b>	46
	<b>Other :</b>		<b>Departure Time:</b>	15:00		
<b>DEQ:</b>	<b>RPM:</b>					
	<b>Other :</b>					
<b>Contractor Arrival:</b>	<b>Supt:</b>	Brady Nelson ,Wes Swalling				
	<b>Other:</b>	Brian Baird, Chuck Miller,				
<b>Other:</b>						

**EQUIPMENT ON SITE:**

	Description	#	Description	
1.	CAT 330L Excavator	1	7. Truck and Lowboy	1
2.	John Deer Loader	1	8. Cat 938 loader	1
3.	CAT D8K	1	9. Case 821E loader	1
4.	Cat D3	1	10. Side dumps	
5.	Water Truck	1	11. Belly Dumps	
6.	Haul/Dump Trucks	4	12.	
<b>Contractor Arrival:</b>		7:30	<b>Departure Time:</b>	

**CONSTRUCTION ACTIVITIES:**

Arrived on site 7:30 am. Rained overnight; site is wet and muddy. Importing and placing topsoil. Brady cutting down trees and brush for stream diversion. Contractor stopped at 2:30 pm - equipment broke down. Left Site.

**ISSUES/CONCERNS:**

**PHOTOS TAKEN:**

- No. 1: Topsoil placement on WR 1 East side (top).
- No. 2: Loading topsoil to be placed on WR 1.
- No. 3: Placing topsoil on East side of WR 1 (top).



Photo Date: 9-15-10  
No. 1:

Direction: Looking  
North

Description: Topsoil  
placement on WR 1  
East side (top).



Photo Date: 9-15-10  
No. 2

Direction: Looking  
North

Description: Loading  
topsoil to be placed on  
WR 1.



9-15-10 Topsoil being placed on WR1

Photo Date: 9-15-10  
No. 3

Direction: Looking East

Description: Placing  
topsoil on East side of  
WR 1 (top).

**2010 Highland Mine Reclamation Project  
CONSTRUCTION LOG**

<b>DEQ CONTRACT NO.</b>	410022		
<b>RPR</b>	Mike Sauer		
<b>DEQ PROJECT MANAGER:</b>	Pebbles Clark	<b>DATE:</b>	September 16, 2010
<b>ENGINEER</b>	Jamie Mongoven	<b>DAY:</b>	Thursday
<b>CONSTRUCTION CONTRACTOR:</b>	AAA Construction, Missoula Montana		
<b>WEATHER:</b>	partly cloudy		
<b>TEMP:</b>	45-58		

**PERSONNEL ON SITE:**

<b>TGEE</b>	<b>RPR :</b>	Mike Sauer	<b>RPR Arrival time:</b>	7:30	<b>Mileage:</b>	84
	<b>Other :</b>	Jamie Mongoven	<b>Departure Time:</b>	17:00		
<b>DEQ:</b>	<b>RPM:</b>	Pebbles Clark				
	<b>Other :</b>	Devon Cleary				
<b>Contractor Arrival:</b>	<b>Supt:</b>	Wes Swalling				
	<b>Other:</b>	Brian Baird, Chuck Miller, Dick Herbal				

**EQUIPMENT ON SITE:**

	Description	#	Description	
1.	CAT 330L Excavator	1	7. Truck and Lowboy	1
2.	John Deer Loader	1	8. Cat 938 loader	1
3.	CAT D8K	1	9. Case 821E loader	1
4.	Cat D3	1	10. Side dumps	
5.	Water Truck	1	11. Belly Dumps	
6.	Haul/Dump Trucks	3	12.	
	<b>Contractor Arrival:</b>	7:30	<b>Departure Time:</b>	

**CONSTRUCTION ACTIVITIES:**

Arrived on site 7:30 am. Wes and Chuck grading top soil and walking it in with D8. Trucks hauling in topsoil. Brian excavating soil in diversion area and placing in subsidence features above adit as requested by MDEQ. Construction meeting: Pebbles Clark and Devon Cleary, MDEQ and Jamie Mongoven, TG . Wes Spalling for AAA , Brady Nelson not on site. Discussed schedule concern and ability to complete project even with additional days given for rain and additional work. Discussed magnesium chloride bid and necessity to refigure. Discussed seeding concerns about completing before contract days are up and some gravel needed along road removed when excavating for TP2 & 3. An additional meeting with Brady was held at DEQ building in Helena.

**ISSUES/CONCERNS:**

**PHOTOS TAKEN:**

- No. 1: Grading Type 2 ditch along East side of WR 1.
- No. 2: Tracking topsoil in on WR 1 with D8.
- No. 3: Started excavation and clearing and grubbing for channel change.
- No. 4: Completed grading of WR 1.
- No. 5: Slope roughening of north side of WR 1



Photo Date: 9-16-10  
No. 1

Direction: Looking  
South

Description: Grading  
Type 2 ditch along East  
side of WR 1.



Photo Date: 9-16-10  
No. 2

Direction: Looking  
West

Description: Tracking  
topsoil in on WR 1 with  
D8.



Photo Date: 9-16-10  
No. 3

Direction: Looking  
South

Description: Started  
excavation and clearing  
and grubbing for  
channel change.



Photo Date: 9-16-10  
No. 4

Direction: Looking  
North

Description:  
Completed grading of  
WR 1.



Photo Date: 9-16-10  
No. 5

Direction: Looking  
North

Description: Slope  
roughening of North  
side of WR 1.

**2010 Highland Mine Reclamation Project  
CONSTRUCTION LOG**

<b>DEQ CONTRACT NO.</b>	410022		
<b>RPR</b>	Mike Sauer		
<b>DEQ PROJECT MANAGER:</b>	Pebbles Clark	<b>DATE:</b>	September 17, 2010
<b>ENGINEER</b>	Jamie Mongoven	<b>DAY:</b>	Friday
<b>CONSTRUCTION CONTRACTOR:</b>	AAA Construction, Missoula Montana		
<b>WEATHER:</b>	partly cloudy		
<b>TEMP:</b>	45-50		

**PERSONNEL ON SITE:**

<b>TG</b>	<b>RPR :</b>	Mike Sauer	<b>RPR Arrival time:</b>	7:30	<b>Mileage:</b>	42
	<b>Other :</b>		<b>Departure Time:</b>	17:00		
<b>DEQ:</b>	<b>RPM:</b>					
	<b>Other :</b>					
<b>Contractor Arrival:</b>	<b>Supt:</b>	Wes Swalling Brady Nelson				
	<b>Other:</b>	Chuck Miller Brian Baird Dick Herbal				
<b>Other:</b>						

**EQUIPMENT ON SITE:**

	Description	#	Description	
1.	CAT 330L Excavator	1	7. Truck and Lowboy	1
2.	John Deer Loader	1	8. Cat 938 loader	1
3.	CAT D8K	1	9. Case 821E loader	1
4.	Cat D3	1	10. Side dumps	
5.	Water Truck	1	11. Belly Dumps	
6.	Haul/Dump Trucks	3	12.	
	<b>Contractor Arrival:</b>	7:30	<b>Departure Time:</b>	

**CONSTRUCTION ACTIVITIES:**

Arrived on site 7:30 am. Wes and Chuck grading Type 2 ditch to meet specifications. Spoke with Brady about magnesium chloride issue, seeding contractor schedule, request for rain day concern and gravel in roadway for TP2 & 3. Trucks hauling riprap; Wes placing it with loader. Riprap is coming in oversized and sandy. Told Wes and Brady it had to be within specifications. I called Jamie. Some larger rock was acceptable, per Jamie, but be reasonable. Talked with Pebbles Clark, DEQ about gravel for road and AAA's need to work on Forest Service road accessing upper end of WR 1 and replacing kelly hump and seed. Spoke with Brady about the concern. Rough placing riprap going well, and shaping of Type 1 ditch on WR 1 adequate. Left site.

**ISSUES/CONCERNS:**

**PHOTOS TAKEN:**

- No. 1: Final grading of WR 1.
- No. 2: Placing of rip rap along east side of WR 1.
- No. 3: Excavating Type 2 ditch along East side of WR 1 (top).

9-17-10 Final grading and tracking in  
of topsoil on WR1



Photo Date: 9-17-10  
No. 1

Direction: Looking East

Description: Fine  
grading of WR 1.

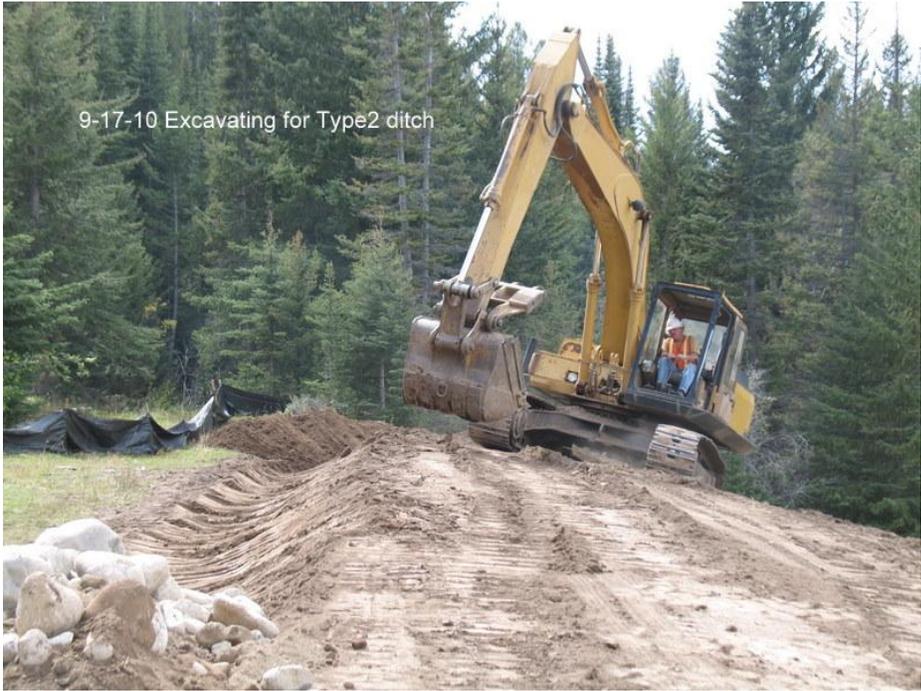
9/17/10 Roughly placed rip rap on Type 2 ditch



Photo Date: 9-17-10  
No. 2

Direction: Looking  
North

Description: Placing of  
rip rap along east side  
of WR 1.



9-17-10 Excavating for Type2 ditch

Photo Date: 9-17-10  
No. 3

Direction: Looking  
South

Description:  
Excavating Type 2  
ditch along East side of  
WR 1 (top).

**2010 Highland Mine Reclamation Project  
CONSTRUCTION LOG**

<b>DEQ CONTRACT NO.</b>	410022		
<b>RPR</b>	Mike Sauer		
<b>DEQ PROJECT MANAGER:</b>	Pebbles Clark	<b>DATE:</b>	September 18, 2010
<b>ENGINEER</b>	Jamie Mongoven	<b>DAY:</b>	Saturday
<b>CONSTRUCTION CONTRACTOR:</b>	AAA Construction, Missoula Montana		
<b>WEATHER:</b>	partly cloud		
<b>TEMP:</b>	45-70 F		

**PERSONNEL ON SITE:**

<b>TGEE</b>	<b>RPR :</b>	Mike Sauer	<b>RPR Arrival time:</b>	10:00	<b>Mileage:</b>	42
	<b>Other :</b>		<b>Departure Time:</b>	12:00		
<b>DEQ:</b>	<b>RPM:</b>					
	<b>Other :</b>					
<b>Contractor Arrival:</b>	<b>Supt:</b>	Brady Nelson				
	<b>Other:</b>	Dick Herbal				
<b>Other:</b>						

**EQUIPMENT ON SITE:**

	Description	#	Description	
1.	CAT 330L Excavator	1	7. Truck and Lowboy	1
2.	John Deer Loader	1	8. Cat 938 loader	1
3.	CAT D8K	1	9. Case 821E loader	1
4.	Cat D3	1	10. Side dumps	
5.	Water Truck	1	11. Belly Dumps	
6.	Haul/Dump Trucks	3	12.	
	<b>Contractor Arrival:</b>	7:30	<b>Departure Time:</b>	

**CONSTRUCTION ACTIVITIES:**

Brady called about 8:30 am and said it was too wet to work due to rain the previous night, and could not get equipment up hill to place rip rap. I went out to site around 10:00 am to verify and Brady was still there. He was waiting to see if it would dry out enough by noon. It did not. I told him to ask for a weather day in writing and left site.

**ISSUES/CONCERNS:**

**PHOTOS TAKEN:**

No. 1: Site is wet from rain the night before.  
No. 2: Riprap delivered to site. Pile located at West end of WR 1 (bottom).



Photo Date: 9-18-10  
No. 1

Direction: Looking East

Description: Site is wet from rain the night before.



Photo Date: 9-18-10  
No. 2

Direction: Looking South

Description: Riprap delivered to site. Pile located at West end of WR 1 (bottom).

**2010 Highland Mine Reclamation Project  
CONSTRUCTION LOG**

<b>DEQ CONTRACT NO.</b>	410022		
<b>RPR</b>	Mike Sauer		
<b>DEQ PROJECT MANAGER:</b>	Pebbles Clark	<b>DATE:</b>	September 21, 2010
<b>ENGINEER</b>	Jamie Mongoven	<b>DAY:</b>	Tuesday
<b>CONSTRUCTION CONTRACTOR:</b>	AAA Construction, Missoula Montana		
<b>WEATHER:</b>	partly cloudy		
<b>TEMP:</b>	30-65		

<b>TG</b>	<b>RPR :</b>	Mike Sauer	<b>RPR Arrival time:</b>	7:30	<b>Mileage:</b>	42
	<b>Other :</b>		<b>Departure Time:</b>	17:00		
<b>DEQ:</b>	<b>RPM:</b>					
	<b>Other :</b>					
<b>Contractor Arrival:</b>	<b>Supt:</b>	Wes Swalling				
	<b>Other:</b>	Chuck Miller Brian Baird Dick Herbal				
<b>Other:</b>						

**EQUIPMENT ON SITE:**

	Description	#	Description	
1.	CAT 330L Excavator	1	7. Truck and Lowboy	1
2.	John Deer Loader	1	8. Cat 938 loader	1
3.	CAT D8K	1	9. Case 821E loader	1
4.	Cat D3	1	10. Side dumps	
5.	Water Truck	1	11. Belly Dumps	
6.	Haul/Dump Trucks	2	12.	
<b>Contractor Arrival:</b>		7:30	<b>Departure Time:</b>	

**CONSTRUCTION ACTIVITIES:**

Arrived on site 7:30 am. Contractor has raised top of Type 1 ditch on Southwest side of WR 1 to address over-topping and concern of runoff. Started setting excavation limits, grade for channel change, and excavation. Brian has started cleaning up trail for approval. Had some oversized riprap left over and have placed in Type 1 ditch area for disposal. Excavation for stream diversion ongoing. Left site.

**ISSUES/CONCERNS:**

**PHOTOS TAKEN:**

- No. 1: Started stream diversion construction at lower end of stream.
- No. 2: Excavation of channel change.
- No. 3: Rough excavation of channel centerline.

9-21-10 Starting excavation  
on stream diversion



Photo Date: 9-21-10  
No. 1

Direction: Looking East

Description: Started  
stream diversion  
construction at lower  
end of stream.

9-21-10 Continuing excavation for stream diversion



Photo Date: 9-21-10  
No. 2

Direction: Looking East

Description:  
Excavation of channel  
change

9-21-10 Continuing excavation  
for stream diversion



Photo Date: 9-21-10  
No. 3

Direction: Looking  
North

Description: Rough  
excavation of channel  
centerline.

**2010 Highland Mine Reclamation Project  
CONSTRUCTION LOG**

<b>DEQ CONTRACT NO.</b>	410022		
<b>RPR</b>	Dan Klima		
<b>DEQ PROJECT MANAGER:</b>	Pebbles Clark	<b>DATE:</b>	September 22, 2010
<b>ENGINEER</b>	Jamie Mongoven	<b>DAY:</b>	Wednesday
<b>CONSTRUCTION CONTRACTOR:</b>	AAA Construction, Missoula Montana		
<b>WEATHER:</b>	Clear		
<b>TEMP:</b>	50-75	°F	

**PERSONNEL ON SITE:**

<b>TG</b>	<b>RPR :</b>	Dan Klima	<b>RPR Arrival time:</b>	7:30	<b>Mileage:</b>	80
	<b>Other :</b>	Mike Sauer	<b>Departure Time:</b>	18:00	<b>Mileage:</b>	80
<b>DEQ:</b>	<b>RPM:</b>					
	<b>Other :</b>					
<b>Contractor Arrival:</b>	<b>Supt:</b>	Wes Swalling, Brady Sr. late afternoon				
	<b>Other:</b>	Brian Baird, Chuck Miller, Dick Herbel				
<b>Other:</b>						

**EQUIPMENT ON SITE:**

	Description	#	Description	#
1.	CAT 330L Excavator	1	7. Truck and Lowboy	0
2.	John Deer Loader	1	8. Mini-Excavator	0
3.	CAT D8K	0	9.	
4.	Cat 200	1	10.	
5.	Water Truck	1	11.	
6.	Haul/Dump Trucks	2	12.	
	<b>Contractor Arrival:</b>	7:00	<b>Contractor Departure:</b>	18:00

**CONSTRUCTION ACTIVITIES:**

Arrived on site 7:30 am, AAA working on excavation for stream diversion. Contractor has hauled some material to toe of WR 1 for disposal and have rough-graded East side of diversion. Wes calculated they would be short of liner material. Advised they would have to get amount needed to meet spec, and he was addressing the concern. Took rough measurement of bank on East side of diversion for fiber mat; approx 275 sq. yds. needed. Dan from TG arrived on site at 8:30 am. We walked trail to assess completion and Dan suggested one more stump be cut off and it would be acceptable. Went over details of job and he took over for me. Mike Sauer left site at 12:00 pm. Constructing the creek channel diversion upper site. Slow going to get started. TG helped Wes figure out the calculations for cut of material for the key-in for the liner and bottom of channel. The PVC liner is going to be a little short by Wes' calculations using the linear feet of the centerline of the new stream bed. Brady is currently looking for more liner. Checked grade with Wes using their laser level, and everything looks good so far. Brady Sr. also stated that he wants more contract days because of the shortage of the liner. He says that the plans were incorrect because he bid the job and purchased the liner directly out of the bid tab. He's not sure if he can find liner in time to get the job done by next week. Advised him that we can discuss this issue in our weekly meeting on Thursday at 10:00 am.

**ISSUES/CONCERNS:**

**PHOTOS TAKEN:**

- No. 1: Construction of the channel for the new creek.
- No. 2: Looking at the grading upslope which will be seeded and where straw mat will be laid down.
- No. 3: Constructing the outer key-ins for the liner and flow channel in the middle.
- No. 4: 5 ft. flow channel, 3:1 side slopes as per specifications.
- No. 5: Rough grading East side of new channel change.



Photo Date: 9-22-10  
No. 1

Direction: Looking  
South

Description:  
Construction of the  
channel for the new  
creek.



Photo Date: 9-22-10  
No. 2

Direction: Looking East

Description: Looking  
at the grading upslope  
which will be seeded  
and where straw mat  
will be laid down.



Photo Date: 9-22-10  
No. 3

Direction: Looking  
South

Description:  
Constructing the outer  
key-ins for the liner and  
flow channel in the  
middle.



Photo Date: 9-22-10  
No. 4

Direction: Looking  
South

Description: 5 ft. flow  
channel, 3:1 side slopes  
as per specifications.



9-22-10 Rough grading east side of stream diversion

Photo Date: 9-22-10  
No. 5

Direction: Looking  
South

Description: Rough  
grading East side of  
new channel change.

**2010 Highland Mine Reclamation Project  
CONSTRUCTION LOG**

<b>DEQ CONTRACT NO.</b>	410022		
<b>RPR</b>	Dan Klima		
<b>DEQ PROJECT MANAGER:</b>	Pebbles Clark	<b>DATE:</b>	September 23, 2010
<b>ENGINEER</b>	Jamie Mongoven	<b>DAY:</b>	Thursday
<b>CONSTRUCTION CONTRACTOR:</b>	AAA Construction, Missoula Montana		
<b>WEATHER:</b>	Clear		
<b>TEMP:</b>	34-65	°F	

**PERSONNEL ON SITE:**

<b>TG</b>	<b>RPR :</b>	Dan Klima	<b>RPR Arrival time:</b>	8:00	<b>Mileage:</b>	80
	<b>Other :</b>	Jaime Mongoven	<b>Departure Time:</b>	18:00	<b>Mileage:</b>	80
<b>DEQ:</b>	<b>RPM:</b>	Pebbles Clark				
	<b>Other :</b>					
<b>Contractor Arrival:</b>	<b>Supt:</b>	Wes Swalling, Brady Sr. late afternoon				
	<b>Other:</b>	Brian Baird, Chuck Miller, Dick Herbel				
<b>Other:</b>						

**EQUIPMENT ON SITE:**

	Description	#	Description	#	
1.	CAT 330L Excavator	1	7. Truck and Lowboy	0	
2.	John Deer Loader	1	8. Mini-Excavator	0	
3.	CAT D8K	0	9.		
4.	Cat 200	1	10.		
5.	Water Truck	1	11.		
6.	Haul/Dump Trucks	2	12.		
<b>Contractor Arrival:</b>		7:00	<b>Contractor Departure:</b>		18:00

**CONSTRUCTION ACTIVITIES:**

Constructing the creek channel diversion upper site. Helped Wes figure out the calculations for cuts for the key-in for the liner and bottom of channel.  
 The PVC liner is going to be a little short by Wes's calculations because of having to fold the liner around the radius turns in the alignment of the channel. Brady is looking for more liner.  
 Meeting at 10:00 am to discuss project, for the second week Brady was not on site for meeting.  
 Pump showed up on site to dewater the creek spilling out of the adit. The pump showed up in bad condition and the crew spent the rest of the day fixing the pump. Work on the channel stopped until they got the pump running and fixed the leaks in the piping for the diversion. They finished out the day getting the pump running.  
 Pump will run all night and it seems to be getting the job done. Some water is seeping lower down stream, which can be expected.

**ISSUES/CONCERNS:**

**PHOTOS TAKEN:**

- No. 1: Checking the grade and fine grade before rolling out the liner.
- No. 2: Rolling out the liner. Liner delivered in 36' wide straight rolls not custom fit to design.
- No. 3: Liner rolled out, trying to get it to fit the contours and see how it fits with the key-ins.



Photo Date: 9-23-10  
No. 1

Direction: Looking  
South

Description: Checking  
the grade and fine grade  
before rolling out the  
liner.



Photo Date: 9-23-10  
No. 2

Direction: Looking  
North

Description: Rolling  
out the liner. Liner  
delivered in 36' wide  
straight rolls not custom  
fit to design.



Photo Date: 9-23-10  
No. 3

Direction: Looking  
North

Description: Liner  
rolled out, trying to get  
it to fit the contours and  
see how it fits with the  
key-ins.

**2010 Highland Mine Reclamation Project  
CONSTRUCTION LOG**

<b>DEQ CONTRACT NO.</b>	410022		
<b>RPR</b>	Dan Klima		
<b>DEQ PROJECT MANAGER:</b>	Pebbles Clark	<b>DATE:</b>	September 24, 2010
<b>ENGINEER</b>	Jamie Mongoven	<b>DAY:</b>	Friday
<b>CONSTRUCTION CONTRACTOR:</b>	AAA Construction, Missoula Montana		
<b>WEATHER:</b>	Clear		
<b>TEMP:</b>	45-70	°F	

**PERSONNEL ON SITE:**

<b>TG</b>	<b>RPR :</b>	Dan Klima	<b>RPR Arrival time:</b>	8:00	<b>Mileage:</b>	80
	<b>Other :</b>	Jaime Mongoven	<b>Departure Time:</b>	18:00	<b>Mileage:</b>	80
<b>DEQ:</b>	<b>RPM:</b>					
	<b>Other :</b>					
<b>Contractor Arrival:</b>	<b>Supt:</b>	Wes Swalling, Brady Sr.				
	<b>Other:</b>	Brian Baird, Chuck Miller, Dick Herbel				
<b>Other:</b>						

**EQUIPMENT ON SITE:**

	Description	#	Description	#	
1.	CAT 330L Excavator	1	7. Truck and Lowboy	0	
2.	John Deer Loader	1	8. Mini-Excavator	0	
3.	CAT D8K	0	9.		
4.	Cat 200	1	10.		
5.	Water Truck	1	11.		
6.	Haul/Dump Trucks	2	12.		
<b>Contractor Arrival:</b>		7:00	<b>Contractor Departure:</b>		18:00

**CONSTRUCTION ACTIVITIES:**

Arrived at 8:00 am. Continued constructing the creek channel change for Basin Creek. Installing liner then topped with felt liner. Placing 6" of sand on top of felt liner and then 18" of riprap for stream bed.  
Brady is going to work by himself this weekend doing small misc. tasks (filling sandbags and placing extra straw waddles). Pump will run all weekend dewatering the creek.

**ISSUES/CONCERNS:**

**PHOTOS TAKEN:**

No. 1: Installing PVC liner looking at the downstream outlet. Both right and left side show the key-in with sufficient amount of liner to be tied in.  
No. 2: Installing PVC liner looking at the upstream inlet. Both right and left sides show the key-in with sufficient amount of liner to be tied in. Folds were placed to make the liner fit the bend in the channel.  
No. 3: Placing the felt liner over the PVC liner and being lined with sand 6" deep.  
No. 4: Placing the felt liner over the PVC liner looking at the channel outlet. 6" of sand being placed and then capped with rock for riprap.  
No. 5: Looking downstream. Spreading out sand to 6" in depth.  
No. 6: Looking downstream. Spreading out sand to 6" in depth.  
No. 7: Starting to place rock at the outlet, working upstream. This is placed at 18" in depth.



Photo Date: 9-24-10  
No. 1

Direction: Looking  
South

Description: Installing  
PVC liner looking at  
the downstream outlet.  
Both right and left side  
show the key-in with  
sufficient amount of  
liner to be tied in.



Photo Date: 9-24-10  
No. 2

Direction: Looking  
North

Description: Installing  
PVC liner looking at  
the upstream inlet.  
Both right and left sides  
show the key-in with  
sufficient amount of  
liner to be tied in. Folds  
were placed to make  
the liner fit the bend in  
the channel



Photo Date: 9-24-10  
No. 3

Direction: Looking  
South

Description: Placing  
the felt liner over the  
PVC liner and being  
lined with sand 6" deep.



Photo Date: 9-24-10  
No. 4

Direction: Looking  
Down

Description: Placing  
the felt liner over the  
PVC liner looking at  
the channel outlet. 6"  
of sand being placed  
and then capped with  
rock for riprap.



Photo Date: 9-24-10  
No. 5

Direction: Looking  
South

Description: Looking  
downstream. Spreading  
out sand to 6" in depth.



Photo Date: 9-24-10  
No. 6

Direction: Looking  
South

Description: Looking  
downstream. Spreading  
out sand to 6" in depth.



Photo Date: 9-24-10  
No. 7

Direction: Looking  
West

Description: Starting to  
place rock at the outlet,  
working upstream. This  
is placed at 18" in  
depth.

**2010 Highland Mine Reclamation Project  
CONSTRUCTION LOG**

<b>DEQ CONTRACT NO.</b>	410022		
<b>RPR</b>	Dan Klima		
<b>DEQ PROJECT MANAGER:</b>	Pebbles Clark	<b>DATE:</b>	September 26, 2010
<b>ENGINEER</b>	Jamie Mongoven	<b>DAY:</b>	Sunday
<b>CONSTRUCTION CONTRACTOR:</b>	AAA Construction, Missoula Montana		
<b>WEATHER:</b>	Clear		
<b>TEMP:</b>	45-80	°F	

**PERSONNEL ON SITE:**

<b>TG</b>	<b>RPR :</b>	Dan Klima	<b>RPR Arrival time:</b>	9:00	<b>Mileage:</b>	80
	<b>Other :</b>		<b>Departure Time:</b>	14:00	<b>Mileage:</b>	80
<b>DEQ:</b>	<b>RPM:</b>					
	<b>Other :</b>					
<b>Contractor Arrival:</b>	<b>Supt:</b>	Brady Sr.				
	<b>Other:</b>	Chuck Miller				
<b>Other:</b>						

**EQUIPMENT ON SITE:**

	Description	#	Description	#	
1.	CAT 330L Excavator	1	7. Truck and Lowboy	0	
2.	John Deer Loader	1	8. Mini-Excavator	0	
3.	CAT D8K	0	9.		
4.	Cat 200	1	10.		
5.	Water Truck	1	11.		
6.	Haul/Dump Trucks	2	12.		
<b>Contractor Arrival:</b>		9:00	<b>Contractor Departure:</b>		16:00

**CONSTRUCTION ACTIVITIES:**

Arrived on site at 9:00 am. Contractor has received permission to work weekends. Chuck called in the morning to let me know that he was going to work by himself. Continuing to work on creek channel. Contractor filled sand bags and placed one roll of straw waddle on Sunday. Loaded some rock in the trucks for the morning to be placed in the channel. Brady left site at 10:30 am. Chuck showed up on site a little after that and worked until dark.

**ISSUES/CONCERNS:**

**PHOTOS TAKEN:**

- No. 1: Loading rock at bottom of site.
- No. 2: Pump running all weekend pumping the old creek downhill for bypass. This will be the tie-in area for the new channel.
- No. 3: Placing rock in the channel, working upstream.
- No. 4: Placing rock in the channel, working upstream.



Photo Date: 9-26-10  
No. 1

Direction: Looking  
West

Description: Loading  
rock at bottom of site.



Photo Date: 9-26-10  
No. 2

Direction: Looking East

Description: Pump  
running all weekend  
pumping the old creek  
downhill for bypass.  
This will be the tie-in  
area for the new  
channel.



Photo Date: 9-26-10  
No. 3

Direction: Looking  
South

Description: Placing  
rock in the channel,  
working upstream.



Photo Date: 9-26-10  
No. 4

Direction: Looking  
South

Description: Placing  
rock in the channel,  
working upstream.

**2010 Highland Mine Reclamation Project  
CONSTRUCTION LOG**

<b>DEQ CONTRACT NO.</b>	410022		
<b>RPR</b>	Dan Klima		
<b>DEQ PROJECT MANAGER:</b>	Pebbles Clark	<b>DATE:</b>	September 27, 2010
<b>ENGINEER</b>	Jamie Mongoven	<b>DAY:</b>	Monday
<b>CONSTRUCTION CONTRACTOR:</b>	AAA Construction, Missoula Montana		
<b>WEATHER:</b>	Clear		
<b>TEMP:</b>	45-82	°F	

**PERSONNEL ON SITE:**

<b>TG</b>	<b>RPR :</b>	Dan Klima	<b>RPR Arrival time:</b>	8:00	<b>Mileage:</b>	80
	<b>Other :</b>		<b>Departure Time:</b>	20:00	<b>Mileage:</b>	80
<b>DEQ:</b>	<b>RPM:</b>					
	<b>Other :</b>					
<b>Contractor Arrival:</b>	<b>Supt:</b>	Wes Swalling, Brady Sr.				
	<b>Other:</b>	Brian Baird, Chuck Miller, Dick Herbel				

**Other:**

**EQUIPMENT ON SITE:**

	Description	#	Description	#
1.	CAT 330L Excavator	1	7. Truck and Lowboy	0
2.	John Deer Loader	1	8. Mini-Excavator	0
3.	CAT D8K	0	9.	
4.	Cat 200	1	10.	
5.	Water Truck	1	11.	
6.	Haul/Dump Trucks	2	12.	
	<b>Contractor Arrival:</b>	7:00	<b>Contractor Departure:</b>	20:00

**CONSTRUCTION ACTIVITIES:**

Continue constructing the channel change for Basin Cr. Got a phone call from Pebbles. She asked for me to relay the message from the Forest Service for AAA to move their equipment from the top of the Forest Service trail head. This was completed by 9:00 am. Got a phone call from Brady. He is on his way with the extra liner for the channel, should be on site this afternoon.

Chuck completed a majority of the channel and placement of the rocks last night (Sunday). I looked over the channel and it meets the specifications. Liner showed up on site about 4:00 pm. AAA worked until dark installing the liner up to the adit opening. They were able to get the liner glued together and in place. I inspected the seam which was minimum 2' overlap, and it seemed to hold and the two pieces attached together. See attached pictures

Construction of the Forest Service trail is underway. I walked the trail and it is meeting specifications now.

**ISSUES/CONCERNS:**

**PHOTOS TAKEN:**

- No. 1: Channel, looking downstream.
- No. 2: Rock placement 18" deep
- No. 3: Channel outlet rip-rapped to meet existing grade.
- No. 4: Adit. Water is being dammed up by sandbags and pumped around the site to creek downstream.
- No. 5: Mine shaft wall caved in. Water is coming out of adit. The dirt in front is a dam pooling up the water that is being pumped out and brought downstream
- No. 6: Channel key-in for the liner located at the inlet of the channel.
- No. 7: Pulling the PVC liner towards the key-in and the inlet of channel.
- No. 8: Gluing the seam of the two pieces of the liner together with PVC cleaner and cement.
- No. 9: Gluing the seam of the two pieces of the liner together with PVC cleaner and cement.
- No. 10: Gluing the seam of the two pieces of the liner together with PVC cleaner and cement.
- No. 11: Product to glue the pieces together.
- No. 12: Gluing the seam of the two pieces of the liner together with PVC cleaner and cement. This is the final touch up at the seam overlap.
- No. 13: Placing the felt liner over the PVC liner. Sand was placed right before dark to hold in place.



Photo Date: 9-27-10  
No. 1

Direction: Looking  
West

Description: Channel,  
looking downstream.



Photo Date: 9-27-10  
No. 2

Direction: Looking  
West

Description: Rock  
placement - 18" deep.



Photo Date: 9-27-10  
No. 3

Direction: Looking  
West

Description: Channel  
outlet rip-rapped to  
meet existing grade.



Photo Date: 9-27-10  
No. 4

Direction: Looking East

Description: Adit.  
Water is being dammed  
up by sandbags and  
pumped around the site  
to creek downstream.



Photo Date: 9-27-10  
No. 5

Direction: Looking East

Description: Mine shaft wall caved in. Water is coming out of adit. The dirt in front is a dam pooling up the water that is being pumped out and brought downstream.



Photo Date: 9-27-10  
No. 6

Direction: Looking East

Description: Channel key-in for the liner located at the inlet of the channel.



Photo Date: 9-27-10  
No. 7

Direction: Looking East

Description: Pulling the PVC liner towards the key-in and the inlet of channel.



Photo Date: 9-27-10  
No. 8

Direction: Looking East

Description: Gluing the seam of the two pieces of the liner together with PVC cleaner and cement.



Photo Date: 9-27-10  
No. 9

Direction: Looking  
Down

Description: Gluing the  
seam of the two pieces  
of the liner together  
with PVC cleaner and  
cement.



Photo Date: 9-27-10  
No. 10

Direction: Looking  
Down

Description: Gluing the  
seam of the two pieces  
of the liner together  
with PVC cleaner and  
cement.

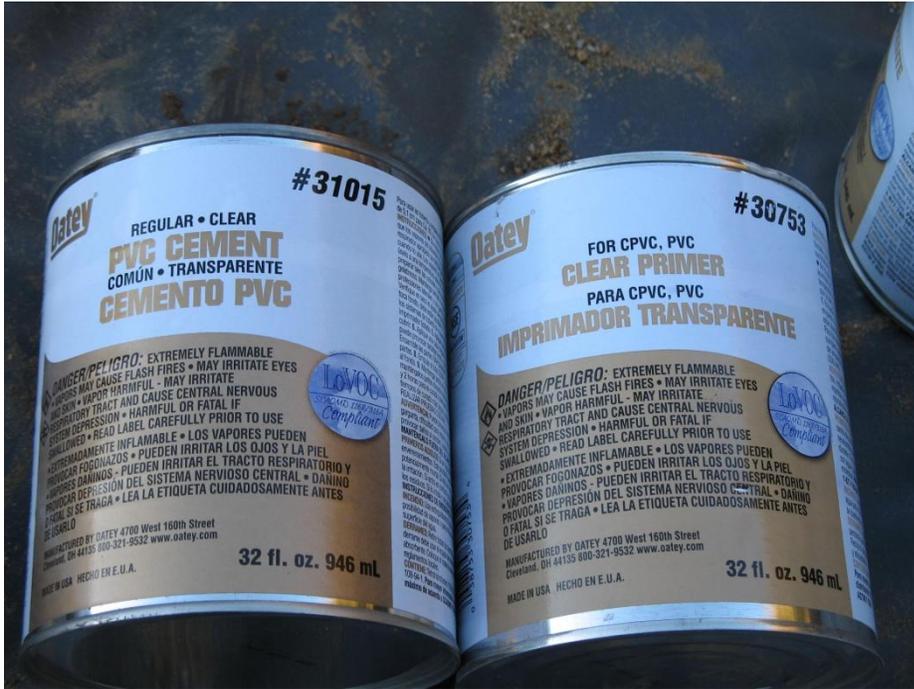


Photo Date: 9-27-10  
No. 11

Direction: Looking  
Down

Description: Product  
used to glue the pieces  
together.



Photo Date: 9-27-10  
No. 12

Direction: Looking  
South

Description: Gluing the  
seam of the two pieces  
of liner together with  
PVC cleaner and  
cement. This is the final  
touch-up at the seam  
overlap.



Photo Date: 9-27-10  
No. 13

Direction: Looking  
North

Description: Placing  
the felt liner over the  
PVC liner. Sand was  
placed right before dark  
to hold in place.

**2010 Highland Mine Reclamation Project  
CONSTRUCTION LOG**

<b>DEQ CONTRACT NO.</b>	410022		
<b>RPR</b>	Dan Klima		
<b>DEQ PROJECT MANAGER:</b>	Pebbles Clark	<b>DATE:</b>	September 28, 2010
<b>ENGINEER</b>	Jamie Mongoven	<b>DAY:</b>	Tuesday
<b>CONSTRUCTION CONTRACTOR:</b>	AAA Construction, Missoula Montana		
<b>WEATHER:</b>	Clear		
<b>TEMP:</b>	55-82	°F	

**PERSONNEL ON SITE:**

<b>TG</b>	<b>RPR :</b>	Dan Klima	<b>RPR Arrival time:</b>	8:00	<b>Mileage:</b>	80
	<b>Other :</b>	Jaime Mongoven	<b>Departure Time:</b>	18:00	<b>Mileage:</b>	80
<b>DEQ:</b>	<b>RPM:</b>	Pebbles Clark				
	<b>Other :</b>	DEQ Lawyer				
<b>Contractor Arrival:</b>	<b>Supt:</b>	Wes Swalling, Brady Sr				
	<b>Other:</b>	Brian Baird, Chuck Miller, Dick Herbel				

**EQUIPMENT ON SITE:**

	Description	#	Description	#
1.	CAT 330L Excavator	1	7. Truck and Lowboy	0
2.	John Deer Loader	1	8. Mini-Excavator	0
3.	CAT D8K	1	9.	
4.	Cat 200	1	10.	
5.	Water Truck	1	11.	
6.	Haul/Dump Trucks	2	12.	
	<b>Contractor Arrival:</b>	7:00	<b>Contractor Departure:</b>	18:00

**CONSTRUCTION ACTIVITIES:**

Arrived on site at 8:00 am. Contractor continues constructing the channel change. Finishing the final placement of the rocks in the channel. Started the grading and shaping between the channel and top of WR 1 ditch and placement of riprap on bank of ditch. The pump has been removed and stream is free-flowing. Water is running through the channel. The sand that was placed under the rock riprap is washing down stream. The stream is cloudy in color. It should clear up within a couple hours. Wes tied the upper inlet into the adit with extra PVC liner. He secured it with sand and rock rip-rap. Construction of the Forest Service trail is continuing and should be completed today. Meeting on site at 1:30 pm, to talk about extra contract day, substantial completion and to create a punch list to finish up job by next week. Started upper site grading along the new creek channel, spreading top soil and tracking it in with the small dozer for seeding and straw mat to be placed.

**ISSUES/CONCERNS:**

**PHOTOS TAKEN:**

- No. 1: The adit spills into the new channel.
- No. 2: Water flow taking the sand downstream. Riprap still needs to be added here.
- No. 3: Water flowing over 18" of riprap. Starting to look like a real creek.
- No. 4: Final grading along the new channel. This will get capped with topsoil and seeded.
- No. 5: Final grading along the new channel. This will get capped with topsoil and seeded and straw mat will be placed over this upper slope.
- No. 6: Continental Divide hiking trail constructed for the Forest Service East of the project.



Photo Date: 9-28-10  
No. 1

Direction: Looking East

Description: The adit  
spills into the new  
channel.



Photo Date: 9-28-10  
No. 2

Direction: Looking  
South

Description: Water  
flow taking the sand  
downstream. Riprap  
still needs to be added  
here.



Photo Date: 9-28-10  
No. 3

Direction: Looking  
North

Description: Water  
flowing over 18" of  
riprap. Starting to look  
like a real creek.



Photo Date: 9-28-10  
No. 4

Direction: Looking  
North

Description: Fine  
grading along the new  
channel. This will get  
capped with topsoil and  
seeded.



Photo Date: 9-28-10  
No. 5

Direction: Looking  
North

Description: Fine  
grading along the new  
channel. This will get  
capped with topsoil and  
seeded, and straw mat  
will be placed over this  
upper slope.



Photo Date: 9-28-10  
No. 6

Direction: Looking  
North

Description:  
Continental Divide  
hiking trail constructed  
for the Forest Service  
East of the project.

**2010 Highland Mine Reclamation Project  
CONSTRUCTION LOG**

<b>DEQ CONTRACT NO.</b>	410022		
<b>RPR</b>	Dan Klima		
<b>DEQ PROJECT MANAGER:</b>	Pebbles Clark	<b>DATE:</b>	September 29, 2010
<b>ENGINEER</b>	Jamie Mongoven	<b>DAY:</b>	Wednesday
<b>CONSTRUCTION CONTRACTOR:</b>	AAA Construction, Missoula Montana		
<b>WEATHER:</b>	Clear		
<b>TEMP:</b>	55-82	°F	

**PERSONNEL ON SITE:**

<b>TGEE</b>	<b>RPR :</b>	Dan Klima	<b>RPR Arrival time:</b>	8:00	<b>Mileage:</b>	80
	<b>Other :</b>		<b>Departure Time:</b>	18:00	<b>Mileage:</b>	80
<b>DEQ:</b>	<b>RPM:</b>					
	<b>Other :</b>					
<b>Contractor Arrival:</b>	<b>Supt:</b>	Wes Swalling, Brady Sr				
	<b>Other:</b>	Brian Baird, Chuck Miller, Dick Herbel				
<b>Other:</b>						

**EQUIPMENT ON SITE:**

	Description	#	Description	#	
1.	CAT 330L Excavator	1	7. Truck and Lowboy	0	
2.	John Deer Loader	1	8. Mini-Excavator	0	
3.	CAT D8K	1	9.		
4.	Cat 200	1	10.		
5.	Water Truck	1	11.		
6.	Haul/Dump Trucks	2	12.		
<b>Contractor Arrival:</b>		7:00	<b>Contractor Departure:</b>		18:00

**CONSTRUCTION ACTIVITIES:**

Arrived on site at 8:00 am. Grading the final upper slope above the channel with topsoil; track-packing with D3 for seeding and straw mat to be placed. Construction of the Forest Service trail is completed. Filled in hole and graded bottom of WR 1. Now working on grading the road out to Highland Road. Continuing Type 1 ditch to tie into bottom of WR 1 on the Southwest side. AAA needs 600' straw waddle to run across WR 1 and other miscellaneous areas for erosion control measures. Silt fence has been completely removed on site.

Wes and Chuck are rehabbing the upper access road and scratching and reclaiming on their way out. The last thing they will do is seed and lay some downfall on reclaimed road. They will dig a kelly hump at Highland Road and establish the existing ditch. The fencing company is on site working on the last of the fence.

**ISSUES/CONCERNS:**

**PHOTOS TAKEN:**

- No. 1: Grading between WR 1 and new channel. This area is ready for seed.
- No. 2: Cut back slope and new channel from the adit. This area will be seeded and straw mat installed to help for erosion.
- No. 3: Bottom of WR 1 filled and being sloped.
- No. 4: Gravel berm bag to be used for erosion control.
- No. 5: Grading back cut slope upper channel diversion.
- No. 6: Gravel berm bags placed on upper WR 1 near the outlet of the new channel diversion.
- No. 7: Upper road reclamation. This road was used for construction entrance.
- No. 8: Upper road reclamation. This road was used for construction entrance.
- No. 9: Lower road reclaimed off of Highland Road.
- No. 10: Lower road reclaimed off of Highland Road. This was the original construction entrance.



Photo Date: 9-29-10  
No. 1

Direction: Looking  
South

Description: Grading  
between WR 1 and new  
channel. This area is  
ready for seed.



Photo Date: 9-29-10  
No. 2

Direction: Looking East

Description: Cut back  
slope and new channel  
from the adit. This area  
will be seeded and  
straw mat installed to  
help prevent erosion.



Photo Date: 9-29-10  
No. 3

Direction: Looking East

Description: Bottom of  
WR 1 filled and being  
sloped.



Photo Date: 9-29-10  
No. 4

Direction: Looking East

Description: Gravel  
berm bag to be used for  
erosion control.



Photo Date: 9-29-10  
No. 5

Direction: Looking East

Description: Grading  
back cut slope upper  
channel diversion.



Photo Date: 9-29-10  
No. 6

Direction: Looking  
South

Description: Gravel  
berm bags placed on  
upper WR 1 near the  
outlet of the new  
channel diversion.



Photo Date: 9-29-10  
No. 7

Direction: Looking  
South

Description: Upper  
road reclamation. This  
road was used for  
construction entrance.



Photo Date: 9-29-10  
No. 8

Direction: Looking  
West

Description: Upper  
road reclamation. This  
road was used for  
construction entrance.



Photo Date: 9-29-10  
No. 9

Direction: Looking  
West

Description: Lower  
road reclaimed off of  
Highland Road.



Photo Date: 9-29-10  
No. 10

Direction: Looking  
South

Description: Lower  
road reclaimed off of  
Highland Road. This  
was the original  
construction entrance.

**2010 Highland Mine Reclamation Project  
CONSTRUCTION LOG**

<b>DEQ CONTRACT NO.</b>	410022		
<b>RPR</b>	Dan Klima		
<b>DEQ PROJECT MANAGER:</b>	Pebbles Clark	<b>DATE:</b>	September 30, 2010
<b>ENGINEER</b>	Jamie Mongoven	<b>DAY:</b>	Thursday
<b>CONSTRUCTION CONTRACTOR:</b>	AAA Construction, Missoula Montana		
<b>WEATHER:</b>	Clear		
<b>TEMP:</b>	55-82	°F	

**PERSONNEL ON SITE:**

<b>TG</b>	<b>RPR :</b>	Dan Klima	<b>RPR Arrival time:</b>	8:00	<b>Mileage:</b>	80
	<b>Other :</b>	Jaime Mongoven	<b>Departure Time:</b>	18:00	<b>Mileage:</b>	80
<b>DEQ:</b>	<b>RPM:</b>	Pebbles Clark				
	<b>Other :</b>					
<b>Contractor Arrival:</b>	<b>Supt:</b>	Wes Swalling, Brady Sr				
	<b>Other:</b>	Brian Baird, Chuck Miller				
<b>Other:</b>						

**EQUIPMENT ON SITE:**

	Description	#	Description	#
1.	CAT 330L Excavator	1	7. Truck and Lowboy	0
2.	John Deer Loader	1	8. Mini-Excavator	0
3.	CAT D8K	0	9.	
4.	Cat 200	1	10.	
5.	Water Truck	1	11.	
6.	Haul/Dump Trucks	0	12.	
	<b>Contractor Arrival:</b>	7:00	<b>Contractor Departure:</b>	18:00

**CONSTRUCTION ACTIVITIES:**

Arrived at 8:00 am. Fence is complete around the site. Surveyors on site and completed final as-constructed topo survey. They showed up at 8:00 am. Building the last of the Type 2 ditch at bottom of WR 1. Old access road at the bottom has been reclaimed. Gravel berm bags are installed. Meeting on site at 10:00 am. Pebbles granted substantial completion and provided AAA with a punch list. AAA will start to demobilize equipment tonight.

**ISSUES/CONCERNS:**

**PHOTOS TAKEN:**

- No. 1: Reclaiming road along Basin Creek coming out of the adit at top of project.
- No. 2: Placement of gravel berm bags at the bottom of WR 1.
- No. 3: Type 2 ditch completion at the bottom of WR 1.
- No. 4: Straw mat being installed. Straw mat being installed above WR 1 adjacent to Basin Cr.
- No. 5: Top of project looking Northwest toward Butte, MT. Behind the truck is WR 1 capped with topsoil.



Photo Date: 9-30-10  
No. 1

Direction: Looking East

Description:  
Reclaiming road along  
Basin Creek coming out  
of the adit at top of  
project.



Photo Date: 9-30-10  
No. 2

Direction: Looking  
North

Description: Placement  
of gravel berm bags at  
the bottom of WR 1.



Photo Date: 9-30-10  
No. 3

Direction: Looking East

Description: Type 2  
ditch completion at the  
bottom of WR 1.



Photo Date: 9-30-10  
No. 4

Direction: Looking East

Description: Straw mat  
being installed above  
WR 1 adjacent to Basin  
Cr.



Photo Date: 9-30-10  
No. 5

Direction: Looking  
West

Description: Top of  
project looking  
Northwest toward  
Butte, MT. Behind the  
truck is WR 1 capped  
with topsoil.

2010 Highland Mine Reclamation Project CONSTRUCTION LOG					
<b>DEQ CONTRACT NO.</b>		410022			
<b>RPR</b>		Jamie Mongoven			
<b>DEQ PROJECT MANAGER:</b>		Pebbles Clark	<b>DATE:</b>	October 7, 2010	
<b>ENGINEER</b>		Jamie Mongoven	<b>DAY:</b>	Thursday	
<b>CONSTRUCTION CONTRACTOR:</b>		AAA Construction, Missoula Montana			
<b>WEATHER:</b>		partly cloud			
<b>TEMP:</b>		35-54			
<b>PERSONNEL ON SITE:</b>					
<b>TGEE</b>	<b>RPR :</b>	Jamie Mongoven	<b>RPR Arrival time:</b>	8:00	<b>Mileage:</b> 80
	<b>Other :</b>		<b>Departure Time:</b>	18:00	80
<b>DEQ:</b>	<b>RPM:</b>				
	<b>Other :</b>				
<b>Contractor Arrival:</b>	<b>Supt:</b>	Brady Nelson			
	<b>Other:</b>	Brady Jr., David Read, Seth Beech			
<b>Other:</b>					
<b>EQUIPMENT ON SITE:</b>					
	<b>Description</b>	<b>#</b>	<b>Description</b>	<b>#</b>	
1.	CAT 330L Excavator		7. Truck and Lowboy		
2.	John Deer Loader		8. Cat 938 loader		
3.	CAT D8K		9. Case 821E loader		
4.	Cat D3		10. Side dumps		
5.	Water Truck		11. Hydro-seeder	1	
6.	Haul/Dump Trucks		12. Tractor	1	
	<b>Contractor Arrival:</b>	7:00	<b>Departure Time:</b>	19:00	
<b>CONSTRUCTION ACTIVITIES:</b>					
<p>Arrived at 08:00. Seeding subcontractor arrived at 08:30 and proceeded to set up equipment and load material into hydroseeder.</p> <p>11:00 Started hydroseeding at the top of WR 1 and around the channel change. Started peeling back straw blanket on TP 2 &amp; 3 to spread seed under blanket.</p> <p>11:30 started disking WR 1</p> <p>13:05 Brady Jr. and Brady Jr. showed up on site. Helped rolled straw blanket up so seed could be placed under the blanket. Seeded all roads.</p> <p>16:00 Brady and Brady Jr. began installing Fiber rolls on WR 1. Jamie marked where to place rolls with orange paint.</p> <p>17:30 Seeders filled truck one final time and finished WR 1</p> <p>18:05 Seeders completed and began to mobilize out of area.</p> <p>Retrieved extra seed (approx. 20 lbs.) from seeder.</p> <p>Left sight at 6:00 AAA finishing straw waddles at the time of departure.</p>					
<b>ISSUES/CONCERNS:</b>					
<b>PHOTOS TAKEN:</b>					
<p>No. 1: Prepping to apply hydro seed to the top of WR 1 and around channel change.</p> <p>No. 2: Tractor used to disk and seed WR 1.</p> <p>No. 3: Prepping to apply hydro seed to the top of WR 1 and around channel change.</p> <p>No. 4: Looking down (West) from the top of WR 1.</p> <p>No. 5: Hydro seeding around channel change.</p> <p>No. 6: Hydro seeding around channel change.</p> <p>No. 7: Hydro seeding around channel change.</p> <p>No. 8: Hydro seeding around channel change.</p> <p>No. 9: Disking top of WR 1.</p> <p>No. 10: Disking top of WR 1.</p> <p>No. 11: Hydro seeded TP 1 adjacent to county road.</p> <p>No. 12: Rolling up straw mat to apply seed to slope on TP 2 and TP 3.</p> <p>No. 13: Rolling up straw mat to apply seed to slope on TP 2 and TP 3.</p> <p>No. 14: Applying hydro mulch to WR 1 after drill seeding.</p> <p>No. 15: Applying hydro mulch to WR 1.</p> <p>No. 16: Top of WR 1 after hydro mulch.</p> <p>No. 17: TP 1 after hydro seeding.</p> <p>No. 18: TP 2 and TP 3 reinstalled straw mat after rolling mat up and seeding underneath.</p> <p>No. 19: TP 2 and TP 3 reinstalled straw mat after rolling mat up and seeding underneath.</p> <p>No. 20: WR 1, after hydro mulch and seeded; installing Fiber rolls.</p> <p>No. 21: Fiber rolls installed on WR 1, after hydro mulch and seeded.</p> <p>No. 22: Fiber rolls installed on WR 1, after hydro mulch and seeded.</p> <p>No. 23: Fiber rolls installed on WR 1, after hydro mulch and seeded.</p>					



Photo Date: 10-7-10  
No. 1

Direction: Looking  
West

Description: Prepping  
to apply hydro seed to  
the top of WR 1 and  
around channel change.



Photo Date: 10-7-10  
No. 2

Direction: Looking  
South

Description: Tractor  
used to disk and seed  
WR 1.



Photo Date: 10-7-10  
No. 3

Direction: Looking  
South

Description: Prepping  
to apply hydro seed to  
the top of WR 1 and  
around channel change.



Photo Date: 10-7-10  
No. 4

Direction: Looking  
West

Description: Looking  
down (West) from the  
top of WR 1.



Photo Date: 10-7-10  
No. 5

Direction: Looking  
South

Description: Hydro  
seeding around channel  
change.

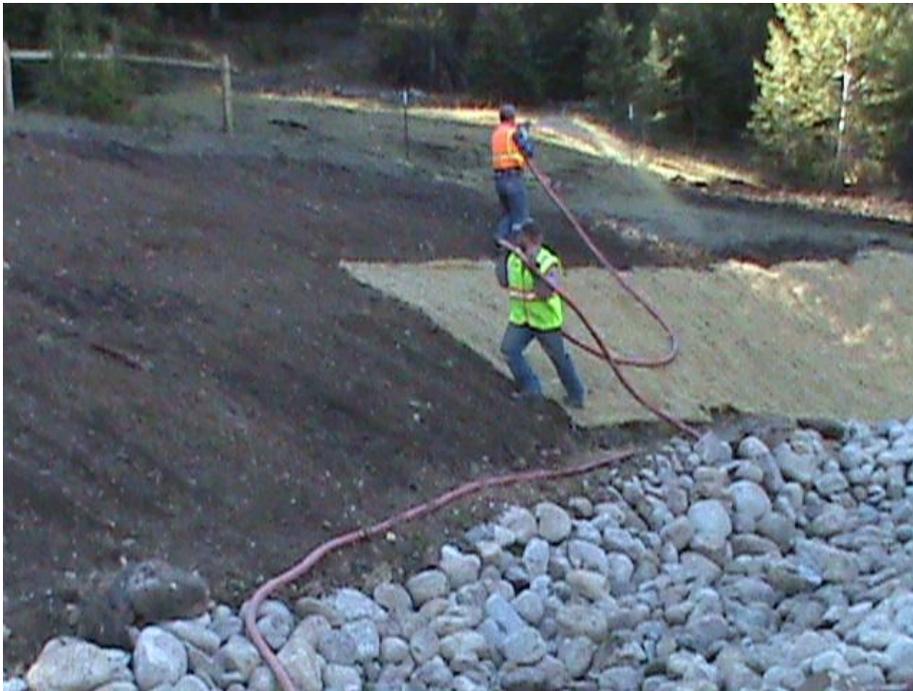


Photo Date: 10-7-10  
No. 6

Direction: Looking  
South

Description: Hydro  
seeding around channel  
change.



Photo Date: 10-7-10  
No. 7

Direction: Looking  
South

Description: Hydro  
seeding around channel  
change.



Photo Date: 10-7-10  
No. 8

Direction: Looking  
South

Description: Hydro  
seeding around channel  
change.



Photo Date: 10-7-10  
No. 9

Direction: Looking East

Description: Disking  
top of WR 1.



Photo Date: 10-7-10  
No. 10

Direction: Looking  
South

Description: Disking  
top of WR 1.



Photo Date: 10-7-10  
No. 11

Direction: Looking  
North

Description: Hydro  
seeded TP 1 adjacent to  
county road.



Photo Date: 10-7-10  
No. 12

Direction: Looking  
North

Description: Rolling up  
straw mat to apply seed  
to slope on TP 2 and  
TP 3.



Photo Date: 10-7-10  
No. 13

Direction: Looking  
North

Description: Rolling up  
straw mat to apply seed  
to slope on TP 2 and  
TP 3.

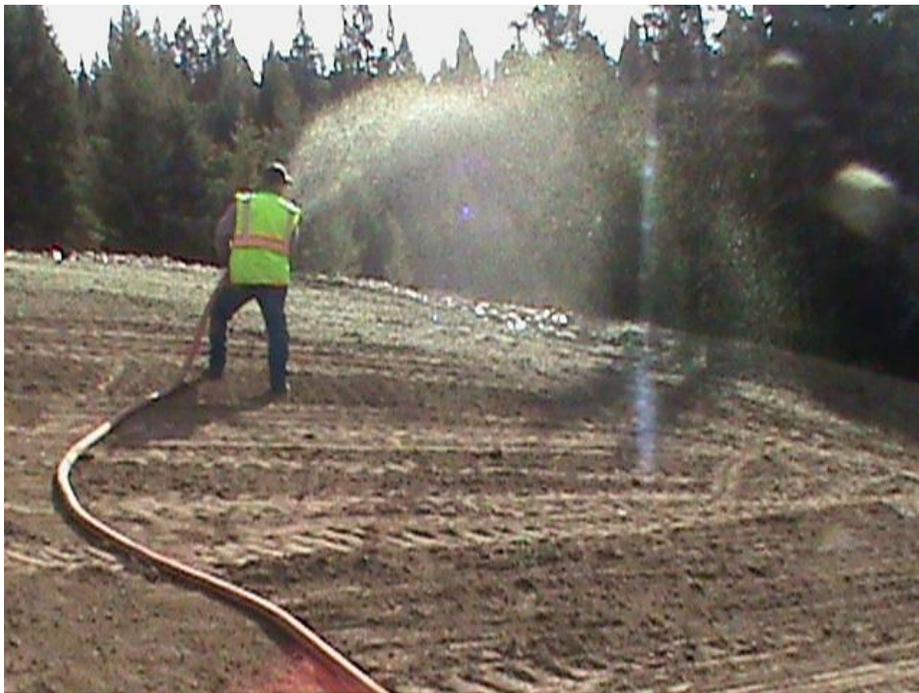


Photo Date: 10-7-10  
No. 14

Direction: Looking  
South

Description: Applying  
hydro mulch to WR 1  
after drill seeding.



Photo Date: 10-7-10  
No. 15

Direction: Looking  
North

Description: Applying  
hydro mulch to WR 1.



Photo Date: 10-7-10  
No. 16

Direction: Looking  
South

Description: Top of  
WR 1 after hydro  
mulch.



Photo Date: 10-7-10  
No. 17

Direction: Looking  
North

Description: TP 1 after  
hydro seeding.



Photo Date: 10-7-10  
No. 18

Direction: Looking  
North

Description: TP 2 and  
TP 3 reinstalled straw  
mat after rolling mat up  
and seeding underneath.



Photo Date: 10-7-10  
No. 19

Direction: Looking  
West

Description: TP 2 and  
TP 3 reinstalled straw  
mat after rolling mat up  
and seeding underneath.



Photo Date: 10-7-10  
No. 20

Direction: Looking East

Description: WR 1,  
after hydro mulch and  
seeded, installing Fiber  
rolls.



Photo Date: 10-7-10  
No. 21

Direction: Looking East

Description: Fiber rolls  
installed on WR 1, after  
hydro mulch and  
seeded.



Photo Date: 10-7-10  
No. 22

Direction: Looking East

Description: Fiber rolls  
installed on WR1, after  
hydro mulch and  
seeded.



Photo Date: 10-7-10  
No. 23

Direction: Looking East

Description: Fiber rolls  
installed on WR 1, after  
hydro mulch and  
seeded.