

**FINAL CONSTRUCTION REPORT**  
**O'NEILL OUTCROP FIRE RECLAMATION PROJECT**  
**PRAIRIE COUNTY, MONTANA**  
**DEQ CONTRACT #411013**

**December 16, 2011**

**PREPARED BY:**

DEQ ABANDONED MINES SECTION  
1100 N. LAST CHANCE GULCH  
P.O. BOX 200901  
HELENA, MONTANA 59601

**IN ASSOCIATION WITH:**

TRIHYDRO CORPORATION  
1252 COMMERCE DRIVE  
LARAMIE, WY 82070

# Table of Contents

<b>1.0</b>	<b>INTRODUCTION.....</b>	<b>1-1</b>
1.1	Introduction and Project Description.....	1-1
1.2	Reclamation Objectives.....	1-2
1.3	Project Location .....	1-2
1.4	Project Bidding and Award .....	1-3
<b>2.0</b>	<b>RESPONSIBLE PARTIES .....</b>	<b>2-1</b>
2.1	Grant Funding .....	2-1
2.2	DEQ Coordination.....	2-1
2.3	Reclamation and Engineering Plan .....	2-1
2.4	Construction Monitoring .....	2-2
2.5	Contractor.....	2-2
<b>3.0</b>	<b>RECLAMATION CONSTRUCTION EVENTS .....</b>	<b>3-1</b>
3.1	Pre-Bid Conference .....	3-1
3.2	Bid Opening .....	3-1
3.3	Contract Agreement .....	3-1
3.4	Construction Start-Up.....	3-1
3.5	Change Orders and Work Directives.....	3-1
3.6	Weather Days and Work Suspensions.....	3-1
3.7	Requests for Payment.....	3-2
3.8	Substantial Completion .....	3-2
3.9	Closeout Documentation .....	3-2
3.10	Final Payment.....	3-2
<b>4.0</b>	<b>CONSTRUCTION.....</b>	<b>4-1</b>
4.1	As Built Figure .....	4-1
4.2	Major Equipment List .....	4-1
4.3	Photo Log .....	4-1
4.4	Construction Activities.....	4-1
4.5	Quantities Completed.....	4-2
<b>5.0</b>	<b>PROJECT SUMMARY.....</b>	<b>5-1</b>

## List of Tables

- 1-1. Bid Tabulations
- 4-1. Major Equipment List
- 4-2. Summary of Reclamation Quantities
- 4-3. Project Reconciliation
- 5-1. Breakdown of Project Costs

# List of Figures

1. As-built Site Features

## List of Appendices

- A. CONSTRUCTION PLAN SET
- B. CHANGE ORDER
- C. PAYMENT REQUEST FORM
- D. PROJECT COMPLETION FORMS
- E. CONSTRUCTION PHOTOGRAPHS
- F. DAILY CONSTRUCTION LOGS

# 1.0 INTRODUCTION

## 1.1 INTRODUCTION AND PROJECT DESCRIPTION

The Montana Department of Environmental Quality (DEQ) initiated actions to investigate and evaluate the need to control and extinguish the O'Neill coal fires in Prairie County, Montana. The DEQ Abandoned Mines Program had been contacted in the early 1980's by the landowner expressing concern about the need to control coal seam fires burning within 750 feet of a residence and ranch operation. The initial project was called "Udem" after the landowner, Carol O'Neill's, parents. Nothing came of the Udem's request until such time as Coal Outcrop Fire Suppression Grants (Outcrop Fire Grants) were made available to the DEQ through the US Department of Interior, Office of Surface Mining (OSM), and the project was determined to be eligible for work under those Outcrop Fire Grants. Site planning began with the securing of the Consents for Entry in July 2009; a Cultural Resources Inventory in 2009; and a follow up Cultural Investigation involving archeological test pits in July 2010. An Environmental Assessment was produced by DEQ in January 2011 and advertised for public comment. A public meeting on the project was held on March 8, 2011 at the Prairie County Commission Chambers in Terry, Montana. County officials, the landowner, and members of the public attended. Comment received was that the project was desirable and should move forward.

On April 19, 2011, the DEQ received notice from the OSM that the environmental assessment for the O'Neill Outcrop Fire Reclamation Project (Project) adequately discussed the environmental issues and impacts associated with the project and that the project would have no significant impacts on the quality of the human and natural environment. With this Finding of No Significant Impact (FONSI) it was concluded that an Environmental Impacts Statement (EIS) was not needed for the Project. Along with the FONSI, OSM authorized DEQ to proceed with the expenditure of federal funds to construct the Project.

Trihydro Corporation (Trihydro) of Laramie Wyoming was selected by DEQ as the project engineer to develop plans and specifications for construction of the project. Initial site characterization was completed under DEQ Contract 407042 Task Order 18 in 2009. Originally, the Project was to be included with 5 other sites located in Custer and Prairie Counties that were to be addressed under Task Order 18. When agreement on access from the landowner for the O'Neill project stalled, the project was removed from Task Order 18 and placed on a separate track for construction. Subsequently, Trihydro was tasked to develop construction specifications, bid documents, and provide construction administration for the Project under DEQ Contract 407042 Task Order 25 (Reclamation Design and Bid Documents) and Task Order 31 (Construction Administration).

## 1.2 RECLAMATION OBJECTIVES

The purpose of this reclamation project was to reduce physical and environmental hazards associated with surface and underground burning at the O'Neill coal outcrop fire in Prairie County, Montana. The fire was burning on both sides of a ridge located approximately 750 feet from the O'Neill ranch residence and facilities. The fire was thought to be associated with surface stripping operations dating from early settlement in the area when residents used readily available fuels until better sources of fuel became available. While the fire was thought to originate with early primitive mining operations dating to the 1880s, no specific tie could be made between the fire and mining activities.

These objectives of extinguishing the coal fire and restoring the surface were achieved through excavating overburden, removal of burning coal and hot ash, mixing the coal and ash with water and overburden soil to extinguish the burning coal, replacing overburden, and grading and contouring the disturbed areas.

Initial project design was for the coal fire control work to consist of removal, cooling and burial of an estimated 1,225 cubic yards of coal burning 10 feet or more below the surface. This work would require the excavation of approximately 750 cubic yards of overburden to expose hot areas and the excavation of approximately 3,500 cubic yards of embankment to develop a quench pit for the mixing of burning coal with water and overburden soil and burial of the mixture of coal, overburden, and water. The design also called for a three feet thick cap over the quench pit, and backfilling and contouring of hot coal excavation areas. Associated work included stripping and replacing cover soil, excavation, breaking sandstone cap rock, plugging two coal fire vents, and re-vegetation and fence building operations. The Construction Drawings are provided in Appendix A.

## 1.3 PROJECT LOCATION

The Project entailed the investigation, assessment, design of reclamation alternatives, and reclamation construction at a coal outcrop fire located approximately 10 miles north of Terry, Montana. The assessment, reclamation investigation, design, and construction documents included two fires located on private property.

- Location: NE quarter Section 34 and NW quarter Section 35, Township 14 North, Range 51 East, Prairie County. The site is located 0.1 miles east of the O'Neill Road and 5.3 miles east of Bad Route Road, 6.3 miles north from Highway 253, 5.5 miles north of Terry. The project location can be found on the Diamond G Creek United States Geological Survey 7.5 minute quadrangle sheet. Approximate latitude and longitude for the two fire areas are:
  - Western site area: 46 55'50.75" North, 105 14'38.25" West
  - Eastern site area: 46 55'54.69" North, 105 14'19.88" West

- Landownership: Property is owned by the O'Neill Cattle Company LLC; by the Dianne M. and Frank M. O'Neill Trust and by Connie Udem Bosman, who is also a partial owner of O'Neill Cattle Company, LLC. Contact for all owners:

Frank O'Neill  
816 South Custer  
Miles City, MT 59301  
(406) 234-5632 (cell)  
(406) 486-5632 (residence)

#### **1.4 PROJECT BIDDING AND AWARD**

The reclamation construction portion of the Project (DEQ Contract 411013) was advertised in May 2011. One Contract Addendum was issued to clarify the address for bid submittal. The pre-bid conference was held on May 25, 2011 with seven contractors in attendance. Bids were opened on June 9, 2011 at the DEQ office in Helena. Four bids were received for the project. Bid tabulations are presented in Table 1-1. Ed Baxter Construction of Billings, Montana was low bidder and was awarded the reclamation construction Contract in the amount of \$49,757.50. The Notice of Award was issued to Ed Baxter Construction on June 13 and acknowledged on June 14. After submittal and acceptance of required bonds and insurance the contractor was notified to commence work no later than July 11, 2011. Construction was originally scheduled for 30 consecutive calendar days with a completion date of August 9, 2011. The Project was completed on August 4, 2011. One change order was filed to allow for a rectification of quantities between the Bid Quantities and the Final Payment Quantities.

## **2.0 RESPONSIBLE PARTIES**

### **2.1 GRANT FUNDING**

Grant funding for the O'Neill Outcrop Fire Reclamation Project was provided by the Department of Interior, OSM, Casper Field Office. OSM contact information is:

Jeff Fleishman, Director  
OSM Casper Field Office  
P.O. Box 11018  
Casper, WY 82602  
(307) 261-6550

### **2.2 DEQ COORDINATION**

The DEQ Abandoned Mines Section's Project Manager for the Project was Mike Glenn. The DEQ Abandoned Mines Section contact information is:

DEQ Abandoned Mines Section  
P.O. Box 200901  
1100 N. Last Chance Gulch  
Helena, MT 59620-0901  
Phone: (406) 841-5000  
Fax: (406) 841-5024

### **2.3 RECLAMATION AND ENGINEERING PLAN**

Trihydro was responsible for topographic surveying, and preparation of the bidding documents and construction specifications. Trihydro's Project Manager was Mark Donner, P.E. Trihydro's representative on the job site was Tyrel Hulet. Trihydro's contact information is:

Trihydro Corporation  
1252 Commerce Drive  
Laramie, WY 82070  
Phone: (307) 745-7474  
Fax: (307) 745-7729

## **2.4 CONSTRUCTION MONITORING**

DEQ Abandoned Mines Section personnel performed the construction monitoring for this Project. Mike Glenn was the DEQ staff person responsible for these duties. Trihydro provided assistance with quantity calculation and additional monitoring/inspection of reclamation construction. Tyrel Hulet was the Engineer's representative responsible for these duties.

## **2.5 CONTRACTOR**

The reclamation Contractor was Ed Baxter Construction, Inc. of Billings, Montana. The designated on-site superintendent for Ed Baxter Construction was Ed Baxter. The contact information for Ed Baxter Construction is:

Ed Baxter Construction, Inc.

4014 Baxter Lane

Billings, MT 59101

Phone: (406) 259-6404

## **3.0 RECLAMATION CONSTRUCTION EVENTS**

The following section presents the notable events and Contract dates for the reclamation construction.

### **3.1 PRE-BID CONFERENCE**

A pre-bid conference to familiarize bidders with the Project objectives, requirements, features, and sites was held beginning at the Prairie County Courthouse on May 25, 2011. Following the conference, a tour was conducted at the O'Neill outcrop fire site. The conference was attended by staff from DEQ Abandoned Mines Section, Trihydro, and by potential bidders.

### **3.2 BID OPENING**

Bids were opened by DEQ Abandoned Mines Section at their office located at 1100 North Last Chance Gulch in Helena, Montana on June 9, 2011. Four, qualified bids were received. The bids ranged from \$49,757.50 to \$119,205.00, compared to the Engineer's estimate of \$54,541.30. The bid tabulations are included as Table 1-1

### **3.3 CONTRACT AGREEMENT**

A Notice of Award was issued to the low bidder, Ed Baxter Construction, on June 13, 2011. Ed Baxter Construction executed the Notice of Award on June 14, 2011. A Contract Agreement was executed on June 17, 2011 under DEQ Contract No. 411013. The DEQ issued the Notice to Proceed on July 5, 2011 to commence work no later than July 11, 2011. Work under the Contract was to be completed within 30 consecutive calendar days.

### **3.4 CONSTRUCTION START-UP**

Construction activities began on July 11, 2011.

### **3.5 CHANGE ORDERS AND WORK DIRECTIVES**

One change order, Change Order No. 1, was issued on the project (Appendix B). The purpose of this change order was to rectify quantities between the bid quantity and the final payment quantity.

### **3.6 WEATHER DAYS AND WORK SUSPENSIONS**

No weather days or work suspensions were issued for the project. The Project was finished in the allocated time.

### **3.7 REQUESTS FOR PAYMENT**

One request for payment was made by Ed Baxter Construction to cover all work completed. A copy of the payment request is included in Appendix C. The Contractor's certified payroll was provided with the payment request.

### **3.8 SUBSTANTIAL COMPLETION**

Ed Baxter Construction reached Substantial Completion on August 4, 2011. Mike Glenn (DEQ) and Mark Donner (Trihydro) completed a site inspection of the project on August 4, 2011. Minor outstanding items were noted during the site inspections. These items were provided to Ed Baxter Construction in the form of a punch list attached to the Certificate of Substantial Completion. Copies of the Contractor's Certificate of Completion and the Certificate of Substantial Completion, with the associated punch list, are provided in Appendix D.

### **3.9 CLOSEOUT DOCUMENTATION**

Construction closeout forms were fully executed on or before September 28, 2011. In addition to the Final Payment Request and Change Order No. 1, the following forms were executed:

- Affidavit on Behalf of Contractor
- Consent of Surety Company to Final Payment
- Certificate of Acceptance

Copies of these executed forms are included in Appendix D

### **3.10 FINAL PAYMENT**

Ed Baxter Construction's final payment request (Payment Request No. 1) was approved by DEQ/MWCB on September 28, 2011.

## **4.0 CONSTRUCTION**

The following sections provide an abbreviated discussion of construction activities, and a summary of construction quantities.

### **4.1 AS BUILT FIGURE**

A figure detailing the as-constructed features of the O'Neill site is included as Figure 1.

### **4.2 MAJOR EQUIPMENT LIST**

A list of major equipment used during the Project is included in Table 4-1.

### **4.3 PHOTO LOG**

Construction photographs are included in Appendix E. Select photographs documenting construction activities are also included with the daily construction reports in Appendix F. The complete set of construction photographs, as well as pre-construction and post-construction photographs is included in electronic format on the CD submitted with this report.

### **4.4 CONSTRUCTION ACTIVITIES**

Copies of the DEQ's daily construction reports are included in Appendix F. These daily logs detail site conditions and reclamation activities from July 11, 2011 to August 4, 2011. Summaries of reclamation construction activities are provided below.

#### **July 11 - 14/2011**

The Contractor mobilized a Hitachi tracked excavator and Case 570 tractor to the site along with a Terex TS-14 scraper. Two campers and support pickups were also mobilized to the site. Construction locations for items such as quench pit and soil stockpiles were identified for the Contractor. The Contractor began salvage of topsoil with the scraper and began excavating test pits with the excavator to identify potential fire locations. The Contractor began to excavate and haul overburden with the scraper. Equipment downtime was noted for the scraper due to breaks in hydraulic lines.

### **July 19 - 22/2010**

The Contractor mobilized a John Deere 490E tracked excavator to assist with excavation of the fire vent locations at the east fire area. The Contractor also began excavation in hot coal at the west fire area. The hot coal in the western fire area was occurring in a coal seam that exceeded 15 feet in depth. Coal temperatures were noted up to a maximum of 178 degrees F. Excavation of hot coal continued with mixing of coal, water, and overburden in the quench pit. Overburden was mixed with water and used to backfill the fire vent excavations at the east fire area. The Contractor started construction of fence corners for the temporary fence around the west fire area. The Hitachi excavator broke down on July 19<sup>th</sup> and was out of commission for the remainder of the project.

### **July 25 - 29/2011**

The Contractor focused on excavating hot spots identified by the construction inspectors. The John Deere 490 E was demobilized on July 26<sup>th</sup>. Following excavation of the remaining hot spots, the Contractor began backfilling and contouring the west fire excavation area. The Contractor also began replacing stockpiled topsoil. Fence was installed along the west fire and quench pit construction perimeters and gates and panels were constructed to conform to the landowner's request. Approximately 1.8 acres of disturbance was mapped by the project inspector, and the information passed to the Contractor so the correct amount of seed could be purchased. The scraper developed rear engine problems, and was unable to be used for the remainder of the project. Straw mulch was transported to the site. Tyrel Hulet (Trihydro) was onsite to check construction progress and assist with identifying remaining hot spots on July 25<sup>th</sup>.

### **August 1 - 4/2011**

The Contractor's crew completed repairs to the scraper, and proceeded to spread remaining amounts of topsoil. The Contractor broadcast seeded the site using triple the application rate of drill seeding. Mulch was spread over the disturbed areas and crimped. Fencing work was completed. Mark Donner (Trihydro) and Mike Glenn (DEQ) conducted a final inspection of the job site on August 4 and supplied the Contractor with a punch list. The Contractor began demobilizing equipment from the site.

### **August 8 - 12/2011**

The Contractor completed punch list items, repairs to the Hitachi excavator, and finished demobilizing equipment.

## **4.5 QUANTITIES COMPLETED**

Quantities were measured by the DEQ's onsite inspector. Bid quantities, actual completed quantities, and the difference between the actual and bid quantities for the site are illustrated in Table 4-2. A reconciliation of quantities and costs for the Project is provided in Table 4-3.

The final Contract price exceeded the bid price by approximately 16%. Most bid items were within 6 percent of estimated quantity, however there was a significant increase in quantity for Bid Item 10, *Over-Excavate and Backfill Vents*, which increased from an estimate of 60 cubic yards to final quantity of 258 cubic yards. This variation resulted from unknown subsurface conditions which were estimated without extensive exploration or drilling. Given the cost of mobilizing drilling or excavation equipment for engineering investigations to fully characterize the extent of the fire vents, the cost overrun on this bid item is acceptable.

## 5.0 PROJECT SUMMARY

Reclamation construction for the O'Neill Outcrop Fire Reclamation Project commenced on July 11, 2011 and was completed on August 9, 2011. The Project was substantially complete on August 4, 2011 with the substantial completion inspection also completed on that date. The Contractor completed the final items on the punch list on August 9, 2011. Closeout documentation was fully executed on September 28, 2011. During the course of the reclamation activities, 1,294 CY of hot coal and ash material were excavated and mixed with overburden (at approximately 1 part coal to 1 part overburden ratio) and water, and placed in an on-site quench pit. Approximately 1.8 acres disturbed by the coal outcrop fires were reclaimed under the Project. A reconciliation of construction quantities and costs is provided in Table 4-3. This table includes the original bid quantities and bid price, as well as additions under Change Order No. 1. The actual quantities completed, the resulting total Project costs, and the difference between the actual costs and quantities from those bid are also included in Table 4-3. A copy of the signed payment request form is included in Appendix C. The total construction cost of the O'Neill Outcrop Fire Reclamation Project was \$59,031.50, including one change order for rectification of quantities at the project end totaling \$9,274.00 which resulted in a 16% increase in the Contract price. The total Project cost, including engineering and construction management was \$95,667.12. A breakdown of engineering design, construction management, and construction cost relative to the total Project cost is provided in Table 5-1.

## **TABLES**

**TABLE 1-1. BID TABULATIONS  
O'NEILL OUTCROP FIRE RECLAMATION PROJECT**

BID ITEM	ESTIMATED QUANTITY	UNIT	Engineer's Estimate		Ed Baxter Construction		Jarrett Construction		H & H Earthworks		Brandingpot LLC dba Coon	
			UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE
<b>1 Mobilization, Demobilization, Bonding and Insurance (Maximum 10% of total bid)</b>	1	LS	\$ 4,958.30	\$ 4,958.30	\$ 4,900.00	\$ 4,900.00	\$ 8,080.00	\$ 8,080.00	\$ 9,760.00	\$ 9,760.00	\$ 11,000.00	\$ 11,000.00
<b>2 Provide Water</b>												
a. Water Delivery Setup	1	LS	\$2,600.00	\$ 2,600.00	\$ 2,500.00	\$ 2,500.00	\$ 5,000.00	\$ 5,000.00	\$ 3,800.00	\$ 3,800.00	\$ 3,500.00	\$ 3,500.00
b. Water Usage	30	KGAL	\$125.00	\$ 3,750.00	\$ 40.00	\$ 1,200.00	\$ 100.00	\$ 3,000.00	\$ 110.00	\$ 3,300.00	\$ 200.00	\$ 6,000.00
<b>3 Salvage, Stockpile, and Replace Cover Soil</b>	750	CY	\$3.75	\$ 2,812.50	\$ 3.00	\$ 2,250.00	\$ 4.00	\$ 3,000.00	\$ 11.33	\$ 8,497.50	\$ 10.00	\$ 7,500.00
<b>4 Excavate, Haul, and Place Overburden</b>	750	CY	\$3.25	\$ 2,437.50	\$ 3.00	\$ 2,250.00	\$ 10.00	\$ 7,500.00	\$ 16.74	\$ 12,555.00	\$ 10.00	\$ 7,500.00
<b>5 Excavate Subsidence Test Pits</b>	85	CY	\$7.00	\$ 595.00	\$ 7.00	\$ 595.00	\$ 10.00	\$ 850.00	\$ 7.94	\$ 674.90	\$ 12.00	\$ 1,020.00
<b>6 Remove Sandstone Boulders</b>	1	LS	\$500.00	\$ 500.00	\$ 2,500.00	\$ 2,500.00	\$ 5,000.00	\$ 5,000.00	\$ 4,500.00	\$ 4,500.00	\$ 1,500.00	\$ 1,500.00
<b>7 Remove, Process, and Bury Hot Coal</b>	1,225	CY	\$6.00	\$ 7,350.00	\$ 4.50	\$ 5,512.50	\$ 10.00	\$ 12,250.00	\$ 15.20	\$ 18,620.00	\$ 18.00	\$ 22,050.00
<b>8 Excavate Quench Pit</b>	3,500	CY	\$3.00	\$ 10,500.00	\$ 2.00	\$ 7,000.00	\$ 5.00	\$ 17,500.00	\$ 6.00	\$ 21,000.00	\$ 9.00	\$ 31,500.00
<b>9 Cap Quench Pit</b>	1,100	CY	\$2.00	\$ 2,200.00	\$ 2.00	\$ 2,200.00	\$ 5.00	\$ 5,500.00	\$ 5.46	\$ 6,006.00	\$ 9.00	\$ 9,900.00
<b>10 Over-Excavate and Backfill Vents</b>	60	CY	\$13.50	\$ 810.00	\$ 25.00	\$ 1,500.00	\$ 20.00	\$ 1,200.00	\$ 18.50	\$ 1,110.00	\$ 30.00	\$ 1,800.00
<b>11 Backfill, Grade, and Contour</b>	0.50	AC	\$4,500	\$ 2,250.00	\$ 9,000.00	\$ 4,500.00	\$ 6,000.00	\$ 3,000.00	\$ 14,000.00	\$ 7,000.00	\$ 13,200.00	\$ 6,600.00
<b>12 Fertilize and Seed</b>	1.7	AC	\$1,900.00	\$ 3,230.00	\$ 800.00	\$ 1,360.00	\$ 3,500.00	\$ 5,950.00	\$ 3,000.00	\$ 5,100.00	\$ 617.65	\$ 1,050.01
<b>13 Mulch</b>	1.7	AC	\$2,300.00	\$ 3,910.00	\$ 1,200.00	\$ 2,040.00	\$ 2,000.00	\$ 3,400.00	\$ 3,000.00	\$ 5,100.00	\$ 1,558.82	\$ 2,649.99
<b>14 Fence</b>	1,010	LF	\$3.80	\$ 3,838.00	\$ 5.00	\$ 5,050.00	\$ 4.50	\$ 4,545.00	\$ 6.00	\$ 6,060.00	\$ 3.50	\$ 3,535.00
<b>15 BMP Sediment Control</b>	200	LF	\$4.00	\$ 800.00	\$ 4.50	\$ 900.00	\$ 10.00	\$ 2,000.00	\$ 15.00	\$ 3,000.00	\$ 4.00	\$ 800.00
<b>16 Maintain Site Access Route</b>	1	LS	\$2,000.00	\$ 2,000.00	\$ 3,500.00	\$ 3,500.00	\$ 5,000.00	\$ 5,000.00	\$ 1,500.00	\$ 1,500.00	\$ 1,300.00	\$ 1,300.00
			<b>TOTAL</b>	<b>\$ 54,541.30</b>	<b>TOTAL</b>	<b>\$ 49,757.50</b>	<b>TOTAL</b>	<b>\$ 92,775.00</b>	<b>TOTAL</b>	<b>\$ 117,583.40</b>	<b>TOTAL</b>	<b>\$ 119,205.00</b>

NOTES:  
AC = acres  
CY = cubic yards  
LF = linear feet  
LS = lump sum  
KGAL = thousand gallons

**TABLE 4-1. MAJOR EQUIPMENT LIST  
O'NEILL OUTCROP FIRE RECLAMATION PROJECT**

TYPE	MAKE/MODEL
Excavators, 2	John Deere 490E, Hitachi EX75UR
Scraper	Terex TS-14
Farm Tractor	Case 570
Motor Grader	Caterpillar 12F
Water Trailer	Home-made

**TABLE 4-2. SUMMARY OF RECLAMATION QUANTITIES  
O'NEILL OUTCROP FIRE RECLAMATION PROJECT**

BID ITEM	UNIT	QUANTITIES		
		CONTRACT	ACTUAL	DIFFERENCE (%)
1. Mobilization, Demobilization, Bonding and Insurance (Maximum 10% of total bid)	LS	1	1	0.0%
2. Supply Water		-		
2.a. Water Delivery Setup	LS	1	1	0.0%
2.b. Water Usage	KGAL	30.0	3.0	-90.0%
3. Salvage, Stockpile, and Replace Cover Soil	CY	750	780	4.0%
4. Excavate , Haul, & Place Overburden	CY	750	862	14.9%
5. Excavate Subsidence Test Pits	CY	85	90	5.9%
6. Remove Sandstone Boulders	LS	1	1	0.0%
7. Remove, Process, and Bury Hot Coal	CY	1,225	1,294	5.6%
8. Excavate Quench Pit	CY	3,500	3,709	6.0%
9. Cap Quench Pit	CY	1,100	1,121	1.9%
10. Over-excavate and Backfill Vents	CY	60	258	330.0%
11. Backfill, Grade, and Contour	AC	0.50	0.71	42.0%
12. Fertilize and Seed	AC	1.70	1.78	4.7%
13. Mulch	AC	1.70	1.78	4.7%
14. Fence	LF	1,010	1,457	44.3%
15. BMP Sediment Control	LF	200	175	-12.5%
16. Maintain Access	LS	1	1	0.0%

Notes:

AC = acres

CY = cubic yards

LF = linear feet

LS = lump sum

KGAL = thousand gallons

**TABLE 4-3. PROJECT RECONCILIATION  
O'NEILL OUTCROP FIRE RECLAMATION PROJECT**

BID ITEM		UNIT	UNIT COST	BID QUANTITY	CHANGE ORDER NO. 1	FINAL QUANTITY	PERCENT OF CONTRACT	BID PRICE	CHANGE ORDER PRICE	FINAL PRICE	
1.	Mobilization, Demobilization, Bonding and Insurance (Maximum 10% of total bid)	LS	\$ 4,900.00	1	0	1	100.0%	\$ 4,900.00	\$ -	\$ 4,900.00	
3.	Supply Water				0						
3.a	Water Delivery Setup	LS	\$ 2,500.00	1	0	1	100.0%	\$ 2,500.00	\$ -	\$ 2,500.00	
3.b	Water Usage	KGAL	\$ 40.00	30	-27	3	10.0%	\$ 1,200.00	\$ (1,080.00)	\$ 120.00	
4.	Salvage, Stockpile, and Replace Cover Soil	CY	\$ 3.00	750	30	780	104.0%	\$ 2,250.00	\$ 90.00	\$ 2,340.00	
5.	Excavate , Haul, & Place Overburden	CY	\$ 3.00	750	112	862	114.9%	\$ 2,250.00	\$ 336.00	\$ 2,586.00	
6.	Excavate Subsidence Test Pits	CY	\$ 7.00	85	5	90	105.9%	\$ 595.00	\$ 35.00	\$ 630.00	
7.	Remove Sandstone Boulders	LS	\$ 2,500.00	1	0	1	100.0%	\$ 2,500.00	\$ -	\$ 2,500.00	
8.	Remove, Process, and Bury Hot Coal	CY	\$ 4.50	1,225	69	1,294	105.6%	\$ 5,512.50	\$ 310.50	\$ 5,823.00	
9.	Excavate Quench Pit	CY	\$ 2.00	3,500	209	3,709	106.0%	\$ 7,000.00	\$ 418.00	\$ 7,418.00	
10.	Cap Quench Pit	CY	\$ 2.00	1,100	21	1,121	101.9%	\$ 2,200.00	\$ 42.00	\$ 2,242.00	
11.	Over-excavate and Backfill Vents	CY	\$ 25.00	60	198	258	430.0%	\$ 1,500.00	\$ 4,950.00	\$ 6,450.00	
12.	Backfill, Grade, and Contour	AC	\$ 9,000.00	0.50	0.21	0.71	142.0%	\$ 4,500.00	\$ 1,890.00	\$ 6,390.00	
13.	Fertilize and Seed	AC	\$ 800.00	1.7	0.08	1.78	104.7%	\$ 1,360.00	\$ 64.00	\$ 1,424.00	
14.	Mulch	AC	\$ 1,200.00	1.7	0.08	1.78	104.7%	\$ 2,040.00	\$ 96.00	\$ 2,136.00	
15.	Fence	LF	\$ 5.00	1,010	447	1,457	144.3%	\$ 5,050.00	\$ 2,235.00	\$ 7,285.00	
16.	BMP Sediment Control	LF	\$ 4.50	200	-25	175	87.5%	\$ 900.00	\$ (112.50)	\$ 787.50	
17.	Maintain Access	LS	\$ 3,500.00	1	0	1	100.0%	\$ 3,500.00	\$ -	\$ 3,500.00	
<b>Notes:</b>								<b>RECONCILIATION CHANGE ORDER</b>	<b>\$ 49,757.50</b>	<b>\$ 9,274.00</b>	<b>\$ 59,031.50</b>

AC = acres  
CY = cubic yards  
LF = linear feet  
LS = lump sum  
KGAL = thousand gallons

84.29%

**TABLE 5-1. BREAKDOWN OF PROJECT COSTS  
O'NEILL OUTCROP FIRE RECLAMATION PROJECT**

<b>TASK</b>	<b>TOTAL COST</b>	<b>PERCENTAGE OF TOTAL PROJECT COST</b>
Investigation and Design (DEQ Contract 407042 TO 25)	\$25,589.45	
Construction Management (DEQ Contract 407042 TO 31)	\$11,046.17	
<b>Total Engineering Costs</b>	<b>\$36,635.62</b>	<b>38%</b>
Construction (DEQ Contract 411013)	\$49,757.50	
Change Orders	\$9,274.00	
<b>Total Construction Costs</b>	<b>\$59,031.50</b>	<b>62%</b>
<b>Total Project Costs</b>	<b>\$95,667.12</b>	

**FIGURE**

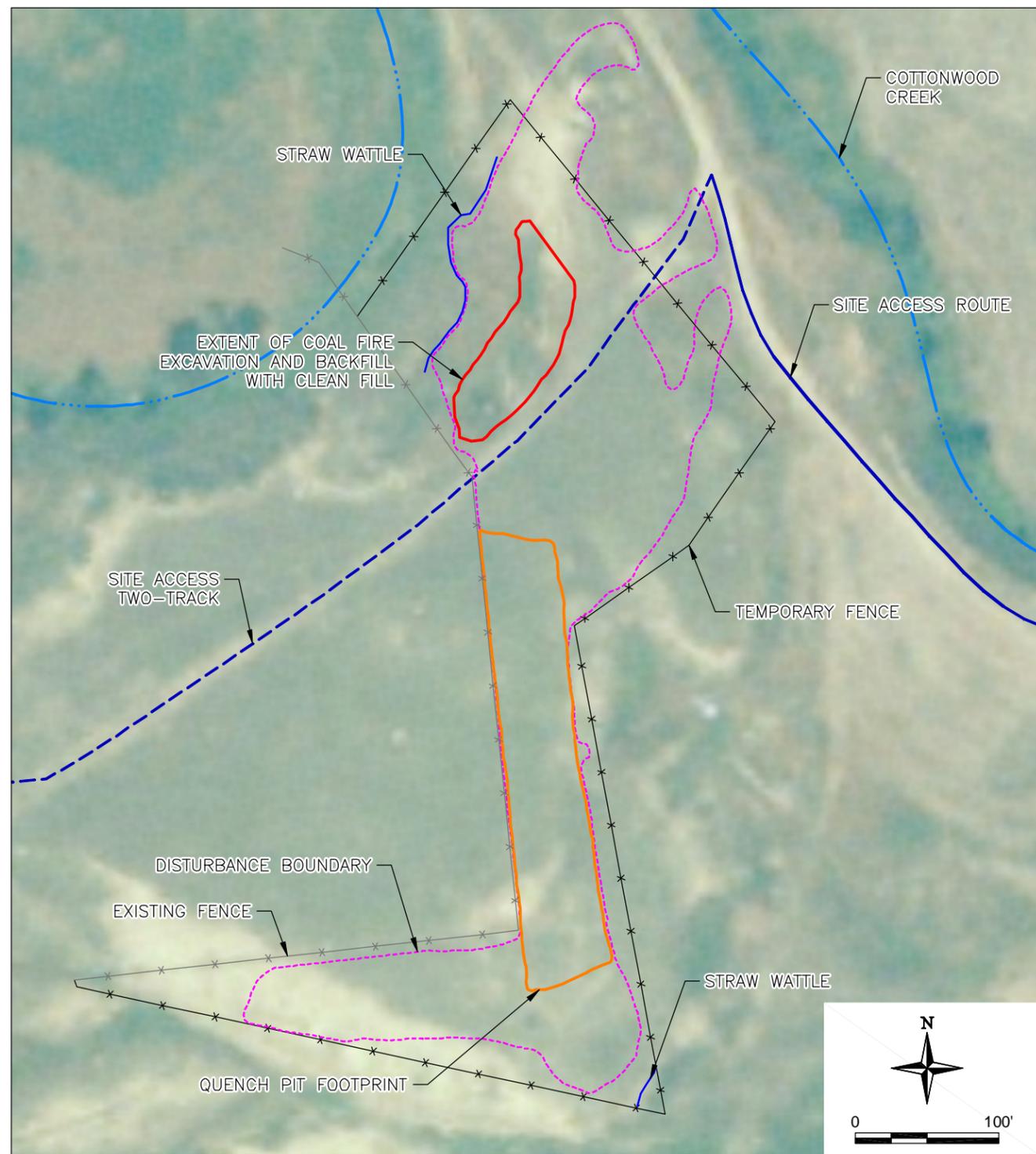


Image Cite: U.S. Farm Services Agency, National Agricultural Imagery Program (NAIP), 2005.



Image Cite: U.S. Farm Services Agency, National Agricultural Imagery Program (NAIP), 2005.

**NOTES:**

1. FINAL GRADING WAS APPROVED IN THE FIELD BY DEQ'S ON-SITE REPRESENTATIVE AND WAS BLENDED WITH SURROUNDING NATURAL TERRAIN.
2. STRAW WATTLES WERE INSTALLED DOWN GRADIENT OF DISTURBANCE AREAS IN LOCATIONS DETERMINED IN THE FIELD AND APPROVED BY THE DEQ'S ON-SITE REPRESENTATIVE.
3. DISTURBED AREAS WERE COVERED WITH SALVAGED COVERSOIL, RAKED AND BROADCAST SEEDING. RECLAIMED AREAS WERE MULCHED WITH STRAW AND CRIMPED FOLLOWING SEEDING.
4. THE O'NEILL SITE ACCESS ROUTE WAS MAINTAINED BY THE CONTRACTOR TO MATCH PRE-CONSTRUCTION CONDITIONS.

**Trihydro**  
CORPORATION  
1252 Commerce Drive  
Laramie, Wyoming 82070  
www.trihydro.com  
(P) 307/745.7474 (F) 307/745.7729

**FIGURE 1**

**AS-BUILT SITE FEATURES**

**O'NEILL OUTCROP FIRE RECLAMATION  
DEQ / ABANDONED MINES SECTION**

Drawn By: KBW | Checked By: MD | Scale: 1" = 100' | Date: 11/29/11 | File: 776-6-5\_OAB20111128

**APPENDIX A**

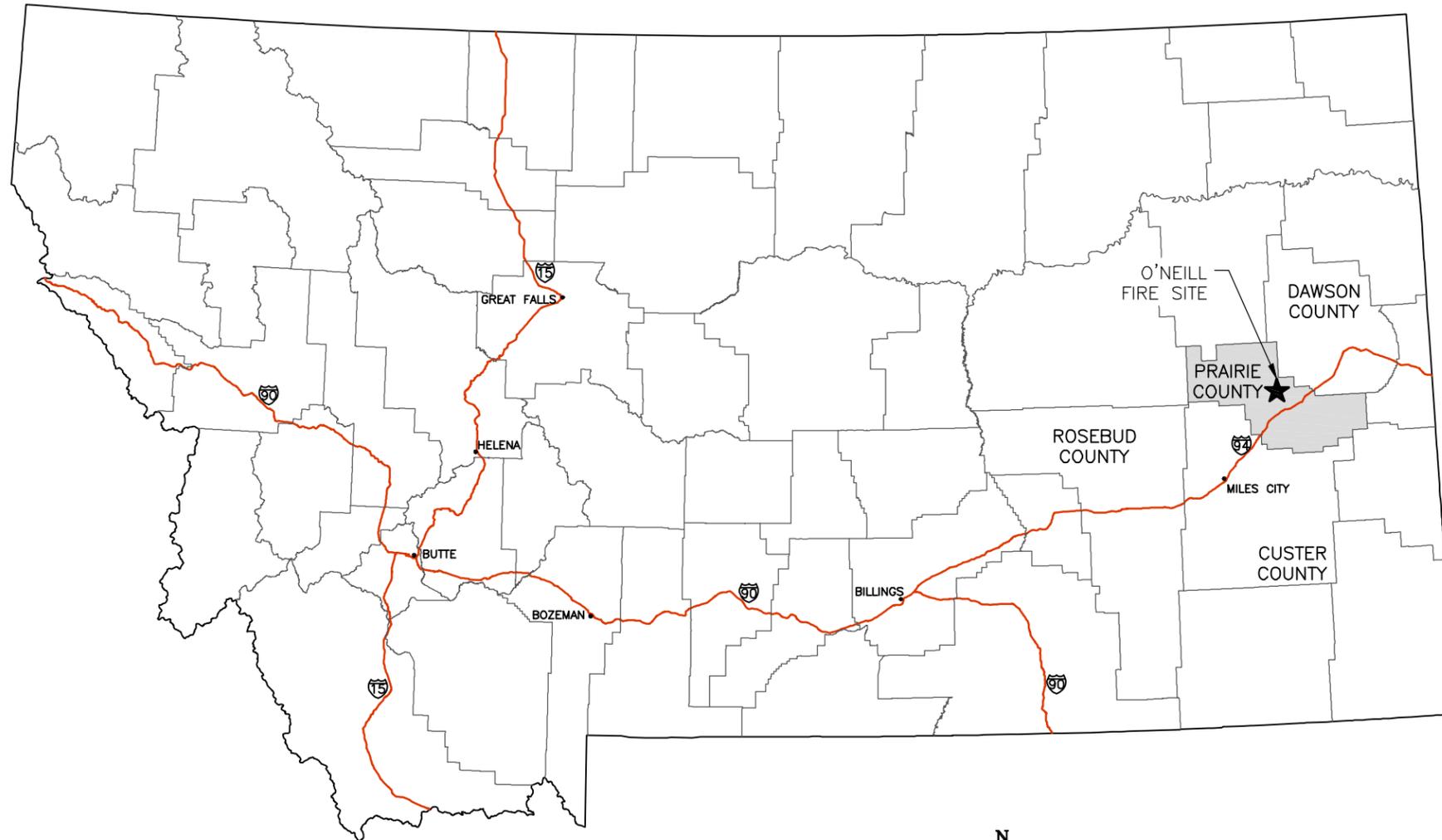
**CONSTRUCTION PLAN SET**



# DEPARTMENT OF ENVIRONMENTAL QUALITY MINE WASTE CLEANUP BUREAU / ABANDONED MINE SECTION



## O'NEILL OUTCROP FIRE RECLAMATION PROJECT PLAN SET PRAIRIE COUNTY CONTRACT NO. 411013



**1 MONTANA STATE MAP**  
SCALE: NOT TO SCALE



SHEET NO.	TITLE	REV.
1	PROJECT LOCATION MAP AND INDEX OF SHEETS	0
2	EXPLANATION AND NOTES	0
3	VICINITY MAP	0
4	SITE ACCESS	0
5	EXISTING SITE FEATURES	0
6	PROPOSED SITE PLAN	0
7	CONSTRUCTION DETAILS AND CROSS SECTION	0
8	QUENCH PIT AND SEDIMENT CONTROL DETAILS	0

**2 INDEX OF SHEETS**

**CERTIFICATE OF ENGINEER:**

I, MARK DONNER, A REGISTERED PROFESSIONAL CIVIL ENGINEER IN THE STATE OF MONTANA, DO HEREBY CERTIFY THAT THESE DRAWINGS WERE PREPARED BY ME OR BY OTHERS UNDER MY DIRECT SUPERVISION AND THAT THESE DRAWINGS ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

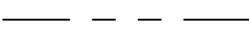
**NOTE:**

SITE LEGAL DESCRIPTION:  
ONEILL OUTCROP FIRE SITES, SECTIONS 34 AND 35, TOWNSHIP 14 NORTH, RANGE 51 EAST

SHEET <b>1</b> 1 OF 8	REV: <b>0</b>	PROJECT LOCATION MAP AND INDEX OF SHEETS	O'NEILL OUTCROP FIRE RECLAMATION PROJECT DEQ / ABANDONED MINE SECTION	ISSUE FOR BID	MD
				DATE	CHK'D
DRAWN BY: KBW		CHECKED BY: MD	DATE: 4/29/2011	SCALE: NONE	FILE: 776-6-4_CS201012
 <small>1252 Commerce Drive Laramie, Wyoming 82070 www.tribhydro.com (P) 3077457474 (F) 3077457729</small>					
		DESCRIPTION			REVISIONS
		REV.	DATE	BY	CHK'D
		0	05/08/2011	KBW	MD

**EXPLANATION**

**GENERAL CONSTRUCTION AND SAFETY NOTES:**

	EXISTING FIRE VENT AND MEASURED TEMPERATURE
	SURVEY CONTROL POINT
	SOIL TEMPERATURE SAMPLE POINT
	PROPOSED TEST PIT
	DRAINAGE
	EXISTING FENCE
	SECTION LINE
	SITE ACCESS
	SITE ACCESS TWO-TRACK
	PROPOSED DISTURBANCE BOUNDARY
	CULTURAL RESOURCE BOUNDARY
	PROPOSED FENCE
	STRAW WATTLES
	EXTENT OF SURFACE SIGNS OF COAL FIRE
	POSSIBLE FIRE RELATED SUBSIDENCE
	PROPOSED GRADING LIMITS
	PROPOSED QUENCH PIT
	PROPOSED STAGING/PROCESSING AREA
	EXISTING SURFACE CONTOURS (INTERVAL: 1 FT AMSL AND 5 FT AMSL)
	PROPOSED SURFACE CONTOURS (INTERVAL: 1FT AMSL AND 5 FT AMSL)
CY	CUBIC YARD
FT AMSL	FEET ABOVE MEAN SEA LEVEL
TYP.	TYPICAL
MIN.	MINIMUM

**GENERAL:**

- A. THE CONTRACTOR SHALL CALL MONTANA UTILITY NOTIFICATION CENTER PRIOR TO INTRUSIVE ACTIVITIES. THE CONTRACTOR IS RESPONSIBLE FOR LOCATION OF ALL UTILITIES.
- B. THE CONTRACTOR SHALL NOT DISTURB AREAS OUTSIDE THE PROPOSED DISTURBANCE BOUNDARY. THE CONTRACTOR SHALL RECLAIM OR REPAIR ALL DISTURBANCES CREATED OUTSIDE THE PROPOSED DISTURBANCE BOUNDARY BY THE CONTRACTOR'S EMPLOYEES OR SUBCONTRACTORS AT THE CONTRACTOR'S EXPENSE.
- C. THE CONTRACTOR SHALL USE EXISTING ACCESS ROADS FOR EQUIPMENT, PERSONNEL AND MATERIALS TRANSPORTATION. THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO ACCESS ROADS CAUSED BY THE CONTRACTOR. IF ANY NEW ACCESS OR HAUL ROADS ARE REQUIRED TO COMPLETE THE WORK, THEY SHALL FIRST BE APPROVED BY THE ENGINEER, AND SHALL BE RECLAIMED ACCORDING TO THE SPECIFICATIONS AT THE COMPLETION OF THE PROJECT.
- D. NO OTHER ACCESS TO THE SITE IS ALLOWED WITHOUT PERMISSION IN WRITING FROM THE ENGINEER AND LANDOWNERS.

**SAFETY:**

- A. THE BURNING COAL SEAMS CREATE SIGNIFICANT SAFETY HAZARDS THAT THE CONTRACTOR SHALL CONSIDER IN PLANNING AND CONDUCTING WORK. THESE INCLUDE PHYSICAL INSTABILITIES, EXTREME TEMPERATURES AND CARBON DIOXIDE VENTING. THE CONTRACTOR IS RESPONSIBLE FOR THE SAFETY OF CONTRACTOR'S OWN PERSONNEL AND EQUIPMENT.
- B. THE COAL SEAM FIRES HAVE UNDERMINED THE STABILITY OF THE NATIVE SLOPES IN THE PROJECT AREAS CREATING UNSTABLE SLOPES THAT ARE CONTINUALLY FAILING. SLOPES HAVE THE POTENTIAL TO FAIL AT ALL TIMES. THE FIRES MAY HAVE ALSO BURNED BELOW OVERBURDEN MATERIALS WEAKENING THE SUBSURFACE AND PROVIDING THE POTENTIAL FOR SUBSIDENCE.
- C. THE COAL SEAM FIRES GENERATE SIGNIFICANT HEAT. SUBSURFACE TEMPERATURES CAN BE EXPECTED IN EXCESS OF 500°F. THE CONTRACTOR SHALL PLAN WORK SO THAT EQUIPMENT IS NOT DAMAGED BY THE EXTREME HEAT AND SO THAT WORKERS ARE NOT EXPOSED TO THE ELEVATED TEMPERATURES.

**CONSTRUCTION:**

- A. TOPSOIL FROM GRADING AREAS SHALL BE STRIPPED TO A DEPTH OF 10 INCHES OR AS DIRECTED BY THE ENGINEER AND STOCKPILED. ALL DISTURBED AREAS SHALL BE REVEGETATED PER THE SPECIFICATIONS.
- B. THE ENGINEER WILL DETERMINE MATERIAL CLASSIFICATIONS IN THE FIELD. TOPSOIL/COVERSOIL IS ANY MATERIAL SUITABLE FOR PLANT GROWTH MEDIUM AS DETERMINED BY THE ENGINEER.
- C. THE CONTRACTOR SHALL NOT REMOVE OR DESTROY ANY SURVEY MONUMENTS WITHOUT PRIOR WRITTEN PERMISSION FROM THE ENGINEER.
- D. SURFACE GRADING AREAS SHALL BE FINISH GRADED, COVERSOILED, AND SEEDED
- E. SITE GRADING SHALL BE CONSTRUCTED TO ±1.0 FEET OF PROPOSED ELEVATIONS OR AS APPROVED BY THE ENGINEER.
- F. STOCKPILE AND PROCESSING AREAS WILL BE LOCATED IN THE FIELD AND APPROVED BY ENGINEER.

SHEET	2	2 OF 8	REV: 0	EXPLANATION AND NOTES	O'NEILL OUTCROP FIRE RECLAMATION PROJECT DEQ / ABANDONED MINE SECTION	 <p>1252 Commerce Drive Laramie, Wyoming 82070 www.tribhydro.com (P) 3077457474 (F) 3077457729</p>	DRAWN BY: KBW CHECKED BY: MD DATE: 4/29/2011 SCALE: NONE FILE: 776-6-4_EX201012	05/08/2011 0 DATE REV.	MD KBW BY CHK'D
							DESCRIPTION REVISIONS		

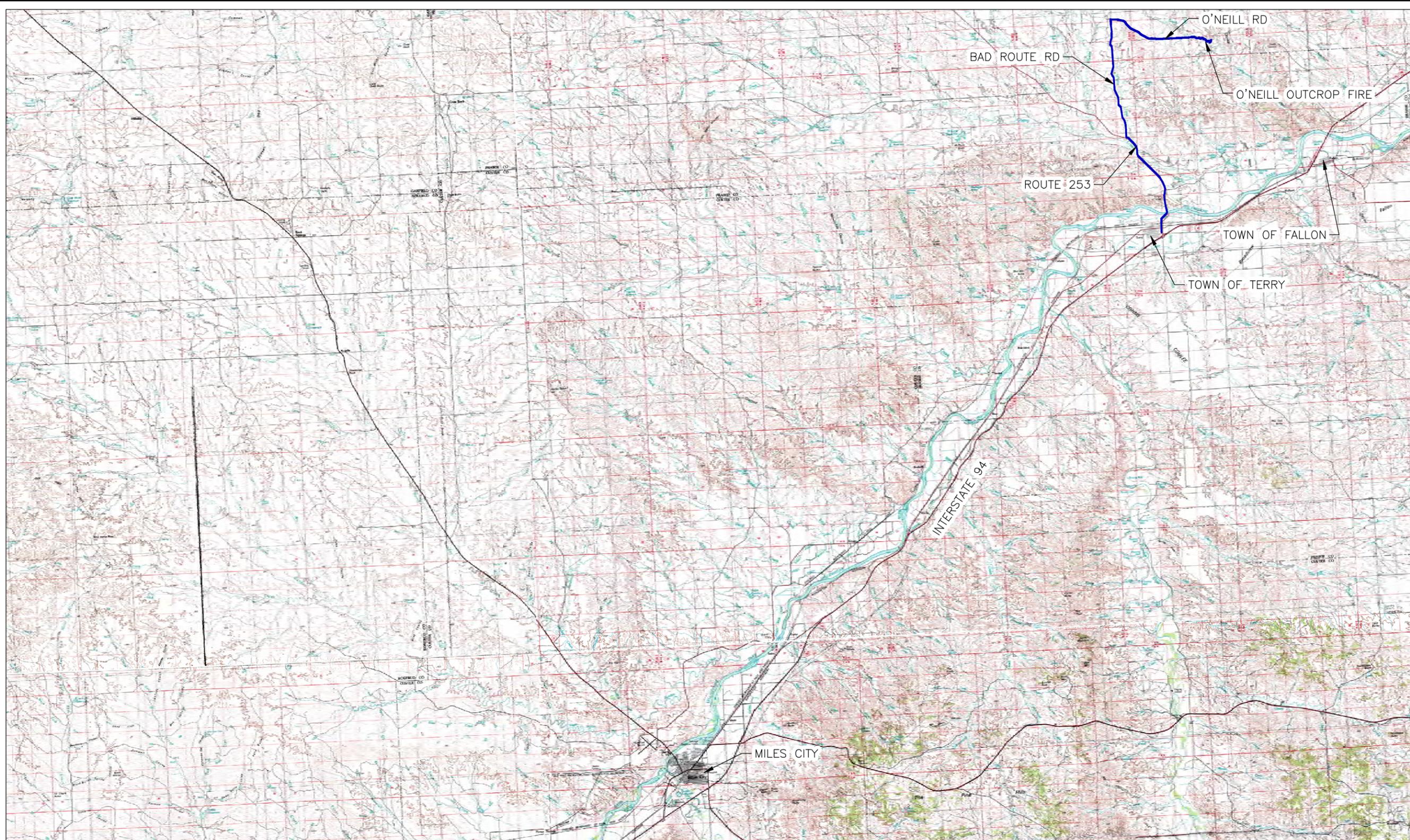
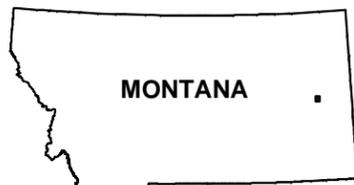


Image Cite: U.S. Geological Survey, 1:100,000 Scale Digital Raster Graphic Quadrangle, Miles City and Terry, Publication: 1980



**SITE LOCATION**

**NOTE:**

THE O'NEILL RANCH SITE IS ACCESSED BY TRAVELING NORTH FROM THE TOWN OF TERRY ON ROUTE 253, 5.5 MILES TO BAD ROUTE ROAD. THE ACCESS ROUTE CONTINUES NORTH ON BAD ROUTE ROAD A DISTANCE OF 6.4 MILES BEFORE TURNING EAST AND FOLLOWING O'NEILL ROAD A DISTANCE OF 4.7 MILES. THE ACCESS ROUTE THEN TURNS SOUTH ONTO A TWO TRACK ROAD FOR A DISTANCE OF 0.7 MILES TO THE WESTERN SITE.



REV.	0	05/08/2011	ISSUE FOR CLIENT REVIEW
BY	KBW		MD
CHK'D			

DRAWN BY:	KBW
CHECKED BY:	MD
DATE:	4/29/2011
SCALE:	1" = 5 MILES
FILE:	776-6-4_VM201012

**Trihydro**  
 CORPORATION  
 1252 Commerce Drive  
 Laramie, Wyoming 82070  
 www.trihydro.com  
 (P) 307.745.7474 (F) 307.745.7729

**VICINITY MAP**

**O'NEILL OUTCROP FIRE  
 RECLAMATION PROJECT  
 DEQ / ABANDONED MINE SECTION**

SHEET	<b>3</b>
	3 OF 8
REV:	0



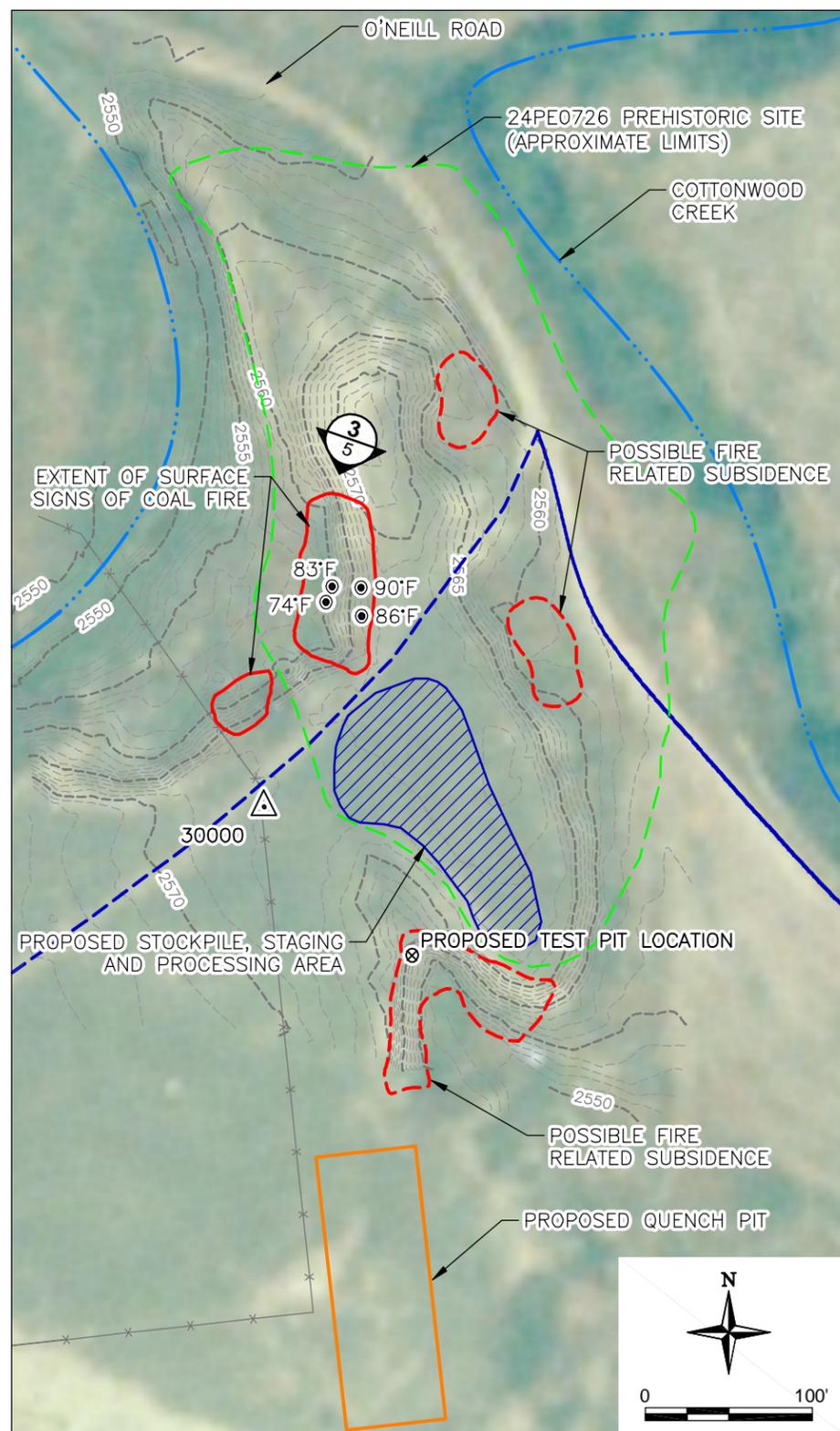


Image Cite: U.S. Farm Services Agency, National Agricultural Imagery Program (NAIP), 2005

**1 O'NEILL OUTCROP FIRE**  
SCALE: 1" = 100'



Image Cite: U.S. Farm Services Agency, National Agricultural Imagery Program (NAIP), 2005

**2 O'NEILL OUTCROP FIRE VENTS**  
SCALE: 1" = 100'

**NOTES:**

1. CONTOURS SHOWN BASED ON SURVEY PERFORMED BY TRIHYDRO CORPORATION IN JULY 2009.
2. FINAL COVERSOIL AND OVERBURDEN STOCKPILE LOCATIONS WILL BE DETERMINED IN THE FIELD AND APPROVED BY THE ENGINEER.
3. THE FINAL LOCATION OF THE HOT COAL PROCESSING AREA WILL BE DETERMINED IN THE FIELD AND APPROVED BY THE ENGINEER. STRAW WATTLES SHALL BE PLACED DOWN SLOPE OF THE PROCESSING AREA TO PREVENT TRANSPORT OF THE COAL DURING STORM EVENTS.
4. THE CONTRACTOR SHALL EXCAVATE A SAFE WORKING SURFACE PRIOR TO COMMENCING EXCAVATION OF THE FIRE. THE CONTRACTOR SHALL MAINTAIN SAFE SLOPES DURING EXCAVATION ACTIVITIES.
5. THE ACTUAL EXTENT OF THE EXCAVATION WILL BE DETERMINED IN THE FIELD BY THE ENGINEER BASED ON MEASUREMENTS OF COAL TEMPERATURE AND VISUAL OBSERVATIONS.
6. THE CONTRACTOR SHALL INSTALL STRAW WATTLES DOWNSTREAM OF EXCAVATION AREAS IN LOCATIONS DETERMINED IN THE FIELD AND APPROVED BY THE ENGINEER.
7. THE O'NEILL OUTCROP FIRE IS LOCATED WITHIN THE LIMITS OF A CULTURAL RESOURCE SITE (24PE0726). NO WORK SHALL BE CONDUCTED OUTSIDE OF THE DISTURBANCE LIMITS SHOWN ON SHEET 6. EXCAVATION/INTRUSIVE ACTIVITIES SHALL BE LIMITED TO THE MINIMUM REQUIRED TO COMPLETE THE WORK AS DESCRIBED IN THE CONSTRUCTION SPECIFICATIONS, DRAWINGS, AND BIDDING DOCUMENTS.



Trihydro Site Reconnaissance Field Photo, July 26, 2010

**3 O'NEILL OUTCROP FIRE**  
SCALE: NONE



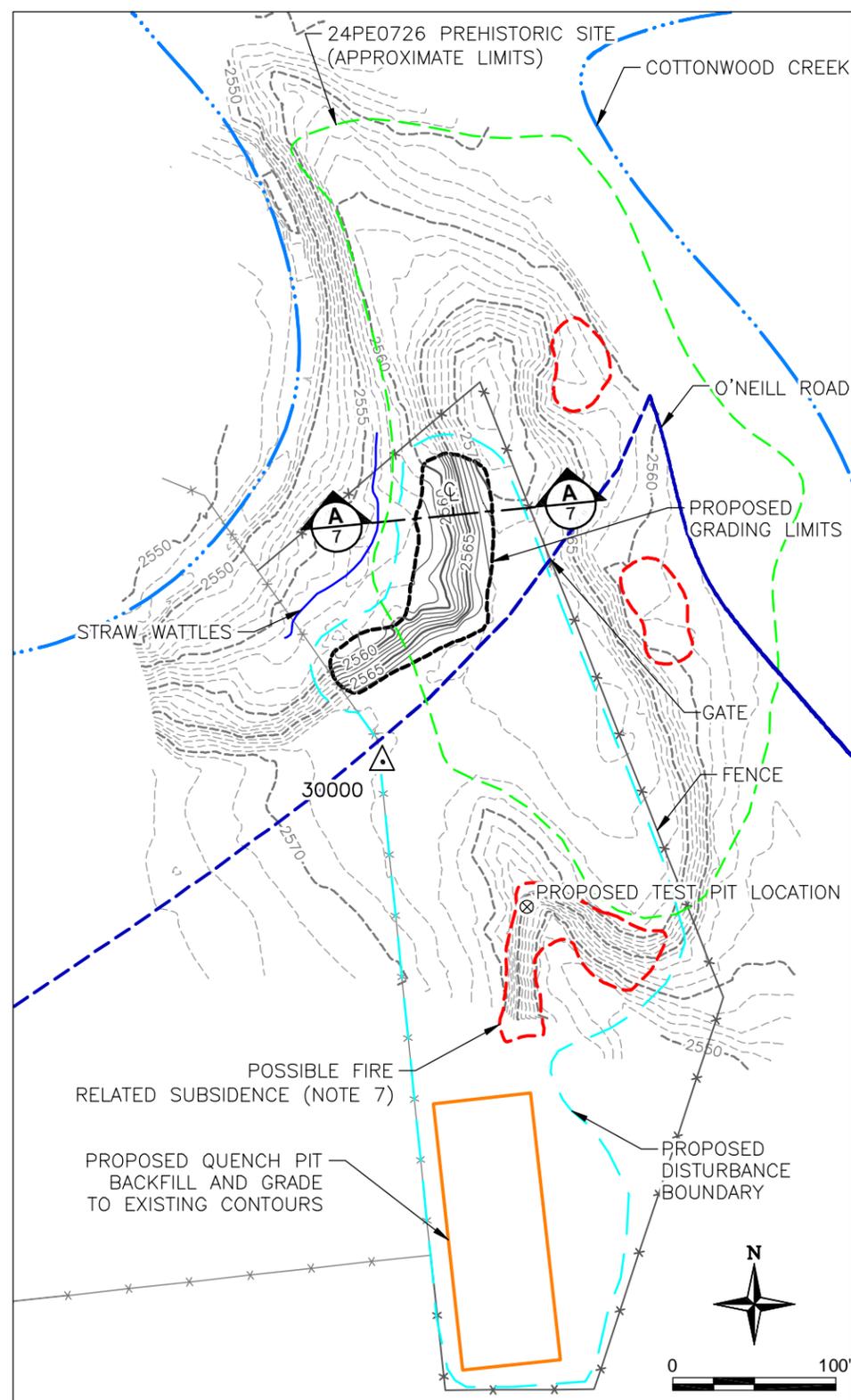
Trihydro Site Reconnaissance Field Photo, June 1, 2009

**4 O'NEILL OUTCROP FIRE VENT**  
SCALE: NONE

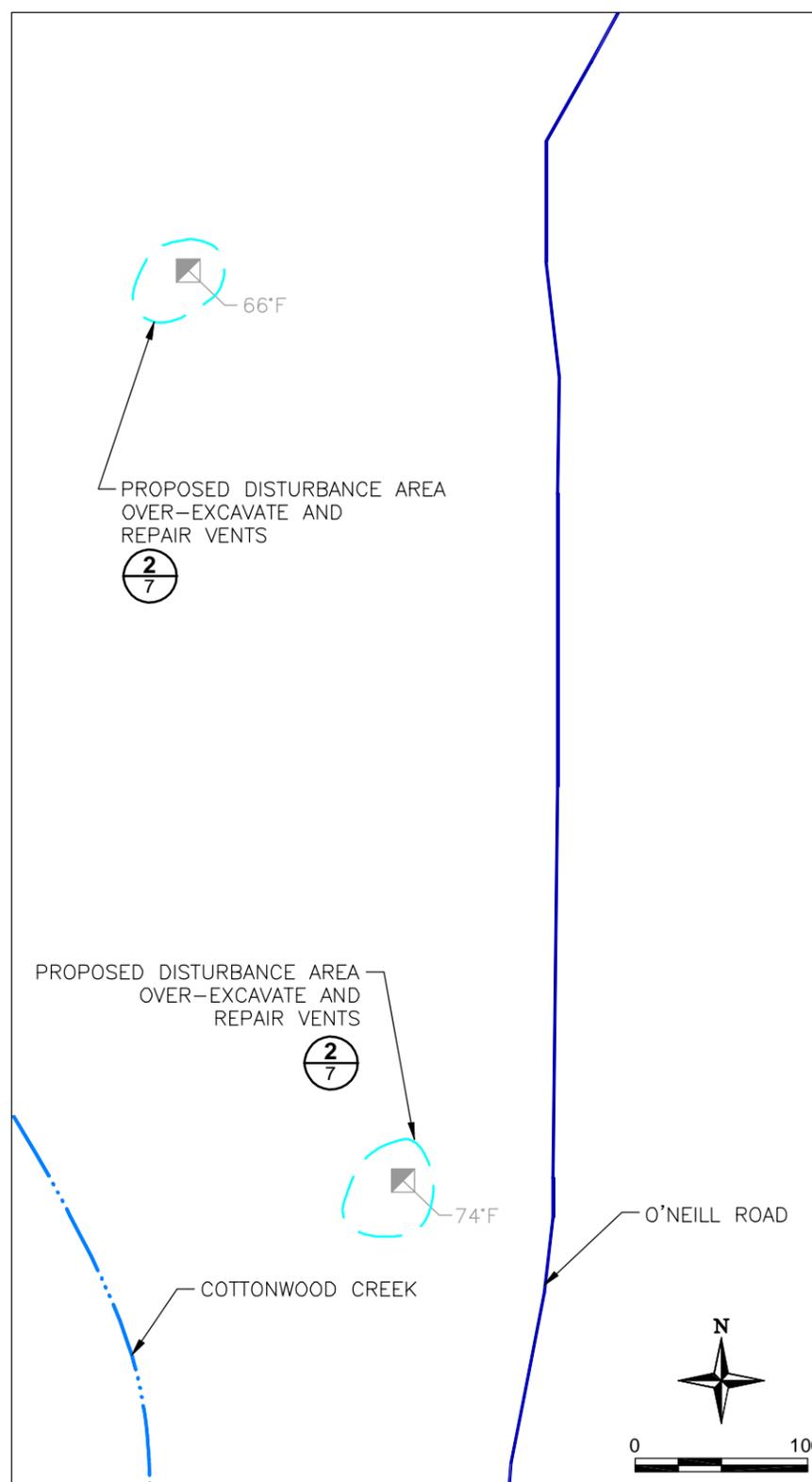
POINT NO.	NORTHING	EASTING	ELEVATION
30000	1006751.171	3032852.870	2568.01

**5 CONTROL POINT COORDINATE TABLE**

DRAWN BY: KBW	CHECKED BY: MD	DATE: 4/29/2011	SCALE: 1" = 100'	FILE: 776-6-4_ESFO201012	REV: 0	DATE	DESCRIPTION	BY	CHK'D
					0	05/08/2011	ISSUE FOR BID	KBW	MD
 <p>1252 Commerce Drive Laramie, Wyoming 82070 www.trihydro.com (P) 307.745.7474 (F) 307.745.7729</p>					<p><b>EXISTING SITE FEATURES</b></p> <p><b>O'NEILL OUTCROP FIRE RECLAMATION PROJECT</b></p> <p><b>DEQ / ABANDONED MINE SECTION</b></p>				
SHEET	<b>5</b>		5 OF 8	REV: 0					



**1 O'NEILL OUTCROP FIRE**  
SCALE: 1" = 100'

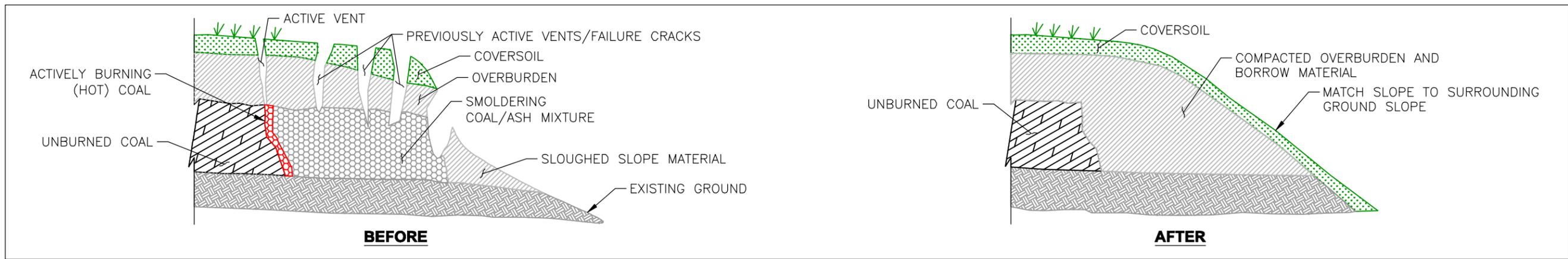


**2 O'NEILL OUTCROP FIRE VENTS**  
SCALE: 1" = 100'

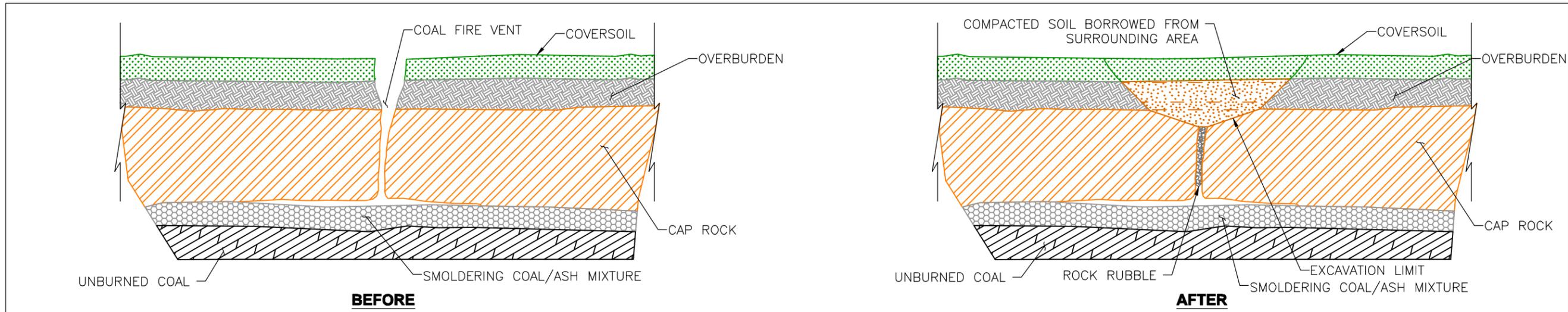
**NOTES:**

1. PROPOSED CONTOURS SHOWN ARE APPROXIMATE AND WILL DEPEND ON THE EXTENT OF THE EXCAVATION. FINAL GRADING WILL BE AS APPROVED IN THE FIELD BY THE ENGINEER AND SHALL BLEND WITH SURROUNDING NATURAL TERRAIN.
2. STRAW WATTLES SHALL BE INSTALLED DOWN GRADIENT OF DISTURBANCE AREAS IN LOCATIONS DETERMINED IN THE FIELD AND APPROVED BY THE ENGINEER.
3. THE O'NEILL OUTCROP FIRES SHALL BE EXCAVATED ROUGHLY AS DEPICTED ON DETAIL 1 ON SHEET 7. COVERSOILS SHALL BE REMOVED FROM ALONG THE TOE AND FACE OF THE DISTURBED AREA. FOLLOWING REMOVAL OF COVERSOIL AND OVERBURDEN, THE HOT COAL SHALL BE EXCAVATED AND PROCESSED. PROCESSING SHALL INCLUDE SPREADING THE COAL TO ALLOW THE COAL TO COOL AND MIXING THE COAL WITH CONTRACTOR-SUPPLIED WATER AND STOCKPILED OVERBURDEN. PROCESSED COAL SHALL BE HAULED AND DISPOSED IN A QUENCH PIT. THE EXCAVATION SHALL BE BACKFILLED WITH BORROW MATERIAL FROM THE QUENCH PIT AND STOCKPILED OVERBURDEN. THE SITE SHALL BE GRADED TO BLEND WITH THE SURROUNDING NATURAL TOPOGRAPHY.
4. THE TWO FIRE VENTS LOCATED ON THE BLUFF ABOVE COTTONWOOD CREEK SHALL BE EXCAVATED AND BACKFILLED AS DEPICTED ON DETAIL 2 SHEET 7 TO REDUCE AIRFLOW TO THE SUBSURFACE. EXCAVATION OF THE VENTS SHALL EXTEND TO A DEPTH OF 15 FEET, OR AS APPROVED BY THE ENGINEER. THE EXCAVATIONS SHALL BE BACKFILLED WITH SOIL FROM THE EXCAVATION AND BORROWED FROM THE SURROUNDING AREA. THE FILL SHALL BE PLACED IN MAXIMUM 1.0-FOOT LIFTS AND COMPACTED WITH THE EXCAVATOR BUCKET.
5. DISTURBED AREAS SHALL BE COVERED WITH SALVAGED COVERSOIL, DISKED AND SEED. RECLAIMED AREAS WITH A SLOPE GRATER THAN 4:1 AS WELL AS VENT REPAIRS MAY BE HAND-BROADCAST SEED. ALL OTHER RECLAIMED AREAS SHALL BE SEED. RECLAIMED AREAS SHALL BE MULCHED WITH STRAW AND CRIMPED FOLLOWING SEEDING.
6. MINOR GRADING WILL BE COMPLETED AROUND THE TEST PITS AND FIRE VENT EXCAVATIONS TO PROMOTE POSITIVE DRAINAGE AWAY FROM AFFECTED AREAS.
7. A TEST PIT SHALL BE EXCAVATED AT THE SOUTHERN-MOST POSSIBLE FIRE RELATED SUBSIDENCE AREA TO CHECK FOR INDICATIONS OF SUBSURFACE FIRE ACTIVITY. THE TEST PIT SHALL BE EXCAVATED TO THE COAL SEAM, OR AS APPROVED BY THE ENGINEER. ADDITIONAL TEST PITS SHALL BE AT THE DISCRETION OF THE ENGINEER.

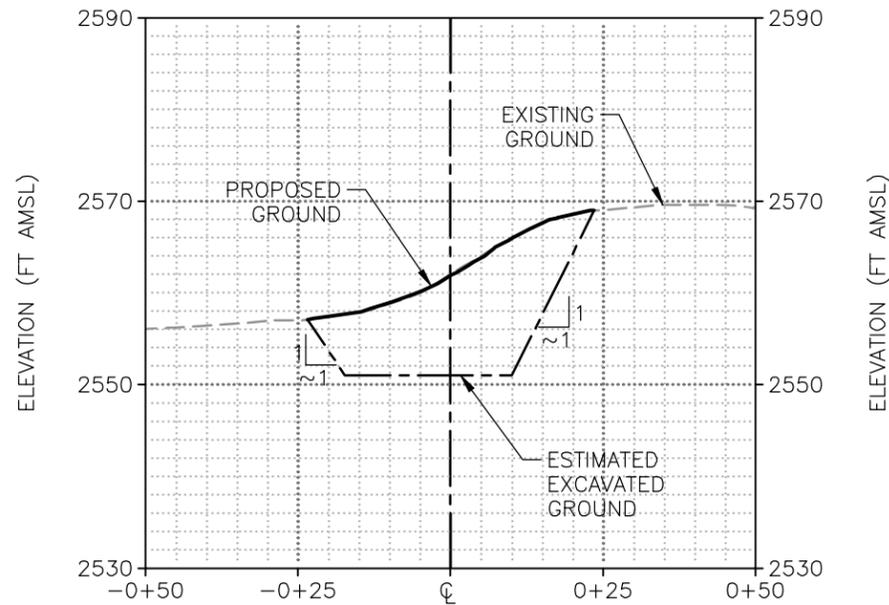
SHEET	<b>6</b>	6 OF 8	REV: 0	DRAWN BY: KBW	CHECKED BY: MD	DATE: 4/29/2011	SCALE: 1" = 100'	FILE: 776-6-4_PSMO201012	REV: 0	DATE	DESCRIPTION	BY	CHK'D
									0	05/08/2011	ISSUE FOR BID	KBW	MD
 <p>1252 Commerce Drive Laramie, Wyoming 82070 www.tribhydro.com (307) 746-7474 (F) 307 746-7729</p>													
<p><b>PROPOSED SITE PLAN</b></p> <p><b>O'NEILL OUTCROP FIRE RECLAMATION PROJECT</b></p> <p><b>DEQ / ABANDONED MINE SECTION</b></p>													



**1 EXCAVATION AND BACKFILL OF FIRE AREA**  
SCALE: NONE



**2 VENT CLOSURE DETAIL**  
SCALE: NONE



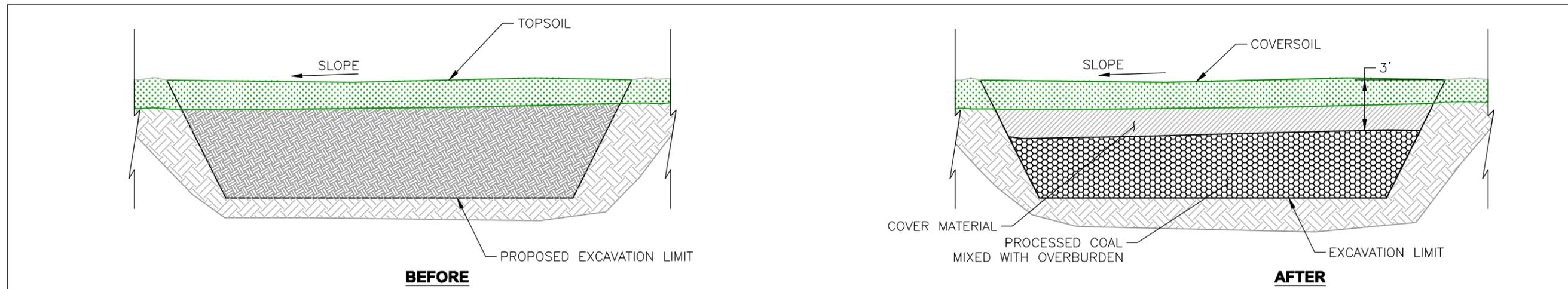
**A O'NEILL OUTCROP FIRE**  
SCALE: H: 1" = 30' V: 1" = 20'  
HORIZONTAL: 0 30' 0 20'  
VERTICAL

**NOTES:**

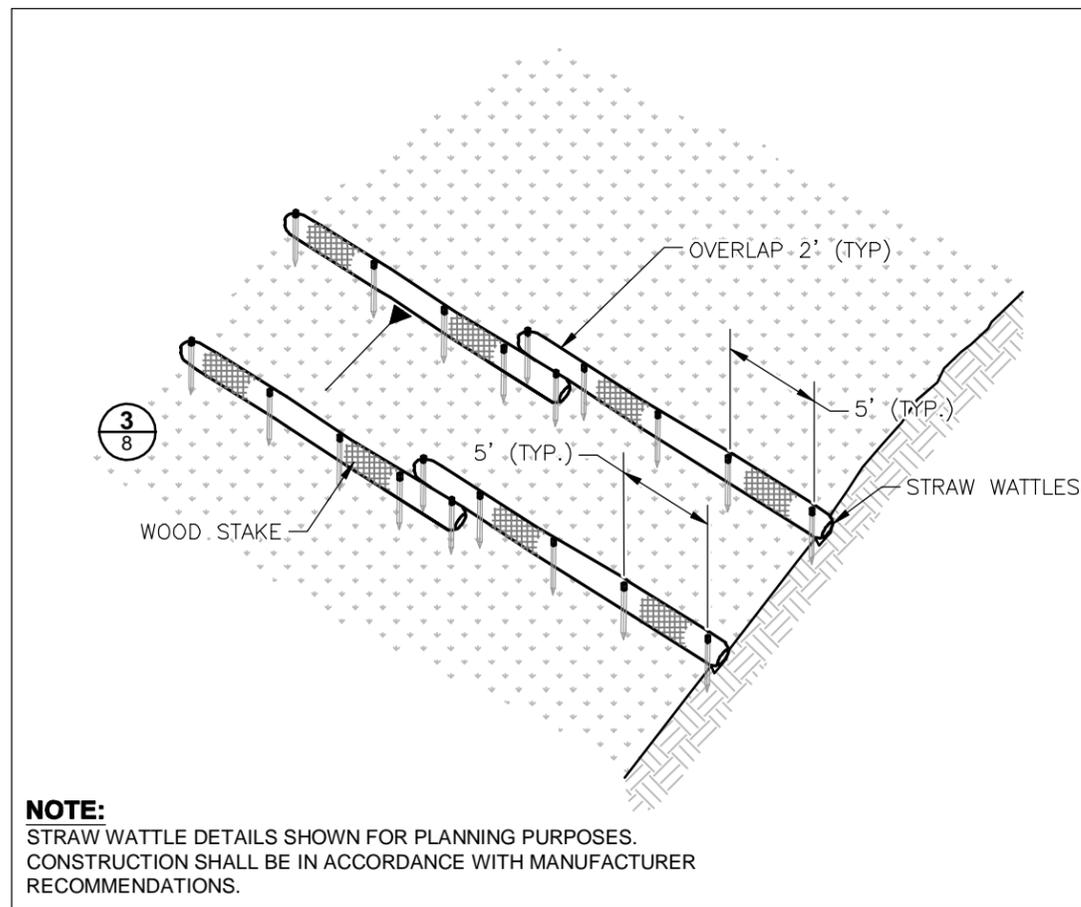
- EXCAVATED SURFACE SHOWN IS ESTIMATED BASED ON SURFACE CONDITIONS DOCUMENTED DURING FIELD INVESTIGATIONS. THE ACTUAL EXTENT OF EXCAVATION WILL DEPEND ON CONDITIONS, INCLUDING THE EXTENT OF BURNING COAL, ENCOUNTERED IN THE FIELD.
- THE PROPOSED GROUND SHALL APPROXIMATE NATURAL TOPOGRAPHY AND WILL BE ADJUSTED AS APPROVED BY THE ENGINEER IN THE FIELD.
- FIRE VENTS SHALL BE EXCAVATED TO A DEPTH OF 15 FEET OR AS APPROVED BY THE ENGINEER. ROCK RUBBLE SHALL BE PLACED IN THE VENT AT THE LIMIT OF EXCAVATION PRIOR TO BACKFILLING WITH COMPACTED SOIL.

DRAWN BY: KBW		CHECKED BY: MD		DATE: 4/29/2011		SCALE: NONE		FILE: 776-6-4_CD201012	
ISSUE FOR BID		DATE		REV.		DESCRIPTION		REVISIONS	
0		05/08/2011				ISSUE FOR BID		BY: KBW MD	
0								CHK'D	
SHEET		7		7 OF 8		REV: 0			
<b>CONSTRUCTION DETAILS AND CROSS SECTION</b>					<b>O'NEILL OUTCROP FIRE RECLAMATION PROJECT</b>				
<b>DEQ / ABANDONED MINE SECTION</b>									



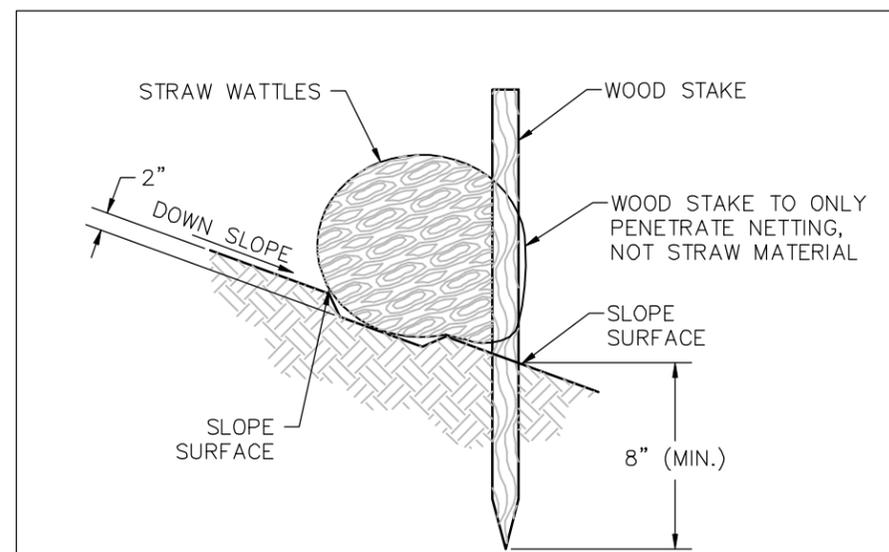


**1 QUENCH PIT DETAIL**  
SCALE: NONE



**NOTE:**  
STRAW WATTLE DETAILS SHOWN FOR PLANNING PURPOSES.  
CONSTRUCTION SHALL BE IN ACCORDANCE WITH MANUFACTURER  
RECOMMENDATIONS.

**2 STRAW WATTLE DETAILS**  
SCALE: NONE



Source: North American Green, Evansville, IN, 2006

**3 STAKE DETAILS (ON BARE SOIL)**  
SCALE: NONE

REV.	0	05/08/2011	ISSUE FOR BID	MD	CHK'D
REV.		DATE	DESCRIPTION	BY	CHK'D

DRAWN BY:	KBW
CHECKED BY:	MD
DATE:	4/29/2011
SCALE:	NONE
FILE:	776-6-4_SC201012

**Trihydro**  
CORPORATION  
1252 Commerce Drive  
Laramie, Wyoming 82070  
www.trihydro.com  
(P) 307.745.7474 (F) 307.745.7729

<b>QUENCH PIT AND SEDIMENT CONTROL DETAILS</b>
<b>O'NEILL OUTCROP FIRE RECLAMATION PROJECT</b>
<b>DEQ / ABANDONED MINE SECTION</b>

SHEET	<b>8</b>
REV:	0

**APPENDIX B**

**CHANGE ORDER**

# CHANGE ORDER

ORDER NO. 1

PROJECT TITLE: O'Neill Outcrop Coal Fires Reclamation Project

DEQ Contract No. 411013

CONTRACT DATE: July 11, 2011

OWNER: MDEQ Mine Waste Cleanup Bureau

CONTRACTOR: Ed Baxter Construction

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.)

	BID ITEM	UNIT	UNIT COST	BID QUANTITY	FINAL QUANTITY	ADJUSTMENT IN PRICE
1	Mobilization, Demobilization, Bonding and Insurance	LS	\$4,900.00	1	1	\$ -
2	Provide Water					
2a	Water Delivery Setup	LS	\$2,500.00	1	1	\$ -
2b	Water Usage	Kgal	\$40.00	30	3	\$ (1,080.00)
3	Salvage, Stockpile, and Replace Cover Soil	CY	\$3.00	750	780	\$ 90.00
4	Excavate, Haul, & Place Overburden	CY	\$3.00	750	862	\$ 336.00
5	Excavate Subsidence Test Pits	CY	\$7.00	85	90	\$ 35.00
6	Remove Sandstone Boulders	LS	\$2,500.00	1	1	\$ -
7	Remove, Process, and Bury Hot Coal	CY	\$4.50	1,225	1,294	\$ 310.50
8	Excavate Quench Pit	CY	\$2.00	3,500	3,709	\$ 418.00
9	Cap Quech Pit	CY	\$2.00	1,100	1,121	\$ 42.00
10	Over-excavate and Backfill Vents	CY	\$25.00	60	258	\$ 4,950.00
11	Backfill, Grade, and Contour	AC	\$9,000.00	0.50	0.71	\$ 1,890.00
12	Fertilize and Seed	AC	\$800.00	1.70	1.78	\$ 64.00
13	Mulch	AC	\$1,200.00	1.70	1.78	\$ 96.00
14	Fence	LF	\$5.00	1,010	1,457	\$ 2,235.00
15	BMP Sediment Control	LF	\$4.50	200	175	\$ (112.50)
16	Maintain Site Access Route	LS	\$3,500.00	1	1	\$ -
<b>O'NEILL FIRE ADJUSTMENT</b>						<b>\$ 9,274.00</b>

**Original Contract Price: \$49,757.50**

**Current Contract Price Adjusted by Previous Change Order: \$49,757.50**

**Cost this Change Order (+ or -): +\$9,274.00**

**New Contract Price including this Change Order: \$59,031.50**

The completion date as set forth in the Contract Documents shall be (unchanged, increased, decreased) by 0 calendar days.

The date for completion of all work will be August 9, 2011.

**Description and Justification for Change:**

1. Project work has been completed at the O'Neill Outcrop Fire sites. Change Order No.1 is issued to reconcile the differences between the as-constructed, final quantities, and the bid quantities.

The final site inspection was conducted by Michael Glenn (DEQ/MWCB) on August 17, 2011.

**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. The Principal and the Surety further agree that on or after execution of this consent, the penalty of the applicable Performance Bonds or Bonds is hereby increased by \$ 9274 (100 percent of the Change Order amount) and the penalty of the applicable Labor and Material Bond or Bonds is hereby increased by \$ 9274 (100 percent of the Change Order amount).

COUNTERSIGNED BY MONTANA  
RESIDENT AGENT

SURETY  
Developers Surety and Indemnity Company  
17780 Fitch Ave Suite 200 Irvine CA

Bidlake Agency  
[Signature]

By: [Signature] 9/14/11  
Seal John J Bidlake  
Attorney-in-Fact

Recommended by: [Signature] 9/13/11  
Engineer Date

Accepted by: Ed Batts 9-14-11  
Contractor Date

Approved by: [Signature] 9-15-11  
Owner Date

RECEIVED

SEP 15 2011

Dept. of Environmental Quality  
Remediation Division

Rev. 6/04

POWER OF ATTORNEY FOR  
DEVELOPERS SURETY AND INDEMNITY COMPANY  
PO Box 19725, IRVINE, CA 92623 (949) 263-3300

KNOW ALL BY THESE PRESENTS that except as expressly limited, DEVELOPERS SURETY AND INDEMNITY COMPANY, does hereby make, constitute and appoint:

\*\*\*John J. Bidlake\*\*\*

as its true and lawful Attorney(s)-in-Fact, to make, execute, deliver and acknowledge, for and on behalf of said corporation, as surety, bonds, undertakings and contracts of suretyship giving and granting unto said Attorney(s)-in-Fact full power and authority to do and to perform every act necessary, requisite or proper to be done in connection therewith as each of said corporation could do, but reserving to each of said corporation full power of substitution and revocation, and all of the acts of said Attorney(s)-in-Fact, pursuant to these presents, are hereby ratified and confirmed.

This Power of Attorney is granted and is signed by facsimile under and by authority of the following resolution adopted by the Board of Directors of DEVELOPERS SURETY AND INDEMNITY COMPANY, effective as of January 1st, 2008.

RESOLVED, that a combination of any two of the Chairman of the Board, the President, any Executive Vice-President, Senior Vice-President or Vice-President of the corporation be, and that each of them hereby is, authorized to execute this Power of Attorney, qualifying the attorney(s) named in the Power of Attorney to execute, on behalf of the corporation, bonds, undertakings and contracts of suretyship; and that the Secretary or any Assistant Secretary of the corporation be, and each of them hereby is, authorized to attest the execution of any such Power of Attorney;

RESOLVED, FURTHER, that the signatures of such officers may be affixed to any such Power of Attorney or to any certificate relating thereto by facsimile, and any such Power of Attorney or certificate bearing such facsimile signatures shall be valid and binding upon the corporation when so affixed and in the future with respect to any bond, undertaking or contract of suretyship to which it is attached.

IN WITNESS WHEREOF, DEVELOPERS SURETY AND INDEMNITY COMPANY has caused these presents to be signed by its officers and attested by its Secretary or Assistant Secretary this January 1st, 2008.

By: Daniel Young  
Daniel Young, Vice-President

By: Stephen T. Pate  
Stephen T. Pate, Senior Vice-President



State of California  
County of Orange

On August 13th, 2008 before me, Jenny TT Nguyen, Notary Public  
Date Here Insert Name and Title of the Officer

personally appeared Daniel Young and Stephen T. Pate  
Name(s) of Signer(s)



Place Notary Seal Above

who proved to me on 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 California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Jenny TT Nguyen  
Jenny TT Nguyen, Notary Public

CERTIFICATE

The undersigned, as Secretary or Assistant Secretary of DEVELOPERS SURETY AND INDEMNITY COMPANY does hereby certify that the foregoing Power of Attorney remains in full force and has not been revoked and, furthermore, that the provisions of the resolution of the Board of Directors of said corporation set forth in the Power of Attorney are in force as of the date of this Certificate.

This Certificate is executed in the City of Irvine, California, this \_\_\_\_\_ day of \_\_\_\_\_

By: Gregg Okura  
Gregg Okura, Assistant Secretary

**APPENDIX C**

**PAYMENT REQUEST FORM**

# Contractor Invoice Payment Approval

This document must be attached to the specified invoice before payment can be made.

**AMOUNT BEING APPROVED FOR PAYMENT MUST AGREE WITH THE TOTAL ON THE ATTACHED INVOICE.**

If there are questioned costs being withheld for payment, the Contractor must authorize any invoice adjustments.

CONTRACTOR: EDWARD BAXTER CONSTRUCTION

INVOICE NO.: 41101300092611

CONTRACT/TASK NO.: 411013

Start Date: 07/10/2011 Exp. Date: 07/10/2013

PURPOSE OF PAYMENT: DEQ Contr#411013 Inv. #1-Final \$59,031.50 less \$590.32 WH=\$58,441.18 paid to Baxter Construction for 1st and Final Payment of O'Neill Fire Construct

Payment Line Description	Org Unit	Amount	P/F
O'Neill Coal Fire	474070	\$ 12,031.50	F
State Withholding	474080	\$ 590.32	F
O'Neill Fire Constr Final	474080	\$ 46,409.68	F

Attached Invoice is approved for payment in the amount of: \$ 59,031.50 Partial Final

Comments: WH=\$58,441.18 paid to Baxter Construction for 1st and Final Payment of O'Neill Fire C

PROJECT OFFICER SHALL COMPLETE THE FOLLOWING:	Yes	No
THE MONTHLY REPORT AND THE MONTHLY INVOICE ARE CONSISTENT IN THE HOURS BILLED AND THE SERVICES PERFORMED. (All aspects of the invoice and monthly report conform with the Project Officer's first hand knowledge of what occurred and sufficient progress has been made by the contractor to support this payment.)	✓	
THE SUPPORTING DOCUMENTATION MATCHES THE BILLING. (Documentation is required to attain the level of confidence you feel comfortable with to establish the billing is true and reasonable for the services you are receiving. Documentation must be in accordance with department policy and contract terms.)	✓	
<b>THE BILLING MATCHES THE CONTRACT/TASK ORDER</b>		
- Were goods purchased and/or services rendered on or after the effective starting date of the task order/contract?	✓	
- Were the goods/services received prior to the expiration date of the task order/contract?	✓	
- Are the overhead rates(indirect costs) charged on the invoice the same as those approved in the task order/contract?	✓	
- Have the subcontractors been approved to work on the task order/contract? (In some cases this means the subcontract must be approved.)	✓	
- Are the costs and fees billed correct? (Do the labor rates, equipment rental rates, mileage rates, per diem rates, etc. agree with the approved rates in the contract? Are mathematical calculations correct?)	✓	
- Are the amounts for costs and/or fees within the task order limitations?	✓	
- Is the invoice certified correct and signed in accordance with the contract?	✓	

PROJECT OFFICER: MTal 09/26/2011 Approved: *M. Al* Date: 9/28/11  
 PROGRAM MANAGER: MTal <sup>PA</sup> 09/28/2011 Approved: *John Kelle* Date: 9/28/11

**THE APPROVAL SIGNATURES MUST BE:**

- A. SIGNED IN INK.
- B. REQUIRES TWO(2) FULL SIGNATURES WITH DATES TO BE PROCESSED BY SSN. The Preparer of this form shall be the Project Officer. The second signatory must have a payment authorization signature card on file with SSB.
- C. If the Project Officer is also the Program Manager or Bureau Chief - SIGN TWICE.



Clear Form

### Contractors Gross Receipts Gross Receipts Withholding Return

1.	<b>Contract Awarded by:</b> Agency <input checked="" type="checkbox"/> Prime Contractor <input type="checkbox"/> Federal Identification Number (FEIN): 81-0302402-06 Name: STATE OF MONTANA, DEPARTMENT OF ENVIRONMENTAL QUALITY Address: 1520 E. SIXTH STREET, PO BOX 200901 City: HELENA State: MT Zip Code: 59620-0901
2.	<b>Contract Awarded to:</b> Prime Contractor <input checked="" type="checkbox"/> Sub-Contractor <input type="checkbox"/> Federal Identification Number (FEIN): 31-1775210 Name: Ed Baxter Construction Address: 4014 Baxter Lane City: Billings State: MT Zip Code: 59101
3.	Government Issued Contract Number..... 411013
4.	Contract Award Date..... 7 / 10 /20 11
5.	Month and year increment payment earned..... 7-8 /20 11
6.	Gross amount due Prime contractor or sub-contractor at the time of this report..... \$ 59,031.50
7.	Amount Withheld (1% of line 6) (If payment made to prime contractor from awarding agency, remittance must accompany this report)..... \$ 590.32
8.	Net amount paid Prime contractor or sub-contractor at the time of this report..... \$ 58,441.18
9.	Check proper box for type of return being filed: <input checked="" type="checkbox"/> Remittance attached for credit to prime contractor's account <input type="checkbox"/> Sub-Contractor allocation, authorization to transfer credit to sub-contractor. Failure of prime contractor to file a distribution report within thirty (30) days of payment will result in a 10% penalty. Date payment made to sub-contractor..... / /20
10.	Description of work to be performed: Providing all labor, materials earthwork, and incidentals necessary to perform coal fire control work and to repair surface damage at the O'Neill site
11.	Location of work to be performed (be specific): O'Neill Coal Outcrop Fire located in Section 34, Twnshp14 N, Range 51 E, Prairie County, Montana

The agency or contractor must, in accordance with Section 15-5-206, Montana Code Annotated, withhold one percent (1%) of incremental payments due the contractor or sub-contractor. Amounts withheld from a prime contractor must be forwarded with this report to the Department of Revenue. Amounts withheld from sub-contractors must be reported on this form so that proper allocation of credit can be made from prime contractor's account to the sub-contractor.

<b>Return Submitted by</b> Agency <input checked="" type="checkbox"/> Prime Contractor <input type="checkbox"/> Sub-Contractor <input type="checkbox"/>
<b>Award Authorization</b> Preparer's Signature: <i>Mary Kelley</i>
Preparer's Title: Accountant Date: 9-28-2011
Phone: 406-841-5010 Fax: 406-841-5050

Mail this return to:  
Department of Revenue, P.O. Box 5835, Helena, MT 59604-5835

## DEQ PAYMENT REQUEST

PAYMENT REQUEST NO. 1

PAYMENT PERIOD: 1

PROJECT NAME: O'Neill Outcrop Coal Fires Reclamation Project

NAME OF THE CONTRACTOR: Ed Baxter Construction

ADDRESS OF THE CONTRACTOR: 4014 Baxter Lane, Billings, MT 59101

PAYMENT SUMMARY INFORMATION							
DATE	PAYMENT REQUEST #	EARNED	RETAINAGE WITHHELD*	RETAINAGE RELEASED	GROSS PAYMENT	TAX 1%	NET PAYMENT
9/9/2011	FINAL REQUEST	\$59,031.50	\$ -	\$ -	\$59,031.50	\$ 590.32	\$ 58,441.18
<b>TOTAL TO DATE</b>		<b>\$ 59,031.50</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 59,031.50</b>	<b>\$ 590.32</b>	<b>\$ 58,441.18</b>

DATE	CONTRACT PRICE SUMMARY	
	Original Contract Price	\$ 49,757.50
	CHANGE ORDER #1	\$ 9,274.00
<b>CONTRACT PRICE TO DATE</b>		<b>\$ 59,031.50</b>

MISCELLANEOUS INFORMATION	
TOTAL UNCOMPLETED TO DATE	\$ -
PERCENT COMPLETE TO DATE	100.00%

\*RETAINAGE WITHHELD IS 5%  
LIGHTLY SHADED AREAS ARE AUTOMATICALLY CALCULATED

CURRENT PAYMENT REQUEST	
EARNED	\$ 59,031.50
RETAINAGE WITHHELD	\$ -
RETAINAGE RELEASED	\$ -
GROSS PAYMENT	\$ 59,031.50
TAX (1%)	\$ 590.32
NET PAYMENT	\$ 58,441.18

<b>REQUESTED BY:</b>	CONTRACTOR:	
	SIGNATURE:	<u>Ed Baxter</u>
	DATE:	<u>9-8-11</u>
<b>RECOMMENDED BY:</b>	ENGINEER:	<u>[Signature]</u>
	COMPANY:	<u>TRITON</u>
	DATE:	<u>9/15/11</u>
<b>APPROVED BY:</b>	OWNER: MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY	
	SIGNATURE:	<u>[Signature]</u>
	DATE:	<u>9/28/11</u>

DEQ Mine Waste Cleanup Bureau P.O. Box 200901, 1100 N. Last Chance Gulch Helena, Montana 59620-0901			CONTRACT PAYMENT ESTIMATE AND INVOICE						Page 1			
NAME AND ADDRESS OF CONTRACTOR 31-1775210 Ed Baxter Construction 4014 Baxter Lane Billings, Mt 59101			PROJECT: O'Neill Outcrop Coal Fires Reclamation Project						CONTRACT NO. 411013			
			ESTIMATE NO. 1						INCLUSIVE DATES: July 11, 2011 thru August 9, 2011			
			ORIGINAL CONTRACT AMOUNT: \$49,757.50						INCREASE OR DECREASES: \$0.00			
			NET CONTRACT AMOUNT: \$49,757.50									
ITEM No.	ITEM	UNIT	QUANTITIES					TOTAL TO DATE	Percent Complete	UNIT PRICE	TOTAL EARNED TO DATE	
			CONTRACT	CHANGES	REV. TOTAL	PREV. EST	THIS EST					
1	Mobilization	LS	1			0.00%	100%	1	100%	\$4,900.00	\$4,900.00	
2a	Water Delivery Setup	LS	1			0	1	1	100%	\$2,500.00	\$2,500.00	
2b	Water Usage	Kgal	30			0	3	3	10%	\$40.00	\$120.00	
3	Salvage, Stockpile, and Replace Cover Soil	C.Y.	750			0	780	780	104%	\$3.00	\$2,340.00	
4	Excavate, Haul, & Place Overburden	C.Y.	750			0	862	862	115%	\$3.00	\$2,586.00	
5	Excavate Subsidence Test Pits	C.Y.	85			0	90	90	106%	\$7.00	\$630.00	
6	Remove Sandstone Boulders	LS	1			0	1	1	100%	\$2,500.00	\$2,500.00	
7	Remove, Process, and Bury Hot Coal	C.Y.	1,225			0	1,294	1,294	106%	\$4.50	\$5,823.00	
8	Excavate Quench Pit	C.Y.	3,500			0	3,709	3,709	106%	\$2.00	\$7,418.00	
9	Cap Quech Pit	C.Y.	1,100			0	1,121	1,121	102%	\$2.00	\$2,242.00	
10	Over-excavate and Backfill Vents	C.Y.	60			0	258	258	430%	\$25.00	\$6,450.00	
11	Backfill, Grade, and Contour	AC	0.50			0	0.71	0.71	142%	\$9,000.00	\$6,390.00	
12	Fertilize and Seed	AC	1.70			0	1.78	1.78	105%	\$800.00	\$1,424.00	
13	Mulch	AC	1.70			0	1.78	1.78	105%	\$1,200.00	\$2,136.00	
14	Fence	LF	1,010			0	1,457	1,457	144%	\$5.00	\$7,285.00	
15	BMP Sediment Control	LF	200			0	175	175	88%	\$4.50	\$787.50	
16	Maintain Access	LS	1			0	1	1	100%	\$3,500.00	\$3,500.00	
REMARKS: For information contact Ed Baxter @ ph. 406-259-6404								TOTAL EARNED TO DATE.....>		\$59,031.50		
I CERTIFY THAT THE ABOVE BILL IS CORRECT AND JUST AND THAT PAYMENT THEREOF HAS NOT BEEN RECEIVED								PREVIOUS PAYMENTS (LAST VOUCHER)		\$0.00		
DATE 9-8-11			SIGNATURE (PAYEE OR HIS REPRESENTATIVE) & TITLE <i>Ed Baxter</i> owner					1 % Tax		\$590.32		\$590.32
DATE PAYMENT RECOMMENDED			SIGNATURE OF COR					TOTAL DEDUCTIONS.....>		\$590.32		
DATE PAYMENT APPROVED			SIGNATURE OF CONTRACTING OFFICER					AMOUNT TO BE PAID THIS ESTIMATE.....>		\$58,441.18		

**APPENDIX D**

**PROJECT COMPLETION FORMS**

## NOTICE OF AWARD

TO: Ed Baxter Construction DATE: June 13, 2011  
4014 Baxter Ln. PROJECT: O'Neill Outcrop Fire Reclamation  
Billings, MT 59101 Project  
DEQ Contract No.: 411013

**PROJECT DESCRIPTION:** The work will consist of, but not be limited to, providing all labor, materials, earthwork, and incidentals necessary to perform coal fire control work and to repair surface damage at O'Neill site. Fire control work will include the removal, cooling, and burying of hot coal at the coal fire site.

The Owner has considered the Bid submitted by you for the above-described Work in response to its Invitation for Bid dated June 9, 2011 and Instructions to Bidders.

You are hereby notified that your bid has been accepted for items in the amount of \$49,757.50.

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 13th day of June, 2011.

OWNER: DEPARTMENT OF ENVIRONMENTAL QUALITY

By: Jan Koeth  
Title: AUS program manager

## ACCEPTANCE OF NOTICE OF AWARD

Receipt of the above Notice of Award is hereby acknowledged this 14 day of June, 2011.

CONTRACTOR:

Ed Baxter Construction  
By: Ed Baxter Ed Baxter  
Title: owner

## NOTICE TO PROCEED

TO: Ed Baxter Construction  
4014 Baxter Lane  
Billings, MT 59101

DATE: July 5, 2011  
PROJECT: O'Neill Outcrop Fire Reclamation Project  
DEQ Contract No. 411013

In accordance with the Agreement dated June 13, 2011, you are hereby notified to commence Work no later than July 11, 2011, and you are to complete the Work within 30 consecutive calendar days. The date of completion of all Work is, therefore, 5:00 pm on August 9, 2011.

OWNER: DEPARTMENT OF ENVIRONMENTAL QUALITY

By: Mike Glenn  
Title: DEQ Project Manager

## ACCEPTANCE OF NOTICE TO PROCEED

Receipt of the above Notice to Proceed is hereby acknowledged this 10 day of July, 2011.

CONTRACTOR: Ed Baxter

By: Ed Baxter  
Title: owner

# CONTRACTOR'S CERTIFICATE OF COMPLETION

TO (Owner): Montana Department of Environmental Quality DATE: August 4, 2011

PROJECT TITLE: O'Neill Outcrop Fire Reclamation Project

ATTN: Engineer Trihydro Corporation DEQ Contract No. 411013  
CONTRACT DATE: June 13, 2011

FROM: Ed Baxter Construction  
(Firm or Corporation)

This is to certify that I, Ed Baxter, am an authorized official of Ed Baxter Construction, working in the capacity of 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:  9-5-11

By: Ed Baxter, Owner  
Title

- Distribution:
1. Project Manager
  2. Field Office
  3. File

# CERTIFICATE OF SUBSTANTIAL COMPLETION

TO: Montana Department of Environmental Quality

OWNER

**PROJECT TITLE:** O'Neill Outcrop Fire Reclamation Project

**DEQ Contract No.** 411013

**CONTRACT DATE:** June 13, 2011

**LOCATION:** Prairie County, Montana

**SUBSTANTIAL COMPLETION DATE:** August 4, 2011

**DEQ INSPECTION DATE:** August 4, 2011

**ENGINEER:** Trihydro Corporation

**PROJECT OR PART SHALL INCLUDE:** \_\_\_\_\_  
O'Neill Ranch Fire Site

**PERFORMANCE BOND NO:** 9000-0045

**DATE OF BOND:** June 14, 2011

**SURETY:** Developers Surety and Indemnity Company

**CONTRACTOR:** Ed Baxter Construction

**MONTANA AGENT:** Bidlake Agency, Inc.

**ADDRESS:** 4104 Baxter Lane

Billings, MT 59101

**ADDRESS:** 2905 Millenium Ste. 3, Billings, MT 59102

**TELEPHONE NO:** (406)-259-6404

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:** Trihydro Corporation

By \_\_\_\_\_

Authorized Representative

8/3/11  
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:** Ed Baxter Construction

By \_\_\_\_\_

Authorized Representative

9-5-11  
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 \_\_\_\_\_

Authorized Representative

9/12/11  
Date

Remarks: (Attach additional sheet, if necessary)



AFFIDAVIT ON BEHALF OF CONTRACTOR

STATE OF Montana )  
COUNTY OF Prairie )

DEQ Contract No.: 411013

: ss

DATE: \_\_\_\_\_

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 Mine Waste Cleanup Bureau, State of Montana, Department of Environmental Quality, the Owner, and Ed Baxter Construction, the Contractor, dated June 13, 2011 for the O'Neill Outcrop Fire Reclamation Project, DEQ Contract No. 411013, 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 6 day of September, 2011, at Billings, Montana.

CONTRACTOR: Ed Baxter Construction

By: Ed Baxter  
Title: Ed Baxter, Owner

Subscribed and sworn to before me this 6<sup>th</sup> day of September, 2011.



John J Bidlake  
Notary Public for the State of Montana  
Residing at Billings  
My commission expires 05/09/2015

**CONSENT OF  
SURETY COMPANY  
TO FINAL PAYMENT**

(From AIA Document G707)

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

PROJECT: O'Neill Outcrop Fire 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.: 411013

CONTRACT FOR: Coal Seam Fire Reclamation

CONTRACT DATE: June 13, 2011

CONTRACTOR: Ed Baxter Construction

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

the Developers Surety and Indemnity Company, PO Box 19725, Irvine, CA 92620, SURETY COMPANY, on bond

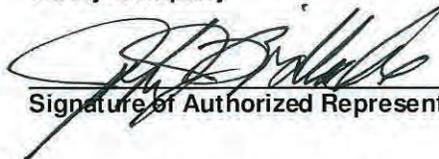
(here insert name and address of Surety Company)

of Ed Baxter Construction, 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 59620-901, OWNER, as set forth in the said Surety Company's bond.

IN WITNESS WHEREOF, the Surety Company has hereunto set its hand this 6<sup>th</sup> day of September, 2011.

Developers Surety and Indemnity Company  
Surety Company

Attest:  
(Seal)

  
Signature of Authorized Representative

John J. Bidlake, Attorney-In-Fact  
Title

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

POWER OF ATTORNEY FOR  
DEVELOPERS SURETY AND INDEMNITY COMPANY  
PO Box 19725, IRVINE, CA 92623 (949) 263-3300

KNOW ALL BY THESE PRESENTS that except as expressly limited, DEVELOPERS SURETY AND INDEMNITY COMPANY, does hereby make, constitute and appoint:

\*\*\*John J. Bidlake\*\*\*

as its true and lawful Attorney(s)-in-Fact, to make, execute, deliver and acknowledge, for and on behalf of said corporation, as surety, bonds, undertakings and contracts of suretyship giving and granting unto said Attorney(s)-in-Fact full power and authority to do and to perform every act necessary, requisite or proper to be done in connection therewith as each of said corporation could do, but reserving to each of said corporation full power of substitution and revocation, and all of the acts of said Attorney(s)-in-Fact, pursuant to these presents, are hereby ratified and confirmed.

This Power of Attorney is granted and is signed by facsimile under and by authority of the following resolution adopted by the Board of Directors of DEVELOPERS SURETY AND INDEMNITY COMPANY, effective as of January 1st, 2008.

RESOLVED, that a combination of any two of the Chairman of the Board, the President, any Executive Vice-President, Senior Vice-President or Vice-President of the corporation be, and that each of them hereby is, authorized to execute this Power of Attorney, qualifying the attorney(s) named in the Power of Attorney to execute, on behalf of the corporation, bonds, undertakings and contracts of suretyship; and that the Secretary or any Assistant Secretary of the corporation be, and each of them hereby is, authorized to attest the execution of any such Power of Attorney;

RESOLVED, FURTHER, that the signatures of such officers may be affixed to any such Power of Attorney or to any certificate relating thereto by facsimile, and any such Power of Attorney or certificate bearing such facsimile signatures shall be valid and binding upon the corporation when so affixed and in the future with respect to any bond, undertaking or contract of suretyship to which it is attached.

IN WITNESS WHEREOF, DEVELOPERS SURETY AND INDEMNITY COMPANY has caused these presents to be signed by its officers and attested by its Secretary or Assistant Secretary this January 1st, 2008.

By: *Daniel Young*  
Daniel Young, Vice-President

By: *SV Pate*  
Stephen T. Pate, Senior Vice-President



State of California  
County of Orange

On August 13th, 2008 before me, Jenny TT Nguyen, Notary Public  
Date Here Insert Name and Title of the Officer

personally appeared Daniel Young and Stephen T. Pate  
Name(s) of Signer(s)



Place Notary Seal Above

who proved to me on 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 California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature *Jenny TT Nguyen*  
Jenny TT Nguyen, Notary Public

CERTIFICATE

The undersigned, as Secretary or Assistant Secretary of DEVELOPERS SURETY AND INDEMNITY COMPANY does hereby certify that the foregoing Power of Attorney remains in full force and has not been revoked and, furthermore, that the provisions of the resolution of the Board of Directors of said corporation set forth in the Power of Attorney are in force as of the date of this Certificate.

This Certificate is executed in the City of Irvine, California, this 6<sup>th</sup> day of September 2011

By: *Gregg Okura*  
Gregg Okura, Assistant Secretary

# CERTIFICATE OF ACCEPTANCE

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

PROJECT TITLE: O'Neill Outcrop Fire Reclamation Project

DEQ Contract No. 411013

CONTRACT DATE: June 13, 2011

LOCATION: Prairie County, Montana

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

O'Neill Ranch Fire Site

CONTRACTOR: Ed Baxter Construction

ADDRESS: 4104 Baxter Lane

Billings, MT 59101

TELEPHONE NO: (406)-259-6404

FINAL ACCEPTANCE DATE: \_\_\_\_\_

DEQ INSPECTION DATE: August 17, 2011

ENGINEER: Trihydro Corporation

PERFORMANCE BOND NO: 9000-0045

DATE OF BOND: June 14, 2011

SURETY: Developers Surety and Indemnity Company

MONTANA AGENT: Bidlake Agency, Inc.

ADDRESS: 2905 Millennium Ste. 3, Billings, MT 59102

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: Trihydro Corporation

By  8/31/11  
Authorized Representative 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: Ed Baxter Construction

By  9-5-11  
Authorized Representative 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  9/12/11  
Authorized Representative Date

**APPENDIX E**

**CONSTRUCTION PHOTOGRAPHS**

Montana DEQ O'Neill Outcrop Fire Reclamation Project



Field proposed quench pit location.

Taken By: Mike Glenn  
Direction: SouthEast

Date: 7/11/2011



Pre-construction site conditions.

Taken By: Mike Glenn  
Direction: North

Date: 7/11/2011

Montana DEQ O'Neill Outcrop Fire Reclamation Project



Excavating test pit.

Taken By: Mike Glenn  
Direction: South

Date: 7/12/2011



Stripping topsoil and beginning quench pit excavation.

Taken By: Mike Glenn  
Direction: South

Date: 7/12/2011

Montana DEQ O'Neill Outcrop Fire Reclamation Project



Progress of quench pit excavation. Stripping topsoil at fire site.

Taken By: Mike Glenn  
Direction: South

Date: 7/13/2011



Strippng topsoil at fire site.

Taken By: Mike Glenn  
Direction: SouthEast

Date: 7/13/2011

Montana DEQ O'Neill Outcrop Fire Reclamation Project



Stripping topsoil and installing straw wattles at fire site.

Taken By: Mike Glenn  
Direction: South

Date: 7/13/2011



Progress of quench pit excavation.

Taken By: Mike Glenn  
Direction: South

Date: 7/14/2011

Montana DEQ O'Neill Outcrop Fire Reclamation Project



Stockpiling topsoil below fire site.

Taken By: Mike Glenn  
Direction: West

Date: 7/14/2011



Excavating test pit at fire site.

Taken By: Mike Glenn  
Direction: NorthEast

Date: 7/14/2011

Montana DEQ O'Neill Outcrop Fire Reclamation Project



Progress of work at O'Neill site.

Taken By: Mike Glenn  
Direction: North

Date: 7/14/2011



Beginning vent excavation.

Taken By: Mike Glenn  
Direction: North

Date: 7/19/2011

Montana DEQ O'Neill Outcrop Fire Reclamation Project



Material removed from vent excavation.

Taken By: Mike Glenn  
Direction: North

Date: 7/19/2011



Material removed from vent excavation and John Deere tracked excavator.

Taken By: Mike Glenn  
Direction: SouthEast

Date: 7/19/2011

Montana DEQ O'Neill Outcrop Fire Reclamation Project



Flooding vent excavation.

Taken By: Mike Glenn  
Direction: NorthEast

Date: 7/19/2011



Clay near base of vent excavation.

Taken By: Mike Glenn  
Direction: SouthWest

Date: 7/19/2011

Montana DEQ O'Neill Outcrop Fire Reclamation Project



Completed vent excavation.

Taken By: Mike Glenn  
Direction: West

Date: 7/19/2011



Beginning fire site excavation.

Taken By: Mike Glenn  
Direction: South

Date: 7/20/2011

Montana DEQ O'Neill Outcrop Fire Reclamation Project



Fire site excavation and haul of coal-overburden material.

Taken By: Mike Glenn  
Direction: NorthEast

Date: 7/20/2011



Fire site excavation.

Taken By: Mike Glenn  
Direction: SouthEast

Date: 7/20/2011

Montana DEQ O'Neill Outcrop Fire Reclamation Project



Fire site excavation work.

Taken By: Mike Glenn  
Direction: NorthEast

Date: 7/20/2011



Progress of fire site excavation.

Taken By: Mike Glenn  
Direction: North

Date: 7/20/2011

Montana DEQ O'Neill Outcrop Fire Reclamation Project



Stockpiled coal-overburden marterial, haul of material.

Taken By: Mike Glenn  
Direction: NorthWest

Date: 7/21/2011



Progress of fire site excavation.

Taken By: Mike Glenn  
Direction: SouthWest

Date: 7/21/2011

Montana DEQ O'Neill Outcrop Fire Reclamation Project



Placement of coal-overburden material in quench pit.

Taken By: Mike Glenn  
Direction: South

Date: 7/21/2011



Coal removed from fire site excavation.

Taken By: Mike Glenn  
Direction: East

Date: 7/25/2011

Montana DEQ O'Neill Outcrop Fire Reclamation Project



Flooding warm area in coal with water.

Taken By: Mike Glenn  
Direction: East

Date: 7/25/2011



Completed hot coal excavation.

Taken By: Mike Glenn  
Direction: NorthEast

Date: 7/25/2011

Montana DEQ O'Neill Outcrop Fire Reclamation Project



Grading and contouring work.

Taken By: Mike Glenn  
Direction: South

Date: 7/25/2011



Beginning work on quench pit cap.

Taken By: Mike Glenn  
Direction: South

Date: 7/25/2011

Montana DEQ O'Neill Outcrop Fire Reclamation Project



Grading and contouring work.

Taken By: Mike Glenn  
Direction: North

Date: 7/25/2011



Temporary fence corner.

Taken By: Mike Glenn  
Direction: SouthEast

Date: 7/25/2011

Montana DEQ O'Neill Outcrop Fire Reclamation Project



Completed quench pit cap, spreading coversoil.

Taken By: Mike Glenn  
Direction: SouthWest

Date: 7/27/2011



Completed grading and contouring, spreading coversoil.

Taken By: Mike Glenn  
Direction: North

Date: 7/27/2011

Montana DEQ O'Neill Outcrop Fire Reclamation Project



Spreading straw mulch.

Taken By: Mike Glenn  
Direction: South

Date: 8/4/2011



Crimping straw mulch.

Taken By: Mike Glenn  
Direction: SouthEast

Date: 8/4/2011

Montana DEQ O'Neill Outcrop Fire Reclamation Project



Completed O'Neill Site, final inspection.

Taken By: Mike Glenn  
Direction: South

Date: 8/17/2011



Vent excavations from helicopter tour, final inspection.

Taken By: Mike Glenn  
Direction: SouthEast

Date: 8/19/2011

## Montana DEQ O'Neill Outcrop Fire Reclamation Project



O'Neill site from helicopter tour, final inspection.

Taken By: Mike Glenn

Date: 8/19/2011

Direction: East

**APPENDIX F**

**DAILY CONSTRUCTION LOGS**

## APPENDIX F1. DAILY CONSTRUCTION LOG

Monday 7/11/11

Contract Day: 1	Work Start: 13:15	Work End: 17:00	Temp: 70- 80	Wind: NE 10-15 mph	Partly Cloudy
--------------------	----------------------	--------------------	-----------------	-----------------------	---------------

Contractor began mobilization to the site. Colin Harms delivered Terex TS-14 Scraper to site at 1:15 and began setting up camp. At 3:00pm Mike Glenn informed Colin of intended location for quench pit and further excavations. Ed Baxter would be arriving on site later that evening with additional workers. Colin proceeded to develop contractor camp and informed Mike that they would proceed with work at 7:00 AM the following day. At 5:00 PM Mike Glenn left the project site.

Equipment On-Site	Personnel On-Site
Campers	Colin Harms
Support Pick-ups	
Hitachi EX75UR Tracked Excavator	Mike Glenn
Terex TS-14 Scraper	
Case 570MXT Tractor	
Transport	



View of Quench Pit location looking East

## APPENDIX F2. DAILY CONSTRUCTION LOG

Tuesday 7/12/11

Contract Day: 2	Work Start: 07:30	Work End: 13:30	Temp: 70- 80	Wind: ENE 15-25 mph	Mostly Sunny
--------------------	----------------------	--------------------	-----------------	------------------------	-----------------

Equipment On-Site	Personnel On-Site
<b>Campers</b>	Ed Baxter
<b>Support Pick-ups</b>	Colin Harms
<b>Hitachi EX75UR Tracked Excavator</b>	Royce Edmionston
<b>Terex TS-14 Scraper</b>	Rob Giesick
<b>Case 570MXT Tractor</b>	
<b>Transport</b>	Mike Glenn
<b>Water Trailer</b>	

Work began with dropping wattles off at the staging area and moving equipment from South of corral to staging area. At 8:30 Colin began salvage and stockpiling of coversoil from the quench pit location with the Terex scraper. Coversoil is being stockpiled SE of the quench pit so that it is not in the way of further processing. Ed Baxter excavated two subsidence test pits using the Hitachi tracked excavator. Coal was found in both test pits at a depth of 8-9 feet below the surface. The coal encountered was cool and damp with no ash present suggesting that the fire does not extend south through the bench area.

At 9:45 Ed left for fuel and supplies while Rob and Royce began filling the water trailer to prepare for burning coal excavation. Colin continued stockpiling coversoil.

Mike Glenn verified the locations of the fire vents to the NE of Cottonwood Creek. Two vents had been identified in the bid document. A third was identified at the bid walk through though bidders were instructed to only bid the two previously identified. All three locations were identified.

At 11:15 Colin finished coversoil stockpiling and Royce took over with the scraper to begin overburden excavation. Overburden is being placed in the processing area S of the surface extents of the fire. Shortly after, Ed returned with fuel and supplies and all equipment was re-fueled.

A hydraulic line pipe cracked on the Terex at 12:30 and began leaking hydraulic fluid. The crew worked to remove the broken pipe so that it could be repaired or replaced. All leaked oil was shoveled up and bagged for proper disposal. Oil absorbent pads that had been placed below the pipe before it was released were also bagged for proper disposal.

At 1:30 all personnel left the site as the rest of the work was dependent on the excavation of overburden. Also, Ed had other work for a previous coal fire landowner to complete today. The pipe was brought to Miles City for possible repair. If the pipe was back to the site in time for additional work, the Terex was to continue with overburden excavation and Royce was to begin coversoil salvage from the burning coal area. This coversoil was to be placed N of the fire area so that it was out of the way of additional equipment.



View of Quench Pit coversoil salvage in foreground and stockpile in upper right. Shot taken looking East.

**APPENDIX F3. DAILY CONSTRUCTION LOG**

Wednesday 7/13/11

Contract Day: 3	Work Start: 07:30	Work End: 17:15	Temp: 65- 80	Wind: E 15-25 mph	Partly Sunny
--------------------	----------------------	--------------------	-----------------	-------------------	--------------

<b>Equipment On-Site</b>	<b>Personnel On-Site</b>
<b>Campers</b>	Colin Harms
<b>Support Pick-ups</b>	Royce Edmionston
<b>Hitachi EX75UR Tracked Excavator</b>	Rob Giesick
<b>Terex TS-14 Scraper</b>	
<b>Case 570MXT Tractor</b>	Mike Glenn
<b>Transport</b>	Frank O'Neill
<b>Water Trailer</b>	Diane O'Neill
	Pat O'Neill

Work began with installing fixed hydraulic line on the Terex scraper. At 8:30 Colin began overburden excavation from the quench pit location with the Terex scraper. Royce begins coversoil salvage from the fire area with the tracked excavator. Coversoil is being windrowed to the west of the fire area. At 9:00 Rob began creating a trench west of the windrowed coversoil and east of cottonwood creek to prevent any material from getting into the creek in a run-off event. The installation of the wattles was complete at 10:15.

At 9:45 Diane O'Neill visited the work area to get a better idea of the work and to take some photos of the excavations. Diane requested a copy of project photos taken by DEQ at the completion of construction. During her visit she described what the area looked like 50 years ago and defined potential fire areas to test pit E of previous test pits. After Royce completed coversoil salvage from the fire area, he and Rob began additional test pit excavation with Royce on the excavator and Rob backfilling the test pits with the tractor. Four new holes were dug with coal encountered about three feet below the surface. These pits were all at the bottom of the potential fire subsidence area so it follows that the coal would be closer to the surface. There was a larger coal seam with a couple 1" minus seams above inter-bedded with the gravel beds. Ash was present in two of the holes though all of the ash and coal was damp and cool. If there is a fire burning in this area it is isolated to a very small location and would take excavation of the entire hillside to determine the exact location and that method may not be successful either.

Colin and Rob returned around 1 and sent Royce to lunch. At 1:45 the Terex had an air-line issue that was resolved and Colin continued excavating overburden. At 2:30 Royce again relieved Colin from the Terex.

Pat O'Neill visited the site at 2:45. He brought contact information for a Terry area owner of a larger excavator as he had told Ed he would do. Ed is looking for a larger excavator to use for the fire vent excavations. Pat and Mike Glenn discussed progress and possible future fence locations. Pat also delineated another possible fire area N of the main fire area. A 1' deep crack roughly 12' in length was found which was later investigated with two test pits. Pat also wanted to know if the low spot near his water line might be a fire related subsidence and a test pit was later dug here. These pits found no coal and no gravel with only lots of silt and clay. A possible reason for the surface features could be that surface and ground water was moving through the gravels and then slowing down at the silt and clay soils causing more compaction. No signs of coal were present in these three test pits.

### APPENDIX F3. DAILY CONSTRUCTION LOGS

The quench pit was measured with the Trimble GeoXT GPS unit at 3:15 to determine the surface area of the pit. It was measured at 16,330 ft<sup>2</sup>. To hold the 3500CY of material, it will need to be at least 6' deep using this area. To include coversoil, it should be excavated to 7' deep.

Colin and Rob left around 3:30 to contact Ed and determine when he would be arriving back at camp. When they returned, Colin took the scraper to the camp area to charge the battery for the night as it had run out of fuel and Ed had the fuel tank on his truck. Royce and Rob dug the test pits N of the fire area. Frank O'Neill visited the site at 5:00pm to discuss progress and subsidence test pits. Frank offered another location to get water near the old schoolhouse west of the cattle guard closest to their ranch. Mike will get this information to Ed tomorrow. Royce and Rob finished with the test pits at 5:15 and returned to the camp. Frank continued discussing the project and possible other work to separately contract with Ed Baxter to have done on the property. At 5:45 he headed back to their ranch and Mike Glenn left the project site.



View of Fire area coversoil salvage with straw wattles in foreground and quench pit excavation in upper left. Shot taken looking Southeast.

## APPENDIX F4. DAILY CONSTRUCTION LOG

Thursday 7/14/11

Contract Day: 4	Work Start: 07:30	Work End: 18:00	Temp: 65- 80	Wind: mostly calm	Mostly Cloudy
--------------------	----------------------	--------------------	-----------------	-------------------	---------------

Equipment On-Site	Personnel On-Site
<b>Campers</b>	Royce Edmionston
<b>Support Pick-ups</b>	Colin Harms
<b>Hitachi EX75UR Tracked Excavator</b>	
<b>Terex TS-14 Scraper</b>	Mike Glenn
<b>Case 570MXT Tractor</b>	Pat O'Neill
<b>Water Trailer</b>	Frank O'Neill

Work began with Colin excavating overburden from the quench pit location with the Terex scraper. Royce continued coversoil salvage from the fire area with the tracked excavator. Coversoil is being windrowed to the west of the fire area as well as in two small stockpiles one to the north and one to the south on the bench above the fire area. Ed and Rob left early Thursday for another job near Red Lodge. At Noon, Royce completed salvaging topsoil from the fire area and began digging three additional test pits per Ed's request. In two of the holes coal was encountered about four feet below the surface. These pits were all at the bottom of the potential fire subsidence area so it follows that the coal would be closer to the surface. A large coal seam was beneath ~14" of ash and a couple 1" minus seams inter-bedded with the gravel beds. The ash and coal was again damp and cool. In one of the pits, we attempted to determine the thickness of the coal and after over 7' of coal we were at the deepest reach of the excavator and had not found the bottom of the seam. The third test pit was dug in the bottom of the low area to determine if a seam beneath the ones that we had encountered could be burning. Ash and burned coal were within 3' of the surface and were completely saturated. Again, if there is a fire burning in this area it is isolated to a very small location and would take excavation of the entire hillside to determine the exact location and that method may not be successful either.

Royce took over the Terex on the overburden hauling around 1:30 and Colin went to lunch. At 2:30 Frank O'Neill visited the site and was curious about plans over the weekend and was looking for Ed Baxter to get possible quotes on work around the ranch to privately contract with Ed on.

At 2:45 Colin used the tractor to smooth out portions of the overburden stockpile. He later took over the Terex to haul more overburden while Royce went for lunch.

When Royce returned, he and Mike delineated the possible fence line so Ed would know what materials he would need to bring back to the site. They discussed options to share with Pat O'Neill on gate and fence locations. At 4, they went to the Arena area where Frank and Pat were working to discuss fence options. They then determined exact corner and gate locations that would work for them. Mike and Royce walked the approved fence line with the GPS to determine the length of fence needed. This came out to be 1500 linear feet.

At 4:30 Royce again took over with the scraper working to haul overburden. He worked until 6pm when the equipment was shutdown for the weekend.

#### APPENDIX F4. DAILY CONSTRUCTION LOG



View of test pit with coal over 7' thick. Ash is seen in the upper left. Both the Ash and Coal were cold to the touch throughout.

**APPENDIX F5. DAILY CONSTRUCTION LOG**

Tuesday 7/19/11

Contract Day: 9	Work Start: 07:00	Work End: 17:15	Temp: 75- 90+	Wind: mostly calm	Mostly Sunny
--------------------	----------------------	--------------------	------------------	----------------------	--------------

<b>Equipment On-Site</b>	<b>Personnel On-Site</b>
<b>Campers</b>	Royce Edmionston
<b>Support Pick-ups</b>	Colin Harms
<b>Hitachi EX75UR Tracked Excavator</b>	Ed Baxter
<b>Terex TS-14 Scraper</b>	Rob Giesick
<b>Case 570MXT Tractor</b>	Tim Kortum
<b>2 Water Trailers</b>	
<b>John Deere 490E Tracked Excavator</b>	Mike Glenn
	Pat O'Neill
	Frank O'Neill

Work began with Tim Kortum excavating the fire vents with his 490E excavator. He started with the southern-most vent and was able to excavate to a depth of 14 feet before hitting a hard sandstone layer that could not be breached at that depth. At 8:30 Rob brought up the Hitachi excavator to break up the salvaged overburden from the first fire vent. Tim began working on the next vent to the north near the small pine tree. This vent was excavated to a depth of 17 feet. Colin and Royce arrived on site at 9 and began fueling equipment and prepping for coal fire excavation.

Mike and Ed discussed using fire and quench pit overburden as plug material around 9:30 since most of the salvaged material from the fire vents was large rock material. Tim and Rob would crush what they could using the excavators, but it would be unlikely that all of the material would be able to be crushed small enough. They decided to use one scraper load of quench pit overburden and water in each of the excavated fire vents to create a soil slurry that would have a better chance of plugging air from the fire vents. Tim moved from the middle vent to the most northern one along an east-west trail. This vent was excavated to 16 feet.

At 10:30 the Hitachi excavator broke down and Rob and Royce began work on taking the track off of the excavator to get at the defective drive motor. Tim, Ed, Colin and Mike began work on the soil slurry in the third vent hole around 10:45. Ed brought the water, Mike ran the hose, Tim the excavator, and Colin delivered the overburden. At 11:30 the group moved to the second vent hole. Once the water tank was emptied, Tim went back to vent 3 to crush salvaged fill with the excavator. After Colin got more water, Tim came back to vent 2 to finish mixing the overburden and water and then the group moved to vent 1 at 1:15pm. Shortly thereafter, Colin took the Terex scraper down to the quench pit to complete excavation of the overburden.

At 2:45, Tim, Royce, Mike, Rob and Ed finished mixing overburden and water in vent 1. Royce, Rob and Ed then finished removing the drive motor from the tracked Hitachi excavator and loaded it into Ed's truck. On his way off the site, Frank O'Neill caught up with him to talk about other work to be done on the property for the O'Neill's. Around 3:30, Tim finished backfilling vent 3 and went over to vent 2 to crush salvaged overburden and backfill the excavation.

Ed Baxter left the site at 4:45 and Colin, Rob and Royce finished work shortly thereafter. Tim finished for the day at 5:15 and he and Mike Glenn left the site for the day.

APPENDIX F5. DAILY CONSTRUCTION LOG



View of vent 2 mixing soil and water.

**APPENDIX F6. DAILY CONSTRUCTION LOG**

Wednesday 7/20/11

Contract Day: 10	Work Start: 07:00	Work End: 17:00	Temp: 65- 85+	Wind: W 25mph	Sunny
---------------------	----------------------	--------------------	------------------	---------------	-------

<b>Equipment On-Site</b>	<b>Personnel On-Site</b>
<b>Campers</b>	Royce Edmionston
<b>Support Pick-ups</b>	Colin Harms
<b>Hitachi EX75UR Tracked Excavator</b>	Ed Baxter
<b>Terex TS-14 Scraper</b>	Rob Giesick
<b>Case 570MXT Tractor</b>	Tim Kortum
<b>2 Water Trailers</b>	
<b>John Deere 490E Tracked Excavator</b>	Mike Glenn
	Pat O'Neill
	Frank O'Neill

Work began with Tim Kortum finishing fire vents backfills with his 490E excavator. He then tracked down to the fire area to begin coal fire excavation around 8:00am. Initial coal temps averaging around 70° with isolated pockets of 85-98°F. The coal seam is larger than anticipated with a thickness of over 15 feet. At 9:30 Colin began hauling coal/overburden to the quench pit to make more room as the coal was being excavated.

More temps were taken at 10:45 finding temperatures up to 178°F. Royce took over the Terex scraper for Colin while Tim continued fire excavation. Continued to check temps and chase the warmest areas throughout the day working mainly on the north end of the coal seam. At 12:15 more space was needed than anticipated so Mike and Royce moved the wattles closer to the creek to the west and then Royce and Tim using the tractor and John Deere, respectively, moved the topsoil windrow further west to the wattles. Tim then continued to excavate coal and worked to create a bench so as to reach deeper depths within the coal seam. The isolated hot spots are not at the top of the seam but instead at a depth of about 4-8 feet into the seam. There are two clay layers inter-bedded with the coal and the lower clay layer seems to be preventing the hot spots from moving higher into the other portions of coal. There is no barrier between the bottom of the coal and the hot spots.

Near 2:15, the warm spots in the coal fire excavation were to the western edge of the cut so Tim moved the haul road further west so as to excavate the western edge of the cut. Colin stopped hauling coal to allow Tim to set-up in the original haul area as he moved it west and excavated beneath it. Ed and Rob returned to the site at 2:45. They brought the hydraulic auger attachment for the tractor and by 3, Rob and Royce had it mounted and began installing fence corners. This went until about 4 when Rob drove over the hydraulic line for the auger and he and Ed had to leave to get a new hydraulic hose fitting. Colin, Tim, and Royce finished work around 5 for the day.

APPENDIX F6. DAILY CONSTRUCTION LOG



View of coal seam excavation facing north. Hottest locations are halfway up the image on the left (west).

**APPENDIX F7. DAILY CONSTRUCTION LOG**

Thursday 7/21/11

Contract Day: 11	Work Start: 07:00	Work End: 18:00	Temp: 70- 90+	Wind: Calm	Full Sun
---------------------	----------------------	--------------------	------------------	------------	----------

<b>Equipment On-Site</b>	<b>Personnel On-Site</b>
<b>Campers</b>	Royce Edmionston
<b>Support Pick-ups</b>	Colin Harms
<b>Hitachi EX75UR Tracked Excavator</b>	Ed Baxter
<b>Terex TS-14 Scraper</b>	Rob Giesick
<b>Case 570MXT Tractor</b>	Tim Kortum
<b>2 Water Trailers</b>	
<b>John Deere 490E Tracked Excavator</b>	Mike Glenn
	Pat O'Neill

Work began with Tim Kortum working on excavating hot coal with his 490E excavator. Initial coal temps averaging around 60° with isolated pockets of 120°+F on the SE face and 80-100° on the S face. At 8:45 Colin began hauling coal/overburden to the quench pit to make more room as the coal was being excavated. Tim moved to a bench within the fire excavation to mix hot coal, overburden, and groundwater before it was hauled to the quench pit by Colin. At 7:30 Rob and Royce began fencing with installing corners.

More temps were taken at 9:45 finding temperatures up to 120°F. Mike talked with Tim about continuing current excavation and returning to the hot spots later in the day. Temps were checked throughout the day and hot spots were worked until the coal reached background temperatures.

Near 3:15, the warm spots in the coal fire excavation were exhausted. Colin continued hauling coal. Tim shut down the excavator and left it for Ed to use next week as needed. Royce and Rob kept installing fence corners. At 3:45 Tim left for the day. Ed left around 4:15 for Billings intending to go to Red Lodge tomorrow to finish other work.

Rob and Royce finished fence work around 5 for the day when Royce took over for Colin on the Terex scraper hauling coal/overburden mix into the quench pit. At 6:00pm Colin, Rob, and Royce finished work for the day. These three intend to continue fencing in the morning but will likely only work a half day tomorrow (Friday).

The coal is being left exposed for the weekend with Mike Glenn to check in on the site throughout the weekend to check for any hot spots that have been missed. Any areas that are warmer than others will be excavated further until no increased temperatures are found.

## APPENDIX F7. DAILY CONSTRUCTION LOG



View of coal seam excavation facing south. Hottest locations are halfway up the image on the left (east). Terex scraper is hauling material to the quench pit left of the green truck.

**APPENDIX F8. DAILY CONSTRUCTION LOG**

Friday 7/22/11

Contract Day: 12	Work Start: 07:30	Work End: 11:00	Temp: 70-85	Wind: Calm	Full Sun
---------------------	----------------------	--------------------	-------------	------------	----------

<b>Equipment On-Site</b>	<b>Personnel On-Site</b>
<b>Campers</b>	Royce Edmionston
<b>Support Pick-ups</b>	Colin Harms
<b>Hitachi EX75UR Tracked Excavator</b>	Rob Giesick
<b>Terex TS-14 Scraper</b>	
<b>Case 570MXT Tractor</b>	Mike Glenn
<b>2 Water Trailers</b>	
<b>John Deere 490E Tracked Excavator</b>	

Work began at 7:30 with Colin, Rob, and Royce working on fencing the south end of the salvaged topsoil stockpile. This included using straight-wire for the braces and then stringing 3 strands of barbed wire down the length of the run. T-posts also were installed. Rob and Royce also ran the fence posts down the east side of the quench pit but with a non-working chainsaw, they were unable to complete the brace posts and wire was not strung. This work lasted until roughly 11 when the crew was done for the day as any additional fence would be in the way of the equipment and was lacking a working chainsaw for the braces.



View of fence facing east.

**APPENDIX F9. DAILY CONSTRUCTION LOG**

Monday 7/25/11

Contract Day: 15	Work Start: 08:00	Work End: 18:15	Temp: 70- 95	Wind: Calm to E30mph	Full Sun
---------------------	----------------------	--------------------	-----------------	-------------------------	-------------

<b>Equipment On-Site</b>	<b>Personnel On-Site</b>
<b>Campers</b>	Royce Edmionston
<b>Support Pick-ups</b>	Colin Harms
<b>Hitachi EX75UR Tracked Excavator</b>	Ed Baxter
<b>Terex TS-14 Scraper</b>	Rob Giesick
<b>Case 570MXT Tractor</b>	
<b>2 Water Trailers</b>	Tyrel Hulet
<b>John Deere 490E Tracked Excavator</b>	Mike Glenn
	Pat O'Neill

Mike Glenn arrived on site at 8:00 am with Tyrel already on site. He and Tyrel checked the fire excavation area for hot spots and determined where to have Ed begin excavating when he arrived on site. They then went up to the fire vents to inspect the excavation there and talk about excess material at these vents. At 8:30 Colin and Royce arrived with Ed to follow at 8:45. By 9:00 Ed was chasing hot spots with the excavator. Mike talked with Royce about getting rock for the deadmen to be installed along the fence from the fire vent areas. Colin and Royce hand dug three posts for the NE corner of fence to ensure that the buried waterline would not be impacted.

Temps were taken throughout the morning finding temperatures up to 120°F with steam, likely due to the elevated humidity in the morning. At 11:00 remaining hot spots were marked out and Colin and Royce applied water to these locations to attempt to cool the coal and possibly crack the coal at the hot spots making it easier to dig. The locations were cooled but there wasn't enough heat in the coal to cause it to crack. Ed then attempted to excavate these locations further. He was only able to chip away about 4 inches over half an hour on the warmest location. This area was then left open as Ed continued excavating the edges of the exposed coal to double-check temps. Additional temps were checked throughout the day and hot spots.

At 12:15 Pat O'Neill talked to Colin and Royce regarding where gates should be placed as well as an additional deadman along the fence. Pat then talked to Mike and Tyrel regarding the progress of the fire excavation. At 12:30 Colin began hauling coal/overburden from the fire area and Royce continued on corner and brace posts.

At 2:15 the warm spots in the coal fire excavation were exhausted. Tyrel and Mike double-checked the fire excavation and determined that the fire excavation was complete. Ed began breaking down the bank above the coal while Colin hauled overburden into the excavation area. Rob arrived on-site and he and Royce kept installing fence corners and the brace panels for one of the two gates. This continued until 5 when Rob and Royce finished with the fencing work that they could. Ed stopped on the excavator at 5:15 for Terry to get supplies. Tyrel left at 5:30 to ensure enough time to travel. Colin continued until 6:15 when he stopped for the day.

APPENDIX F9. DAILY CONSTRUCTION LOG



View of coal seam excavation facing north during backfill process. Terex scraper is hauling overburden material from the stockpile into the excavation area.

**APPENDIX F10. DAILY CONSTRUCTION LOG**

Monday 7/26/11

Contract Day: 16	Work Start: 07:00	Work End: 17:00	Temp: 70- 95	Wind: Calm	Mostly Sunny
---------------------	----------------------	--------------------	-----------------	------------	--------------

<b>Equipment On-Site</b>	<b>Personnel On-Site</b>
<b>Campers</b>	Royce Edmionston
<b>Support Pick-ups</b>	Colin Harms
<b>Hitachi EX75UR Tracked Excavator</b>	Ed Baxter
<b>Terex TS-14 Scraper</b>	Rob Giesick
<b>Case 570MXT Tractor</b>	
<b>2 Water Trailers</b>	
<b>John Deere 490E Tracked Excavator</b>	Mike Glenn
	Pat O'Neill

Work began at 7:00 am with the filling of the equipment with fuel. Ed began on the John Deere excavator moving material into the northernmost portion of the fire excavation area as it was still inaccessible for the Terex scraper. Colin operated the scraper filling in the rest of the excavation area. Royce was operating the Tractor to aid in moving material dumped by the scraper to within reach of the excavator, all working to fill the remaining hole enough so that the scraper could drive over this area. At 7:30 Rob and Royce went to the fire vent area and collected 3 rocks for the deadmen to be installed along the east edge of fence next to the quench pit. At 8:00 Rob and Royce were working on fence again.

Three deadmen were installed around 8:30 along the fence. Rocks were wrapped with smoothwire, placed in a hole at the lowest spot along the fence line, and then buried to be used as an anchor for the fence. Ed used the excavator to dig the holes, Rob and Royce wrapped the rocks with fence, and Rob used the tractor to get the rocks close to their intended location. Royce made sure that the deadmen were installed in-line with the rest of the fence.

Once this was completed, Ed shut down the John Deere so that Tim could pick it up later in the day and Rob and Royce continued with fence. At 10:15 Pat O'Neill came up to the site. He had decided that he wanted to change the gate location on the north side of the fence. The gate will now be placed on the historic trail that cut above the fire area running north-south. He also wanted this trail straightened and put back in place. For the gate, Pat will provide the additional material to Ed and Ed will install a panel that is in line with the rest of the O'Neill's fencing. Mike and Pat also talked about the seed mix to be used and determined that it was what Pat would like to see growing there. Crested Wheatgrass had been planted by Frank O'Neill and it had been discussed that crested could be added to the seed mix, but Pat said there would be enough crested moving in on its own from the rest of the area and the seed mix in the plans is what he would like to see planted.

Mike used the GeoXT GPS to map the disturbed area for mulching around 11:15. 1.8 acres of disturbance was mapped and that information passed on to Ed so that he could get the right amount of straw mulch on Wednesday. At 2:00 Ed left for additional fencing and other supplies from Miles City. Colin continued hauling overburden for the rest of the day. Rob and Royce installed the fencing that they had materials for and that were out of the way of the overburden hauling. Work was completed at 5:00pm.

## APPENDIX F10. DAILY CONSTRUCTION LOG



View of Royce and Rob (left to right) stringing fence along the east edge of quench pit. Two deadmen were installed in the low spot to the left of Royce. The Terex scraper is hauling overburden material from the stockpile into the excavation area.

**APPENDIX F11. DAILY CONSTRUCTION LOG**

Tuesday 7/27/11

Contract Day: 17	Work Start: 07:00	Work End: 17:00	Temp: 70- 95	Wind: W 10mph	Mostly Sunny
---------------------	----------------------	--------------------	-----------------	---------------	--------------

<b>Equipment On-Site</b>	<b>Personnel On-Site</b>
<b>Campers</b>	Royce Edmionston
<b>Support Pick-ups</b>	Colin Harms
<b>Hitachi EX75UR Tracked Excavator</b>	
<b>Terex TS-14 Scraper</b>	Mike Glenn
<b>Case 570MXT Tractor</b>	Pat O'Neill
<b>Water Trailer</b>	

Work began at 7:00 am with the filling of the equipment with fuel. Colin again hauled material with the scraper while Royce began on fencing. Tim Kortum came to the site after work concluded on the 26<sup>th</sup> and transported the John Deere excavator offsite. Ed returned to the work site after work completed on the 26<sup>th</sup> as well and then left with a water trailer to take back to Billings. He went to Billings to collect the necessary straw mulch.

Mike Glenn's vehicle had a problem with the radiator and will need to be repaired. He contacted Ed Baxter at 8:30am. Ed was working on getting mulch from Denton and said he would inform Colin or Royce that Mike would not be able to drive to the site. Mike got a call at 11:15 from Royce saying he would be able to come into Terry around 11:45 after getting lunch supplies to bring him back out to the site. Colin and Royce arrived at the Diamond Motel in Terry at noon and picked Mike up and brought him out to the work site.

When back on-site, Colin and Royce began by removing a fuel line on the Terex that was leaking. Once this was removed, Colin went back to the camp to get the parts for the fuel line while Mike and Royce began installing the new gate braces per Pat's instructions. Colin returned with new fuel line parts at 2:30 and he and Royce installed the patched fuel line so that Colin could continue with the scraper. Mike and Royce continued with the braces for the final gate. Colin finished spreading overburden and began hauling topsoil at 3:30. Work continued until 4:30 when the braces were complete. Royce then went to remove the auger from the tractor so he could then move topsoil with it. The Terex then blew a piston in the back motor at 5:00. This wasn't unexpected and parts had already been ordered, but Baxter's crew were hoping it would last through the job. The Terex is now not working.

Colin and Royce then drove back in to Terry to make a call to Ed and bring Mike back to the Diamond Hotel. Ed will be bringing mulch and the tools and parts to repair both the Terex and Hitachi in the morning. He intends to be coming through Terry around 8:30 to 9 and offered to bring Mike out to the job site.

**APPENDIX F11. DAILY CONSTRUCTION LOG**



View of quench pit being covered with topsoil by Colin in the Terex scraper. Shot taken facing south from the historic trail above the previous fire area.

**APPENDIX F12. DAILY CONSTRUCTION LOG**

Tuesday 7/28/11

Contract Day: 18	Work Start: 07:00	Work End: 19:00	Temp: 70- 95	Wind: W 20mph	Mostly Sunny
---------------------	----------------------	--------------------	-----------------	---------------	--------------

<b>Equipment On-Site</b>	<b>Personnel On-Site</b>
<b>Campers</b>	Royce Edmionston
<b>Support Pick-ups</b>	Colin Harms
<b>Hitachi EX75UR Tracked Excavator</b>	Rob Giesick
<b>Terex TS-14 Scraper</b>	Ed Baxter
<b>Case 570MXT Tractor</b>	
<b>Water Trailer</b>	Mike Glenn

Work began at 7:00 am with Colin and Royce starting to disassemble the Terex scraper to get to the engine cylinders. Mike Glenn's vehicle was still in the shop and thus he waited until Ed Baxter could pick him up for a ride out to the jobsite who was returning with straw from Billings. Mike and Ed arrived onsite at 10:15. Work continued on the scraper for the rest of the day. This likely would have been complete but one of the cylinders had much more build-up than the others and took 3-4 hours to remove from the block. Rob arrived onsite at 1 and aided in the repairs.

Ed needed to be in Billings in the morning for an appointment and so he took Mike back in to town at 6:15. He brought with him the air intake for the Terex that had also been compromised so he could get a new one over the weekend. There is roughly 1 hours worth of scraper time left on the project, 2-3 hours with the Hitachi excavator when it is working again which should be some time on Monday. Tuesday and Wednesday will be spent spreading mulch then crimping it into the soil and the work should be complete on Thursday if there are no more hiccups.

## APPENDIX F12. DAILY CONSTRUCTION LOG



View of Terex scraper engine rebuilding in the foreground with the straw in the background. A fair wind all day made cleaning parts essential. Shot taken facing southwest from the historic trail above the previous fire area.

## APPENDIX F13. DAILY CONSTRUCTION LOG

Friday 7/29/11

Contract Day: 19	Work Start: 08:00	Work End: 11:30	Temp: 75- 95	Wind: W 20mph	Mostly Sunny
---------------------	----------------------	--------------------	-----------------	---------------	--------------

<b>Equipment On-Site</b>	<b>Personnel On-Site</b>
<b>Campers</b>	Royce Edmionston
<b>Support Pick-ups</b>	Colin Harms
<b>Hitachi EX75UR Tracked Excavator</b>	Rob Giesick
<b>Terex TS-14 Scraper</b>	
<b>Case 570MXT Tractor</b>	
<b>Water Trailer</b>	Mike Glenn
<b>Straw Mulch Trailer</b>	

Work began at 8:00 am with Rob and Colin starting to reassemble the Terex scraper. Mike Glenn's vehicle was in the shop until 8:00 am and thus he could not arrive on-site, after packing up from three weeks in the Diamond Hotel, until 8:45. Rob, Royce and Colin continued on the scraper until 11:30 when all was put back on that could without Ed being there to fine tune the engine.

APPENDIX F13. DAILY CONSTRUCTION LOG



View of Terex scraper almost ready to go. Shot taken facing north from the rebuilt historic trail above the previous fire area.

## APPENDIX F14. DAILY CONSTRUCTION LOG

Monday 8/1/11

Contract Day: 22	Work Start: 14:00	Work End: 17:00	Temp: 75- 95	Wind: W 10mph	Partly Sunny
---------------------	----------------------	--------------------	-----------------	---------------	--------------

<b>Equipment On-Site</b>	<b>Personnel On-Site</b>
<b>Campers</b>	Royce Edmionston
<b>Support Pick-ups</b>	Colin Harms
<b>Hitachi EX75UR Tracked Excavator</b>	Rob Giesick
<b>Terex TS-14 Scraper</b>	Ed Baxter
<b>Case 570MXT Tractor</b>	
<b>Water Trailer</b>	
<b>Straw Mulch Trailer</b>	

Work crew arrived on-site in the afternoon and did additional work on the Terex. After completing some work, it began to rain intermittently and therefore, work could not be completed on fine tuning the engine to the Terex. If water were to get into the engine, it would be destroyed. Ed and the crew left for additional materials and dinner in Miles City.

**APPENDIX F15. DAILY CONSTRUCTION LOG**

Tuesday 8/2/11

Contract Day: 23	Work Start: 7:30	Work End: 17:00	Temp: 75- 95	Wind: W 10mph	Mostly Sunny
---------------------	------------------	--------------------	-----------------	---------------	--------------

<b>Equipment On-Site</b>	<b>Personnel On-Site</b>
<b>Campers</b>	Royce Edmionston
<b>Support Pick-ups</b>	Colin Harms
<b>Hitachi EX75UR Tracked Excavator</b>	Rob Giesick
<b>Terex TS-14 Scraper</b>	Ed Baxter
<b>Case 570MXT Tractor</b>	
<b>Water Trailer</b>	Frank O'Neill
<b>Straw Mulch Trailer</b>	

Work began with fine tuning the motor before being operational again. Once the Terex was working, Colin finished spreading topsoil. Royce also spread topsoil using the tractor. Frank O'Neill discussed privately contracted work with Ed that he wanted to see completed when Ed's crew had time. Ed informed Frank that they would have time with the scraper in the afternoon while waiting on seed that needed to be picked up in Billings. Ed and Royce fixed the Hitachi drive motor and the excavator went back to work filling in the last fire vent. Frank informed Ed that he wanted any large rock piled up near the fire areas for future ranch use.

Ed and Royce left the site around noon to go to Billings to get seed and the drill seeder for the tractor. Ed called Mike Glenn around 1 to inform him that they were no longer going to drill seed the site but broadcast instead and use triple the application rate as discussed on Monday. Colin was going to spend the afternoon doing work for the O'Neill's and Rob was going to finish installing staples in the fence posts throughout the site. Mike Glenn received a call at 1:30 from Rob saying the other drive motor on the tracked excavator had also failed and would need to be replaced. He was contacting Mike as he couldn't get a hold of Ed. Mike then called Ed and passed along the information regarding the drive motor so he could order parts to get it fixed as soon as possible. Ed said he would likely be on-site by noon the following day with the seed.

**APPENDIX F16. DAILY CONSTRUCTION LOG**

Wednesday 8/3/11

Contract Day: 24	Work Start: 7:30	Work End: 18:30	Temp: 75- 95	Wind: W 10mph	Mostly Sunny
---------------------	------------------	--------------------	-----------------	---------------	--------------

<b>Equipment On-Site</b>	<b>Personnel On-Site</b>
<b>Campers</b>	Royce Edmionston
<b>Support Pick-ups</b>	Colin Harms
<b>Hitachi EX75UR Tracked Excavator</b>	Rob Giesick
<b>Terex TS-14 Scraper</b>	Ed Baxter
<b>Case 570MXT Tractor</b>	
<b>Water Trailer</b>	Frank O'Neill
<b>Straw Mulch Trailer</b>	Mike Glenn

Work began with Colin prepping the topsoil for seed and mulch and Rob working to ensure staples were in-place on all appropriate fence-posts. This went on until 11:30 when Ed and Royce arrived on-site with seed and fertilizer. Seed and Fertilizer was then broadcast spread across most of the site.

Mike Glenn arrived on-site at 1:00pm as Colin, Rob, and Royce began spreading mulch. Mulch was spread until 6:30 that evening. Mulch was spread over the fire area first and then to the overburden stockpile areas. As sections were completed, Colin operated the crimper on the Tractor to crimp the mulch into place. Ed helped spread bales around 3:30 across the entire site with him driving the truck and trailer while Rob and Royce spread bales from the back of the trailer.

Once the bales were dispersed, Mike and Ed talked about the haul approaches from the Terex to the north of the work area that were not seeded and fertilized. As Ed was already going to have to go back to Billings before finishing the work it was decided that additional seed would be purchased to ensure that these areas were seeded. Mike and Ed then joined Rob, Royce, and Colin to continue spreading mulch. Work was completed at 6:30pm for the day.

It was decided that the crew would begin spreading mulch at 5:30 am on Thursday to avoid the heat.

## APPENDIX F16. DAILY CONSTRUCTION LOG



View of fire area looking north after mulch was crimped into the slope. Soft material made it impossible to crimp perpendicular to the slope without making a larger disturbance so the crimping was done at an angle to the slope but never straight up and down it.

## APPENDIX F17. DAILY CONSTRUCTION LOG

Thursday 8/4/11

Contract Day: 25	Work Start: 5:30	Work End: 17:00	Temp: 75- 100	Wind: W 5- 10mph	Sunny
---------------------	------------------	--------------------	------------------	---------------------	-------

Equipment On-Site	Personnel On-Site
<b>Campers</b>	Royce Edmionston
<b>Support Pick-ups</b>	Colin Harms
<b>Hitachi EX75UR Tracked Excavator</b>	Rob Giesick
<b>Terex TS-14 Scraper</b>	Ed Baxter
<b>Case 570MXT Tractor</b>	
<b>Water Trailer</b>	Mark Donner
<b>Straw Mulch Trailer</b>	Mike Glenn

Work began at 5:30 am with Rob, Royce and Colin spreading mulch. This continued until noon when the entire site was mulched. Mark Donner and Mike Glenn arrived on-site at 7:30am to begin the final inspection of the project site. This entailed walking the fence-line and mulch areas throughout the site to map them with the GPS. The fire vent areas were walked and inspected. All other tasks undertaken throughout the work was also inspected and final grading and seeding issues were discussed and then shared with Ed Baxter so that they could be addressed before leaving the site. Mark finished by 10:00am and left the project site to address other work.

Mike stayed and helped spread mulch until the site was completely mulched at 12:00. Colin began crimping in the mulch at 11:30 and Mike talked with Ed about Ed's intended plans to finish demobing from the site and the last bit of work to be completed once the excavator was again operational.

Mike left the site at 12:30 for the day with Ed and his crew planning on heading back to Billings by the end of the day as well. They would be returning on Monday with the parts for the excavator and additional seed to be spread on the haul approaches to the north of the work area used by the Terex when hauling material from the fire excavation to the quench pit.

## APPENDIX F17. DAILY CONSTRUCTION LOG



View of stockpile location and quench pit looking north after mulch had been spread and crimped.