SPILL PREVENTION, CONTROL, AND COUNTERMEASURES PLAN

Foidel Creek Mine

29515 RCR27

Oak Creek, Colorado, 80467

July 2020

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LIST OF ACRONYMS AND ABBREVIATIONS

- AST→Above-ground Storage Tank
- CDPHE/WQCD→Colorado Department of Public Health & Environment/Water Quality Control Division
- CDPS→Colorado Discharge Permit System
- EPA→U.S. Environmental Protection Agency
- FCM→Foidel Creek Mine
- MSHA→Mine Safety and Health Administration
- NPDES→National Pollutant Discharge Elimination System
- PE→Professional Engineer
- SPCC→Spill Prevention, Control, and Countermeasures
- STI→Steel Tank Institute
- UST→Underground Storage Tank

INTRODUCTION

The purpose of this Spill Prevention, Control, and Countermeasures (SPCC) Plan is to describe measures implemented by Foidel Creek Mine (FCM) to prevent oil discharges from occurring, and to prepare FCM to respond in a safe, effective, and timely manner to mitigate the impacts of any discharge which may occur.

This Plan has been prepared to meet the requirements of Title 40, *Code of Federal Regulations,* Part 112 (40 CFR part 112), and supersedes the earlier Plan, which was most recently revised in 06/13.

In addition to fulfilling the requirements of 40 CFR Part 112, this SPCC Plan is used as a reference for oil storage information and testing records, as a tool to communicate practices for preventing and responding to discharges with employees, as a guide to facility inspections, and as a resource to be used during an emergency response situation.

FCM management has determined that this facility does not pose a risk of substantial harm under 40 CFR Part 112, as recorded in the "Substantial Harm Determination" included in Appendix B of this Plan.

This Plan provides guidance on key actions that FCM must perform to comply with the SPCC Rules:

- Complete monthly and annual site inspections as outlined in the Inspection, Tests, and Records section of this Plan (Section 3.7) using the inspection checklists included in Appendix C.
- Perform preventive maintenance of equipment, secondary containment systems, and discharge prevention systems described in this Plan, as needed to keep them in proper operating condition.
- Conduct annual employee training as outlined in the Personnel, Training, and Spill Prevention Procedures section of this Plan (Section 3.8). Training Records are maintained with MSHA training records).
- If either of the following occurs, submit the SPCC Plan to the EPA Region 8 Regional Administrator (RA) and the Colorado Department of Public Health & Environment/Water Quality Control Division (CDPHE/WQCD), along with other information as detailed in Section 5.4 of this Plan:
    - The facility discharges more than 1,000 gallons of oil into or upon the navigable waters of the U.S. or adjoining shorelines in a single spill event
    - The facility discharges oil in quantity greater than 42 gallons in each of two spill events within any 12-month period

- Review the SPCC Plan at least once every five (5) years and amend it to include more effective prevention and control technology, if such technology will significantly reduce the likelihood of a spill event and has been proven effective in the field at the time of the review. Plan amendments, other than administrative changes discussed above, must be recertified by a Professional Engineer on the certification page in Section 1.2 of this Plan.
- Amend the SPCC Plan within six (6) months whenever there is a change in facility design, construction, operation, or maintenance that materially affects the facility's spill potential. The revised Plan must be recertified by a Professional Engineer (PE).
- Review the Plan on an annual basis. Update the Plan to reflect any "administrative changes" that are applicable, such as personnel changes or revisions to contact information, such as phone numbers. Administrative changes must be documented in the Plan review log of Section 1.4 of this Plan, but do not have to be recertified by a PE.

1. Plan Administration

1.1 Management Approval and Designated Person (40 CFR PART 112.7)

Foidel Creek Mine (FCM) is committed to preventing discharges of oil to navigable waters and the environment, and to maintaining the highest standards for spill prevention, control, and countermeasures through implementation, and regular review and amendments to the Plan. The FCM management fully approves the present SPCC Plan and will use any necessary resources to implement the measures described here. The Environmental Manager is the Designated Person Accountable for Oil Spill Prevention at the facility.

Environmental Manager (Facility Spill Coordinator):

Signature: _____ **Date:** _____

1.2 Professional Engineer Certification (40 CFR PART 112.3(d))

The undersigned Registered Professional Engineer is familiar with the requirements of Part 112 of Title 40 of the *Code of Federal Regulations* (40 CFR Part 112) and has visited and examined the facility or has supervised examination of the facility by appropriately qualified personnel. The undersigned Registered Professional Engineer attests that this Spill Prevention, Control, and Countermeasures Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards and the requirements of 40 CFR Part 112; that procedures for required inspections and testing have been established; and that this Plan is adequate for the facility. [40 CFR PART 112.3(d)].

This certification in no way relieves the owner or operator of the facility of his/her duty to prepare and fully implement this SPCC Plan in accordance with the requirements of 40 CFR Part 112. This Plan is valid only to the extent that the facility owner or operator maintains, tests, and inspects equipment, containment, and other devices as prescribed in this Plan.

Company: _____

Name: _____

Signature: _____ **Title:** _____

Professional Engineer Registration Number: _____

1.3 Location of SPCC Plan (40 CFR PART 112.3(e))

In accordance with 40 CFR PART 112.3(e), a complete copy of this SPCC Plan is maintained at the facility in the Operations Office. The Operations Office is attended whenever the facility is operating (24-hours a day/7-days a week).

1.4 Plan Review (40 CFR Parts 112.3 and 112.5)

1.4.1 Changes in Facility Configuration

In accordance with 40 CFR Part 112.5(a), FCM periodically reviews and evaluates this SPCC Plan for any change in the facility design, construction, operation, or maintenance that materially affects the facility's potential for an oil discharge, including, but not limited to:

- commissioning of containers
- reconstruction, replacement, or installation of piping systems
- construction or demolition that might alter secondary containment structures
- changes of product or service, revisions to standard operation, modification of testing/inspection procedures, and use of new or modified industry standards or maintenance procedures

Amendments to the Plan made to address changes of this nature are referred to as technical amendments and must be certified by a PE. Non-technical amendments can be done (and must be documented in this section) by the facility owner and/or operator. Non-technical amendments include the following:

- change in the name or contact information (i.e., telephone numbers) of individuals responsible for the implementation of this Plan
- change in the name or contact information of spill response or cleanup contractors

FCM must make the needed revisions to the SPCC Plan as soon as possible, but no later than six months after the change occurs. The Plan must be implemented as soon as possible following any technical amendment, but *no later than six months* from the date of the amendment. The Facility Manager is responsible for initiating and coordinating revisions to the SPCC Plan.

1.4.2 Scheduled Plan Reviews

In accordance with 40 CFR Part 112.5(b), FCM reviews this SPCC Plan at least once every five years (in the past, such reviews were required every three years). Revisions to the Plan, if needed, are made within six months of the five-year review. A registered Professional Engineer certifies any technical amendment to the Plan, as described above, in accordance with 40 CFR PART 112.3(d). This Plan is dated *July 20, 2020*. The next plan review is therefore scheduled to take place on or prior to *July 20, 2025.*

1.4.3 Record of Plan Reviews

Scheduled reviews and Plan amendments are recorded in the Plan Review Log (Table 1-1). This log must be completed even if no amendment is made to the Plan as a result of the review. Unless a

technical or administrative change prompts an earlier review of the Plan, the next scheduled review of this Plan must occur in ***July 2025.***

1.5 Facilities, Procedures, Methods, or Equipment Not Yet Fully Operational (40 CFR PART 112.7)

1.6 Cross-Reference with SPCC Provisions (40 CFR PART 112.7)

This SPCC Plan does not follow the exact order presented in 40 CFR Part 112. Section headings identify, where appropriate, the relevant section(s) of the SPCC rule. Table 1-2 presents a cross-reference of Plan sections relative to applicable parts of 40 CFR Part 112.

Table 1-1: Plan Review Log

PERSON	DATE	ACTIVITY	PE CERTIFICATION
James Boswell	6/18/13	Plan review and added language regarding VOC emission minimization	No
Jerry Nettleton	10/14	Plan review (no changes)	No
Jerry Nettleton	10/15	Plan review (no changes)	No
Jerry Nettleton	10/16	Plan review (no changes)	No
Jerry Nettleton	10/19/17	Complete Plan review and update	Yes
Jerry Nettleton	05/15/18	Complete Plan review and update	Yes
Miranda Kawcak	11/10/19	Complete Plan review and update	Yes
Ellie Agioutanti Miranda Kawcak	7/20/2020	Complete Plan review and update	Yes

Table 1-2: SPCC Cross- Reference

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* Only selected excerpts of relevant rule text are provided. For a complete list of SPCC requirements, refer to the full text of 40 CFR part 112.

2 General Facility Information

Name	Foidel Creek Mine
Address	29515 RCR27 Oak Creek, Colorado, 80467 970.879.3800
Type	Coal Mine and Coal Processing and Storage Facilities
Date of Initial Operations	May 23, 1983
Owner/ Operator	Twentymile Coal, LLC 29515 RCR27 Oak Creek, Colorado, 80467
Primary Contact	Miranda Kawcak, Environmental Manager Work: 970.870.2718 Mobile: 970.439.8273

2.1 Facility Description (40 CFR PART 112.7(a)(3))

2.1.1 Location and Activities

Foidel Creek Mine (FCM) is an underground coal mine in Northwest Colorado. The climate can be characterized as high mountain valley transitional. The mine has a large fleet of mobile equipment, including underground scoops, man-trips, and maintenance equipment, and surface dozers, loaders, road graders, and utility equipment. The facility handles, stores, and uses petroleum products in the form of gasoline, diesel, and various weights of lubricants. FCM receives petroleum products by common carrier via semi-truck or tanker-truck. Products delivered by tanker-truck are stored in above-ground storage tanks (ASTs). Bulk lubricants received in totes, and packaged lubricants received in 55-gallon drums, 5-gallon pails, or cases of canned product are received and stored in secure storage areas. The mine fuels its own equipment from designated fueling stations connected to the ASTs, and mine-owned fuel trucks.

The mine operates 365-days a year, 24-hours a day. The average number of people at the mine during a shift ranges from 70-100, including management, maintenance, plant, and production (equipment operators) personnel.

The Site Plan included in Appendix A of this Plan show the location and layout of the facility and the location of oil containers, buildings, loading/unloading and transfer areas, and critical spill control structures. FCM is located in a primarily rural area with virtually no significant population centers nearby. The closest town, Oak Creek, is approximately eight miles away. The mine property encompasses approximately 20,000 acres.

The mine facilities include an office/bathhouse building; shop/warehouse building; coal processing, handling, and loadout facilities; several remote mine ventilation and water treatment facilities, and various ancillary mine support buildings and structures. The main petroleum storage and handling areas are associated with the shop/warehouse facilities and material storage yard areas. Bulk fuel (gasoline and diesel) is generally received and stored in above-ground storage tanks. Lubricants are generally stored in totes, 55-gallon drums, 5-gallon pails, and as cases of canned product at the warehouse or in satellite operations or contractor project areas.

2.1.2 Fuel/Lubricant Storage

Fuel/Lubricant storage at the facility consists of 24 above storage ground tanks with their location, product, type, capacity and description shown in Table 2-1. Tank numbers are not consecutive because some numbered tanks contain non-petroleum products. The facility also includes 61 oil filled transformers with their characteristics depicted in Table 2-2.

In addition to the tanks and the oil transformers, the facility receives and stores a varying stock of totes oil drums, lubricant pails, and cases of canned product in the Shop/Warehouse, at fueling stations, or at contractor work areas. At any given time, maximum small container lubricant and used oil storage for the facility can be up to 15,000 gallons. The maximum potential spill volume at any one location would be equivalent to the capacity of the largest storage container at that location (350-gallons for totes, or 55-gallons for drums). Generally, small containers are either stored on concrete, containment pallets, or a type of secondary containment.

Total Fuel/Oil Storage: 78,112 gallons fuel and lubricants + 36,051 gallons dielectric fluid + 15,000 gallons = 129,163 gallons petroleum products

Table 2-1 Fixed Foidel Creek Mine Storage Tanks

TANK	TANK LOCATION	PRODUCT	TANK TYPE	CAPACITY (gallons)	DESCRIPTION
AST 1	BOB Area	Diesel	Steel/Shop Built	6,000	Above-ground w/steel containment
AST 2	BOB Area	Diesel		6,000	
AST 4	ROM Pile	Diesel	Steel/Shop Built	8,800	Above-ground w/steel containment
AST 6	Washbay	Skimmed Used Oil	Tote	350	Above-ground w/masonry containment
AST 7-1	Shop/Warehouse	Used Oil	Steel/Shop Built Compartments	1034	Above-ground within building
AST 7-2	Shop/Warehouse	Used Oil	Steel/Shop Built Compartments	2080	Above-ground within building
AST 7-3	Shop/Warehouse	Used Oil	Steel/Shop Built Compartments	638	Above-ground within building
AST 8	Mobile Tank	Diesel	Steel/Shop Built	500	Above-ground
AST 9-1	Shop/Warehouse (Light-Duty Bay)	Engine Oil/Emulsion Fluid	Steel/Shop Built	3,700	Above-ground within building
AST 9-2	Shop/Warehouse (Light-Duty Bay)	Hydraulic Oil	Steel/Shop Built	3700	Above-ground within building
AST 9-3	Shop/Warehouse (Light-Duty Bay)	Transmission Oil	Steel/Shop Built	3700	Above-ground within building

AST 9-4	Shop/Warehouse (Light-Duty Bay)	Emulsion Fluid	Steel/Shop Built	3700	Above-ground within building
AST 10-1	Shop/Warehouse (Light-Duty Bay)	Gear Oil	Steel/Shop Built	540	Above-ground within building
				540	Above-ground within building
AST 10-2	Shop/Warehouse (Light-Duty Bay)	Gear Oil	Steel/Shop Built	540	Above-ground within building
AST 11	Shop/Warehouse (Light-Duty Bay)	Used Oil	Steel/Shop Built	10,040	Above-ground w/steel containment
AST 12	Shop/Warehouse Yard	Diesel	Steel/Field Erected	20,000	Above-ground double-wall
AST 13	Mine Storage Yard	Gasoline	Steel/Field Erected	3,000	Above-ground double-walled
AST 14	Mobile Tank	Diesel	Steel/Shop Built	500	Aboveground
AST 15	Mine Storage Yard	Highway Diesel	Steel/Field Erected	500	Above-ground double-walled
AST 16	Warehouse	Used Oil	Steel/Welded Steel Supports	250	Above-ground w/steel containment
AST 17	Mobile Tank	Diesel	Steel/Shop Built	500	Double-walled
AST 18	Mobile Tank	Diesel	Steel/Shop Built	500	Double-walled
AST 19	Mobile Tank	Diesel	Steel/Shop Built	500	Double-walled
AST 20	Mobile Tank	Diesel	Steel/Shop Built	500	Double-walled
TOTAL CAPACITY OF AST TANKS				**78,112 GALLONS**	

Table 2-2 Foidel Creek Mine Oil Filled Transformers

LOCATION	SERIAL NO.	PRODUCT	CAPACITY (gallons)	DESCRIPTION
0-Entry Fan	-	Di-Electric Fluid	50	Pole-Mount
10-RT Pumphouse	090326-3	Di-Electric Fluid	400	Ground Installation
18-LT Substation	2669519	Di-Electric Fluid	2081	Idle
18-LT Substation	L244950	Di-Electric Fluid	900	Idle
9-east Borehole	03J935318	Di-Electric Fluid	210	Ground Installation
Barricade Chamber	-	Di-Electric Fluid	35	Pole-Mount
Bathhouse 5	23646	Di-Electric Fluid	227	Ground Installation
Bathhouse 5	836005469	Di-Electric Fluid	195	Ground Installation
Bathhouse 5	66C17396	Di-Electric Fluid	100	Ground Installation
Main Office	-	Di-Electric Fluid	500	Ground Installation
Near Substation No.4	-	Di-Electric Fluid	35	Pole-Mount
Next to Crane	ST109354151	Di-Electric Fluid	2800	Ground Installation
Old Transfer Building	L187834473A	Di-Electric Fluid	190	Ground Installation
Pond A	121680TB	Di-Electric Fluid	150	Ground Installation
Pond D	S800617N	Di-Electric Fluid	290	Ground Installation
Pump House Next to Pond on the way to 6 MN	J9613	Di-Electric Fluid	205	Ground Installation
Reclaim Tunnel	C01220942	Di-Electric Fluid	135	Ground Installation
Schoolhouse	-	Di-Electric Fluid	35	Pole-Mount
Spare – Elect.Yard	1250007880	Di-Electric Fluid	123	Spare
Spare – Elect.Yard	1721995-1	Di-Electric Fluid	390	Spare
Spare – Elect.Yard	C00327961	Di-Electric Fluid	235	Spare
Spare- Elect. Yard	157377	Di-Electric Fluid	145	Spare
Spare- Elect. Yard	CO-0213961	Di-Electric Fluid	385	Spare
Spare- Elect. Yard	-	Di-Electric Fluid	420	Spare
Spare- Elect. Yard	080-50087	Di-Electric Fluid	260	Spare
Spare- Elect. Yard	C160246	Di-Electric Fluid	2230	Spare
Spare- Elect. Yard	Q564423-TRZ	Di-Electric Fluid	315	Spare
Stoker Coal Loadout	786006580	Di-Electric Fluid	183	Ground

				Installation
Substation No. 1	03-3758-04732-5	Di-Electric Fluid	252	Ground Installation
Substation No. 1	03-3758-04732-6	Di-Electric Fluid	252	Ground Installation
Substation No. 1	03-3758-04732-7	Di-Electric Fluid	252	Ground Installation
Substation No. 1	F965653	Di-Electric Fluid	2050	Ground Installation
Substation No. 3	C-860485	Di-Electric Fluid	1300	Ground Installation
Substation No. 3	PNJ-0662	Di-Electric Fluid	214	Ground Installation
Substation No. 3	5VJ028001	Di-Electric Fluid	60	Pole-Mount
Substation No. 3	5VJ028002	Di-Electric Fluid	60	Pole-Mount
Substation No. 3	5VJ028003	Di-Electric Fluid	60	Pole-Mount
Substation No. 4	SHV8288-01	Di-Electric Fluid	1184	Ground Installation
Substation No. 4	-	Di-Electric Fluid	35	Pole-Mount
Substation No. 5	H-882696A	Di-Electric Fluid	181	Ground Installation
Substation No. 5	H-882696B	Di-Electric Fluid	181	Ground Installation
Substation No. 6	17093	Di-Electric Fluid	328	Ground Installation
Substation No. 6	17094	Di-Electric Fluid	328	Ground Installation
Substation No. 6	1495465	Di-Electric Fluid	30	Pole-Mount
Substation No. 7	C-863692	Di-Electric Fluid	290	Ground Installation
Substation No. 8	L2A6398	Di-Electric Fluid	910	Ground Installation
Substation No. 11	969105027	Di-Electric Fluid	247	Pole-Mount
Substation No. 11	969105027	Di-Electric Fluid	247	Pole-Mount
Substation No. 11	969105027	Di-Electric Fluid	247	Pole-Mount
Substation No. 11	H 881597	Di-Electric Fluid	1755	Ground Installation
Substation No. 12	750022873	Di-Electric Fluid	214	Ground Installation
Substation No. 12	02A3270	Di-Electric Fluid	2750	Ground Installation
Substation No. 13	82278001	Di-Electric Fluid	122	Ground Installation
Substation No. 13	352803-05-1	Di-Electric Fluid	5770	Ground Installation
Substation No. 13	ST89958152-X	Di-Electric Fluid	1308	Ground Installation

Thickener Underflow Booster Pump	188036	Di-Electric Fluid	195	Ground Installation
Truck Loadout	61038	Di-Electric Fluid	430	Ground Installation
Washplant	72507-4	Di-Electric Fluid	390	Ground Installation
Washplant	72507-5	Di-Electric Fluid	488	Ground Installation
Washplant	72607-8	Di-Electric Fluid	425	Ground Installation
Washplant	90J576119	Di-Electric Fluid	272	Ground Installation
TOTAL			**36,051 GALLONS**	

2.2 Evaluation of Discharge Potential

2.2.1 Distance to Navigable Waters and Adjoining Shorelines and Flow Paths

Most mine facilities are located on the south flank of a small drainage valley. Drainage generally flows to the northeast, in the direction of Foidel Creek, which runs along the north edge of the mine facilities area and is located in the middle of the overall mine permit area. All drainage from the mine-site travels through controlled Colorado Discharge Permit System (CDPS/NPDES) points or alternative sediment control structures. Due to the semi-arid climate, very little water is discharged from the mine. Most water is generally recycled for operational dust suppression or for use in the coal processing plant. Potential spill paths are indicated on the facility diagram. The ground surface in facilities areas is primarily gravel and compacted soil.

2.2.2 Discharge History

There have been no reportable petroleum discharges from the FCM.

3 Discharge Prevention - General SPCC Provisions

The following measures are implemented to prevent oil discharges during the handling, use, or transfer of oil products at the facility. Oil-handling employees have received training in the proper implementation of these measures.

3.1 Compliance with Applicable Requirements (40 CFR PART 112.7(a)(2))

All of the aboveground storage tanks have secondary containment. Any spills resulting from overfills or loading/unloading of product would not likely reach any navigable waters. There are numerous sumps, ditches, CDPS/NPDES ponds, and facilities ponds (non-NPDES) which would effectively intercept and capture any spills. Due to the distance from the fueling and loading/unloading areas to

any ponds or ditches, and these intermediate drainage controls, it is unlikely that any spilled product would reach them.

All the aboveground tanks are inspected monthly, following a regular schedule. A copy of the inspection form is in Appendix C. Any leakage from the primary container would be detected visually during the scheduled inspections. The small container storage areas are visited regularly by warehouse personnel. Any leak would typically be detected and addressed by facility personnel before any significant quantity of product could discharge to natural drainages. Corrosion poses minimal risk of failure since totes, drums, pails, and cans are single-use and remain on site for a relatively short period of time (less than one year). The small container storage areas are inspected at least quarterly, in accordance with accepted industry practice, providing an effective means of verifying container integrity, as noted by EPA in the preamble to the SPCC rule at 67FR 47120. All containers with petroleum products which have a capacity of 55 gallons or more, are inspected monthly.

3.2 Facility Layout Diagram (40 CFR PART 112.7(a)(3))

Figure A-1 in Appendix A presents a layout of the facility and the location of storage tanks and drums. As required under 40 CFR PART 112.7(a)(3), the facility diagram indicates the location and content of ASTs, transfer stations, and connecting piping.

3.3 Spill Reporting (40 CFR PART 112.7(a)(4))

The discharge notification form included in Appendix I will be completed immediately upon detection of any discharge and prior to reporting a spill to the proper notification contacts.

3.4 Potential Discharge Volumes and Direction of Flow (40 CFR PART 112.7(b))

Table 3-1 presents expected volume, discharge rate, general direction of flow in the event of equipment failure and means of secondary containment for different parts of the facility where fuel/lube is stored, used, or handled. The response to any land-based spills that might occur outside of secondary containment would include mobilizing heavy equipment, if appropriate, to berm/dike the area. No spills would reach any reservoirs.

Table 3-1 Potential Discharge Volumes and Direction of Flow

POTENTIAL EVENT	MAXIMUM VOLUME RELEASED (GAL)	MAXIMUM DISCHARGE RATE	DIRECTION OF FLOW	SECONDARY CONTAINMENT
BOB Area/ROM Pile/Main Fuel Station/Material Storage Yard				
Tanker truck leak or failure	0-8,000	Gradual to instantaneous	North	Fueling Station Containment/ Sediment Ponds B, D and E
Hose leak during truck unloading	1 to 300	60 gal/min	North	Fueling Station Containment
Tank overfill	1-120	60 gal/min	North	Fueling Station Containment/Spill Response/Sediment Ponds B, D and E
Failure of above-ground tank	0-20,000	Gradual to instantaneous	North	Fueling Station Containment/Spill Response/Sediment Ponds B, D and E
Piping failure	10,000	240 gal/min	North	Fueling Station Containment/Spill Response/Sediment Ponds B, D and E
Leaking pipe or valve packing	600	1-5 gal/min	North	Fueling Station Containment/Spill Response/Sediment Ponds B, D and E

Fuel Dispensing Area-Dispenser hose and connection leaks	1 to 300	60 gal/min	North	Fueling Station Containment/Spill Response/Sediment Ponds B, D and E
Leak or failure of tote, drum, or pail	1 to 350	Gradual to instantaneous	North	Fueling Station Containment/Spill Response/Sediment Ponds B, D, and E
Shop/Warehouse				
Bulk delivery truck leak or failure	0-4,000	Gradual to instantaneous	North	Building Containment/Spill Response/Sediment Ponds E and F
Hose leak during truck unloading	1 to 300	60 gal/min	North	Building Containment/Spill Response/Sediment Ponds E and F
Tank overfill	1-120	60 gal/min	North	Building Containment/Spill Response/Sediment Ponds E and F
Failure of above-ground tank	0-10,000	Gradual to instantaneous	North	Building Containment/Spill Response/Sediment Ponds E and F
Leaking pipe or valve packing	600	1-5 gal/min	North	Building Containment/Spill Response/Sediment Ponds E and F
Leak or failure of tote, drum, or pail	1 to 350	Gradual to instantaneous	North	Building Containment/Spill Response/Sediment Ponds E and F
Washbay				
Oil/water separator malfunction	1 to 150	1 gal/min	North	Building Containment/Spill Response/Sediment Pond E

Leak or failure of tote	1 to 350	Gradual to instantaneous	North	Building Containment/Spill Response/Sediment Pond E
Leaking pipe or valve packing	100	1-3 gal/min	North	Building Containment/Spill Response/Sediment Pond E
Mobile Fuel Tanks				
Complete failure of portable tank	500	Gradual to instantaneous	Varies w/location	Secondary Shell/Spill Response
Leaking portable tank or overfills	1 to 100	1-3 gal/min	Varies w/location	Secondary Shell/Spill Response
Oil-Filled Transformers				
Complete failure of transformer case	5770	Gradual to instantaneous	Varies w/location	Spill Response/Sedimentation Ponds
Leaking transformer	1 to 200	1-5 gal/min	Varies w/location	Spill Response/Sedimentation Ponds

3.5 Containment and Diversionary Structures (40 CFR PART 112.7(c))

Methods of secondary containment at the FCM include a combination of structures (e.g., double-walled tanks, designed steel or concrete containment structures, inherent containment within buildings), designed drainage control systems (collection and containment ditches and sedimentation ponds), and land-based spill response (e.g. mobile equipment, sorbents) to prevent oil from ever reaching natural drainages:

For bulk storage containers (refer to Section 4.2.2 of this Plan):

- **Double-wall tank construction:** Tanks AST 12 ,13, 15 and all the mobile tanks are all double-wall tanks, with the enclosed external shell providing sufficient capacity to contain 110 percent of the inner shell capacity.
- **Designed steel or concrete containment structures:** In the BOB Area and ROM Pile fuel storage areas, the bulk storage tanks set within designed steel containment structures providing over 110% of capacity of the largest enclosed tank. In the Shop/Warehouse, the

poured concrete floor and sill plate and concrete block enclosures provide effective containment for any product storage tanks within the building. The used oil storage tank sits outside of the Shop/Warehouse Building but is within a poured concrete basin formed by the loading apron and walls, topped by a steel containment structure, providing containment capacity for the entire contents of the used oil tank.

In transfer areas and other parts of the facility where a discharge could occur:

- **Fueling Stations:** Equipment fueling stations are of double wall construction with an additional enclosed apron and catchment system (either concrete or HDPE lined). The designed concrete or steel catchment basin, along with the surrounding sediment drainage system, provide adequate containment capacity for the entire contents of the typical delivery vehicle plus precipitation. The enclosed apron systems are also used for equipment fueling, serving to effectively collect and contain any spillage which may occur during fueling.
- **Drainage system:** The FCM surface drainage system is designed and maintained to intercept all drainage from mine facilities and disturbance areas and direct the drainage to designed sedimentation ponds, allowing for sampling and treatment of the water prior to discharge. If a spill were to occur, the designed collection ditches would control the movement of spilled material and any associated runoff water, typically allowing movement of the spilled material to be stopped before it even reaches the sedimentation ponds.
- **Mobile Earth-Moving Equipment:** The FCM has several different types of mobile earth-moving equipment readily available, including, tracked and rubber-tired dozers, wheel loaders, rubber-tired back-hoes, skid-steer loaders, and motor graders. Equipment operators are in radio contact with the Operations Control Center, and can be mobilized quickly to contain, control, and clean-up any petroleum spill that might occur.
- **Spill Kits**: Spill Kits containing containment and clean-up materials are located at each petroleum storage and fueling location, and at several other locations on the mine-site. These kits include containment booms and absorbent materials to isolate and recover spilled materials. Additional spill materials are also stored in the Mine Warehouse. The response equipment inventory for the FCM is listed in Appendix J of this Plan. The Spill Kits are checked monthly to assure that any materials used from the Kits is replaced.

3.6 Practicability of Secondary Containment (40 CFR PART 112.7(d))

As an integral part of the overall SPCC Plan, FCM management has determined that secondary containment is practicable at this facility.

3.7 Inspections, Tests, and Records (40 CFR PART 112.7(e))

As required by the SPCC rule, FCM performs the industry-recommended inspections, tests, and evaluations listed in the following table. Table 3-2 summarizes the various types of inspections and tests performed at the facility. The inspections and tests are described later in this section, and in the respective sections that describe different parts of the facility (e.g., Section 4.2.6 for bulk storage containers).

Table 3-2 Inspection and Testing Program

FACILITY COMPONENT	ACTION	FREQUENCY/CIRCUMSTANCES
Above-ground tanks, small containers, oil filled transformers	Visual inspection	Monthly, annual, during scheduled inspections and whenever material repairs are made.
Container supports and foundations	Inspect container supports and foundations.	Monthly, annual, during scheduled inspections and whenever material repairs are made.
Designed steel or concrete containment structures	Inspect for signs of deterioration, discharges, or accumulations of oil or water inside containment area	Monthly or prior to draining
Effluent treatment facilities	Detect possible system upsets that could cause a discharge	Quarterly; during precipitation run-off events

FACILITY COMPONENT	ACTION	FREQUENCY/CIRCUMSTANCES
All above-ground valves, piping, and appurtenances	Assess general condition of items, such as flange joints, expansion joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces	Monthly
Buried piping	Inspect for deterioration and perform an integrity and leak testing	Whenever a section of buried line is exposed for any reason,at the time of installation, modification, construction, relocation, or replacement

3.7.1 Daily Inspection

For each active operating area, one or more FCM employees performs a complete walk-through each day. This inspection looks for potential safety and environmental issues, with any significant issues noted on the Daily Report.

3.7.2 Monthly Inspection

The checklist provided in Appendix C is used for monthly inspections by FCM personnel. The monthly inspections cover the following key elements:

- Observing the exterior of aboveground storage tanks, piping, and other equipment for signs of deterioration, leaks, corrosion, and thinning
- Observing the exterior of portable containers for signs of deterioration or leaks
- Observing tank foundations and supports for signs of instability or excessive settlement
- Observing the tank fill and discharge pipes for signs of poor connections that could cause a discharge, and tank vents for obstructions and proper operation
- Verifying the proper functioning of overfill prevention systems
- Checking the inventory of discharge response equipment and restocking as needed

Any problems regarding tanks, piping, containment, or response equipment are immediately reported to the Facility Manager. Visible oil leaks from tank walls, piping, or other components are repaired as soon as possible to prevent a larger spill or a discharge to navigable waters or adjoining shorelines.

Any pooled oil is isolated and recovered immediately upon discovery. Written monthly inspection records are signed by the Environmental Manager and maintained with this SPCC Plan or in a separate file for a period of three years.

3.7.3 Annual Inspection

The monthly inspection criteria qualify as annual inspection criteria per STI-SP001 industry standard. Facility personnel perform an annual inspection as part of the June monthly inspection. This inspection includes the monthly inspection facilities and equipment. The annual inspection is preferably performed after a large storm event in order to verify the imperviousness and/or proper functioning of drainage control systems. Written annual inspection records are signed by the Environmental Manager and maintained with this SPCC Plan or in a separate file for a period of three years.

3.7.4 Periodic Integrity Testing

In addition to the above monthly and annual inspections by facility personnel, Tanks AST 1, 2, 4, 11, and 12 should be periodically evaluated by an outside certified tank inspector following the Steel Tank Institute (STI) *Standard for the Inspection of Aboveground Storage Tanks*, SP-001, 2011, 5th Edition, as described in Section 4.2.6 of this Plan, and consistent with the decision-tree provided in Appendix C.

3.8 Personnel, Training, and Discharge Prevention Procedures (40 CFR PART 112.7(f))

The Facility Manager is the facility designee and is responsible for oil discharge prevention, control, and response preparedness activities at this facility.

FCM management has instructed oil-handling facility personnel in the operation and maintenance of oil pollution prevention equipment, discharge procedure protocols, applicable pollution control laws, rules and regulations, general facility operations, and the content of this SPCC Plan. Any new facility personnel with oil-handling responsibilities are provided with this same training prior to being involved in any oil handling or storage operations.

Annual discharge prevention training is provided as part of the required MSHA Annual Refresher Training by the Environmental Manager or Staff for all facility personnel involved in oil operations. The training is aimed at assuring continued understanding and adherence to the discharge prevention procedures presented in the SPCC Plan. The training may also highlight and describe any known discharge events or failures, malfunctioning components, and recently implemented precautionary measures and best practices. Facility operators and other personnel will have the opportunity during the training to share recommendations concerning health, safety, and environmental issues encountered

during facility operations. Records of new-hire and annual discharge prevention training are included with the required MSHA training records and maintained on-site for a period of three years.

3.9 Security (40 CFR PART 112.7(g))

All the tanks are within the mine security network with appropriate access controls. Fixed area lighting illuminates loading/unloading and storage areas during low-light conditions. In addition, adequate fire protection exists at all locations on the mine-site.

The electrical starter controls for the oil pumps, including the fuel dispenser, are located in closed weather-proof cabinets at the fueling stations, and require a key to activate. The facility securely caps or blank flanges the loading/unloading connections of facility piping when not in service or when in standby service for an extended period of time, or when piping is emptied of liquid content either by draining or by inert gas pressure.

3.10 Tank Truck Loading/Unloading Requirements (40 CFR PART 112.7(h))

The potential for discharges during tank truck loading and unloading operations is of particular concern at this facility. FCM management is committed to assuring the safe transfer of material to and from storage tanks. The following measures are implemented to prevent oil discharges during tank truck loading and unloading operations

3.10.1 Secondary Containment (40 CFR PART 112.7(h)(1))

The FCM has several unloading areas (where product is unloaded from large capacity tanker truck to the facility bulk storage tanks). The tanker truck loading/unloading areas are below-grade concrete or HDPE lined apron systems draining to designed concrete or steel catchment basins with integral oil segregation capabilities. The combined apron and catchment basin system for each location are designed to provide adequate containment capacity for the entire contents of the typical delivery vehicle plus precipitation. The apron areas are sloped to direct any flow of oil or water away from the delivery vehicle into the catchment basin. In addition, the FCM surface drainage system is designed and maintained to intercept all drainage from mine facilities and disturbance areas and direct the drainage to designed sedimentation ponds, allowing for sampling and treatment of the water prior to discharge. If a spill were to occur, the designed collection ditches would control the movement of spilled material and any associated runoff water, typically allowing movement of the spilled material to be stopped before it even reaches the sedimentation ponds.

3.10.2 Loading/Unloading Procedures (40 CFR PART 112.7(h)(2) and (3))

All suppliers must meet the minimum requirements and regulations for tanker truck loading/unloading established by the U.S. Department of Transportation. FCM assures that the vendor understands the

site layout, knows the protocol for entering the facility and unloading product, and has the necessary equipment to respond to a discharge from the vehicle or fuel delivery hose.

The Facility Manager or his/her designee supervises oil deliveries for all new suppliers, and periodically observes deliveries for existing, approved suppliers. All unloading of tanker vehicles takes place only in the designated unloading areas. Vehicle filling operations are performed by facility personnel trained in proper discharge prevention procedures. The truck driver or facility personnel must always remain with the vehicle while fuel is being transferred. Transfer operations are performed according to the minimum procedures outlined in Table 3-3.

Table 3-3 Fuel Transfer Procedures

STAGE	TASKS
Prior to loading/ unloading	• Pull tanker vehicle onto fueling pad so that trailer is entirely within pad area • Secure the tanker vehicle with wheel chocks and interlocks • Assure that the vehicle's parking brakes are set • Visually check all hoses for leaks and wet spots • Verify that sufficient volume (ullage) is available in the storage tank or truck • Verify proper alignment of valves and proper functioning of the pumping system • If filling a tank truck, inspect the lowermost drain and all outlets to assure that they are fully closed • Lock in closed position all drainage valves of the secondary containment structure. • Establish adequate bonding/grounding prior to connecting to the fuel transfer point • Turn off cell phone
During loading/ unloading	• Driver must stay with the vehicle at all times during loading/unloading activities • Periodically inspect all systems, hoses, and connections • When loading, keep internal and external valves on the receiving tank open along with the pressure relief valves • When making a connection, shut off the vehicle engine. When transferring Class 3 materials, shut off the vehicle engine unless it is used to operate a pump. • Monitor the liquid level in the receiving tank to prevent overflow • Monitor flow meters to determine rate of flow • When topping off the tank, reduce flow rate to prevent overflow • Do not allow fuel to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. • Minimize fuel spills.

After loading/ unloading	• Make sure the transfer operation is completed • Close all tank and loading valves before disconnecting • Securely close all vehicle internal, external, and dome cover valves before disconnecting • Secure all hatches • Disconnect grounding/bonding wires • Make sure the hoses are drained to remove the remaining oil before moving them away from the connection. Use a drip pan • Cap the end of the hose and other connecting devices before moving them to prevent uncontrolled leakage • Remove wheel chocks and interlocks • Inspect the lowermost drain and all outlets on tank truck prior to departure. If necessary, tighten, adjust, or replace caps, valves, or other equipment to prevent oil leaking while in transit. • Clean up spills as expeditiously as practicable • Cover all fuel containers and all fuel storage tank fill-pipes with a gasketed seal when not in use. • Minimize fuel sent to open waste collection systems that collect and transport fuel to reclamation and recycling devices, such as oil/water separators.

3.11 Brittle Fracture Evaluation (40 CFR PART 112.7(i))

-NA-

3.12 Conformance with State and Local Applicable Requirements (40 CFR PART 112.7(j))

The state and local authorities do not require registering the tanks. State regulatory requirements for tanks are not applicable since mines are exempt under CRS 8-20.5-101(2)(b)(IX).[1] Treated storm water

[1] (b) "Aboveground storage tank" does not include:

……

(IX) Aboveground storage tanks used to store flammable and combustible liquids at mining facilities and construction and earthmoving projects, including gravel pits, quarries, and borrow pits where, in the opinion of the director of the division of oil and public safety, tight control by the owner or contractor and isolation from other structures make it unnecessary to meet the requirements of this article

runoff is discharged to Foidel Creek as permitted under CDPS permits CO-0027154, CO-0042161, and CO-0036684. The maximum allowable daily oil/grease concentration is 15 mg/L. If a visible sheen is present, a sample is taken following the monitoring requirements specified in the CDPS permit.

4 Discharge Prevention – SPCC Provisions for Onshore Facilities (Excluding Production Facilities)

4.1 Facility Drainage (40 CFR PART 112.8(b))

Any potential discharge from AST's would be intercepted and contained by either the double-walled tanks or designed secondary containment structures. Any discharges which might occur during loading/unloading operations would generally be contained by the designed apron and catchment basin systems for fueling stations. Drainage from the FCM facilities is controlled by a designed drainage system, which intercepts and routes all runoff from disturbed areas to a series of sedimentation ponds. The designed collection ditches and sedimentation ponds would intercept and control the flow of any large spill or any spill that occurs outside of the secondary containment areas, providing additional opportunities for containment and isolation of the spilled material, and serve as another layer of containment to prevent the discharge of any spilled material to the Waters of the U.S.

4.2 Bulk Storage Containers (40 CFR PART 112.8(c))

4.2.1 Construction (40 CFR PART 112.8 (c)(1))

All oil storage tanks used at FCM are constructed of steel, in accordance with industry specifications as referenced in Table 4-1, except from AST 6 which is a tote used for used oil storage. The design and construction of all bulk storage containers are compatible with the characteristics of the oil product they contain, and with temperature and pressure conditions.

Piping between fixed, above-ground bulk storage tanks is either steel or polyethylene. Dependent on location, piping may be buried or routed above-ground in a protected location. Table 4-1 summarizes the construction, volume, and content of bulk storage containers at the FCM facility.

Table 4-1 List of Oil and Fuel Containers

TANK	LOCATION	TYPE (CONSTRUCTION STANDARD)	CAPACITY (gallons)	CONTENT	Discharge Prevention & Containment

AST 1	BOB Area	AST vertical (UL142)	6,000	Diesel	Steel containment Liquid level gauge Overfill protection
AST 2	BOB Area	AST vertical (UL142)	6,000	Diesel	Steel containment Liquid level gauge Overfill protection
AST 4	ROM Pile	AST vertical (UL142)	8,800	Diesel	Steel containment Liquid level gauge Overfill protection
AST 6	Washbay	Tote	350	Skimmed Used Oil	Masonry containment Visible fluid level
AST 7-1	Shop/ Warehouse	Steel/Shop Built	1034	Used Oil	Contained in building Liquid level gauge Overfill protection
AST 7-2	Shop/ Warehouse	Steel/Shop Built	2080	Used Oil	Contained in building Liquid level gauge Overfill protection
AST 7-3	Shop/ Warehouse	Steel/Shop Built	638	Used Oil	Contained in building Liquid level gauge Overfill protection
AST 8	Mobile Tank	Steel/Shop Built	500	Diesel	Double-wall tank Liquid level gauge
AST 9-1	Shop/ Warehouse (Light-Duty Bay)	Steel/Shop Built	3,700	Engine Oil/Emulsion Fluid	Contained in building Liquid level gauge Overfill protection

AST 9-2	Shop/ Warehouse (Light-Duty Bay)	Steel/Shop Built	3700	Hydraulic Oil	Contained in building Liquid level gauge Overfill protection
AST 9-3	Shop/ Warehouse (Light-Duty Bay)	Steel/Shop Built	3700	Transmission Fluid	Contained in building Liquid level gauge Overfill protection
AST 9-4	Shop/ Warehouse (Light-Duty Bay)	Steel/Shop Built	3700	Emulsion Fluid	Contained in building Liquid level gauge Overfill protection
AST 10-1	Shop/ Warehouse (Light-Duty Bay)	Steel/Shop Built	540	Gear Oil	Contained in building Liquid level gauge Overfill protection.
			540	Gear Oil	Contained in building Liquid level gauge Overfill protection.
AST 10-2	Shop/Warehouse (Light-Duty Bay)	Steel/Shop Built	540	Gear Oil	Contained in building Liquid level gauge Overfill protection.
AST 11	Shop/Warehouse (Light-Duty Bay)	Steel/Shop Built	10,040	Used Oil	Concrete/steel containment Liquid level gauge Overfill protection

AST 12	Shop/Warehouse Yard	AST horizontal – Double-wall	20,000	Diesel	Double-wall tank Leak detection Liquid level gauge Overfill protection
AST 13	Mine Storage Yard	AST horizontal – Double-wall	3,000	Unleaded Gasoline	Double-wall tank Leak detection Liquid level gauge Overfill protection
AST14	Mobile Tank	Steel/Shop Built	500	Diesel	Double-wall tank Liquid level gauge
AST 15	Mine Storage Yard	Steel/Shop Built	500	Highway Diesel	Double-wall tank Liquid level gauge
AST 16	Warehouse	Steel/Shop Built	250	Used Oil	Single-wall tank Liquid level gauge
AST 17	Mobile Tank	Steel/Shop Built	500	Diesel	Double-wall tank Liquid level gauge
AST 18	Mobile Tank	Steel/Shop Built	500	Diesel	Double-wall tank Liquid level gauge
AST 19	Mobile Tank	Steel/Shop Built	500	Diesel	Double-wall tank Liquid level gauge
AST 20	Mobile Tank	Steel/Shop Built	500	Diesel	Double-wall tank Liquid level gauge
Oil-Filled Transformers	Various (see Table 2.1)	Steel Case - Manufactured	Varies	Dielectric Fluid	Inspections Drainage controls
Small Containers	Shop/ Warehouse/ Fueling Stations	350 gal. Totes 55 gal. Drums 5 gal. Pails Cases of Cans	Max. 15,000	Oil, Lubricants, Used oil	Contained in building Spill pallets with built-in containment capacity.

4.2.2 Secondary Containment (40 CFR PART 112.8(c)(2))

Tanks AST 1, 2, 4, and 11 set in fabricated steel containment structures, with roofs to minimize accumulations of precipitation. The containment structures for Tanks AST 1 and 2, 4 and 11 have capacities of approximately 11,220, 14,960 and 11,325 gallons respectively. Tanks AST 7-1,7-2, 7-3, 9-1, 9-2, 9-3, 9-4, 10-1, 10-2 and 16 are located within the Shop/Warehouse facility, which has a concrete floor, sill plates and concrete block enclosures. The facility is staffed 24-hours a day, therefore any leakage or spill from these tanks would be detected and could be addressed before it could escape the building. The surface of the concrete floor, the inside and outside of the sill plate, and the interface of the floor and walls, are visually inspected during the monthly facility inspection to detect any cracks, signs of heaving or settlement, or other structural damage that could affect the ability of the building structure to contain any spill. The containment basin is visually inspected during the monthly facility inspection to detect any cracks, signs of heaving or settlement, or other structural damage that could affect the ability of the basin to contain any spill. AST 6 is a tote, which collects the minor amount of oil from the Washbay oil skimmer. The tote sits outside of the Washbay within a sealed cinder-block containment. The cinder block containment provides a containment capacity of approximately 450 gallons. The area is inspected regularly for any leakage or accumulations of oil or water, and to confirm the integrity of the earthen berm.

Tanks AST 12, 13, 15 and mobile tanks AST 8, 14, 17, 18, 19, 20 are double-wall tanks with leak detection. The double-wall construction provides secondary containment capacity of approximately 110 percent of tank capacity. Since the secondary containment is not open to the environment and therefore no subject to accumulation of precipitation, the tank containment capacity is enough to fully contain the product in the event of a leak from the primary container. Leak detection for the interstitial space between the primary tank and containment shell allows detection of any leakage from the primary tank. The double-wall tanks are also equipped with overfill protection to assure that spillage does not occur during tank filling.

Small lubricant containers (350 gal. totes, 55 gal. drums, 5-gal. pails, and cases of cans) will typically be stored in the Shop/Warehouse, at fueling stations, or at contractor work areas. When stored and used in the Shop/Warehouse, containment considerations for small containers will be similar to those previously described for Tanks AST 7-1, 7-2, 9-1, 9-2, 9-3, 9-4, and 10-1, 10-2. When stored and used in fueling areas, containment considerations for small containers will be similar to those previously described for tanker truck loading/unloading areas (Section 3.10.1). In any other areas where small containers are stored and used, the containers will be stored on containment pallets, or other suitable containment will be provided.

4.2.3 Drainage of Diked Areas (40 CFR PART 112.8(c)(3))

Any accumulations of precipitation or other water in containment areas will be drained under the direct supervision of facility personnel. Prior to draining accumulated water, the supervising personnel will check for the presence of oil or grease in or on the surface of the water and will take necessary steps to recover and remove any residual petroleum prior to discharge. If it is not practical to recover and remove any residual petroleum, the mixed water and oil will be removed by a qualified contractor for proper handling and disposal. Only after taking these steps will any accumulated water be discharged by opening discharge valves or pumping. Following discharge, all discharge valves will be closed and checked, and all discharge valves will normally be kept in a closed position and locked except when draining the containment area.

4.2.4 Corrosion Protection (40 CFR PART 112.8(c)(4))

This section is not applicable since there are no buried or bunkered storage tanks at this facility.

4.2.5 Partially Buried and Bunkered Storage Tanks (40 CFR PART 112.8(c)(5))

This section is not applicable since there are no partially buried or bunkered storage tanks at this facility.

4.2.6 Inspections and Tests (40 CFR PART 112.8(c)(6))

Visual inspections of ASTs by facility personnel are performed according to the procedure described in this SPCC Plan. Leaks from tank seams, gaskets, rivets, and bolts are promptly corrected. Records of inspections and tests are signed by the inspector and kept at the facility for at least three years. Table 4-2 summarizes inspections and tests performed on bulk storage containers.

Table 4-2 Scope and Frequency of Bulk Storage Containers Inspections and Tests

TANK	**CAPACITY**	INSPECTION TESTS	
		Visual inspection by facility personnel (as per checklist of Appendix C)	External inspection by certified inspector (as per STI Standard SP-001)
AST 1	6,000	M&A	E (20)
AST 2	6,000	M&A	E (20)
AST 4	8,800	M&A	E (20)
AST 6	350	M&A	
AST 7-1	1034	M&A	
AST 7-2	2080	M&A	

AST 7-3	638	M&A	
AST 8	500	M&A	
AST 9-1	3,700	M&A	
AST 9-2	3700	M&A	
AST 9-3	3700	M&A	
AST 9-4	3700	M&A	
AST 10-1	540	M&A	
	540	M&A	
AST 10-2	540	M&A	
AST 11	10,040	M&A	E (20)
AST 12	20,000	M&A	E (20)
AST 13	3,000	M&A	
AST 14	500	M&A	
AST 15	500	M&A	
AST 16	250	M&A	
AST 17	500	M&A	
AST 18	500	M&A	
AST 19	500	M&A	
AST 20	500	M&A	
SC			
SC:Small Containers M: Monthly, A: Annual, E(20): Formal External Inspection required every twenty years for Category 1 tanks with Continuous Release Detection Methods in place per STI-SP001.			

4.2.7 Heating Coils (40 CFR PART 112.8(c)(7))

This section is not applicable, since there are no heating coils at this facility.

4.2.8 Overfill Prevention Systems (40 CFR PART 112.8(c)(8))

All tanks are equipped with a direct-read level gauge. As previously described, all tanks are provided with secondary containment, which would also contain any spillage in the event of an overfill situation, as described in this Plan.

Oil-filled transformers are not normally subject to filling, and small containers are typically one-time use and are not refilled, therefore overfill prevention systems do not apply to transformers or small

containers. Facility personnel are present during tank filling operations to monitor the product level in the tanks.

4.2.9 Effluent Treatment Facilities (40 CFR PART 112.8(c)(9))

The facility's storm-water effluent discharge to Foidel Creek is monitored at the frequency required by the applicable CPDS permits (at least once per quarter or more frequently) and discharge monitoring records are maintained.

4.2.10 Visible Discharges (40 CFR PART 112.8(c)(10))

Any visible discharge from a container or associated connections; including seams, gaskets, piping, pumps, valves, rivets, and bolts, will be addressed immediately upon discovery to stop or slow any discharge and contain and isolate any spillage. Once these initial steps are completed, appropriate actions will be taken to repair or replace the source of the discharge in a timely manner.

Any spillage resulting from a discharge will be promptly recovered, removed, and disposed of according to the waste disposal method described in Part 5 of this Plan.

4.2.11 Mobile and Portable Containers (40 CFR PART 112.8(c)(11))

Tanks AST 8 and 14, 17, 18, 19, 20 are double-wall mobile tanks, which provide adequate secondary containment in the event of leaks in the primary tank. Leak detection for the interstitial space between the primary tank and containment shell allows detection of any leakage from the primary tank.

Small portable oil storage containers, such as totes and 55-gallon drums will typically be stored in the Shop/Warehouse, at fueling stations, or at contractor work areas, where secondary containment is provided by the concrete floor and sill plate, fueling area containment systems, containment pallets, or other suitable containment. If spills occur, any discharged material is quickly contained and cleaned up using sorbent booms, pads, and/or other appropriate containment/collection materials.

4.3 Transfer Operations, Pumping, and In-Plant Processes (40 CFR PART 112.8(d))

Transfer operations at this facility include:

- Transfer of oil and diesel fuel from tanker trucks at the loading rack/unloading area
- Transfer of fuel or oil from the aboveground oil storage tanks to fuel dispensing systems, using surface or buried polyethylene or steel piping and pressure or suction pump systems
- Filling of equipment and fuel/lube vehicles using the fuel dispensing systems

Any buried metallic piping at the FCM is cathodically protected against corrosion and is provided with a protective wrapping and coating. When a section of buried line is exposed, it is carefully examined for deterioration. If corrosion damage is found, additional examination and corrective action must be

taken as deemed appropriate, considering the magnitude of the damage and any potential for discharge. In addition, FCM conducts integrity and leak testing of buried piping at the time of installation, modification, construction, relocation, or replacement. Records of all tests are kept at the facility for at least three years. Lines that are not in service or are on standby for an extended period of time, are capped or blank-flanged and marked as to their origin.

All above-ground piping and valves are examined monthly to assess their condition. Inspection includes above-ground valves, piping, appurtenances, expansion joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces. All pipe supports are designed to minimize abrasion and corrosion and to allow for expansion and contraction and are visually inspected during the monthly inspection. Observations are noted on the monthly inspection checklist provided in this Plan. Most of the aboveground piping is located within areas that are not accessible to vehicular traffic (e.g., inside fueling areas). Brightly painted bollards, or steel or concrete posts are placed where needed, to protect tanks and equipment from contact with vehicles and equipment.

4.4 Minimizing VOC Emissions (40 CFR PART 63)

The facility also takes measures to minimize vapor releases to the atmosphere from gasoline handling and onsite gasoline containers. Such measures include the following:

- Minimizing gasoline spills through personnel training and controls such as fueling procedure signage, automatic shutoff nozzles, and overfill alarms.
- Covering all gasoline containers and gasoline storage tank fill pipes with a gasketed seal when not in use. Portable gasoline containers are the metal safety can type with gasketed lids. Gasoline storage fill pipes have latched gasket seals.
- Minimizing the amount of gasoline sent to reclamation / recycling devices, such as the oil / water separator. The oil water separator is primarily used for treatment of drainage from the truck wash and shop. Negligible gasoline spillage is expected from these areas. The gasoline storage tanks and fueling areas are located such that any spillage outside of the containment does not drain through the oil water separator.
- Following a spill, personnel implement response, control, and cleanup procedures as expeditiously as practicable.

5 Discharge Response

This section describes the response and cleanup procedures in the event of an oil discharge. The uncontrolled discharge of oil to groundwater, surface water, or soil is prohibited by state and federal laws. Immediate action must be taken to control, contain, and recover any discharged product.

In general, the following steps are taken, in the event of a discharge:

- Eliminate potential spark sources
- If possible and safe, identify and shut down source of the discharge to stop the flow
- Contain the discharge with sorbents, berms, fences, trenches, sandbags
- Contact the Facility Manager, Spill Coordinator, or alternate
- Contact regulatory authorities and the response organization (Spill Coordinator)
- Collect and dispose of recovered products according to regulation

For the purpose of establishing appropriate response procedures, this SPCC Plan classifies discharges as either "minor" or "major," depending on the volume and characteristics of the material released. A list of Emergency Contacts is provided in Appendix H. The list is also posted at prominent locations throughout the facility. A list of discharge response material kept at the facility is included in Appendix J.

5.1 Response to a Minor Discharge

A "minor" discharge is defined as one that poses no significant harm (or threat) to human health and safety or to the environment. Minor discharges are generally those where:

- The quantity of product discharged is small (e.g., may involve less than 10 gal of oil)
- Discharged material is easily stopped and controlled at the time of the discharge
- Discharge is localized near the source
- Discharged material is not likely to reach water
- There is little risk to human health or safety
- There is little risk of fire or explosion

Minor discharges can usually be cleaned up by FCM personnel. The following guidelines apply:

- Stop the source of the spill/discharge
- Contain the discharge with discharge response materials and equipment. Place discharge debris in properly labeled waste containers
- Arrange for proper disposal of petroleum contaminated soil
- Complete the spill form (Appendix I)

5.2 Response to a Major Discharge

A "major" discharge is defined as one that cannot be safely controlled or cleaned up by facility personnel, such as when:

- The discharge is large enough to spread beyond the immediate discharge area
- The discharged material enters water

- The discharge requires special equipment or training to clean up
- The discharged material poses a hazard to human health or safety
- There is a danger of fire or explosion

In the event of a major discharge, the following guidelines apply:

- If there is a potential health or safety hazard, all workers must immediately evacuate the discharge area via the designated exit routes and move to the designated staging areas at a safe distance from the discharge. Exit routes are included on the facility diagram and posted in the Shop/Warehouse, the Office/Bathhouse, and in the Facility Tech. area.
- If the Spill Coordinator or Facility Manager are not present at the facility, the senior on-site person will notify both the Spill Coordinator and the Facility Manager of the discharge and has authority to initiate notification and response. Certain notifications are dependent on the circumstances and type of discharge. For example, any discharge that has reasonable potential to reach Foidel Creek or other area drainages, may require immediate notification to downstream users.
- The Spill Coordinator, or Facility Manager (or senior on-site person) must call for medical assistance if workers are injured
- The Spill Coordinator, or Facility Manager (or senior on-site person) must notify the Fire Department or Police Department if there is an associated fire or potential for fire
- The Spill Coordinator, or Facility Manager (or senior on-site person) must call the spill response and cleanup contractors listed in the Emergency Contacts list in Appendix H
- The Spill Coordinator, or Facility Manager (or senior on-site person) must immediately contact the Colorado Department of Public Health and Environmental Incident Response Number (303.756.4455) and the National Response Center (888.424.8802)
- The Spill Coordinator, or Facility Manager (or senior on-site person) must record the call on the Discharge Notification form in Appendix I and attach a copy to this SPCC Plan
- The Spill Coordinator, or Facility Manager (or senior on-site person) coordinates cleanup and obtains assistance from a cleanup contractor or other response organization as necessary

If the Spill Coordinator, or Facility Manager is not available at the time of the discharge, then the next highest person in seniority assumes responsibility for coordinating response activities.

5.3 Waste Disposal

Wastes resulting from a minor discharge response will be containerized in impervious bags, drums, or buckets. The Environmental Manager will coordinate characterization of the waste for proper disposal and assure that it is removed from the facility by a licensed waste handler.

Wastes resulting from any major discharge response will be removed and disposed of by a cleanup contractor.

5.4 Discharge Notification

Any size discharge (i.e., one that creates a sheen, emulsion, or sludge) that affects or threatens to affect navigable waters or adjoining shorelines must be reported immediately to the National Response Center (1.800.424.8802). The Center is staffed 24 hours a day. Notification requirements for any other discharges will be based on the volume and nature of the discharge. Notification contacts are provided in Appendix H.

A summary sheet is included in Appendix I to facilitate reporting. The person reporting the discharge must provide the following information:

- Name, location, organization, and telephone number
- Name and address of the party responsible for the incident
- Date and time of the incident
- Location of the incident
- Source and cause of the release or discharge
- Types of material(s) released or discharged
- Quantity of materials released or discharged
- Danger or threat posed by the release or discharge
- Number and types of injuries (if any)
- Media affected or threatened by the discharge (i.e., water, land, air)
- Weather conditions at the incident location
- Any other information that may help emergency personnel respond to the incident

Contact information for reporting a discharge to the appropriate authorities is listed in Appendix H and is also posted in prominent locations throughout the facility (e.g., in the office building, in the maintenance building, and at the loading/unloading area).

In addition to the above reporting, 40 CFR PART 112.4 requires that information be submitted to the United States Environmental Protection Agency (EPA) Regional Administrator and the appropriate

state agency in charge of oil pollution control activities (see contact information in Appendix H) whenever the facility discharges (as defined in 40 CFR PART 112.1(b)) *more than 1,000 gallons of oil in a single event,* or discharges (as defined in 40 CFR PART 112.1(b)) *more than 42 gallons of oil in each of two discharge incidents within a 12-month period.* The following information must be submitted to the EPA Regional Administrator and to the CDPHE-WQCD within 60 days:

- Name of the facility
- Name of the owner/operator
- Location of the facility
- Maximum storage or handling capacity and normal daily throughput
- Corrective action and countermeasures taken, including a description of equipment repairs and replacements
- Description of facility, including maps, flow diagrams, and topographical maps
- Cause of the discharge(s) to navigable waters and adjoining shorelines, including a failure analysis of the system and subsystem in which the failure occurred
- Additional preventive measures taken or contemplated to minimize possibility of recurrence;
- Other pertinent information requested by the Regional Administrator

A standard report for submitting the information to the EPA Regional Administrator and to WQCD is included in Appendix K of this Plan.

5.5 Cleanup Contractors and Equipment Suppliers

Contact information for specialized spill response and cleanup contractors are provided in Appendix H. These contractors have the necessary equipment to respond to a discharge of oil that affects Foidel Creek or other area drainages, including floating booms and oil skimmers.

Spill kits are located at the loading rack/unloading area and inside the maintenance building. The inventory of response supplies and equipment is provided in Appendix J of this Plan. The inventory is verified on a monthly basis. Additional supplies and equipment may be ordered from the following sources:

Drums - Simons	970.824.5311
Absorbent Pads – United Central Supply	970.242.2200
Containment Booms – United Central Supply	970.242.2200
Specialty Materials – New Pig	800.468.4647

APPENDIX A

Site Plan

Figure A-1: Site Plan

APPENDIX B

Substantial Harm Determination

Facility Name: Foidel Creek Mine

Facility Address: 29515 RCR27, Oak Creek, Colorado, 80467

1. Does the facility transfer oil over water to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?

Yes____ No____

2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground storage tank area?

Yes____ No____

3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in 40 CFR part 112 Appendix C, Attachment C-III or a comparable formula) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments?

Yes____ No____

4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in 40 CFR part 112 Appendix C, Attachment C-III or a comparable formula) such that a discharge from the facility would shut down a public drinking water intake?

Yes____ No____

5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the last 5 years?

Yes____ No____

Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.

_____ *General Manager*

Signature Title

_____ _____

Name (type or print) Date

APPENDIX C

Facility Inspection Checklists and Inspection Forms

The following checklists and forms are to be used for monthly and annual facility-conducted inspections. Completed checklists and forms must be signed by the inspector and maintained at the facility, with this SPCC Plan, for at least three years.

Monthly Inspection Checklist

This inspection record must be completed *each month* except the month in which an annual inspection is performed. Provide further description and comments, if necessary, on a separate sheet of paper and attach to this sheet. *Any item that receives "yes" as an answer must be described and addressed immediately.

TWENTYMILE COAL, LLC - SPCC TANK MONTHLY INSPECTION Signature Inspector:_____ Signature Environmental Manager: _____

Date: / /	Inspection Item	AST1		AST2		AST4		AST6		AST7-1		AST7-2		AST7-3		AST9-1		AST9-2		AST9-3		AST9-4		AST10-1		AST10-2		AST11		AST12		AST13		AST8		AST14		AST15		AST16		AST17		AST18		AST19		AST20	
		Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N
Storage Tanks	**Tank:** leakage, damage, rust, or deterioration																																														
	Supports: deteriorating or buckling																																														
	Bolts, rivets, or seams: damage																																														
	Foundations: eroded or settled																																														
	Concrete pad or **ring wall:** eroding or spilling																																														
	Secondary containment: damage, stains, water/product present																																														
	Double-walled tank: water/product present																																														
	Gauges or **alarms:** are inoperative																																														
	Vents: are obstructed																																														
	Dike drainage valve: open or unlocked																																														
	Labels/tags: missing or unreadable																																														
Piping	**Valves, seals, gaskets,** or **joints:** leaking																																														
	Pipelines or supports: damage or deterioration																																														
	Buried pipelines: exposed																																														
Load/Unload & Transfer Equipment	**Rack:** damage or deterioration																																														
	Connections: uncapped or blank-flanged																																														
	Secondary containment: damage or stains																																														
Misc.	**Berm drainage valve:** open or unlocked																																														
	Oil/water seperator: >2 inches of oil is present or sheen in effulent																																														
	Response equipment or **spill kit:** complete inventory																																														

Location Color Key: BOB | ROM | Washbay | Shop | Light Duty | Main Fuel | Mobile

Annual Facility Inspection Checklist

This inspection record must be completed *each year*. If any response requires further elaboration, provide comments in Description & Comments space provided. Further description and comments, if necessary, must be provided on a separate sheet of paper and attached to this sheet. *Any item that receives "yes" as an answer must be described and addressed immediately.

	Y*	N	Description & Comments
Storage tanks			
Tank #__			
Tank surfaces show signs of leakage			
Tank is damaged, rusted or deteriorated			
Bolts, rivets or seams are damaged			
Tank supports are deteriorated or buckled			
Tank foundations have eroded or settled			
Level gauges or alarms are inoperative			
Vents are obstructed			
Concrete dike			
Secondary containment is damaged or stained			
Water/product within secondary containment			
Dike drainage valve is open or is not locked			
Dike walls or floors are cracked or are separating			
Dike is not retaining water (following large rainfall)			
Piping			
Valve seals or gaskets are leaking			
Pipelines or supports are damaged or deteriorated			
Joints, valves and other appurtenances are leaking			
Buried piping is exposed			
Out-of-service pipes are not capped			
Warning signs are missing or damaged			

	Y*	N	Description & Comments
Loading/unloading and transfer equipment			
Loading/unloading rack is damaged or deteriorated			
Connections are not capped or blank-flanged			
Rollover berm is damaged or stained			
Berm drainage valve is open or is not locked			
Drip pans have accumulated oil or are leaking			
Oil/water separator			
Oil/water separator > 2 inches of accumulated oil			
Oil/water separator effluent has a sheen			
Security			
Fencing, gates, or lighting is non-functional			
Pumps and valves are not locked (and not in use)			
Response equipment			
Response equipment inventory is incomplete			

Annual reminders:

- Hold SPCC Training for all oil-handling personnel
- Check contact information for key employees and response/cleanup contractors and update them in the Plan as needed

Additional Remarks:

Date: _____ Signature: _____

APPENDIX D

Record of Containment Dike Drainage

This record must be completed when rainwater from diked areas is drained into a storm drain or into an open watercourse, lake, or pond, and bypasses the water treatment system. The bypass valve must normally be sealed in closed position. It must be opened and resealed following drainage under responsible supervision.

Date	Diked Area	Presence of Oil	Time Started	Time Finished	Signature

APPENDIX E

Record of Annual Discharge Prevention Briefings and Training

Records of new-hire and annual discharge prevention training are included with the required MSHA training records and maintained on-site for a period of three years.

Briefings or training will be scheduled and conducted by the facility owner or operator for operating personnel at regular intervals to ensure adequate understanding of this SPCC Plan. The briefings will also highlight and describe known discharge events or failures, malfunctioning components, and recently implemented precautionary measures and best practices. Personnel will also be instructed in operation and maintenance of equipment to prevent the discharge of oil, and in applicable pollution laws, rules, and regulations. Facility operators and other personnel will have an opportunity during the briefings to share recommendations concerning health, safety, and environmental issues encountered during facility operations.

Date	Subjects Covered	Employees in Attendance	Instructor(s)

APPENDIX F

Calculation of Secondary Containment Capacity

The maximum 24-hour rainfall recorded in the last 25 years at this location is **3.75 inches**.

TANK	LOCATION	SOURCE MATERIAL	CONTAINMENT CAPACITY
AST 1 & 2	BOB Area	Diesel Fuel	Tank Volume = 2 tanks each 6,000 gals Assume failure of one tank @ 6,000 gals = 802 ft^3 Containment: Covered, Steel Containment Volume = 20' x 25' x 3' = 1,500 ft^3 Freeboard: $3' - \frac{802\,ft^3}{500\,ft^2}$ = 1.4 ft
AST 4	ROM Pile	Diesel Fuel	Tank Volume = 8,800 gals = 1,176 ft^3 Containment: Covered, Steel Containment Volume = 20' x 25' x 4' = 2,000 ft^3 Freeboard: $4' - \frac{1176\,ft^3}{500\,ft^2}$ = 1.6 ft
AST 6	Wash Bay	Skimmed Used Oil	Tank Volume (tote) = 350 gals = 47 ft^3 Containment: Basin and Earth Embankment Containment Volume = (4.5')(4.5')(3') = 60 ft^3 Freeboard: $3' - \frac{47}{20}$ = 0.7 ft

AST 7-1, 7-2, 7-3	Shop/ Warehouse	Used Oil	Tank Volume: 7-1: 2,080 gals, 7-2: 1,034 gals 7-3: 638 gals Assume failure of largest tank @ 2,080 gals = 278 ft^3 Containment: Masonry Block Containment Volume = [(6.75' x 16.92') + (2.08 x 7.75)] 3 = 391 ft^3 Tank Displacement = 55.2 ft^3 Net Containment = 391 - 55 = 336 ft^3 Freeboard = $3 - \frac{278}{\left(\frac{336}{3}\right)}$ = 0.5 ft
AST 9-1, 9-2, 9-3, 9-4	Light Duty Bay	Engine Oil/ Emulsion Oil/Transmission Oil/ Hydraulic Oil	Tank Volume = 4 tanks, each 3,700 gals Assume failure of one tank @ 3,700 gals = 495 ft^3 Containment: Masonry Block $Vc=3[(10'\times2.17)+(27.83\times11)+(5\times8.29)+\frac{1}{2}(8.29\times6.17)]$ =1,184 ft^3 Tank Displacement: $3(\pi(3.59)^2(3))$ = 364.4 ft^3 Net Containment: 1,184 - 364.4 = 819.6 ft^3 Freeboard: $3-\frac{495}{\left(\frac{819.6}{3}\right)}$ = 1.2 ft
AST 10-1& 10-2	Light Duty Bay	Gear Lubricant	Tank Volume = 3 tanks each 540 gals on stands Assume failure of one tank @ 540 gals = 72 ft^3 Containment: Masonry block: 15' x 5' x 2' = 150 ft^3 Freeboard: $2-\frac{72}{(15)(5)}$ = 1.0 ft

AST 11	Light Duty Bay	Used Oil/ Used Antifreeze	Tank Volume: Used Oil @ 10,000 gals = 1,337 ft^3 Used Antifreeze @ 1,000 gals = 134 ft^3 Assume failure of largest tank @ 10,000 gals = 1,337 ft^3 Containment: Steel Walls:(15.25')(27.46')(4.17') = 1,746 ft^3 Antifreeze Tank Displacement: (7.46')(7.48')(4.17') = 232 ft^3 Net Containment = 1,746 - 232 = 1,514 ft^3 Freeboard: $4.17-\frac{1{,}337}{\left(\frac{1{,}514}{4.17}\right)}$ = 0.5 ft
AST 12	Shop/ Warehouse Yard	Diesel	Tank Volume = 20,000 gals = 2,674 ft^3 Containment: Double-Walled Tank
AST 13	Mine Storage Yard	Unleaded Gasoline	Tank Volume = 10,000 gals = 1337ft^3 Containment: Double-Walled Tank
AST 15	Mine Storage Yard	Highway Diesel	Tank Volume = 500 gals = 66.8 ft^3 Containment: Double-Walled Tank
AST 16	Warehouse	Used Oil	Tank Volume = 250 gals=34 ft^3 Containment:Basin and Earth Embankment Containment Volume = (3.91')(7.08')(2') = 55.4 ft^3 Freeboard: $2 - \frac{34}{27.68}$ = 0.77 ft

APPENDIX G

Records of Tank Integrity and Pressure Tests

Attach copies of official records of tank integrity and pressure tests.

APPENDIX H

Emergency Contacts

Facility	
Miranda Kawcak, Environmental Manager (Spill Coordinator)	970.870.2718 (Office) 970.439.8273 (Cell) 970.629.9531 (Cell)
Pat Sollars, General Manager	970.870.2719 (Work) 970.201.4108 (Cell)
Ed Brady, Sr. Manager Projects/ Engineering	970.870.2763 (Work) 970.281.2446 (Cell)
Facility Techs./EMT's/Fire Brigade Security	970.870.2700 970.870/2160
Local Emergency Response	
Routt County Emergency Management	970.870.5551
Routt County Sheriff's Office Steamboat Springs Rural Fire Protection District	911 or 970.879.1090 911 or 970.879.7170
Yampa Valley Regional Medical Center	970.879.1322
Response/Cleanup Contractors	
Bower Bros.	970.824.2793
Anson Excavating and Pipe	970.629.2057
SafetyKleen	970.260.9346
Notification	
Peabody Corporate Environmental (Bryce West)	314.588.2784/ 812-455-8278
CDPHE – Emergency Response	303.756.4455
National Response Center	800-424-8802
CHEMTREC Response Center	800.424.9300
United States Environmental Protection Agency, Region 8	888-372-7341
Routt County Department of Environmental Health	970.879.0185
Colorado Department of Parks and Wildlife	970.870.2197

APPENDIX I

Discharge Notification Form

Part A: Discharge Information	
General information when reporting a spill to outside authorities: Name: Foidel Creek Mine Address: 29515 RCR27 Oak Creek, Colorado 80467 Telephone: 970.879.3800 Owner/Operator: Twentymile Coal, LLC 29515 RCR27 Oak Creek, Colorado 80467 Primary Contact: Miranda Kawcak, Environmental Manager Work: 970.870.2718 Cell (24 hrs): 970.439.8273	
Type of oil:	Discharge Date and Time:
Quantity released:	Discovery Date and Time:
Quantity released to a waterbody:	Discharge Duration:
Location/Source:	
Actions taken to stop, remove, and mitigate impacts of the discharge:	
Affected media: G air G water G soil	G storm water sewer/POTW G dike/berm/oil-water separator G other: _____

Notification person:	Telephone contact: Business: 24-hr:
Nature of discharges, environmental/health effects, and damages: Injuries, fatalities or evacuation required?	

Part B: Notification Checklist		
	Date and time	Name of person receiving call
Discharge in any amount		
Miranda Kawcak, Environmental Manager 970.870.2718/970.439.8273		
Discharge in amount exceeding 10 gallons and *not affecting a waterbody or groundwater*		
Routt County Department of Environmental Health 970.879.0185		
CDPHE – Emergency Response 303.756.4455		
Discharge in any amount and affecting (or threatening to affect) a waterbody		
Routt County Department of Environmental Health 970.879.0185		
CDPHE – Emergency Response 303.756.4455		
National Response Center 800.424.8802		

Colorado Department of Parks and Wildlife 970.870.2197		
Colorado Division of Reclamation, Mining, and Safety – 303.866,3567		
Bower Bros./Anson Excavating and Pipe 970824.2793/970.629.2057		

APPENDIX J

Discharge Response Equipment Inventory

The discharge response equipment inventory is verified during the monthly inspection and must be replenished as needed.

Tank Truck Loading/Unloading Areas

G	Empty 55-gallons drums to hold contaminated material	4
G	Loose absorbent material	100 pounds
G	Absorbent pads	4 boxes
G	Containment booms	4 booms
G	Nitrile gloves	8 pairs
G	Neoprene gloves	8 pairs
G	Non-sparking shovels	4
G	Brooms	4
G	Drain seals or mats	

Maintenance Buildings

G	Empty 55-gallons drums to hold contaminated material	10
G	Loose absorbent material	200 pounds
G	Absorbent pads	5 boxes
G	Containment booms	4 booms
G	Nitrile gloves	2 boxes
G	Neoprene gloves	10 pairs
G	Non-sparking shovels	4
G	Brooms	4
G	Drain seals or mats	2
G	Sand bags	20

Other

G	Heavy equipment (wheel loaders, tracked dozers)
G	Fire Truck
G	Ambulance/ First aid kits
G	Fire extinguishers

APPENDIX K

Agency Notification Standard Report

Information contained in this report, and any supporting documentation, must be submitted to the EPA Region 8 Regional Administrator, and to CDPHE-WQCD, within 60 days of the discharge incident.

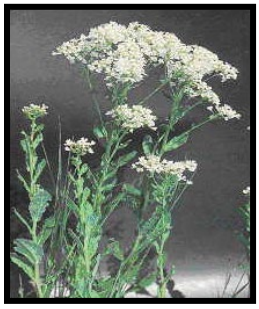
Facility:	*Foidel Creek Mine*
Owner/operator:	*Twentymile Coal, LLC, 29515 RCR27, Oak Creek, Colorado, 80467*
Name of person filing report:	
Location:	
Maximum storage capacity:	
Daily throughput:	
Nature of qualifying incident(s):	
Description of facility (attach maps, flow diagrams, and topographical maps):	
Cause of the discharge(s), including a failure analysis of the system and subsystems in which the failure occurred:	
Corrective actions and countermeasures taken, including a description of equipment repairs and replacements:	
Additional preventive measures taken or contemplated to minimize possibility of recurrence:	
Other pertinent information:	

Twentymile Coal, LLC

Administrative Permit for Coal Exploration

Weed Management Plan






October 2011

Noxious Weed Management Program - Noxious weed infestations may occur on areas disturbed from site disturbance activities. In order to minimize potential adverse resource impacts that may result from noxious weed infestations; optimize revegetation success for the reclaimed areas; and fulfill sound land management objectives, Twentymile Coal, LLC (TC) will incorporate the following integrated noxious weed management program (weed program) from the approved CDRMS (Colorado Division of Reclamation, Mining, and Safety) permit.

TC's weed program is designed to effect full compliance with applicable provisions of CDRMS Rule 4.15.1(5), and was developed with reference to the Colorado Weed Management Act (CRS 35-5.5-115), the CDRMS's "Guideline for the Management of Noxious Weeds on Coal Mine Permit Areas", and in consultation with the local office of the Colorado State University Cooperative Extension Service (CSU-Extension Service, also the Routt County Weed Control agency). TC's weed program focuses on those noxious weed species listed by the Colorado Department of Agriculture, and will be modified, as appropriate to address any changes to this list. TC's integrated weed program consists of five interrelated components, as detailed in the following sections: Prevention, Identification and Mapping, Management Planning and Scheduling, Application of Selected Control Method(s), and Evaluation of Control Effectiveness.

Prevention **-** Prevention is the most important component of TC's weed program and includes the following items.

- Re-seed disturbed areas in a timely manner following site grading and soil material replacement using the methods outlined in Section 2.05.4, Reclamation Plan
- Develop and use seed mixtures which replicate native plant communities and encourage rapid vegetative reestablishment
- Plant only certified weed-free seed for the approved seed mixes
- Assess the need for any supplemental management measures. (ie: fertilization, reseeding, weed control, protection from wildlife, etc.) to assure effective vegetative reestablishment
- Wash off-road vehicles that are moving between different areas to minimize unintentional transport of noxious weed seed
- Minimize noxious weed propagation by treating any noxious weed infestations prior to seed-head maturation using mechanical, chemical, or biological controls, or a combination of these methods
- Monitor and evaluate weed control efforts on an annual basis as described in the following sections

Identification and Mapping **-** TC will utilize a range of resources to identify and map any noxious weed infestations within the TC Permit Area. Mine Environmental Staff is trained in noxious weed identification and, as a matter of practice, note any noxious weed occurrences observed any time they are in the field. In addition, Mine Environmental Staff, assisted by trained student and summer interns, will conduct spring and fall Environmental Management surveys of active areas, specifically to assess the condition of mine drainage structures, identify any new noxious weed occurrences, assess the effectiveness of weed management activities, and note any other environmental concerns that may require attention. TC maintains a working weed program map and records both observed noxious weed occurrences (from all sources, by weed species, location, and extent of infestation) and treatment activities.

Management Planning and Scheduling **-** Effective management and planning are key elements in assuring the effectiveness of TC's noxious weed control program. Any new information collected through the ongoing noxious weed identification and mapping efforts, along with treatment information from prior years is reviewed and evaluated. Based on this information, treatment strategies and schedules are developed during the early spring for the annual weed management program using the following steps:

- For mapped weed infestations, treatment methods are determined based on the weed species present using recommendations provided by the CSU Extension Service. Selection of treatment method(s) takes into consideration proximity to flowing water or water bodies, croplands, any livestock use, and historical response of identified weed species to prior treatment(s), based on review of control effectiveness. Treatment methods may include mechanical controls (tillage, mowing, burning, cutting/pulling), chemical controls (selective herbicides), biological controls (weed-specific insects or pathogens), or combinations of these methods. In general, treatment method(s) will be selected to achieve the most effective control with the resources available. As an example, where multiple weed species are present, the most effective overall control(s) will be applied, although the method(s) may not be optimal for each individual species.

- Scheduling of weed management treatments will also be based on the CSU Extension Service recommendations for specific weed species. For most species, control effectiveness can be significant enhanced by scheduling treatment at specific stages of vegetative growth (typically spring and/or fall). To the extent possible, based on staff and contractor availability, treatment will be scheduled to optimize effectiveness.

- Priority and responsibilities for weed control are determined based on weed species present and the location and extent of weed infestations. Certain weed species are extremely aggressive, and first priority will be given to their control to prevent establishment and spread. Previously treated areas are second in priority, in order to maximize control effectiveness. Third in priority are any new weed infestations and areas where the weed infestation covers a large area, to prevent further spread. Lowest priority is given to isolated weed infestations of non-aggressive species which have not been previously treated, since these may be addressed by natural vegetative succession and pose a reduced risk of spread. Generally, grazing lessees are responsible for weed control on their lease areas, with TC sharing control costs and providing oversight, under the terms of the lease agreements. TC is responsible for weed control on remaining areas. All weed management activities (both TC and grazing lessee) follow the general priorities, as outlined above.

Application of Selected Control Method(s) **-** The following summarizes the proposed treatment methods for listed noxious weed species known to occur within the TC permit area. If treatment extends over a longer time period, or if control effectiveness is determined to be lower than anticipated, treatment methods or chemicals may be adjusted to improve long-term effectiveness. Approved or more effective chemicals for targeted weeds may change over time and these modifications will be incorporated, as appropriate.

Routt County Noxious Weed list:

- Yellow toadflax/butter and eggs - Spring spot spraying with Tordon (Banvel is alternative chemical)
- Hounds-tongue - Spring spraying (full coverage and spot) with mix of Escort, 2,4-D amine, and Activator 90 (Plateau is alternative chemical)

Colorado State Noxious Weed A and B lists:

- Bull thistle - Cutting/pulling prior to formation of seed-heads and then fall spraying with mix of Tordon, 2,4-D amine, and Activator 90 (Banvel and Curtail are alternative chemicals)
- Musk thistle - Cutting/pulling prior to formation of seed-heads and then fall spraying with mix of Tordon, 2,4-D amine, and Activator 90 (Banvel and Curtail are alternative chemicals)
- Canada thistle - Cutting/pulling prior to formation of seed-heads and then fall spraying with mix of Tordon, 2,4-D amine, and Activator 90 (Banvel and Curtail are alternative chemicals)
- Hoary cress (white top) - Spring spraying (full coverage and spot) with mix of Escort, 2,4-D amine, and Activator 90 (Plateau is alternative chemical),

For large areas or significant weed infestations, TC may utilize a weed-control contractor to achieve overall control (typically over several years) and then utilize in-house resources (Environmental Staff, student interns, summer students, contract labor) for ongoing maintenance control activities. TC maintains both a pick-up and an ATV with spray-tanks, spray bar (ATV only), and hand-sprayers, as well as several backpack tank sprayers for weed control. Chemical control activities are overseen by a U.S.-EPA Certified Pesticide Applicator, and pesticide storage, handling, and use procedures and personal protective equipment are utilized to prevent potentially hazardous personal or environmental exposures. Where control of extensive weed infestations results in limited vegetative cover or bare-ground, the affected area will either be inter-seeded or ripped and seeded, dependent on site-specific conditions. Certain areas where there may be a flammability hazard or where specific Mine Safety and Health Administration (MSHA) regulations apply may be treated with a long-lasting broad-spectrum herbicide such as Arsenal, Roundup, Sahara, or Throttle.

Table 1 summarizes controls, rates, and timing for weeds identified in the TC Permit Area and adjacent areas under TC's control:

TABLE 1 – CHEMICAL CONTROL METHODS

SPECIES	HERBICIDE	RATE	TIMING
Black henbane	2,4-D Amine/ Low Vol Ester 6 Banvel	½ pt./ac ½ pt./ac	Spring Fall
Bull thistle	2,4-D, Tordon Banvel	½ pt/ac ½ pt./ac	Spring* Fall
Canada thistle	2,4-D, Tordon Banvel Escort	½ pt/ac ½ pt./ac 2 oz./ac	Spring Fall Spring *
Common cockleburr	Grazon P&D 2,4,D	2 pt./ac ½ pt./ac	Spring*
Common mullein	Grazon P&D Escort 2 oz/A	4 pt./ac + surfactant**	Spring
Curly cup gum weed	Grazon P&D 2,4D LV 6	2 pt./ac 1 lb. /ac	Spring
Curly dock	Grazon P&D Tordon	2 pt./ac + surfactant**	Spring
Dalmatian toadflax	Tordon 2,4-D Escort	2 qt./ac 1 lb./ac + surfactant**	Spring
Field bindweed	2,4, D	1 lb./ac	Spring
Kochia	2,4-D	½ pt./ac	Spring
Leafy spurge	Tordon	2 qt./ac	Spring
Perennial pepperweed	Escort	2 oz./ac	Spring
Russian olive	Garlon 4	5%	Stump treatment spring
Russian thistle	2,4 D	½ pt./ac	Spring
Scotch thistle	2,4-D Tordon Banvel	½ pt./ac ½ pt./ac	Spring Fall
Tamarisk, Salt Cedar	Garlon 4	5%	Stump treatment
Yellow toadflax	Tordon 2,4-D	2 qt./ac 1 lb./ac + surfactant**	Spring
Whitetop, Hoary Cress	Escort 2,4-D	2 oz/ac ½ pt./ac	Spring
Bare ground treatment substations and explosive storage	Arsenal	20 lb/ac Pellets	Spring for total vegetation control per safety regulations.

SPOT TREATMENT MIXING (see label instructions for specific species)

- 1% Solution in 100 Gallons = 1 gallon of Chemical
- 1% Solution if 3 Gallons = 3.8 oz = 11.5 Tbsp = 114 ml
- 1% Solution in 1 Gallon = 1.3 oz = 4 Tbsp = 39 ml
- 2% solution in 1 Gallon = 2.5 oz. 8 Tbsp = 75 ml
- Escort package contains a measuring funnel. Use a ¼% mixture for spot spraying.

Evaluation of Control Effectiveness **-** Generally, in conjunction with the spring Environmental Management surveys, areas of previously identified and treated noxious weed infestations are inspected and the effectiveness of control measures is evaluated based on reduction or elimination of weed infestations. TC's grazing lessees and any weed-control contractors also provide similar information, based on their field observations. This information is utilized in the management planning process to determine the need for continued treatment and to modify treatment method(s), if indicated, to improve their effectiveness.

TC will provide Routt County with documentation from the Annual Reclamation Report pertaining to weed control and submit any significant changes to specific weed control plans (chemicals, rates, and timing) to the Routt County Weed Supervisor for review prior to weed control activities.