

Storm Water Management Plan

Project Name:

SITE DESCRIPTION

Project Name and Location: (PARCEL #, Section, Township, & Range; and Address)	9 East utility boreholes (2) (~1050' depth each, ~1000' (Option #1) to 1750' (Option #2) long access road and 200' by 200' drill pad (both options), parcels 945113001 and 945114001, Section 11, T1N, R60W. Note that only one Option will be constructed, with Option #1 preferred.	OWNER Name, Address, and Phone #:	Parcel 945113001, owned by the State of Colorado, Board of Land Commissioners, 455 Emerson Street, Craig, CO 81625-1129. Parcel 945114001, owned by Sage Creek Land & Reserves, LLC, 701 Market Street, Suite 862, St. Louis, MO 63101, sister company of Twentymile Coal, LLC. Twentymile Coal, LLC has surface and sub-surface rights based on the attached State of Colorado coal mining lease CO-3220.
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Description: (Purpose and Types of Soil Disturbing Activities)	Construction of a 1000' to 1760' x 24' wide finished top width access road and 200' x 200' finished drill pad for 2 utility boreholes into the Twentymile underground workings. The boreholes will be used for utility services and as an exhauster borehole.	CONTACT Name, Address, & Phone #:	Michael Berdino Twentymile Coal, LLC 29516 Routt County Road #27 Oak Creek, CO 80457 970-870-2782, 970-845-9886 mberdino@psabodyenergy.com
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# Cubic Yards of soil cut/fill and/or amount of surface area moved:	1000' to 1760' access road - ~680 YD3 (Option #1) to 850 YD3 (Option #2) balanced cut and fill, refer to the attached .txt access road report document. 200' x 200' drill pad - ~2360 YD3 (Option #2) to 3680 (Option #1) YD3 balanced cut and fill, refer to the attached .txt pad report document About 2.5-3.0 acres will be disturbed.
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Site Area:	The site is approximately 6 acres of which 3 acres will be disturbed by construction activities.
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Sequence of Major Activities	
The order of activities will be as follows:	5 Construction of a 24' wide by up to 1760' long access road. 6 Construction of a 200' x 200' finished drill pad. 7 Construction of a 950' long perimeter ditch with four rock check dams on the north, west and south sides of borehole pad.
1 Please refer to the attached Scope of work for the access road and drill pad dated	8
2 Establishment of temporary drainage and sediment control measures.	9
3 Access Road - Removal of up to 1760' of access road brush and topsoil and placement in temporary stockpiles.	
4 Drill Pad - Removal of 225' x 225' (1.2 acres) of borehole pad brush and placement in temporary stockpiles.	

Name of Receiving Waters:	Fish Creek
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CONTROLS

Erosion and Sediment Practices

Stabilization Practices

Temporary Stabilization -	Refer to the attached Exhibit 49EE-F1. Temporary stabilization includes wattles or equivalent devices at all soil stockpiles and along the west and north sides of the access road. Three (Option #1) to four (Option #2) 24" diameter CMP culverts will be placed as per the Exhibit 49EE-F1 and the attached SedCAD report.
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Permanent Stabilization -	Refer to the attached Exhibit 49EE-F1, Options #1 and #2. A run-off diversion ditch will be constructed on the north, west, east and south sides of the drill pad.
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Weed Control -	Refer to the attached Weed Management Plan dated October 2011.
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Structural Practices

Refer to the attached application to the Routt County Planning Dept. for an administrative use permit.
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Drainage and sediment from disturbed areas will be controlled by an integrated system, using grading and berms to limit and control surface runoff, mud pits excavated within the footprint of the pad to contain all drilling fluids, and either rock check-dams, silt fence, or straw bales/wattles installed at the low point of the drill- pad to contain sediment and control any discharge.

Maintenance:	The access road and drill pad surfaces will have approximately 8" of compacted pit run and 3" of compacted road base or screened rock applied. The access road and pad will be maintained and/or plowed as needed by a road blade.
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OTHER CONTROLS	
Waste Disposal	Waste will be disposed of at other Twentymile trash collection sites.
Waste Materials	Minor amounts of cardboard, wooden stakes, misc. steel pipe that will be removed as construction progresses.
Hazardous Waste	None, except fuels and oils used to operate and service construction equipment.
Sanitary Waste	A rented portable toilet will be on site during construction activities. The toilet will be inspected and cleaned weekly.
TIMING OF CONTROLS/MEASURES	
The proposed drill pad and access road construction will be initiated as soon as possible after receipt of permit approvals, with completion of the boreholes occurring during the 3rd quarter of 2016.	
CERTIFICATION OF COMPLIANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS	
On April 19, 2016 Twentymile Coal, LLC submitted Minor Revision (MR16-296) to the Colorado State Division of Reclamation, Mining and Safety (CDRMS) requesting CDRMS approval of the Minor Revision to our existing approved Permit for the installation, operation, and reclamation of this 9 East utility borehole site. CDRMS approval is expected any day. A copy of the cover letter to the CDRMS is attached.	
MAINTENANCE/INSPECTION PROCEDURES	
Erosion and Sediment Control Inspection and Maintenance Practices	
1	The installed wattles and diversion ditch erosion controls will be inspected approximately twice annually in the spring after the spring run-off and again in the fall.
2	Culverts will be cleaned as needed after the spring run-off and again in the fall.
3	The soil piles will be seeded in the fall of 2016.
4	A rock check dam constructed of 8-12" fractured rock will be maintained at four locations along the proposed diversion ditch.
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INVENTORY FOR POLLUTION PREVENTION PLAN

The materials or substances listed below are expected to be present onsite during construction:

- Straw or equivalent wattles
- 8-12" fractured limestone for the 4 rock checks.
- Pit run, road base and 3/4" screened rock.
- Wooden stakes or equivalent for the stabilization of the wattles.
- Steel pipe for the borehole surface casings and borehole casing end misc. pipe fittings
- Small telephone cable attached to the borehole casing, grouted in place with a flowable cement grout

Spill Control Practices

In addition to the good housekeeping and material management practices discussed in the previous sections of this plan, the following practices will be followed for spill prevention and cleanup:

- Please refer to the attached Twentymile SPCC plan.
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STORM WATER MANAGEMENT PLAN CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or of those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signed:

Michael A. Bendine

Date:

5-12-16