

CB-3 Form 2A

Kinder Morgan CO2 Company, LP

INTRODUCTION

This Form 2A stormwater report includes the Best Management Practices (BMPs) and reclamation plans for Kinder Morgan's proposed CB-3 well pad in accordance with Colorado Oil and Gas Conservation Commission's (COGCC) Form 2A requirements. BMP diagrams and additional general stormwater information is included with Kinder Morgan's Master Stormwater Management Plan (MSWMP) for oil and gas construction activities for McElmo Dome and Doe Canyon. The MSWMP can be obtained from Kinder Morgan and is in accordance with Colorado Department of Public Health and Environment (CDPHE) stormwater guidelines. The Kinder Morgan contact person is Bob Clayton and his contact information is below:

Bob Clayton
Field Supervisor/Production Operations & Maintenance
Kinder Morgan CO2 Company L.P.
17801 Highway 491
Cortez, CO 81321
Office - 970-882-5507

PROJECT DESCRIPTION

The proposed well pad would be located on a dormant agricultural field. The proposed access road would connect the well pad to County Road Bb. Slopes within the proposed project average 0-3 percent. Disturbance would include the removal of top soil to create a level pad (500 feet by 510 feet) for drilling. The wellhead will be the only item on the pad once the well goes to completion.

ESTIMATED TOTAL AREA OF THE SITE TO UNDERGO CLEARING, EXCAVATION, OR GRADING

The maximum disturbance associated with the proposed well pad would be 5.9 acres.

EXISTING SOIL

Parent materials found at the project site and surrounding areas include alluvium and eolian deposits. The surveyed soil map unit for the project area consists of Wetherill loam, 3 to 6 percent slopes. The soil type is not highly erodible by either wind or water and is well drained (NRCS 2013¹).

¹ Natural Resources Conservation Service (NRCS). 2013. Web Soil Survey. Available online at: <http://websoilsurvey.nrcs.usda.gov/app/>. Accessed December, 2013.

DESCRIPTION OF EXISTING VEGETATION AND ESTIMATE OF PERCENT OF GROUND COVER

The proposed well pad would be located on a dormant agricultural field that has been tilled; wheat was grown on field last summer. The road is lined by rubber rabbitbrush (*Ericameria nauseosa*).

NAME OF RECEIVING WATER AND TYPE OF OUTFALLS

The nearest perennial water—indicated on the U.S. Geological Survey topographic map—is Dove Creek, located approximately 8 miles southwest of the project area. Drainage from the proposed project area generally flows south then southwest through unnamed intermittent drainages to Dove Creek. There are no perennial water sources, wetlands, seeps, springs, or riparian areas within the proposed well pad or surrounding area.

PROJECT-SPECIFIC BMPs

The following listed BMPs are site-specific BMPs identified by Ecosphere during a field visit on January 8, 2014. BMP diagrams are included in the MSWMP. BMPs would be maintained or amended by Kinder Morgan as site conditions change throughout the construction and reclamation process. Stormwater inspections would occur as stipulated in the MSWMP and as required by the CDPHE. A map showing the BMP locations is attached. Site-specific BMPs will be installed pre-construction and during the construction process and will continue to be maintained until the site is determined to be finally stabilized per CDPHE requirements. Table 1 describes structural BMPs used at CB-3.

Table 1. Structural BMPs

BMP	How It Works	Location
Bonded Fiber Matrix (Tackifier)	Bonding agents provide durability to minimize water and wind erosion while allowing for optimal rainwater penetration into soil for vegetative growth.	When needed on disturbed areas surrounding well pad.
Culvert Protection	Inlet and outlet protection prevent soil and debris from entering storm drain inlets and preventing scouring at outlets by reducing flow.	At culverts along access road.
Erosion Control Logs	Erosion control logs are made of fibrous material and work by trapping sediment. Erosion control logs must be trenched into the ground to be effective.	Around perimeter of the well pad.
Rock Check Dams	Rock check dams are constructed across a ditch to catch sediment.	Along County Road Bb road side ditch.
Diversion Ditch with Wattles	The diversion ditch diverts run on around the well pad.	Diversion ditch would be located around the perimeter of the well pad to divert water from the well pad.
Fuel and Chemical Containment	Fuel and chemicals stored on-site will be within secondary containment to reduce the potential for spills or off-site releases.	Where needed.
Tracking Control	An effective vehicle tracking control helps remove sediment (mud or dirt) from vehicle tires, reducing the potential for tracking onto off-site paved roadways.	Where needed.
Earth Berm	A compacted and stabilized earth berm greatly helps prevent any off-site releases.	Around perimeter of well pad.

NON-STRUCTURAL BMPs

Table 2 includes non-structural BMPs that will be applied to the entire project area where needed beginning with construction and continuing until final stabilization is reached.

Table 2. Non Structural BMPs

BMP	How It Works	Location
Soil Roughening	Surface roughening creates small ridges and gullies with the teeth of the bucket on the front-end loader, or with the grooves of tracked equipment. These ridges and gullies go across the slope (or along the contour of the slope), trapping stormwater and helping with revegetation. To create these ridges/gullies with tracked equipment, the equipment should be run up/down the slope.	All disturbed areas where needed.
Equipment Storage	All equipment will be contained within the ROW disturbance	Within disturbance area where needed.
Rapid Reclamation	Rapid reclamation (surface contouring, surface roughening, seeding, and weed control) help to stabilize soil with vegetation and reduce runoff.	Within disturbance area where needed.
Dust Mitigation	Whenever needed, a water truck will be used to add moisture to the soil which will prevent the soil from becoming airborne and leaving the site.	Within disturbance area where needed.

PROJECT BMP MAP

