

**APPLICATION FOR PERMIT TO:**

**Drill**       Deepen       Re-enter       Recomplete and Operate

Date Received:  
02/18/2014

TYPE OF WELL    OIL     GAS     COALBED     OTHER CO2(pilot)

ZONE TYPE      SINGLE ZONE     MULTIPLE ZONES     COMMINGLE ZONES

Refiling   
Sidetrack

Well Name: CB      Well Number: 3

Name of Operator: KINDER MORGAN CO2 CO LP      COGCC Operator Number: 46685

Address: 17801 HWY 491

City: CORTEZ      State: CO      Zip: 81321

Contact Name: Paul Belanger      Phone: (970)882-2464      Fax: (970)882-5521

Email: Paul\_Belanger@kindermorgan.com

**RECLAMATION FINANCIAL ASSURANCE**

Plugging and Abandonment Bond Surety ID: 20110027

**WELL LOCATION INFORMATION**

QtrQtr: Lot7      Sec: 11      Twp: 38N      Rng: 19W      Meridian: N

Latitude: 37.568930      Longitude: -108.911790

Footage at Surface:      1608 feet      FNL/FSL      2404 feet      FEL/FWL

Field Name: MCELMO      Field Number: 53674

Ground Elevation: 6720      County: MONTEZUMA

GPS Data:  
Date of Measurement: 02/03/2014    PDOP Reading: 6.0    Instrument Operator's Name: R J CAFFEY

If well is  Directional       Horizontal (highly deviated)      **submit deviated drilling plan.**

Footage at Top of Prod Zone:    FNL/FSL      FEL/FWL      Bottom Hole:    FNL/FSL      FEL/FWL

Sec: \_\_\_\_\_ Twp: \_\_\_\_\_ Rng: \_\_\_\_\_      Sec: \_\_\_\_\_ Twp: \_\_\_\_\_ Rng: \_\_\_\_\_

**LOCATION SURFACE & MINERALS & RIGHT TO CONSTRUCT**

Surface Ownership:  Fee       State       Federal       Indian

The Surface Owner is:       is the mineral owner beneath the location.  
(check all that apply)       is committed to an Oil and Gas Lease.  
    has signed the Oil and Gas Lease.  
    is the applicant.

The Mineral Owner beneath this Oil and Gas Location is:  Fee       State       Federal       Indian

The Minerals beneath this Oil and Gas Location will be developed by this Well: Yes

The right to construct the Oil and Gas Location is granted by: Bond

Surface damage assurance if no agreement is in place: Blanket      Surface Surety ID: 20080051

**LEASE INFORMATION**

Using standard QtrQtr, Sec, Twp, Rng format, describe one entire mineral lease that will be produced by this well (Describe lease beneath surface location if produced. Attach separate description page or map if necessary.)

TR38N R19W:  
S/2NE4 SECTION 11; SWNW, NWSW SECTION 12

Total Acres in Described Lease: 160 Described Mineral Lease is:  Fee  State  Federal  Indian

Federal or State Lease # \_\_\_\_\_

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 230 Feet

**CULTURAL DISTANCE INFORMATION**

Distance to nearest:

Building: 5280 Feet  
 Building Unit: 5280 Feet  
 High Occupancy Building Unit: 5280 Feet  
 Designated Outside Activity Area: 5280 Feet  
 Public Road: 235 Feet  
 Above Ground Utility: 2435 Feet  
 Railroad: 5280 Feet  
 Property Line: 213 Feet

**INSTRUCTIONS:**

- All measurements shall be provided from center of the Proposed Well to nearest of each cultural feature as described in Rule 303.a.(5).  
 - Enter 5280 for distance greater than 1 mile.  
 - Building - nearest building of any type. If nearest Building is a Building Unit, enter same distance for both.  
 - Building Unit, High Occupancy Building Unit, and Designated Outside Activity Area - as defined in 100-Series Rules.

**DESIGNATED SETBACK LOCATION INFORMATION**

Check all that apply. This location is within a:  Buffer Zone  
 Exception Zone  
 Urban Mitigation Area

- Buffer Zone – as described in Rule 604.a.(2), within 1,000' of a Building Unit  
 - Exception Zone - as described in Rule 604.a.(1), within 500' of a Building Unit.  
 - Urban Mitigation Area - as defined in 100-Series Rules.

Pre-application Notifications (required if location is within 1,000 feet of a building unit):

Date of Rule 305.a.(1) Urban Mitigation Area Notification to Local Government: \_\_\_\_\_

Date of Rule 305.a.(2) Buffer Zone Notification to Building Unit Owners: \_\_\_\_\_

**SPACING and UNIT INFORMATION**

Distance from Completed Portion of Wellbore to Nearest Wellbore Permitted or Completed in the same formation: 5280 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 5280 Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): \_\_\_\_\_ Unit Number: \_\_\_\_\_

**SPACING & FORMATIONS COMMENTS**

\_\_\_\_\_

**OBJECTIVE FORMATIONS**

| Objective Formation(s) | Formation Code | Spacing Order Number(s) | Unit Acreage Assigned to Well | Unit Configuration (N/2, SE/4, etc.) |
|------------------------|----------------|-------------------------|-------------------------------|--------------------------------------|
| LEADVILLE              | LDVLL          | 389-1                   |                               |                                      |

**DRILLING PROGRAM**

Proposed Total Measured Depth: 8612 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 5280 Feet (Including plugged wells)

Will a closed-loop drilling system be used? Yes

Is H<sub>2</sub>S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? Yes (If Yes, attach an H<sub>2</sub>S Drilling Operations Plan)

Will salt sections be encountered during drilling? Yes  
 Will salt based (>15,000 ppm Cl) drilling fluids be used? Yes  
 Will oil based drilling fluids be used? No  
 BOP Equipment Type:  Annular Preventor  Double Ram  Rotating Head  None

**GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING**

Water well sampling required per Rule 609

**DRILLING WASTE MANAGEMENT PROGRAM**

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Methods: Recycle/reuse  
 Cuttings Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal  
 Other Disposal Description:

Fluids: We recycle as much as we can; any excess will go to licensed UIC disposal facility. Cuttings are dewatered in a closed loop system and disposed of in the Montezuma County Land Fill.

Beneficial reuse or land application plan submitted? \_\_\_\_\_  
 Reuse Facility ID: \_\_\_\_\_ or Document Number: \_\_\_\_\_

**CASING PROGRAM**

| Casing Type | Size of Hole | Size of Casing | Wt/Ft     | Csg/Liner Top | Setting Depth | Sacks Cmt | Cmt Btm | Cmt Top |
|-------------|--------------|----------------|-----------|---------------|---------------|-----------|---------|---------|
| CONDUCTOR   | 20           | 16             | 55        | 0             | 80            | 100       | 80      | 0       |
| SURF        | 14+3/4       | 10+3/4         | 40.5      | 0             | 2987          | 1800      | 2987    | 0       |
| 1ST         | 9+1/2        | 7+5/8          | 29.6&33.7 | 0             | 8292          | 2400      | 8292    | 0       |
| OPEN HOLE   | 6+1/2        |                |           | 8292          | 8612          |           |         |         |

Conductor Casing is NOT planned

**DESIGNATED SETBACK LOCATION EXCEPTIONS**

Check all that apply:

- Rule 604.a.(1)A. Exception Zone (within 500' of Building Unit)
- Rule 604.b.(1)A. Exception Location (existing or approved Oil & Gas Location now within a Designated Setback as a result of Rule 604.a.)
- Rule 604.b.(1)B. Exception Location (existing or approved Oil & Gas Location is within a Designated Setback due to Building Unit construction after Location approval)
- Rule 604.b.(2) Exception Location (SUA or site-specific development plan executed on or before August 1, 2013)
- Rule 604.b.(3) Exception Location (Building Units constructed after August 1, 2013 within setback per an SUA or site-specific development plan)

**GREATER WATTENBERG AREA LOCATION EXCEPTIONS**

Check all that apply:

- Rule 318A.a. Exception Location (GWA Windows).
- Rule 318A.c. Exception Location (GWA Twinning).

**RULE 502.b VARIANCE REQUEST**

Rule 502.b. Variance Request from COGCC Rule or Spacing Order Number \_\_\_\_\_

## OTHER LOCATION EXCEPTIONS

Check all that apply:

- Rule 318.c. Exception Location from Rule or Spacing Order Number \_\_\_\_\_
- Rule 603.a.(2) Exception Location (Property Line Setback).

ALL exceptions and variances require attached Request Letter(s). Refer to applicable rule for additional required attachments (e.g. waivers, certifications, SUAs).

## OPERATOR COMMENTS AND SUBMITTAL

Comments This is the APD for the vertical pilot borehole associated with the submission of a horizontal borehole, docnum 400537237.

This application is in a Comprehensive Drilling Plan \_\_\_\_\_ CDP #: \_\_\_\_\_

Location ID: \_\_\_\_\_

Is this application being submitted with an Oil and Gas Location Assessment application? Yes

I hereby certify all statements made in this form are, to the best of my knowledge, true, correct, and complete.

Signed: \_\_\_\_\_ Print Name: Paul Belanger

Title: \_\_\_\_\_ Date: 2/18/2014 Email: Paul\_Belanger@kindermorgan.

Operator must have a valid water right or permit allowing for industrial use or purchased water from a seller that has a valid water right or permit allowing for industrial use, otherwise an application for a change in type of use is required under Colorado law. Operator must also use the water in the location set forth in the water right decree or well permit, otherwise an application for a change in place of use is required under Colorado law. Section 37-92-103(5), C.R.S. (2011).

Based on the information provided herein, this Application for Permit-to-Drill complies with COGCC Rules and applicable orders and is hereby approved.

COGCC Approved:  Director of COGCC Date: 3/26/2014

Expiration Date: 03/25/2016

### API NUMBER

05 083 06715 00

## Conditions Of Approval

All representations, stipulations and conditions of approval stated in the Form 2A for this location shall constitute representations, stipulations and conditions of approval for this Form 2 Permit-to-Drill and are enforceable to the same extent as all other representations, stipulations and conditions of approval stated in this Permit-to-Drill.

### COA Type

### Description

|  |  |
|--|--|
|  | 1) Provide 48 hour notice of spud to COGCC and submit via form 42<br>2) Submit CBL on 7 5/8" production casing   |
|  | Open hole resistivity and gamma logs shall be run to describe the stratigraphy of the entire well bore and to adequately verify the setting depth of surface casing and aquifer coverage. On a multi-well pad, these open hole logs are only required on one of the first wells drilled on the pad and the Drilling Completion Report - Form 5 for every well on the pad shall identify which well was logged. |

## Best Management Practices

| No | BMP/COA Type                           | Description  |
|----|--|--|
| 1  | Planning                               | <p>A Kinder Morgan Fire Mitigation Plan is currently on file with the Montezuma County Planning Office.</p> <p>Any material not in use that might constitute a fire hazard will be removed a minimum of 25 feet from the wellhead, tanks and separator.</p> <p>Any electrical installations inside the bermed area will comply with API RP 500 classifications and comply with the current national electrical code as adopted by the State of Colorado.</p>   |
| 2  | General Housekeeping                   | <p>Erosion control barriers, namely fiber wattles, will be placed at the edge of disturbance where necessary. Care will be taken to avoid disturbance outside of the project area unless it is deemed necessary for equipment stability and fire safety.</p> <p>During the construction, drilling, and completion phases, on-site trash dumpsters are emptied regularly by the local waste management company.</p> <p>Steel ranch fencing will be placed around the well head after the well is drilled. Once the well is tied in, the fencing will be removed. The proposed well location will be drilled using a closed loop system and will therefore not use open pits.</p> <p>During drilling and completion operations, safety officers are present on location to ensure that livestock, wildlife, and unauthorized personnel do not enter the location. Following completion, the only items present on the well pad are the well head and aboveground pipeline junction. Additionally, there is no active grazing near the proposed location.</p> |
| 3  | Storm Water/Erosion Control            | <p>Diversion ditches will be implemented to divert run-on and run-off around the well pad. Compacted earthen berms will also be utilized to control stormwater run-on and runoff.</p> <p>Tackifier will be added to the stored topsoil piles and all slopes to prevent erosion. Stockpiled soils will have slopes not greater than 3:1.</p> <p>Stormwater BMPs will be maintained/amended by Kinder Morgan as site conditions change throughout the construction and reclamation process.</p>  |
| 4  | Material Handling and Spill Prevention | <p>A Road Use Plan, which addresses traffic concerns specific to the CB-3, is currently on file with Montezuma County. The Road Use Plan was produced after consulting with the county Road and Bridge Supervisor.</p> <p>All access roads are fully compliant with local county road standards. Access roads are composed of compacted gravel. In an effort to mitigate dust, magnesium-chloride applications to the road surface are performed at the request of Montezuma County.</p>   |
| 5  | Material Handling and Spill Prevention | <p>The use of a closed-loop drilling system will reduce the amount of waste produced and water used during drilling operations. Solid cuttings will be disposed of at a solid waste facility.</p> <p>Water that can no longer be reused or recycled will be disposed of in a Class I disposal well.</p> <p>Sufficiently impervious containment devices will be constructed around any condensate and produced water tanks. The containment devices will be sufficiently impervious to contain any spilled or released material. All containment devices will be inspected at regular intervals and maintained in good condition.</p> <p>All loadlines are capped.</p> <p>Tanks are designed to meet all API 650 guidelines.</p>  |

|    |                                |   |
|----|--------------------------------|---|
| 6  | Construction                   | <p>All equipment will be stored within the right-of-way (ROW) area of disturbance. Top soil will be removed to create a level pad for drilling and access road.</p> <p>Vegetation that does not need to be removed will be avoided during construction and removed vegetation will be cut near ground level, leaving the root system intact except where permanent facilities, roads, or ROWs, and wellpads require the complete removal of vegetation.</p>   |
| 7  | Noise mitigation               | <p>During normal operations, the well will remain within COGCC regulations for noise. However, during the construction phase of the project, this standard may be exceeded occasionally.</p>  |
| 8  | Emissions mitigation           | <p>Non-flammable CO2 will be produced from the Leadville formation and thus green completion per rule 805 (3) does not apply.</p> <p>All CO2 wells are equipped with a CO2 leak detection monitor during drilling.</p>  |
| 9  | Drilling/Completion Operations | <p>Blowout preventer equipment (BOPE) complies with COGCC equipment regulations.</p> <p>Mineral Management certification or Director approved training for blowout prevention has been conducted for at least one person at the well site during drilling operations.</p> <p>Kinder Morgan conducts a BOPE test and files a 24 hour notice (Form 42) at the initial rig-up time, after each casing emplacement, and/or every 30 days.</p> <p>KM standard operating protocol includes a check list for well-site clearance activities when a well is transferred from the Drilling Department to the Operations Department.</p> <p>Adequate blowout prevention equipment is used on all well servicing operations.</p> <p>Backup stabbing valves are used on well servicing operations during reverse circulation and are pressure tested before each well servicing operation using both low-pressure air and high-pressure fluid.</p> <p>No pits are present at the well site.</p> |
| 10 | Drilling/Completion Operations | <p>"In the event that Kinder Morgan does not log the minimum resistivity and gamma ray log per rule 317.0. then Kinder Morgan will, at a minimum, log the entire vertical well bore, or missing portion of the wellbore, with cased hole gamma ray and pulse neutron to comply with COGCC Rule 317.o."</p>  |
| 11 | Interim Reclamation            | <p>Surface roughening, surface contouring, seeding, and weed control will be employed to facilitate vegetation reestablishment. Tackifier will be added to reclaimed areas.</p>   |
| 12 | Final Reclamation              | <p>All disturbed areas that are not necessary for operational procedures will be restored to at least 80 percent of pre-disturbance vegetative cover.</p>   |

Total: 12 comment(s)

### **Applicable Policies and Notices to Operators**

Notice Concerning Operating Requirements for Wildlife Protection.

### **Attachment Check List**

| <b>Att Doc Num</b> | <b>Name</b>                            |
|--------------------|--|
| 2519006            | NOTICE ACKNOWLEDGEMENT AND CONCURRENCE |
| 400537237          | FORM 2 SUBMITTED                       |
| 400555041          | DRILLING PLAN                          |
| 400555044          | H2S CONTINGENCY PLAN                   |
| 400555045          | OTHER                                  |
| 400555047          | PLAT                                   |
| 400555064          | OIL & GAS LEASE                        |

Total Attach: 7 Files

## General Comments

| <u>User Group</u> | <u>Comment</u>   | <u>Comment Date</u>     |
|-------------------|--|-------------------------|
| Permit            | Final review completed; no LGD or public comment received.   | 3/25/2014<br>7:02:53 AM |
| Permit            | This permit is the pilot of a pilot/lateral drilling plan. Approval of this permit must precede the approval of the lateral in order that API sidetrack designations be correct. | 3/25/2014<br>6:53:52 AM |
| Permit            | Passed completeness.   | 2/19/2014<br>9:40:40 AM |

Total: 3 comment(s)