



**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.)

1st lease: section 1 38N 19W: TRACT 37, LOTS 5,6,11 AND 12; sectin 35 39N19W E/2 - 480 ac  
 2nd lease: section 1 38N 19W; SE 1/4 aka tract 40 - 160 ac  
 combination of both 620 ac

Total Acres in Described Lease: 640 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: 270 Feet

**CULTURAL DISTANCE INFORMATION**

Distance to nearest:

Building: 1602 Feet  
 Building Unit: 1720 Feet  
 High Occupancy Building Unit: 5280 Feet  
 Designated Outside Activity Area: 5280 Feet  
 Public Road: 2401 Feet  
 Above Ground Utility: 2656 Feet  
 Railroad: 5280 Feet  
 Property Line: 118 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): MCELMO DOME Unit Number: 047653X

**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: 8675 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: UIC Disposal

Cuttings Disposal: OFFSITE Cuttings Disposal Method: Other

Other Disposal Description:

DEWATER IN CLOSED LOOP SYSTEM; ANY Water after recycle is disposed of in our Class 1 disposal well. Solids to go to 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	65	0	80		80	0
SURF	14+3/4	10+3/4	40.5	0	3000	1800	3000	0
1ST	9+1/2	7+5/8	29.7&33.7	0	8350	2400	8350	0
OPEN HOLE	6+1/2		0	8350				8350

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 APD IS FOR THE PILOT BOREHOLE; SEE 400489308 FOR THE ASSOCIATED HORIZONTAL BOREHOLE. There are no water wells located within a .5 mile radius of the CNE-4 Limit of Disturbance. A Form 4 will be filed accordingly.

Two separate Surface Use Agreements are being developed for both property owners (Brad E. White & Pamela K. and John A. Kuenzler) impacted by the construction of CO2 well, CNE-4. Please see Rule 318.b Variance Request for further information.

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: REGULATORY CONTRACTOR Date: 12/11/2013 Email: PAUL\_BELANGER@KINDER

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: Matthew Lee Director of COGCC Date: 2/12/2014

Expiration Date: 02/11/2016

### API NUMBER

05 083 06712 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.

<u>COA Type</u>	<u>Description</u>
	Operator shall comply with Buffer Zone Move-In, Rig-Up Notice Policy dated 12-16-2013.
	1) Provide 48 hour notice of spud to COGCC and submit via form 42  2) Submit CBL on 7" 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

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
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	Traffic control	<p>A Road Use Plan, which addresses traffic concerns specific to the CNE-4, is currently on file with Montezuma County. The traffic 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>
3	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>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. 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>
4	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 run-off.</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>

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 licensed disposal facility.</p> <p>Recycled water 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 (ROW: 50').</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 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 CO<sub>2</sub> will be produced from the Leadville formation and thus green completion per rule 805 (3) does not apply.</p> <p>All CO<sub>2</sub> wells are equipped with a CO<sub>2</sub> 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	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>
11	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: 11 comment(s)

### **Attachment Check List**

<b>Att Doc Num</b>	<b>Name</b>
2518939	SURFACE AGRMT/SURETY
2518940	SURFACE AGRMT/SURETY
2518941	EXCEPTION LOC REQUEST
2518942	EXCEPTION LOC WAIVER
400489306	FORM 2 SUBMITTED
400525514	DRILLING PLAN
400525518	H2S CONTINGENCY PLAN
400525519	OTHER
400525532	OIL & GAS LEASE
400525534	WELL LOCATION PLAT
400525535	OIL & GAS LEASE

Total Attach: 11 Files

### General Comments

<b>User Group</b>	<b>Comment</b>	<b>Comment Date</b>
Permit	Final review completed; no LGD or public comment received.	2/11/2014 7:32:12 AM
Permit	Revised distances to building and building unit to agree with the form 2A. Form 2A is correct.	2/11/2014 7:28:23 AM
Permit	Received and attached exception location request letter, SUA's for both sides of the property line, exception location waiver, removed the 502b variance letter and revised the right to construct to SUA.	2/10/2014 8:48:18 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.	1/31/2014 12:35:10 PM
Permit	Operator will need a waiver and exception request letter (603a2)from the encroached upon surface owner or provide surface use agreements that address the property line issue.	1/31/2014 11:19:14 AM
Permit	This is not a variance to 318.b. No variance request is attached. Operator removed the checked variance request.	12/23/2013 9:15:55 AM
Permit	Operator comments mention this is a pilot for the horizontal.	12/23/2013 9:13:13 AM
Permit	Casing information is not filled in completely.	12/23/2013 9:11:05 AM
Permit	Is this a pilot? Same surface footage as horizontal.	12/23/2013 9:03:59 AM
Permit	Well 118 feet from property line and a an exception location request and waiver/SUA has not been attached. Permit cannot be issued until request and waiver/surface agreement are attached.	12/23/2013 9:02:51 AM
Permit	Passed completeness.	12/12/2013 7:36:03 AM

Total: 11 comment(s)