

**APPLICATION FOR PERMIT TO:**

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

Date Received:

TYPE OF WELL    OIL     GAS     COALBED     OTHER \_\_\_\_\_      Refilling

ZONE TYPE      SINGLE ZONE     MULTIPLE ZONES     COMMINGLE ZONES       Sidetrack

Well Name: AZUL      Well Number: 13-20HZ

Name of Operator: KERR MCGEE OIL & GAS ONSHORE LP      COGCC Operator Number: 47120

Address: P O BOX 173779

City: DENVER      State: CO      Zip: 80217-3779

Contact Name: Craig Richardson      Phone: (720)929-6092      Fax: ( )

Email: Craig.Richardson@anadarko.com

**RECLAMATION FINANCIAL ASSURANCE**

Plugging and Abandonment Bond Surety ID: 20010124

**WELL LOCATION INFORMATION**

QtrQtr: SESW    Sec: 13    Twp: 1N    Rng: 66W    Meridian: 6

Latitude: 40.046086      Longitude: -104.726644

Footage at Surface: 747 Feet    FNL/FSL    FSL    2326 Feet    FEL/FWL    FWL

Field Name: WATTENBERG      Field Number: 90750

Ground Elevation: 5050      County: WELD

GPS Data:

Date of Measurement: 05/11/2017    PDOP Reading: 1.3    Instrument Operator's Name: PRESTON KNUTSEN

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

50    FNL    2285    FEL    468    FSL    2279    FEL

Sec: 24    Twp: 1N    Rng: 66W    Sec: 24    Twp: 1N    Rng: 66W

**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: applicant is owner

Surface damage assurance if no agreement is in place: \_\_\_\_\_      Surface Surety ID: \_\_\_\_\_

## 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.)

Township 1 North, Range 66 West, 6th P.M.  
Section 24: SW/4 and NE/4

Total Acres in Described Lease: 320 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: 0 Feet

## CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 956 Feet  
Building Unit: 956 Feet  
High Occupancy Building Unit: 4358 Feet  
Designated Outside Activity Area: 5280 Feet  
Public Road: 734 Feet  
Above Ground Utility: 723 Feet  
Railroad: 5280 Feet  
Property Line: 321 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: 07/20/2017

## SPACING and UNIT INFORMATION

Distance from completed portion of proposed wellbore to nearest completed portion of offset wellbore permitted or completed in the same formation: 117 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 468 Feet (Enter 5280 for distance greater than 1 mile.)

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

## SPACING & FORMATIONS COMMENTS

1N 66W Sec. 24: E2W2 ; W2E2 ; Sec. 13: SESW ; SWSE

## OBJECTIVE FORMATIONS

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
CODELL	CODL		400	GWA

## DRILLING PROGRAM

Proposed Total Measured Depth: 12681 Feet

Distance from the proposed wellbore to nearest existing or proposed wellbore belonging to another operator, including plugged wells:

Enter distance if less than or equal to 1,500 feet: \_\_\_\_\_ Feet  No well belonging to another operator within 1,500 feet

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? No (If Yes, attach an H<sub>2</sub>S Drilling Operations Plan)

Will salt sections be encountered during drilling? No

Will salt based (>15,000 ppm Cl) drilling fluids be used? No

Will oil based drilling fluids be used? Yes

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 318A

## DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Methods: Commercial Disposal

Cuttings Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Please see Comments section. Disposal description will not fit in space provided.

Beneficial reuse or land application plan submitted? Yes

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	26	16	42.1	0	40	30	40	0
SURF	13+1/2	9+5/8	36	0	1800	720	1800	0
1ST	7+7/8	5+1/2	17	0	12671	1484	12671	

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

Drilling fluids disposal: KMG will reuse water-based drilling fluids to the maximum extent possible, at which point they will either be land applied or taken to a licensed, commercial disposal site; the decision will be based upon laboratory analysis of fluids. KMG will reuse oil-based drilling fluids to the maximum extent possible, at which point they will be returned to the fluids manufacturer for reconditioning or disposal at a licensed, commercial disposal site.

Cuttings disposal: Water-based cuttings will be disposed of onsite using bioremediation/solidification product. Oil-based cuttings will be disposed of offsite and at a licensed, commercial disposal site.

The following well(s) belong to Kerr-McGee and will have treated intervals within one hundred fifty (150) feet of this proposed well:  
AZUL 13-15HZ

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: Craig Richardson

Title: Regulatory Analyst II Date: \_\_\_\_\_ Email: Craig.Richardson@anadarko.c

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: \_\_\_\_\_

Expiration Date: \_\_\_\_\_

API NUMBER

05

### 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**

COA Type	Description

## Best Management Practices

<b>No</b>	<b>BMP/COA Type</b>	<b>Description</b>
1	Drilling/Completion Operations	Kerr-McGee acknowledges and will comply with the COGCC Policy for Bradenhead Monitoring during Hydraulic Fracturing Treatments in the Greater Wattenberg Area dated May 29, 2012.
2	Drilling/Completion Operations	Anti-Collision: Kerr-McGee will perform an anti-collision evaluation of all active (producing, shut in, or temporarily abandoned) offset wellbores that have the potential of being within one hundred fifty (150) feet of a proposed well prior to drilling operations for the proposed well. Notice shall be given to all offset operators within one hundred fifty (150) feet prior to drilling.
3	Drilling/Completion Operations	317.p Logging Program: One of the first wells drilled on the pad will be logged with Open Hole Resistivity Log and Gamma Ray Log from the kick-off point into the surface casing. All wells on the pad will have a cement bond log with gamma-ray run on production casing (or on intermediate casing if production liner is run) into the surface casing. The horizontal portion of every well will be logged with a measured-while-drilling gamma-ray log. The form 5, Completion Report, for each well on the pad will list all logs run and have those logs attached. The Form 5 for a well without open-hole logs shall clearly state "No open-hole logs were run" and shall clearly identify (by API#, well name & number) the well in which open-hole logs were run.
4	Drilling/Completion Operations	604c.(2).B. Closed Loop Drilling System: KMG will use a closed loop or "pitless" system for drilling and fluid management and will not construct a reserve pit.
5	Drilling/Completion Operations	604c.(2).C. Green Completions: Temporary above ground polyethylene water pipelines will deliver water to location operations from larger trunk lines to reduce truck traffic and minimize air pollution. Pipeline infrastructure is in place prior to completions operations to ensure saleable gas, once hydrocarbons are cut, is sent directly to sales without flaring during flowback.
6	Drilling/Completion Operations	604c.(2).H. BOPE: Our rigs at a minimum will have a double ram with blind and pipe ram and annular preventer.
7	Drilling/Completion Operations	604c.(2).I. BOPE Testing for Drilling Operations: BOPEs will be tested upon rig-up and, at a minimum, every 30 days.
8	Drilling/Completion Operations	604c.(2).J. BOPE for Well Servicing Operations: Blowout prevention equipment will be used on any servicing operations associated with this well. Backup stabbing valves will be used during any future servicing operations during reverse circulation. Valves shall be pressure tested before each well servicing operation using low-pressure air and high-pressure fluid.
9	Drilling/Completion Operations	604c.(2).K. Pit Level Indicators: All storage tanks used for active drilling operations (used in lieu of pits) contain pit level monitors with Electronic Drilling Recorders (EDR). KMG uses EDRs with pit level monitor(s) and alarm(s) for production rigs. Basic level gauges are used on tanks utilized for the surface rig.
10	Drilling/Completion Operations	604c.(2).L. Drill Stem Tests: No drill stem tests are planned and none will be performed without prior approval from the Director.
11	Drilling/Completion Operations	605.c.(1) Special Equipment: Wells will be equipped with automatic control valves and will continuously be monitored by the Integrated Operations Center (IOC) such that if a sudden change in pressure is detected the well will be shut in and fail safe.
12	Drilling/Completion Operations	803. Lighting: To the extent practicable, site lighting shall be shielded and directed downward and inward toward operations to avoid glare on public roads and nearby Building Units.

Total: 12 comment(s)

### Attachment Check List

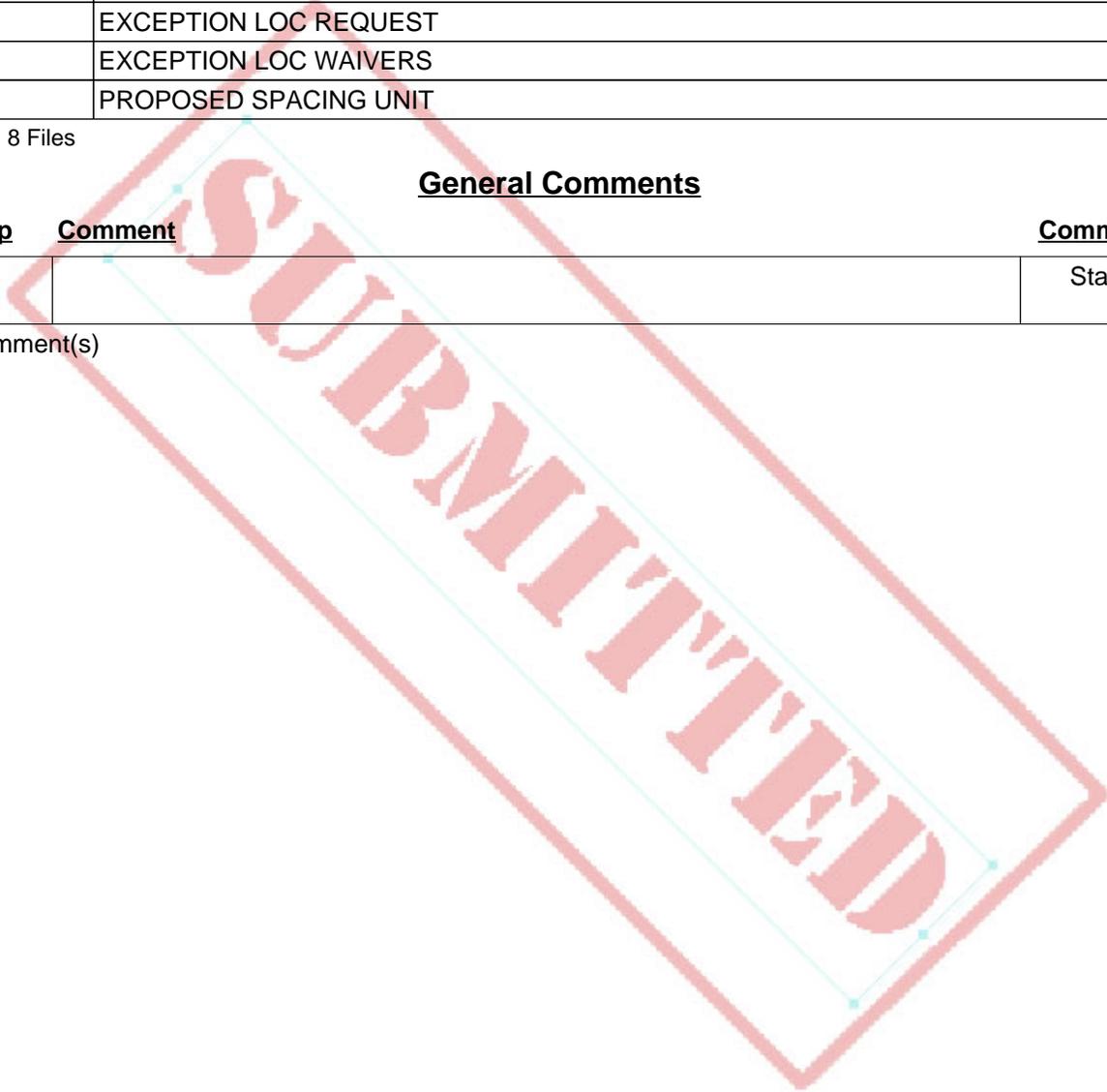
<b>Att Doc Num</b>	<b>Name</b>
401401916	OffsetWellEvaluations Data
401401917	DIRECTIONAL DATA
401401919	DEVIATED DRILLING PLAN
401401920	WELL LOCATION PLAT
401401922	OPEN HOLE LOGGING EXCEPTION
401401923	EXCEPTION LOC REQUEST
401402662	EXCEPTION LOC WAIVERS
401408377	PROPOSED SPACING UNIT

Total Attach: 8 Files

**General Comments**

<b>User Group</b>	<b>Comment</b>	<b>Comment Date</b>
		Stamp Upon Approval

Total: 0 comment(s)



**Public Comments**

No public comments were received on this application during the comment period.

