

FORM  
2  
Rev  
08/13

State of Colorado  
Oil and Gas Conservation Commission  
1120 Lincoln Street, Suite 801, Denver, Colorado 80203  
Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:  
400466510

APPLICATION FOR PERMIT TO:

Drill       Deepen       Re-enter       Recomplete and Operate

Date Received:  
09/06/2013

TYPE OF WELL    OIL     GAS     COALBED     OTHER \_\_\_\_\_  
ZONE TYPE      SINGLE ZONE     MULTIPLE ZONES     COMMINGLE ZONES

Refiling   
Sidetrack

Well Name: BADDING      Well Number: 37N-35HZ  
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: Lauren Kucera      Phone: (720)929-6107      Fax: (720)929-7107  
Email: lauren.kucera@anadarko.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20010124

WELL LOCATION INFORMATION

QtrQtr: SESE      Sec: 26      Twp: 2N      Rng: 66W      Meridian: 6  
Latitude: 40.103003      Longitude: -104.737385

Footage at Surface: 350 feet      FNL/FSL      FSL      704 feet      FEL/FWL      FEL

Field Name: WATTENBERG      Field Number: 90750

Ground Elevation: 5115      County: WELD

GPS Data:  
Date of Measurement: 04/30/2013    PDOP Reading: 1.4    Instrument Operator's Name: DAVID MACDONALD

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  
200    FNL      1342    FEL      1    FSL      1342    FEL  
Sec: 35    Twp: 2N    Rng: 66W      Sec: 35    Twp: 2N    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: No

The right to construct the Oil and Gas Location is granted by: Surface Use Agreement

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.)

### Lease Description:

CO-000010966:

Township 2 North, Range 66 West, 6th P.M.

Section 27: NW/4, S/2

Section 35: NW/4, S/2

Township 1 North, Range 66 West,

Section 1: Lot 2 (N/2 NW/4) (81.17), S/2 NW/4, S/2

Section 3: Lot 2 (N/2 NW/4) (76.00), S/2 NW/4, S/2

Section 11: NW/4, S/2

Section 13: NW/4, S/2

Section 23: NW/4, S/2

Section 27: NW/4, S/2

Section 33: NW/4, S/2

Section 35: NW/4, S/2

Township 1 North, Range 65 West,

Section 7: Lots 1 and 2 (W/2W/2) (159.64), E/2 W/2, SE/4

Adams County

Township 1 South, Range 66 West,

Section 1: Lot 2 (N/2 NW/4) (60.61), S/2 NW/4, S/2

Total Acres in Described Lease: 5737 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: 535 Feet

Building Unit: 5280 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 1941 Feet

Above Ground Utility: 1700 Feet

Railroad: 5280 Feet

Property Line: 350 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: 22 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 1301 Feet (Enter 5280 for distance greater than 1 mile.)

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

## SPACING & FORMATIONS COMMENTS

Unit Configuration: 2N66W Sec. 35: E2; Sec. 26: S2SE; 1N66W Sec. 2: N2NE

**OBJECTIVE FORMATIONS**

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
NIOBRARA	NBRR		480	GWA

**DRILLING PROGRAM**Proposed Total Measured Depth: 12926 FeetDistance to nearest permitted or existing wellbore penetrating objective formation: 22 Feet (Including plugged wells)Will a closed-loop drilling system be used? YesIs 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? NoWill salt based (>15,000 ppm Cl) drilling fluids be used? NoWill oil based drilling fluids be used? NoBOP 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: \_\_\_\_\_ Drilling Fluids Disposal Methods: Recycle/reuseCuttings Disposal: ONSITE Cuttings Disposal Method: Beneficial reuse

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
SURF	13+1/2	9+5/8	36	0	1305	490	1305	0
1ST	8+3/4	7	26	0	7783	820	7783	0
1ST LINER	6+1/8	4+1/2	11.6	6782	12926			

 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

Other disposal description:  
Drilling fluids disposal: KMG will reuse water-based drilling fluids to the maximum extent at which point they will either be land applied or taken to a licensed, commercial disposal site; decided upon based off of laboratory analysis of fluids.  
Cuttings disposal: If the surface owner authorizes and if it is feasible for this location at the time of drilling, water-based cuttings will be disposed of onsite using bioremediation/solidification product.  
If the surface owner does not authorize onsite disposal and/or it is not feasible for this location at the time of drilling, water-based cuttings will be disposed of using a Centralized E&P Waste Management facility or a private spread field.  
  
Operator will run open hole logs into the surface casing on the first well drilled on this pad.  
Kerr-McGee Oil & Gas Onshore LP ("KMG") respectfully requests the Director to waive Rule 318A.m for this well. KMG is the operator of the encroached upon well(s). Please see attached Compliance Letter.

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: Lauren Kucera

Title: Regulatory Analyst II Date: 9/6/2013 Email: DJRegulatory@anadarko.com

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: 10/18/2013

Expiration Date: 10/17/2015

API NUMBER

05 123 38335 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>
	<p>1) Submit Form 42 electronically to COGCC 48 hours prior to MIRU.</p> <p>2) Comply with Rule 317.i and provide cement coverage from end of 7" casing to a minimum of 200' above Niobrara and from 200' below the Shannon to 200' above Sussex. Verify coverage with cement bond log.</p> <p>3) Comply with Rule 321. Run and submit Directional Survey from TD to base of surface casing. Ensure that the wellbore complies with setback requirements in commission orders or rules prior to producing the well.</p>
	<p>Operator acknowledges the proximity of the following wells: UPRR 38 Pan Am "M" True 1 API 123-11277, Helgoth Heirs Unit 1 API 123-10041. Operator agrees to: provide mitigation option 1, 2 or 3 (per the DJ Basin Horizontal Offset Policy) to mitigate the situation, ensure all applicable documentation is submitted based on the selected mitigation option chosen, and submit a Form 42 ("OTHER – AS SPECIFIED BY PERMIT CONDITION") stating what appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of this well.</p>

## Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Planning	604c.(2).A. Noise: This pad location is located in a rural rangeland area. The nearest building unit is located over one mile away.
2	Planning	604c.(2).S. Access Roads: KMG will utilize the lease access road from WCR 20 for drilling operations and maintenance equipment. The road will be properly constructed and maintained to accommodate for local emergency vehicle access.
3	General Housekeeping	604c.(2).N. Control of Fire Hazards: KMG will ensure that any material that might be deemed a fire hazard will be will remain no less than twenty-five (25) feet from the wellhead(s)
4	General Housekeeping	604c.(2).O. Loadlines: All loadlines shall be bullplugged or capped.
5	General Housekeeping	604c.(2).P. Removal of Surface Trash: A commercial size trash bin for removing debris will be located on site. This bin will be for use by all parties affiliated with the operation.
6	General Housekeeping	604c.(2).Q. Guy Line Anchors: Should guy line anchors be left buried for future use, they shall be identified by a bright marker greater than four (4) feet high and no more than one (1) foot east of the guy line anchor.
7	General Housekeeping	604c.(2).T. Well Site Cleared: The wellsite will be cleared of all non-essential equipment within ninety (90) days after all wells associated with the pad have been plugged and abandoned.
8	General Housekeeping	604c.(2).U. Identification of Plugged and Abandoned Wells: Pursuant to rule 319.a.(5)., once the well has been plugged and abandoned, KMG will identify the location of the wellbore with a permanent monument that will detail the well name and date of plugging
9	Material Handling and Spill Prevention	604c.(2).F. Leak Detection Plan: Automation technology will be utilized at this facility. This technology includes the use of fluid level monitoring for the tanks and produced water sumps, high-level shut offs, and electronic sensors to monitor the interstitial space of double-walled produced water sumps. All automation is monitored by Kerr-McGee's Integrated Operations Center (IOC,) which is manned 24 hours per day, 7 days per week.
10	Construction	604c.(2).E. Multiwell Pads: This application is part of a five-well pad.
11	Construction	604c.(2).M. No fencing is necessary for this location.

12	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.
13	Drilling/Completion Operations	<p>Prior to drilling operations, Operator may perform an anti-collision review of existing offset wells that have the potential of being within close proximity of the proposed well. This anti-collision review may include MWD or gyro surveys and surface locations of the offset wells with included error of uncertainty per survey instrument, and compared against the proposed wellpath with its respective error of uncertainty. If current surveys do not exist for the offset wells, Operator may have gyro surveys conducted to verify bottomhole location. The proposed well may only be drilled if the anti-collision review results indicate that the risk of collision is sufficiently low as defined by the anti-collision plan, with separation factors greater than 1.5, or if the risk of collision has been mitigated through other means including shutting in wells, plugging wells, increased drilling fluid in the event of lost returns or as is appropriate for the specific situation. In the event of an increased risk of collision, that risk will be mitigated to prevent harm to people, the environment or property. For the proposed well, upon conclusion of drilling operations, an as-constructed directional survey will be submitted to COGCC with the Form 5.</p> <p>At the time of permitting, the operator has identified the following well(s) as being within close proximity of the proposed wells: BADDING 37-3 and BADDING 24-3</p>
14	Drilling/Completion Operations	604c.(2).B. Closed Loop Drilling System: A closed loop drilling system will be utilized during drilling of the wells on this location.
15	Drilling/Completion Operations	604c.(2).C. Green Completions: KMG will install Vapor Recovery Unit(s) (VRU's) to prevent uncontrolled venting of flash gas. Environmental Control Devices (ECD) will be used to control working and breathing vapor losses for oil and water tanks. Produced oil and gas will be piped off of location to minimize air pollution.
16	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.
17	Drilling/Completion Operations	604c.(2).I. BOPE Testing for Drilling Operations: Upon initial rig-up, BOPE's will be tested at a minimum of every
18	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.
19	Drilling/Completion Operations	604c.(2).K. Pit Level Indicators: All mud pits contain pit level monitors with Electronic Drilling Recorders (EDR) KMG uses an Electronic Drilling Recorder (EDR) with pit level monitor(s) and alarm(s) for production rigs. Basic level gages are used on pits utilized for the surface rig.
20	Drilling/Completion Operations	604c.(2).L. Drill Stem Tests: No drill stem tests will be performed without prior approval from the director.

Total: 20 comment(s)

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

Notice Concerning Operating Requirements for Wildlife Protection.

Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area.

### **Attachment Check List**

<b>Att Doc Num</b>	<b>Name</b>
2114289	WAIVERS
400466510	FORM 2 SUBMITTED
400466513	SURFACE AGRMT/SURETY
400466515	EXCEPTION LOC WAIVERS
400466516	EXCEPTION LOC REQUEST
400466517	WELL LOCATION PLAT
400466519	OTHER
400475149	DEVIATED DRILLING PLAN
400475151	PROPOSED SPACING UNIT
400475152	DIRECTIONAL DATA
400477125	OffsetWellEvaluations Data

Total Attach: 11 Files

### General Comments

<b>User Group</b>	<b>Comment</b>	<b>Comment Date</b>
Permit	Received corrected copy of waivers. Ready to pass pending public comment.	9/19/2013 1:41:22 PM
Permit	Centralized E&P Waste Management facility ID 149021 from 2A. Incorrect well names on 318A.m waiver.	9/19/2013 10:15:55 AM
Permit	Passed completeness.	9/9/2013 6:26:18 AM

Total: 3 comment(s)