

FORM

2

Rev
12/05

State of Colorado

Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109



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01/11/2013

PluggingBond SuretyID

20010124

APPLICATION FOR PERMIT TO:

1. ☒ Drill, ☐ Deepen, ☐ Re-enter, ☐ Recomplete and Operate

2. TYPE OF WELL

OIL ☐ GAS ☒ COALBED ☐ OTHER _____
 SINGLE ZONE ☒ MULTIPLE ☐ COMMINGLE ☐

Refiling ☐Sidetrack ☐

3. Name of Operator: KERR-MCGEE OIL & GAS ONSHORE LP

4. COGCC Operator Number: 47120

5. Address: P O BOX 173779

City: DENVER State: CO Zip: 80217-3779

6. Contact Name: Cheryl Light Phone: (720)929-6461 Fax: (720)929-7461

Email: cheryl.light@anadarko.com

7. Well Name: CROWDER Well Number: 37N-18HZ

8. Unit Name (if appl): Unit Number:

9. Proposed Total Measured Depth: 11724

WELL LOCATION INFORMATION

10. QtrQtr: NENE Sec: 18 Twp: 2N Rng: 65W Meridian: 6

Latitude: 40.145006 Longitude: -104.701458

Footage at Surface: 343 feet FNL/FSL 1168 feet FEL/FWL
 FNL FEL

11. Field Name: WATTENBERG Field Number: 90750

12. Ground Elevation: 4957 13. County: WELD

14. GPS Data:

Date of Measurement: 03/19/2012 PDOP Reading: 2.2 Instrument Operator's Name: CONNER MAHOSKEY

15. 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
 625 FNL 1424 FEL 460 FSL 1420 FEL
 Sec: 18 Twp: 2N Rng: 65W Sec: 18 Twp: 2N Rng: 65W

16. Is location in a high density area? (Rule 603b)? ☐ Yes ☒ No

17. Distance to the nearest building, public road, above ground utility or railroad: 330 ft

18. Distance to nearest property line: 155 ft 19. Distance to nearest well permitted/completed in the same formation(BHL): 116 ft

20. LEASE, SPACING AND POOLING INFORMATION

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
NIOBRARA	NBRR		320	GWA

21. Mineral Ownership: ☒ Fee ☐ State ☐ Federal ☐ Indian Lease #:22. Surface Ownership: ☒ Fee ☐ State ☐ Federal ☐ Indian23. Is the Surface Owner also the Mineral Owner? ☐ Yes ☒ No Surface Surety ID#:23a. If 23 is Yes: Is the Surface Owner(s) signature on the lease? ☐ Yes ☒ No23b. If 23 is No: ☒ Surface Owners Agreement Attached or ☐ \$25,000 Blanket Surface Bond ☐ \$2,000 Surface Bond ☐ \$5,000 Surface Bond

24. Using standard QtrQtr, Sec, Twp, Rng format enter entire mineral lease description upon which this proposed wellsite is located (attach separate sheet/map if you prefer):

Horizontal wellbore will produce from multiple leases, please see attached Lease Description.

25. Distance to Nearest Mineral Lease Line: 0 ft 26. Total Acres in Lease: 150

DRILLING PLANS AND PROCEDURES

27. Is H2S anticipated? ☐ Yes ☒ No If Yes, attach contingency plan.

28. Will salt sections be encountered during drilling? ☐ Yes ☒ No

29. Will salt (>15,000 ppm TDS CL) or oil based muds be used during drilling? ☐ Yes ☒ No

30. If questions 28 or 29 are yes, is this location in a sensitive area (Rule 901.e)? ☐ Yes ☒ No

31. Mud disposal: ☒ Offsite ☐ Onsite

If 28, 29, or 30 are "Yes" a pit permit may be required.

Method: ☐ Land Farming ☐ Land Spreading ☒ Disposal Facility Other: _____

Note: The use of an earthen pit for Recompletion fluids requires a pit permit (Rule 905b). If air/gas drilling, notify local fire officials.

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	0	1,040	780	1,040	0
1ST	8+3/4	7	26.0	0	7,470	720	7,470	0
1ST LINER	6+1/8	4+1/2	11.6	6470	11,724			

32. BOP Equipment Type: ☒ Annular Preventer ☐ Double Ram ☒ Rotating Head ☐ None

33. Comments No conductor casing will be used. Unit Configuration NBRR: E/2. 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). The surface location of this well is an exception to Rule 318A.a and to Rule 318A.c. This well is not within the GWA surface location window and does not meet the twinning requirement due to the number of wells planned for this area and at the request of the surface owner. An exception location request letter and signed waivers are attached to the Form 2 and Form 2A. Operator will run open hole logs into the surface casing on the first well drilled on this pad.

34. Location ID: 305691

35. Is this application in a Comprehensive Drilling Plan ? ☐ Yes ☐ No

36. Is this application part of submitted Oil and Gas Location Assessment ? ☒ Yes ☐ No

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

Signed: _____ Print Name: Cheryl Light

Title: Sr. Regulatory Analyst Date: 1/11/2013 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: Matthew Lee Director of COGCC Date: 2/8/2013

API NUMBER

05 123 36722 00

Permit Number: _____ Expiration Date: 2/7/2015

CONDITIONS OF APPROVAL, IF ANY:

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.

- 1)Provide notice of MIRU via an electronic Form 42.
- 2)Comply with Rule 317.i and provide cement coverage to a minimum of 200' above the Niobrara. Verify cement coverage with a cement bond log per 317.o.

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

Att Doc Num	Name
2482105	SURFACE CASING CHECK
400346987	FORM 2 SUBMITTED
400347001	DEVIATED DRILLING PLAN
400347002	WELL LOCATION PLAT
400347004	30 DAY NOTICE LETTER
400347005	SURFACE AGRMT/SURETY
400347006	LEGAL/LEASE DESCRIPTION
400347007	EXCEPTION LOC REQUEST
400347008	EXCEPTION LOC WAIVERS
400347009	VARIANCE REQUEST
400347010	PROPOSED SPACING UNIT
400347011	OTHER
400368896	DIRECTIONAL DATA

Total Attach: 13 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Horizontal wellbore crosses lease lines within drilling and spacing unit; distance to lease line is 0'; distance to unit boundary is 460'. One 2A for two different pads accounts for discrepancy in Cultural distances. Dist to nearest property line 155' per operator map. Ready to pass pending public comment period.	1/29/2013 9:13:20 AM
Permit	Lease should only be 150 acres per Anadarko Land Department. Attached correct lease description.	1/18/2013 9:37:48 AM
Permit	Corrected distance to nearest well (Muse 2) to 116' from 363' per operator. Corrected distance to nearest property line to 155' from 510' per operator. Asked operator to clarify why total acres in lease is 310 (addition of SE/4) for this well and 150 acres for all others on pad.	1/18/2013 8:53:15 AM
Engineer	Evaluated offset wells for adequate cement coverage.	1/16/2013 10:11:47 AM

Total: 4 comment(s)

BMP

<u>Type</u>	<u>Comment</u>
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.
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 well:</p> <p>CROWDER 37N-18HZ: - MUSE 2</p>

Total: 2 comment(s)