

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:

400802598

APPLICATION FOR PERMIT TO:

☒ Drill ☐ Deepen ☐ Re-enter ☐ Recomplete and Operate

TYPE OF WELL OIL ☐ GAS ☒ COALBED ☐ OTHER \_\_\_\_\_

Refilling ☐

ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐

Sidetrack ☐

Date Received:

06/24/2015

Well Name: ALVIN

Well Number: 26C-29HZ

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: (720)929-7092

Email: craig.richardson@anadarko.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20010124

WELL LOCATION INFORMATION

QtrQtr: SESE Sec: 29 Twp: 2N Rng: 65W Meridian: 6

Latitude: 40.103278

Longitude: -104.679327

Footage at Surface: 381 feet FNL/FSL FSL 280 feet FEL/FWL FEL

Field Name: WATTENBERG

Field Number: 90750

Ground Elevation: 4909

County: WELD

GPS Data:

Date of Measurement: 10/23/2014 PDOP Reading: 1.9 Instrument Operator's Name: BART PFEIFER

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

Footage at Top of Prod Zone: FNL/FSL FSL 50 FSL 342 FEL FEL 50 FNL 197 FEL  
Sec: 29 Twp: 2N Rng: 65W Sec: 29 Twp: 2N Rng: 65W

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: 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.)

TOWNSHIP 2 NORTH, RANGE 66 WEST, 6TH P.M.

SECTION 1: LOT 2 (N2NW), S2NW, S2

SECTION 3: LOT 2 (N2NW), S2NW, S2

SECTION 11: NW, S2

SECTION 13: NW, S2

SECTION 15: NW, S2

SECTION 23: NW, S2

SECTION 25: NW, S2

TOWNSHIP 2 NORTH, RANGE 65 WEST, 6TH P.M.

SECTION 5: LOT 2 (N2NW), S2NW, S2

SECTION 7: LOTS 1 AND 2 (W2W2), E2W2, SE

SECTION 9: NW, S2

SECTION 19: LOTS 1 AND 2 (W2W2), E2W2, SE

SECTION 29: NW, S2

CONTAINING 5,725.2 ACRES, MORE OR LESS, IN WELD COUNTY, COLORADO

Total Acres in Described Lease: 5725 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: 287 Feet

Building Unit: 368 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 268 Feet

Above Ground Utility: 304 Feet

Railroad: 5280 Feet

Property Line: 381 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: 04/22/2015

## SPACING and UNIT INFORMATION

Distance from Completed Portion of Wellbore to Nearest Wellbore Permitted or Completed in the same formation: 250 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 974 Feet (Enter 5280 for distance greater than 1 mile.)

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

## SPACING & FORMATIONS COMMENTS

GWA WELLBORE SPACING UNIT CONFIGURATION: 2N-65W-SEC 20: SESE; SEC 21: SWSW; SEC 28: W2W2; SEC 29: E2E2; SEC 32: NENE; SEC 33: NWNW

**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           |                         | 480                           | GWA                                  |

**DRILLING PROGRAM**Proposed Total Measured Depth: 12884 FeetDistance to nearest permitted or existing wellbore penetrating objective formation: 250 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? YesBOP 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 DisposalCuttings 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 |
|-------------|--------------|----------------|-------|---------------|---------------|-----------|---------|---------|
| SURF        | 13+1/2       | 9+5/8          | 36    | 0             | 1800          | 700       | 1800    | 0       |
| 1ST         | 7+7/8        | 5+1/2          | 17    | 0             | 12874         | 1508      | 12874   | 0       |

☒ 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: 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. Oil-based cuttings will be disposed of offsite and at a licensed, commercial disposal site.

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: 6/24/2015 Email: craig.richardson@anadarko.co

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: 9/23/2015

Expiration Date: 09/22/2017

API NUMBER

05 123 42206 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

|  |  |
|--|--|
|  | <p>1) Submit Form 42 electronically to COGCC 48 hours prior to MIRU.</p> <p>2) Comply with Rule 317.j and provide cement coverage from end of 5.5" casing to a minimum of 200' above Niobrara. 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 listed wells. Operator agrees to provide mitigation Option 1 or 2 (per the DJ Basin Horizontal Offset Policy), ensure all applicable documentation is submitted, and submit a Form 42(s) ("OFFSET MITIGATION COMPLETED") for the remediated wells, referencing the API Number of the proposed horizontal well(s) stating what appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of this well.</p> <p>Mary D Arndt 1 (API 123-08198)<br/>Dechant USX X29-1 (API 123-09669)</p> |

## Best Management Practices

### No BMP/COA Type

### Description

|    |  |  |
|----|--|--|
| 1  | Planning                               | 604c.(2).E. Multiwell Pads: In order to reduce surface impact, this application is for a five-well pad.  |
| 2  | Planning                               | 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.  |
| 3  | Planning                               | 604c.(2).R. Tank Specifications: Two 500 barrel skid-mounted frac tanks will be temporarily placed on-site for use of the pre-spud rig only. One tank will store water and the other will store water based mud.   |
| 4  | Planning                               | <p>604c.(2).S. Access Roads: KMG will utilize a lease access road from County Road 16 for drilling operations and maintenance equipment. The road will be properly constructed and maintained to accommodate for local emergency vehicle access.</p> <p>Water will be placed on dirt access roads to mitigate dust as needed. If feasible, magnesium chloride will also be used as needed on access roads to further abate dust.</p> |
| 5  | Planning                               | 604c.(2).V. Development From Existing Well Pads: Drilling from an existing well pad was not feasible for the development of the wells on this proposed oil and gas location; however, this well pad will be considered for future well locations.  |
| 6  | Traffic control                        | 604c.(2).D. Traffic Plan: If required by the local government, a traffic plan will be coordinated with the local jurisdiction prior to commencement of operations.   |
| 7  | General Housekeeping                   | 604c.(2).O. Loadlines: All loadlines shall be bullplugged or capped.   |
| 8  | 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.  |
| 9  | Storm Water/Erosion Control            | 604c.(2).W. Site-Specific Measures: KMG maintains a Stormwater Management Plan that assesses erosion control for every KMG operated location. This location will be added to this plan once construction begins. This site will be inspected every fourteen (14) days during construction activities, every thirty (30) days after construction is completed, and after any major weather event.                                     |
| 10 | Material Handling and Spill Prevention | 604c.(2).N. Control of Fire Hazards: KMG and its contractors will employ best management practices during the drilling and production of its wells and facilities and will comply with appropriate COGCC rules concerning safety and fire. KMG will ensure that any material that might be deemed a fire hazard will remain no less than twenty-five (25) feet from the wellhead(s), tanks and separator(s).                         |

|    |                                |  |
|----|--------------------------------|--|
| 11 | Construction                   | 604c.(2).M. Fencing Requirements: The completed wellsites will be surrounded with a fence and gate with adequate lock to restrict access to authorized personnel only. KMG personnel will monitor the wellsites regularly upon completion of the wells. Authorized representatives and/or KMG personnel shall be on-site during drilling and completion operations.  |
| 12 | Noise mitigation               | 604c.(2).A. Noise: Pending a safety review after construction of the location, sound mitigation barriers (hay bales) will be placed along the north, east and south sides of the pad location to damper noise during drilling and completions to the nearby building units.<br><br>Sound surveys that have been conducted on each rig type are utilized to anticipate any additional noise mitigation once a drilling rig is determined.   |
| 13 | 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.  |
| 14 | 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.  |
| 15 | 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.  |
| 16 | Drilling/Completion Operations | 604c.(2).I. BOPE Testing for Drilling Operations: Upon initial rig-up, BOPEs will be tested at a minimum of every 30 days.   |
| 17 | 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.   |
| 18 | Drilling/Completion Operations | 604c.(2).K. Pit Level Indicators: All tanks (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.   |
| 19 | 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.   |
| 20 | 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.   |
| 21 | Drilling/Completion Operations | One of the first wells drilled on the pad will be logged with openhole 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 openhole logs were run. |
| 22 | 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.  |
| 23 | Final Reclamation              | 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.  |
| 24 | Final Reclamation              | 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.  |

Total: 24 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><u>Att Doc Num</u></b> | <b><u>Name</u></b>         |
|---------------------------|----------------------------|
| 400802598                 | FORM 2 RESUBMITTED         |
| 400878916                 | FORM 2 SUBMITTED           |
| 400878917                 | FORM 2 REJECTED            |
| 400879007                 | OffsetWellEvaluations Data |
| 400879009                 | OTHER                      |
| 400879010                 | EXCEPTION LOC REQUEST      |
| 400879011                 | EXCEPTION LOC WAIVERS      |
| 400879012                 | SURFACE AGRMT/SURETY       |
| 400879013                 | WASTE MANAGEMENT PLAN      |
| 400879015                 | DEVIATED DRILLING PLAN     |
| 400879016                 | PROPOSED SPACING UNIT      |
| 400879018                 | DIRECTIONAL DATA           |
| 400879051                 | WELL LOCATION PLAT         |
| 400879052                 | FORM 2 SUBMITTED           |

Total Attach: 14 Files

### **General Comments**

| <b><u>User Group</u></b> | <b><u>Comment</u></b>  | <b><u>Comment Date</u></b> |
|--------------------------|--|----------------------------|
| Permit                   | Req'd engineer review distance to nearest well penetrating CODL. Engineer corrected distance to 250'; also corrected distance to nearest well permitted for CODL. Operator concurred.  | 9/23/2015<br>11:02:34 AM   |
| Permit                   | Final Review Completed. No LGD or public comment received.   | 9/22/2015<br>9:50:41 AM    |
| Engineer                 | Offset wells evaluated.  | 9/21/2015<br>10:43:38 AM   |
| Permit                   | Permitting task complete.  | 9/2/2015<br>10:32:48 AM    |
| Permit                   | Updated spacing comment to reflect Unit Configuration more accurately. Changed from "UNIT CONFIGURATION" to "GWA WELLBORE SPACING UNIT CONFIGURATION"  | 8/27/2015<br>2:29:10 PM    |
| Permit                   | Passed completeness.   | 3/4/2015 1:24:03<br>PM     |
| Permit                   | This APD is being rejected per the Rejection Process criteria that a pad of Form 2's requiring a total of four or more attachments to be added or replaced will be rejected. This pad requires a replacement PSU and well location plat to be attached to 5 APD's for a total of 10 replacement attachments. Operator and COGCC staff have been consulted. | 3/4/2015 8:38:44<br>AM     |
| Permit                   | Passed completeness.   | 7/2/2015 9:51:54<br>AM     |
| Permit                   | Returned to draft per operator request regarding 317p BMP language.  | 7/1/2015 2:04:46<br>PM     |
| Permit                   | Returned to draft per Operator request.<br>Surface Use Agreement amendment required.   | 6/30/2015<br>8:00:47 AM    |

Total: 10 comment(s)