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

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Date Received:

APPLICATION FOR PERMIT TO:

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

TYPE OF WELL OIL ☐ GAS ☒ COALBED ☐ OTHER ☐ Refiling ☐

ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐ Sidetrack ☐

Well Name: GEE Well Number: 16N-25HZ

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: Cheryl Light Phone: (720)929-6461 Fax: (720)929-7461

Email: cheryl.light@anadarko.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20010124

WELL LOCATION INFORMATION

QtrQtr: NENE Sec: 24 Twp: 2N Rng: 67W Meridian: 6

Latitude: 40.128433 Longitude: -104.832570

Footage at Surface: 829 feet FNL/FSL FNL 738 feet FEL/FWL FEL

Field Name: WATTENBERG Field Number: 90750

Ground Elevation: 4858 County: WELD

GPS Data:

Date of Measurement: 06/17/2013 PDOP Reading: 1.6 Instrument Operator's Name: OWEN MCKEE

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
617	FNL	292 FEL	1	FSL	290 FEL

Sec: 24 Twp: 2N Rng: 67W Sec: 25 Twp: 2N Rng: 67W

LOCATION SURFACE & MINERALS & RIGHT TO CONSTRUCT

Surface Ownership: ☒ Fee ☐ State ☐ Federal ☐ Indian

The Surface Owner is: (check all that apply)
- ☒ is the mineral owner beneath the location.
- ☒ 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: oil and gas lease

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.)

Please see attached lease description and map.

Total Acres in Described Lease: 80 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:	309	Feet
Building Unit:	309	Feet
High Occupancy Building Unit:	5280	Feet
Designated Outside Activity Area:	5280	Feet
Public Road:	727	Feet
Above Ground Utility:	706	Feet
Railroad:	5280	Feet
Property Line:	332	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: 08/27/2013

SPACING and UNIT INFORMATION

Distance from Completed Portion of Wellbore to Nearest Wellbore Permitted or Completed in the same formation: 256 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 617 Feet (Enter 5280 for distance greater than 1 mile.)

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

SPACING & FORMATIONS COMMENTS

Unit configuration: 2N-67W:SEC 24:E2E2;SEC 25:E2E2;SEC 36:NE4NE4;2N-66W:SEC 19: W2W2:SEC 30: W2W2; SEC. 31: NWNW

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		720	GWA

DRILLING PROGRAM

Proposed Total Measured Depth: 17516 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 256 Feet (Including plugged wells)

Will a closed-loop drilling system be used? Yes

Is H_2S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? No (If Yes, attach an H2S 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: Other

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	968	370	968	0
1ST	8+3/4	7	26	0	7611	800	7611	0
1ST LINER	6+1/8	4+1/2	11.6	6615	17516			

☒ 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 oil-based drilling fluids to maximum extent at which point they will be returned to the fluids manufacturer for re-conditioning or disposal at a licensed, commercial disposal site.
Cuttings disposal: Water based cuttings will be used to drill the curve of the well. 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 used to drill the lateral of the well. They will be disposed of offsite and at a licensed, commercial disposal site.

Operator will run open hole logs into the surface casing on the first well drilled on this pad.

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: _____ Email: DJRegulatory@anadarko.com

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

Best Management Practices

No	BMP/COA Type	Description
1	Planning	604c.(2).E. Multiwell Pads: This 2A application is for a three-well pad. Use of this multi-well pad will reduce surface impact.
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).S. Access Roads: KMG will utilize a lease access road from CR25 for drilling operations and maintenance equipment. This access route is contingent upon an agreement with City of Thornton. An alternative access road is also planned off of CR25. Both access routes are illustrated on the attached access road map. The road will be properly constructed and maintained to accommodate for local emergency vehicle access.
4	Planning	604c.(2).V. Development From Existing Well Pads: Drilling from an existing well pad was not feasible for the development of these wells; however, this well pad will be considered for future well locations.

5	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. Weld County Road 25 is paved and maintained by Weld County and will therefore not require dust mitigation.
6	General Housekeeping	604c.(2).O. Loadlines: All loadlines shall be bullplugged or capped.
7	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.
8	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 well pad will be added to this plan once construction begins. This plan is updated every fourteen (14) days and after any major weather event.
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	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	Construction	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.
13	Construction	604c.(2).G. Berm Construction: Kerr McGee will create secondary containment by construction of a berm or diversion dike, site grading, or other comparable measures, sufficient to further protect the canal located 300' northeast of the oil and gas location.
14	Noise mitigation	604c.(2).A. Noise: Sound mitigation barriers (hay bales) will be placed along the eastern side of the pad location per the surface owner's request to damper noise during drilling and completions to the nearby residence. Sound surveys that have been conducted on each rig type are utilized to anticipate any additional noise mitigation once a drilling rig is determined.
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).C. Green Completions: KMG will install Vapor Recovery Unit(s) (VRU) 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. Temporary above ground polyethylene water pipelines will deliver water to location operations from larger trunk lines to reduce truck traffic and minimize air pollution.
17	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.
18	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 30 days.
19	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.

20	Drilling/Completion Operations	604c.(2).K. Pit Level Indicators: All mud 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 gages are used on tanks utilized for the surface rig.
21	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.
22	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.
23	Drilling/Completion Operations	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.
24	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.
25	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: 25 comment(s)

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Attachment Check List

Att Doc Num	Name
400486289	SURFACE AGRMT/SURETY
400486291	LEGAL/LEASE DESCRIPTION
400486292	PROPOSED SPACING UNIT
400486299	NRCS MAP UNIT DESC
400486300	EXCEPTION LOC REQUEST
400486302	DEVIATED DRILLING PLAN
400486304	WELL LOCATION PLAT
400486305	EXCEPTION LOC WAIVERS
400486308	DIRECTIONAL DATA
400486309	OTHER
400486826	OffsetWellEvaluations Data

Total Attach: 11 Files

General Comments

User Group	Comment	Comment Date

Total: 0 comment(s)