

FORM  
2

Rev  
05/22

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:

403460561

Date Received:

07/11/2023

APPLICATION FOR PERMIT TO

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

Amend ☐

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

Refile ☐

ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐

Sidetrack ☒

Well Name: MOSER Well Number: 21-7HZ  
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: Christina Hirtler Phone: (720)929-6301 Fax: ( )  
Email: christina\_hirtler@oxy.com

FINANCIAL ASSURANCE FOR PLUGGING, ABANDONMENT, AND RECLAMATION

COGCC Financial Assurance

☒ The Operator has provided or will provide Financial Assurance to the COGCC for this Well.

Surety ID Number (if applicable): 20010124

Federal Financial Assurance

☐ In checking this box, the Operator certifies that it has provided or will provide at least this amount of Financial Assurance to the federal government for this Well. (Per Rule702.a.)

Amount of Federal Financial Assurance \$ \_\_\_\_\_

WELL LOCATION INFORMATION

Surface Location

QtrQtr: NENW Sec: 21 Twp: 3N Rng: 65W Meridian: 6

Footage at Surface: 443 Feet FNL/FSL 1665 Feet FEL/FWL

Latitude: 40.216956 Longitude: -104.671814

GPS Data: GPS Quality Value: 1.7 Type of GPS Quality Value: PDOP Date of Measurement: 03/03/2022

Ground Elevation: 4845

Field Name: WATTENBERG Field Number: 90750

Well Plan: is ☐ Directional ☒ Horizontal (highly deviated) ☐ Vertical

If Well plan is Directional or Horizontal attach Deviated Drilling Plan and Directional Data.

Subsurface Locations

Top of Productive Zone (TPZ)

Sec: 16 Twp: 3N Rng: 65W Footage at TPZ: 190 FSL 1321 FWL  
Measured Depth of TPZ: 7494 True Vertical Depth of TPZ: 7062 FNL/FSL FEL/FWL

**Base of Productive Zone (BPZ)**

Sec: 4 Twp: 3N Rng: 65W Footage at BPZ: 194 FNL 1317 FWL  
Measured Depth of BPZ: 22961 True Vertical Depth of BPZ: 7110 FNL/FSL FEL/FWL

**Bottom Hole Location (BHL)**

Sec: 4 Twp: 3N Rng: 65W Footage at BHL: 194 FNL 1317 FWL  
FNL/FSL FEL/FWL

**LOCAL GOVERNMENT PERMITTING INFORMATION**

County: WELD Municipality: N/A

Is the Surface Location of this Well in an area designated as one of State interest and subject to the requirements of § 24-65.1-108 C.R.S.? Yes

Per § 34-60-106(1)(f)(I)(A) C.R.S., the following questions pertain to the Relevant Local Government approval of the siting of the proposed Oil and Gas Location.

SB 19-181 provides that when "applying for a permit to drill," operators must include proof that they sought a local government siting permit and the disposition of that permit application, or that the local government does not have siting regulations. § 34-60-106(1)(f)(I)(A) C.R.S.

Does the Relevant Local Government regulate the siting of Oil and Gas Locations, with respect to this Location? ☒ Yes ☐ No

☒ If yes, in checking this box, I hereby certify that an application has been filed with the local government with jurisdiction to approve the siting of the proposed oil and gas location.

The disposition of the application filed with the Relevant Local Government is: Approved Date of Final Disposition: 09/29/2022

Comments: WOGLA #: 1041WOPGLA22-0003

**SURFACE AND MINERAL OWNERSHIP AT WELL'S OIL & GAS LOCATION**

Surface Owner of the land at this Well's Oil and Gas Location: ☒ Fee ☐ State ☐ Federal ☐ Indian

Mineral Owner beneath this Well's Oil and Gas Location: ☒ Fee ☐ State ☐ Federal ☐ Indian

Surface Owner Protection Bond (if applicable): \_\_\_\_\_ Surety ID Number (if applicable): \_\_\_\_\_

**MINERALS DEVELOPED BY WELL**

The ownership of all the minerals that will be developed by this Well is (check all that apply):

- ☒ Fee  
☒ State  
☒ Federal  
☐ Indian  
☐ N/A

## LEASE INFORMATION

Using standard QtrQtr, Section, Township, Range format describe one entire mineral lease as follows:

\* If this Well is within a unit, describe a lease that will be developed by the Well.

\* If this Well is not subject to a unit, describe the lease that will be produced by the Well.

(Attach a Lease Map or Lease Description or Lease if necessary.)

Township 3 North, Range 65 West, 6th P.M.

Section 18: ALL

Weld County, Colorado

Total Acres in Described Lease: 640

Described Mineral Lease is: ☒ Fee

☐ State

☐ Federal

☐ Indian

Federal or State Lease # \_\_\_\_\_

## SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 3827 Feet

Building Unit: 3852 Feet

Public Road: 430 Feet

Above Ground Utility: 5280 Feet

Railroad: 5280 Feet

Property Line: 443 Feet

### INSTRUCTIONS:

- Specify all distances per Rule 308.b.(1).
- 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 – as defined in 100 Series Rules.

## 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	407-3412	6160	T3N R65W; 04: All; 05: All; 08: All; 09: All; 16: All; 17: All; 18: All; 19: All; 20: W2W2, E2; 29: N2NE; 30: W2, NE

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

Unit Number: \_\_\_\_\_

## SUBSURFACE MINERAL SETBACKS

Enter 5280 for distance greater than 1 mile.

Is this Well within a unit? Yes

If YES:

Enter the minimum distance from the Completed Zone of this Well to the Unit Boundary: 190 Feet

Enter the minimum distance from the Completed Zone of this Well to the Completed Zone of an offset Well within the same unit permitted or completed in the same formation: 188 Feet

If NO:

Enter the minimum distance from the Completed Zone of this Well to the Lease Line of the described lease: \_\_\_\_\_ Feet

Enter the minimum distance from the Completed Zone of this Well to the Completed Zone of an offset Well producing from the same lease and permitted or completed in the same formation: \_\_\_\_\_ Feet

## Exception Location

☐ If this Well requires the approval of a Rule 401.c Exception Location, enter the Rule or spacing order number and attach the Exception Location Request and Waivers. \_\_\_\_\_

## SPACING & FORMATIONS COMMENTS

## DRILLING PROGRAM

Proposed Total Measured Depth: 22961 Feet

TVD at Proposed Total Measured Depth 7110 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: 83 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 Plan unless a plan was already submitted with the Form 2A per Rule 304.c.(10).

Will there be hydraulic fracture treatment at a depth less than 2,000 feet in this well? No

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

Beneficial reuse or land application plan submitted? Yes

Reuse Facility ID: \_\_\_\_\_ or Document Number: \_\_\_\_\_

## CASING PROGRAM

Casing Type	Size of Hole	Size of Casing	Grade	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
CONDUCTOR	26	16	A53B	36.94	0	80	64	80	0
SURF	13+1/2	9+5/8	L80	36	0	1701	660	1701	0
1ST	7+7/8	5+1/2	HCP110	17	0	22961	2628	22938	

☐ Conductor Casing is NOT planned

## POTENTIAL FLOW AND CONFINING FORMATIONS

Zone Type	Formation /Hazard	Top M.D.	Top T.V.D.	Bottom M.D.	Bottom T.V.D.	TDS (mg/L)	Data Source	Comment
Groundwater	FOX HILLS	17	17	562	562	501-1000	DWR	
Confining Layer	PIERRE SHALE	563	563	778	777			
Groundwater	UPPER PIERRE AQUIFER	779	778	1625	1612	1001-10000	Electric Log Calculation	
Confining Layer	PIERRE SHALE	1626	1613	4251	4227			
Hydrocarbon	SUSSEX	4252	4228	4619	4595			PRODUCTIVE
Confining Layer	PIERRE SHALE	4620	4596	6975	6881			
Hydrocarbon	NIOBRARA	6976	6882	0	0			

## OPERATOR COMMENTS AND SUBMITTAL

Comments

Well name and API #:

o Moser 21-7HZ

o 05-123-52025

Explanation of the situation that has resulted in the need to sidetrack

o After tripping out of the hole on the Moser 21-7HZ at 11,520' MD, the bearing end of the mud motor, all mud motor internals, and drill bit were left downhole. Oxy is requesting permission to sidetrack around these components to avoid a fishing job.

Total measured depth reached in the wellbore being plugged back

o 11,520' MD

Casing set – size(s) and measured depth(s)

o 9.625" surface casing set at 1901' MD

Description of fish in the hole (if any) – including top and bottom measured depths

o 7.875" drill bit, 6.5" motor lower end, mud motor internals

o Bottom of fish: 11,520'

o Top of fish: 11,495'

Description of proposed plugs: setting measured depths, heights, and cement volumes

o Open hole sidetrack – no plugs are planned to be set

Type of cement to be used for all plugs, including slurry weight (ppg) and yield (cf/sk)

o Open hole sidetrack – no plugs are planned to be set

Measured depth of proposed sidetrack kick-off point

o 10,885' MD

Proposed objective formation(s) for sidetrack hole – new or same as the wellbore being abandoned

o Same as original, permitted wellbore – Niobrara C

BHL target for sidetrack hole – new or same as the wellbore being abandoned

o Same as original, permitted wellbore

This application is in a Comprehensive Area Plan No CAP #: \_\_\_\_\_

Oil and Gas Development Plan Name \_\_\_\_\_ OGDID ID#: \_\_\_\_\_

Location ID: 336383

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

Signed: \_\_\_\_\_ Print Name: Christina Hirtler

Title: Regulatory Date: 7/11/2023 Email: christina\_hirtler@oxy.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, applicable orders, and SB 19-181 and is hereby approved.

COGCC Approved:  Director of COGCC Date: 7/13/2023

Expiration Date: 11/29/2025

API NUMBER

05 123 52025 01

### **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.**

<b>COA Type</b>	<b>Description</b>
Drilling/Completion Operations	<p>Per COGCC Order 1-232, Bradenhead tests shall be performed according to the following schedule and Form 17 submitted within 10 days of each test:</p> <p>1) Within 60 days of rig release, prior to stimulation. If any pressure greater than 200 psi is observed or if there is continuous flow, Operator must contact COGCC engineering for approval prior to stimulation.</p> <p>2) If a delayed completion, a second test is required between 6-9 months after rig release and must be conducted prior to stimulation. If any pressure greater than 200 psi is observed or if there is continuous flow, Operator must contact ECMC engineering for approval prior to stimulation.</p> <p>3) A post-production test within 60 days after first sales, as reported on the Form 10, Certificate of Clearance.</p>
Drilling/Completion Operations	<p>Operator acknowledges the proximity of the listed non-operated wells. Operator assures that this offset list will be remediated per the Offset Well Evaluation and Hydraulic Fracturing Operator Guidance Document (option 4). Operator will submit a Form 42 ("OFFSET MITIGATION COMPLETED") stating that appropriate mitigation will be completed, during the hydraulic stimulation of this well. This Form 42 shall be filed 48 hours prior to stimulation. Surface and production casing pressures of this offset well list will be actively monitored during the entire stimulation treatment of this pad. If there is indication of communication between the stimulation treatment and an offset well, treatment will be stopped and COGCC Engineering notified.</p> <p>123-29341 MOSER #27-21  123-31770 MOSER #H28-30  123-35347 REI H #17-21D  123-44609 Centennial State #G34-612  123-46838 Lory #9N  123-46854 Lory #8N</p>
Drilling/Completion Operations	<p>Operator acknowledges the proximity of the listed non-operated well. Operator assures that this offset will be remediated per the Offset Well Evaluation and Hydraulic Fracturing Operator Guidance Document Operator using Option 3. Operator will submit a Form 42 ("OFFSET MITIGATION COMPLETED") stating what appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of this well.</p> <p>123-13323 BEEBE DRAW UPPR #42-9 #4</p>

Drilling/Completion Operations	<p>Operator acknowledges the proximity of the listed wells. Operator agrees to: provide mitigation option 1 or 2 (per the Offset Well Evaluation and Hydraulic Fracturing Operator Guidance Document) to mitigate the situation, ensure all applicable documentation is submitted based on the selected mitigation option chosen, and submit a Form 42 ("OFFSET MITIGATION COMPLETED") stating that appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of this well.</p> <p>123-07256 J J WARDELL 'B' #1  123-07670 STATE #23  123-10438 B B DRAW H FEDERAL #4-4J  123-10535 B B DRAW H #3-3J  123-12720 ARISTOCRAT #42-4C  123-13323 BEEBE DRAW UPRR #42-9 #4  123-13659 ARISTOCRAT ANGUS #22-4  123-13660 ARISTOCRAT ANGUS #24-4  123-13661 ARISTOCRAT ANGUS #31-4  123-13662 ARISTOCRAT ANGUS #33-4  123-14204 BEEBE DRAW UPRR #41-17  123-14203 BEEBE DRAW UPRR #32-17  123-14205 BEEBE DRAW UPRR #42-17  123-14455 UPRR 22 PAN AM #UNIT "T" #1  123-14736 BEEBE DRAW UPRR #32-9  123-15052 MEGAN H #16-10  123-15076 MEGAN H #16-7  123-15111 MEGAN H #16-2  123-15112 MEGAN H #16-6  123-15114 MEGAN H #16-2J  123-16449 ARISTOCRAT ANGUS #13-4  123-16572 ARISTOCRAT ANGUS #23-4C  123-17032 ARISTOCRAT ANGUS #14-10  123-17136 FEDERAL #12-10  123-17263 HSR-RICHARDS #16-9A  123-17304 HSR-OBORNE #9-5  123-20457 BB Draw Federal #H04-07JI  123-22396 ARISTOCRAT ANGUS FEDERAL #1-2-10</p>
Drilling/Completion Operations	<p>1) Submit Form 42 electronically to COGCC 2 business days prior to MIRU (spud notice) for the first well activity with a rig on the pad and provide 2 business day spud notice via Form 42 for all subsequent wells drilled on the pad.</p> <p>2) Comply with Rule 408.j. and provide cement coverage from TD to a minimum of 500' above Niobrara and from 500' below Sussex to 500' above Sussex. Verify coverage with a cement bond log.</p>
5 COAs	

## Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Drilling/Completion Operations	KMOG 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: KMOG will perform an anti-collision evaluation of all active (producing, shut in, or temporarily abandoned) offset wellbores that have the potential of being within 150 feet of a proposed well prior to drilling operations for the proposed well. Notice shall be given to all offset operators within 150 feet prior to drilling.
3	Drilling/Completion Operations	Open Hole Logging Exception: One of the first wells drilled on the pad will be logged with cased-hole neutron log with 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 (or intermediate casing if a 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 in that well and have those logs attached. The Form 5 for each well shall state "Open Hole Logging Exception-No open-hole logs were run" and shall clearly identify the type of log and the well (by API number) in which open-hole logs were run.

Total: 3 comment(s)

## Attachment List

<u>Att Doc Num</u>	<u>Name</u>
1517553	WELLBORE DIAGRAM
403460561	FORM 2 SUBMITTED
403460796	DRILLING PLAN
403460797	DIRECTIONAL DATA
403460801	OTHER

Total Attach: 5 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed.	07/13/2023
Permit	Permitting review complete.	07/12/2023
Permit	<p>Emailed operator for clarification on Well Location tab's Measured Depth of BPZ and True Vertical Depth of BPZ as compared to Drilling tab's Proposed Total Measured Depth and TVD at Proposed Total Measured Depth.</p> <p>Requested permission to add BMP/COA from original form 2.</p> <p>Requested updated/corrected Wellbore Diagram showing whole sidetrack drawn out.</p> <p>Per operator's concurrence Drilling tab depth is accurate.</p> <p>Operator provided permission for BMP/COA to be added from original form 2.</p> <p>Operator provided updated/corrected WBD - uploaded corrected version and deleted incorrect WBD.</p> <p>Corrected API under Submission tab to represent sidetrack -00 to -01.</p>	07/12/2023
Permit	<p>Open: Emailed the SLB to notify them of this pending application.</p> <p>Close: SLB has no concerns with this application.</p>	07/12/2023
OGLA	This Location and its associated Form 2A materials, and the Form 2 Application for Permit to Drill were fully evaluated in accordance with current Rules and approved prior to the commencement of drilling operations for this well. Because this is an application for an unplanned sidetrack with drilling in progress, an Oil and Gas Location Assessment review is not applicable to this ongoing operation. OGLA Task passed.	07/12/2023

Total: 5 comment(s)