

FORM
2

Rev
12/20

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:

402496881

Date Received:

09/15/2021

APPLICATION FOR PERMIT TO:

Drill Deepen Re-enter Recomplete and Operate

Amend

Refile

Sidetrack

TYPE OF WELL OIL GAS COALBED OTHER: _____
ZONE TYPE SINGLE ZONE MULTIPLE ZONES COMMINGLE ZONES

Well Name: SBJ Well Number: 13-12HZ
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: SAMANTHA PETITE Phone: (720)929-3167 Fax: ()
Email: SAMANTHA_PETITE@OXY.COM

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20010124

WELL LOCATION INFORMATION

Surface Location

QtrQtr: SWNW Sec: 13 Twp: 4N Rng: 68W Meridian: 6
Footage at Surface: 2306 Feet FNL 1096 Feet FWL
Latitude: 40.314723 Longitude: -104.956788
GPS Data: GPS Quality Value: 1.5 Type of GPS Quality Value: PDOP Date of Measurement: 02/25/2020
Ground Elevation: 4859
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: 13 Twp: 4N Rng: 68W Footage at TPZ: 1295 FSL 551 FWL
Measured Depth of TPZ: 7864 True Vertical Depth of TPZ: 7196 FNL/FSL FEL/FWL
Base of Productive Zone (BPZ)
Sec: 15 Twp: 4N Rng: 68W Footage at BPZ: 1316 FSL 420 FWL
Measured Depth of BPZ: 18644 True Vertical Depth of BPZ: 6538 FNL/FSL FEL/FWL
Bottom Hole Location (BHL)
Sec: 15 Twp: 4N Rng: 68W Footage at BHL: 1316 FSL 420 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: 10/22/2020

Comments: 1041 WOGLA has been submitted to Weld County and was approved on 10/22/2020. 1041 WOGLA 20-0010.

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 Financial Assurance (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.)

See attached mineral lease map.

Total Acres in Described Lease: 203 Described Mineral Lease is: Fee State Federal Indian

Federal or State Lease # _____

SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 680 Feet
Building Unit: 680 Feet
Public Road: 2295 Feet
Above Ground Utility: 2284 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.

Railroad: 4959 Feet
Property Line: 324 Feet

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 | 407-3230 | 1640 | 4N68W: SEC 13 NW, W2NE4, N2SW4, SWSW, SEC 14 ALL, SEC 15 ALL |

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: 420 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: 382 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: 18644 Feet TVD at Proposed Total Measured Depth 6538 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: 429 Feet No well belonging to another operator within 1,500 feet

Will a closed-loop drilling system be used? Yes

Is H₂S 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 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 | ASTM A53 B | 36.94 | 0 | 80 | 64 | 80 | 0 |
| SURF | 13+1/2 | 9+5/8 | L80 | 40 | 0 | 1500 | 590 | 1500 | 0 |
| 1ST | 7+7/8 | 5+1/2 | HCP110 | 17 | 0 | 18634 | 2101 | 18634 | |

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 and Shallower | 17 | 17 | 575 | 575 | 0-500 | USGS | |
| Groundwater | Upper Pierre (Pawnee) | 576 | 576 | 1085 | 1078 | 1001-10000 | Electric Log Calculation | |
| Confining Layer | Pierre Shale | 1086 | 1079 | 3475 | 3355 | | | |
| Hydrocarbon | Parkman | 3476 | 3356 | 3912 | 3771 | | | |
| Confining Layer | Pierre Shale | 3913 | 3772 | 3968 | 3824 | | | |
| Hydrocarbon | Sussex | 3969 | 3825 | 4234 | 4077 | | | |
| Confining Layer | Pierre Shale | 4235 | 4078 | 4537 | 4365 | | | |
| Hydrocarbon | Shannon | 4538 | 4366 | 4661 | 4483 | | | |
| Confining Layer | Pierre Shale | 4662 | 4484 | 6964 | 6651 | | | |
| Hydrocarbon | Niobrara | 6965 | 6652 | 8786 | 7004 | | | |
| Hydrocarbon | Codell | 8814 | 7005 | 9423 | 7027 | | | |

OPERATOR COMMENTS AND SUBMITTAL

Comments

PLEASE ENSURE ALL CORRESPONDENCE ASSOCIATED WITH THIS PERMIT GOES TO ANALYST AND DJREGULATORY EMAIL ADDRESSES, AS LISTED ON THIS PERMIT.

Offset well buffer description for the subject well has been included on this permit for review as an attachment labeled 'Other'.

Base of Productive Zone is the same as Bottom Hole Location.

The nearest offset wellbore permitted or completed in the same formation is: SBJ 13-5HZ, Doc #: 402496874

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

OGDP ID#: OGDP Name: Expiration Date:

Location ID: 479198 Location Name:

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

Signed: Print Name: SAMANTHA PETITE

Title: REGULATORY ANALYST Date: 9/15/2021 Email: DJREGULATORY@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: 9/17/2021

Expiration Date: 09/16/2024

| |
|--------------------------------------|
| API NUMBER 05 123 51598 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.

Condition of Approval

| <u>COA Type</u> | <u>Description</u> |
|--------------------------------|--|
| Drilling/Completion Operations | <p>Operator acknowledges the proximity of the listed wells. Operator agrees to: provide mitigation option 4 (per the Offset Well Evaluation and Hydraulic Fracturing Operator Guidance Document). Operator will submit a Form 42 ("OTHER – AS SPECIFIED BY PERMIT CONDITION") 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. A Bradenhead test will be performed on the offset wells listed below within 30 days prior to the beginning of stimulation of this well. Surface and production casing pressures of this offset well list will be actively monitored during stimulation of this well. Records shall be retained and provided to COGCC engineering upon request. If there is indication of communication between the stimulation treatment and an offset well, treatment will be stopped and COGCC Engineering notified.</p> <p>123-26143 STARCK *31-18 123-34984 Lamb *41-15 123-40780 SRC Cannon *14-16NHZ 123-40785 SRC Cannon *S-16NHZ 123-44810 MLD *9</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>123-09853 LITTLE THOMPSON GAS UNIT *1 123-10699 CRESSWELL *1 123-11588 BEIN * #1 123-12423 Dunklee 2</p> |
| Drilling/Completion Operations | <p>1) Submit Form 42 electronically to COGCC 48 hours prior to MIRU (spud notice) for the first well activity with a rig on the pad and provide 48 hour 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. Verify coverage with a cement bond log.</p> <p>3) Oil-based drilling fluid is to be used only after all fresh water aquifers are covered.</p> |
| 3 COAs | |

Best Management Practices

| No | BMP/COA Type | Description |
|----|--------------------------------|--|
| 1 | 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. |
| 2 | 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. |
| 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 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 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#) in which open-hole logs were run. |

Total: 3 comment(s)

Attachment List

| Att Doc Num | Name |
|-------------|-----------------------------|
| 402496881 | FORM 2 SUBMITTED |
| 402759287 | DIRECTIONAL DATA |
| 402759288 | DEVIATED DRILLING PLAN |
| 402759290 | WELL LOCATION PLAT |
| 402759305 | OTHER |
| 402783639 | MINERAL LEASE MAP |
| 402784825 | OPEN HOLE LOGGING EXCEPTION |
| 402815040 | OFFSET WELL EVALUATION |

Total Attach: 8 Files

General Comments

| User Group | Comment | Comment Date |
|------------|---|--------------|
| Permit | Permitting review complete. Final review complete. | 09/15/2021 |
| Engineer | Returned to draft for updates to PFZ table. | 09/14/2021 |
| Permit | Final Review Completed. | 09/08/2021 |
| Permit | With operators concurrence changed: Mineral lease description to "See attached mineral lease map." Permitting Review Complete. | 08/31/2021 |
| OGLA | The Location and its associated Form 2A materials were fully reviewed during the review of this APD. The Form 2A (doc# 402376823) for this location was approved with COAs to provide air, dust, light, odor, and noise plans for this location (Loc ID: 479198) prior to construction. The COA for air monitoring was satisfied via Sundry doc# 402718071 and the COAs for dust, light, odor, and noise plans was satisfied via Sundry doc# 402781450. This APD complies with all COGCC Rules and is adequately protective of public health, safety, welfare, the environment, and wildlife resources. OGLA task passed. | 08/30/2021 |
| Permit | Location ID missing. Return to draft. | 12/18/2020 |

Total: 6 comment(s)

