

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:

402809146

(SUBMITTED)

Date Received:

12/21/2021

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: Berry IC Well Number: 11-239HN
Name of Operator: GREAT WESTERN OPERATING COMPANY LLC COGCC Operator Number: 10110
Address: 1001 17TH STREET #2000
City: DENVER State: CO Zip: 80202
Contact Name: Linsey Jones Phone: (720)595-2218 Fax: ()
Email: ljones@gwp.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20160041

WELL LOCATION INFORMATION

Surface Location

QtrQtr: SWNW Sec: 8 Twp: 3N Rng: 67W Meridian: 6
Footage at Surface: 1405 Feet FNL/FSL 705 Feet FEL/FWL
Latitude: 40.243884 Longitude: -104.920742
GPS Data: GPS Quality Value: 1.5 Type of GPS Quality Value: PDOP Date of Measurement: 05/06/2020
Ground Elevation: 4842
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: 7 Twp: 3N Rng: 67W Footage at TPZ: 1100 FSL 1 FEL
Measured Depth of TPZ: 8206 True Vertical Depth of TPZ: 7062 FNL/FSL FEL/FWL

Base of Productive Zone (BPZ)

Sec: 11 Twp: 3N Rng: 68W Footage at BPZ: 1101 FSL 370 FEL
Measured Depth of BPZ: 19083 True Vertical Depth of BPZ: 7062 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)

Sec: 11 Twp: 3N Rng: 68W Footage at BHL: 1100 FSL 470 FEL
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: 01/24/2019

Comments:

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.)

Section 7-T3N-R67W: All except N2NE

Total Acres in Described Lease: 560 Described Mineral Lease is: ☒ Fee ☐ State ☐ Federal ☐ Indian

Federal or State Lease # _____

SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 1059 Feet
Building Unit: 1215 Feet
Public Road: 700 Feet
Above Ground Utility: 737 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: 5280 Feet
Property Line: 705 Feet

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	407-3196	1600	3N-67W: 7:All, 8:W2W2, 3N-68W: 11:E2E2, 12: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: 944 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: 223 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: 19183 Feet

TVD at Proposed Total Measured Depth 7062 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: 69 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? No

BOP Equipment Type: ☒ Annular Preventor ☒ Double Ram ☒ Rotating Head ☐ None

Beneficial reuse or land application plan submitted?

Reuse Facility ID: or Document Number:

CASING PROGRAM

<u>Casing Type</u>	<u>Size of Hole</u>	<u>Size of Casing</u>	<u>Grade</u>	<u>Wt/Ft</u>	<u>Csg/Liner Top</u>	<u>Setting Depth</u>	<u>Sacks Cmt</u>	<u>Cmt Btm</u>	<u>Cmt Top</u>
SURF	13+1/2	9+5/8	J55	36	0	2023	853	2023	0
1ST	8+1/2	5+1/2	HCP110	20	3	19183	2758	19183	2560

☒ Conductor Casing is NOT planned

POTENTIAL FLOW AND CONFINING FORMATIONS

<u>Zone Type</u>	<u>Formation /Hazard</u>	<u>Top M.D.</u>	<u>Top T.V.D.</u>	<u>Bottom M.D.</u>	<u>Bottom T.V.D.</u>	<u>TDS (mg/L)</u>	<u>Data Source</u>	<u>Comment</u>
Groundwater	Base Fox Hills	0	0	3	3	501-1000	USGS	USGS WSP 2302
Confining Layer	Pierre	3	3	218	218			
Groundwater	Upper Pierre Aquifer	218	218	1163	1163	1001-10000	Other	COGCC Report, Paper 2141
Confining Layer	Pierre	1163	1163	3744	3552			
Hydrocarbon	Parkman	3744	3552	3834	3630			
Confining Layer	Pierre	3834	3630	4312	4044			
Hydrocarbon	Sussex	4312	4044	4462	4174			
Confining Layer	Pierre	4462	4174	4870	4527			
Hydrocarbon	Shannon	4870	4527	4915	4566			
Confining Layer	Pierre	4915	4566	7564	6829			
Confining Layer	Sharon Springs	7564	6829	7587	6844			
Hydrocarbon	Niobrara	7587	6844	7668	6895			

OPERATOR COMMENTS AND SUBMITTAL**Comments**

This is a refile Form 2; there are changes to the Surface Hole Location, safety setback distances, Total Depth, casing and cement program, and Drilling and Spacing Unit. Updated offset well evaluation, well location plat, deviated drilling plan, and directional data template are attached.

A sundry, document #402809088, has been submitted for the built Berry IC Pad to update the cultural features map, directional well plat, layout drawings, location drawing, and equipment. There will be no additional disturbance on this pad.

Based on 3D calculation of difference in footages, the nearest well permitted or completed in the same formation (and in this DSU) is the proposed Berry IC 11-239HNX.

Distance from the proposed wellbore to nearest existing or proposed wellbore belonging to another operator, including plugged and abandoned wells, was measured at 69 feet to the HSR- Palmer #12-8, API No 05-123-19310, PA Status, owned by Kerr McGee Oil & Gas Onshore LP, and is measured using in-house 3D anti-collision reports. However, the status of this well is plugged and abandoned and therefore a 408.u consent is not required.

There are additional wells within 150' from the proposed wellbore belonging to another operator. Distance was measured to the Owen #12-1 (API No. 05-123-10756) owned by KP Kauffman Company Inc., and the Houston #33C-8HZ (API No. 05-123-38952) owned by Kerr McGee Oil & Gas Onshore LP, and were measured using inhouse 3D Anti-collision reports. 408.u signed consent is attached.

There is an additional well within 150' from the proposed wellbore belonging to another operator. Distance was measured to the Ruth Elizabeth Hicks #2, API No 05-123-08117, owned by Kerr McGee Oil & Gas Onshore LP, and is measured using inhouse 3D Anti-collision reports. However, the status of this well is plugged and abandoned and therefore a 408.u consent is not required.

This application is in a Comprehensive Area Plan _____

CAP #: _____

Oil and Gas Development Plan Name _____

OGDP ID#: _____

Location ID: 461939

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

Signed: _____

Print Name: Linsey Jones

Title: Regulatory Analyst

Date: 12/21/2021

Email: ljones@gwp.com

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: _____

Expiration Date: _____

API NUMBER

05 123 49859 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

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Best Management Practices

No	BMP/COA Type	Description
1	Drilling/Completion Operations	Multi Well Open-Hole Logging – Rule 408.r Alternative Logging Program: An existing well on the pad was logged with open-hole 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 state “Alternative Logging Program - 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.
2	Drilling/Completion Operations	Bradenhead Monitoring Great Western will comply with Rule 419 and Order 1-232 for all Bradenhead compliance, as applicable.
3	Drilling/Completion Operations	Drill stem tests Rule 603.g Conventional drill stem tests will not be conducted on DJ Basin horizontal wells currently being executed or planned by Great Western. If plans change in the future a well specific drill stem testing plan will be prepared for that particular well. Note that Great Western may elect to use one of several available wireline deployed tools for the purpose of measuring down hole formation pressures and/or collecting down hole fluid samples from the target formation(s) of a particular well.
4	Drilling/Completion Operations	Wellbore Collision Prevention – Rule 408.t Prior to drilling operations, Great Western will perform an anti-collision scan of existing offset wells that have the potential of being within close proximity of the proposed well. This anti-collision scan will include definitive MWD or gyro surveys of the offset wells with included error of uncertainty per survey instrument and compared against the proposed well path with its respective error of uncertainty. If current surveys do not exist for the offset wells, Operator may have gyro surveys conducted to verify bottom hole location. The proposed well will only be drilled if the anti-collision scan results indicate that there is not a risk for collision, or harm to people or the environment. Operator will perform anti-collision evaluation of the all active (Producing, Shut In, or Temporarily Abandoned) offset wellbores that have the potential of being within 150' of a proposed well prior to drilling operations for the proposed well. Notice shall be given to all offset operators prior to drilling.

Total: 4 comment(s)

Attachment List

Att Doc Num	Name
402811017	DEVIATED DRILLING PLAN
402811018	WELL LOCATION PLAT
402811019	DIRECTIONAL DATA
402849539	OffsetWellEvaluations Data
402906656	STIMULATION SETBACK CONSENT

Total Attach: 5 Files

General Comments

User Group	Comment	Comment Date
		Stamp Upon Approval

Total: 0 comment(s)

Public Comments

No public comments were received on this application during the comment period.

