

FORM  
2

Rev  
08/16

## 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:

401756352

#### 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:

09/07/2018

Well Name: Boies Ranch B-19N FED

Well Number: 21D-19-02-97

Name of Operator: URSA OPERATING COMPANY LLC

COGCC Operator Number: 10447

Address: 1600 BROADWAY ST STE 2600

City: DENVER State: CO Zip: 80202

Contact Name: Kelsi Welch

Phone: (303)257-0107

Fax: ( )

Email: kwelch@quandaryconsultants.com

#### RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20120125

#### WELL LOCATION INFORMATION

QtrQtr: SESW Sec: 19 Twp: 2S Rng: 97W Meridian: 6

Latitude: 39.857633

Longitude: -108.328649

Footage at Surface: 1125 Feet FNL/FSL FSL 1552 Feet FEL/FWL FWL

Field Name: SULPHUR CREEK

Field Number: 80090

Ground Elevation: 6305

County: RIO BLANCO

GPS Data:

Date of Measurement: 01/05/2017 PDOP Reading: 1.1 Instrument Operator's Name: P. Hoffmann

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

Footage at Top of Prod Zone: FNL/FSL FNL/FWL Bottom Hole: FNL/FSL FEL/FWL

1055 FNL 1738 FWL 1055 FNL 1738 FWL  
Sec: 19 Twp: 2S Rng: 97W Sec: 19 Twp: 2S Rng: 97W

#### 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: No

The right to construct the Oil and Gas Location is granted by: applicant is owner

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.)

Federal lease COC078270 covering portions of T2S-R97W, Sections 19 & 30. Please see mineral lease map attached.

Total Acres in Described Lease: 722 Described Mineral Lease is: ☐ Fee ☐ State ☒ Federal ☐ Indian

Federal or State Lease # COC078270

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 1055 Feet

## CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 1108 Feet

Building Unit: 3569 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 205 Feet

Above Ground Utility: 352 Feet

Railroad: 5280 Feet

Property Line: 202 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: \_\_\_\_\_

## SPACING and UNIT INFORMATION

Distance from completed portion of proposed wellbore to nearest completed portion of offset wellbore permitted or completed in the same formation: 330 Feet

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

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

## SPACING & FORMATIONS COMMENTS

## OBJECTIVE FORMATIONS

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
ILES	ILES	1-229		
WILLIAMS FORK	WMFK	1-229		

## DRILLING PROGRAM

Proposed Total Measured Depth: 12110 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: 1216 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 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? No

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 609

## DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Methods: Recycle/reuse

Cuttings Disposal: OFFSITE Cuttings Disposal Method: Beneficial reuse

Other Disposal Description:

Please see Waste Management Plan attached to associated 2A.

Beneficial reuse or land application plan submitted?

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
CONDUCTOR	24	18	47.4	0	60	87	60	0
SURF	12+1/4	8+5/8	32	0	3956	432	3956	2327
1ST	7+7/8	4+1/2	11.6	0	12110	1086	12110	
		8+5/8	Stage Tool		2327	588	2327	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 Distance to nearest well completed in the same formation /permitted or existing well penetrating objective formation was measured to Ursa's BOIES RANCH B-19N 22A-19-02-97. Distance to the nearest well completed in the same formation / permitted or existing well belonging to another operator was measured to Riata Energy Inc's Sulphur Creek-Federal 2 well, P&A (API 05-103-05152).

This well is being proposed from an existing pad on Ursa-owned surface. The proposed well will BHL on federal minerals. Pre-application notifications were not required as all Surface owners within 1000' are Ursa or Federal and there are no building units located within 1000' of the pad location. Ursa will be pursuing Federal APDs for the proposed BOIES RANCH B-19N wells concurrently with this application.

This application is in a Comprehensive Drilling Plan No CDP #: \_\_\_\_\_

Location ID: 311852

Is this application being submitted with an Oil and Gas Location Assessment application? No

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

Signed: \_\_\_\_\_ Print Name: Kelsi Welch

Title: Regulatory Analyst Date: 9/7/2018 Email: kwelch@quandaryconsultants.c

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: 1/9/2019

Expiration Date: 01/08/2021

### API NUMBER

05 103 11447 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**

	1) If conductors are preset, Operator shall comply with Notice to Operators: Procedures for Preset Conductors (dated September 1, 2016, revised October 6, 2016).  2) Operator shall comply with Notice to Operators: Interim Reclamation Procedures for Delayed Operation (dated January 5, 2017).
	1) Operator shall comply with the most current revision of the Northwest Notification Policy.  2) Operator shall provide cement coverage from the production casing shoe (4+1/2" FIRST STRING) to a minimum of 200' above all Mesaverde Group (and Ohio Creek Formation, if present) oil, gas, and water-bearing sandstone and coalbed formations. Verify production casing cement coverage with a cement bond log.

## **Best Management Practices**

### **No BMP/COA Type**

### **Description**

1	Drilling/Completion Operations	One of the first wells that Ursa Operating Company drills on the pad will be logged with open-hole Resistivity Log and Gamma Ray Log from TD 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 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 open hole logs were run.
---	--------------------------------	---

Total: 1 comment(s)

## **Applicable Policies and Notices to Operators**

NW Colorado Notification Policy.

[http://cogcc.state.co.us/documents/reg/Policies/nw\\_notification\\_procedures.pdf](http://cogcc.state.co.us/documents/reg/Policies/nw_notification_procedures.pdf)

Notice Concerning Operating Requirements for Wildlife Protection.

[http://cogcc.state.co.us/documents/reg/Policies/Wildlife\\_Notice.pdf](http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf)

## **Attachment Check List**

### **Att Doc Num**

### **Name**

401756352	FORM 2 SUBMITTED
401756874	MINERAL LEASE MAP
401778711	WELL LOCATION PLAT
401778713	DEVIATED DRILLING PLAN
401778715	DIRECTIONAL DATA

Total Attach: 5 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	-Corrected mineral lease typo from 67W to 97W -Replaced WMFK spacing order from 527-20 and ILES 527-21 to 1-229 as they didn't create a unit and lands are subject to spacing order 1-229 -Entered API from existing AL on pad for reuse and changed to a refile -All corrections made with operator concurrence	12/28/2018
Permit	Preliminary review complete.	11/05/2018
Engineer	Offset water well check: COGCC evaluated offset water wells within one mile of this proposed well's surface hole location. This information in addition to locally-available geophysical logs and hydrogeologic information was used to evaluate the adequacy of the operator's proposed surface casing setting depth. The deepest water well within one mile is 35 feet. Per operator, the surface casing shoe depth is designed to completely cover the Green River formation and loss circulation zones in the upper Wasatch.  Offset Well Evaluation: Evaluated offset well Sulphur Creek-Federal #5 API #103-05140. Drilled to 9018' and cemented with 900 sacks. Plugged adequately per COGCC document #358137. No remediation required for offset Mesaverde stimulation. Existing offset oil and gas wells within 1,500 feet of this wellbore meet standards. No mitigation required.  Offset well B-19N #SWD #1 API#103-11000 reportedly injects into the Wasatch G and Fort Union formations. The shallowest perforation is at 4330' and the Wasatch G top is possibly incorrectly reported at 3795'. The sand being injected into shows a top at 4300'. Cement coverage is to be 200' above this sand at a total vertical depth of 4100'. See Condition of Approval #2 for cement isolation requirements.	10/15/2018
Permit	Corrected distance to lease line from 1060' to 1055' as per well location plat. No unit is created with this spacing order therefore the Unit Configuration has been deleted with operator concurrence. Form passes completeness.	10/12/2018
Permit	Returning form to draft at operator request.	09/17/2018

Total: 5 comment(s)