

FORM
2
Rev
02/20

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:
402052255

APPLICATION FOR PERMIT TO:

Drill Deepen Re-enter Recomplete and Operate

Date Received:
06/04/2019

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

Refiling
Sidetrack

Well Name: Big Mountain Viper Fed 8-59 Well Number: 16-17-18-5
Name of Operator: BISON OIL & GAS II LLC COGCC Operator Number: 10661
Address: 518 17TH STREET #1800
City: DENVER State: CO Zip: 80202
Contact Name: Abigail Wenk Phone: (720)6446997 Fax: ()
Email: awenk@bisonog.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20190035

WELL LOCATION INFORMATION

QtrQtr: NWSW Sec: 16 Twp: 8N Rng: 59W Meridian: 6
Latitude: 40.661118 Longitude: -103.989098
Footage at Surface: 2298 Feet FNL/FSL FSL 560 Feet FEL/FWL FWL
Field Name: WILDCAT Field Number: 99999
Ground Elevation: 4876 County: WELD
GPS Data: GPS Quality Value: 1.3 Type of GPS Quality Value: PDOP Date of Measurement: 03/15/2019
Instrument Operator's Name: CHAD MEIERS

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

Footage at Top of Prod Zone: FNL/FSL FNL 300 FEL/FWL FEL Bottom Hole: FNL/FSL FNL 2615 FEL/FWL FEL
Sec: 17 Twp: 8N Rng: 59W Sec: 18 Twp: 8N Rng: 59W

LOCAL GOVERNMENT INFORMATION

County: WELD Municipality: N/A

Per § 34-60-106 (1)(f)(I)(A), the following questions pertain to the "local government with jurisdiction to approve the siting of the proposed oil and gas location."

The local government with jurisdiction is: County

Does the local government with jurisdiction regulate the siting of Oil and Gas Locations, with respect to this location? If the local government does regulate the siting, but has waived its right to precede the COGCC in siting determination, indicate by selecting "YES" here and selecting "Waived" for the disposition below. 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 local government siting permit type is: WOGLA

The local government siting permit was filed on: 08/01/2019

The disposition of the application filed with the local government is: Approved

Additional explanation of local process:

WELD COUNTY HAS WAIVED THE RIGHT TO PRECEDE COGCC IN SITING.
WOGLA 19-0187 was approved on 12/09/2019.

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: Surface Use Agreement

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.)

Township 8N, Range 59W, 6th PM
Section 18: Lot 2, SENW, S2NE, SE

Total Acres in Described Lease: 321 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: 5280 Feet
Building Unit: 5280 Feet
High Occupancy Building Unit: 5280 Feet
Designated Outside Activity Area: 5280 Feet
Public Road: 4669 Feet
Above Ground Utility: 4659 Feet
Railroad: 5280 Feet
Property Line: 560 Feet
School Facility: 5280 Feet
School Property Line: 5280 Feet
Child Care Center: 5280 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, Designated Outside Activity Area, School Facility, and Child Care Center – 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: 304 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 300 Feet (Enter 5280 for distance greater than 1 mile.)

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

SPACING & FORMATIONS COMMENTS

Docket No. 190600421 JUNE Hearing.

If this Form 2 is associated with a Drilling and Spacing Unit application, provide docket number: _____

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	535-1208	1927	S.13, 17, 18: ALL

DRILLING PROGRAM

Proposed Total Measured Depth: 14210 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: 306 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 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 609

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Methods: Commercial Disposal

Cuttings Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

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	26	16	43	0	100	50	100	0
SURF	13+1/2	9+5/8	36	0	1850	650	1850	0
1ST	8+1/2	5+1/2	20	0	14210	1860	14210	

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

Per Weld County Code Sec. 23-2-1020.B., a WOGLA Notice, informing the Weld County Local Government Designee of Bison Oil & Gas II's intentions to submit a WOGLA, was sent to Jason Maxey 5.21.19. The WOGLA application will be submitted in tandem with this APD & corresponding Form 2A.

The Boomslang Fed 8-60 14A-13-18-5 (Bison Oil & Gas II, LLC), is the nearest well in the same formation, the distance was measured using 2D manual calculations.

The nearest wellbore belonging to another operator was measured to the DOROTHY STATE #LG16-785 [API #: 123-47611], operated by NOBLE ENERGY INC. The distance was measured using 3D manual calculations. The well status is PR.

No wells owned by other operators are Producing, Temporarily Abandoned, or Shut-In within 150' of this wells productive lateral, therefore stimulation setback consent is not needed.

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: Ariana Solis _____

Title: Regulatory Analyst Date: 6/4/2019 Email: asolis@bisonog.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: 2/28/2020

Expiration Date: 02/27/2022

API NUMBER 05 123 50833 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.

<u>COA Type</u>	<u>Description</u>
Drilling/Completion Operations	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. 2) Comply with Rule 317.j. and provide cement coverage from TD to a minimum of 200' above Niobrara. Verify coverage with cement bond log. 3) Oil-based drilling fluid is to be used only after all fresh water aquifers are covered.
Drilling/Completion Operations	Operator acknowledges the proximity of the listed non-operated well: Operator agrees to: provide mitigation option 3 (per the DJ Basin Horizontal Offset Policy) 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") for the remediated wells, referencing the API number of the proposed horizontal well(s) stating what appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of these wells. 123-05556 State 1
Drilling/Completion Operations	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: 1) Within 60 days of rig release, prior to stimulation. If any pressure greater than 200 psi, must contact COGCC engineer prior to stimulation. 2) If a delayed completion, 6 months after rig release and prior to stimulation. If any pressure greater than 200 psi, must contact COGCC engineer prior to stimulation. 3) A post-production test within 60 days after first sales, as reported on the Form 10, Certificate of Clearance.

Best Management Practices

No	BMP/COA Type	Description
1	Drilling/Completion Operations	Alternative Logging Program: One of the first wells drilled on the pad will be 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	When a skid is performed, if a previous well on that pad has completed a full BOPE test within the past 21 days, then the only required BOPE tests are for the BOPE connections that were broken during the skid. The purpose of this is to prevent the wear and tear on the choke line and kill line valves. The annular and double rams will be tested as per usual and all broken connections will also be tested (annular to 70% of rated pressure, all other valves and connections will be tested to full rated pressure). Under no circumstances will 21 days be exceeded without completing a full BOPE test to all connections including all choke and kill line valves. Daily function test / activation of pipe rams are still required in addition to a preventer operator test on each trip.
3	Drilling/Completion Operations	Anti-collision: Operator 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 prior to drilling.

Total: 3 comment(s)

Applicable Policies and Notices to Operators

Notice Concerning Operating Requirements for Wildlife Protection.
http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf

Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area.
<http://cogcc.state.co.us/documents/reg/Policies/PolicyGwaBradenheadMonitoringFinal.pdf>

Attachment Check List

Att Doc Num	Name
402052255	FORM 2 SUBMITTED
402052258	DIRECTIONAL DATA
402052261	SURFACE AGRMT/SURETY
402052262	DEVIATED DRILLING PLAN
402052263	WELL LOCATION PLAT
402052264	OffsetWellEvaluations Data
402327211	OFFSET WELL EVALUATION

Total Attach: 7 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Checked the surface owner is the mineral owner check box since the State of Colorado owns both the surface and minerals, received operator's concurrence to check box	02/26/2020
Permit	Final Review Completed.	02/21/2020
Permit	Passed Permit Review	02/20/2020
Permit	The Objective Criteria Review Memo (Doc# 2479369) is attached to the Form 2A associated with this APD. Following additional analysis arising out of the Objective Criteria, the Director determined that this application meets the standard for the protection of public health, safety, welfare, the environment and wildlife resources set by SB 19-181.	02/20/2020
Permit	COGCC staff reviewed and considered all public comments received for this Form 2. The Colorado state legislature and the governor have directed the COGCC to continue the review and approval, if warranted, of oil and gas permits while Rulemaking is currently taking place. Per SB19-181, the Director has created a list of Objective Criteria with which staff are applying as part of the permit review process to address possible impacts to public health, safety, welfare, the environment, and wildlife resources in the interim until new Rules are approved. This permit will not be approved until the identified applicable Objective Criteria have been sufficiently addressed by both the COGCC and the operator, and it is determined that the permit is in compliance with all current Rules. The operator has provided Best Management Practices on the related Form 2A Oil & Gas Location Assessment that address potential impacts from nuisance dust and emissions resulting from their proposed operations.	02/03/2020
Permit	-Received consent from the operator to add/ change the following: 1. Corrected the spacing unit acreage 2. Added the spacing order number from the docket number 3. Deleted the wellbore does not cross the lease comment -COGCC Staff has added the Local Government siting permit information	01/28/2020
Permit	-Changed the commingle tab to no since the zone type is single zone -Emailed the State Land Board (SLB) for verification of Surface Restoration Bond. -Surface Restoration Bond on file with SLB. -Changed the offset well to the nearest well in the same unit and updated the distance to the nearest offset well as per the operator -Corrected the mineral lease information as per the operator -Waiting on the operator's response about the following: 1. Correcting the spacing unit acreage 2. Added the spacing order number from the docket number 3. Deleting the wellbore does not cross the lease comment since it's not needed	01/27/2020
Permit	Passed completeness.	06/10/2019

Total: 8 comment(s)