

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:

403413444

(SUBMITTED)

Date Received:

06/16/2023

APPLICATION FOR PERMIT TO

☒ Drill
 ☐ Deepen
 ☐ Re-enter
 ☐ Recomplete and Operate
Amend ☒TYPE OF WELL OIL ☒ GAS ☐ COALBED ☐ OTHER: _____Refill ☐ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐Sidetrack ☐

Well Name: Mottled 8-59

Well Number: 31-7-2

Name of Operator: BISON IV OPERATING LLC

COGCC Operator Number: 10670

Address: 518 17TH STREET SUITE 1800

City: DENVER

State: CO

Zip: 80202

Contact Name: Katie Gillen

Phone: (720)644-6997

Fax: ()

Email: kgillen@bisonog.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): 20170115

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: SWSW Sec: 31 Twp: 8N Rng: 59W Meridian: 6

FNL/FSL

FEL/FWL

Footage at Surface: 619 Feet FSL 1293 Feet FWL

Latitude: 40.613275

Longitude: -104.026011

GPS Data:

GPS Quality Value: 1.4

Type of GPS Quality Value: PDOP

Date of Measurement: 04/27/2023

Ground Elevation: 4968

Field Name: WILDCAT

Field Number: 99999

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: 6 Twp: 7N Rng: 59W

Footage at TPZ: 300 FNL 1040 FWL

Measured Depth of TPZ: 6675

True Vertical Depth of TPZ: 6318

FNL/FSL

FEL/FWL

Base of Productive Zone (BPZ)Sec: 7 Twp: 7N Rng: 59WFootage at BPZ: 300 FSL 1236 FWLMeasured Depth of BPZ: 16660True Vertical Depth of BPZ: 6318 FNL/FSL FEL/FWL**Bottom Hole Location (BHL)**Sec: 7 Twp: 7N Rng: 59WFootage at BHL: 200 FSL 1236 FWL

FNL/FSL

FEL/FWL

LOCAL GOVERNMENT PERMITTING INFORMATIONCounty: WELDMunicipality: 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: 05/28/2021Comments: WOGLA18-0069 Approved 06/04/2018, amended as 1041WOGLA-AMD21-0052 approved 5/28/2021.**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 ☐ IndianMineral Owner beneath this Well's Oil and Gas Location: ☒ Fee ☐ State ☐ Federal ☐ IndianSurface Owner Protection Bond (if applicable): Blanket Surety ID Number (if applicable): 20170114**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 7 North, Range 59 West 6th P.M.
Sec 6: Lot 6, Lot 7, E/2SW/4 (SW/4)Total Acres in Described Lease: 167 Described Mineral Lease is: ☒ Fee ☐ State ☐ Federal ☐ Indian

Federal or State Lease # _____

SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 5280 Feet
Building Unit: 5280 Feet
Public Road: 600 Feet
Above Ground Utility: 1943 Feet
Railroad: 5280 Feet
Property Line: 619 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	535-1433	1304	Sec 6 & 7: 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: 300 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: 740 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: 16760 Feet

TVD at Proposed Total Measured Depth 6318 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: 222 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? _____

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	N/A	37	0	80	50	80	0
SURF	13+1/2	9+5/8	J-55	36	0	1900	755	1900	0
1ST	8+1/2	5+1/2	HCP110	20	0	16760	2158	16760	1700

☐ 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	Laramie Fox Hills	288	288	882	882	0-500	DWR	
Groundwater	Upper Pierre	882	882	1513	1513	0-500	DWR	
Confining Layer	Pierre Shale	1513	1513	3410	3405			
Hydrocarbon	Parkman Sandstone	3410	3405	3601	3595			
Confining Layer	Pierre Shale	3601	3595	4709	4691			
Hydrocarbon	Sussex Sandstone	4709	4691	4935	4915			
Confining Layer	Pierre Shale	4935	4915	5256	5235			
Hydrocarbon	Shannon Sandstone	5256	5235	5484	5462			
Confining Layer	Pierre Shale	5484	5462	6037	5999			
Confining Layer	Sharon Springs	6037	5999	6177	6115			
Hydrocarbon	Niobrara	6177	6115	16760	6318			Bottom TVD is bottom of the well and not bottom of the formation; the formation is not planned to be exited.

OPERATOR COMMENTS AND SUBMITTAL

Comments

Distance from completed zone of this wellbore to nearest completed zone of an offset well within the same unit permitted or completed in the same formation was measured to the Mottled 8-59 31-7-1 operated by Bison IV Operating LLC, this distance was measured in 2D.

Distance from the proposed wellbore to nearest existing or proposed wellbore belonging to another operator, including plugged wells was measured to the SI WICKSTROM 6-5 (05-123-21315) operated by FOUNDATION ENERGY MANAGEMENT LLC, this distance was measured via an Anti-Collision. No 408.u is required as permitted/treated intervals are not within 150'.

This application is in a Comprehensive Area Plan No CAP #: _____
Oil and Gas Development Plan Name _____ OGD ID#: _____
Location ID: 453399

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

Signed: _____ Print Name: Rachel Milne

Title: Regulatory Consultant Date: 6/16/2023 Email: rmilne@bisonog.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 48226 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

0 COA	

Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Drilling/Completion Operations	Blowout Prevention Equipment ("BOPE"): A double ram annular preventer will be used during drilling.
2	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 proposed well prior to drilling operations for the proposed well. Notice shall be given to all offset operators prior to drilling.
3	Drilling/Completion Operations	Alternative Logging Program: One of the first wells drilled on the pad will be logged with an 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 clearly 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.

Total: 3 comment(s)

Attachment List

<u>Att Doc Num</u>	<u>Name</u>
403427030	OffsetWellEvaluations Data
403434577	OTHER
403434580	WELL LOCATION PLAT
403434581	DEVIATED DRILLING PLAN
403435603	DIRECTIONAL DATA

Total Attach: 5 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
		Stamp Upon Approval

Total: 0 comment(s)