

FORM

2

Rev  
05/22

## State of Colorado

## Energy &amp; Carbon Management Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203

Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:

403697241

Date Received:

04/14/2024

## 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: MaverickWell Number: 2W-20-01Name of Operator: EXTRACTION OIL & GAS INCECMC Operator Number: 10459Address: 555 17TH STREET SUITE 3700City: DENVER State: CO Zip: 80202Contact Name: Jeff Annable Phone: (303)312-8529 Fax: ( )Email: jannable@civiresources.com

## FINANCIAL ASSURANCE FOR PLUGGING, ABANDONMENT, AND RECLAMATION

## ECMC Financial Assurance

☒ The Operator has provided or will provide Financial Assurance to the ECMC for this Well.Surety ID Number (if applicable): 20190110

## 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: NWSE Sec: 36 Twp: 7N Rng: 67W Meridian: 6
 Footage at Surface: 2354 Feet FSL 2120 Feet FEL
Latitude: 40.529893 Longitude: -104.839771GPS Data: GPS Quality Value: 1.8 Type of GPS Quality Value: PDOP Date of Measurement: 08/10/2022Ground Elevation: 4897Field Name: WATTENBERG Field Number: 90750Well 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: 2 Twp: 6N Rng: 67W Footage at TPZ: 2107 FSL 470 FELMeasured Depth of TPZ: 10358 True Vertical Depth of TPZ: 7321 FNL/FSL FEL/FWL

**Base of Productive Zone (BPZ)**Sec: 4 Twp: 6N Rng: 67WFootage at BPZ: 1800 FSL 150 FELMeasured Depth of BPZ: 20541True Vertical Depth of BPZ: 7321 FNL/FSL FEL/FWL**Bottom Hole Location (BHL)**Sec: 4 Twp: 6N Rng: 67WFootage at BHL: 1800 FSL 150 FELFNL/FSLFEL/FWL**LOCAL GOVERNMENT PERMITTING INFORMATION**County: 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: 08/23/2023Comments: Local Permit Number: 1041WOGLA23-0015**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 ☐ Indian

Surface Owner Protection Bond (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.)

Township 6 North, Range 67 West  
Section 2: SW4

Total Acres in Described Lease: 166

Described Mineral Lease is: ☒ Fee ☐ State ☐ Federal ☐ Indian

Federal or State Lease #

## SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 2008 Feet  
Building Unit: 2008 Feet  
Public Road: 2344 Feet  
Above Ground Utility: 329 Feet  
Railroad: 5280 Feet  
Property Line: 229 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.)
CODELL	CODL	407-3571	720	T6NR67W: Sec 2 & 3 - S2, Sec 4 -E2SE4

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: 470 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: 422 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: 20541 Feet

TVD at Proposed Total Measured Depth 7321 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: 48 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 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	NA	36.95	0	80	105	80	0
SURF	13+1/2	9+5/8	J55	36	0	1500	509	1500	0
1ST	8+1/2	5+1/2	P110	20	0	20541	2996	20541	1500

☐ 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	24	24	196	196	1001-10000	Other	CSU Domestic Water Analysis Report - Larry Moore Well - 176559
Confining Layer	Pierre Formation	196	196	471	471			
Groundwater	Upper Pierre	471	471	1401	1381	1001-10000	Other	Colorado COGCC Project Number 2141 October 2017
Confining Layer	Base of Upper Piere	1401	1381	4599	3716			
Hydrocarbon	Larimer Parkman Sandstone	4599	3716	5046	4011			Not Productive in this area
Confining Layer	Pierre Formation	5046	4011	5334	4201			
Hydrocarbon	Terry Sussex Sandstone	5334	4201	5744	4471			Not Productive in this area
Confining Layer	Pierre Formation	5744	4471	6214	4781			
Hydrocarbon	Hygiene Shannon Sandstone	6214	4781	6570	5016			Not Productive in this area
Confining Layer	Pierre Formation	6570	5016	9519	6961			
Subsurface Hazard	Sharon Springs Member	9519	6961	9580	7001			Sloughing shales
Hydrocarbon	Niobrara Formation	9580	7001	10156	7296			
Hydrocarbon	Fort Hays Limestone	10156	7296	10357	7321			
Hydrocarbon	Codell Sandstone	10357	7321	20541	7321			

## OPERATOR COMMENTS AND SUBMITTAL

### Comments

The distance to the completed portion of the nearest well in the same unit on the "Spacing & Formation" tab is measured to the Maverick 2W-20-02. This distance was measured in 2-dimensional space.

The nearest existing or proposed wellbore belonging to another operator is the Ochsner 1-3, API #05-123-10954. A Stimulation Setback Consent is not required since this well is PA. This distance was measured in 3-dimensional space.

The Bower 1-3, API #05-123-10954, is less than 150' from the completed interval of the proposed well. Since this well is PA a Stimulation Setback Consent is not required.

Attached as OTHER, is the anti-collision analysis which factors in three dimensional measurements as well as gyro surveys performed on some of the offset wellbores. All measurements to offset wellbores were derived from this analysis.

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

Oil and Gas Development Plan Name       Maverick 7N67W - West OGDG       OGDG ID#:       485539      

Location ID:       486004      

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


Signed: \_\_\_\_\_

Print Name: Stephen MillerTitle: Lead, PermittingDate: 4/14/2024Email: smiller@civiresources.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 ECMC Rules, applicable orders, and SB 19-181 and is hereby approved.

ECMC Approved: \_\_\_\_\_



Director of ECMC

Date: 5/31/2024Expiration Date: 01/23/2027**API NUMBER**

05 123 52582 00

**CONDITIONS OF APPROVAL, IF ANY LIST**

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**

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.
Drilling/Completion Operations	1) Submit Form 42 electronically to ECMC 2 business days prior to MIRU (Spud Notice), for the first well/activity on the pad and provide 2 business days spud notice for all subsequent wells drilled on the pad. 2) Comply with Rule 408.j and provide cement coverage from the end of production casing to a minimum of 500' above Niobrara. Verify coverage with cement bond log. 3) Oil-based drilling fluid is to be used only after all aquifers are covered.

2 COAs

**Best Management Practices****No BMP/COA Type****Description**

1	Drilling/Completion Operations	Operator acknowledges and will comply with COGCC/ECMC policy for Bradenhead Monitoring during Hydraulic Fracturing treatments in the Greater Wattenberg Area dated May 29, 2012.
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2	Drilling/Completion Operations	One of the first wells drilled on the pad during the first rig occupation will be logged with open-hole resistivity log with gamma-ray log from the kick-off point into the surface casing for one of the stratigraphically deepest wells on the pad. 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 will state "Alternative Logging Program - No open-hole logs were run" and will clearly identify the type of log and the well (by API#) in which open-hole logs were run.`
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)

#### **ATTACHMENT LIST**

<b><u>Att Doc Num</u></b>	<b><u>Name</u></b>
403697241	FORM 2 SUBMITTED
403743383	DEVIATED DRILLING PLAN
403743391	DIRECTIONAL DATA
403743394	OTHER
403753284	OffsetWellEvaluations Data
403753289	WELL LOCATION PLAT
403809502	OFFSET WELL EVALUATION

Total Attach: 7 Files

#### **General Comments**

<b><u>User Group</u></b>	<b><u>Comment</u></b>	<b><u>Comment Date</u></b>
Permit	Pursuant to Rule 702.b.(2), the approval of this Application for Permit to Drill constitutes a "change in circumstance" to the approved Financial Assurance Plan. The Operator must file a revised Form 3, Financial Assurance Plan, within 10 days of this approval.	05/17/2024
Permit	Final Review Completed.	05/17/2024
Engineer	Offset Wells Evaluated.	05/14/2024
Permit	Passes Permitting <ul style="list-style-type: none"> <li>• Added Surety ID Number to reflect most recent blanket plugging bond.</li> <li>• BPZ and BHL corrected from Sec 3 to Sec 4 and BHL footage corrected from 150' FWL to 150' FEL with operator concurrence.</li> <li>• 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 corrected from 582' to 422' with operator concurrence.</li> </ul>	05/10/2024
OGLA	The Commission approved OGDG #485539 on January 24, 2024 for the Oil and Gas Location related to this Form 2. OGLA task passed.	04/16/2024

Total: 5 comment(s)