

Base of Productive Zone (BPZ)
 Sec: 4 Twp: 6N Rng: 67W Footage at BPZ: 875 FSL 150 FEL
 Measured Depth of BPZ: 21298 True Vertical Depth of BPZ: 7321 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)
 Sec: 4 Twp: 6N Rng: 67W Footage at BHL: 875 FSL 150 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: 08/23/2023

Comments: 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 Indian

Mineral 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: 2356 Feet
Above Ground Utility: 339 Feet
Railroad: 5280 Feet
Property Line: 217 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: 400 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: 21298 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: 218 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	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	1500	21298	3110	21298	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 Aquifer	471	471	1417	1381	501-1000	Groundwater Sample	Colorado COGCC Project Number 2141 October 2017
Confining Layer	Base of Upper Pierre	1417	1381	4883	3716			
Hydrocarbon	Larimer Parkman Sandstone	4819	3716	5372	4011			Not Productive in this area
Confining Layer	Pierre Formation	5372	4011	5687	4201			
Hydrocarbon	Terry Sussex Sandstone	5687	4201	6134	4471			Not Productive in this area
Confining Layer	Pierre Formation	6134	4471	6647	4781			
Hydrocarbon	Hygiene Shannon Sandstone	6647	4781	7036	5016			Not Productive in this area
Confining Layer	Pierre Formation	7036	5016	10257	6961			
Subsurface Hazard	Sharon Springs Member	10257	6961	10324	7001			Sloughing Shales
Hydrocarbon	Niobrara	10324	7001	10939	7296			
Hydrocarbon	Fort Hays Limestone	10939	7296	11152	7321			Not Productive in this area
Hydrocarbon	Codell Sandstone	11152	7321	21298	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-20-04. This distance was measured in 2-dimensional space.

The nearest existing or proposed wellbore belonging to another operator is the Mosier 1-2, API #05-123-11157.

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 OGDP OGDP 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: Jeff Annable

Title: Manager, Permitting Date: 4/14/2024 Email: jannable@civiresources.com

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: _____
 Expiration Date: _____

API NUMBER
 05

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.

<u>COA Type</u>	<u>Description</u>
0 COA	

Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
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.
2	Drilling/Completion Operations	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	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

<u>Att Doc Num</u>	<u>Name</u>
403753291	OffsetWellEvaluations Data
403753292	WELL LOCATION PLAT
403753293	DEVIATED DRILLING PLAN

403753294	OTHER
403753295	DIRECTIONAL DATA

Total Attach: 5 Files

General Comments

User Group	Comment	Comment Date
		Stamp Upon Approval

Total: 0 comment(s)

