

FORM
2
Rev
05/22

State of Colorado Energy & Carbon Management Commission

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03/03/2025

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: T-BONE Well Number: 22N-20-01
Name of Operator: EXTRACTION OIL & GAS INC ECMC Operator Number: 10459
Address: 555 17TH STREET SUITE 3700
City: DENVER State: CO Zip: 80202
Contact Name: Jeff Annable Phone: (303)312-8529 Fax: ()
Email: DLRockiesPermitting@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): 20240061

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: SESW Sec: 28 Twp: 5N Rng: 66W Meridian: 6

Footage at Surface: 620 Feet ^{FNL/FSL} FSL 2315 Feet ^{FEL/FWL} FWL

Latitude: 40.364959 Longitude: -104.785784

GPS Data: GPS Quality Value: 1.5 Type of GPS Quality Value: PDOP Date of Measurement: 12/18/2023

Ground Elevation: 4812

Field Name: WATTENBERG Field Number: 90750

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: 22 Twp: 5N Rng: 66W Footage at TPZ: 160 ^{FSL} 315 ^{FWL}

Measured Depth of TPZ: 9679 True Vertical Depth of TPZ: 7000 ^{FNL/FSL} ^{FEL/FWL}

Base of Productive Zone (BPZ)

Sec: 10 Twp: 5N Rng: 66W Footage at BPZ: 350 FSL 315 FWL
Measured Depth of BPZ: 20426 True Vertical Depth of BPZ: 7000 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)

Sec: 10 Twp: 5N Rng: 66W Footage at BHL: 350 FSL 315 FWL
FNL/FSL FEL/FWL

LOCAL GOVERNMENT PERMITTING INFORMATION

County: WELD Municipality: Milliken

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.? No

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? [X] Yes [] No

[X] 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: 05/21/2025

Comments: The T-Bone XOG-28 Pad Oil and Gas Special Use Permit/Site Plan was submitted to the Town of Milliken on 3/26/24 and was approved by the Planning Commission on 5/21/25 via Resolution PC2025-01.

SURFACE AND MINERAL OWNERSHIP AT WELL'S OIL & GAS LOCATION

Surface Owner of the land at this Well's Oil and Gas Location: [X] Fee [] State [] Federal [] Indian

Mineral Owner beneath this Well's Oil and Gas Location: [X] 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):

- [X] 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 5 North Range 66 West
Section 22: W2NW4

Total Acres in Described Lease: 80 Described Mineral Lease is: Fee State Federal Indian

Federal or State Lease # _____

SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 1225 Feet
Building Unit: 1225 Feet
Public Road: 370 Feet
Above Ground Utility: 404 Feet
Railroad: 4236 Feet
Property Line: 385 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	407-3696	1360	T5N R66W: Sec 10: S2S2S2, Sec 15 & 22: 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: 160 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: 272 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 PROGRAMProposed Total Measured Depth: 20426 Feet TVD at Proposed Total Measured Depth 7000 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: 37 Feet No well belonging to another operator within 1,500 feetWill a closed-loop drilling system be used? YesIs 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? NoWill salt sections be encountered during drilling? NoWill salt based (>15,000 ppm Cl) drilling fluids be used? NoWill oil based drilling fluids be used? YesBOP Equipment Type: Annular Preventor Double Ram Rotating Head None

Beneficial reuse or land application plan submitted? _____

Reuse Facility ID: _____ or Document Number: _____

CASING PROGRAM

<u>Casing Type</u>	<u>Size of Hole</u>	<u>Size of Casing</u>	<u>Grade</u>	<u>Wt/Ft</u>	<u>Csg/Liner Top</u>	<u>Setting Depth</u>	<u>Sacks Cmt</u>	<u>Cmt Btm</u>	<u>Cmt Top</u>
CONDUCTOR	26	16	a53b	36.95	0	80	105	80	0
SURF	13+1/2	9+5/8	j55	36	0	3910	1327	3910	0
1ST	8+1/2	5+1/2	p110	20	0	20426	3033	20426	3910

 Conductor Casing is NOT planned**POTENTIAL FLOW AND CONFINING FORMATIONS**

<u>Zone Type</u>	<u>Formation /Hazard</u>	<u>Top M.D.</u>	<u>Top T.V.D.</u>	<u>Bottom M.D.</u>	<u>Bottom T.V.D.</u>	<u>TDS (mg/L)</u>	<u>Data Source</u>	<u>Comment</u>
Groundwater	Upper Pierre Aquifer	0	0	3860	3392	501-1000	Electric Log Calculation	WIEST J 28-25 05123263410000
Confining Layer	Base of Upper Pierre	3860	3392	4444	3770			
Hydrocarbon	Larimer ("Parkman") Sand	4444	3770	4568	3850			
Confining Layer	Larimer ("Parkman") Base	4568	3850	5450	4420			
Hydrocarbon	Terry ("Sussex") Sand	5450	4420	5612	4525			
Confining Layer	Terry ("Sussex") Base	5612	4525	6308	4975			
Hydrocarbon	Hygiene ("Shannon") Sand	6308	4975	6810	5300			
Confining Layer	Hygiene ("Shannon") Base	6810	5300	9319	6910			
Confining Layer	Sharon Springs	9319	6910	9679	7000			
Hydrocarbon	Niobrara	9679	7000	20426	7000			

OPERATOR COMMENTS AND SUBMITTAL

Comments

Operator states, as alleged in pooling application Docket No. 250300034, that there are no unleased mineral interest owner local governments that own minerals in the drilling and spacing unit, and therefore the application complies with C.R.S. §§ 34-60- 116(7)(e) and (f)(l).

The distance to the completed portion of the nearest well in the same unit on the "Spacing & Formations" tab is measured to the proposed T-BONE 22N-20-02. This distance was measured in 2-dimensional space.

The distance to the nearest well belonging to another operator on the "Drilling Plans" tab was measured to Mossberg A-28 (API #05-123-12505). Since the referenced offset well is plugged and abandoned, a stimulation setback consent is not required.

This application is in a Comprehensive Area Plan _____ CAP #: _____
Oil and Gas Development Plan Name T-Bone 5N66W OGDP _____ OGDP ID#: 487777
Location ID: 489258

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

Signed: _____ Print Name: Grant Gerrard

Title: Regulatory Analyst Date: 3/3/2025 Email: ggerrard@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: 6/3/2025

Expiration Date: 01/28/2028

API NUMBER

05 123 53013 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	Operator will log one (1) additional well with open-hole resistivity log with gamma-ray log from the kick-off point into the surface casing for the stratigraphically deepest wells on the pad for a total of two (2) wells logged during the first rig occupation of this location.
Drilling/Completion Operations	<p>Operator acknowledges the proximity of the listed wells. Operator agrees to: provide mitigation option 1 or 2 (per the Offset Well Evaluation and Hydraulic Fracturing Operator Guidance Document) 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") stating that appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of this well.</p> <p>KP KAUFFMAN COMPANY INC 123-11406 STRONG *2-8 KP KAUFFMAN COMPANY INC 123-33968 STRONG *4-22</p> <p>Operator acknowledges the proximity of the listed wells. Operator agrees to provide mitigation option 4 to mitigate the situation. Operator will not stimulate within 1500' of the listed wells. Operator will positively affirm stimulation was not conducted within 1500' in the comment box of the 5A's "Submit" tab. Operator shall attach modeling data to the 5A correlating the measured depths excluded from simulation with their distances from the affected offset wells.</p> <p>MARKUS PRODUCTION, INC 123-11156 DOMKE *1 MARKUS PRODUCTION, INC 123-11858 WEBSTER *41-22</p> <p>Operator acknowledges the proximity of the listed wells. Operator assures that this offset list will be remediated per the Offset Well Evaluation and Hydraulic Fracturing Operator Guidance Document (option 4). Operator will submit a Form 42 ("OFFSET MITIGATION COMPLETED") stating that appropriate mitigation will be completed during the hydraulic stimulation of this well. This Form 42 shall be filed 48 hours prior to stimulation. Operator will assure that the offset well's bradenhead is open and actively monitored during the entire stimulation treatment of this pad. If there is indication of communication between the stimulation treatment and an offset well, treatment will be stopped and ECMC Engineering notified. Stimulation shall not resume without explicit approval from ECMC Engineering. Within 60 days after stimulation is complete, a Form 4 Sundry shall be submitted for each offset well on this list describing how Option 4 work was completed and include a summary of the monitoring details.</p> <p>EXTRACTION OIL & GAS INC 123-51269 Meadowview *3-1-22 PDC ENERGY INC 123-10902 Stugart *06N</p>
Drilling/Completion Operations	<p>Per Order 1-232, Bradenhead tests shall be performed according to the following schedule and Form 17 submitted within 10 days of each test:</p> <ol style="list-style-type: none"> 1) Within 60 days of rig release, prior to stimulation. If any pressure greater than 200 psi is observed or if there is continuous flow, Operator must contact ECMC engineering for approval prior to stimulation. 2) If a delayed completion, a second test is required between 6-9 months after rig release and must be conducted prior to stimulation. If any pressure greater than 200 psi is observed or if there is continuous flow, Operator must contact ECMC engineering for approval 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	<ol style="list-style-type: none"> 1) Submit Form 42 electronically to ECMC 2 business days prior to MIRU (spud notice) for the first well activity with a rig on the pad and provide 2 business day spud notice via Form 42 for all subsequent wells drilled on the pad. 2) Comply with Rule 408.j. and provide cement coverage from TD to a minimum of 500' above Niobrara and from 500' below Shannon to 500' above Sussex. Verify coverage with a cement bond log. 3) Oil based drilling fluid can only be used after all groundwater has been isolated.
4 COAs	

Operator Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	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.
2	Drilling/Completion Operations	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: 2 comment(s)

ATTACHMENT LIST

<u>Att Doc Num</u>	<u>Name</u>
403917040	FORM 2 SUBMITTED
404112239	OffsetWellEvaluations Data
404112243	WELL LOCATION PLAT
404112244	DEVIATED DRILLING PLAN
404112246	DIRECTIONAL DATA
404226931	OFFSET WELL EVALUATION

Total Attach: 6 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Changed the "disposition of the application" under the "Local Government" tab to approved, changed the "Comment" as well as the "Date of Final Disposition" per Operator.	06/02/2025
Permit	Final Review Complete.	05/15/2025
Permit	Permit review complete - Passed Task Updated pooling comments under the "Submit" tab	05/09/2025
OGLA	The Commission approved OGDG #487777 on January 29, 2025 for the Oil and Gas Location related to this Form 2. See Sundry doc #404147982 in Location #489258 file for additional information. OGLA task passed.	04/09/2025
Permit	Added pooling comments under "Submit" tab per Operator Emailed Operator requesting COA adding 1 additional well to be open hole logged Changed PDOP from 1.4 to 1.5 (rounding) based on attached plat Waiting on Pooling Docket No. 250300034 to complete review of form	03/31/2025
Permit	Emailed operator requesting addition of the Pooling comment and OH logging COA.	03/13/2025

Total: 6 comment(s)