

FORM  
2

Rev  
05/22

State of Colorado

Energy & Carbon Management Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203  
Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:

403559349

Date Received:

12/20/2023

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: FEDERAL Well Number: RGU 41-7-297  
Name of Operator: TEP ROCKY MOUNTAIN LLC COGCC Operator Number: 96850  
Address: 1058 COUNTY ROAD 215  
City: PARACHUTE State: CO Zip: 81635  
Contact Name: Melissa Luke Phone: (970)263-2721 Fax: ( )  
Email: mluke@terraep.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): \_\_\_\_\_

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 \$ 655000

WELL LOCATION INFORMATION

Surface Location

QtrQtr: Lot 18 Sec: 6 Twp: 2S Rng: 97W Meridian: 6

Footage at Surface: 2394 Feet FSL 2228 Feet FWL

Latitude: 39.904679 Longitude: -108.325362

GPS Data: GPS Quality Value: 1.8 Type of GPS Quality Value: PDOP Date of Measurement: 07/22/2021

Ground Elevation: 6219

Field Name: SULPHUR CREEK Field Number: 80090

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: 7 Twp: 2S Rng: 97W Footage at TPZ: 196 FNL 656 FEL

Measured Depth of TPZ: 9230 True Vertical Depth of TPZ: 8422 FNL/FSL FEL/FWL

Base of Productive Zone (BPZ)

Sec: 7 Twp: 2S Rng: 97W Footage at BPZ: 196 FNL 656 FEL
Measured Depth of BPZ: 13010 True Vertical Depth of BPZ: 12202 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)

Sec: 7 Twp: 2S Rng: 97W Footage at BHL: 196 FNL 656 FEL
FNL/FSL FEL/FWL

LOCAL GOVERNMENT PERMITTING INFORMATION

County: RIO BLANCO 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.? 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: 07/07/2022

Comments:

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 [X] Federal [ ] Indian

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

Please see lease map

Total Acres in Described Lease: 634 Described Mineral Lease is: [ ] Fee [ ] State [X] Federal [ ] Indian

Federal or State Lease # COC57285

## SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 5280 Feet  
Building Unit: 5280 Feet  
Public Road: 316 Feet  
Above Ground Utility: 467 Feet  
Railroad: 5280 Feet  
Property Line: 4415 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.)
WILLIAMS FORK	WMFK	1-229		

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: 656 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: 354 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: 13010 Feet

TVD at Proposed Total Measured Depth 12202 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: 1357 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? No

BOP Equipment Type:  Annular Preventor  Double Ram  Rotating Head  None

Beneficial reuse or land application plan submitted? No

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	30	20	X65	78.67	0	80	230	80	0
SURF	17+1/2	13+3/8	J55	54.5	0	1277	417	1277	0
1ST	12+1/4	9+5/8	J55	36.0	0	3219	164	3219	2146
2ND	8+3/4	4+1/2	P110	11.6	0	13010	987	13010	7499

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	UINTA	30	30	654	650	501-1000	Produced Water Sample	
Groundwater	GREEN RIVER	654	650	809	800	501-1000	Produced Water Sample	
Subsurface Hazard	A GROOVE	809	800	1018	1000			
Subsurface Hazard	B GROOVE	1018	1000	1343	1300			
Subsurface Hazard	DISSOLUTION SURFACE	1343	1300	2371	2200			POSSIBLE LOSS ZONE
Confining Layer	GARDEN GULCH	2371	2200	2555	2360			
Confining Layer	ORANGE MARKER	2555	2360	2646	2440			
Confining Layer	UPPER WASATCH	2646	2440	5636	5050			
Hydrocarbon	TOP OF G SAND	5636	5050	5934	5310			POSSIBLE LOSS ZONE
Hydrocarbon	FORT UNION	5934	5310	6838	6100			
Confining Layer	LOWER WASATCH	6838	6100	7699	6902			
Hydrocarbon	OHIO CREEK	7699	6902	8429	7622			POSSIBLE LOSS ZONE
Hydrocarbon	UPPER MESAVERDE	8429	7622	9230	8422			
Hydrocarbon	TOP GAS	9230	8422	10800	9992			
Hydrocarbon	CAMEO COALS	10800	9992	11530	10722			
Hydrocarbon	ROLLINS	11530	10722	11680	10872			
Hydrocarbon	COZZETTE	11680	10872	12005	11197			
Hydrocarbon	CORCORAN	12005	1197	12265	11457			
Hydrocarbon	UPPER SEGO	12265	11457	12510	11702			
Hydrocarbon	LOWER SEGO	12510	11702	13010	12202			

## OPERATOR COMMENTS AND SUBMITTAL

Comments: Nearest offset well producing from the same lease and permitted or completed in the same formation: Federal RGU 341-7-297 (Doc #403559357).

OGDP application (Docket# 221200375) was approved on 08/23/2023, Form 2A (Doc# 402932511) approved on 09/11/2023.

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

Oil and Gas Development Plan Name       Ryan Gulch Phase 3       OGDP ID#:       484436      

Location ID:       335602

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

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

Print Name: Melissa Luke

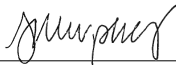
Title: Regulatory Specialist

Date: 12/20/2023

Email: mluke@terraep.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: 3/6/2024

Expiration Date: 08/22/2026

<b>API NUMBER</b>
05 103 12645 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) Operator shall comply with the most current revision of the Northwest Colorado Notification Policy. See attached notice.  2) Operator shall provide cement coverage from the production casing shoe (4+1/2" SECOND STRING) to a minimum of 200' above all Mesa Verde Group (and Ohio Creek Formation, if present) oil, gas, and water-bearing sandstone and coalbed formations. Verify production casing cement coverage with cement bond log.
Planning	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.
Construction	If conductors are preset, operator shall comply with Notice to Operators: Procedures for Preset Conductors (dated September 1, 2016).
Drilling/Completion Operations	Operator will log two (2) additional wells during the second rig occupation with open-hole resistivity log with gamma-ray log from the kick-off point into the surface casing for the stratigraphically deepest wells for a total of three wells logged.
Interim Reclamation	Operator shall comply with Notice to Operators: Interim Reclamation Procedures for Delayed Operations (dated January 5, 2017).
5 COAs	

## Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Drilling/Completion Operations	Alternative Logging Program: One of the first wells drilled on this pad will be logged with an open-hole resistivity log with gamma-ray, from TD into the surface casing. All wells on the pad will have a cement bond log (CBL) with gamma-ray run on production casing (or on intermediate casing if production liner is run) into the surface casing. 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.

Total: 1 comment(s)

## Attachment List

<u>Att Doc Num</u>	<u>Name</u>
403559349	FORM 2 SUBMITTED
403566238	OffsetWellEvaluations Data
403623613	DIRECTIONAL DATA
403623614	WELL LOCATION PLAT
403623615	DEVIATED DRILLING PLAN
403631416	LEASE MAP
403697782	OffsetWellEvaluations Data
403709901	OFFSET WELL EVALUATION

Total Attach: 8 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Operator will log two (2) additional wells during the second rig occupation with open-hole resistivity log with gamma-ray log from the kick-off point into the surface casing for the stratigraphically deepest wells for a total of three wells logged.	03/01/2024
Engineer	<p>An Intermediate casing is used by the Operator due to geologic wellbore conditions pertaining to losses. APD is approved with Operator's plan to bring cement 500 ft. above the Upper Wasatch formation top.</p> <p>Offset water well check: There are no permitted domestic water wells within one mile of this proposed surface hole location.</p> <p>Emailed Operator for updated offset well review to include 2 wells not listed that are Producing wells from another Operator: Caerus Freedom Unit 297-85B (103-11194) &amp; PICEANCE CREEK *4609 (103-10051)</p> <p>Unchecked box for "No well belonging to another operator within 1,500 feet."</p> <p>Selected No for drop down menus for "Amend, Refile and Sidetrack"</p> <p>Changed casing setting depth to correct value per attached documents and value reported as cement bottom.</p>	01/30/2024
Permit	<p>Added "Total acres described in lease" per operator</p> <p>Added Federal Financial Assurance amount per operator</p> <p>Passed Permitting review</p>	01/09/2024
OGLA	The Commission approved OGDG #484436 on August 23, 2023 for the Oil and Gas Location related to this Form 2. OGLA task passed.	12/20/2023

Total: 4 comment(s)