

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:

403038478

Date Received:

09/25/2022

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: FEDERAL

Well Number: RG 424-12-298

Name of Operator: TEP ROCKY MOUNTAIN LLC

COGCC Operator Number: 96850

Address: 1058 COUNTY ROAD 215

City: PARACHUTE

State: CO

Zip: 81635

Contact Name: Jeff Kirtland

Phone: (970)263-2736

Fax: ( )

Email: jkirtland@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 4 Sec: 13 Twp: 2S Rng: 98W Meridian: 6

Footage at Surface: 1052 Feet FNL/FSL 907 Feet FEL/FWL

Latitude: 39.882288 Longitude: -108.346493

GPS Data: GPS Quality Value: 1.7 Type of GPS Quality Value: PDOP

Date of Measurement: 07/21/2022

Ground Elevation: 6618

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: 12 Twp: 2S Rng: 98W

Footage at TPZ: 593 FSL 1659 FWL

Measured Depth of TPZ: 6821

True Vertical Depth of TPZ: 6618

FNL/FSL FEL/FWL

**Base of Productive Zone (BPZ)**Sec: 12 Twp: 2S Rng: 98WFootage at BPZ: 593 FSL 1659 FWLMeasured Depth of BPZ: 12151True Vertical Depth of BPZ: 11918 FNL/FSL FEL/FWL**Bottom Hole Location (BHL)**Sec: 12 Twp: 2S Rng: 98WFootage at BHL: 593 FSL 1659 FWL

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? ☒ 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: 04/29/2022

Comments: Rio Blanco County Oil or Gas Well Pad Special Use/Building Permit: COGW-0001-22

**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.)

T2S-R97W  
SEC 18: S2NE4, E2W2, SE4, LOTS 1-4  
T2S-R98W  
SEC 12: N2SW4, S2NW4, SW4NE4, NE4NW4, LOTS 17-20  
SEC 13: LOTS 1-12, SW4  
SEC 14: E2SE4, LOTS 1, 8  
SEC 23: E2NE4, N2SE4, SW4NE4  
SEC 24: N2, N2S2

Total Acres in Described Lease: 2371 Described Mineral Lease is: ☐ Fee ☐ State ☒ Federal ☐ Indian

Federal or State Lease # COC0003453

## SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 5280 Feet  
Building Unit: 5280 Feet  
Public Road: 4261 Feet  
Above Ground Utility: 4232 Feet  
Railroad: 5280 Feet  
Property Line: 2374 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? No

If YES:

Enter the minimum distance from the Completed Zone of this Well to the Unit Boundary: \_\_\_\_\_ 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: \_\_\_\_\_ Feet

If NO:

Enter the minimum distance from the Completed Zone of this Well to the Lease Line of the described lease: 1118 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: 367 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: 12151 Feet

TVD at Proposed Total Measured Depth 11918 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: \_\_\_\_\_ 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? \_\_\_\_\_

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          | 30                  | 20                    | X55          | 78.67        | 0                    | 80                   | 230              | 80             | 0              |
| SURF               | 17+1/2              | 13+3/8                | J55          | 54.5         | 0                    | 1354                 | 442              | 1354           | 0              |
| 1ST                | 12+1/4              | 9+5/8                 | J55          | 36.0         | 0                    | 3122                 | 153              | 3122           | 2105           |
| 2ND                | 8+3/4               | 4+1/2                 | P110         | 11.6         | 0                    | 12151                | 991              | 12151          | 6621           |

☐ 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       | UIINTA                   | 30              | 30                | 889                | 880                  | 501-1000          | Produced Water Sample |   |
| Groundwater       | GRRV                     | 889             | 880               | 1044               | 1030                 | 501-1000          | Produced Water Sample |   |
| Subsurface Hazard | GRRV A GROOVE            | 1044            | 1030              | 1240               | 1220                 |                   |                       |   |
| Subsurface Hazard | GRRV B GROOVE            | 1240            | 1220              | 1561               | 1530                 |                   |                       |   |
| Subsurface Hazard | GRRV DISSOLUTION SURF    | 1561            | 1530              | 2315               | 2260                 |                   |                       | Potential Loss Zone                     |
| Confining Layer   | GARDEN GULCH             | 2315            | 2260              | 2522               | 2460                 |                   |                       |   |
| Confining Layer   | ORANGE MARKER            | 2522            | 2460              | 2605               | 2540                 |                   |                       |   |
| Confining Layer   | UPPER WASATCH            | 2605            | 2540              | 4838               | 4700                 |                   |                       |   |
| Hydrocarbon       | G SAND                   | 4838            | 4700              | 5267               | 5115                 |                   |                       | Potential Loss Zone/Non-Productive Zone |
| Hydrocarbon       | FT UNION                 | 5267            | 5115              | 6079               | 5900                 |                   |                       |   |
| Confining Layer   | LOWER WASATCH            | 6079            | 5900              | 6821               | 6618                 |                   |                       |   |
| Hydrocarbon       | OHIO CREEK               | 6821            | 6618              | 7565               | 7383                 |                   |                       |   |
| Hydrocarbon       | UPPER MESAVERDE          | 7565            | 7338              | 8371               | 8138                 |                   |                       |   |
| Hydrocarbon       | TOP GAS                  | 8371            | 8138              | 9941               | 9708                 |                   |                       |   |
| Hydrocarbon       | CAMEO                    | 9941            | 9708              | 10671              | 10438                |                   |                       |   |
| Hydrocarbon       | ROLLINS                  | 10671           | 10438             | 10821              | 10588                |                   |                       |   |
| Hydrocarbon       | COZETTE                  | 10821           | 10588             | 11146              | 10913                |                   |                       |   |
| Hydrocarbon       | CORCORAN                 | 11146           | 10913             | 11406              | 11173                |                   |                       |   |
| Hydrocarbon       | UPPER SEGO               | 11406           | 11173             | 11651              | 11418                |                   |                       |   |
| Hydrocarbon       | LOWER SEGO               | 11651           | 11418             | 12151              | 11918                |                   |                       |   |

**OPERATOR COMMENTS AND SUBMITTAL**

Comments: Nearest permitted or completed well in same formation: Federal RG 524-12-298 (Doc #403038472).  
OGDP Application (Docket #220500097) and Form 2A (Doc #402932455) approved on 09/21/2022.

This application is in a Comprehensive Area Plan           No           CAP #:                       
Oil and Gas Development Plan Name           Ryan Gulch Phase 2           OGDP ID#:           482485            
Location ID:           482958          

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

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

Print Name: Melissa LukeTitle: Regulatory SpecialistDate: 9/25/2022Email: 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: 11/9/2022Expiration Date: 09/06/2025**API NUMBER**

05 103 12587 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**

|                                |   |
|--------------------------------|---|
| Drilling/Completion Operations | 1)Operator shall comply with the most current revision of the Northwest Colorado Notification Policy. See attached notice.<br><br>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. |
| Interim Reclamation            | Operator shall comply with Notice to Operators: Interim Reclamation Procedures for Delayed Operations (dated January 5, 2017).  |
| 2 COAs                         |   |

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

|                                  |   |
|----------------------------------|---|
| 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****Att Doc Num****Name**

|           |                            |
|-----------|----------------------------|
| 403038478 | FORM 2 SUBMITTED           |
| 403173884 | OffsetWellEvaluations Data |

|           |                            |
|-----------|----------------------------|
| 403173885 | DIRECTIONAL DATA           |
| 403173886 | WELL LOCATION PLAT         |
| 403173887 | DEVIATED DRILLING PLAN     |
| 403215852 | OffsetWellEvaluations Data |
| 403223841 | 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                   | Final Review Completed.   | 11/04/2022                 |
| Engineer                 | <p>Offset water well check: There are no permitted domestic water wells within one mile of this proposed surface hole location. There is one Colorado Parks and Wildlife water well for livestock use that is 95 ft. in depth.</p> <p>Offset Well Evaluation: Existing offset oil and gas wells within 1,500 feet of this wellbore meet standards. No mitigation required.</p> <p>An Intermediate casing is used by the Operator due to geologic wellbore conditions pertaining to losses</p> <p>Contacted Operator and uploaded a revised Offset Well Evaluation</p> | 11/01/2022                 |
| Permit                   | Passed Permitting review  | 09/30/2022                 |
| OGLA                     | The Commission approved OGDG #482485 on September 7, 2022 for the Oil and Gas Location related to this Form 2. OGLA task passed.  | 09/29/2022                 |
| Permit                   | Added Federal Financial Assurance amount per operator<br>Corrected Total Acres in Described Lease per operator  | 09/28/2022                 |

Total: 5 comment(s)