

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:  
402988822  
Date Received:  
09/25/2022

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: RG 514-18-297  
Name of Operator: TEP ROCKY MOUNTAIN LLC    COGCC Operator Number: 96850  
Address: 1058 COUNTY ROAD 215  
City: PARACHUTE    State: CO    Zip: 81635  
Contact Name: 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 12    Sec: 13    Twp: 2S    Rng: 98W    Meridian: 6  
Footage at Surface: 952 Feet FSL 1063 Feet FEL  
Latitude: 39.871795    Longitude: -108.337902  
GPS Data:    GPS Quality Value: 1.5    Type of GPS Quality Value: PDOP    Date of Measurement: 07/21/2021  
Ground Elevation: 6667  
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: 18    Twp: 2S    Rng: 97W    Footage at TPZ: 1250 FSL 1017 FWL  
Measured Depth of TPZ: 6670    True Vertical Depth of TPZ: 6507 FNL/FSL FEL/FWL

Base of Productive Zone (BPZ)

Sec: 18 Twp: 2S Rng: 97W Footage at BPZ: 1250 FSL 1017 FWL  
Measured Depth of BPZ: 12104 True Vertical Depth of BPZ: 11807 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)

Sec: 18 Twp: 2S Rng: 97W Footage at BHL: 1250 FSL 1017 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? [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: 04/29/2022

Comments: Rio Blanco County Oil or Gas Well Pad Special Use/Building Permit: COGW-0002-22

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 [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.)

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: 4837 Feet  
 Above Ground Utility: 5120 Feet  
 Railroad: 5280 Feet  
 Property Line: 4963 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.)
ILES	ILES	1-229		
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: 1250 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: 349 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: 12104 Feet

TVD at Proposed Total Measured Depth 11807 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: 392 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	X-65	78.67	0	80	230	80	0
SURF	17+1/2	13+3/8	J-55	54.5	0	1358	443	1358	0
1ST	12+1/4	9+5/8	J-55	36	0	3083	154	3083	2083
2ND	8+3/4	4+1/2	P-110	11.6	0	12104	991	12104	6570

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	888	880	501-1000	Produced Water Sample	
Groundwater	GRRV	888	880	1045	1030	501-1000	Produced Water Sample	
Subsurface Hazard	GRRV A GROOVE	1045	1030	1243	1220			
Subsurface Hazard	GRRV B GROOVE	1243	1220	1567	1530			
Subsurface Hazard	GRRV DISSOLUTION SURF	1567	1530	2289	2220			Potential Loss Zone
Confining Layer	GARDEN GULCH	2289	2220	2477	2400			
Confining Layer	GRRV ORANGE	2477	2400	2560	2480			
Confining Layer	U WASATCH	2560	2480	4776	4600			
Hydrocarbon	G SAND	4776	4600	5210	5015			Potential Loss Zone/Non-Productive Zone
Hydrocarbon	FT UNION	5210	5015	6031	5800			
Confining Layer	L WASATCH	6031	5800	6770	6507			
Hydrocarbon	OHIO CREEK	6770	6507	7518	7227			
Hydrocarbon	U MESAVERDE	7518	7227	8324	8027			
Hydrocarbon	KMVGAS	8324	8027	9894	9597			
Hydrocarbon	CAMEO	9894	9597	10624	10327			
Hydrocarbon	ROLLINS	10624	10327	10774	10477			
Hydrocarbon	COZZETTE	10774	10477	11099	10802			
Hydrocarbon	CORCORAN	11099	10802	11359	11062			
Hydrocarbon	UPPER SEGO	11359	11062	11604	11307			
Hydrocarbon	LOWER SEGO	11604	11307	12104	11807			

## OPERATOR COMMENTS AND SUBMITTAL

Comments

Nearest permitted or completed well in same formation: Federal RG 14-18-297 (Doc #402988819).

The Federal OG Colo 03453 # 9 well (05-103-05161) was used for the distance from the proposed wellbore to nearest existing or proposed wellbore belonging to another operator (AC Report).

OGDP Application (Docket #220500097) and Form 2A (Doc #402932454) 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:       315513

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: 9/25/2022 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: 11/9/2022

Expiration Date: 09/06/2025

**API NUMBER**

05 103 12565 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.  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 9 5/8" casing shoe. 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.
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Total: 1 comment(s)

### Attachment List

<b>Att Doc Num</b>	<b>Name</b>
402988822	FORM 2 SUBMITTED
403045783	WELL LOCATION PLAT
403045785	DIRECTIONAL DATA
403045787	DEVIATED DRILLING PLAN
403052672	OffsetWellEvaluations Data
403213154	OffsetWellEvaluations Data
403223699	OFFSET WELL EVALUATION

Total Attach: 7 Files

### **General Comments**

<b>User Group</b>	<b>Comment</b>	<b>Comment Date</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.</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>	10/31/2022
Permit	Passed Permitting review	10/06/2022
Permit	Added Federal Financial Assurance amount per operator Corrected well name of closest wellbore belonging to another operator on Submit tab	10/05/2022
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

Total: 5 comment(s)