

APPLICATION FOR PERMIT TO:

Drill Deepen Re-enter Recomplete and Operate

Date Received: 06/06/2019

TYPE OF WELL OIL GAS COALBED OTHER: _____

ZONE TYPE SINGLE ZONE MULTIPLE ZONES COMMINGLE ZONES

Refilling
Sidetrack

Well Name: FEDERAL Well Number: RU 41-17

Name of Operator: TEP ROCKY MOUNTAIN LLC COGCC Operator Number: 96850

Address: PO BOX 370

City: PARACHUTE State: CO Zip: 81635

Contact Name: VICKI SCHOEBER Phone: (970)263-2721 Fax: ()

Email: VSCHOEBER@TERRAEP.COM

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: _____

WELL LOCATION INFORMATION

QtrQtr: NWNE Sec: 17 Twp: 7S Rng: 93W Meridian: 6

Latitude: 39.450042 Longitude: -107.795880

Footage at Surface: 1000 Feet FNL 2188 Feet FEL

Field Name: RULISON Field Number: 75400

Ground Elevation: 7859 County: GARFIELD

GPS Data:
Date of Measurement: 01/14/2014 PDOP Reading: 2.5 Instrument Operator's Name: J. KIRKPATRICK

If well is Directional Horizontal (highly deviated) **submit deviated drilling plan.**

Footage at Top of Prod Zone: FNL/FSL FEL/FWL Bottom Hole: FNL/FSL FEL/FWL

50 FSL 663 FEL 50 FSL 663 FEL

Sec: 8 Twp: 7S Rng: 93W Sec: 8 Twp: 7S Rng: 93W

LOCAL GOVERNMENT INFORMATION

County: GARFIELD Municipality: N/A

Per § 34-60-106 (1)(f)(I)(A), the following questions pertain to the "local government with jurisdiction to approve the siting of the proposed oil and gas location."

The local government with jurisdiction is: County

Does the local government with jurisdiction regulate the siting of Oil and Gas Locations, with respect to this COGCC application? If the local government has waived its right to precede the COGCC in siting determination, indicate by selecting "NO" here and selecting "Waived" below. 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 local government siting permit type is: _____

The local government siting permit was filed on: _____

The disposition of the application filed with the local government is: _____

Additional explanation of local process:

TEP Rocky Mountain LLC has contacted Garfield County, the local government with jurisdiction over the siting of this proposed oil and gas location and determined that per the Garfield County Land Use and Development Code, Table 3-403, "Oil and Gas Drilling and Production" and "Hydraulic Fracturing, Remote Surface Location" are a use by right or Exempt from Land Use Regulation at this site. Garfield County's disposition is not required for the purposes of this submittal.

LOCATION SURFACE & MINERALS & RIGHT TO CONSTRUCT

Surface Ownership: Fee State Federal Indian

The Surface Owner is: is the mineral owner beneath the location.

(check all that apply) is committed to an Oil and Gas Lease.

has signed the Oil and Gas Lease.

is the applicant.

The Mineral Owner beneath this Oil and Gas Location is: Fee State Federal Indian

The Minerals beneath this Oil and Gas Location will be developed by this Well: Yes

The right to construct the Oil and Gas Location is granted by: oil and gas lease

Surface damage assurance if no agreement is in place: _____ Surface Surety ID: _____

LEASE INFORMATION

Using standard QtrQtr, Sec, Twp, Rng format, describe one entire mineral lease that will be produced by this well (Describe lease beneath surface location if produced. Attach separate description page or map if necessary.)

T7S R93W
SEC 6: E2SW4, Lots 4-9
SEC 7: Lots 5-9
SEC 8: E2, N2NW4
SEC 17: N2, SW4, W2SE4

Total Acres in Described Lease: 1518 Described Mineral Lease is: Fee State Federal Indian

Federal or State Lease # COC050944

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 663 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

- Building: 5226 Feet
- Building Unit: 5226 Feet
- High Occupancy Building Unit: 5280 Feet
- Designated Outside Activity Area: 5280 Feet
- Public Road: 3704 Feet
- Above Ground Utility: 4101 Feet
- Railroad: 5280 Feet
- Property Line: 1089 Feet
- School Facility: 5280 Feet
- School Property Line: 5280 Feet
- Child Care Center: 5280 Feet

INSTRUCTIONS:

- All measurements shall be provided from center of the Proposed Well to nearest of each cultural feature as described in Rule 303.a.(5).
- 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, High Occupancy Building Unit, Designated Outside Activity Area, School Facility, and Child Care Center – as defined in 100 Series Rules.

DESIGNATED SETBACK LOCATION INFORMATION

Check all that apply. This location is within a: Buffer Zone
 Exception Zone
 Urban Mitigation Area

- Buffer Zone – as described in Rule 604.a.(2), within 1,000' of a Building Unit
 - Exception Zone - as described in Rule 604.a.(1), within 500' of a Building Unit.
 - Urban Mitigation Area - as defined in 100-Series Rules.

Pre-application Notifications (required if location is within 1,000 feet of a building unit):

Date of Rule 305.a.(1) Urban Mitigation Area Notification to Local Government: _____

Date of Rule 305.a.(2) Buffer Zone Notification to Building Unit Owners: _____

SPACING and UNIT INFORMATION

Distance from completed portion of proposed wellbore to nearest completed portion of offset wellbore permitted or completed in the same formation: 664 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary _____ Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): _____ Unit Number: _____

SPACING & FORMATIONS COMMENTS

If this Form 2 is associated with a Drilling and Spacing Unit application, provide docket number: _____

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		

DRILLING PROGRAM

Proposed Total Measured Depth: 10209 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: 1329 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 Operations Plan)

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

GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule 609

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Methods: Recycle/reuse

Cuttings Disposal: ONSITE Cuttings Disposal Method: Drilling pit

Other Disposal Description:

Previously approved Form 2A #401058467 had cuttings disposal method as 'Cuttings trench'; per COGCC definition-a drilling pit is used to contain E&P waste generated during drilling operations; disposal method changed to 'Drilling pit'.

Beneficial reuse or land application plan submitted? No

Reuse Facility ID: _____ or Document Number: _____

CASING PROGRAM

Casing Type	Size of Hole	Size of Casing	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
CONDUCTOR	26	18	47.4	0	80	134	80	0
SURF	13+1/2	9+5/8	32.3	0	1100	266	1100	0
1ST	8+3/4	4+1/2	11.6	0	10209	853	10209	

Conductor Casing is NOT planned

DESIGNATED SETBACK LOCATION EXCEPTIONS

Check all that apply:

- Rule 604.a.(1)A. Exception Zone (within 500' of Building Unit)
- Rule 604.b.(1)A. Exception Location (existing or approved Oil & Gas Location now within a Designated Setback as a result of Rule 604.a.)
- Rule 604.b.(1)B. Exception Location (existing or approved Oil & Gas Location is within a Designated Setback due to Building Unit construction after Location approval)
- Rule 604.b.(2) Exception Location (SUA or site-specific development plan executed on or before August 1, 2013)
- Rule 604.b.(3) Exception Location (Building Units constructed after August 1, 2013 within setback per an SUA or site-specific development plan)

GREATER WATTENBERG AREA LOCATION EXCEPTIONS

Check all that apply:

- Rule 318A.a. Exception Location (GWA Windows).
- Rule 318A.c. Exception Location (GWA Twinning).

RULE 502.b VARIANCE REQUEST

- Rule 502.b. Variance Request from COGCC Rule or Spacing Order Number _____

OTHER LOCATION EXCEPTIONS

Check all that apply:

- Rule 318.c. Exception Location from Rule or Spacing Order Number _____
- Rule 603.a.(2) Exception Location (Property Line Setback).

ALL exceptions and variances require attached Request Letter(s). Refer to applicable rule for additional required attachments (e.g. waivers, certifications, SUAs).

OPERATOR COMMENTS AND SUBMITTAL

Comments

A review of the Director's Objective Criteria regarding this location is attached.

This permit refile is to allow for changes in the TEP Rocky Mountain LLC drilling schedule. The bottom hole location of this well has changed since the original Form 2 permit approval. The pad has been built and conductor casing was set and reported in Form 4 Doc #401471122, approved 11/30/2017.

The HMU 9-13C2 (N9W) well (05-045-18446) was used to determine the distance to nearest existing or permitted wellbore belonging to another operator. This distance was measured in plan view.

Nearest permitted or completed well in same formation: Federal RU 441-17 (05-045-23670).

An updated Multi-Well Plan for the Federal RU 31-17 pad (Loc ID #452011) was submitted via Form 4, Document #402015396.

This application is in a Comprehensive Drilling Plan No CDP #: _____

Location ID: 452011

Is this application being submitted with an Oil and Gas Location Assessment application? No

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

Signed: _____

Print Name: VICKI SCHOEBER

Title: REGULATORY SPECIALIST Date: 6/6/2019 Email: VSCHOEBER@TERRAEP.CO

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: 9/7/2019

Expiration Date: 09/06/2021

API NUMBER

05 045 23680 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	<p>1) Operator shall comply with the most current revision of the Northwest Notification Policy.</p> <p>2) Operator shall comply with the most current revision of the Garfield County Rulison Field Notice to Operators, with the following exception: All field notice requirements specified in that Notice to Operators are superseded by the requirements of the most current revision of the Northwest Colorado Notification Policy (see Condition of Approval #1).</p> <p>3) Operator shall provide cement coverage from the production casing shoe (4+1/2" FIRST STRING) to a minimum of 500' above the Lower Wasatch (as defined by COGCC in the report "Casing and Cement Standards for Geologic Isolation Piceance Basin Bradenhead Monitoring Area and Nearby Fields," dated April 18, 2016, COGCC Document No. 2056199, Appendix A Field Scout Cards and Annotated Type Logs) to provide isolation of the Lower Wasatch, all Mesaverde Group formations including the Ohio Creek Formation, and underlying formations, if penetrated. Verify production casing cement coverage with a cement bond log. This requirement shall supersede the top of cement requirements in the Mamm Creek Field Notice to Operators.</p> <p>4) Operator shall comply with the most current revision of the Mamm Creek Field Notice to Operators, with the following exception: All field notice requirements specified in that Notice to Operators are superseded by the requirements of the most current revision of the Northwest Colorado Notification Policy (see Condition of Approval #1). Operator shall submit the primary cement job Cement Bond Log (CBL) with either the Form 4 Sundry Notice - Request to Complete or the Form 5 Drilling Completion Report.</p> <p>5) The Operator shall monitor the bradenhead pressure of the proposed well and all offset wells under Operator's control which penetrate the stimulated formation and have a treated interval separation of 300 feet or less. Monitoring shall occur from 24 hours prior to stimulation and shall continue until 24 hours after stimulation is complete. Recording shall be at a frequency of at least once per 24 hours with the capability of recording the maximum pressure observed during each 24 hour period. Operator shall notify COGCC Engineering staff if bradenhead pressures increase by more than 150 psig.</p> <p>6) Operator shall comply with the Notice to Operators Drilling Wells in the Buzzard, Mamm Creek, and Rulison fields, Garfield County and Mesa County – Procedures and Submittal Requirements for Compliance with COGCC Order Nos. 1-107, 139-56, 191-22, and 369-2 (July 8, 2010).</p>

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)

Applicable Policies and Notices to Operators

Mamm Creek Field Area Notice to Operators.
<http://cogcc.state.co.us/documents/reg/Policies/Mamm%20Creek%20Drilling.pdf>

Piceance Rulison Field - Notice to Operators.
<http://cogcc.state.co.us/documents/reg/Policies/NoticeToOp-20060623-2.pdf>

NW Colorado Notification Policy.
http://cogcc.state.co.us/documents/reg/Policies/nw_notification_procedures.pdf

Bradenhead Pressure Reporting-Garfield County (Mamm Creek & Rulison Fields) Mesa County (Buzzard Field).
http://cogcc.state.co.us/documents/reg/Policies/NTO_07082010.pdf

Notice Concerning Operating Requirements for Wildlife Protection.
http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
2108924	OBJECTIVE CRITERIA REVIEW MEMO
402014156	FORM 2 SUBMITTED
402018479	WELL LOCATION PLAT
402028442	DEVIATED DRILLING PLAN
402028448	DIRECTIONAL DATA
402051540	CORRESPONDENCE
402055983	OTHER

Total Attach: 7 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	The Objective Criteria Review Memo (Doc#2108924) is attached to this Form 2 Application for Permit to Drill (APD). Following additional analysis arising out of the Objective Criteria, the Director determined that this application meets the standard for the protection of public health, safety, welfare, the environment and wildlife resources set by SB 19-181.	08/23/2019
OGLA	08/23/2019 - per COGCC discussions with operators in December 2018, any subsurface cuttings management / disposal area on a well pad can no longer be referred to as a 'Cuttings trench'; per COGCC rules and definition for Drilling pit ("a Drilling pit is used to contain E&P waste generated during drilling operations"). This subsurface cuttings management / disposal area is considered a 'Drilling pit'. The original Form 2A #401058467 indicated cuttings disposal will be 'onsite' and 'Cuttings trench'. This Form 2 refile has been revised to indicate that cuttings disposal will be 'onsite' and 'Drilling pit'. A comment has been added to the 'Drilling Waste Management Program' section of the Form 2 explaining this revision and difference between the Form 2 refiles and the previously approved Form 2A.	08/23/2019
Engineer	Offset water well check: COGCC evaluated offset water wells within one mile of this proposed well surface hole location. This information was used in addition to locally-available geophysical logs and hydrogeologic information to evaluate the adequacy of the operator's proposed surface casing setting depth. The deepest water well within one mile is 180' deep. Offset Well Evaluation: Existing offset oil and gas wellbores within 1,500' of the wellbores on this pad meet standards. No mitigation required. Removed operator's proposed first string cement top. Operator's proposed first string cement top may not be adequate to satisfy COGCC's new cement coverage requirements, effective April 18, 2016. Increase cement coverage accordingly, as specified in Conditions of Approval #3.	06/19/2019
Permit	Passed completeness.	06/14/2019

Total: 4 comment(s)

