

FORM
2

Rev
08/16

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:

401143034

Date Received:

11/28/2016

APPLICATION FOR PERMIT TO:

☒ Drill ☐ Deepen ☐ Re-enter ☐ Recomplete and Operate

TYPE OF WELL OIL ☐ GAS ☒ COALBED ☐ OTHER _____

Refilling ☒

ZONE TYPE SINGLE ZONE ☐ MULTIPLE ZONES ☒ COMMINGLE ZONES ☒

Sidetrack ☐

Well Name: FEDERAL

Well Number: RGU 322-26-198

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: LOT 6 Sec: 26 Twp: 1S Rng: 98W Meridian: 6

Latitude: 39.936423

Longitude: -108.363880

Footage at Surface: 1992 Feet FNL/FSL FNL 1571 Feet FEL/FWL FWL

Field Name: SULPHUR CREEK

Field Number: 80090

Ground Elevation: 6668

County: RIO BLANCO

GPS Data:

Date of Measurement: 09/18/2013 PDOP Reading: 1.9 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 FNL/FWL Bottom Hole: FNL/FSL FEL/FWL

2077 FNL 1957 FWL 2077 FNL 1957 FWL
Sec: 26 Twp: 1S Rng: 98W Sec: 26 Twp: 1S Rng: 98W

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.)

T1S R98W

SEC. 23: LOTS 1 (38.67, NE/4NE/4), 2 (38.70, NW/4NE/4), 3 (38.74, NE/4NW/4), 4 (38.73, NW/4NW/4), 5 (38.80, SW/4NW/4), 6 (38.80, SE/4NW/4), 7 (38.75, SW/4NE/4), 8 (38.72, SE/4NE/4), 9 (38.77, NE/4SE/4), 10 (38.77, NW/4SE/4), 11 (38.84, NE/4SW/4), 12 (38.85, NW/4SW/4), 13 (38.93, SW/4SW/4), 14 (38.93, SE/4SW/4), 15 (38.83, SW/4SE/4), 16 (38.82, SE/4SE/4) [ALL]

SEC. 26: LOTS 2 (38.94, NW/4NE/4), 3 (38.99, NE/4NW/4), 4 (39.02, NW/4NW/4), 5 (38.97, SW/4NW/4), 6 (38.94, SE/4NW/4), 7 (39.05, SW/4NE/4), 8 (39.03, SE/4NE/4), 9 (39.11, NE/4SE/4), 10 (39.13, NW/4SE/4), 11 (38.88, NE/4SW/4), 12 (38.88, NW/4SW/4), 13 (38.86, SW/4SW/4), 14 (38.85, SE/4SW/4), 15 (39.12, SW/4SE/4), 16 (39.19, SE/4SE/4) [NW/NE/4, S/2NE/4, NW/4, S/2]

Total Acres in Described Lease: 1205 Described Mineral Lease is: ☐ Fee ☐ State ☒ Federal ☐ Indian

Federal or State Lease # COC60732

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 1957 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 1079 Feet

Building Unit: 1079 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 1855 Feet

Above Ground Utility: 1084 Feet

Railroad: 5280 Feet

Property Line: 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, and Designated Outside Activity Area - 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: 118 Feet

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

Federal or State Unit Name (if appl): RYAN GULCH UNIT Unit Number: 068239X

SPACING & FORMATIONS COMMENTS

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 | | | |
| SEGO | SEGO | | | |
| WILLIAMS FORK | WMFK | | | |

DRILLING PROGRAM

Proposed Total Measured Depth: 12473 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 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: Cuttings trench

Other Disposal Description:

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 | 30 | 18 | 48 | 0 | 80 | 30 | 80 | 0 |
| SURF | 14+3/4 | 9+5/8 | 36 | 0 | 3936 | 1429 | 3936 | 0 |
| 1ST | 8+3/4 | 4+1/2 | 11.6 | 0 | 12473 | 1273 | 12473 | 7468 |

☐ 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: This permit refile is to allow for changes in the TEP Rocky Mountain LLC drilling schedule. No changes have been made to the surface hole location, bottomhole location, lease description or surface use since the original permit was issued.

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

Location ID: 440459

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: 11/28/2016 Email: vschoeber@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 and applicable orders and is hereby approved.

COGCC Approved:  Director of COGCC Date: 9/17/2017

Expiration Date: 09/16/2019

API NUMBER

05 103 12175 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

| | |
|--|--|
| | The moisture content of water/bentonite based mud (WBM) generated drill cuttings managed onsite shall be kept as low as practicable to prevent accumulation of liquids greater than de minimis amounts. After drilling and completion operations have been completed, the WBM drill cuttings that will remain on the well pad location (cuttings management area, the cut portion of the pad, cuttings trench, dry cuttings drilling pit), must meet the applicable standards of Table 910-1. No liners are allowed to be disposed of with the drill cuttings. After the drill cuttings have been amended (if necessary) and placed on the well pad, sampling frequency of the drill cuttings (to be determined by the operator) shall be representative of the material left on location. No offsite disposal of cuttings to another oil and gas location (TEP's permitted Cuttings Trench locations or nearby locations) shall occur without prior approval of a Form 4 Sundry Notice specifying disposal location and waste characterization method. Commercial disposal of drill cuttings will also require notification to COGCC via a Form 4 Sundry Notice. |
| | If conductors are preset, operator shall comply with Notice to Operators: Procedures for Preset Conductors (dated September 1, 2016, revised October 6, 2016). |
| | If location is not built by 2A expiration 12/15/2017, Operator must Refile Form 2A for approval prior to location construction. |
| | <p>1)Operator shall comply with the most current revision of the Northwest Colorado Notification Policy.</p> <p>2)Operator shall provide cement coverage from the production casing shoe (4+1/2" FIRST STRING) to a minimum of 200' above all Mesaverde Group (and Ohio Creek Formation, if present) oil, gas, and water-bearing sandstone and coalbed formations. Verify production casing cement coverage with a cement bond log.</p> <p>3)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 200 psig.</p> <p>4)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.</p> |

Best Management Practices

No BMP/COA Type

Description

| | | |
|---|--------------------------------|---|
| 1 | Drilling/Completion Operations | TEP will run triple-combo open hole logs from well TD up to base of surface casing on one of the first wells drilled on a multi-well pad. Remaining wells on the pad will be logged with either cased hole pulsed neutron or triple-combo open hole. Every well will also have a CBL log from well TD up through well surface. Form 5 Completion Reports will identify wells on the pad with triple-combo open hole logs. |
|---|--------------------------------|---|

Total: 1 comment(s)

Applicable Policies and Notices to Operators

| |
|--|
| Policy |
| NW Colorado Notification Policy. http://cogcc.state.co.us/documents/reg/Policies/nw_notification_procedures.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> |
|---------------------------|--------------------|
| 401143034 | FORM 2 SUBMITTED |

Total Attach: 1 Files

General Comments

| <u>User Group</u> | <u>Comment</u> | <u>Comment Date</u> |
|--------------------------|---|----------------------------|
| Permit | Final review complete. | 09/13/2017 |
| Permit | Preliminary review complete. | 01/19/2017 |
| Engineer | Operator Comment on sundry (doc#400841764) to change the BHL of offset well FEDERAL #RGU 332-26-198 (API #045-11990): "The RGU 332-26-198 well sundried BHL is located approximately 75' from the RGU 322-26-198 permitted BHL currently, but the BHL of the RGU 322-26-198 well and other wells on the RGU 22-26-198 PAD and RGU 11-26-198 pad are currently being revised by well planning and will be sundried. The changes made to the bottom hole locations of wells on the RGU 22-26-198 and RGU 11-26-198 pads will be spaced appropriately for anti-collision and proper drainage of the reservoir with appropriate spacing from the wells on the RGU 42-26-198 pad." | 12/06/2016 |
| Engineer | Offset water well check: COGCC evaluated offset water wells within one mile of this proposed well's surface hole location. This information was used in addition to locally-available geophysical logs and hydrogeologic information was used to evaluate the adequacy of the operator's proposed surface casing setting depth. The deepest water well within one mile is an industrial well operated by the natural soda extraction industry at a depth of 3,001 feet. There are no water wells used for non-industrial purposes within one mile of the surface hole location. Geologic prognosis shows the proposed surface casing covers the entire Green River formation. Offset Well Evaluation: Existing offset oil and gas wells within 1,500 feet of this wellbore meet standards. No mitigation required. | 12/06/2016 |
| Engineer | Emailed operator about distance to nearest well completed in same formation. | 12/05/2016 |
| Permit | Passed completeness. | 12/01/2016 |

Total: 6 comment(s)