

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 R94W

SEC. 12: LOTS 3 (39.04 NE/4NW/4), 4 (38.04 NW/4NW/4), 7 (38.40 SE/4SE/4), S/2NW, SW, SWSE

Total Acres in Described Lease: 395 Described Mineral Lease is: ☐ Fee ☐ State ☒ Federal ☐ Indian

Federal or State Lease # COC36490

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 166 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 4489 Feet

Building Unit: 4489 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 2292 Feet

Above Ground Utility: 3593 Feet

Railroad: 5280 Feet

Property Line: 841 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: 274 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 166 Feet (Enter 5280 for distance greater than 1 mile.)

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

SPACING & FORMATIONS COMMENTS

CA - COC55168 - All of Sec. 12, T7S-R94W, MVRD

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	139-76	640	7S-94W, Sec 12 Al

DRILLING PROGRAM

Proposed Total Measured Depth: 9786 Feet

Distance from proposed wellbore to nearest existing or permitted wellbore belonging to another operator:

2252 Feet (Including plugged wells)

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	26	18	48	0	80	30	80	0
SURF	13+1/2	9+5/8	32.3	0	1124	272	1124	0
1ST	8+3/4	4+1/2	11.6	0	9786	895	9786	5207

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

Location ID: 413683

Is this application being submitted with an Oil and Gas Location Assessment application? Yes

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: 5/10/2016 Email: vicki.schoeber@wpenergy.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 and applicable orders and is hereby approved.

COGCC Approved:  Director of COGCC Date: 7/11/2016

Expiration Date: 07/10/2018

API NUMBER

05 045 23255 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

- 1)Operator shall comply with the most current revision of the Northwest Notification Policy.
- 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).
- 3)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).
- 4)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).
- 5)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, if penetrated, and underlying formations. 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.
- 6)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.

Best Management Practices

No	BMP/COA Type	Description
1	Planning	<ul style="list-style-type: none"> • Maximize the utility of surface facilities by developing multiple wells from a single pad (directional drilling), and by co-locating multi-purpose facilities (for example, well pads and compressors) to avoid unnecessary habitat fragmentation and disturbance of additional geographic areas. • Minimize newly planned activities and operations within 300 feet of the ordinary high water mark of any reservoir, lake, wetland, or natural perennial or seasonally flowing stream or river. • Avoid constructing any road segment in the channel of an intermittent or perennial stream • Minimize the number, length, and footprint of oil and gas development roads • Use existing roads where possible • Combine utility infrastructure (gas, electric, and water) planning with roadway planning to avoid separate utility corridors • Combine and share roads to minimize habitat fragmentation • Where possible, consolidate pipeline and existing roadways, or roadways that are planned for development • Maximize the use of directional drilling to minimize habitat loss/fragmentation • Maximize use of long-term centralized tank batteries to minimize traffic • Maximize use of remote telemetry for well monitoring to minimize traffic • Phase and concentrate development activities, so that large areas of undisturbed habitat for wildlife remain. • Maintain undeveloped areas within development boundaries sufficient to allow wildlife to persist within development boundaries during all phases of construction, drilling, and production.
2	Drilling/Completion Operations	<ul style="list-style-type: none"> • WPX will ensure 110 percent secondary containment for any volume of fluids contained at the well site during drilling and completions operations. • WPX will implement best management practices to contain any unintentional release of fluids. • Either a lined drilling pit or closed loop system will be implemented. • Install and maintain adequate measures to exclude all types of wildlife (e.g., big game, birds, and small rodents) from all fluid pits (e.g., fencing, netting, and other appropriate exclusion measures).
3	Drilling/Completion Operations	<p>* WPX 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.</p>
4	Interim Reclamation	<ul style="list-style-type: none"> • Remove well pad and road surface materials that are incompatible with post-production land use and re-vegetation Requirements • Use only certified weed-free native seed in seed mixes, except for non-native plants that benefit wildlife • WPX Energy will use certified, weed free grass hay, straw, hay or other mulch materials used for the reseeded and reclamation of disturbed areas. • Install exclusionary devices to prevent bird and other wildlife access to equipment stacks, vents and openings. • Reduce visits to well-sites through remote monitoring (i.e. SCADA) and the use of multi-function contractors.

Total: 4 comment(s)

Applicable Policies and Notices to Operators

Policy
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/NT0_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>
401032789	FORM 2 SUBMITTED
401036171	DIRECTIONAL DATA
401038861	SURFACE AGRMT/SURETY
401038866	WELL LOCATION PLAT
401041098	DEVIATED DRILLING PLAN
401041099	DEVIATED DRILLING PLAN
401044164	FED. DRILLING PERMIT

Total Attach: 7 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Nearest well belonging to another operator is Laramie Energy's South Leverich 18-05D to the South. Final review complete.	7/8/2016 1:25:22 PM
Engineer	Revised cement top meets COA#5 based on operator's geologic prognosis for Lower Wasatch top.	6/20/2016 1:30:16 PM
Permit	Changed production casing top of cement from 5507' to 5207' and sacks of cement from 836 to 899 as directed by operator.	6/20/2016 9:28:28 AM
Permit	This is a previously built pad with 4 producing wells. Preliminary review complete.	6/14/2016 12:21:19 PM
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 to evaluate the adequacy of the operator's proposed surface casing setting depth. The deepest water well within one mile is 127 feet deep. Offset Well Evaluation: Existing offset oil and gas wells within 1,500 feet of this wellbore meet standards. No mitigation required.	5/23/2016 11:08:45 AM
Permit	Passed completeness.	5/19/2016 12:39:33 PM

Total: 6 comment(s)