

APPLICATION FOR PERMIT TO:

Drill Deepen Re-enter Recomplete and Operate

TYPE OF WELL OIL <input type="checkbox"/> GAS <input checked="" type="checkbox"/> COALBED <input type="checkbox"/> OTHER _____	Refiling <input type="checkbox"/>
ZONE TYPE SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONES <input type="checkbox"/> COMMINGLE ZONES <input type="checkbox"/>	Sidetrack <input type="checkbox"/>

Date Received:
08/19/2014

Well Name: Savage RWF Well Number: 24-26

Name of Operator: WPX ENERGY ROCKY MOUNTAIN LLC COGCC Operator Number: 96850

Address: 1001 17TH STREET - SUITE #1200

City: DENVER State: CO Zip: 80202

Contact Name: Reed Haddock Phone: (303)606-4086 Fax: (303)629-8268

Email: reed.haddock@wpxenergy.com

RECLAMATION FINANCIAL ASSURANCE
Plugging and Abandonment Bond Surety ID: 20030107

WELL LOCATION INFORMATION

QtrQtr: SESW Sec: 26 Twp: 6S Rng: 94W Meridian: 6

Latitude: 39.492080 Longitude: -107.859572

Footage at Surface: <u>1116</u> feet	FNL/FSL	FEL/FWL
<u>FSL</u> <u>1482</u> feet	<u>FSL</u>	<u>FWL</u>

Field Name: RULISON Field Number: 75400

Ground Elevation: 5350 County: GARFIELD

GPS Data:
Date of Measurement: 04/23/2008 PDOP Reading: 1.3 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
<u>378</u> <u>FSL</u> <u>2441</u> <u>FWL</u>	<u>378</u> <u>FSL</u> <u>2441</u> <u>FWL</u>		
Sec: <u>26</u> Twp: <u>6S</u> Rng: <u>94W</u>	Sec: <u>26</u> Twp: <u>6S</u> Rng: <u>94W</u>		

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: Surface Use Agreement

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.)

Lease attached.

Total Acres in Described Lease: 560 Described Mineral Lease is: Fee State Federal Indian

Federal or State Lease # _____

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 378 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 1737 Feet

Building Unit: 1761 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 1677 Feet

Above Ground Utility: 508 Feet

Railroad: 5280 Feet

Property Line: 1691 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 Wellbore to Nearest Wellbore Permitted or Completed in the same formation: 535 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 378 Feet (Enter 5280 for distance greater than 1 mile.)

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

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.)
WILLIAMS FORK	WMFK	139-66	640	All

DRILLING PROGRAM

Proposed Total Measured Depth: 7830 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 535 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:

Spent drilling fluids are treated with a de-watering unit. Separated mud solids are disposed with the drill cuttings in onsite cuttings trench. Separated water is re-used for drilling, or disposed at a permitted injection well.

Beneficial reuse or land application plan submitted? _____

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	60	25	60	0
SURF	13+1/2	9+5/8	32.3#	0	1647	426	1647	0
1ST	8+3/4	4+1/2	11.6#	0	7830	974	7830	3812

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 _____ CDP #: _____

Location ID: 323868

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: Reed Haddock

Title: Regulatory Specialist Sta Date: 8/19/2014 Email: reed.haddock@wpenergy.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: *Matthew Lee* Director of COGCC Date: 11/6/2014

Expiration Date: 11/05/2016

API NUMBER
05 045 22576 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>
	<p>(1) Compliance with the most current revision of the northwest Colorado notification policy is required. See attached notice.</p> <p>(2) Compliance with the most current revision of the Garfield County Rulison field notice to operators is required, with the following exception: all field notice requirements specified in this notice to operators are superseded by the requirements of the most current revision of the northwest Colorado notification policy (see Condition Of Approval #1). See attached notice.</p> <p>(3) Cement on production casing must be a minimum of 200' above the top of the Mesa Verde Formation (or 200' above the Ohio Creek Formation if present). Cement top verification by CBL is required.</p> <p>(4) Offset well mitigation pressure monitoring of the Juhan RMV 22-35 shall be continuous during the proposed well stimulation operations. Operator shall also monitor the Juhan RMV 22-35 bradenhead pressure during the same monitoring period. Operator shall notify COGCC engineering staff if anomalous pressures are observed in the Juhan RMV 22-35 well during the monitoring period.</p>

Best Management Practices

No	BMP/COA Type	Description
1	Planning	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.

Total: 1 comment(s)

Applicable Policies and Notices to Operators

Piceance Rulison Field - Notice to Operators.
NW Colorado Notification Policy.
Notice Concerning Operating Requirements for Wildlife Protection.

Attachment Check List

Att Doc Num	Name
400576214	FORM 2 SUBMITTED
400652463	OIL & GAS LEASE
400654704	TOPO MAP
400654705	WELL LOCATION PLAT
400667556	DEVIATED DRILLING PLAN
400667557	DIRECTIONAL DATA
400667559	SURFACE AGRMT/SURETY
400667929	FORM 2 SUBMITTED

Total Attach: 8 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final review complete.	11/4/2014 11:16:48 AM
Permit	Added distance to unit boundary as per opr. Ready to pass .	10/20/2014 2:08:08 PM
LGD	Pass-GDB	8/29/2014 3:00:06 PM
Engineer	Offset Well Evaluation: COGCC Engineering contacted operator on 8/28/2014, concerned about potential for this proposed well to communicate with an offset well during stimulation. Existing Offset Producing Well of Concern: Juhan RMV 22-35 (05-045-06920), TD at 7247', unknown TOC (some uncemented WSTC possible), surface casing set at 331', WMFK producer. Has recently developed high-bradenhead-pressure issues. Operator responded on ___/2014, confirming that communication is possible based on the expected primary hydraulic fracture direction, which is oriented toward the offset well. Operator agrees to mitigate by performing the following at Juhan RMV 22-35 during stimulation of the proposed well: 1) Shut the well in, 2) Hook the well up to an open top flow back tank off the bradenhead/surface casing annulus, 3) monitor pressure on the well during the frac operations, and 4) If pressures are observed to increase, open the well to the flow back tank to relieve the pressures on Juhan RMV 22-35.	8/29/2014 9:48:35 AM
Engineer	The proposed surface casing is more than 50' below the depth of the deepest water well within 1-mile of the surface location when corrected for elevation differences. The deepest water well within 1-mile is 250 feet deep.	8/29/2014 9:48:33 AM
Permit	Passed Completeness	8/20/2014 2:25:16 PM
Permit	Per Operator request returned to draft.	8/19/2014 2:47:36 PM

Total: 7 comment(s)