

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.)

T2S R98W
 SEC. 1: LOTS 21 (36.41, NE/4NE/4), 28 (33.19, SE/4NE/4), 29 (29.06, NE/4SE/4), 36 (26.32, SE/4SE/4) [E/2E/2]
 SEC. 9: S2/NE/4, N2SW/4

Total Acres in Described Lease: 975 Described Mineral Lease is: Fee State Federal Indian

Federal or State Lease # COC60736

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 2184 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 5280 Feet
 Building Unit: 5280 Feet
 High Occupancy Building Unit: 5280 Feet
 Designated Outside Activity Area: 5280 Feet
 Public Road: 3007 Feet
 Above Ground Utility: 4553 Feet
 Railroad: 5280 Feet
 Property Line: 3488 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: 276 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 5568 Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): RYAN GULCH UNIT Unit Number: COC68239X

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: 12162 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 276 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	30	18	48	0	80	50	80	0
SURF	14+3/4	9+5/8	36	0	3628	1319	3628	0
1ST	8+3/4	4+1/2	11.6	0	12162	1280	12162	7112

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: 335873

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: ANGELA NEIFERT-KRAISER

Title: REGULATORY SPECIALIST Date: 1/30/2015 Email: ANGELA.NEIFERT-

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: 4/24/2015

Expiration Date: 04/23/2017

API NUMBER
05 103 11170 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 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.
	(1) Operator shall comply with the most current revision of the Northwest Notification Policy. See attached notice. (2) Operator shall provide cement coverage from the production casing shoe (4+1/2" First 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 a cement bond log. (3) The Operator shall monitor the bradenhead pressure of the proposed well and all offset wells under Operator's control which have a treated interval separation of 300 feet or less. Operator shall notify COGCC Engineering staff if anomalous bradenhead pressures are observed in the wells.

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.
2	Planning	<ul style="list-style-type: none"> • Minimize well pad density to the extent possible
3	Construction	<ul style="list-style-type: none"> • Surface roads to ensure that the anticipated volume of traffic and the weight and speed of vehicles using the road do not cause environmental damage, including generation of fugitive dust and contribution of sediment to downstream areas. • Salvage topsoil from all road construction and other rights-of-way and re-apply during interim and final reclamation.
4	Drilling/Completion Operations	<ul style="list-style-type: none"> • Limit parking to already disturbed areas that have not yet been reclaimed
5	Interim Reclamation	<ul style="list-style-type: none"> • Install automated emergency response systems (e.g., high tank alarms, emergency shut-down systems, etc.). • Implement fugitive dust control program • Evaluate the utility of soil amendment application to achieve effective reclamation. • Use appropriately diverse reclamation seed mixes that mirror an appropriate reference area for the site being reclaimed where approved by landowner. • Seed during appropriate season to increase likelihood of reclamation success • Apply certified weed free mulch and crimp or tacify to remain in place to reclaim areas for seed preservation and moisture retention

Total: 5 comment(s)

Applicable Policies and Notices to Operators

NW Colorado Notification Policy.

Notice Concerning Operating Requirements for Wildlife Protection.

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
400634680	FORM 2 SUBMITTED
400784052	DIRECTIONAL DATA
400784054	DEVIATED DRILLING PLAN
400784055	WELL LOCATION PLAT
400784056	FED. DRILLING PERMIT
400784057	ACCESS ROAD MAP

Total Attach: 6 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final review complete.	4/22/2015 7:16:40 AM
Engineer	Added bradenhead monitoring COA with operator concurrence.	4/21/2015 8:01:21 AM
Final Review	Pushed to On Hold. Offset BHL < 300', but no bradenhead monitoring COA.	3/28/2015 7:18:17 AM
Permit	Corrected BLM lease number to match attached BLM lease from COC 62053 and 285 acres to COC 60736 containing 975 acres and notified opr. Ready to pass.	2/9/2015 11:46:51 AM
Engineer	Evaluated offset wells within 1500 feet. No mitigation required. Offset water well check: COGCC evaluated offset water wells within one mile of this proposed well's surface hole location. There are no existing water wells within one mile of the surface location. The proposed surface casing setting depth is more than 50 feet below the base of the deepest aquifer in which water wells are screened in the area. Geologic prognosis shows the proposed surface casing covers the entire Green River formation.	2/5/2015 3:52:25 PM
Permit	Passed completeness.	2/3/2015 12:19:59 PM

Total: 6 comment(s)