

FORM

2

Rev
12/05

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:

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Date Received:

10/02/2012

PluggingBond SuretyID

20040071

APPLICATION FOR PERMIT TO:

1. ☒ Drill, ☐ Deepen, ☐ Re-enter, ☐ Recomplete and Operate

2. TYPE OF WELL

OIL ☐ GAS ☒ COALBED ☐ OTHER _____
 SINGLE ZONE ☐ MULTIPLE ☒ COMMINGLE ☒

Refiling ☒Sidetrack ☐3. Name of Operator: ANTERO RESOURCES PICEANCE CORPORATION4. COGCC Operator Number: 100795. Address: 1625 17TH ST STE 300City: DENVER State: CO Zip: 802026. Contact Name: Hannah Knopping Phone: (303)357-6412 Fax: (303)357-7315Email: hknopping@anteroresources.com7. Well Name: NORCROSS Well Number: A13

8. Unit Name (if appl): _____ Unit Number: _____

9. Proposed Total Measured Depth: 8868

WELL LOCATION INFORMATION

10. QtrQtr: NESW Sec: 13 Twp: 6S Rng: 93W Meridian: 6Latitude: 39.523003 Longitude: -107.728749

Footage at Surface: 1389 feet FSL 1415 feet FWL
 FNL/FSL FEL/FWL

11. Field Name: MAMM CREEK Field Number: 5250012. Ground Elevation: 5496 13. County: GARFIELD

14. GPS Data:

Date of Measurement: 05/17/2007 PDOP Reading: 1.2 Instrument Operator's Name: Scott E. Aibner15. 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
2307 FSL 1889 FWL 2307 FSL 1889 FWL
 Sec: 13 Twp: 6S Rng: 93W Sec: 13 Twp: 6S Rng: 93W

16. Is location in a high density area? (Rule 603b)? ☐ Yes ☒ No17. Distance to the nearest building, public road, above ground utility or railroad: 200 ft18. Distance to nearest property line: 200 ft 19. Distance to nearest well permitted/completed in the same formation(BHL): 185 ft

20. LEASE, SPACING AND POOLING INFORMATION

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
Iles	ILES	191-25	320	S/2
Williams Fork	WMFK	191-13	320	S/2

21. Mineral Ownership: ☒ Fee ☐ State ☐ Federal ☐ Indian Lease #: _____22. Surface Ownership: ☒ Fee ☐ State ☐ Federal ☐ Indian23. Is the Surface Owner also the Mineral Owner? ☒ Yes ☐ No Surface Surety ID#:23a. If 23 is Yes: Is the Surface Owner(s) signature on the lease? ☒ Yes ☐ No23b. If 23 is No: ☐ Surface Owners Agreement Attached or ☐ \$25,000 Blanket Surface Bond ☐ \$2,000 Surface Bond ☐ \$5,000 Surface Bond

24. Using standard QtrQtr, Sec, Twp, Rng format enter entire mineral lease description upon which this proposed wellsite is located (attach separate sheet/map if you prefer):

See Exhibit "A" - Sec 13 - S/2 and other lands (from previously approved APD)

25. Distance to Nearest Mineral Lease Line: 137 ft

26. Total Acres in Lease: 499

DRILLING PLANS AND PROCEDURES

27. Is H2S anticipated? ☐ Yes ☒ No If Yes, attach contingency plan.

28. Will salt sections be encountered during drilling? ☐ Yes ☒ No

29. Will salt (>15,000 ppm TDS CL) or oil based muds be used during drilling? ☐ Yes ☒ No

30. If questions 28 or 29 are yes, is this location in a sensitive area (Rule 901.e)? ☐ Yes ☒ No

31. Mud disposal: ☒ Offsite ☐ Onsite

If 28, 29, or 30 are "Yes" a pit permit may be required.

Method: ☐ Land Farming ☐ Land Spreading ☐ Disposal Facility Other: Onsite if app (See

Note: The use of an earthen pit for Recompletion fluids requires a pit permit (Rule 905b). If air/gas drilling, notify local fire officials.

Casing Type	Size of Hole	Size of Casing	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
CONDUCTOR	24	16	55#	0	60	177	60	0
SURF	12+1/4	8+5/8	24/32#	0	1,000	416	1,000	0
1ST	7+7/8	4+1/2	11.6#	0	8,868	763	8,868	

32. BOP Equipment Type: ☐ Annular Preventer ☒ Double Ram ☐ Rotating Head ☐ None

33. Comments I certify that all conditions in the original permit are the same except the updated distance to the nearest well except for the updated casing and cement program. There have been no other changes to land use, well construction or the lease. This Refile Form 2 does not require a Form 2A because the pad has been constructed, a closed loop system is being used so no pits need to be constructed, the refiled well will not require any expansion / additional surface disturbance of the pad. The location is not in a wildlife restricted surface occupancy area (RSO); consultation with CDOW is not required and the location does not require a variance from any of the rules listed in Rule 306.d.(1).(A).(ii).; consultation with CDPHE is not required. #31 Mud Disposal: Antero will bury onsite if disposal meets Table 910 and if there is a provision in SUA which allows for such operation. TOP OF CEMENT OF 1ST STRING/PRODUCTION CASING WILL BE >500 FEET ABOVE TOP OF GAS. To comply with Rule 603.1 we will use a rig with a maximum derrick height of 133 feet.

34. Location ID: 335544

35. Is this application in a Comprehensive Drilling Plan ? ☐ Yes ☐ No

36. Is this application part of submitted Oil and Gas Location Assessment ? ☐ Yes ☒ No

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

Signed: _____ Print Name: Hannah Knopping

Title: Permit Representative Date: 10/2/2012 Email: hknopping@anteroresources.c

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: 12/11/2012

API NUMBER

05 045 15169 00

Permit Number: _____ Expiration Date: 12/10/2014

CONDITIONS OF APPROVAL, IF ANY: _____

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.

1) COMPLIANCE WITH THE MOST CURRENT REVISION OF THE NORTHWEST COLORADO NOTIFICATION POLICY IS REQUIRED.

2) COMPLIANCE WITH THE MOST CURRENT REVISION OF THE GARFIELD COUNTY RULISON FIELD NOTICE TO OPERATORS IS REQUIRED.

3) COMPLIANCE WITH THE MOST CURRENT REVISION OF THE MAMM CREEK FIELD NOTICE TO OPERATORS IS REQUIRED.

4) COMPLIANCE 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) -- IS REQUIRED. SEE ATTACHED NOTICE.

5) 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. THIS REQUIREMENT SHALL SUPERSEDE THE TOP OF CEMENT REQUIREMENTS IN THE NEW MAMM CREEK FIELD NOTICE TO OPERATORS.

The moisture content of any drill cuttings in a cuttings pit, trench, or pile shall be as low as practicable to prevent accumulation of liquids greater than de minimis amounts. At the time of closure, if the drill cuttings are to be left onsite, they must also meet the applicable standards of table 910-1.

Operator will use a rig with height not to exceed 133'.

Applicable Policies and Notices to Operators

Mamm Creek Field Area Notice to Operators.

Piceance Rulison Field - Notice to Operators.

NW Colorado Notification Policy.

Bradenhead Pressure Reporting-Garfield County (Mamm Creek & Rulison Fields) Mesa County (Buzzard Field).

Notice Concerning Operating Requirements for Wildlife Protection.

Attachment Check List

Att Doc Num	Name
400185729	FORM 2 SUBMITTED
400332962	30 DAY NOTICE LETTER

Total Attach: 2 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	No LGD or public comments. Final Review--passed.	12/10/2012 10:03:19 AM
Engineer	THE PROPOSED SURFACE CASING IS MORE THAN 50' BELOW THE DEPTH OF THE DEEPEST WATER WELL WITHIN 1MILE OF THE SURFACE LOCATION WHEN CORRECTED FOR ELEVATION DIFFERENCES. THE DEEPEST WATER WELL WITHIN 1 MILE IS 400 FEET DEEP.	10/16/2012 1:02:14 PM
Permit	This form passed completeness.	10/3/2012 11:17:23 PM

Total: 3 comment(s)

BMP

Type

Comment

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Total: 0 comment(s)