

State of Colorado
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80205 Phone: (303) 894-2100 Fax: (303) 894-2109



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Document Number:

400121502

Oil and Gas Location Assessment

☐ New Location
 ☒ Amend Existing Location
 Location#: 335541

Submit original plus one copy. This form is to be submitted to the COGCC prior to any ground disturbance activity associated with oil and gas development operations. This Assessment may be approved as a standalone application or submitted as an informational report accompanying an Application for Permit-To-Drill, Form 2. Approval of this Assessment will allow for the construction of the below specified location; however, it does not supersede any land use rules applied by the local land use authority. This form may serve as notice to land owners and other interested parties, please see the COGCC web site at <http://colorado.gov/cogcc/> for all accompanying information pertinent to this Oil and Gas Location Assessment.

Location ID:

335541

Expiration Date:

02/07/2014☒ This location assessment is included as part of a permit application.

1. CONSULTATION

- ☐ This location is included in a Comprehensive Drilling Plan. CDP # _____
- ☒ This location is in a sensitive wildlife habitat area.
- ☐ This location is in a wildlife restricted surface occupancy area.
- ☐ This location includes a Rule 306.d.(1)A.ii. variance request.

2. Operator

Operator Number: 10079

Name: ANTERO RESOURCES PICEANCE CORPORATION

Address: 1625 17TH ST STE 300

City: DENVER State: CO Zip: 80202

3. Contact Information

Name: Hannah Knopping

Phone: (303) 357-6412

Fax: (303) 357-7315

email: hknopping@anteroresources.com

4. Location Identification:

Name: O'Toole Number: A Pad

County: GARFIELD

Quarter: SESE Section: 16 Township: 6S Range: 92W Meridian: 6 Ground Elevation: 5652

Define a single point as a location reference for the facility location. This point should be used as the point of measurement in the drawings to be submitted with this application. When the location is to be used as a well site then the point shall be a well location.

Footage at surface: 1102 feet FSL, from North or South section line, and 452 feet FEL, from East or West section line.

Latitude: 39.522762 Longitude: -107.664054 PDOP Reading: 1.4 Date of Measurement: 12/27/2010

Instrument Operator's Name: Scott E. Aibner

5. Facilities (Indicate the number of each type of oil and gas facility planned on location):

Special Purpose Pits: <input type="text"/>	Drilling Pits: <input type="text"/>	Wells: <input type="text" value="9"/>	Production Pits: <input type="text"/>	Dehydrator Units: <input type="text"/>
Condensate Tanks: <input type="text" value="3"/>	Water Tanks: <input type="text" value="3"/>	Separators: <input type="text" value="3"/>	Electric Motors: <input type="text"/>	Multi-Well Pits: <input type="text"/>
Gas or Diesel Motors: <input type="text"/>	Cavity Pumps: <input type="text"/>	LACT Unit: <input type="text"/>	Pump Jacks: <input type="text"/>	Pigging Station: <input type="text" value="1"/>
Electric Generators: <input type="text"/>	Gas Pipeline: <input type="text" value="1"/>	Oil Pipeline: <input type="text" value="1"/>	Water Pipeline: <input type="text" value="1"/>	Flare: <input type="text"/>
Gas Compressors: <input type="text"/>	VOC Combustor: <input type="text" value="1"/>	Oil Tanks: <input type="text"/>	Fuel Tanks: <input type="text"/>	

Other: Note: Gas, oil and water pipelines are planned to be constructed along the proposed access road; See attached list of facilities for details.

6. Construction:

Date planned to commence construction: 03/01/2011 Size of disturbed area during construction in acres: 3.35
Estimated date that interim reclamation will begin: 09/01/2011 Size of location after interim reclamation in acres: 1.50
Estimated post-construction ground elevation: 5650 Will a closed loop system be used for drilling fluids: Yes ☒
Will salt sections be encountered during drilling: Yes ☐ No ☒ Is H2S anticipated? Yes ☐ No ☒
Will salt (>15,000 ppm TDS Cl) or oil based muds be used: Yes ☐ No ☒
Mud disposal: Offsite ☐ Onsite ☒ Method: Land Farming ☐ Land Spreading ☐ Disposal Facility ☐
Other: Onsite if meet Table 910

7. Surface Owner:

Name: _____ Phone: _____
Address: _____ Fax: _____
Address: _____ Email: _____
City: _____ State: _____ Zip: _____ Date of Rule 306 surface owner consultation: 08/07/2006
Surface Owner: ☒ Fee ☐ State ☐ Federal ☐ Indian
Mineral Owner: ☒ Fee ☐ State ☐ Federal ☐ Indian
The surface owner is: ☒ the mineral owner ☒ committed to an oil and gas lease
☒ is the executer of the oil and gas lease ☐ the applicant
The right to construct the location is granted by: ☒ oil and gas lease ☐ Surface Use Agreement ☐ Right of Way
☐ applicant is owner
Surface damage assurance if no agreement is in place: ☐ \$2000 ☐ \$5000 ☐ Blanket Surety ID _____

8. Reclamation Financial Assurance:

☒ Well Surety ID: 20040071 ☐ Gas Facility Surety ID: _____ ☐ Waste Mgnt. Surety ID: _____

9. Cultural:

Is the location in a high density area (Rule 603.b.): Yes ☐ No ☒
Distance, in feet, to nearest building: 640, public road: 745, above ground utilit: 200
, railroad: 5280, property line: 200

10. Current Land Use (Check all that apply):

Crop Land: ☐ Irrigated ☐ Dry land ☐ Improved Pasture ☐ Hay Meadow ☐ CRP
Non-Crop Land: ☒ Rangeland ☐ Timber ☐ Recreational ☐ Other (describe): _____
Subdivided: ☐ Industrial ☐ Commercial ☐ Residential

11. Future Land Use (Check all that apply):

Crop Land: ☐ Irrigated ☐ Dry land ☐ Improved Pasture ☐ Hay Meadow ☐ CRP
Non-Crop Land: ☒ Rangeland ☐ Timber ☐ Recreational ☐ Other (describe): _____
Subdivided: ☐ Industrial ☐ Commercial ☐ Residential

12. Soils:

List all soil map units that occur within the proposed location. Attach the National Resource Conservation Service (NRCS) report showing the "Map Unit Description" report listing the soil typical vertical profile. This data is to be used when segregating topsoil.

The required information can be obtained from the NRCS web site at <http://soildatamart.nrcs.usda.gov/> or from the COGCC web site GIS Online map page found at <http://colorado.gov/cogcc>. Instructions are provided within the COGCC web site help section.

NRCS Map Unit Name: 66: Torriorthents-Camborthids-Rock outcrop complex, steep

NRCS Map Unit Name: _____

NRCS Map Unit Name: _____

13. Plant Community:

Complete this section only if any portion of the disturbed area of the location's current land use is on non-crop land.

Are noxious weeds present: Yes ☐ No ☒

Plant species from: ☐ NRCS or, ☒ field observation Date of observation: 12/27/2010

List individual species: Sage brush and grasses.

Check all plant communities that exist in the disturbed area.

- ☐ Disturbed Grassland (Cactus, Yucca, Cheatgrass, Rye)
- ☒ Native Grassland (Bluestem, Grama, Wheatgrass, Buffalograss, Fescue, Oatgrass, Brome)
- ☐ Shrub Land (Mahogany, Oak, Sage, Serviceberry, Chokecherry)
- ☐ Plains Riparian (Cottonwood, Willow, Aspen, Maple, Poplar, Russian Olive, Tamarisk)
- ☐ Mountain Riparian (Cottonwood, Willow, Blue Spruce)
- ☐ Forest Land (Spruce, Fir, Ponderosa Pine, Lodgepole Pine, Juniper, Pinyon, Aspen)
- ☐ Wetlands Aquatic (Bullrush, Sedge, Cattail, Arrowhead)
- ☐ Alpine (above timberline)
- ☐ Other (describe): _____

14. Water Resources:

Rule 901.e. may require a sensitive area determination be performed. If this determination is performed the data is to be submitted with the Form 2A.

Is this a sensitive area: ☒ No ☐ Yes Was a Rule 901.e. Sensitive Areas Determination performed: ☒ No ☐ Yes

Distance (in feet) to nearest surface water: 644, water well: 810, depth to ground water: 90

Is the location in a riparian area: ☒ No ☐ Yes Was an Army Corps of Engineers Section 404 permit filed ☒ No ☐ Yes

Is the location within a Rule 317B Surface Water Supply Area buffer zone:

☒ No ☐ 0-300 ft. zone ☐ 301-500 ft. zone ☐ 501-2640 ft. zone

If the location is within a Rule 317B Surface Water Supply Area buffer have all public water supply systems within 15 miles been notified: ☐ No ☐ Yes

15. Comments:

This pad is built, however we are modifying it by adding an additional well. Due to the new well location, we have submitted the Form 2A as required by Rule 303.d.(1). #1 Consultation: Antero's Wildlife Mitigation Plan is applicable to this pad (see attached summary of Mitigation Plan included in Proposed BMP's. #4: The proposed O'Toole A9 well was used as the reference point for well distance measurements. #14 Water Resources: The depth to groundwater was determined by using static water level data of nearest water well (Permit #219622). Our reference area is undisturbed ground immediately adjacent and to the North of our proposed well pad, as shown in the "Looking North" photo. NOTE: This location was mistakenly assigned 2 separate Location ID's but the correct ID number should be 335541. Please add the O'Toole Federal A8 to Location ID# 335541 and delete Location ID#383335. Prior to drilling, Antero will relocate 2 power poles that are north of the O'Toole A Pad 7 feet farther north making distance from power lines and wellheads 206 feet, in compliance with Rule 603a.1 (see attached "Power Line Exhibit").

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

Signed: _____ Date: 01/10/2011 Email: hknopping@anteroresources.com

Print Name: Hannah Knopping Title: Permit Representative

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: _____

David S. Nashin

Director of COGCC

Date: 2/8/2011

CONDITIONS OF APPROVAL, IF ANY:

All representations, stipulations and conditions of approval stated in this Form 2A for this location shall constitute representations, stipulations and conditions of approval for any and all subsequent operations on the location unless this Form 2A is modified by Sundry Notice, Form 4 or an Amended Form 2A.

The minimum setback from each well head to the above ground utility lines must be at least 1 ½ times the height of the derrick (measured from ground to crown). The minimum setback shall be achieved for a 136' rig by moving the utility poles and lines 7' north of the present pole and line locations.

Operator must implement best management practices to contain any unintentional release of fluids, including any fluids conveyed via temporary surface pipelines.

Operator must ensure 110 percent secondary containment for any volume of fluids contained at well site during drilling and completion operations; including, but not limited to, construction of a berm or diversion dike, diversion/collection trenches within and/or outside of berms/dikes, site grading, or other comparable measures sufficiently protective of nearby surface water.

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, the drill cuttings must also meet the applicable standards of table 910-1.

Attachment Check List

Att Doc Num	Name
1693812	VARIANCE REQUEST
1693818	CONST. LAYOUT DRAWINGS
2033610	CORRESPONDENCE
400121502	FORM 2A SUBMITTED
400122152	HYDROLOGY MAP
400122173	LOCATION DRAWING
400122175	LOCATION PICTURES
400122176	CONST. LAYOUT DRAWINGS
400122178	ACCESS ROAD MAP
400122181	MULTI-WELL PLAN
400122183	NRCS MAP UNIT DESC
400122184	PROPOSED BMPs
400122185	SURFACE AGRMT/SURETY
400122192	EQUIPMENT LIST

Total Attach: 14 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Received attachment: Construction Layout Drawing "Power Line Exhibit" moving utility line to 206' from wellhead. Added in comments "Prior to drilling, Antero will relocate 2 power poles that are north of the O'Toole A Pad 7 feet farther north making distance from power lines and wellheads 206 feet, in compliance with Rule 603a.1 (see attached "Power Line Exhibit"). per HK. plg.	2/7/2011 9:01:39 AM
Permit	ON HOLD. Well head 200' from utility line. Rig height is 136 feet (1.5 x 136= 204 feet) over safety limit. Operator looking at alternatives. plg.	1/28/2011 9:30:51 AM
OGLA	Initiated/Completed OGLA Form 2A review on 01-20-11 by Dave Kubeczko; requested acknowledgement of fluid containment, spill/release BMPs, and cuttings low moisture content COAs from operator on 01-20-11; received acknowledgement of COAs from operator on 01-?-10; passed by CDOW on 01-12-11 with operator submitted BMPs (with permit application) and WMP acceptable; passed OGLA Form 2A review on 02-01-11 by Dave Kubeczko; fluid containment, spill/release BMPs, and cuttings low moisture content COAs.	1/20/2011 10:18:59 AM
DOW	This well pad is located within the boundary of an approved, signed Antero-CDOW Wildlife Mitigation Plan. The BMPs and COAs were developed and approved in the consultation and development process of the Wildlife Mitigation Plan. The BMPs and COAs as submitted by the operator are appropriate for the site and species affected. by Michael Warren on Wednesday, January 12, 2011 at 9:25 A.M.	1/12/2011 9:25:05 AM

Total: 4 comment(s)

BMP

<u>Type</u>	<u>Comment</u>

Total: 0 comment(s)