

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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| DE | ET | OE | ES |
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Document Number:

400072242

Oil and Gas Location Assessment

☒ New Location ☐ Amend Existing Location Location#: _____

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 stand alone 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:

418544

Expiration Date:

07/28/2013
☒ 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: Fenno Ranch Number: A Pad

County: GARFIELD

Quarter: NESW Section: 31 Township: 5S Range: 91W Meridian: 6 Ground Elevation: 5790

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: 2442 feet, from North or South section line: FSL and 2384 feet, from East or West section line: FWL

Latitude: 39.570775 Longitude: -107.648359 PDOP Reading: 2.4 Date of Measurement: 06/22/2010

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="1"/> | Production Pits: <input type="text"/> | Dehydrator Units: <input type="text"/> |
| Condensate Tanks: <input type="text" value="2"/> | Water Tanks: <input type="text" value="2"/> | Separators: <input type="text" value="1"/> | 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" value="1"/> |
| Gas Compressors: <input type="text"/> | VOC Combustor: <input type="text" value="1"/> | Oil Tanks: <input type="text"/> | Fuel Tanks: <input type="text"/> | |

Other: See attached facilities list for details.

6. Construction:

Date planned to commence construction: 07/24/2010 Size of disturbed area during construction in acres: 3.08
Estimated date that interim reclamation will begin: 01/24/2011 Size of location after interim reclamation in acres: 1.16
Estimated post-construction ground elevation: 5788 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: 04/27/2010
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: 1105, public road: 408, above ground utilit: 396
, railroad: 5280, property line: 408

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: 40: Kim Loam, 3 to 6 percent slopes

NRCS Map Unit Name: 57: Potts-Ildefonso complex, 3 to 12 percent slopes

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: 06/23/2010

List individual species: Sage brush and grasses: See NRCS Plant Composition Report

Check all plant communities that exist in the disturbed area.

- ☐ Disturbed Grassland (Cactus, Yucca, Cheatgrass, Rye)
☒ Native Grassland (Bluestern, 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: 455, water well: 580, depth to ground water: 28

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:

#1 Consultation: Since this location is in a "Sensitive Wildlife Habitat Area" Antero contacted CDOW prior to submittal of this APD and discussed best management practices (see attached Proposed BMP List which addresses wildlife issues).

#4- The proposed Fenno Ranch A1 well location was used as the reference point for well distance measurements.

#6: The disturbed area acre amounts include the access road.

#14-Water Resources: The distance to nearest surface water provided is to an intermittent stream as shown on Hydrology Map.

The depth to ground water was determined by using static water level data of 2nd nearest active water well (Permit# 22618-MH/Receipt# 0022618). Distance given was to actual nearest active water well, however there was no static water level data available for that well.

Our reference are is undisturbed ground immediately adjacent and to the South of the proposed well pad, as shown in the "looking South" location photo.

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

Signed: _____ Date: 06/25/2010 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. Neslin Director of COGCC Date: 7/29/2010

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.

Location may be in a sensitive area because of close proximity to a domestic water well; therefore production pits must be lined.

Location may be in a sensitive area because of close proximity to a domestic water well; therefore either a lined drilling pit or closed loop system must be implemented.

Location is in a sensitive area because of proximity to surface water; therefore, operator must ensure 110 percent secondary containment for any volume of fluids contained at well site during drilling and completion operations.

Operator must implement best management practices to contain any unintentional release of fluids.

Attachment Check List

| Att Doc Num | Name | Doc Description |
|-------------|------------------------|----------------------|
| 2033250 | CORRESPONDENCE | LF@2506358 2033250 |
| 2033253 | SURFACE OWNER CONSENT | LF@2506553 2033253 |
| 400072242 | FORM 2A SUBMITTED | LF@2497554 400072242 |
| 400072898 | SURFACE AGRMT/SURETY | LF@2497555 400072898 |
| 400072899 | OTHER | LF@2497556 400072899 |
| 400072900 | NRCS MAP UNIT DESC | LF@2497557 400072900 |
| 400072903 | EQUIPMENT LIST | LF@2497558 400072903 |
| 400072959 | PROPOSED BMPs | LF@2497559 400072959 |
| 400072961 | HYDROLOGY MAP | LF@2497560 400072961 |
| 400072965 | ACCESS ROAD MAP | LF@2497561 400072965 |
| 400072966 | LOCATION DRAWING | LF@2497562 400072966 |
| 400072967 | LOCATION PICTURES | LF@2497563 400072967 |
| 400072968 | CONST. LAYOUT DRAWINGS | LF@2497564 400072968 |

Total Attach: 13 Files

General Comments

| <u>User Group</u> | <u>Comment</u> | <u>Comment Date</u> |
|--------------------------|--|----------------------------|
| DOW | The BMPs, as submitted by the operator, are appropriate for the site. This well pad location is within the boundary of the Antero-CDOW WMP. Conditions and provisions of the wildlife mitigation plan are applicable. by Michael Warren on Tuesday, June 29, 2010 at 9:05 A.M. | 7/28/2010 12:54:49 PM |

Total: 1 comment(s)