

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:

400257028

Date Received:

03/20/2012

PluggingBond SuretyID

20030041

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: ANADARKO E&P COMPANY LP

4. COGCC Operator Number: 2800

5. Address: PO BOX 173779

City: DENVER State: CO Zip: 80217

6. Contact Name: CINDY VUE Phone: (720)929-6832 Fax: (720)929-7832

Email: CINDY.VUE@ANADARKO.COM

7. Well Name: HAWTHORNE Well Number: 27-16H

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

9. Proposed Total Measured Depth: 12111

WELL LOCATION INFORMATION

10. QtrQtr: NENE Sec: 8 Twp: 4S Rng: 64W Meridian: 6

Latitude: 39.723971 Longitude: -104.569203

Footage at Surface: 300 feet FNL/FSL 1330 feet FEL/FWL
FNL FEL

11. Field Name: WILDCAT Field Number: 99999

12. Ground Elevation: 5595 13. County: ARAPAHOE

14. GPS Data:

Date of Measurement: 09/02/2011 PDOP Reading: 2.2 Instrument Operator's Name: CHRIS BOUB

15. 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
635 FNL 845 FEL 460 FSL 845 FEL
Sec: 8 Twp: 4S Rng: 64W Sec: 8 Twp: 4S Rng: 64W

16. Is location in a high density area? (Rule 603b)? ☐ Yes ☒ No

17. Distance to the nearest building, public road, above ground utility or railroad: 280 ft

18. Distance to nearest property line: 1 ft 19. Distance to nearest well permitted/completed in the same formation(BHL): 970 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.)
NIOBRARA	NBRR	535-97	640	ALL

21. Mineral Ownership: ☒ Fee ☐ State ☐ Federal ☐ Indian Lease #: _____

22. Surface Ownership: ☒ Fee ☐ State ☐ Federal ☐ Indian

23. 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 ☐ No

23b. 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 ATTACHED OIL AND GAS LEASE.

25. Distance to Nearest Mineral Lease Line: 460 ft

26. Total Acres in Lease: 480

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: _____

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
SURF	13+1/2	9+5/8	36	0	1,880	650	1,880	0
1ST	8+3/4	7	26	0	7,906	710	7,906	0
1ST LINER	6+1/8	4+1/2	11.6	6875	12,111	0		

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

33. Comments No conductor casing will be used

34. Location ID: _____

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: CINDY VUE

Title: REGULATORY ANALYST II Date: 3/20/2012 Email: DJREGULATORY@ANADARK

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:  Director of COGCC Date: 6/22/2012

API NUMBER

05 005 07186 00

Permit Number: _____ Expiration Date: 6/21/2014

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.

Operator will run open hole logs into the surface casing on the first well drilled on this pad, either this well or one of the two other wells on the pad.

- 1) Note surface casing setting depth change from 1830' to 1880'. Increase cement coverage accordingly.
- 2) Submit Form 42 electronically to COGCC 48 hours prior to MIRU.
- 3) Comply with Rule 317.i and provide cement coverage from end of 7" casing to a minimum of 200' above Niobrara. Verify coverage with cement bond log.
- 4) Run and submit Directional Survey from TD to base of surface casing. The operator shall comply with Rule 321, and it shall be the operator's responsibility to ensure that the wellbore complies with setback requirements in commission orders or rules prior to producing the well.

Attachment Check List

Att Doc Num	Name
1771642	SURFACE CASING CHECK
400257028	FORM 2 SUBMITTED
400257049	DIRECTIONAL DATA
400257050	DEVIATED DRILLING PLAN
400257051	PLAT
400257053	EXCEPTION LOC REQUEST
400257054	TOPO MAP
400257056	EXCEPTION LOC WAIVERS
400258961	30 DAY NOTICE LETTER
400261615	OTHER
400262994	OIL & GAS LEASE

Total Attach: 11 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
OGLA	Arapahoe County LGD comment has been addressed as detailed in the correspondence attached to the Form 2A document number 400256857 - 2086107.	6/22/2012 10:38:26 AM
Permit	Final review completed; no public comment received. LGD comment received and addressed.	6/22/2012 9:41:19 AM
Permit	Operator requests approval of a Rule 603.a.(2) exception location: Wellhead is to be located less than 150' from a property line. Exception request and waiver attached.	6/22/2012 9:32:06 AM
Permit	Changed distance to another well completed in the same formation to 970 feet to reflect the distance to proposed lateral wellbores being drilled from the same pad. Agrees with mandated distance of 920 feet by order.	6/22/2012 9:22:28 AM

LGD	<p>COGCC please add the following Conditions of Approval:</p> <ol style="list-style-type: none"> 1. Have the oil and gas operator communicate their plans for this oil and gas well a month before construction commences on this well pad to all property owners within two miles of the well pad regarding timing, safety, adherence to regulations and a telephone number for comments and complaints. 2. Use a closed-loop system because this well pad is close to Box Elder Creek. 3. Provide sound proofing measures during well drilling and fracking operations because this well is close to a subdivision. <p>Also please include the following comments:</p> <ol style="list-style-type: none"> 1. The applicant will either need to obtain Board of County Commissioner approval for a Use by Special Review or execute a Memorandum of Understanding with Arapahoe County prior to construction of the well pad and drilling operations. 2. A GESC(Grading, Erosion and Sedimentation Control) plan and report must be submitted for each oil well site.Collateral to guarantee the BMPs must be provided prior to the issuance of the GESC permit.The GESC permit must be issued prior to any grading related to the oil well development. 3. A truck traffic report must be submitted to the County before issuance of an access permit.The report must specify the volume, type and size of truck traffic used in the drilling and production of the well.Included in this report the Applicant must provide a detailed map depicting all County roads intended to be used by truck traffic to ingress and egress the well site.The roadway condition and existing traffic volumes of each of the roadways must be specified in the report.Improvements to any County road along the proposed route may require an agreement with the Operator prior to issuance of the access permit.Any damage to an Arapahoe County road resulting from the Oil Well operation will be the responsibility of the Applicant. 4. An oversize moving permit is required for transporting drilling rigs and or any other oversize and overweight vehicles on any County roadways. 5. In the event any encroachment of a FEMA or County designated floodplain, a floodplain development permit will be required.Prior to issuance of this permit an engineering analysis must be submitted evaluating the impact of this encroachment on the 100-year floodplain. 	4/6/2012 10:56:51 AM
Permit	Several large homes are within 1000 feet of the well location. 6th Ave may be a little closed than 280 from the wells.	3/21/2012 6:09:35 AM
Permit	Operator input #15. This form has passed completeness.	3/20/2012 3:11:13 PM
Permit	Returned to draft. Missing #15.	3/20/2012 3:03:30 PM

Total: 8 comment(s)

BMP

Type

Comment

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Total: 0 comment(s)