Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APR 15 2009

FORM APPROVED
OMB NO 1004-0135
Expires: July 31, 2010

RM

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

5. Lease Serial No.
NMLC064894A

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
PLU PIERCE CANYON 17 FEDERAL 1

2. Name of Operator
CHESAPEAKE OPERATING, INC.
Contact: LINDA GOOD
E-Mail: linda.good@chk.com

9. API Well No.
30-015-36635-00-S1

3a. Address
OKLAHOMA CITY, OK 73154-0496

3b. Phone No. (include area code)
Ph: 405.935.4275

10. Field and Pool, or Exploratory
WILDCAT

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 17 T25S R30E SESE 350FSL 350FEL

CONFIDENTIAL

11. County or Parish, and State
EDDY COUNTY, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Change to Original PD
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13 Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

REVISED SUNDRY NOTICE:

PLEASE FIND THE ATTACHED REVISED DRILLING PLAN.

(CHK PN 621390)

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #68767 verified by the BLM Well Information System
For CHESAPEAKE OPERATING, INC., sent to the Carlsbad
Committed to AFMSS for processing by KURT SIMMONS on 04/07/2009 (09KMS0477SE)

Name *(Printed/Typed)* LINDA GOOD — Title SR. REGULATORY COMPLIANCE SPEC

Signature (Electronic Submission) — Date 04/07/2009

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By ACCEPTED — JAMES A AMOS — Title SUPERVISOR EPS — Date 04/11/2009

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office Carlsbad

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

ONSHORE OIL & GAS ORDER NO. 1
Approval of Operations on Onshore
Federal and Indian Oil and Gas Leases

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (CFR 43, Part 3160) and the approved Application for Permit to Drill. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling and completion operations.

Approval of this application does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease, which would entitle the applicant to conduct operations thereon.

1. FORMATION TOPS

The estimated tops of important geologic markers are as follows:

Formation	Subsea KBTVD	KBTVD
BASE OF SALT	-480'	3,735'
BELL CANYON	-530'	3,785'
CHERRY CANYON MARKER	-1,576'	4,831'
BRUSHY CANYON	-2,661'	5,916'
LOWER BRUSHY CANYON	-4,005'	7,260'
BONE SPRING	-4,270'	7,525'
1ST BONE SPRING SAND	-5,200'	8,455'
2ND BONE SPRING CARBONATE	-5,625'	8,880'
2ND BONE SPRING SAND	-6,038'	9,293'
3RD BONE SPRING CARBONATE	-6,420'	9,675'
3RD BONE SPRING SAND	-7,130'	10,385'
WOLFCAMP	-7,513'	10,768'
PILOT HOLE	**TD (MD)**	**10,950'**

2. ESTIMATED DEPTH OF WATER, OIL, GAS & OTHER MINERAL BEARING FORMATIONS

The estimated depths at which the top and bottom of the anticipated water, oil, gas or other mineral bearing formations are expected to be encountered are as follows:

Substance	Formation	Depth
Oil/Gas	Bell Canyon	3785'
Oil/Gas	Cherry Canyon	4831'
Oil/Gas	Bone Spring	7525'

All shows of fresh water and minerals will be reported and protected.

3. BOP EQUIPMENT:

Will have a 2000 psi simplified rental stack (see proposed schematic) for drill out below surface casing; this system will be tested to 2000 psi working pressure.

Will have a 5000 psi rig stack (see proposed schematic) for drill out below intermediate casing; this system will be tested to 3000 psi working pressure.

Chesapeake Operating, Inc.'s minimum specifications for pressure control equipment are as follows:

I. BOP, Annular, Choke Manifold, Pressure Test - See Exhibit F-1 and F-3.

A. Equipment
1. The equipment to be tested includes all of the following that is installed on the well:
(a) Ram-type and annular preventers,
(b) Choke manifolds and valves,
(c) Kill lines and valves, and
(d) Upper and lower kelly cock valves, inside BOP's and safety valves.

B. Test Frequency
1. All tests should be performed with clear **water**,
(a) when installed,
(b) before drilling out each casing string,
(c) at any time that there is a repair requiring a pressure seal to be broken in the assembly, and
(d) at least once every **30 days** while drilling.

C. Test Pressure
1. In some drilling operations, the pressures to be used for low and high-pressure testing of preventers and casing may be different from those given below due to governmental regulations, or approved local practices.
2. If an individual component does not test at the low pressure, **do not,** test to the high pressure and then drop back down to the low pressure.
3. All valves located downstream of a valve being tested must be placed in the open position.
4. All equipment will be tested with an initial "low pressure" test at 250 psi.
5. The subsequent "high pressure" test will be conducted at the rated working pressure of the equipment for all equipment except the annular preventer.
6. The "high pressure" test for the annular preventer will be conducted at 70% of
7. the rated working pressure.
8. A record of all pressures will be made on a pressure-recording chart.

D. Test Duration

1. In each case, the individual components should be monitored for leaks for **10 minutes,** with no observable pressure decline, once the test pressure as been applied.

II. Accumulator Performance Test

A. Scope

1. The purpose of this test is to check the capabilities of the BOP control systems, and to detect deficiencies in the hydraulic oil volume and recharge time.

B. Test Frequency

1. The accumulator is to be tested each time the BOP's are tested, or any time a major repair is performed.

C. Minimum Requirements

1. The accumulator should be of sufficient volume to supply 1.5 times the volume to close and hold all BOP equipment in sequence, **without recharging** and the **pump turned off**, and have remaining pressures of **200 PSI above the precharge pressure**.

2. Minimum precharge pressures for the various accumulator systems per **manufacturers recommended specifications** are as follows:

3.

System Operating Pressures	Precharge Pressure
1500 PSI	750 PSI
2000 PSI	1,000 PSI
3000 PSI	1,000 PSI

3. Closing times for the Hydril should be less than **20 seconds**, and for the ram-type preventers less than **10 seconds**.

4. System Recharge time should not exceed **10 minutes**.

D. Test Procedure

1. Shut accumulator pumps off and record accumulator pressure.

2. In sequence, close the annular and one set of properly sized pipe rams, and open the HCR valve.

3. Record time to close or open each element and the remaining accumulator pressure after each operation.

4. Record the remaining accumulator pressure at the end of the test sequence. Per the previous requirement, this pressure **should not be less** than the following pressures:

System Pressure	Remaining Pressure At Conclusion of Test
1,500 PSI	950 PSI
2,000 PSI	1,200 PSI
3,000 PSI	1,200 PSI

5. Turn the accumulator pumps on and record the recharge time. This time should not exceed **10 minutes.**

6. Open annular and ram-type preventers. Close HCR valve.

7. Place all 4-way control valves in **full open** or **full closed** position. **Do not leave in neutral position**.

4. CASING AND CEMENTING PROGRAM

a. The proposed casing program will be as follows:

Purpose	Interval	Hole Size	Casing Size	Weight	Grade	Thread	Condition
Surface	Surface – 400'	17-1/2"	13-3/8"	48.0#	H-40	STC	New
Intermediate	Surface – 3,725'	12-1/4"	9-5/8"	40.0#	J-55	LTC	New
Production	Surface – 12565'	8-3/4" (3725'-8424)/ 8-1/2" 8424'-TD)	5-1/2"	17.0#	P-110	LTC	New

b. Casing design subject to revision based on geologic conditions encountered.

c. Casing Safety Factors:
13-3/8" Surface Casing: SFb = 1.6, SFc = 3.9 and SFt = 6
9-5/8" Intermediate Casing: SFb = 2.3, SFc = 3.4 and SFt = 3.1
5-1/2" Production Casing: SFb = 1.8, SFc = 2.0 and SFt = 3.4

d. The cementing program will be as follows:

5. Cementing Program

Interval	Type	Amount	Yield	Top Of Cement	Excess
Surface	Tail: Class C 1% CaCl2 (Accelerator)	450 sks	1.34	Surface	100%
Intermediate	Lead: 35/65 Poz/Class C	900 sks	2.0	Surface	100%
	Tail: Class C	325 sks	1.34		100%
Production	Class H 0.5% Halad344 (Fluid Loss Control) 0.4% CFR-3 (Dispersant) 1 lbm/sk Salt 0.3% HR-7 (Retarder) 0.25 lbm D-AIR 3000 (Defoamer)	1900 sks	1.60	3,300'	40%

Final cement volumes will be determined by caliper.

Pilot Hole Plugging Plan:

The pilot hole will be plugged back using a plug of at least 210' from ±10,660' to 10,870' (125 sx, Class H 14.8 ppg 1.35 yld + KCL + Retarder) covering the top of Wolfcamp and base of Bone Spring. A second 500' balanced plug will be placed from +7,470' to 7,970' (305 sx, 40% Excess, Class H 17.5 ppg 0.96yld + 0.75% CFR-3 + 3% KCL + 0.2% HR-800).

6. MUD PROGRAM

a. The proposed circulating mediums to be used in drilling are as follows:

Interval	Mud Type	Mud Weight	Viscosity	Fluid Loss
0' – 400'	FW/Gel	8.4 – 9.0	28-32	NC
400' – 3,725'	Native/Brine	9.9 – 10.1	28-30	NC
3,725' - TD	FW/LSND	8.8 – 9.5	34-45	20-10

A closed system will be utilized consisting of above ground steel tanks. All wastes accumulated during drilling operations will be contained in a portable trash cage and removed from location and deposited in an approved sanitary landfill.

A mud test shall be performed every 24 hours after mudding up to determine, as applicable: density, viscosity, gel strength, filtration, and pH.

6. TESTING, LOGGING AND CORING

The anticipated type and amount of testing, logging and coring are as follows:

a. Drill stem tests are not planned.
b. The logging program will consist of Natural GR, Density-Neutron, PE & Dual Laterolog from TD to surface casing; Neutron-GR surface casing to surface.
c. Cores samples are not planned.

7. ABNORMAL PRESSURES AND HYDROGEN SULFIDE

a. The estimated bottom hole pressure is 4750 psi. No abnormal pressures or temperatures are anticipated.
b. Hydrogen sulfide gas is not anticipated.