150

OCD-HOBBS

ATS-07-92

CONFIDENTIAL

Form 3160-3
(April 2004)

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. NMLC071949
~~NMLC-71919~~

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

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

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone

8. Lease Name and Well No. (35730)
KELLER 27 FEDERAL 6

2. Name of Operator
CHESAPEAKE OPERATING, INC. ATTN: LINDA GOOD (147179)

9. API Well No.
30-025-38243 (22009)

3a. Address P.O. BOX 18496, OKLAHOMA CITY, OK 73154-0496

3b. Phone No. *(include area code)* 405-767-4275

10. Field and Pool, or Exploratory
WEST ANTELOPE RIDGE Bone Spring

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface 2015 FNL & 650 FWL, SWNW Unit E
At proposed prod. zone SAME CAPITAN CONTROLLED WATER BASIN

11. Sec., T. R. M. or Blk. and Survey or Area
27-23S-34E

14. Distance in miles and direction from nearest town or post office*
18 MILES NW OF JAL, NEW MEXICO

12. County or Parish LEA COUNTY

13. State NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of acres in lease	17. Spacing Unit dedicated to this well
	600	40
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. on file
	8800	NM2634
21. Elevations (Show whether DF, KDB, RT, GL, etc.) ESTIMATED 3477 GR / 3495 KB	22. Approximate date work will start*	23. Estimated duration

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature	Name *(Printed/Typed)*	Date
	Henry Hood	11/1/06

Title: Sr. Vice President - Land & Legal & General Counsel

Approved by *(Signature)* /s/ Don Peterson	Name *(Printed/Typed)*	Date DEC -5 2006
Title ACTING FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

Application approval 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.
Conditions of approval, if any, are attached.

APPROVAL FOR 1 YEAR

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.

(Instructions on page 2)

All info on C103 at back on Pit Info:

Received
Hobbs
DEC 2006

SEE ATTACHED FOR CONDITIONS OF APPROVAL

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

Chesapeake Operating Inc.
Keller 27 Federal 6
2015 FNL & 650 FWL, SWNW
of Section 27-23S-34E
Lea County, NM

Confidential – Tight Hole
Lease No. NMLC-71949

#24 Attachment to Application for Permit to Drill or Re-enter

Chesapeake Operating, Inc. respectfully requests permission to drill a well to 8800' to test the Bone Spring formation. If productive, casing will be run and the well completed. If dry, the well will be plugged and abandoned as per BLM and New Mexico Oil Conservation Division requirements.

Please find the Surface Use Plan and Drilling Plan as required by Onshore Order No. 1.

Attached is the proposed Forester rig #15 plat - Exhibit D.

Chesapeake Operating, Inc. has an agreement with the grazing lessee.

Please be advised that Chesapeake Operating, Inc. is considered to be the Operator of the above mentioned well. Chesapeake Operating, Inc. agrees to be responsible under the terms and conditions of the lease for the operations conducted upon the lease lands.

S
C

DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 88240

DISTRICT II
1301 W. GRAND AVENUE, ARTESIA, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease – 4 Copies
Fee Lease – 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
30-025-38243	2209	West Antelope Ridge; Bone Spring

Property Code	Property Name	Well Number
35730	KELLER 27 FEDERAL	6

OGRID No.	Operator Name	Elevation
147179	CHESAPEAKE OPERATING, INC.	3478'

Surface Location

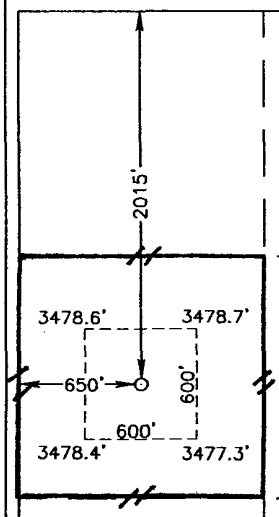
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	27	23-S	34-E		2015	NORTH	650	WEST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
40			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



GEODETIC COORDINATES
NAD 27 NME

Y=465646.7 N
X=768714.6 E

LAT.=32.277186° N
LONG.=103.463886° W

OPERATOR CERTIFICATION

I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Lynda F. Townsend 10-3-06
Signature Date

Lynda F. Townsend
Printed Name

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

SEPTEMBER 23, 2006
Date Surveyed LA

Signature & Seal of Professional Surveyor

Ronald J. Eidson 9/26/06

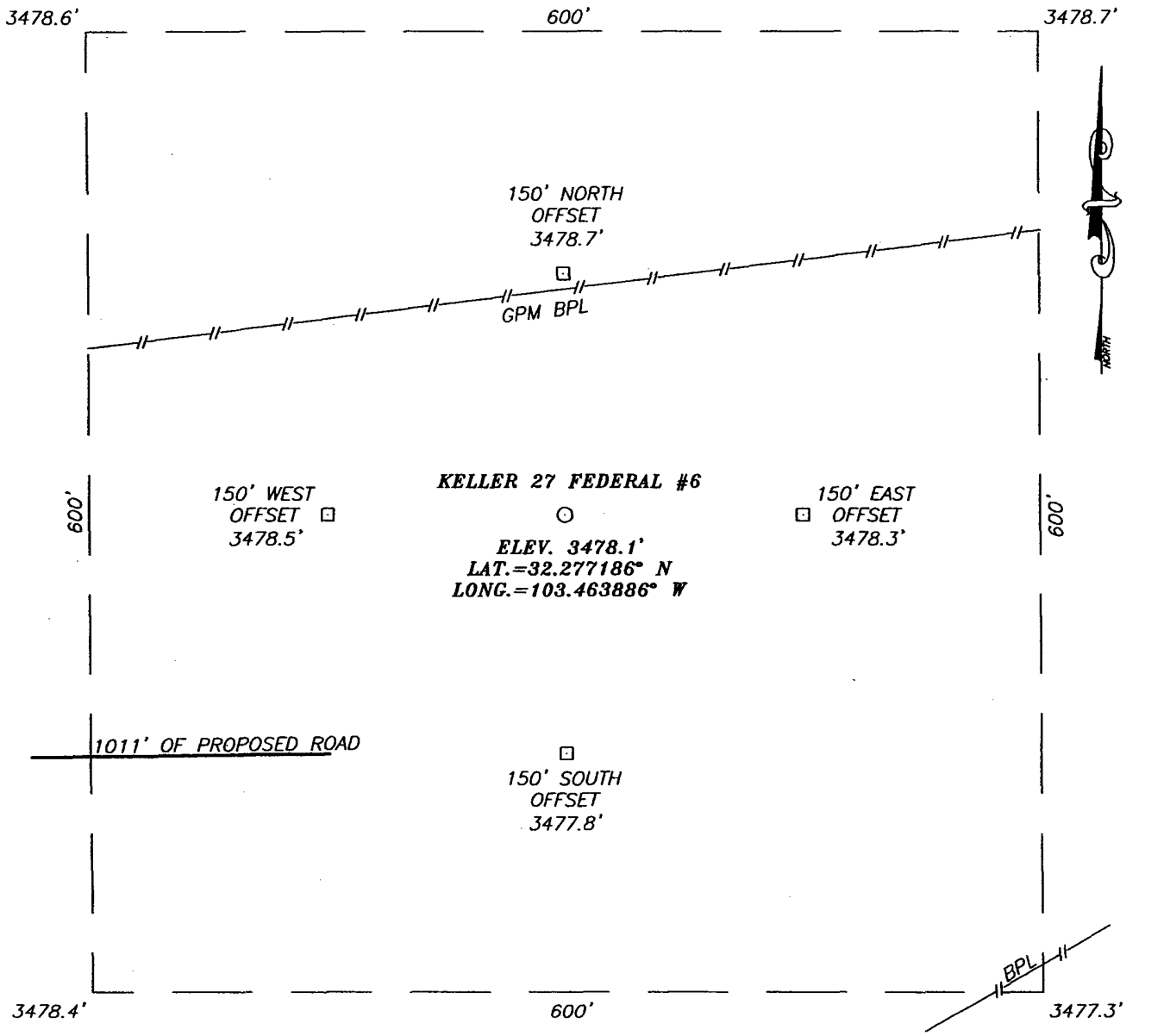
3239
06.11.1464

Certificate No. GARY EIDSON 12641
RONALD EIDSON 3239

EXHIBIT A-1

SECTION 28, TOWNSHIP 23 SOUTH, RANGE 34 EAST, N.M.P.M.,

LEA COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF CO. RD. E-21 (DELAWARE BASIN RD.) AND CO. RD. J-21 (ANTELOPE RD.) GO SOUTH ON J-21 FOR APPROX. 3.4 MILES. TURN LEFT AND GO EAST APPROX. 0.2 MILES TO THE EXISTING BOLD ENERGY ARU #8 WELL AND PROPOSED ROAD SURVEY. FOLLOW ROAD SURVEY EAST APPROX. 1011 FEET TO THIS LOCATION.

100 0 100 200 Feet

Scale: 1"=100'

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

CHESAPEAKE OPERATING, INC.

KELLER 27 FEDERAL #6 WELL
LOCATED 2015 FEET FROM THE NORTH LINE
AND 650 FEET FROM THE WEST LINE OF SECTION 27,
TOWNSHIP 23 SOUTH, RANGE 34 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO.

Survey Date: 9/23/06	Sheet 1 of 1 Sheets		
W.O. Number: 06.11.1464	Dr By: LA		Rev 1:N/A
Date: 9/25/06	Disk: CD#5	06111464	Scale: 1"=100'

EXHIBIT A-2

BLOWOUT PREVENTOR SCHEMATIC

CHESAPEAKE OPERATING INC

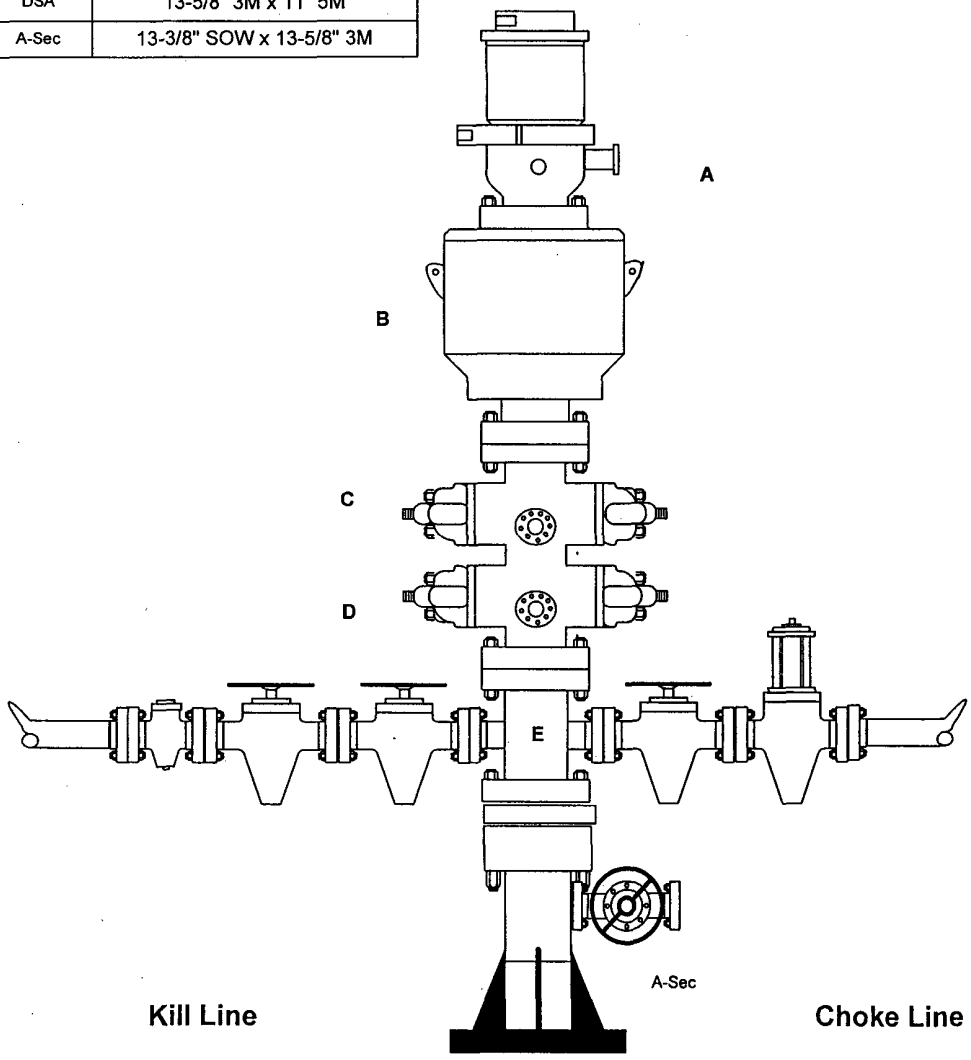
WELL : Keller 27 Federal 6

RIG : Forster Rig 15

COUNTY : Lea **STATE:** New Mexico

OPERATION: Drill out below 13-3/8" Casing

	SIZE	PRESSURE	DESCRIPTION
A	11"	500 psi	Rot Head
B	11"	5000 psi	Annular
C	11"	5000 psi	Pipe Rams
D	11"	5000 psi	Blind Rams
E	11"	5000 psi	Mud Cross
DSA	13-5/8" 3M x 11" 5M		
A-Sec	13-3/8" SOW x 13-5/8" 3M		



Kill Line

SIZE	PRESSURE	DESCRIPTION
2"	5000 psi	Check Valve
2"	5000 psi	Gate Valve
2"	5000 psi	Gate Valve

Choke Line

SIZE	PRESSURE	DESCRIPTION
4"	5000 psi	Gate Valve
4"	5000 psi	HCR Valve

EXHIBIT F-1

BLOWOUT PREVENTOR SCHEMATIC

CHESAPEAKE OPERATING INC

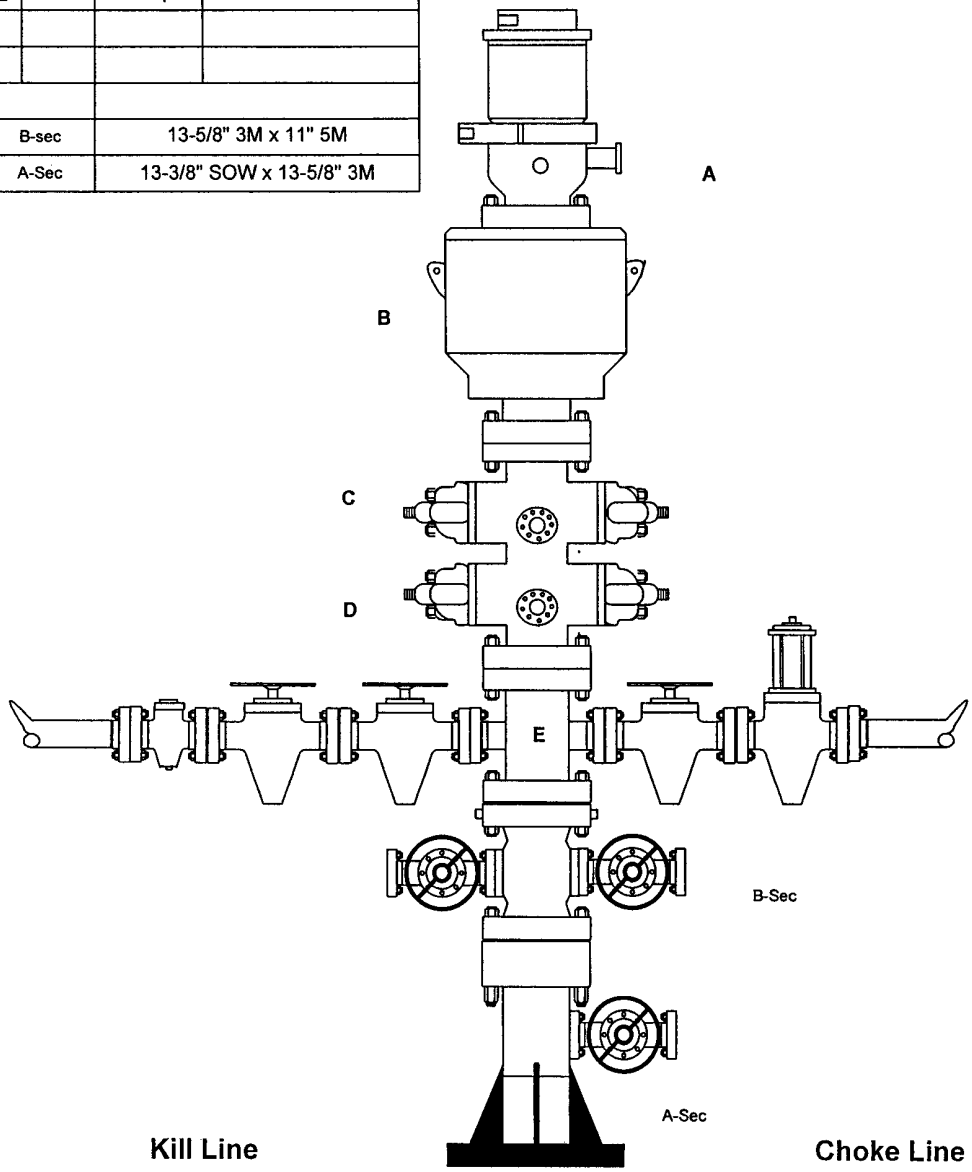
WELL : Keller 27 Federal 6

RIG Forster Rig 15

COUNTY : Lea **STATE: New Mexico**

OPERATION: Drill out below 8-5/8" Casing

	SIZE	PRESSURE	DESCRIPTION
A	11"	500 psi	Rot Head
B	11"	5000 psi	Annular
C	11"	5000 psi	Pipe Rams
D	11"	5000 psi	Blind Rams
E	11"	5000 psi	Mud Cross
B-sec	13-5/8" 3M x 11" 5M		
A-Sec	13-3/8" SOW x 13-5/8" 3M		



Kill Line

SIZE	PRESSURE	DESCRIPTION
2"	5000 psi	Check Valve
2"	5000 psi	Gate Valve
2"	5000 psi	Gate Valve

Choke Line

SIZE	PRESSURE	DESCRIPTION
4"	5000 psi	Gate Valve
4"	5000 psi	HCR Valve

EXHIBIT F-2

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	Depth	Subsea
BASE OF ANHYDRITE	-1,560'	5,053'
LAMAR LIME	-1,586'	5,079'
*BELL CANYON	-1,622'	5,116'
*CHERRY CANYON	-2,486'	5,979'
MANZANITA MARKER	-2,7025'	6,195'
****UPPER BASAL CHERRY ZN.**	-3,360'	6,853'
****LOWER BASAL CHERRY ZN.**	-3,701'	7,194'
*BRUSHY CANYON	-3,769'	7,262'
****MIDDLE UPPER BRUSHY ZN.**	-3,920'	7,413'
****LOWER MIDDLE BRUSHY ZN.**	-4,090'	7,584'
****LOWER LOWER BRUSHY ZN.**	-4,793'	8,286'
****BASAL BRUSHY ZN.**	-4,902'	8,395'
BONE SPRING LIME	-5,086'	8,579'
*Potentially productive zones	**TD**	**8,800'**

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	Cherry Canyon	5979'-7262'
Oil/Gas	Brushy Canyon	7262'-8579'

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

3. BOP EQUIPMENT: 3,000 psi System
Chesapeake Operating, Inc.'s minimum specifications for pressure control equipment are as follows:

I. BOP, Annular, Choke Manifold, Pressure Test - See - Exhibit F-1 to F-2.

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 the rated working pressure.
7. 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 **5 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	0' - 575'	17-1/2"	13 3/8"	48#	H-40	ST&C	new
Intermediate	0' – 5000'	11"	8-5/8"	32#	J55	LT&C	new
Production	0' – 8800'	7-7/8"	5-1/2'	17#	L-80	LT&C	new

b. Casing design subject to revision based on geologic conditions encountered.
c. The cementing program will be as follows:

Interval	Type	Amount	Yield	Washout	Excess
0' – 575'	Class C + Additives	400 + 100	1.74 / 1.34	25	75
0' - 5000'	50:50 Poz:C + Additives	1150 + 200	2.00 / 1.34	25	75
4500' – 6300' (2^{nd} stage)	50:50 Poz:C+ Additives Class H + Additives	100 180	2.30 1.18	15 15	20 20
6300' – 8800' (1^{st} stage)	LW Poz:C (15:61:11) + Additives	380	1.57	15	20

5. MUD PROGRAM

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

Interval	Mud Type	Mud Weight	Viscosity	Fluid Loss
0' – 575'	FW	8.7	28 - 38	NC
575' - 5000'	Brine	10.0	28 - 30	NC
5000' – 8500'	FW	8.4 - 8.8	28 - 30	NC
8500' – 8800'	FW	8.4 - 8.8	30 - 32	25-30

An in-ground, lined pit will be utilized during the drilling of this well. All fluids and cuttings will be disposed of in accordance with New Mexico Oil Conservation Division rules and regulations.

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 4400 psi. No abnormal pressures or temperatures are anticipated.
b. Hydrogen sulfide gas is not anticipated.

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

1. EXISTING ROADS
   a. Existing county roads will be used to enter proposed access road.
   b. Location, access, and vicinity plats attached hereto. See Exhibits A-1 through A-4.

2. PLANNED ACCESS ROADS
   a. A planned access road 1011' in length and 14' in travel way width with a maximum disturbance area of 30' will be used, and in accordance with guidelines set forth in the BLM Onshore Orders.
   b. No turnouts are expected
   c. In order to level the location, cut and fill will be required. Please see attached Well Location and Acreage Dedication Plat – A-1 to A-4.
   d. A locking gate will be installed at the site entrance.
   e. Any fences cut will be repaired. Cattle guards will be installed, if needed.
   f. Surface disturbance and vehicular travel will be limited to the approved location and approved access route. Any additional area needed will be approved in advance.
   g. Driving directions are from the intersection of Co. Rd. E-21 (Delaware Basin Rd.) and Co. Rd. J-21 (Antelope Rd). Go South on J-21 for approx. 3.4 miles. Turn left and go East approx. 0.2 miles to the existing Bold Energy ARU #8 well and proposed road survey. Follow road survey East approx. 1011' to this location.

3. LOCATION OF EXISTING WELLS WITHIN A 1-MILE RADIUS OF THE PROPOSED LOCATION – see Exhibit B.

4. LOCATION OF PRODUCTION FACILITIES
   It is anticipated that a Chesapeake Gas Allocation Meter and production facilities will be located on the well pad. It will tie into the Chesapeake gas gathering system to Southern Union CDP MS #57127 – See Exhibit C.

5. LOCATION AND TYPE OF WATER SUPPLY
   Water will be obtained from a private water source. Chesapeake Operating, Inc. will ensure all proper notifications and filings are made with the state.

6. CONSTRUCTION MATERIALS

No construction materials will be used from Section 27-23S-34E. All material (i.e. shale) will be acquired from private or commercial sources.

7. METHODS FOR HANDLING WASTE DISPOSAL

An in-ground, lined pit will be utilized during the drilling of this well. All fluids and cuttings will be disposed of in accordance with New Mexico Oil Conservation Division rules and regulations.

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

8. ANCILLARY FACILITIES

None

9. WELLSITE LAYOUT

The proposed site layout plat is attached showing Forster Drilling Rig #15 orientation and equipment location. See Exhibit D.

10. PLANS FOR RECLAMATION OF THE SURFACE

The location will be restored to as near as original condition as possible. Reclamation of the surface shall be done in strict compliance with the existing New Mexico Oil Conservation Division regulations.

Backfilling leveling, and contouring are planned as soon as the drilling rig and steel tanks are removed. Wastes and spoils materials will be buried immediately after drilling is completed. If production is obtained, the unused area will be restored as soon as possible. The rehabilitation will begin after the drilling rig is removed.

11. SURFACE & MINERAL OWNERSHIP

United States of America
Department of Interior
Bureau of Land Management

GRAZING LEASE HELD BY:
Keller RV LLC
2811 County Road 460
Oakley, KS 67748
Phone: 785-672-3257
James Keller (contact)
(Chesapeake has an agreement with the grazing lessee)

12. ADDITIONAL INFORMATION

A Class III cultural resource inventory report was prepared by Boone Archaeological Services, Carlsbad, New Mexico for the proposed location. A copy of the report has been sent to the BLM office under separate cover and is also attached for reference. See Exhibit E.

Chesapeake Operating, Inc. agrees to be responsible under the terms and conditions of the lease for the operations conducted upon the lease lands.

13. OPERATOR'S REPRESENTATIVES

Drilling and Completion Operations
Jarvis Hensley
District Manager – Northern Permian
P.O. Box 18496
Oklahoma City, OK 73154
(405) 879-7863 (OFFICE)
(405) 879-9529 (FAX)
jhensley@chkenergy.com

Sr. Drilling Engineer
Randy Patterson
P.O. Box 14896
Oklahoma City, OK 73154
(405) 767-4056 (OFFICE)
(405) 767-4225 (FAX)
(405) 388-9002 (MOBILE)
rpatterson@chkenergy.com

Sr. Field Representative
Cecil Gutierrez
P.O. Box 11050
Midland, TX 79705
432-687-2992 (OFFICE)
432-687-3675 (FAX)
cgutierrez@chkenergy.com

Assett Manager
Andrew McCalmont
P.O. Box 18496
Oklahoma City, OK 73154-0496
405-879-7852 (OFFICE)
405-879-7930 (FAX)
amccalmont@chkenergy.com

Regulatory Compliance
Linda Good
Federal Permitting Agent
P.O. Box 18496
Oklahoma City, OK 73154
(405) 767-4275 (OFFICE)
(405) 879-9583 (FAX)
lgood@chkenergy.com

14. CERTIFICATION

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in this surface use plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed will be performed by operator (including contractors and subcontractors) submitting the APD, in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

By: _____
Henry Hood, Sr. Vice President – Land & Legal & General Counsel

Date: 11/11/06

CONDITIONS OF APPROVAL - DRILLING

Well Name & No. Keller 27 Federal # 6
Operator's Name: Chesapeake Operating Inc.
Location: 2015' FNL, 650' FWL, SEC 27, T23S, R34E, Lea County, NM
Lease: LC-071949

I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822 for wells in Eddy County; and the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (505) 393-3612 for wells in Lea County, in sufficient time for a representative to witness:

A. Spudding

B. Cementing casing: 13 3/8 inch 8 5/8 inch 5 1/2 inch

C. BOP tests

2. A Hydrogen Sulfide (H2S) Drilling Plan should be activated prior to drilling into the **Cherry Canyon** Formation. A copy of the plan shall be posted at the drilling site.

3 Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

4. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15 day time frame.

5. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.

6. A Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the BLM. The effective date of the agreement shall be prior to any sales.

7. Gamma-Ray/Neutron logs shall be run from the base of the Salado Formation to the surface; cable speed not to exceed 30 feet per minute.

II. CASING:

1. The 13 3/8 inch surface casing shall be set **@ APPROXIMATELY 575 FEET**, below the Santa Rosa Formation usable water and cement circulated to the surface. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.

2. The minimum required fill of cement behind the 8 5/8 inch intermediate casing is **CIRCULATE CEMENT TO THE SURFACE. This casing string must be set below the salt @ a depth of approximately 5000 feet.**

3. The minimum required fill of cement behind the **5-1/2** inch production casing is **cement shall CIRCULATE TO at least 200 feet above the base of the 8 5/8 inch casing shoe.**

5. Whenever a casing string is cemented in the R-111-P Potash Area, cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

III. PRESSURE CONTROL:

1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the 13 3/8 inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) is 2000 psi.

3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.
- A variance to test the _____ to the reduced pressure of ____psi with the rig pumps is approved.
- The tests shall be done by an independent service company.
- The results of the test shall be reported to the appropriate BLM office.
- Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
- Testing must be done in a safe workman-like manner. Hard line connections shall be required.

IV. MUD:

1. A Freshwater based mud will be used while drilling from the surface casing to the Rustler formation. Viscous low water loss pill sweeps should be run; to build a filter cake, while drilling thorough these potential fresh water sources **in order to reduce contamination**.

2. A saturated brine based mud will be used to drill the salt section and to the setting depth of the intermediate casing. Viscous low water loss pill sweeps should be run while drilling this section **in order to reduce contamination** to the exposed potential fresh water sources, above the salt.

Engineers can be reached at 505-706-2779 for any variances that might be necessary.

F Wright 11/29/06

Submit 3 Copies To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
Revised June 10, 2003

WELL API NO. 30-025-38243

5. Indicate Type of Lease STATE ☐ FEE ☐

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name
Keller 27 Federal

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

8. Well Number
6

2. Name of Operator
Chesapeake Operating, Inc.

9. OGRID Number
147179

3. Address of Operator 2010 Rankin Hiway
Midland, TX 79701

10. Pool name or Wildcat
West Antelope Ridge;Bone Spring

4. Well Location

Unit Letter E : 2015 feet from the North line and 650 feet from the West line

Section 27 Township 23S Range 34E NMPM County Lea

11. Elevation (Show whether DR, RKB, RT, GR, etc.)
3478 GR

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	PLUG AND ABANDONMENT	☐
PULL OR ALTER CASING	☐	MULTIPLE COMPLETION	☐	CASING TEST AND CEMENT JOB	☐		
OTHER: Drilling Pit			☒	OTHER:			☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Chesapeake, respectfully request permission to build a drilling pit per the attached diagram for this well. Chesapeake will follow all OCD guidelines.

Depth to GW = 282' 12 mil plastic. Volume = 32,000 Bbls

Closest water source? Closest - Water from the US, playa, arroyo etc.

Next time use C103 - w/Pit data on it or a C144.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Brenda Coffman TITLE Sr. Regulatory Comp. Specialst DATE 12/12/2006

bcoffman@chkenergy.com

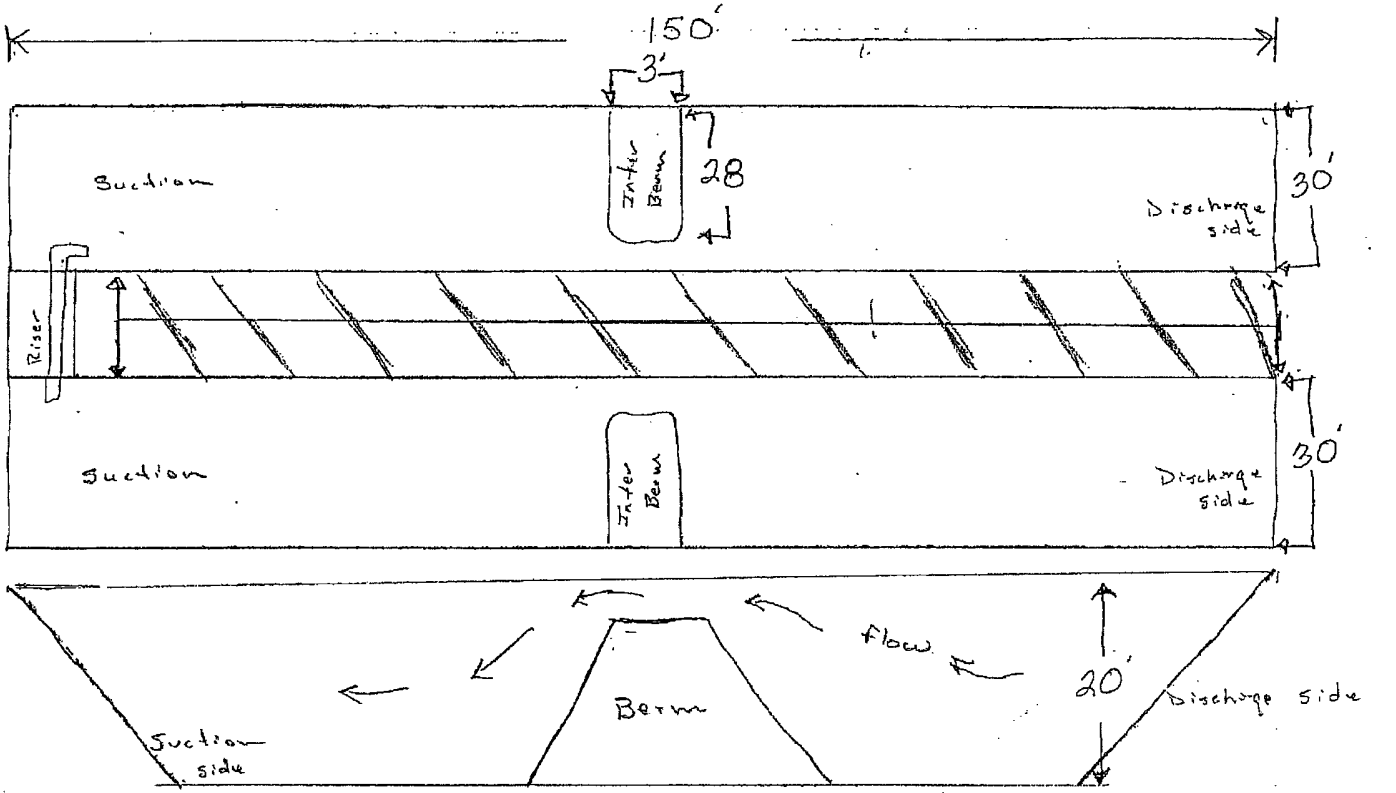
Type or print name Brenda Coffman E-mail address: Telephone No. (432)687-2992

(This space for State use)

APPPROVED BY Chris Williams TITLE OC DISTRICT SUPERVISOR/GENERAL MANAGER DATE JAN 08 2007

Conditions of approval, if any:

Chesapeake Energy — Double Pit — Guideline 3A



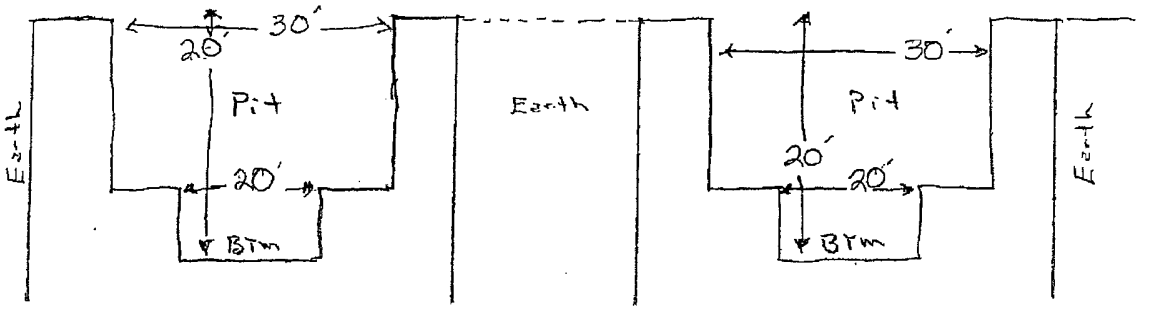
12 mm plastic over all

Top View

Side View

18' x 30' x 140' = 75600 ft³ ÷ 5.6146 = 13464.8 bbls x 2 = 26929.7 bbls. with 18' of fluid & cuttings in pits.

20' x 30 x 140 = 90000 ft³ ÷ 56146 = 16029.6 bbls x 2 = 32059.2 bbls with 20'



End cross section