Form 3160-3 (August 1999)

# N.M. Oil Cons. DIV-Dist. 2 1301 W. Grand Avenue

UNITED SAMESIA. NM 88210 DEPARTMENT OF THE INTERIOR

FORM APPROVED OMB No. 1004-0136 Expires November 30, 2000

BUREAU OF LAND M	MANAGEMENT		5. Lease Serial No. NMNM35925	
APPLICATION FOR PERMIT	O DRILL OR REE	NTER	6. If Indian, Allottee or Tribe	Name
1a. Type of Work: DRILL REENTER	CONFIDE	NTIAL	7. If Unit or CA Agreement,	Name and No.
1b. Type of Well: ☐ Oil Well 🙍 Gas Well ☐ Oth	er Single	Zone Multiple Zone	Lease Name and Well No.     DANA 3 FEDERAL 11	
2. Name of Operator Contact: CHESAPEAKE OPERATING INC	LINDA GOOD E-Mail: Igood@chkenergy.ca	om	9. API Well No.	- 63708
3a. Address P O BOX 18496 OKLAHOMA CITY, OK 73154-0496	3b. Phone No. (include: Ph: 405.767.4275 Fx: 405.879.9583	area code)	10. Field and Pool, or Explor PECOS SLOPE	ratory
4. Location of Well (Report location clearly and in accorded	ince with any State require	ements.*)	11. Sec., T., R., M., or Blk.	and Survey or Area
At surface SWNW 1980FNL 660FWL At proposed prod. zone		RECEIVED	Sec 3 T9S R25E Mei SME: FEE	r NMP
14. Distance in miles and direction from nearest town or post 10.35 MI ENE OF ROSWELL		NOV 1 1 2004	12. County or Parish CHAVES	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 Leas	OCD:ARTESIA	17. Spacing Unit dedicated to 160.00	to this well
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth 4200 MD		20. BLM/BIA Bond No. on	file
21. Elevations (Show whether DF, KB, RT, GL, etc. 3555 GL	22. Approximate date w	ork will start	23. Estimated duration	
	24. Attac	hments		
The following, completed in accordance with the requirements of	f Onshore Oil and Gas Ord	der No. 1, shall be attached to	this form:	<u> </u>
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest Syst SUPO shall be filed with the appropriate Forest Service Of</li> </ol>	em Lands, the fice).	Item 20 above).  5. Operator certification	ons unless covered by an existin	
25. Signature (Electronic Submission)	Name (Printed/Typed) LINDA GOOD			Date 09/23/2004
Title AUTHORIZED REPRESENTATIVE				
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) LARRY D BRAY			Date 11/09/2004
Title ASST FIELD MANAGER	Office Roswell			
Application approval does not warrant or certify the applicant hoperations thereon.  Conditions of approval, if any, are attached.	olds legal or equitable title	to those rights in the subject le	ease which would entitle the ap	plicant to conduct
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212,	make it a crime for any per	rson knowingly and willfully t	o make to any department or ag	gency of the United

#### Additional Operator Remarks (see next page)

Electronic Submission #35561 verified by the BLM Well Information System For CHESAPEAKE OPERATING INC, sent to the Roswell Committed to AFMSS for processing by ARMANDO LOPEZ on 09/23/2004 (04AL0517AE)

CEMENT TO COVER ALL OIL, GAS AND WATER BEARING ZONES : 0 Clarieta

States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

### **Additional Operator Remarks:**

Chesapeake Operating, Inc. proposes to drill a well to 4200' to test the Abo. If productive, casing will be run and the well will be completed. If dry, the well will be plugged and abandoned as per BLM and New Mexico Oil Conservation Division requirements.

Attached please find the Surface Use Plan, Drilling Plan, and attachements as required by Onshore Order No. 1. A general rig plat is attached as Exhibit D. A final rig plat will be submitted prior to spud once a rig is assigned.

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.

On September 22, 2004 Mike Whitefield with Chesapeake Operating, Inc. meet with the Surface Owner James Cliett and have reached a verbal agreement.

CONFIDENTIAL - TIGHT HOLE

Lease No. NMNM 035925

SURFACE USE PLAN
Page 1

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

### 1. EXISTING ROADS

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

### 2. PLANNED ACCESS ROADS

- a. A new access road 2456' in length and 14' in travel width with a maximum disturbance area of 30' will be built coming off the existing county road in an easterly direction. See Exhibit A-2. The road will be built 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 -Exhibit A-1 & A-2.
- 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: 2 miles North of Roswell, N.M. on Hwy 285, Right on Hwy 70, 3 ½ miles to mile marker 346, North ½ mile.
- 3. <u>LOCATION OF EXISTING WELLS WITHIN A 1-MILE RADIUS OF THE PROPOSED LOCATION see Exhibit B.</u>

### 4. LOCATION OF PRODUCTION FACILITIES

It is anticipated that production facilities will be located on the well pad as product will be sold at the wellhead and/or tank battery. A 6" steel pipeline will be laid along the lease road and gas meter will be on location. . — See Exhibit C & A-2.

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SURFACE USE PLAN

Page 2

### 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

All material (i.e. shale) will be acquired from private or commercial sources.

# 7. METHODS FOR HANDLING WASTE DISPOSAL

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. Sanitary wastes will be contained in a chemical porta-toliet and then hauled to an approved sanitary landfill.

# 8. ANCILLARY FACILITIES None.

### 9. WELLSITE LAYOUT

The proposed site layout plat is attached showing rig 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 OWNERSHIP

James Cliett Nalion Living Trust 709-A La Fonda Dr. Roswell, NM 88201

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SURFACE USE PLAN
Page 3

MINERAL OWNERSHIP
United States of America
Department of Interior
Bureau of Land Management

# 12. <u>ADDITIONAL INFORMATION</u> (This is presumed info, may need to revise)

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.

# 13. OPERATOR'S REPRESENTATIVES

# **Drilling and Completion Operations**

Rob Jones District Manager P.O. Box 18496 Oklahoma City, OK 73154 405-810-2694 (OFFICE) 405-879-9573 (FAX) rjones@chkenergy.com

### **Field Representative**

Mike Whitefield 550 West Texas Ave. Midland, TX 79701 432-683-7443 (OFFICE) 432-685-4399 (FAX) mwhitefield@chkenergy.com

# **Regulatory Compliance**

Linda Good Regulatory Compliance Analyst P.O. Box 18496 Oklahoma City, OK 73154 405-767-4275 (OFFICE) 405-879-7953 (FAX) Igood@chkenergy.com

### **Drilling Engineer**

David DeLaO P.O. Box 18496 Oklahoma City, OK 73154 405-767-4339 (OFFICE) 405-879-9573 (FAX) 405-990-8182 (MOBILE) ddelao@chkenergy.com

### **Asset Manager**

Andrew McCalmont P.O. Box 18496 Oklahoma City, OK 73154-0496 405-848-8000 Ext. 852 (OFFICE) 405-879-7930 (FAX) amccalmont@chkenergy.com

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> SURFACE USE PLAN Page 4

# 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:

Date: \_\_

9/2/04

DISTRICT I 1025 N. French Dr., Hobbs, NM 58240 DISTRICT II 811 South First, Artems, NM 88210 State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102 Revised March 17, 1999

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

DISTRICT III 1000 Rio Brezos Ed., Artec. NM 87410 DISTRICT IV

2040 South Pacheco, Senta Fc, NH 67505

# OIL CONSERVATION DIVISION

2040 South Perheco Santa Fe, New Mexico 87504-2088

II AMENDED REPORT

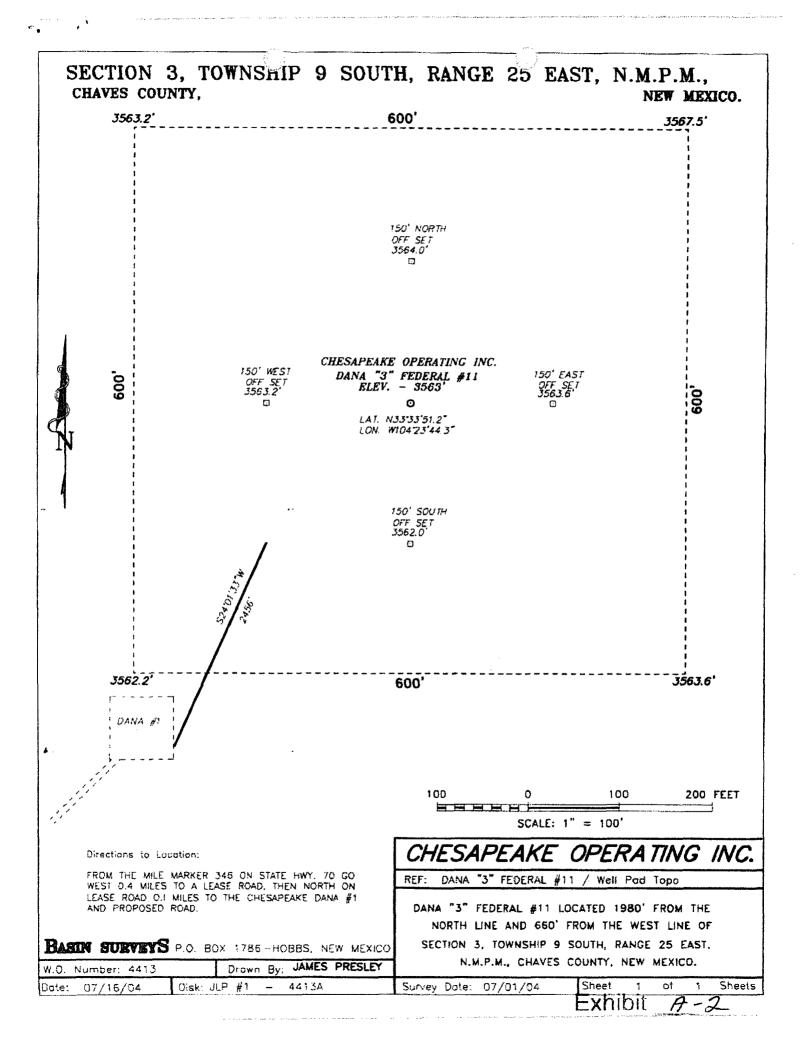
### WELL LOCATION AND ACREAGE DEDICATION PLAT

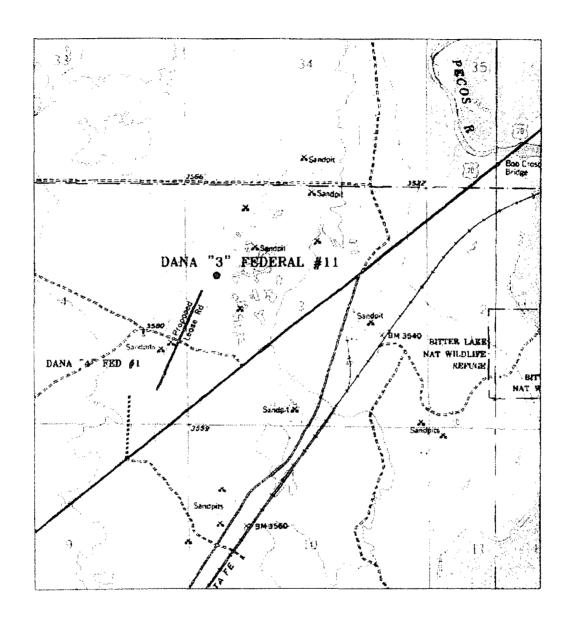
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Cade			<del></del>	• •			Well N	umber
<b>)</b> .		Operator Name Elevation						
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Section	Township	Ronge	Lot ldn	Feet from the	North/South line	Feet from the	East/West line	County
3	9 S	25 E		1980	NORTH	660	WEST	CHAVES
		Bottom	Hole Loc	ation If Diffe	rent From Sur	face		
Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Joint a	r infill Co	nsolidation (	Code Or	der No.				<u></u>
	3 Section	Section Township 3 9 S Section Township	Section Township Renge 3 9 S 25 E  Bottom Section Township Range	Section Township Range Lot Idn 3 9 S 25 E  Bottom Hole Loc Section Township Range Lot Idn	Property Name DANA "3" FE Operator Name CHESAPEAKE OPE Surface Local Section Township Renge Lot Idn Feet from the 1980  Bottom Hole Location If Differ Section Township Range Lot Idn Feet from the Section Sectio	Property Name DANA "3" FEDERAL  Operator Name CHESAPEAKE OPERATING IN Surface Location  Section Township Range Lot Idn Feet from the North/South line 3 9 S 25 E 1980 NORTH  Bottom Hole Location If Different From Sur  Section Township Range Lot Idn Feet from the North/South line	Property Name DANA "3" FEDERAL  Operator Name CHESAPEAKE OPERATING INC.  Surface Location  Section Township Range Lot Idn Feet from the North/South line Feet from the 3 9 S 25 E 1980 NORTH 660  Bottom Hole Location If Different From Surface  Section Township Range Lot Idn Feet from the North/South line Feet from the	Property Name DANA "3" FEDERAL  Operator Name CHESAPEAKE OPERATING INC.  Surface Location  Section Township Renge Lot Idn Feet from the North/South line Feet from the East/West line  Bottom Hole Location If Different From Surface  Section Township Range Lot Idn Feet from the North/South line Feet from the East/West line  Bottom Hole Location If Different From Surface  Section Township Range Lot Idn Feet from the North/South line Feet from the East/West line

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

		OPERATOR CERTIFICATION  I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.
1980.	! ! ! <del>!</del>	Signature
3563.2'3567.5'	 	
3562.2° 3563.6'	Long.: W104*23'44.3"	7/12/04 Date
		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 supervison, and that the some is true and correct to the best of my belief.
	  - 	JULY 1 2004  Date Surpord V L JONES  Signature of Section Streets of Professional Streets of Sections 1
	   	3 (20 No. 44/\$)
		Certific Do Oury Lasges 7977

Exhibit A-1





DANA "3" FEDERAL #11 Located at 1980 FNL and 660 FWL

Section 3. Fownship 9 South, Range 25 East, N.M.P.M., Chaves County, New Mexico.

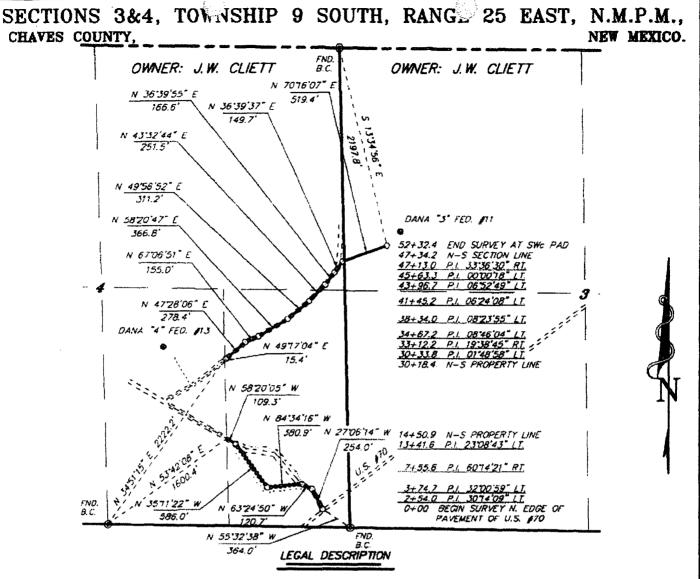


Fig. 84, 1786 Fig. 9 - West County Ed. Popola, 164 - Joseph 88241 (905) 196 - 7716 - Office (515) 387 - 3014 - Fox

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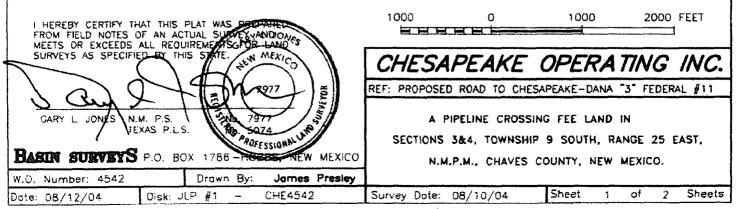
CHESAPEAKE OPERATING INC.

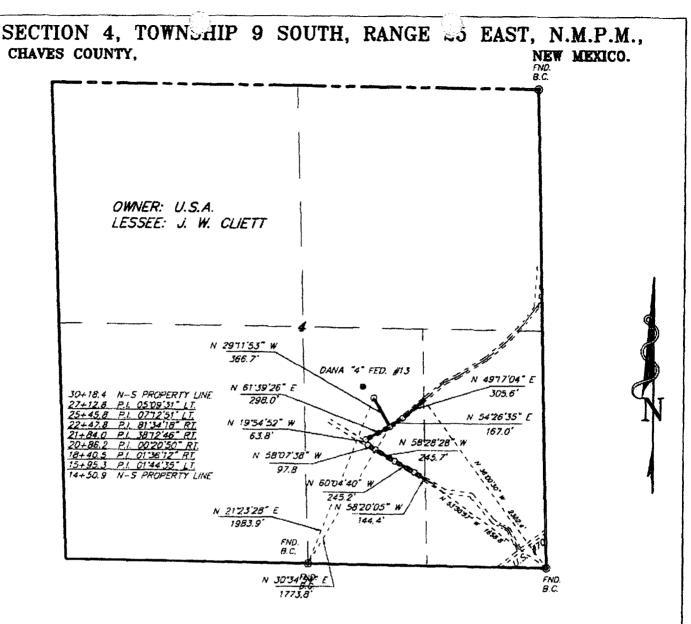
Exhibit A-3



A STRIP OF LAND 30.0 FEET MIDE, LOCATED IN SECTIONS 3&4, TOWNSHIP 9 SOUTH, RANGE 25 EAST, N.M.P.M., CHAVES COUNTY, NEW MEXICO AND BEING 15.0 FEET LEFT AND RIGHT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY.

BEGINNING AT A POINT WHICH LIES N.55'32'38"W. 364.0 FEET FROM THE SOUTHEAST CORNER OF SAID SECTION 4: THENCE N.27'06'14"W., 254.0 FEET; THENCE N.63'24'50"W., 120.7 FEET; THENCE N.84'34'16"W., 380.9 FEET; THENCE N.35'11'22"W., 586.0 FEET; THENCE N.58'20'05"W., 109.3 FEET TO A POINT ON THE WEST PROPERTY LINE WHICH LIES N.53'42'08"E., 1600.4 FEET FROM THE SOUTH QUARTER CORNER OF SAID SECTION 4: THENCE BEGINNING AGAIN AT A POINT WHICH LIES N.34'51'15"E., 222.2 FEET FROM THE SOUTH QUARTER CORNER OF SAID SECTION 4: THENCE N.49'77'04"E., 154 FEET; THENCE N.47'28'06"E., 278.4 FEET; THENCE N.67'05'15"E., 155.0 FEET; THENCE N.58'20'47"E., 366.8 FEET; THENCE N.69'56'52"E., 311.2 FEET; THENCE N.43'32'44"E., 251.5 FEET; N.36'39'55"E., 166.6 FEET; THENCE N.36'39'37"E., 149.7 FEET; THENCE N.70'16'07"E., 519.4 FEET TO THE END OF THIS LINE WHICH LIES S.13'34'56"E., 2197.8 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 3. SAID STRIP OF LAND BEING 3684.9 FEET OR 222.12 RODS IN LENGTH.

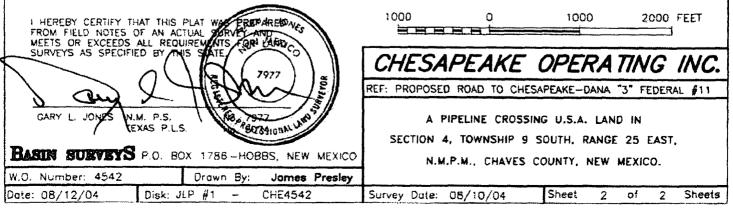




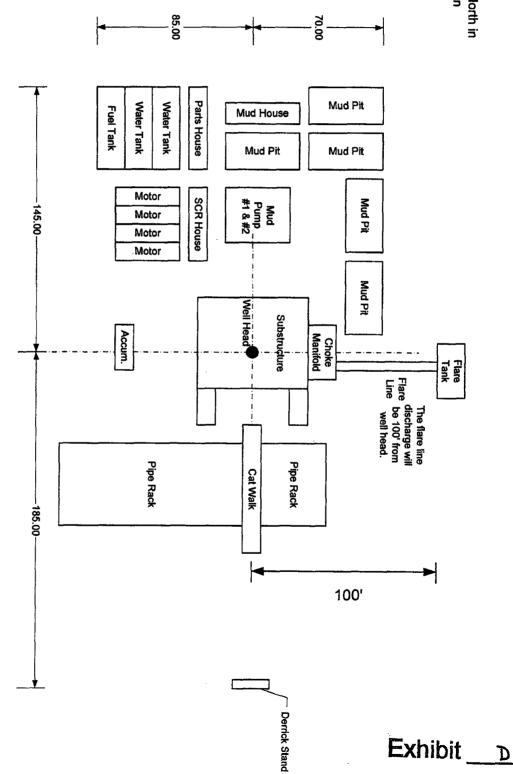
# LEGAL DESCRIPTION

A STRIP OF LAND 50.0 FEET MDE, LOCATED IN SECTION 4, TOWNSHIP 9 SOUTH, RANGE 25 EAST, M.M.P.M., CHAVE'S COUNTY, NEW-MEXICO AND BEING 25.0 FEET LEFT AND RIGHT OF THE ABOVE PLATTED CENTERLINE SURVEY.

1934.2 FEET = 117.22 RODS = 0.37 MILES = 2.22 ACRES



Prevailing Winds from the North in Winter and from the South in Summer.



Chesapeake Operating, Inc

General Rig Layout

SIZE FSCM NO DWG NO REV

SCALE Not to Scale SHEET 10F1

CONFIDENTIAL – TIGHT HOLE Lease Contract No. NMNM 35925

**DRILLING PROGRAM** 

Page 1

# 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
San Andres	390	3175
Glorietta	1510	2055
Tubb	2945	620
Abo	3650	-85
Abo B	3745	-180
Abo C	3870	-305
Abo C Lower	3960	-395
Abo D	4040	-475
Total Depth	4200	-635

# 2. <u>ESTIMATED DEPTH OF WATER, OIL GAS & OTHER MINERAL BEARING</u> 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:

<u>Substance</u>	<u>Formation</u>	<u>Depth</u>
Oil/Gas	Abo	3650 to 4100

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

### CONFIDENTIAL – TIGHT HOLE Lease Contract No. NMNM 35925

**DRILLING PROGRAM** 

Page 2

### 3. BOP EQUIPMENT: 3,000# System

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

### I. BOP, Annular, Choke Manifold, Pressure Test

### A. Equipment

- 1. The equipment to be tested includes all of the following that is installed on the well. See Exhibit F-1 to F-2.
  - (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

In each case, the individual components should be monitored for leaks for <u>5</u> minutes, with no observable pressure decline, once the test pressure as been applied.

### II. Accumulator Performance Test

17

CONFIDENTIAL - TIGHT HOLE Lease Contract No. NMNM 35925

**DRILLING PROGRAM** 

Page 3

### 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, <u>without recharging</u> and the <u>pump turned off</u>, and have remaining pressures of <u>200 PSI above the precharge pressure</u>.
- 2. Minimum precharge pressures for the various accumulator systems per manufacturers recommended specifications are as follows:

System Operating Pressures	Precharge Pressure
1,500 PSI	750 PSI
2,000 PSI	1,000 PSI
3,000 PSI	1,000 PSI

- 3. Closing times for the Hydril should be less than **20 seconds**, and for the ramtype 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 <u>should not be less</u> 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

### CONFIDENTIAL – TIGHT HOLE Lease Contract No. NMNM 35925

#### **DRILLING PROGRAM**

Page 4

- 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 <u>full open</u> or <u>full closed</u> position. <u>Do not</u> 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	<u>Grade</u>	<u>Thread</u>	Condition
Surface	0-1,000'	11"	8-5/8"	24#	J-55	ST &C	New
Production	0-4,200'	7-7/8"	4-1/2"	11.6#	J-55	LT &C	New

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

Interval	Type	<u>Amount</u>	<u>Yield</u>	Washout	<u>Excess</u>
Surface	Lead 65:35:6 + 6# Salt + 1/4# Flo-cel	300sx	2.1	50%	100%
	Tail: c + 2% CaCl	200sx	1.3		
Production	50 :50 Poz H + additives	200sx	1.3	20%	30%

### MUD PROGRAM

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

Interval	Mud Type	Mud Weight	Viscosity	Fluid Loss
0-1,000'	Water	8.4 - 9.0	28-40	NC
1,000' - 4,200'	Cut Brine	9.4 - 10.0	35-46	5 - 10

A steel pit will be utilized during the drilling of this well. All fluids and cuttings will be disposed of in accordance with New Mexico Oil Conversation 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:

Drill stem tests are not planned.

CONFIDENTIAL – TIGHT HOLE Lease Contract No. NMNM 35925

**DRILLING PROGRAM** 

Page 5

- b. The logging program will consist of Natural GR, Density, Neutron and Pe from TD to surface casing, then GR and Neutron to surface; Dual Laterolog from TD to surface casing.
- c. Cores samples are not planned.

# 7. ABNORMAL PRESSURES AND HYDROGEN SULFIDE

- a. The estimated bottom hole pressures is 900 psi. No abnormal pressures or temperatures are anticipated.
- b. Hydrogen sulfide gas is not expected to be encountered.

# **BLOWOUT PREVENTOR SCHEMATIC CHESAPEAKE OPERATING INC**

WELL

: Dana 3 Federal 11

**FIELD** 

: Pecos Slope

RIG

: United #23

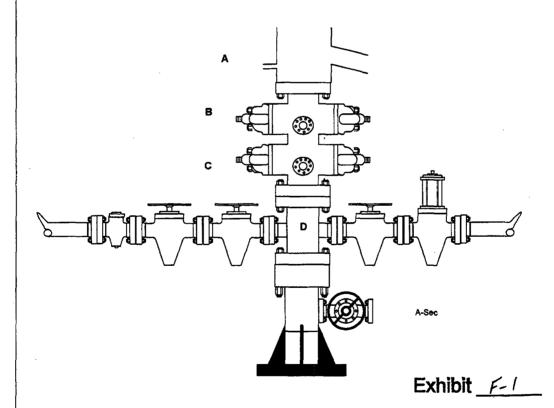
COUNTY

: Chaves

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

STATE: New Mexico

	SIZE	PRESSURE	DESCRIPTION
A			Flow Line
В	11"	3,000#	Pipe Rams
С	11"	3,000#	Blind Rams
D	11"	3,000#	Mud Cross
	N-Sec	8-5/8" \$	SOW x 11" 3M



# Kill Line

SIZE	PRESSURE	DESCRIPTION
2"	3,000#	Check Valve
2"	3.000#	Gate Valve

2"	3,000#	Check Valve
2"	3,000#	Gate Valve
2"	3,000#	Gate Valve
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### **Choke Line**

SIZE	PRESSURE	DESCRIPTION
	0.000#	

		DECOIGI 11011
2"	3,000#	Gate Valve
2"	3,000#	HCR Valve

# CHOKE MANIFOLD SCHEMATIC CHESAPEAKE OPERATING INC

WELL

: Dana 3 Federal 11

**FIELD** 

: Pecos Slope

RIG

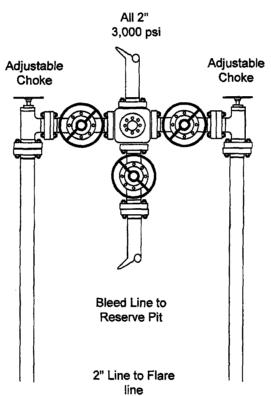
: Unknown

COUNTY

: Chaves

STATE: NM

**OPERATION: 3M CHOKE MANIFOLD** 



TO MUD/GAS SEPARATOR

TO MUD/GAS SEPARATOR

Exhibit F-2

