Form 3160-3 (August 1999)



## **OCD-ARTESIA**

RECEIVED

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

**UNITED STATES** 

MAY 0 5 2006

5. Lease Serial No.

DEPARTMENT OF THE IN	ERIOR			NIMINIM TUBES	<del>)</del> 1	
BUREAU OF LAND MANG	EMENT	として、文章	TECHA	6. If Indian,	Allottee or	Tribe Name
APPLICATION FOR PERMIT TO DRILL OR REENTER						
1a. Type of Work: X DRILL RE	ENTER	35	684	7. If Unit or	CA Agreem	ent, Name and No.
				8. Lease Na	me and Wel	l No.
1b. Type of Well: Oil Well Gas Well Other	Single Z	one Multip	le Zone	GUADALUPE 8 FED 1H		
2. Name of Operator EOG Resources, Inc.				9. API Well No. 30 -015 - 34 84 [		
3a. Address	3b. Phone No	o. (include area	opte)	10. Field and	d Pool, or E	ploratory
P.O. Box 2267, Midland, TX 79702	(432) 686-364		6 uc	c Wolf	camp	(Gas)
4. Location of Well (Report location clearly and in accordan	ce with any S			1	• •	k. And Survey or Area
4000(FM) 9 000(FF) (U/LI)		<b>PRP</b> 3020		Section 8, T16S-R24E, N.M.P.M.		
At surface 1880' FNL & 660' FEL (U/L H)		Liko Are				
At proposed prod. Zone 1880' FNL & 660' FWL	(UA E)	By State				
14. Distance in miles and direction from nearest town or pos				12. County	or Parish	13. State
14 miles NW from Artesia				Eddy	J. 1 411511	New Mexico
15. Distance from proposed* 660'	16. No. of Ac	res in lease	17. Spacing	Unit dedicat	ted to this w	
location to nearest	1,280		N/2	,		<del></del>
property or lease line, ft.	]					
(Also to nearest drig. Unit line, if any)						<del></del>
18. Distance from proposed location* 1,120' to nearest well, drilling, completed	19. Proposed 4,400' TVD	d Depth	20. BLM/BI NM2308	IA Bond No. on file		
applied for, on this lease, ft.	8,224' TMD					
21. Elevations (Show whether DF, KDB, RT, GL, etc)			23. Estimated duration			
Gr 3645'	4/15/2006			30 days		
	24. Attachments Roswell Controlled Water Basin			asin		
The following completed in accordance with the requirements of O	nshore Oil an (	Gas Order No. 1,	shall be attach	ned to this form	n:	
Well plat certified by a registered surveyor.		4. Bond to cover	the operation:	s unless cover	ed by an exis	sting bond on file (see
2. A Drilling Plan.		Item 20 above	)			
3. A Surface Use Plan (if the location is on National Forest Sytem	Lands, the	.ands, the 5. Operator certification.				
SUPO shall be filed with the appropriate Forest Service Office)		6. Such other sit	e specific info	rmation and/o	r plans as ma	ay be required by the
authorized officer.						
25. Signature / /// L	Name (Printe	d/Typed)			Date	
1/m / 1000	Donny G. Glanton			2/15/2006		
Title						
SR ROW LEASE OPERATIONS REPRESENTATIVE						
Approved by (Signature)	Name (Pante	Kussell E.	Sorens	a <b>n</b>	Date 14	AY 0 3 2005
.May Russell P. Sorelisen						
TINCT FIELD MANAGER Office CARLSBAD FIELD OFFICE						
Application approval does not warrant or certify the applicant holds legal or equitable title to those rightes in the subject lease which would entitle the applicant to conduct operations theron.						
Conditions of approval, if any, are attached			APP	ROVAL	FOR	1 YEAR
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a cr	ime for any perso	on knowingly and wil	Ifully to make to	any department	or agency of t	
States any false, fictitious or fraudulent statements or representations as to any matter within its jurisidiction.						

\*(Instructions on reverse)

DECLARED WATER BASIN, CEMENT BEHIND THE 7 CASING MUST BE <u>CURCULATED</u>

Approval subject to General requirements and SPECIAL STIPULATIONS attached

WITNESS

District 1 1625 N. French Dr., Hobbs, NM 88240

District II

88240 E

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-402
Revised October 12, 2005
Submit to Appropriate District Office

1301 W. Grand Avenue, Artesia, NM 88210 District III 1000 Rio Brazos Rd., Aztec, NM 87410 OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, NM 87505

State Lease-4 Copies Fee Lease-3 Copies

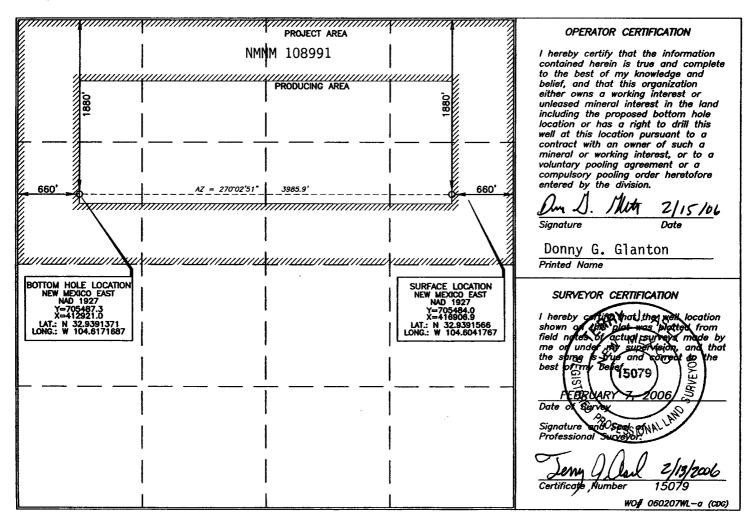
District N
1220 S. St. Francis Dr., Santa Fe, NM 87505

AMENDED REPORT

		WELL LOCATION AND AC	REAGE DEDICATION FLAT		
API Number		Pool Code	Pool Name		
		196086	WC, Wolfcamp	(Gas)	
Property Code	Property Name				Well Number
GUADALUPE 8 FED		PE 8 FED.		1H	
OGRID No.		Operat	or Name		Elevation
7377	EOG RESOURCES, INC. 3645'			3645'	
		o (			

Surface Location UL or lot no. Section Township Range Lot Idn Feet from the North/South line | Feet from the East/West line County 24 EAST, N.M.P.M. Н 8 16 SOUTH 1880 **NORTH** 660 **EAST EDDY** Bottom Hole Location If Different From Surface UL or lot no. Section Township Lot Idn Feet from the North/South line Feet from the East/West line County E 8 16 SOUTH 24 EAST, N.M.P.M. 1880 **NORTH** 660 WEST **EDDY Dedicated Acres** Joint or Infill Consolidation Code Order No. 320

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.



## **Statement Accepting Responsibility For Operations**

**Operator Name:** 

EOG Resources, Inc.

Street or Box:

P.O. Box 2267

City, State:

Midland, TX

Zip Code:

79702

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portion thereof, as described below:

Lease No.: NMNM 108991

Legal Description of Land: N/2 of Section 8, T-16-S; R-24-E, N.M.P.M., Eddy Co. NM

Formation:

Wolfcamp

**Bond Coverage:** 

Nationwide

BLM Bond File No.: NM2308 with endorsement to State of NM

Title: Agent

Date: 3/8/2006

EOG RESOURCES, INC. Guadalupe 8 Fed No. 1H Eddy Co. NM

## 1. GEOLOGIC NAME OF SURFACE FORMATION:

Quaternary Alluvium

0-200

## 2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

San Andres	665'
Glorieta	2,035'
Tubb	3,326'
Abo Shale	4,015'
Wolfcamp Pay	5,065'

## 3. ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

Quanterary Alluvium	0- 200'	Fresh Water
San Andres	665'	Oil
Glorieta	2,035'	Oil/Gas
Tubb	3,326'	Oil/Gas
Abo/Wolfcamp Pay	5,065'	Gas

No other Formations are expected to give up oil, gas or fresh water in measurable quantities. Surface fresh water sands will be protected by setting 7" casing at 900' and circulating cement back to surface.

#### 4. CASING PROGRAM

Hole Size	<u>Interval</u>	OD Casing	Weight Gra	de Jt. Co	nn. Type
9.875"	0-900'	7"	26#	J-55	LT&C
6.125"	0-8,224'	4.5"	11.6#	P-110	LT&C

#### **Cementing Program:**

7" Surface Casing:

Cement to surface with 150 sx Prem Plus, 3% Econolite 1/4 pps Flocele, 2% Calcium Chloride, 175 sx Prem Plus, 2% Calcium Chloride, .25#/sx Flocele

4-1/2" Production

Cement with 400sx Interfill C,+ 0.25#sx Flocele; 350 sx Premium Cement, 100% Acid Soluble Additive, + 0.6% Halad-344 + 0.8% Econolite+ 0.2% HR-55.

#### 5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:

(SEE EXHIBIT #1)

## EOG RESOURCES, INC. Guadalupe 8 Fed No. 1H Eddy Co. NM

The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of a double ram-type (5000 psi WP) preventer and an annular preventer (5000-psi WP). Units will be hydraulically operated and the ram-type will be equipped with blind rams on top and drill pipe rams on bottom. All BOP's and accessory equipment will be tested in accordance with Onshore Oil & Gas order No. 2. for a 3M system.

Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.

#### 6. TYPES AND CHARACTERISTICS OF THE PROPOSED MUD SYSTEM:

The well will be drilled to TD with a combination of brine, cut brine, and polymer mud system. The applicable depths and properties of this system are as follows:

		Wt	Visc	osit Waterlo	SS
<u>Depth</u>	<u>Type</u>	<u>(PPG)</u>	(sec)	(cc)	
0-900'	Fresh - Gel	8.6-8.8	28-34	N/c	
900'-4400'	Cut Brine	8.8-9.2	28-34	N/c	
4,400'-5,200'	Cut Brine	8.8-9.2	28-34	10-15	
4,200'-8,224'	Polymer (Lateral)	9.0-9.4	40-45	10-25	

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

#### 7. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT:

- (A) A kelly cock will be kept in the drill string at all times.
- (B) A full opening drill pipe-stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.

### 8. LOGGING, TESTING AND CORING PROGRAM:

Electric logging will consist of GR-Dual Laterlog and GR-Compensated Density-Neutron from +/-900' to TVD.

Possible sidewall cores based on shows.

# 9. ABNORMAL CONDITIONS, PRESSURES, TEMPERATURES AND POTENTIAL HAZARDS:

The estimated bottom hole temperature (BHT) at TD is 125 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 2000 psig. No hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. No major loss circulation zones have been reported in offsetting wells.

EOG RESOURCES, INC. Guadalupe 8 Fed No. 1H Eddy Co. NM

## 10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

The drilling operation should be finished in approximately one month. If the well is productive, an additional 30-60 days will be required for completion and testing before a decision is made to install permanent facilities.

EOG RESOURCES, INC. Guadalupe 8 Fed No. 1H Eddy Co. NM

## SURFACE USE AND OPERATIONS PLAN Surface is owned by the BLM

<u>Directions to Well Site</u>: From the Intersection of U.S. Hwy 82 & U.S. Hwy 285 in Artesia, NM, Go north on Hwy 285 for 7.8 miles, Thence west on County Road No. 121 (Funk Road) for 7.0 miles, Thence south on County Road No. 95 (Joy Road) for 0.7 miles, Thence west for 2.1 miles, Thence north 0.6 miles to the proposed location.

#### 1. EXISTING ROADS:

There are no existing roadways to proposed location from any County, State or Federal Road. Concurrent with the submittal of this APD, EOG has concurrently submitted Application for Roadway on Federal Lands which includes crossing other State and Fee Lands (See Exhibit 2).

## 2. PROPOSED ACCESS ROAD:

Access to location will be made as shown on Exhibit #2. 16,539 feet of new lease road is required to access the south line of the lease. Thence an additional 3,200 feet of new lease road from the south line of the lease to proposed location (See Exhibit 2A).

No turnouts necessary.

No culverts or cattle guards are necessary No low-water crossings are necessary.

Surfacing material consists of native caliche to be obtained from the nearest BLM-approved caliche pit. Any additional materials required will be purchased from the dirt contractor.

#### 3. LOCATION OF EXISTING WELLS:

Exhibit #3 shows all existing wells within a one-mile radius of this well.

#### 4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

There are no existing production facilities. If production is encountered, a temporary facility will be established on the drill pad, and if warranted, a production facility would be built at a later date in the immediate area of the drill pad location. If the well is productive, the flowline will be built to the nearest pipeline.

EOG RESOURCES, INC. Guadalupe 8 Fed No. 1H Eddy Co. NM

#### 5. LOCATION AND TYPE OF WATER SUPPLY:

Fresh water and brine water for drilling will come from commercial sources and transported to the well site over the roads as shown on Exhibit #2 and by temporary water supply lines

#### 6. PLANS FOR RESTORATION OF THE SURFACE:

After completion of drilling and/or completion operations, all equipment and other material not needed for operations will be removed. Location will be cleaned of all trash and junk to leave the well in an aesthetically pleasing condition as possible.

Any unguarded pits containing fluid will be fenced until they are dry and back filled.

After abandonment of the well, surface restoration will be in accordance with current federal laws and regulations. Location will be cleaned, and the well pad removed to promote vegetation and disposal of human waste will be complied with. Trash, waste paper, garbage and junk will be hauled to an approved disposal site in an enclosed trash trailer.

All trash and debris will be removed from the well site within 30 days after finishing drilling and/or completion operations.

#### **ANCILLARY FACILITIES:**

No airstrip, campsite, or other facilities will be built.

#### **WELL SITE LAYOUT:**

Exhibit #4 shows the relative location and dimensions of the well pad.

EOG RESOURCES, INC. Guadalupe 8 Fed No. 1H Eddy Co. NM

#### **OTHER INFORMATION:**

The area around the well site is grassland and the topsoil is sandy. The vegetation is native scrub grass.

#### **COMPANY REPRESENTATIVES:**

## **Permitting & Land**

Mr. Donny G. Glanton
Senior ROW Lease Operations Representative
EOG Resources, Inc.
P.O. Box 2267
Midland, TX 79702
(432) 686-3642 Office

### **Drilling**

## **Operations**

Mr. Ron McIntyre	Mr. Howard Kemp
Division Drilling Engineer	Production Manager
EOG Resources, Inc.	EOG Resources, Inc.
P.O. Box 2267	P.O. Box 2267
Midland, TX 79702	Midland, TX 79702
(432) 686-3640 Office	(432) 686-3704 Office

## **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 plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by EOG Resources, Inc. and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

Ron McIntyre

Division Drilling Engineer

DATE 3/8/2006

### EOG RESOURCES, INC. Guadalupe 8 Fed No. 1H Eddy Co. NM

#### ATTACHMENT TO EXHIBIT #1

- 1. Wear ring to be properly installed in head.
- 2. Blow out preventer and all fittings must be in good condition, 3000 psi W.P. minimum. Exhibit #1.
- 3. All fittings to be flanged
- 4. Safety valve must be available on rig floor at all times with proper connections, valve to be full bore 3000 psi W.P. minimum.
- 5. All choke and fill lines to be securely anchored especially ends of choke lines.
- 6. Equipment through which bit must pass shall be at least as large as the diameter of the casing being drilled through.
- 7. Kelly cock on kelly.
- 8. Extension wrenches and hand wheels to be properly installed.
- 9. Blow out preventer control to be located as close to driller's position as feasible.
- 10. Blow out preventer closing equipment to include minimum 40-gallon accumulator, two independent sources of pump power on each closing unit installation, and meet all API specifications.

# Guadalupe 8 FED No. 14

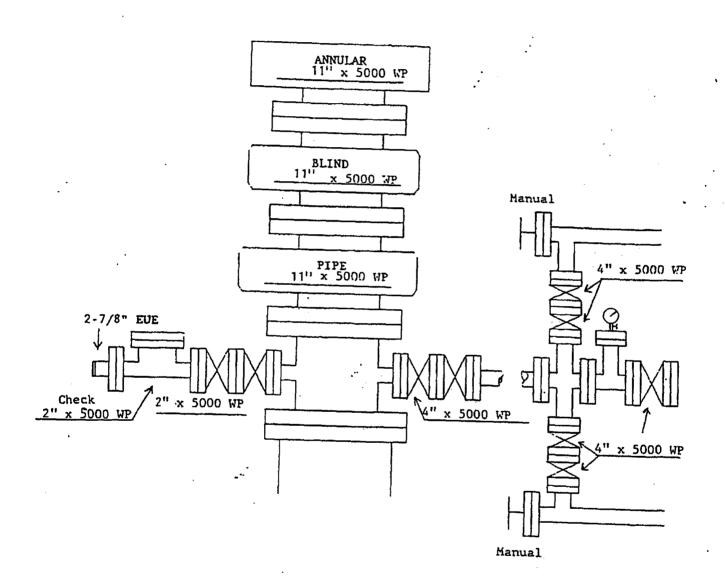
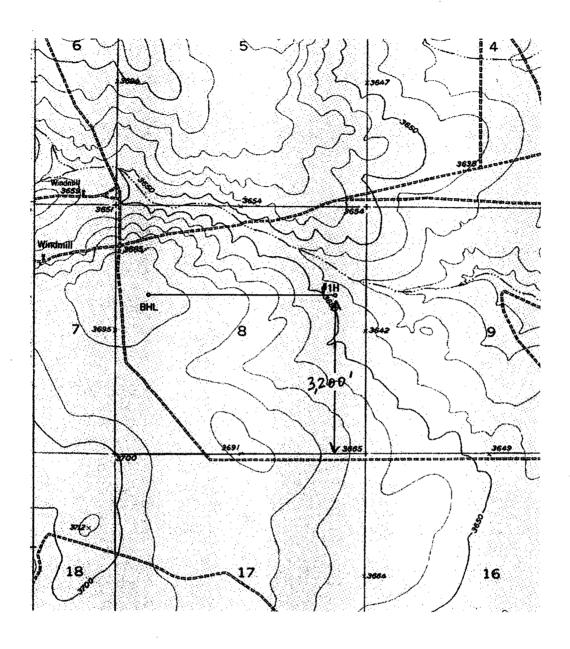


Exhibit 1

## LOCATION VERIFICATION MAP



SEC. 8 TWP. 16-S RGE. 24-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 1880' FNL & 660' FEL

ELEVATION 3645'

OPERATOR EOG RESOURCES, INC

LEASE GUADALUPE 8 FED #1H

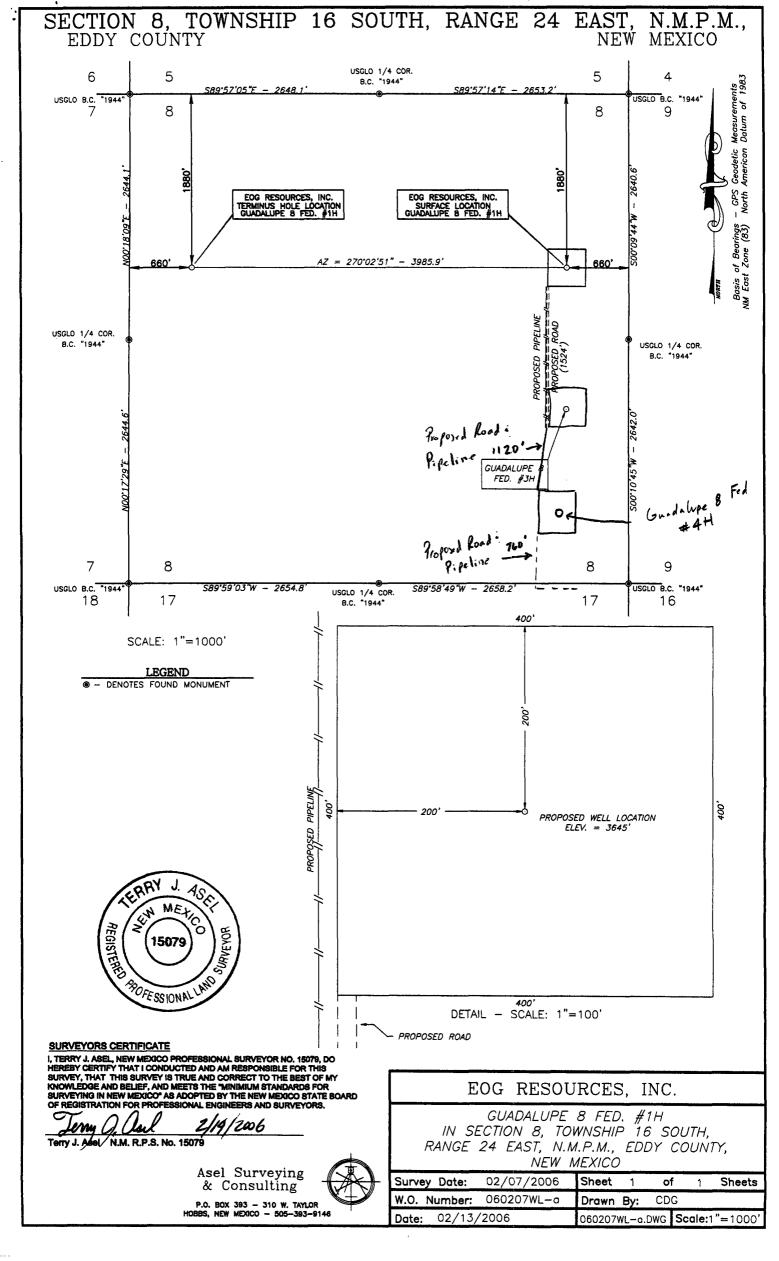
U.S.G.S. TOPOGRAPHIC MAP
HOPE NE, NM

CONTOUR INTERVAL = 10 FEET SCALE 1" = 2000'



Asel Surveying & Consulting

P.O. BOX 393 - 310 W. TAYLOR HOBBS, NEW MEXICO - 505-393-9146 Page 2 of 2



#### CONDITIONS OF APPROVAL - DRILLING

Operator's Name: EOG Resources, Inc. Well No. 1H - Guadalupe 8 Federal

Location: SH: 1880' FNL & 660' FEL BH: 1880' FNL & 660' FWL sec. 8, T. 16 S., R. 24 E.

Lease: NM-108991

#### I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at (505) 234-5972 in sufficient time for a representative to witness:

- A. Spudding
- B. Cementing casing: 7 inch 4-1/2 inch
- 2. 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.
- 3. Include the API No. assigned to well by NMOCD on the subsequent report of setting the first casing string.

#### II. CASING:

- 1. <u>7</u> inch surface casing should be set <u>at approximately 900 feet</u>, below usable water and circulate cement to the surface. If cement does not circulate to the surface, the BLM Carlsbad Field Office shall be notified at (505) 234-5972 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. Minimum required fill of cement behind the <u>4-1/2</u> inch production casing is <u>sufficient to tie back 500 feet above</u> the uppermost perforation in the pay zone.

#### **III. PRESSURE CONTROL:**

- 1. Before drilling below the <u>7</u> inch surface casing, the blowout preventer assembly shall consist of a minimum of One Annular Preventer or Two Ram-Type Preventers and a Kelly Cock/Stabbing Valve.
- 2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 2000 psi.
- 3. Before drilling below the <u>7</u> inch surface casing, the BOPE shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.
- A. The results of the test will be reported to the BLM Carlsbad Field Office at 620 East Greene Street, Carlsbad, New Mexico 88220-6292.
- B. 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.
- C. Testing must be done in a safe workman like manner. Hard line connections shall be required.
- D. A variance to test the BOPE to the reduced pressure of  $\underline{2000}$  psi prior to drilling below the  $\underline{7}$  inch surface casing is approved.