

OCD-ARTESIA

SUBMIT IN TRIPLICATE\*

FORM APPROVED  
OMB NO. 1004-0136

Expires: February 28, 1995

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

(Other instructions on  
reverse side)

5. LEASE DESIGNATION AND SERIAL NO.

NM-497874

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

Pending

8. FARM OR LEASE NAME, WELL NO.

Bear Bryant 31 Federal Com No. 1

9. API WELL NO.

30-015-34906

10. FIELD AND POOL, OR WILDCAT

Empire; Morrow, South

11. SEC. T., R., M., BLOCK AND SURVEY

OR AREA

31-16S-29E

12. COUNTY OR PARISH

Eddy

13. STATE

NM

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

1b. TYPE OF WELL

OIL ☐ GAS ☒  
WELL WELL

SINGLE ☒ MULTIPLE ☐  
OTHER ZONE ZONE

2. NAME OF OPERATOR CIMAREX ENERGY CO OF COLORADO  
Gray Petroleum Management Co.

3. ADDRESS AND TELEPHONE NO.

P.O. Box 140907 Irving TX 75014 972-401-3111

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)

1850' FSL & 990' FWL

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*

8 miles West/Northwest of Loco Hills, NM

15. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, T.O

(Also to nearest drlg. unit line, if any)

990'

16. NO. OF ACRES IN LEASE

17. NO. OF ACRES ASSIGNED

TO THIS WELL

W/2 262.36

18. DISTANCE FROM PROPOSED LOCATION\*

TO NEAREST WELL, DRILLING COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.

N/A

19. PROPOSED DEPTH

11000'

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

3694' GR

Roswell Controlled Water Basin

22. APPROX. DATE WORK WILL START\*

04-15-06

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	H-40 13-3/8"	48#	450' 220'	490 sx circulate
12-1/4"	J-55 9-5/8"	40#	3100'	1200 sx circulate
8-3/4"	P-110 5-1/2"	17#	11000'	1620 sx TOC 2700'

From the base of the surface pipe through the running of production casing, the well will be equipped with a 5000 - psi BOP system. We are requesting a variance for the 13-3/8" surface casing and BOP testing from Onshore Order No. 2, which states all casing strings below the conductor shall be pressure tested to 0.22 psi per foot or 1500 psi, whichever is greater, but not to exceed 70% of the manufacturer's stated maximum internal yield. During the running of the surface pipe and the drilling of the intermediate hole we do not anticipate any pressures greater than 1000 psi and are requesting a variance to test the 13-3/8" casing and BOP system to 1000 # psi and use rig pumps instead of an independent service company.

IN ABOVE SPACE, DESCRIBE PROPOSED PROGRAM:

If proposal is to deepen, give data on present productive zone and proposed new productive zone.  
If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

SIGNED

Zeno Farris

TITLE

Mgr. Ops. Admin

DATE

03-07-06

(This space for Federal or State office use)

PERMIT No.

APPROVAL DATE

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:

APPROVED BY

/s/ Tony J. Herrell

TITLE

FIELD MANAGER

DATE

MAY 26 2006

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

If earthen pits are used in association with the drilling of this well, an OCD pit permit must be obtained prior to pit construction.

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHED

See IT  
> 9.5

## BASIN SURVEYS

## Gruy Petroleum Management Co.

5215 North O'Connor Blvd. • Suite 1500 • Irving, TX 75039 • (972) 401-3111 • Fax (972) 443-6486

Mailing Address: P.O. Box 140907 • Irving, TX 75014-0907

A wholly-owned subsidiary of Cimarex Energy Co., a NYSE Listed Company, "XEC"



### STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

Bureau of Land Management  
620 E. Greene St.  
Carlsbad, New Mexico 88220  
Attn: Ms. Linda Denniston

Gruy Petroleum Management Co. accepts all applicable terms, conditions, stipulations and restrictions concerning operations conducted on the leased land, or portion thereof, as described below:

Lease No.: NM-089878 – N/2 NW/4 Sec 31-T16S-R29E – 65.63 acres  
NM-097874 – S/2 NW/4, N/2 SW/4, SE/4 SW/4 Sec 31-T16S-R29E – 171.18 acres  
State Acreage – SW/4 SW/4 Sec 31-T16S-R29E – 25.55 acres

County: Eddy County, New Mexico

Formation (S): Morrow

Bond Coverage: Statewide BLM Bond

BLM Bond File No.: NM 2575

Authorized Signature: Zeno Farris  
Representing Gruy Petroleum Management Co.

Name: Zeno Farris

Title: Manager, Operations Administration

Date: March 7, 2006

3692.7'

3692.7'

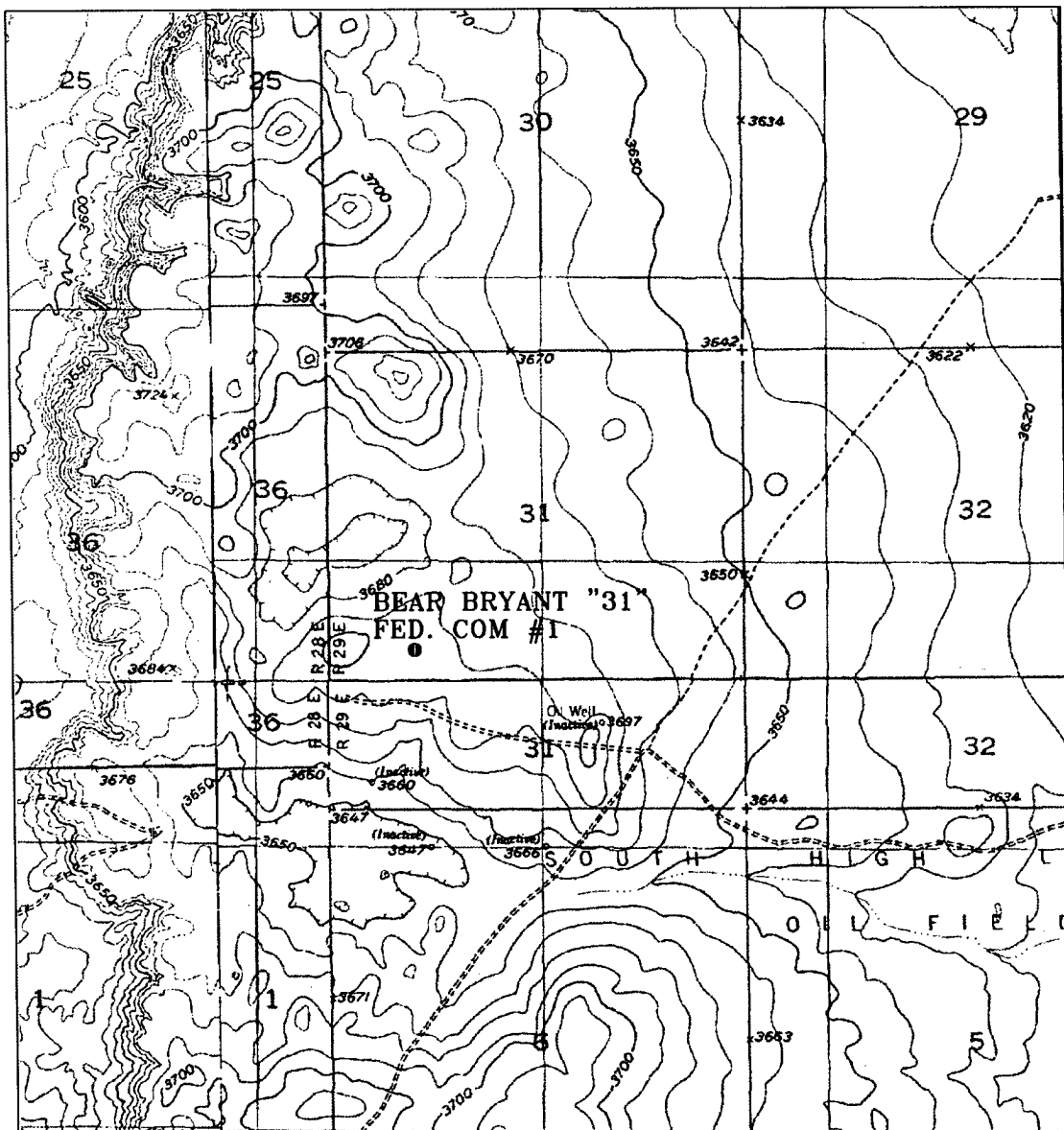
**600,**

3688.9'

SCALE: 1" = 100'

Sheet 1 of 1 Sheets

Sheet 1 of 1 Sheets



BEAR BRYANT "31" FEDERAL COM #1  
 Located at 1850' FSL AND 990' FWL  
 Section 31, Township 16 South, Range 29 East,  
 N.M.P.M., Eddy County, New Mexico.



P.O. Box 1786  
 1120 N. West County Rd.  
 Hobbs, New Mexico 88241  
 (505) 393-7316 - Office  
 (505) 392-3074 - Fax  
 basinsurveys.com

W.O. Number: 6324AA - KJG CD#4

Survey Date: 03-01-2006

Scale: 1" = 2000'

Date: 03-06-2006

GRUY PETROLEUM  
 MANAGEMENT CO.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

OCD-ARTESIA

FORM APPROVED  
OMB No. 1004-0135  
Expires July 31, 1996

**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**

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

2. Name of Operator  
Gruy Petroleum Management Co.

3a. Address  
PO Box 140907; Irving, TX 75014-0907

3b. Phone No. (include area code)  
972-401-3111

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
K-31-16S-29E  
1850' FSL & 990' FWL

5. Lease Serial No.

NM-097874

6. If Indian, Allottee or Tribe Name

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

Pending

8. Well Name and No.

Bear Bryant 31 Federal Com No. 1

9. API Well No.

30-015-

10. Field and Pool, or Exploratory Area

Empire; Morrow, South

11. County or Parish, State

Eddy County, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input checked="" type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other _____
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, included estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat 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 recompleat 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.)

Per John Simitz's request (BLM), Gruy is changing the setting depth for its surface casing from 450' to 220'.

14. I hereby certify that the foregoing is true and correct  
Name (Printed/Typed)

Natalie Krueger

Signature

*Natalie Krueger*

Title

Reg Tech

Date

March 24, 2006

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

/s/ Tony J. Herrell

**FIELD MANAGER**

Date

**MAY 26 2006**

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 FIELD OFFICE**

Title 18 U.S.C. Section 1001, makes 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 reverse)

## Application to Drill

Gruy Petroleum Management Co.  
Bear Bryant 31 Federal Com No. 1  
Unit Letter K Section 31  
T16S - R29E Eddy County, NM

In response to questions asked under Section II B of Bulletin NTL-6 the following information is provided for your consideration:

- 1 Location: 1850' FSL & 990' FWL
- 2 Elevation above sea level: GR 3694'
- 3 Geologic name of surface formation: Quaternary Alluvium Deposits
- 4 Drilling tools and associated equipment: Conventional rotary drilling rig using fluid as a circulating medium for solids removal.
- 5 Proposed drilling depth: 11000'
- 6 Estimated tops of geological markers:

Queen	1530'	Strawn	9550'
San Andres	2320'	Atoka	9770'
Abo	5775'	Morrow	10100'
Wolfcamp	7060'		

7 Possible mineral bearing formation:

Atoka	Gas
Morrow	Gas

8 Casing program:

Hole Size	Interval	Casing OD	Weight	Thread	Collar	Grade
17-1/2"	0-450' <sup>555</sup>	13-3/8"	48	8-R	ST&C	H-40
12-1/4"	0-3100'	9-5/8"	40	8-R	LT&C	J-55
8-3/4"	0-11000'	5-1/2"	17	8-R	LT&C	P-110

## Application to Drill

Gruy Petroleum Management Co.  
Bear Bryant 31 Federal Com No. 1  
Unit Letter K Section 31  
T16S - R29E Eddy County, NM

### 9 Cementing & Setting Depth:

13-3/8"	Surface	Set <del>450'</del> <sup>220' 555'</sup> of 13-3/8" H-40 48 # ST&C casing. Cement with 490 Sx. Of Class "C" cement + additives, circulate cement to surface.
9-5/8"	Intermediate	Set 3100' of 9-5/8" J-55 40# LT&C casing. Lead with 1000 Sx. Of Class POZ/C Cement + additives, tail with 200 Sx. Of Class "C" + additives, circulate cement to surface.
5-1/2"	Production	Set 11000' of 5-1/2" P-110 17# LT&C casing. Cement in two stages, first stage cement with 1020 Sx. of Class POZ/C Cement + additives. Second stage cement with 600 Sx of Class "C" Estimated top of cement 2700'.

### 10 Pressure control Equipment:

Exhibit "E". A 13 3/8" 5000 PSI working pressure B.O.P. consisting of one set of blind rams and one set of pipe rams and a 5000 # annular type preventer. A choke manifold and 120 gallon accumulator with floor and remote operating stations and auxiliary power system. Rotating head below 6000'. A kelly cock will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the rig floor. BOP unit will be hydraulically operated. BOP will be nipped up on the 13 3/8" casing and will be operated at least once a day while drilling and the blind rams will be operated when out of hole during trips. No abnormal pressure or temperature is expected while drilling.

### 11 Proposed Mud Circulating System:

Depth	Mud Wt	Viscosity	Fluid Loss	Type Mud
0 - <del>450'</del> <sup>220' 555'</sup>	8.4 - 8.6	30 - 32	May lose circ.	Fresh water spud mud add paper to control seepage and high viscosity sweeps to clean hole.
<del>450'</del> <sup>220'</sup> - 3100'	9.7 - 10.0	28 - 29	May lose circ	Brine water. Add paper as needed to control seepage and add lime to control pH (9-10). Use high viscosity sweeps to clean hole.
3100' - 8300'	8.4 - 9.9	28 - 29	NC	Brine water. Paper for seepage. Lime for PH (9 - 9.5)
8300' - 10000'	8.45 - 8.9	28 - 29	NC	Cut brine. Caustic for pH control.
10000' - 11000'	8.9 - 9.7	29 - 45	NC	XCD Polymer mud system.

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, or unexpected kicks. In order to run DSTs, open hole logs, and casing, the viscosity and water loss may have to be adjusted in order to meet these needs. Mud system monitoring equipment with derrick floor indicators and visual/audio alarms shall be installed and operative prior to drilling into the Wolfcamp formation. This equipment will remain in use until production casing is run and cemented.



## Application to Drill

Gruy Petroleum Management Co.  
Bear Bryant 31 Federal Com No. 1  
Unit Letter K Section 31  
T16S - R29E Eddy County, NM

### 12 Testing, Logging and Coring Program:

- A. Mud logging program: One-man unit from 1000' to TD
- B. Electric logging program: CNL / LDT / CAL / GR, DLL / CAL / GR
- C. No DSTs or cores are planned at this time.

### 13 Potential Hazards:

No abnormal pressures or temperatures are expected. The area has a potential H2S hazard. An H2S drilling plan is attached. Adequate flare lines will be installed off the mud / gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used. Estimated BHP 4000 PSI, estimated BHT 175.

### 14 Anticipated Starting Date and Duration of Operations:

Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved. Drilling expected to take 25 - 30 days. If production casing is run an additional 30 days will be required to complete and construct surface facilities.

### 15 Other Facets of Operations:

After running casing, cased hole gamma ray neutron collar logs will be run from total depth over possible pay intervals. The Morrow pay will be perforated and stimulated. The well will be tested and potentialized as a gas well.

## Hydrogen Sulfide Drilling Operations Plan

Gruy Petroleum Management Co.  
Bear Bryant 31 Federal Com No. 1  
Unit Letter K Section 31  
T16S - R29E Eddy County, NM

- 1 All Company and Contract personnel admitted on location must be trained by a qualified H2S safety instructor to the following:

- A. Characteristics of H2S
- B. Physical effects and hazards
- C. Proper use of safety equipment and life support systems.
- D. Principle and operation of H2S detectors, warning system and briefing
- E. Evacuation procedure, routes and first aid.
- F. Proper use of 30 minute pressure demand air pack.

- 2 H2S Detection and Alarm Systems

- A. H2S detectors and audio alarm system to be located at bell nipple, end of flow line (mud pit) and on derrick floor or doghouse.

- 3 Windsock and/or wind streamers

- A. Windsock at mudpit area should be high enough to be visible.
- B. Windsock at briefing area should be high enough to be visible.

- 4 Condition Flags and Signs

- A. Warning sign on access road to location.
- B. Flags to be displayed on sign at entrance to location. Green flag, normal safe condition. Yellow flag indicates potential pressure and danger. Red flag, danger, H2S present in dangerous concentration. Only emergency personnel admitted to location.

- 5 Well control equipment

- A. See exhibit "E"

- 6 Communication

- A. While working under masks chalkboards will be used for communication.
- B. Hand signals will be used where chalk board is inappropriate.
- C. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephones will be available at most drilling foremen's trailers or living quarters.

- 7 Drillstem Testing not anticipated.

## **Hydrogen Sulfide Drilling Operations Plan**

Gruy Petroleum Management Co.  
Bear Bryant 31 Federal Com No. 1  
Unit Letter K Section 31  
T16S - R29E Eddy County, NM

- 8 Drilling contractor supervisor will be required to be familiar with the effects H<sub>2</sub>S has on tubular goods and other mechanical equipment.
  
- 9 If H<sub>2</sub>S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H<sub>2</sub>S scavengers if necessary.

## Surface Use Plan

Gruy Petroleum Management Co.  
Bear Bryant 31 Federal Com No. 1  
Unit Letter K Section 31  
T16S - R29E Eddy County, NM

- 1 Existing Roads: Area maps, Exhibit "B" is a reproduction of Lea Co. General Highway Map. Exhibit "C" is a reproduction of a USGS Topographic Map, showing existing roads and proposed roads. All existing roads will be maintained in a condition equal to or better than current conditions. Any new roads will be constructed to BLM specifications.
  - A. Exhibit "A" shows the proposed well site as staked.
  - B. From the junction of US Hwy 82 and Co Rd 209, go North on 209 for 5.0 miles to end of pvmt; thence East for 0.4 miles; thence 0.8 miles on 2-track to location.
- 2 PLANNED ACCESS ROADS: Existing 2-track road will be used to access drill pad.
- 3 LOCATION OF EXISTING WELLS IN A ONE-MILE RADIUS EXHIBIT "A"
  - A. Water wells - None shown
  - B. Disposal wells - None known
  - C. Drilling wells - None known
  - D. Producing wells - As shown on Exhibit "A"
  - E. Abandoned wells - As shown on Exhibit "A"

## **Surface Use Plan**

Gruy Petroleum Management Co.  
Bear Bryant 31 Federal Com No. 1  
Unit Letter K Section 31  
T16S - R29E Eddy County, NM

- 4 If, on completion this well is a producer Gruy Petroleum Management Co. will furnish maps and/or plats showing on site facilities or off site facilities if needed. This will be accompanied by a Sundry Notice.

5 LOCATION AND TYPE OF WATER SUPPLY:

Water will be purchased locally from a commercial source and trucked over the access roads or piped in flexible lines laid on top of the ground.

6 SOURCE OF CONSTRUCTION MATERIAL:

If possible construction will be obtained from the excavation of drill site, if additional material is needed it will be purchased from a local source and transported over the access route as shown on Exhibit "C".

7 METHODS OF HANDLING WASTE MATERIAL:

- A. Drill cuttings will be disposed of in the reserve pit.
- B. All trash, junk and other waste material will be contained in trash cages or bins to prevent scattering. When the job is completed all contents will be removed and disposed of in a approved sanitary land fill.
- C. Salts remaining after completion of well will be picked up by supplier including broken sacks.
- D. Sewage from living quarters will drain into holding tanks and be cleaned out periodically. A Porta-John will be provided for the rig crews. This equipment will be properly maintained during the drilling operations and removed upon completion of the well.
- E. Remaining drilling fluids will be allowed to evaporate in the reserve pit until the pit is dry enough for breaking out. In the event that drilling fluids do not evaporate in a reasonable time they will be hauled off by transports and be disposed of at a state approved disposal facility. Later pits will be broken out to speed drying. Water produced during testing will be put in reserve pits. Any oil or condensate produced will be stored in test tanks until sold and hauled from the site.

8 ANCILLARY FACILITIES:

- A. No camps or airstrips to be constructed.

## Surface Use Plan

Gruy Petroleum Management Co.  
Bear Bryant 31 Federal Com No. 1  
Unit Letter K Section 31  
T16S - R29E Eddy County, NM

### 9 WELL SITE LAYOUT

- A. Exhibit "D" shows location and rig layout.
- B. This exhibit indicates proposed location of reserve pit.
- C. Mud pits in the active circulating system will be steel pits and the reserve pit is proposed to be unlined, unless subsurface condition encountered during pit construction indicates that lining is needed for lateral containment of fluids.
- D. The reserve pit is to be lined with PVC or polyethylene line. The pit liner will be 12 mils thick. Pit liner will extend a minimum 2'00" over the reserve pits dikes where the liner will be anchored down.
- E. The reserve pit will be fenced on three sides with four strands of barbed wire during drilling and completion phases. The fourth side will be fenced after all drilling operations have ceased. If the well is a producer, the reserve pit fence will be torn down. The reserve pit and those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requirements.

### 10 PLANS FOR RESTORATION OF SURFACE

Rehabilitation of the location and reserve pit will start in a timely manner after all drilling operations cease. The type of reclamation will depend on whether the well is a producer or a dry hole.

However, in either event, the reserve pit will be allowed to dry properly, and fluid removed and disposed of in accordance with Article 7.B as previously noted. The pit area will then be leveled and contoured to conform to the original and surrounding area. Drainage systems, if any, will be reshaped to the original configuration with provisions made to alleviate erosion. These may need to be modified in certain circumstances to prevent inundation of the location's pad and surface facilities. After the area has been shaped and contoured, topsoil from the spoil pile will be placed over the disturbed area to the extent possible. Revegetation procedures will comply with BLM standards.

If the well is a dry hole, the pad and road area will be recountoured to match the existing terrain. Topsoil will be spread to the extent possible. Revegetation will comply with BLM standards.

Should the well be a producer, the previously noted procedures will apply to those areas which are not required for production facilities.

## Surface Use Plan

Gruy Petroleum Management Co.  
Bear Bryant 31 Federal Com No. 1  
Unit Letter K Section 31  
T16S - R29E Eddy County, NM

### 11 OTHER INFORMATION:

- A. Topography consists of a sloping plane with loose tan sands. Vegetation is mainly yucca, mesquite and shin oak.
- B. The wellsite is on surface owned by US Department of the Interior, Bureau of Land Management. The land is used mainly for farming, cattle ranching, recreational use, and
- C. An Archaeological survey will be conducted on the location and proposed roads, and this report will be filed with the Bureau of Land Management in the Carlsbad BLM office.
- D. There are no know dwellings within 1 1/2 miles of this location.

### 12 OPERATORS REPRESENTATIVE:

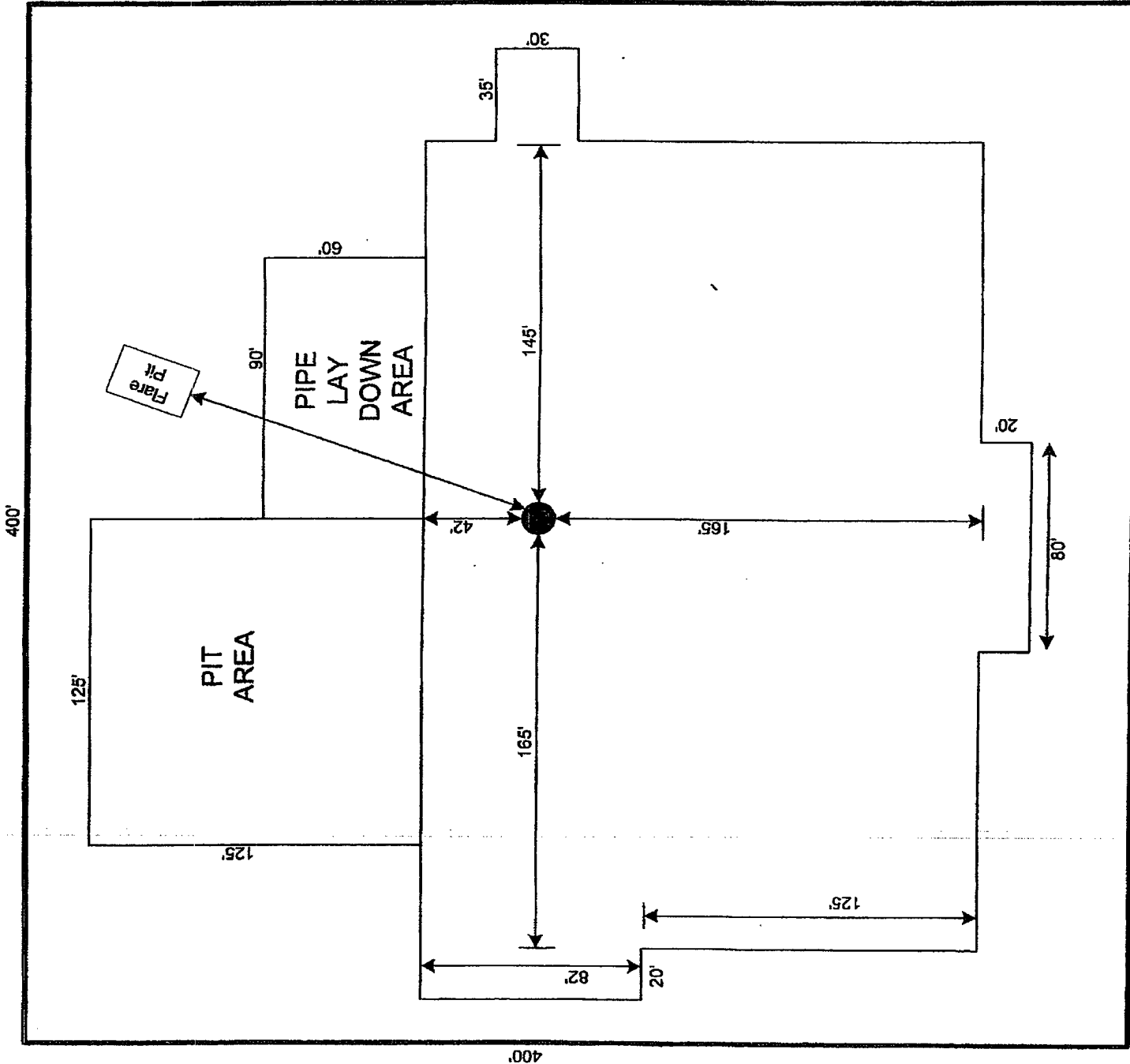
Gruy Petroleum Management Company  
P.O. Box 140907  
Irving, TX 75014  
Office Phone: (972) 443-6489  
Zeno Farris

- 13 **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 currently 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 Gruy Petroleum Management Company and/or its contractors/subcontractors and is in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provision of U.S.C. 1001 for the filing of a false statement.

NAME: Zeno Farris

DATE: March 7, 2006

TITLE: Manager, Operations Administration



**Patterson-UTI Rig 46**

GRUY PETROLEUM  
MANAGEMENT COMPANY  
IRVING TEXAS

SCALE 1"=60'

Exhibit D – Rig Layout  
**Bear Bryant 31 Federal Com No. 1**  
Gruy Petroleum Management Co.  
K-31-16S-29E  
1850' FSL & 990' FWL  
Eddy County, NM



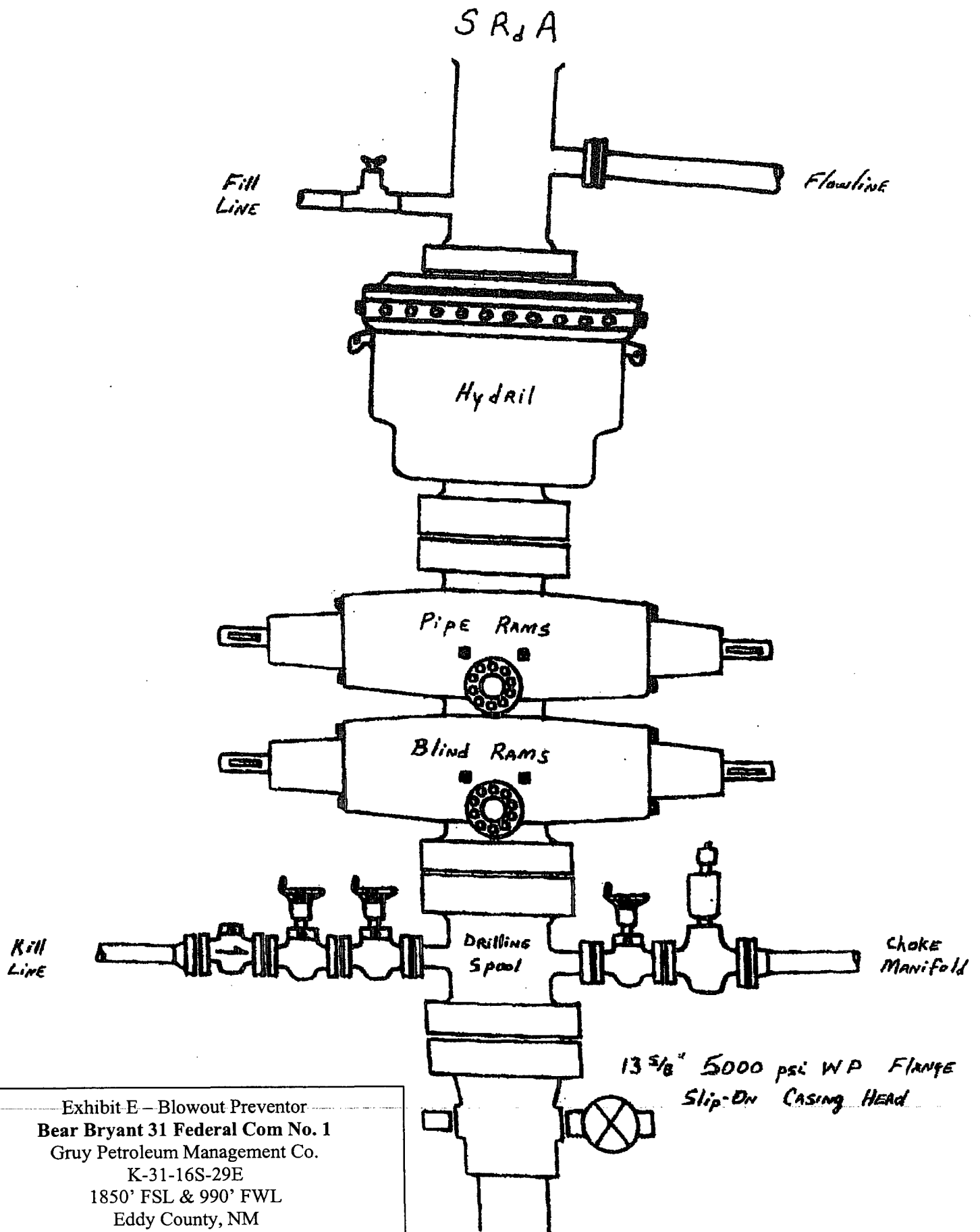


Exhibit E - Blowout Preventor  
 Bear Bryant 31 Federal Com No. 1  
 Gruy Petroleum Management Co.  
 K-31-16S-29E  
 1850' FSL & 990' FWL  
 Eddy County, NM

DRILLING OPERATIONS  
CHOKE MANIFOLD  
5M SERVICE

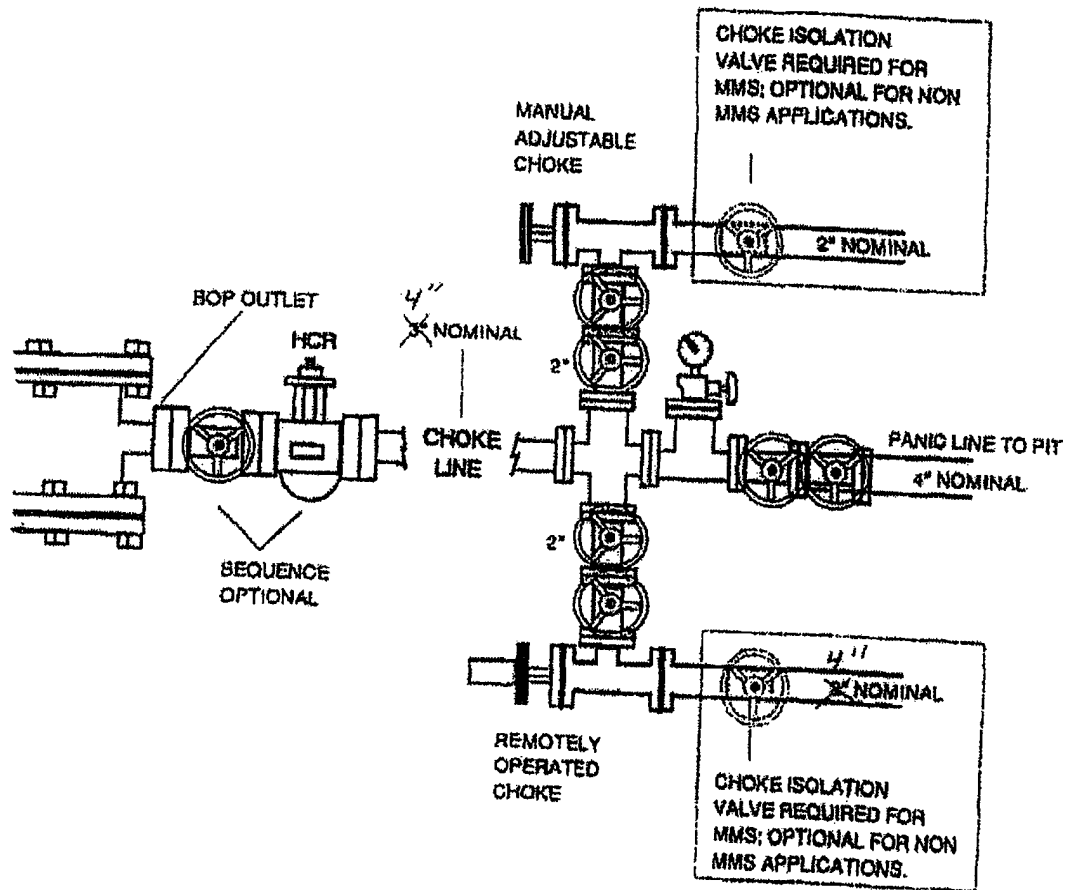


Exhibit E1 – Choke Manifold Diagram  
**Bear Bryant 31 Federal Com No. 1**  
 Gruy Petroleum Management Co.  
 K-31-16S-29E  
 1850' FSL & 990' FWL  
 Eddy County, NM

## CONDITIONS OF APPROVAL - DRILLING

Operator's Name: Gruy Petroleum Management Company  
Well Name & No: Bear Bryant 31 Federal Com No 01  
Location: Surface 1850' FSL & 990' FWL, Sec.31, T. 16 S. R. 29 E.  
Lease: NMNM ~~2575~~ 897874  
Eddy County, New Mexico

.....

### I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Roswell Field Office, 2909 West Second St., Roswell, NM 88201, (505) 627-0272 for wells in Chaves and Roosevelt Counties; 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; 9 5/8 inch; 5 1/2 inch.

C. BOP Tests

2. A Hydrogen Sulfide (H<sub>2</sub>S) Drilling Plan is planned by the operator for this well. It should be in operations prior to drilling out of the surface pipe estimated to be set at about 220 ft. The Yates, 7 Rivers, Queen, San Andres all have history of producing H<sub>2</sub>S gas and these formations will be exposed during Intermediate hole drilling. The operator will confirm all rig hands and personnel have been trained in H<sub>2</sub>S safety awareness. Use caution around the return flow-line and when making connections.

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.

### II. CASING:

1. The 13 3/8 inch shall be set at 220 Feet (set pipe above the Top of the Salt) with 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 9 5/8 inch Intermediate casing is to circulate to surface.

3. The minimum required fill of cement behind the 5 1/2 inch Production casing is to tie back TOC at least 200 feet inside the 9 5/8 inch shoe.

### 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.

**(III Cont):**

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 3 M psi. A variance to test the surface casing and BOPE on the 13 3/8 inch which will be set at estimated 220 ft using the rig pumps to 1000 psig for 30 minutes is approved. The 3 M BOPE shall be installed and in operations prior to drilling below the 9 5/8 inch shoe set at approximately 3100 feet.

3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the test.

- The test 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 safe workman-like manner. Hard line connections shall be required.
- Both low pressure and high pressure testing of BOPE is required.

**G. Gourley 03/23/06 RFO**