

Submit to Appropriate District Office  
State Lease - 6 copies  
Fee Lease - 5 copies

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-101  
Revised 1-1-89

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

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

OIL CONSERVATION DIVISION

State Fe, New Mexico 87504-2088

JUN 22 1990

OIL CON.

API NO. (assigned by OCD on New Wells)  
30-045-27905

5. Indicate Type of Lease  
STATE  FEE

6. State Oil & Gas Lease No.

7. Lease Name or Unit Agreement Name  
Mudge Gas Com "E"

8. Well No.  
#1 W/320

9. Pool name or Wildcat  
Basin Fruitland Coal Gas

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, OR PLUG BACK

1a. Type of Work:

b. Type of Well: DRILL  RE-ENTER  DEEPEN  PLUG BACK   
ON WELL  GAS WELL  OTHER coal seam SINGLE ZONE  MULTIPLE ZONE

2. Name of Operator  
Amoco Production Company ATTN: J.L. Hampton

3. Address of Operator  
P. O. Box 800 Denver, Co. 80201

4. Well Location  
Unit Letter L : 1830 Feet From The South Line and 810 Feet From The West Line

Section 23 Township 31N Range 11W NMPM San Juan County

10. Proposed Depth 2601' (TD) 11. Formation Fruitland Coal 12. Rotary or C.T. Rotary

13. Elevations (Show whether DF, RT, GR, etc.) 5744' GR 14. Kind & Status Plug. Bond State-wide 15. Drilling Contractor unknown 16. Approx. Date Work will start As soon as permitted

17. PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
12 1/4"	8 5/8"	24#	250'	250 cf (cement to surface)	
7 7/8"	5 1/2"	17#	2601' (TD)	728 cf (cement to surface)	

Lease Description:

- Sec. 23: NW/4 SW/4, W/2 NE/4, E/2 NW/4, NE/4 SW/4, NW/4 SE/4, SW/4 NW/4, NW/4 NW/4
- Sec. 22: E/2 SE/4, NW/4 SE/4
- Sec. 27: NE/4 NE/4
- Sec. 8: E/2
- Sec. 9: All
- Sec. 14: S/2 NW/4, SW/4 SW/4
- Sec. 17: E/2
- Sec. 20: Lots 1-6, N/2 NE/4 ; Sec. 21: Lots 1-16

APPROVAL EXPIRES 12-25-90  
UNLESS DRILLING IS COMMENCED.  
SPUD NOTICE MUST BE SUBMITTED  
WITHIN 10 DAYS.

RECEIVED

JUN 15 1990

OIL CON. DIV  
DIST. 3

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

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

SIGNATURE J.L. Hampton/cub TITLE Sr. Staff Admin. Supv. DATE 6/13/90  
(303)

TYPE OR PRINT NAME J.L. Hampton TELEPHONE NO. 830-5119

(This space for State Use)

APPROVED BY [Signature] DEPUTY OIL & GAS INSPECTOR, DIST. #3 DATE JUN 25 1990

CONDITIONS OF APPROVAL, IF ANY:

1950  
1951  
1952

RECEIVED  
MAY 10 1950  
U.S. DEPARTMENT OF AGRICULTURE

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

State of New Mexico  
 Energy, Minerals and Natural Resources Department

Form C-102  
 Revised 1-1-89

**OIL CONSERVATION DIVISION**

P.O. Box 2088  
 Santa Fe, New Mexico 87504-2088

**DISTRICT I**  
 P.O. Box 1980, Hobbs, NM 88240

**DISTRICT II**  
 P.O. Drawer DD, Artesia, NM 88210

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

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

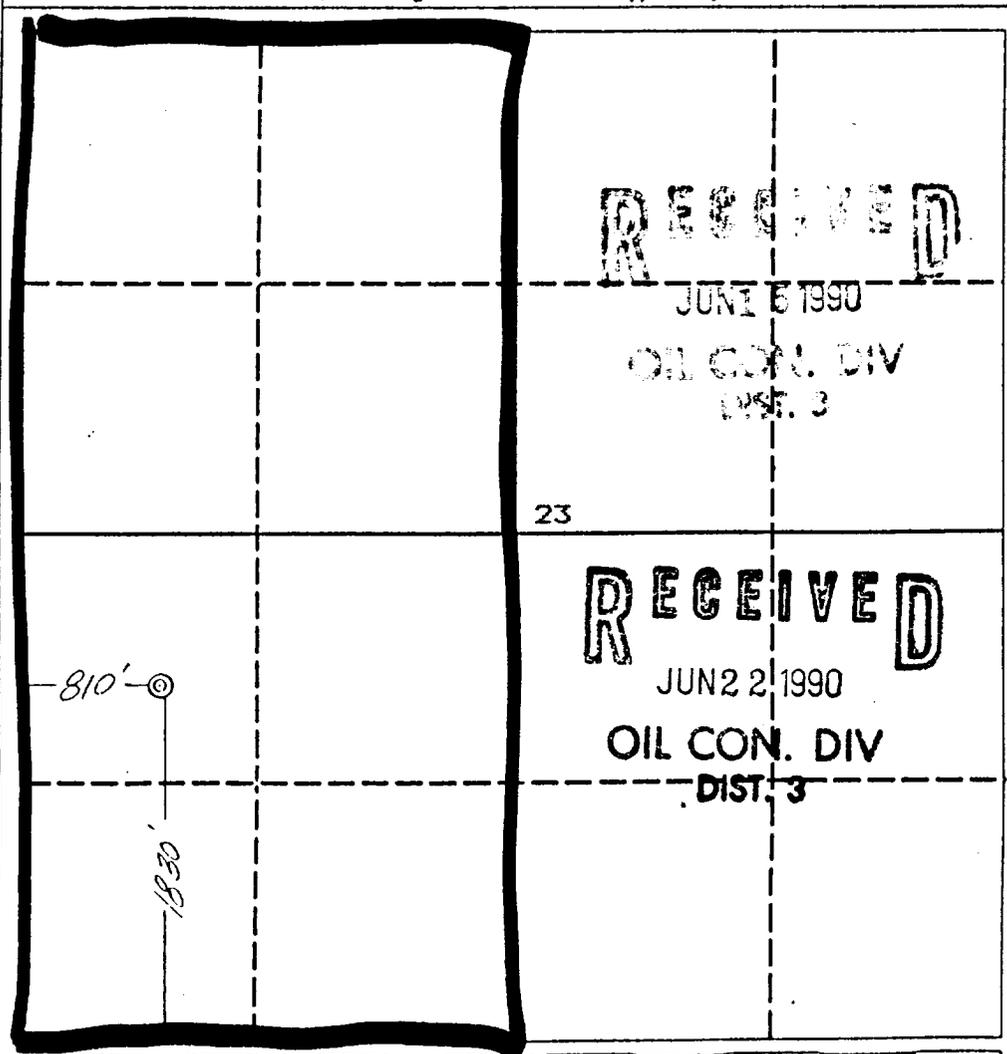
All Distances must be from the outer boundaries of the section

Operator <b>AMOCO PRODUCTION COMPANY</b>		Lease <b>MUDGE GAS COM /E/</b>		Well No. <b># 1</b>
Unit Letter <b>L</b>	Section <b>23</b>	Township <b>31 NORTH</b>	Range <b>11 WEST</b>	County <b>SAN JUAN</b>
Actual Footage Location of Well: <b>1830</b> feet from the <b>SOUTH</b> line and <b>810</b> feet from the <b>WEST</b> line				
Ground level Elev. <b>5744</b>	Producing Formation <b>Fruitland Coal</b>	Pool <b>Basin Fruitland Coal Gas</b>	Dedicated Acreage: <b>W/2 320.00 Acres</b>	

- Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
  - If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
  - If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?
 

Yes     No    If answer is "yes" type of consolidation \_\_\_\_\_

 If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) \_\_\_\_\_
- No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.



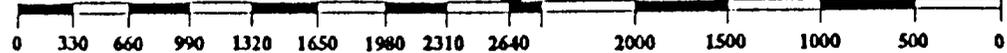
**OPERATOR CERTIFICATION**  
 I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature: *[Signature]*  
 Printed Name: **JL Hampton**  
 Position: **Sr Staff Admin Supr**  
 Company: **Amoco Prod**  
 Date: **6-14-90**

**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 knowledge and belief.

Date Surveyed: **June 5, 1990**

Signature & Seal of Professional Surveyor: **GARY D. VANN**  
 Registered Professional Land Surveyor No. **7016**  
 Gary Vann  
 Certified: **7016**



Amoco proposes to drill the well to further develop the Fruitland Coal reservoir. The well will be drilled to the surface casing point using native mud. The well will then be drilled to the total depth with a non-dispersed mud system. The attached modified 12" 3000 psi blowout preventer will be used (please see attached BOP information). The well will be completed in the Fruitland Coal with a fracture stimulation.

<u>Quantity</u>	<u>Size</u>	<u>Weight</u>	<u>Description</u>	<u>Cementing Program</u>
<u>SURFACE CASING</u>				
250'	8-5/8"	24#	K55 ST&C	250 cf Class B, 2% CaCl <sub>2</sub> 15.6 ppg
<u>INTERMEDIATE STRING</u>				
260'	5.5"	17#	K55 ST&C	728 cf Class B, 65:35:6 10% salt, .25% dispersant 13.1 ppg 118 cf Class B, 2% CaCl <sub>2</sub> 15.6 ppg

The above casing design is based upon a 11.0#/gal mud weight.

EVALUATION

The log surveys (FDC/GR/CAL, Microlog) will be run per attached drilling and completion program.

SAN JUAN BASIN  
FRUITLAND COAL DEGASIFICATION  
(DRILL THROUGH WELLS)  
PRESSURE CONTROL EQUIPMENT

Background

The objective Fruitland Coal formation maximum surface pressure is anticipated to be 1400 PSI, based on completion testing. Pressure control equipment working pressure minimum requirements are therefore 2000 PSI. Equipment to be used will conform to API RP-53 (Figure 2.C.2) for a 2000 PSI system per Federal Onshore Order No. 2. Due to available conventional equipment within the area, 3000 PSI rated pressure control equipment will typically be utilized in a double ram type arrangement. Regional drilling rigs to be utilized have substructure height limitations which exclude use of annular preventers; therefore a rotating head will be installed above these rams. This pressure control equipment will be utilized for conventional drilling below surface to total depth in the Pictured Cliffs.

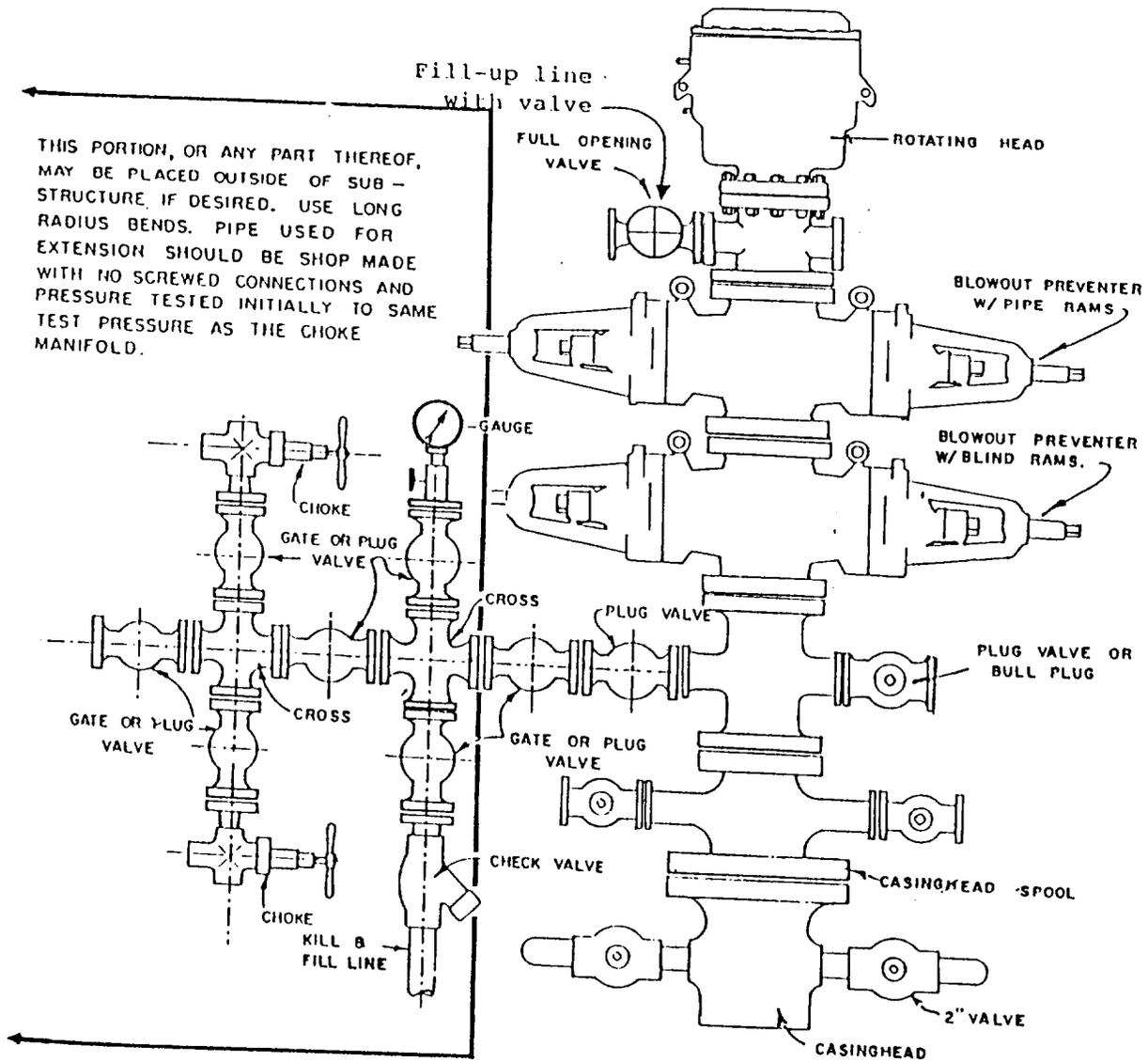
Equipment Specification

<u>Interval</u>	<u>BOP Equipment</u>
Below Surface Casing to Total Depth	12" nominal, 3000 PSI double ram preventer with rotating head (see Exhibit No. 1 - BOPE)

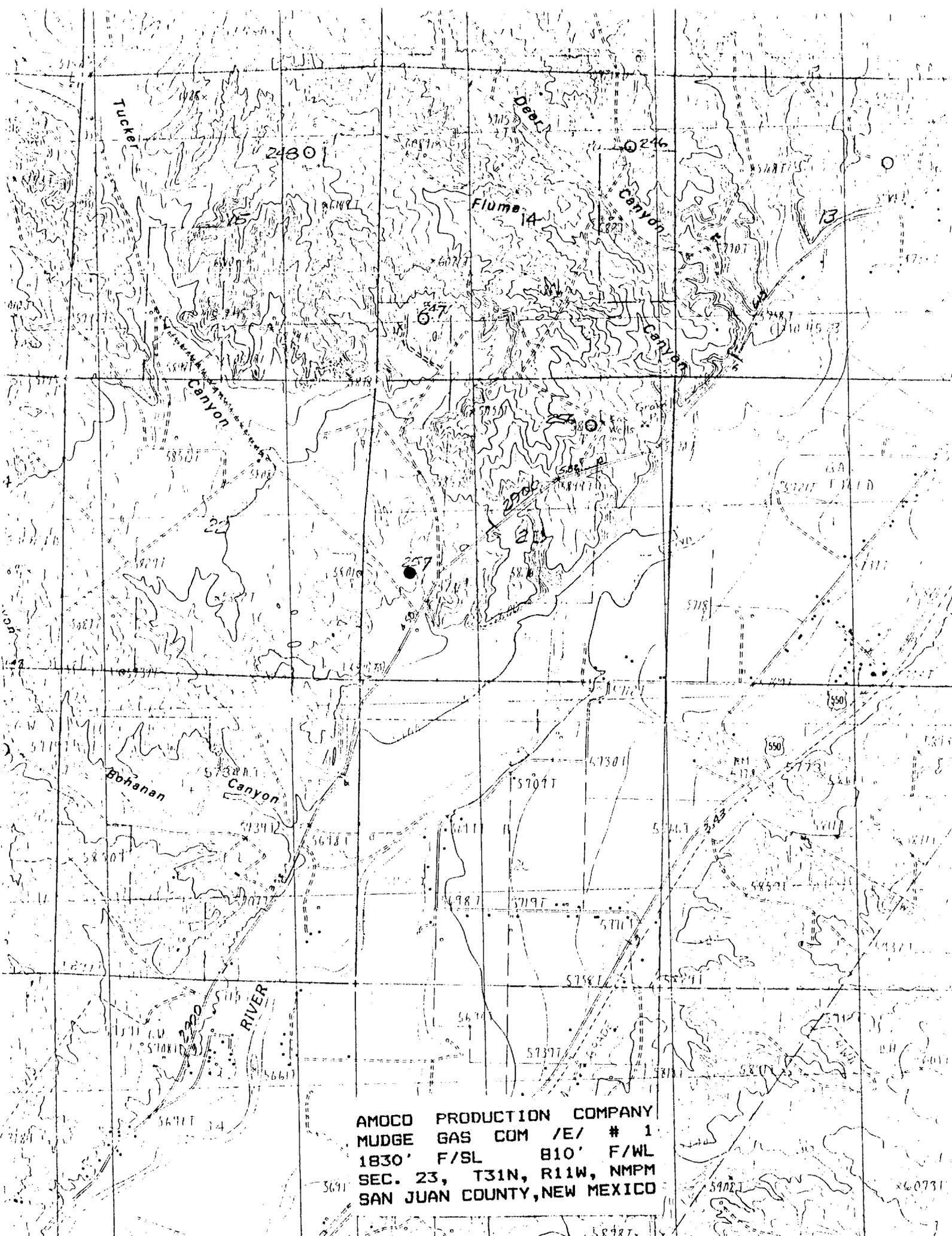
All ram type preventers and related control equipment will be hydraulically tested to 250 PSI (low pressure) and 2000 PSI (high pressure), upon installation, following any repairs or equipment replacements, or at 30 day intervals. Accessories to BOP equipment will include kelly cock, floor safety valves and choke manifold which will also be tested to equivalent pressure.

Please direct any questions to George Gray at (303) 830-5190 in our Denver office.

EXHIBIT NO. 1 - BOPE

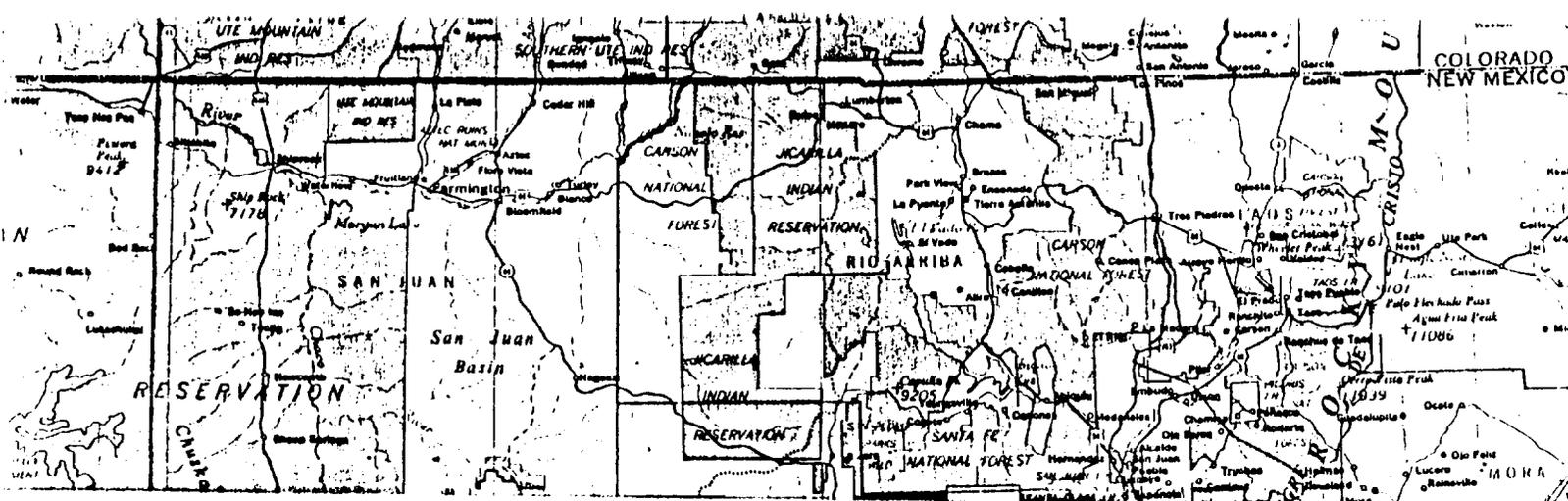


BLOWOUT PREVENTER HOOKUP



AMOCO PRODUCTION COMPANY  
MUDGE GAS COM /E/ # 1  
1830' F/SL B10' F/WL  
SEC. 23, T31N, R11W, NMPM  
SAN JUAN COUNTY, NEW MEXICO

260731



MUDGE GAS COM /E/ # 1  
 1830' F/SL      810' F/WL  
 SEC. 23, T31N, R11W, NMPM

RAIL POINT: 139 miles - Montrose, Co  
 MUD POINT: 5 miles - Aztec, NM  
 CEMENT POINT: 29 miles - Farmington, NM

