

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

**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

API NO. (assigned by OCD on New Wells)
30-045-27896
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>
6. State Oil & Gas Lease No.

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK					
1a. Type of Work: DRILL <input checked="" type="checkbox"/> RE-ENTER <input type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>			7. Lease Name or Unit Agreement Name 15898 Florance Gas Com "G"		
b. Type of Well: OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER Coal Seam <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>					
2. Name of Operator Amoco Production Co. Atten. J.L. Hampton			8. Well No. #1 E/290.69		
3. Address of Operator P.O. Box 800, Denver, CO 80201			9. Pool name or Wildcat Basin Fruitland Coal Gas		
4. Well Location Unit Letter B : 1190 Feet From The North Line and 1490 Feet From The East Line Section 30 Township 30N Range 8W NMPM San Juan County					
10. Proposed Depth 2390' TD		11. Formation Fruitland		12. Rotary or C.T. Rotary	
13. Elevations (Show whether DF, RT, GR, etc.) 5694' GR		14. Kind & Status Plug. Bond		15. Drilling Contractor	
				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"	9 5/8"	36#	250'	200 cf Cl.B	Surface
8 3/4"	7"	20#	2390'	669 cf Cl.B	Surface
6 1/2"	5 1/2"	23#		None	

APPROVAL EXPIRES 12-18-90  
UNLESS DRILLING IS COMMENCED.  
SPUD NOTICE MUST BE SUBMITTED  
WITHIN 10 DAYS.

**RECEIVED**

JUN 18 1990

OIL CON. DIV.  
DIST. 3

EXPIRES 12-18-90  
UNLESS DRILLING IS COMMENCED.  
SPUD NOTICE MUST BE SUBMITTED  
WITHIN 10 DAYS.

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 TITLE Sr. Staff Admin. Supr. DATE 6/15/90  
TYPE OR PRINT NAME J.L. Hampton TELEPHONE NO.

(This space for State Use)

APPROVED BY Eric Busch TITLE DEPUTY OIL & GAS INSPECTOR, DIST. #3 DATE JUN 18 1990  
CONDITIONS OF APPROVAL, IF ANY:

THE  
LIBRARY  
OF THE  
MUSEUM OF  
ART AND  
ARCHITECTURE  
NEW YORK

THE  
LIBRARY  
OF THE  
MUSEUM OF  
ART AND  
ARCHITECTURE  
NEW YORK

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NEW YORK

THE  
LIBRARY  
OF THE  
MUSEUM OF  
ART AND  
ARCHITECTURE  
NEW YORK

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 intermediate casing point with a non-dispersed mud system. The attached modified 12" 3000 psi blowout preventer will be used. Amoco will attempt to complete the Fruitland coal by drilling the interval with water and air. A service unit will probably be used to drill into the coals using the attached modified 6" 3000 psi BOP. If commercial productivity is established, then the well will be completed as an open hole.

#### SURFACE CASING

<u>Quantity</u>	<u>Size</u>	<u>Weight</u>	<u>Description</u>	<u>Cement Program</u>
250'	9 5/8"	36//	K55 ST&C	200 cf Class B, 2% CaCl <sub>2</sub> 15.6 ppg

#### INTERMEDIATE CASING

<u>Quantity</u>	<u>Size</u>	<u>Weight</u>	<u>Description</u>	<u>Cement Program</u>
2390'	7"	20//	K55 ST&C	669 cf Class B, 65:35:5 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 9.0//gallon mud weight.

#### CONTINGENCY OPERATIONAL PLAN

In the event the well does not yield commercial volumes of gas from the open hole completion, the water filled hole will be mudded-up and weighted-up as necessary (9-11//gal.) for hole stability and well control. The well will then be deepened approximately 200' into the Pictured Cliffs formation to provide necessary footage for a cased and cemented completion technique. The Fruitland coals will then be perforated and fracture stimulated. The Pictured Cliffs formation will be isolated with cement.

#### CONTINGENCY LINER

650'	4-1/2"	11.6//	K55 LT&C	250 cf Class B
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The contingency string is based upon an 11.0//gallon mud weight.

#### EVALUATION

Mud logs will be the only logs run if the well is completed as an open hole. The log surveys (FDC/GR/CAL, Microlog, Mudlogger) will be run only if the well is drilled into the Pictured Cliffs formation, and only if well condition is suitable to allow proper wireline log interpretation.

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

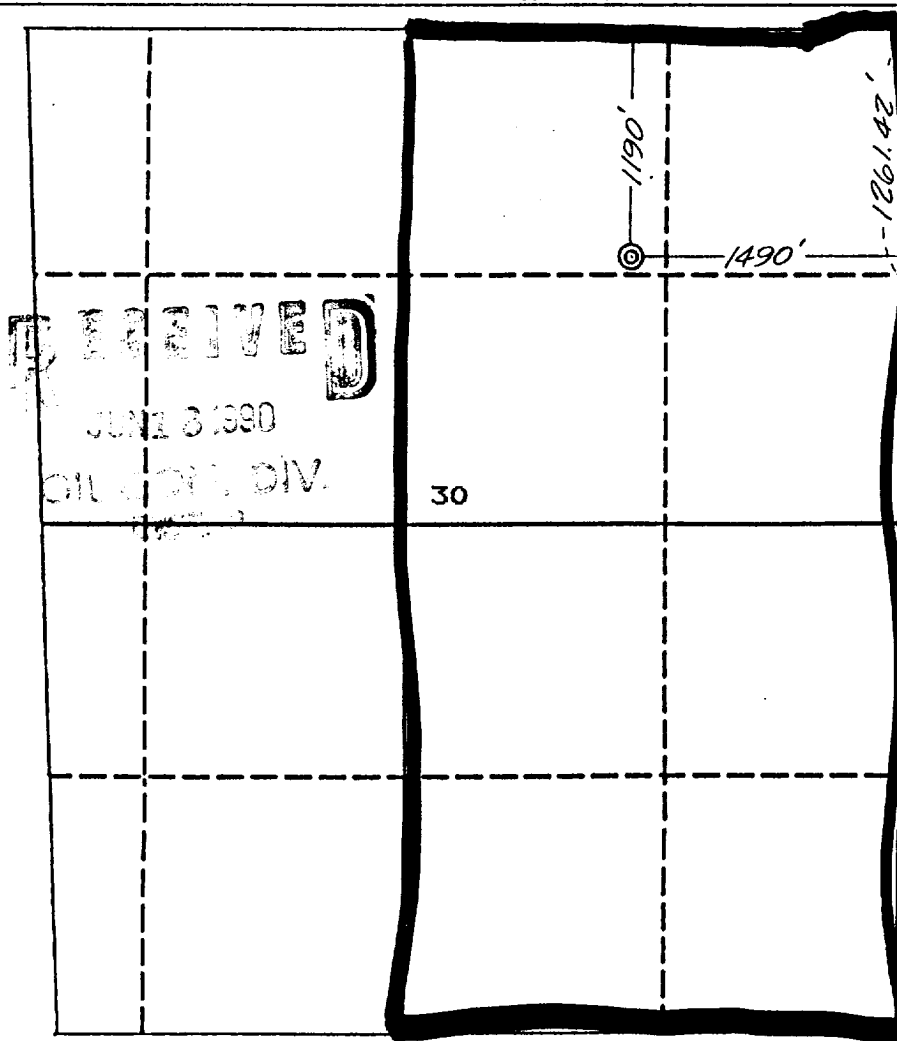
DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

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>FLORANCE GAS COM /G/</b>		Well No. <b># 1</b>
Unit Letter <b>B</b>	Section <b>30</b>	Township <b>30 NORTH</b>	Range <b>B WEST</b>	County <b>SAN JUAN</b>	
Actual Footage Location of Well: <b>1190</b> feet from the <b>NORTH</b> line and <b>1490</b> feet from the <b>EAST</b> line					
Ground level Elev. <b>5694</b>	Producing Formation <b>Fruitland Coal</b>	Pool <b>Basin Fruitland Coal Gas</b>		Dedicated Acreage <b>E/2 240.69 Acres</b>	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. 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 **SL Hampton**  
Position **Sr Staff Admin Supr**  
Company **Amoco Prod**  
Date **5-15-90**

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 **May 9, 1990**

Signature & Seal of  
Professional Surveyor

**GARY D. VANN**  
NEW MEXICO  
REGISTERED  
PROFESSIONAL LAND SURVEYOR  
7016

SAN JAN BASIN  
FRUITLAND COAL DEGASIFICATION (TOPSET 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 intermediate casing point above the Fruitland Coal.

Prior to drilling below intermediate casing, a modified two (2) double ram pressure control equipment system will be installed. This system is designed for Fruitland Coal formation interval drilling with air and water. A service unit will typically be used to drill this interval, and the wellbore will be completed as an uncased open hole if commercial productivity is established. If not, the wellbore will be cased and cemented with a 4 1/2" contingency liner. Based upon maximum surface pressure criteria, 2000 PSI equipment is required. However, as stated above, 3000 PSI working pressure equipment will typically be utilized.

Equipment Specification

Interval

Below Surface Casing  
through  
Intermediate Casing

Intermediate Casing  
to

Total Depth

BOP Equipment

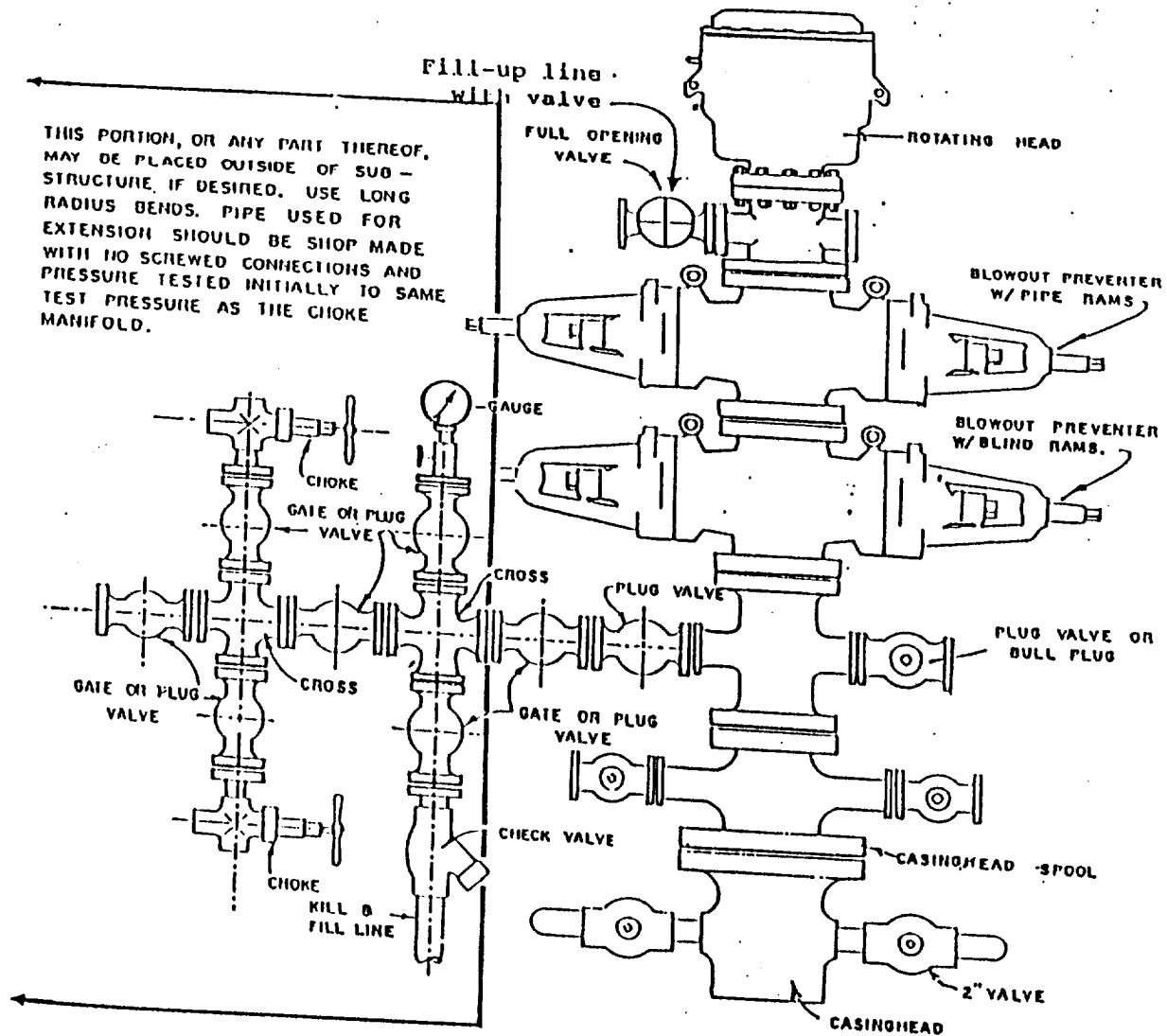
12" nominal, 3000 PSI double ram  
preventer with rotating head (see  
Exhibit No. 1 - BOPE)

6" nominal, 3000 PSI Two (2) double  
ram preventers (see Exhibit No. 2 -  
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

# EXHIBIT NO. 2 - BOPE

## Drill Out BOPE 6" 3000 psi BOPE

NOTE: 2 - 4" outlets on mud cross  
secondary bleed line will not  
be equipped with Reagan Preventer.

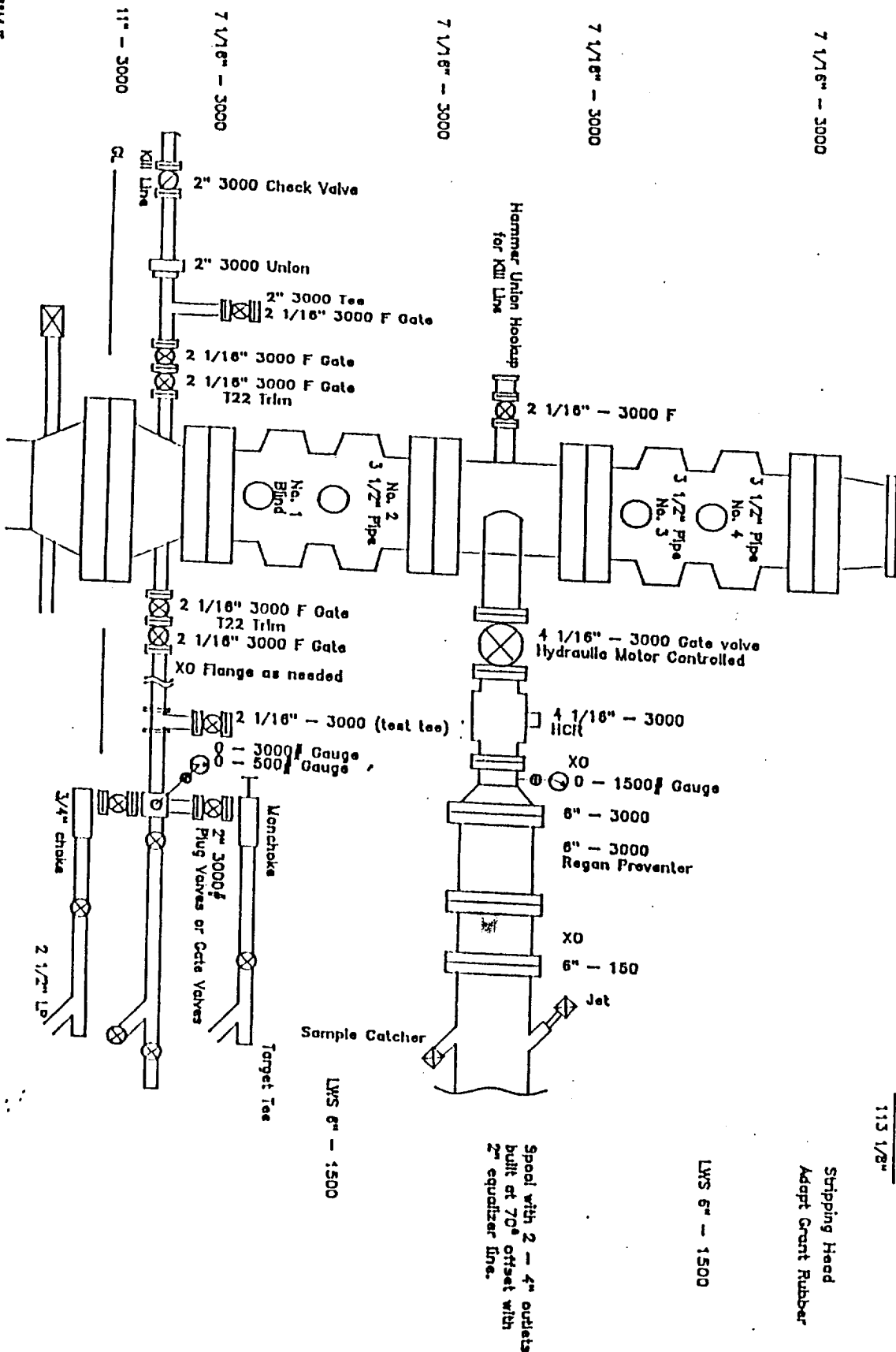
At 8 Station, 250 gal., 3000 psi  
accumulator will be required.  
Air and electric power.

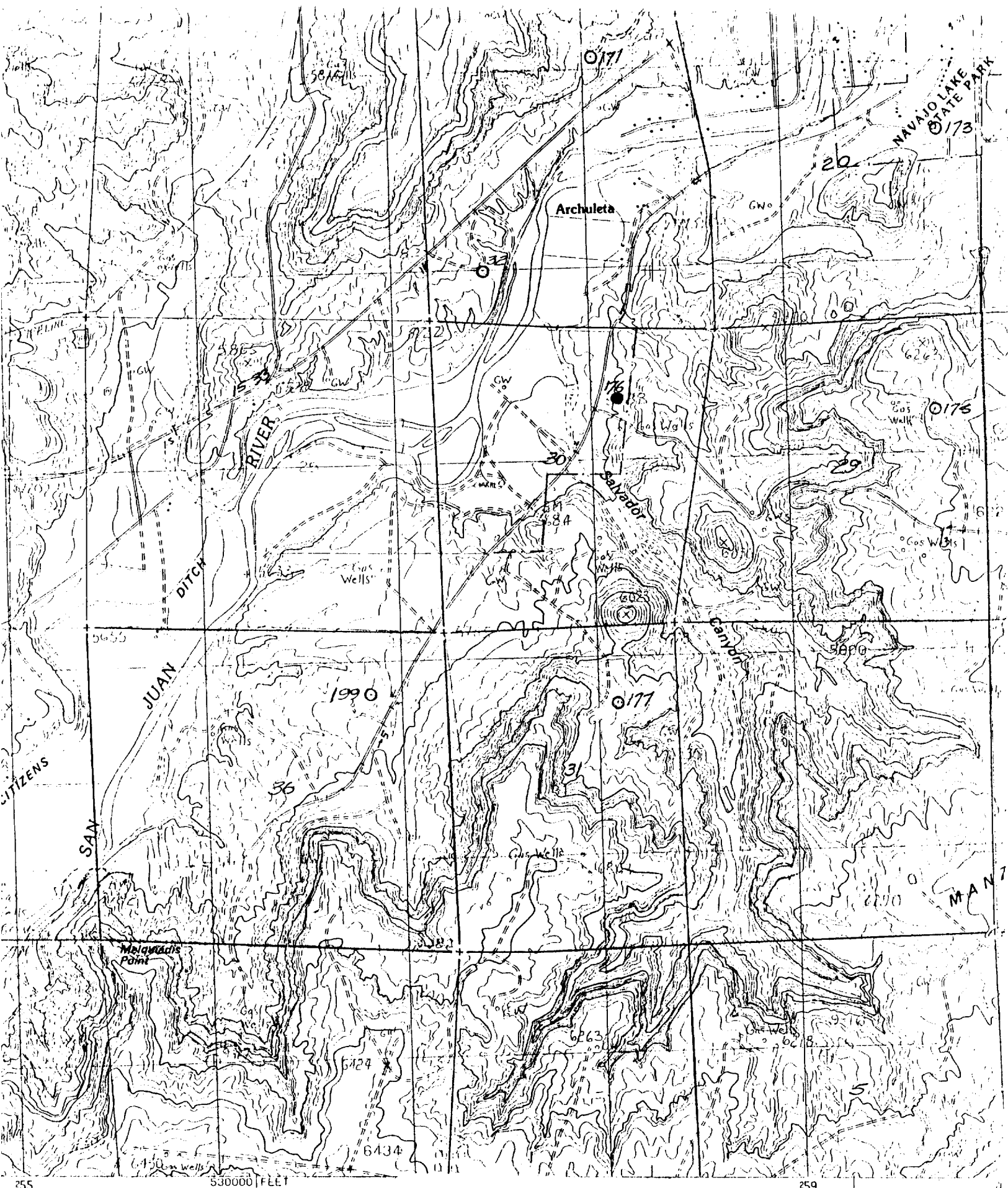
Eqpt. Ht.	
Tough	20 7/8"
LWS double	27 5/8"
Spool	17"
LWS double	27 5/8"
Striphead	20"
	113 1/2"

Stripping Head  
Adapt Grant Rubber

LWS 6" - 1500

Spool with 2 - 4" outlets  
built at 70° offset with  
2" equalizer line.



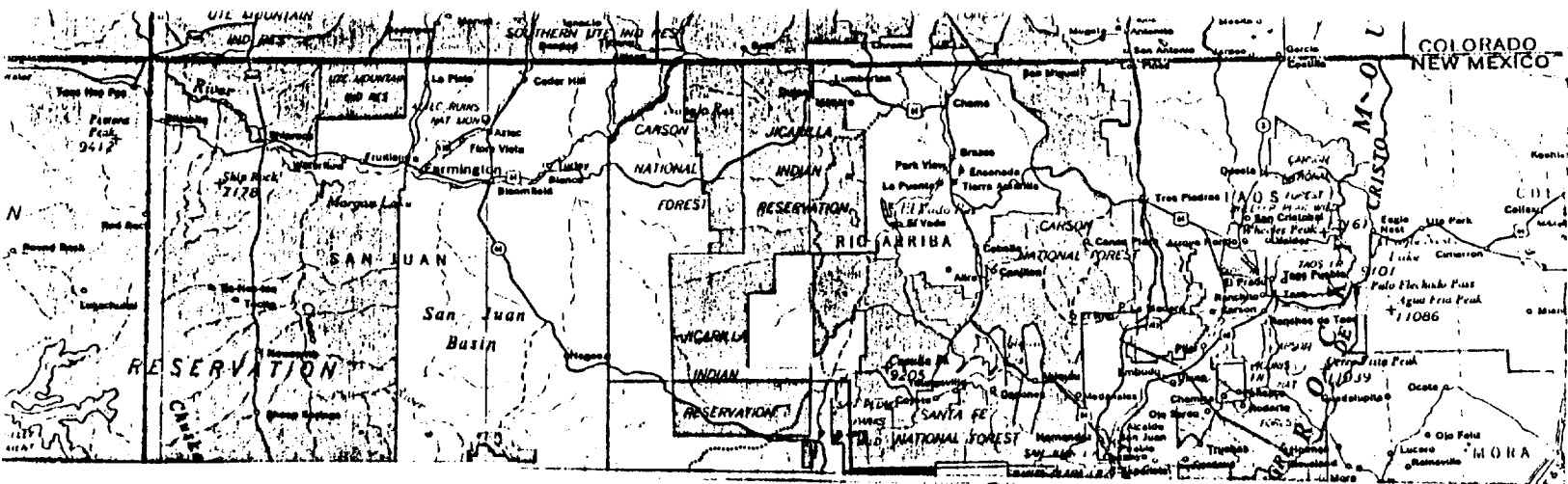


UNITED STATES GEOLOGICAL SURVEY  
 PHOTOGRAPHS TAKEN..... 1981  
 MAP EDITED..... 1985  
 TRANSVERSE MERCATOR  
 AT TRANSVERSE MERCATOR..... ZONE 13

AMOCO PRODUCTION COMPANY  
 FLORANCE GAS COM /G/ # 1  
 1190' F/NL 1490' F/EL  
 SEC. 30, T30N, R8W, NMPM  
 SAN JUAN COUNTY, NEW MEXICO

SCALE  
 0 1000 2000 3000 4000





FLORANCE GAS COM /G/ # 1  
 1190' F/NL 1490' F/EL  
 SEC. 30, T30N, RBW, NMPM  
 RAIL POINT: 162 miles - Montrose, Co.  
 MUD POINT: 20 miles - Aztec, NM  
 CEMENT POINT: 34 miles - Farmington, NM.

(2)

