

APPLICATION TO DRILL

PLAINS PETROLEUM OPERATING COMPANY

E. C. HILL "B" FEDERAL #23

2310' FNL & 330' FWL

Sec. 35 (Unit Letter E), T23S, R37E

Lea County, New Mexico

Lease No. NMLC 064118

September 26, 1996

In addition with Form 3160-2, Application to Drill the above well, Plains Petroleum Operating Company submits the following in accordance with BLM requirements.

1. ESTIMATED GEOLOGICAL MARKERS

GL: 3257'

KB: 3269'

<u>FORMATION</u>	<u>TOP</u>	<u>SS</u>
Penrose	3408'	-139'
Glorieta	4918'	-1649'
Paddock	5033'	-1764'
Blindbry	5263'	-1994'
Tubb	5913'	-2644'
TD	6000'	-2731'

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2. CASING DETAIL

	CASING SIZE OD	INTERVAL	LENGTH OF INTERVAL	WEIGHT #/FT	INTERVAL WEIGHT	CASING GRADE	JOINT
Surface	8-5/8"	0' - 1175'	1175'	24#/ft	28,200	J-55	ST&C
Production	5-1/2"	6000'-5200'	800'	15.5#/ft	12,400#	J-55	LT&C
		5200' -0'	5200'	14#/ft	72,800#	J-55	ST&C
Tubing	2-3/8"	0 - 5250'	5250'	4.7#/ft	24,675#	J-55	EUE

3. CEMENTING & FLOAT EQUIPMENT DETAIL

WELL DATA	SURFACE	PRODUCTION (TD 6000')
Depth	1175'	6000'
Casing Size	8-5/8"	5-1/2"
Hole Size	12-1/4"	7-7/8"
Desired Fill	Surface	4825', surface
Hole Volume	485 Ft ³	226 Ft ³ , 836 Ft ³
Recommended Volume	996 Ft ³	2778 Ft ³ , 3004 Ft ³
DV Tool Depth	N/A	4400'

SLURRY

	Surface	Production 1st Stage	Production 2nd Stage
Recommendation	Lead w/380 sx Premium Plus w/4% gel, 2% CaCl ₂ + 1/4#/sk Flocele, Tail in w/250 sx Premium Plus w/2% CaCl ₂ & 1/8#/sk Flocele	Lead: 380 sx Premium 50:50 Poz cement w/ 0.6% Halad 9 & 2.5#/sk salt.	Lead 910 sx Premium Plus cement w/0.25% CFR- 3, 1/4#/sk Flocele, 2.5% Econolite, 1/4#/sk D-Air & 0.5% Halad 9. Tail in w/260 sx Premium 50:50 Poz cement w/0.6% Halad 9 & 2.5#/sk salt.
Yield	Lead: 1.74 ft ³ /sk Tail: 1.34 ft ³ /sk	1.31 Ft ³ /sx,	Lead: 2.38 ft ³ /sx, Tail: 1.31 ft ³ /sx
Weight	Lead: 13.5 PPG Tail: 14.8 PPG	14.2 PPG	Lead: 12 PPG Tail: 14.2 PPG
Mix Water	Lead: 9.10 gal/sk Tail: 6.31 gal/sk	6.05 gal/sk	Lead: 10.81 gal/sk Tail: 6.05 gal/sk

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4. MUD DETAIL

<u>DEPTH</u>	<u>PROPERTIES</u>	<u>TREATMENT</u>
0 -1175'	Weight: 8.4 - 8.6 Viscosity: 34-36 pH 9-10	Spud Mud: Fresh water gel with sufficient viscosity to clean hole.
1175'-4900'	Weight: 10.0 - 10.2 Vis 28-29 pH 9-10	Drill out from surface csg with brine water, circulating to reserve pits. Build chlorides naturally while drilling salt stringers. Use lime to control pH and starch with gel sweeps to clean hole prior to mud up.
4900'-6000'	Weight 10-10.1 Viscosity 30-31 pH 9-10, WL <10	Mud up in steel pits. Lower hardness to 400 ppm with soda ash. Mix starch to control WL/filtrate and caustic soda for pH. Use paper for seepage. Viscosity will be sufficient with additions of starch only.

PRESSURE CONTROL EQUIPMENT (BOPE) DETAIL

11" API Shaffer 3000# series 900 dual hydraulic preventers adapted for the drilling contractors 4-1/2" drill pipe. The BOPS will be tested after they are installed on the surface casing, prior to drilling out, after each bit trip and each time they are removed or rearranged on the wellhead. See Exhibit A.

6. TESTING AND LOGGING PROGRAMS

TESTING

Drill stem tests may be performed to quantify and identify prospective producing horizons as drilling progresses. Production testing will be commenced after the well is drilled and casing has been set and cemented.

LOGGING

At TD, the following open hole well logs will be run: **GR-CNL-CDL-DLL-MLL-SGR**

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7. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are anticipated. Hydrogen sulfide Drilling Contingency Plan to be adhered to while drilling this well and was previously filed with the Bayluse Cade #7 APD on 9-25-96..

8. ANTICIPATED START DATE:

November 23, 1996 and the well to be completed on or about December 7, 1996.

SURFACE USE AND OPERATION PLAN
PLAINS PETROLEUM OPERATING COMPANY
E. C. HILL 'B' FEDERAL #23
2310' FNL & 330' FWL
Sec. 35 (E) T23S, R37E
Lea County, New Mexico
Lease No.NMLC064118
September 26, 1996

I. Existing Roads:

- A. Exhibit B is a plat showing the proposed wellsite as staked, approximately 10.6 miles NE of Jal, New Mexico.
- B. Exhibit C is a map showing existing roads in the area.
- C. All existing roads will be maintained and repaired as necessary.

II. Access Roads:

- A. The existing access roads to the Baylus Cade Federal #4 will be used to the proposed wellsite as shown on Exhibit C.
- B. Roads are 12 ft wide and constructed of caliche.
- C. No turn arounds, culverts, cuts, gates or cattleguards will be required.

III. Existing Wells: See Exhibit C

IV. Location of Tank Batteries:

Existing tank batteries will be used.

V. Location & Type of Water Supply:

- A. A fresh water supply well is located on the lease. This fresh water will be used for drilling. Water will be transferred from the pump station to the pits using a temporary polyline.

SURFACE USE AND OPERATION PLAN

Plains Petroleum Operating Company

E. C. Hill "B" Federal #23

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VI. Source of Construction Materials:

- A. Construction materials will be caliche, which will be obtained by the dirt contractor from caliche pits on the North border of the lease.
- B. Topsoil from the location will be stockpiled near the location for future rehabilitation use.

VII. Method for Handling Waste Disposal:

- A. Cuttings - All cuttings will be held in the reserve pit.
- B. Drilling Fluids - All drilling fluids will be allowed to evaporate in the reserve pit.
- C. Produced Fluids (oil & water) - Any produced fluids will be collected in tanks until hauled to an approved disposal system.
- D. Garbage and Other Waste Material - All waste materials will be removed from the lease to a disposal facility.

VII. Ancillary Facilities: Not Applicable

IX. Well site Layout: Exhibit A

X. Plans for Restoration of Surface:

- A. After completion of the well, pits will be filled and the location cleaned of all trash and junk to leave the wellsite in good condition.
- B. Any unguarded pits containing fluids will be fenced off and covered with netting until they are filled.
- C. The reserve pit will be backfilled and leveled and the surface returned to its original contour.

SURFACE USE AND OPERATION PLAN

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XI. Other Information

- A. Topography: Terrain in the general area consists of an undulating plane covered by sandy soils of aeolian material of Holocene age.
- B. Soil: The soil belongs to the typic haplargids paleargids association.
- C. Vegetation: Consists of *Quercus havardii*, *Prosopis juliflora*, *yucca glauca*, *Suaeda* sp., *Euphorbia* sp., *Aristida* sp., *Bouteloua eriopoda*, *Cenchrus incertus*, *Muhlenbergia arenacea* and *Sporobolus* spp.
- D. Fauna: Consists of *Crotalus* and *sistrurus*, *canis latrans*, *lepus alleni* and *mephitis*.
- E. The surface of this land is being utilized to a limited extent as grazing land for cattle.
- F. The surface is privately owned.
- G. No cultural resources or archaeological sites present.

XII. Company Representative:

James R. Sutherland
Plains Petroleum Operating Company
415 W. Wall, Suite 1000
Midland, TX 79701
Phone (915) 683-4434

SURFACE USE AND OPERATION PLAN

Plains Petroleum Operating Company

E. C. Hill "B" Federal #23

Lea County, New Mexico

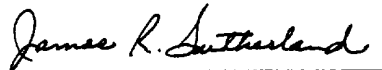
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XIII. Certification

I hereby certify that I have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in the 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 Plains Petroleum Operating Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which is approved. This statement is subject to the provisions of 18 USC 1001 for the filing of a false statement.

A handwritten signature in cursive script, reading "James R. Sutherland", is written over a horizontal line.

District Manager

Plains Petroleum Operating Company

EMERGENCY NOTIFICATION

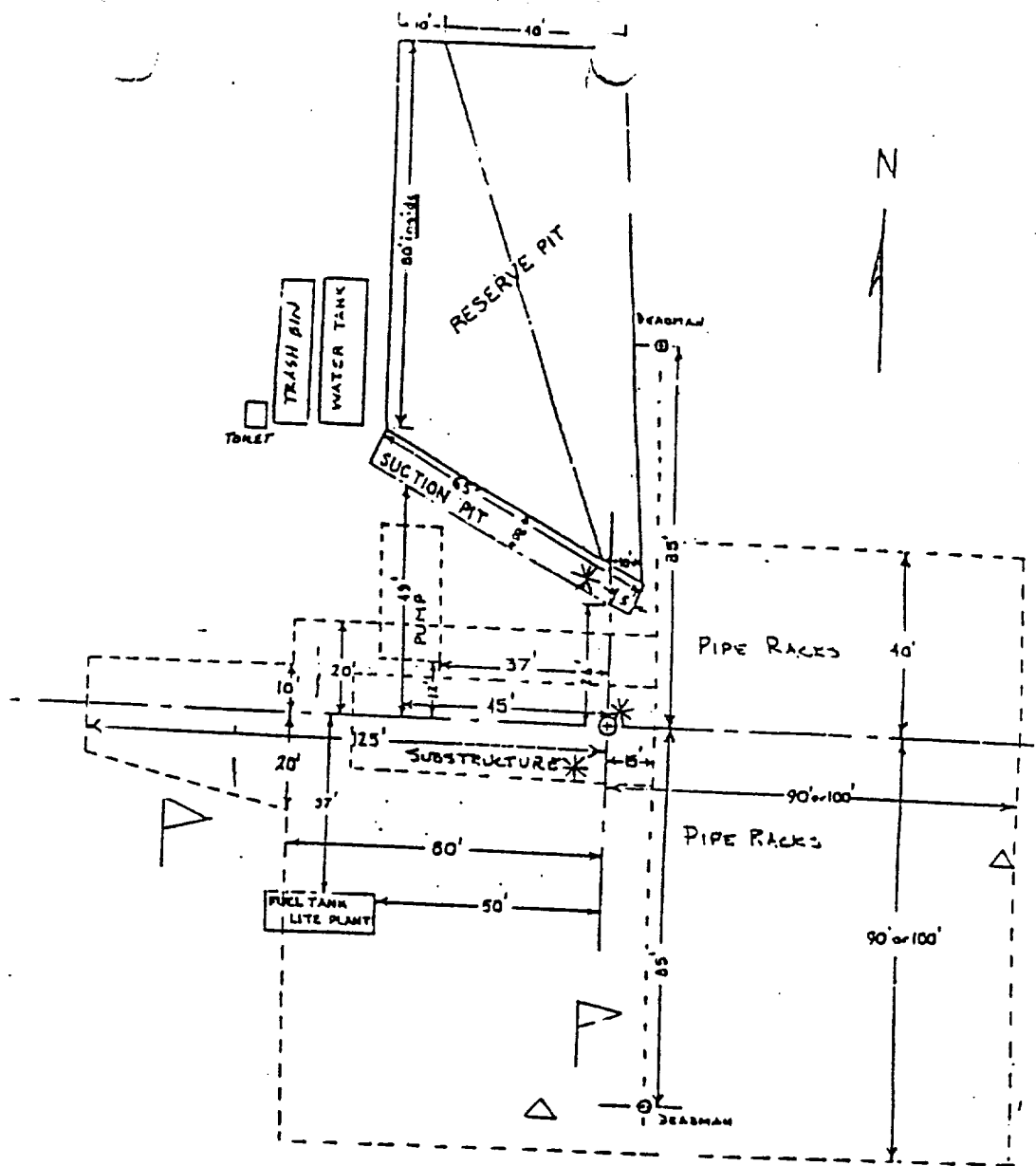
PLAINS PETROLEUM OPERATING COMPANY

415 West Wall Street, Suite 1000

Midland, Texas 79701

915/683-4434

Jim Sutherland	Residence	915/683-3519
Rodney Long	Residence	915/524-3822
	Cellular	915/528-2066
Steve Owen	Residence	915/683-4325



△ - WIND DIRECTION INDICATORS

△ - SAFE BRIEFING AREAS

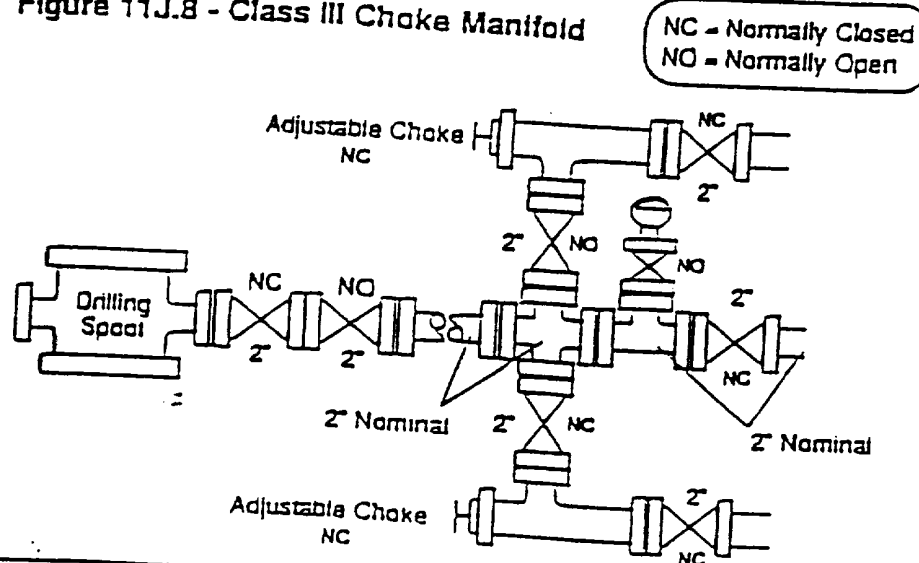
* - H₂S ALARM SENSORS

EXHIBIT 'A'

The Class III choke manifold is suitable for Class III workovers and drilling operations. The Standard Class III choke manifold is shown in Figure 11J.8 below. Specific design features of the Class III manifold include:

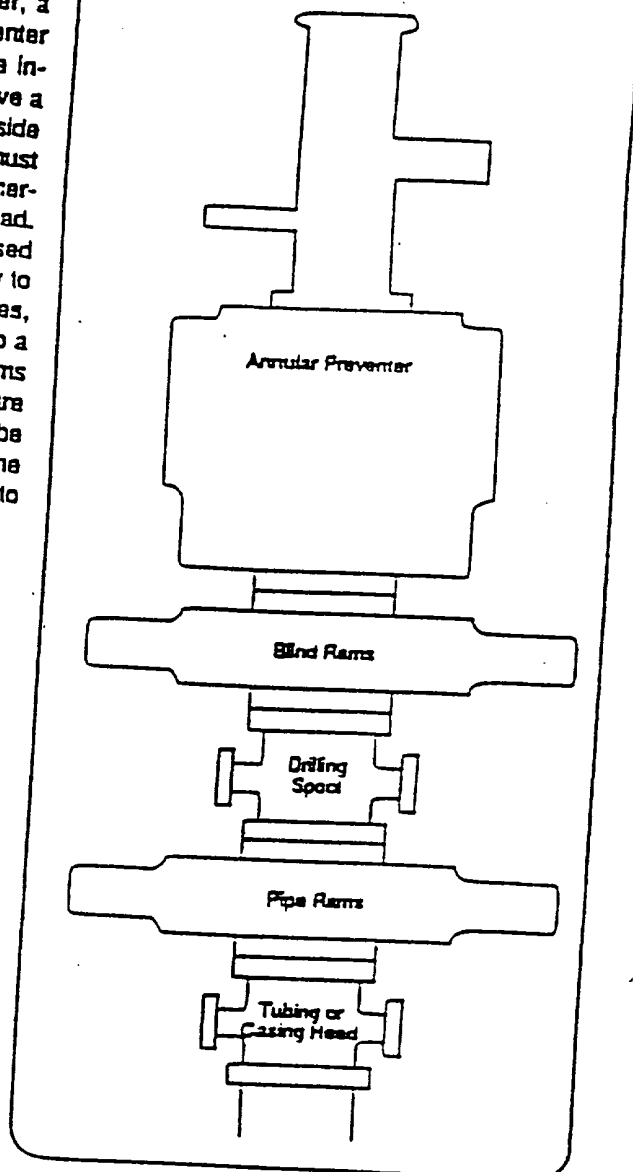
1. The manifold is attached to a drilling spool or the top ram preventer side outlet.
2. The minimum internal diameter is 2" (nominal) for outlets, flanges, valves and lines.
3. Includes two steel gate valves in the choke line at the drilling spool outlet. The inside choke line valve may be remotely controlled (HCR).
4. Includes two manually adjustable chokes which are installed on both side of the manifold cross. Steel isolation gate valves are installed between both chokes and the cross, and also downstream of both chokes.
5. Includes a bleed line which runs straight through the cross and is isolated by a steel gate valve.
6. Includes a valve isolated pressure gauge suitable for drilling service which can display the casing pressure within view of the choke operator.
7. Returns through the choke manifold must be divertible through a mud-gas separator and then be routed to either the shale shaker or the reserve pit through a buffer tank or manifold arrangement.
8. If the choke manifold is remote from the wellhead, a third master valve should be installed immediately upstream of the manifold cross.

Figure 11J.8 - Class III Choke Manifold

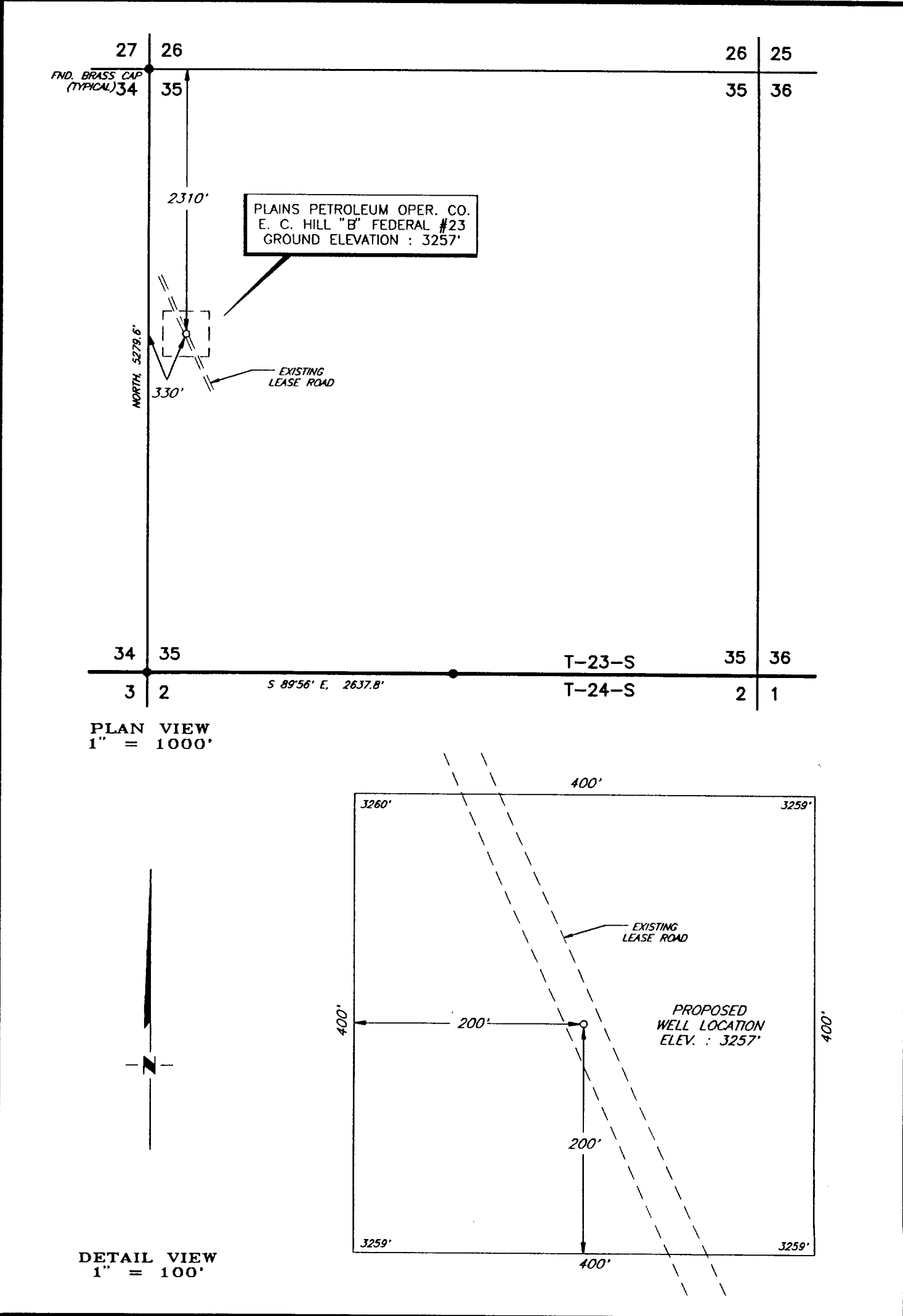


The Class III preventer stack is designed for drilling or workover operations. It is composed of a single hydraulically operated annular preventer on top, then a blind ram preventer, a drilling spool, and a single pipe ram preventer on bottom. The choke and kill lines are installed onto the drilling spool and must have a minimum internal diameter of 2". All side outlets on the preventers or drilling spool must be flanged, studded, or clamped. An emergency kill line may be installed on the wellhead. A double ram preventer should only be used when space limitations make it necessary to remove the drilling spool. In these instances, the choke manifold should be connected to a flanged outlet between the preventer rams only. In this hookup, the pipe rams are considered master rams only, and cannot be used to routinely circulate out a kick. The Class III blowout preventer stack is shown to the right in Figure 11J.4.

Figure 11J.4
Class III Blowout Preventer Stack

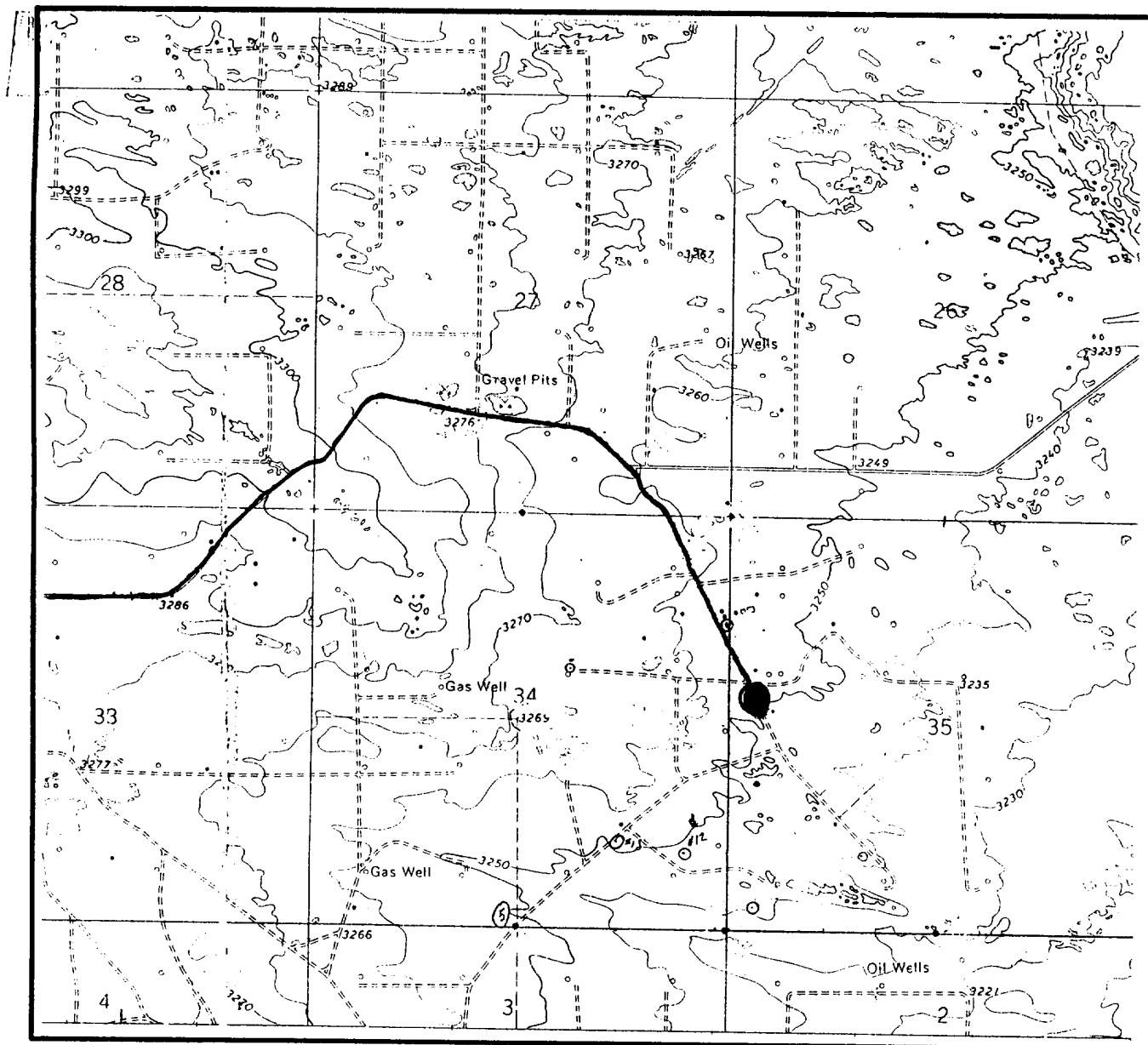


PLAT SHOWING PROPOSED
WELL LOCATION AND LEASE ROAD IN
SECTION 35, T-23-S, R-37-E, N.M.P.M.
LEA COUNTY, NEW MEXICO

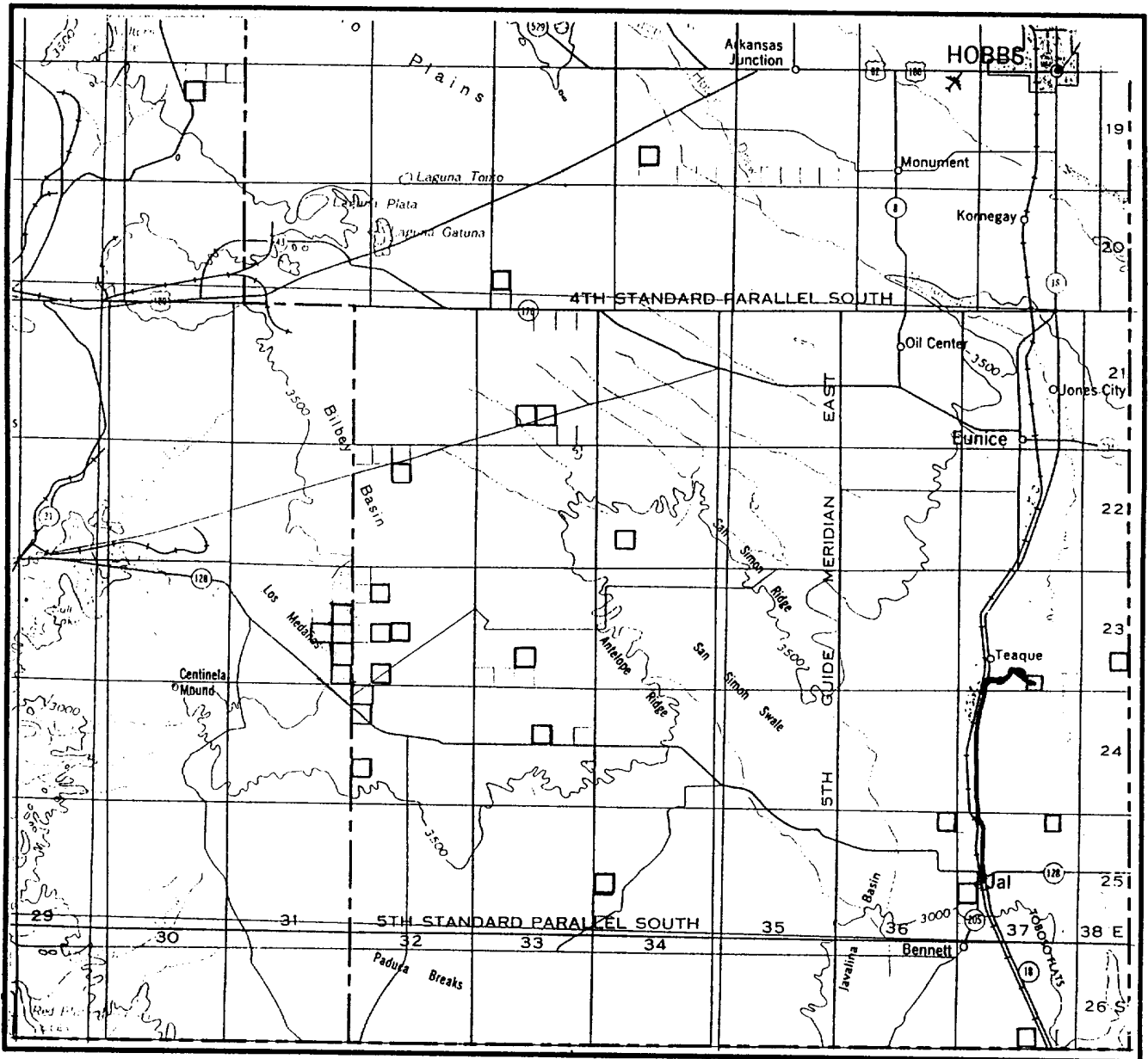


				PLAINS PETROLEUM OPER. CO.	SCALE: AS SHOWN
					DATE: SEPTEMBER 12, 1996
NO.	REVISION	DATE	BY		JOB NO.: 47388-2F
SURVEYED BY: B.R.B.				SURVEYING AND MAPPING BY TOPOGRAPHIC LAND SURVEYORS MIDLAND, TEXAS	48 SW
DRAWN BY: V.H.B.					
APPROVED BY: V.L.B.					SHEET : 1 OF 1

LOCATION & ELEVATION VERIFICATION MAP



VICINITY MAP



SECTION 35 TWP 23-S RGE 37-E
 SURVEY NEW MEXICO PRINCIPAL MERIDIAN
 COUNTY LEA STATE NM
 DESCRIPTION 2310' FNL & 330' FWL

OPERATOR PLAINS PETROLEUM OPERATING CO.
 LEASE E. C. HILL "B" FEDERAL #23

DISTANCE & DIRECTION FROM JCT. OF STATE HWY. 128
& STATE HWY. 18 IN JAL, GO NORTH 10.6 MILES ON
STATE HWY. 128, THENCE EASTERLY 2.2 MILES ON
LEASE ROAD, THENCE SOUTHERLY 0.7 MILE ON LEASE
ROAD TO THE LOCATION.



This location has been very carefully staked on the ground according to the best official survey records, maps, and other data available to us.
 Review this plat and notify us immediately of any possible discrepancy.

TOPOGRAPHIC LAND SURVEYORS

Surveying & Mapping for the Oil & Gas Industry

1307 N. HOBART
 PAMPA, TX. 79065
 (800) 658-6382

6709 N. CLASSEN BLVD.
 OKLAHOMA CITY, OK. 73116
 (800) 654-3219

2903 N. BIG SPRING
 MIDLAND, TX. 79705
 (800) 767-1653