Form 3160-3
(November 1983)
(formerly 9-331C)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0136
Expires August 31, 1985

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: SF-079033

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL: OIL WELL [ ] GAS WELL [X] OTHER SINGLE ZONE [X] MULTIPLE ZONE [ ]

7. UNIT AGREEMENT NAME: San Juan 29-5 Unit

8. FARM OR LEASE NAME:

2. NAME OF OPERATOR: Phillips Petroleum Company

9. WELL NO.: 224

3. ADDRESS OF OPERATOR: 300 W. Arrington, Suite 200, Farmington, NM 87401

10. FIELD AND POOL, OR WILDCAT: Basin Fruitland Coal Gas

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: Unit M, 1293' FSL & 736' FWL
At proposed prod. zone: Unit M, 1293' FSL & 736' FWL

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 23, T-29-N, R-5-W

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

12. COUNTY OR PARISH: Rio Arriba | 13. STATE: NM

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)	16. NO. OF ACRES IN LEASE	17. NO. OF ACRES ASSIGNED TO THIS WELL
736' FWL	600	320 AC W/2 of Section
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS**
305' from #39	3765' (±)	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 6906' (GL Unprepared)

22. APPROX. DATE WORK WILL START*: Upon Approval

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	9-5/8"	36#, K-55	250'	250 sxs, Circ to Surface
8-3/4"	7"	23#, K-55	3630'	650 sxs, Circ to Surface
6-1/8"	5-1/2"	15.5# or 23#	3530'-3765'	*

*If the coal is cleated, a 5-1/2", 23#, P-110 liner will be run in the open hole without being cemented.

*If the coal is not cleated, the well will be stimulated and a 5-1/2", 15.5#, J-55 liner will be run without being cemented.

Unorthodox location. Will provide copies of request from NMOCD.

Mud Program and BOP Equipment: See Attached

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. 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.

24.

SIGNED L. M. Sanders TITLE Supv. Regulatory Affairs DATE 9/15/90

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

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.

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

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator	Lease	Well No.
PHILLIPS PETROLEUM	SAN JUAN 29-5 UNIT	224

Unit Letter	Section	Township	Range	County
M	23	T.29 N.	R.5 W. NMPM	RIO ARRIBA COUNTY

Actual Footage Location of Well: 1293 feet from the SOUTH line and 736 feet from the WEST line

Ground level Elev.	Producing Formation	Pool	Dedicated Acreage:
7148	Fruiltand Coal	Basin Fruitland Coal	320 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

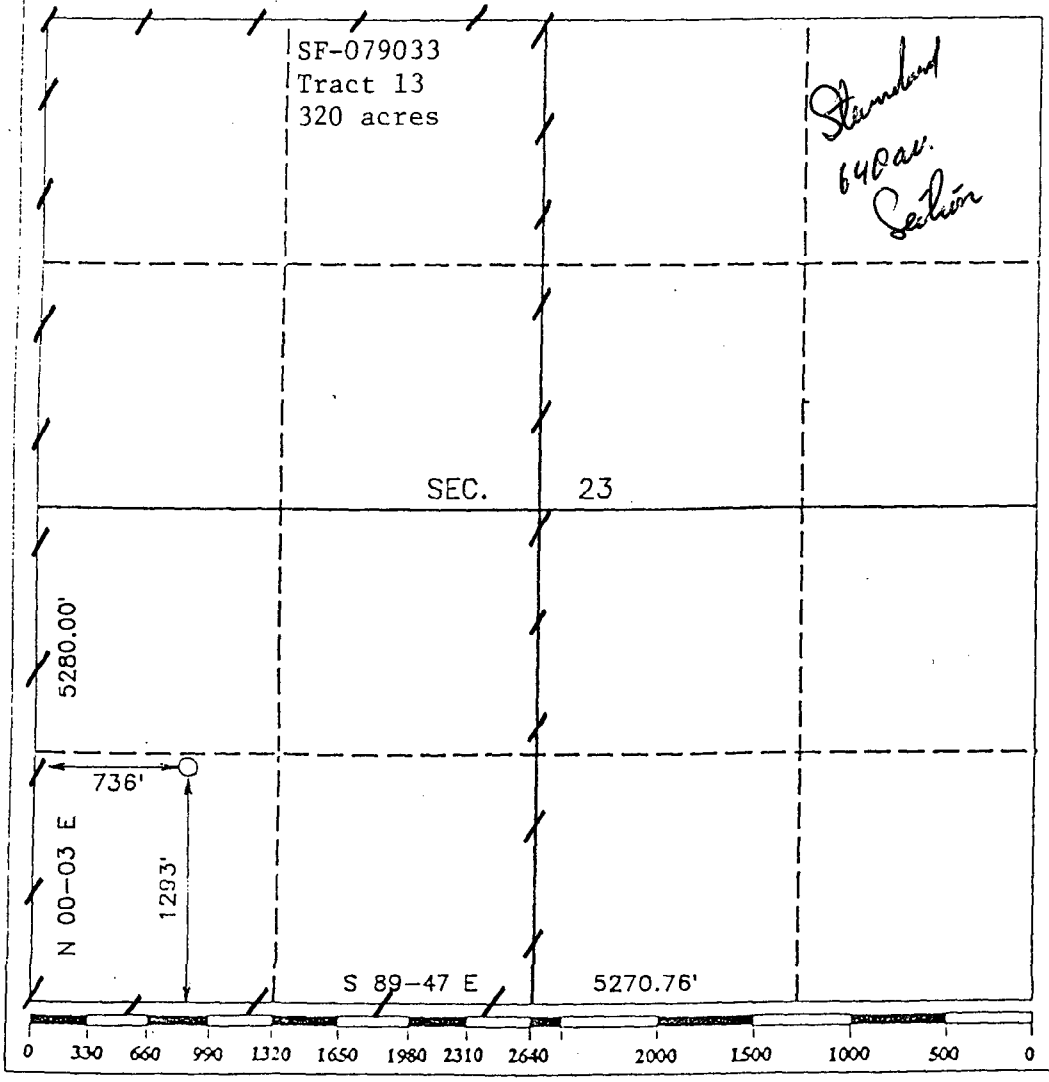
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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.?

[X] Yes [ ] No If answer is "yes" type of consolidation unitization

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: L. M. Sanders

Printed Name: L. M. Sanders

Position: Supv. Regulatory Affairs

Company: Phillips Petroleum Company

Date: 9/15/90

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 supervison, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed: MAY 13, 1990

Signature & Seal of Professional Surveyor: R. HOWARD DAGGETT

NEW MEXICO R. HOWARD DAGGETT 9870 REGISTERED PROFESSIONAL LAND SURVEYOR

Certificate No. 9870

Registered Professional Land Surveyor

SURFACE USE PLAN

Phillips Petroleum Company, San Juan 29-5 Unit, Well No. 224, SW/4 SW/4, Section 23, T-29-N, R-5-W, Rio Arriba County, New Mexico. (Fed Lease No. SF-079033).

This plan is to accompany "Application for Permit to Drill" the subject well which is located approximately 25 miles east from Blanco, New Mexico. The following is a discussion of pertinent information concerning the possible effect which the proposed drilling well may have on the environment of the well and road sites and surrounding acreage. A copy will be posted on the derrick floor so that all contractors and sub-contractors will be aware of all items of this plan.

1. *Existing Roads:*

   A. *To reach the proposed location, start from Farmington, N.M. take N.M. 64 approximately 49 miles to Gobernador, N.M.. Go past Sims Mesa Highway approximately five miles. Turn right and follow the existing access road to Well No. 39. The proposed location is near the existing pad.*

2. *Planned Access Roads:*

   A. *The access road is shown on the attached map. The new location is adjacent to an existing well pad, therefore no new access road will be necessary All existing roads used to access the proposed location shall be maintained in the same or better condition than presently found. The access road is to be classified "Temporary Resource Road".*
   B. *Turnouts: None.*
   C. *Drainage Design: The present drainage will be maintained for the existing access road. After completion of Well No. 224, a diversion cut will be placed below the cut on the east side with drainage to south.* ***Round off NW corner, barricade existing location, and keep disturbance within stakes on north side of pad.***
   D. *Culverts, Cuts and Fills: Make pits long and narrow. 3 to 1 cut slopes. See Cut and Fill Sketch.*
   E. *Surfacing Material: Natural materials at well site.*
   F. *Gates, Cattle Guards, Fences: As required*
   G. *Proposed Road: No new access road are needed.*

3. *Locations of Existing Wells: Well No. 39, 990' FSL & 700' FWL*

4. *Locations of Tank Batteries, Production Facilities, Production Gathering, and Service Lines: In the event of production, production facilities will be located on the drill pad. The actual placement of this equipment will be determined when the well's production characteristics can be evaluated after completion. To protect livestock and wildlife, the reserve pit will be fenced with mesh wire. The condensate tanks will be enclosed by a dike.*

Upon completion of drilling, the location and surrounding area will be cleared of debris. The Flow line from Well No. 224 is to run from a measurement point to the meter house at Well No. 39 location. A diagram of the production facilities will be submitted after final placement. **NOTIFY BILL LIESS WITH THE BLM 48 HOURS PRIOR TO PAD CONSTRUCTION.**

5. Water Supply Source: Will be provided by the drilling contractor and trucked to the drilling site. See Attachment No. 1 - WATER SUPPLY SOURCE.

6. Source of Construction Materials:

No additional construction materials will be required to build the proposed location.

7. Methods for Handling Waste Disposal:

A. The drill cuttings, fluids and completion fluids will be placed in the reserve pit. The reserve pit will be fenced with mesh wire on three sides away from the pad during drilling and the fourth side fenced as soon as the rig moves out. The reserve pit will be back filled, leveled and contoured so as to prevent any materials being carried into the watershed.. Upon completion, the pad will be leveled, contoured, and re-seeded with the appropriate seed mixture.

B. All garbage and trash will be placed in specially constructed wire mesh containers. Upon cleanup, the refuse in the containers will be hauled to an approved landfill site.

All produced water will be collected in tanks until hauled to an approved disposal system, or separate disposal applications will be submitted for appropriate approval.

8. Ancillary Facilities: None

9. Well Site Layout: Attached sketch shows the relative location and dimensions of the well pad, mud pit, reserve pit, and trash pit. Location will be 230' X 300'.

10. Plans for Restoration of Surface:

Pit will be back filled and levelled as soon as practical to original condition. If well is productive, drilling pad will remain as well service pad. If dry hole, the pad will be ripped per regulations.
Commencement of rehabilitation operations will immediately follow removal of drilling and completion equipment from location and rehabilitation of the surface is planned to be completed within 60 days from commencement.

11. Other Information:

A. Terrain: See Archaeological Survey
B. Soil: See Archaeological Survey
C. Vegetation: See Archaeological Survey
D. Surface Use: See Archaeological Survey
E. Ponds and Streams: See Archaeological Survey
F. Water Wells: No water well located in Section 23
G. Residences and Buildings: There are no occupied residences or buildings within one quarter of a mile of the proposed well location.
H. Arroyos, Canyons, etc.: See Archaeological Survey
I. Well Sign: Sign identifying and locating the well will be maintained at drill site with the spudding of the well.
J. Archaeological Resources: See Archaeological Survey. The archaeological site will be protected as recommended in the archaeological survey.

12. Operator's Representatives: Field personnel who can be contacted concerning compliance of the "Surface Use Plan" is as follows:

Production and Drilling
A. R. Lyons
300 West Arrington, Suite 300
Farmington, New Mexico 87401
Phone: 505-599-3401

or

R. A. Allred
300 West Arrington, Suite 300
Farmington, New Mexico 87401
Phone: 505-599-3403

13. Surface Ownership: The surface ownership is Federal.

14. Certification:

I hereby certify that I, or persons under my direct supervision, have inspected the 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 Phillips Petroleum Company and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

L. M. Sanders
Typed or Printed Name

L. M. Sanders
Signature

September 15, 1990
Date

surf2956.lar

WATER SUPPLY SOURCE
Surface Use Plan
San Juan 29-5 Unit

Attachment No. 1

Depending on which drilling contractor is used, the water for drilling and completion operations will come from one of the following locations:

1. San Juan River at Blanco Bridge, NW SE SE Section 18, T-29-N, R-9-W.

2. 29-6 Waterhole in Unit L, Section 28, T-29-N, R-6-W.

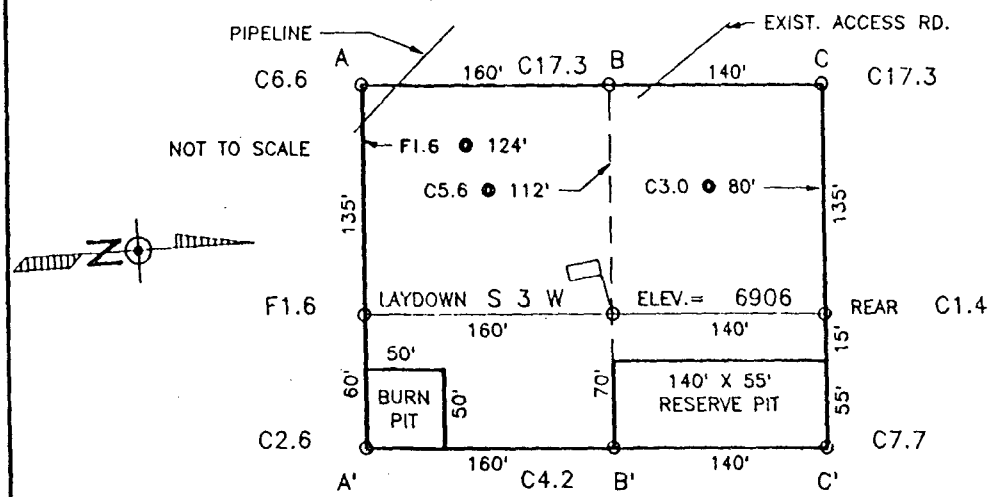
COMPANY: PHILLIPS PETROLEUM

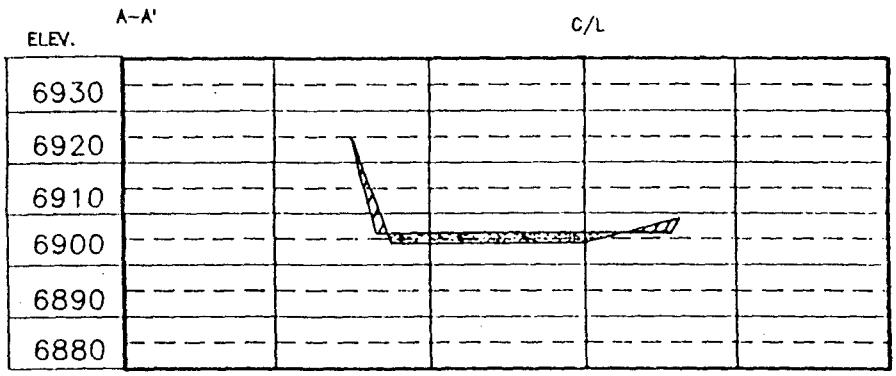
LEASE: SAN JUAN 29-5 UNIT NO.224

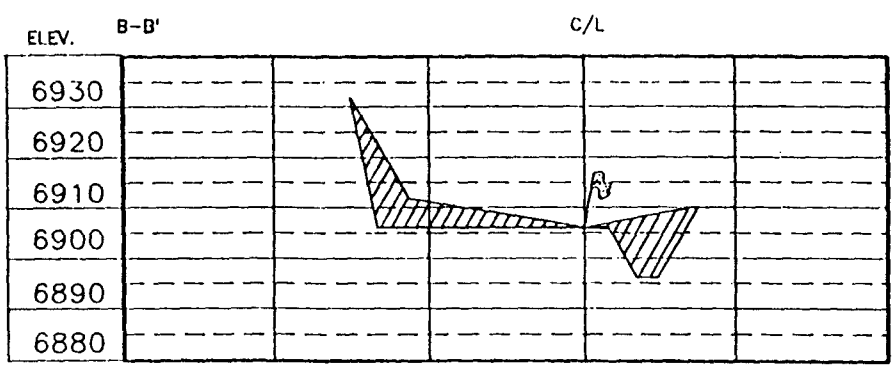
FOOTAGE: 1293 FSL, 736 FWL

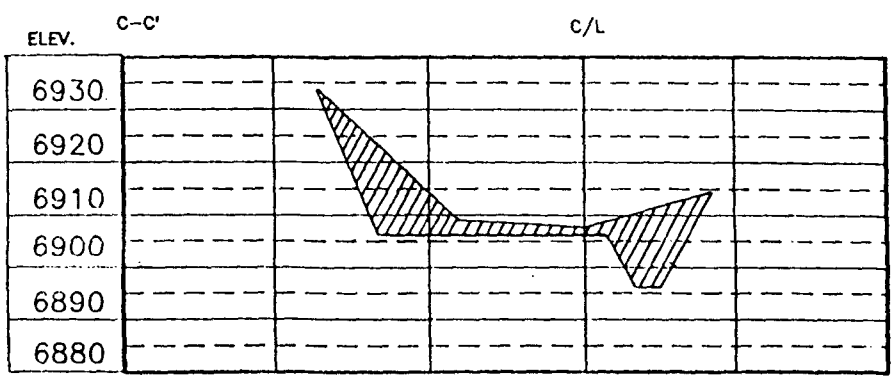
SEC.: 23 TWN: T.29 N. RNG: R.5 W. NMPM

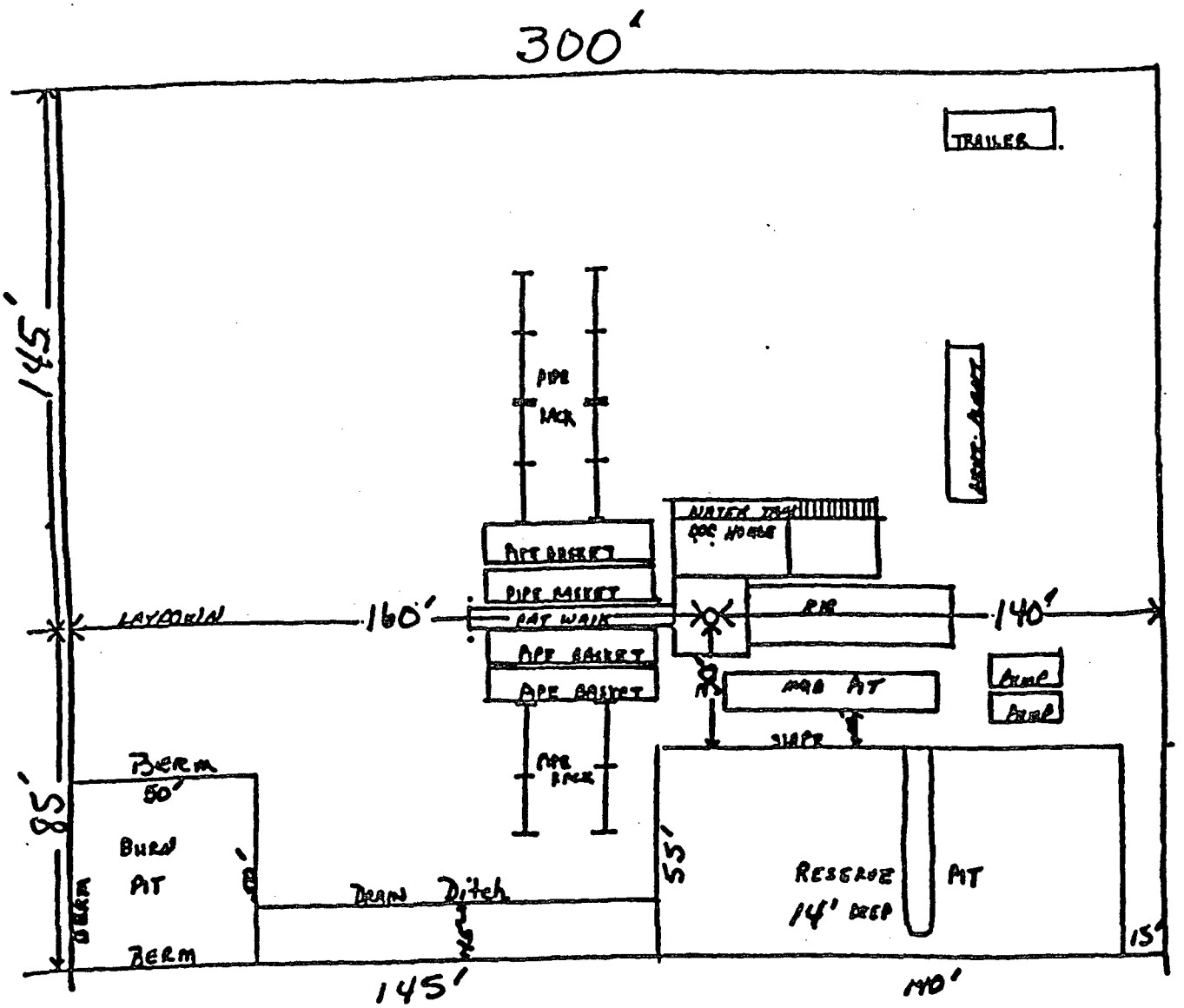
ELEVATION: 6906



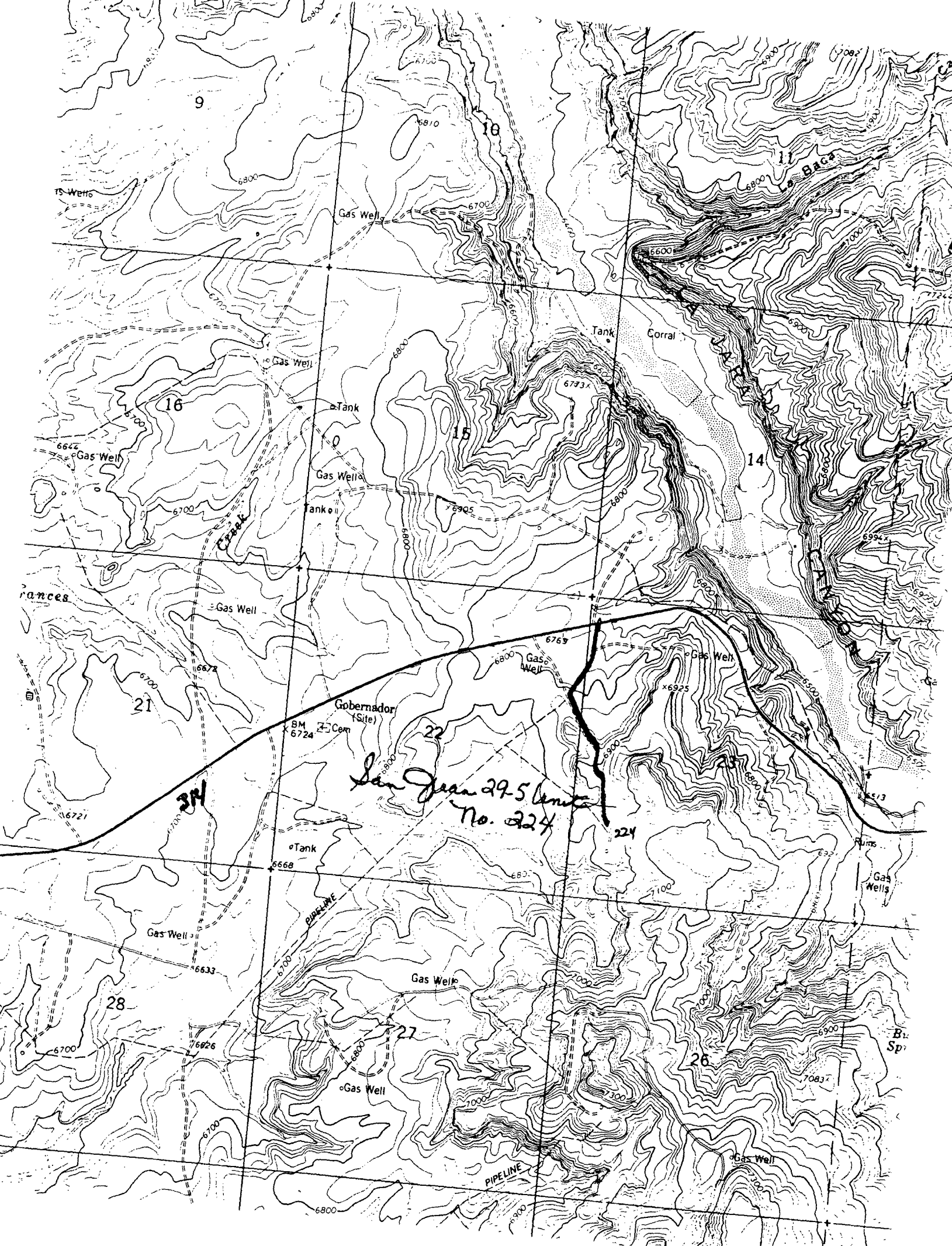








San Juan 29-5 Unit
Well No. 224


9
10
11
16
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21
22
23
28
27
26
Gas Wells
Gas Well
Tank
Corral
Creek
Gobernador
(Site)
BM
6724
Cem
San Juan 29-5 Unit
No. 224
224
PIPELINE
Ruins
Gas Wells

PHILLIPS PETROLEUM COMPANY

Preliminary
9-06-90

Well Name: San Juan 29-5 Unit Well No. 224

DRILLING PROGNOSIS

1. Location of Proposed Well: 1293' FSL & 736' FWL, Section 23, T-29-N, R-5-W, Rio Arriba County

2. Unprepared Ground Elevation: 6906'.

3. The geologic name of the surface formation is San Jose.

4. Type of drilling tools will be rotary.

5. Proposed drilling depth is 3765'.

6. The estimated tops of important geologic markers are as follows:

Ojo Alamo -	3148'	Base Coal -	3737'
Kirtland -	3283'	Picture Cliffs -	3776'
Fruitland -	3583'	Int. Csg. -	3630'
Top Coal -	3653'	T.D.	3765'

7. The estimated depths at which anticipated water, oil, gas, or other mineral bearing formations are expected to be encountered are as follows:

Water: Ojo Alamo - 3148' - 3283'
Oil: None
Gas: Fruitland Coal - 3653' - 3737'

8. The proposed casing program is as follows:

Surface String 9-5/8",36#, K-55 @ 250'
Intermediate String 7", 23#, K-55 @ 3630'
Liner * 5-1/2", 23#, P-110 or 15.5#, K-55 @3530'-3765'

9. Cement Program:
   Surface String = 250 sxs (295 cu ft) CL "B" W/3% CaCl2 & 1/4# Cele-Flake/sk or quantity sufficient to circulate cement to surface.

   Intermediate String = Lead cmt. 500 sxs (1035 cu ft) Cl "B" 65/35 POZ w/12% Gel & 1/4# Cele-Flake/sx.

Intermediate String (Continued)

Tail. 150 sxs (177 cu ft) Cl "B" w/1/4# Cele-

Centralizer Program:
Surface: Centralizer at 10' above shoe. Top of 2nd Joint. Top of 4th Joint.

Intermediate: Centralizer at 10' above shoe. Top of 2nd Jt., Top of 4th Jt. Top of 6th Jt., Top of 8th Jt.

Turbulator at 1 Jt. below Ojo Alamo
Turbulator at top of next joint.
Turbulator at top of next joint.

Flake/sk
Liner =
* If the coal is cleated a 5-1/2" 23#, P-110 liner will be run in the open hole without being cemented.
* If the coal is not cleated the well will be stimulated and a 5-1/2", 15.5#, J-55 liner will be run.

10. The minimum specifications for pressure control equipment which are to be used, a schematic diagram thereof showing sizes, pressure ratings (or) API series and the testing procedure and testing frequency are enclosed within the APD packet .

11. The proposed mud program is enclosed within the APD packet.

12. The testing, logging, and coring programs are as follows:
D.S.T.'s or cores: None
Logs: GR-D-N-NGT-ML

Special Tests: None

13. Anticipate no abnormal pressures or temperatures to be encountered or any other potential hazards such as Hydrogen Sulfide Gas. Low risk H_2S equipment will be used.

14. The anticipated starting date is immediately upon approval with duration of operations for approximately 30 days thereafter.

PROPOSED MUD PROGRAM
San Juan 29-5 Unit
Well No. 224
Rio Arriba County

DEPTH	MUD WEIGHT	VISCOSITY	FLUID LOSS	CL-PPM	% SOLIDS	ADDITIVES
0-250 Ft.	Spud Mud Lima and Gel					Bentonite
250-3000 Ft.	8.0-9.0 PPG	45-65 Sec/Qt	8-10CC	1200 PPM		Drispac Lime, Soda Ash
3000-TD	9.5-10.0 PPG	35-50 Sec/Qt	6-8CC		Low Solids	Drispac, Soda Ash Caustic Soda Bentonite

250-3000′ Polymer mud and water with sweeps every 500′ or less if hole conditions dictate.

3000′-TD Fresh water mud with CaCo3 & Polymer, low solids. Mud Wt. 9.5 to 10.0 PPG, as necessary to control well.

Start mud up 100′ above Fruitland

BLOWOUT PREVENTER REQUIREMENTS

Well Name: San Juan 29-5 Unit No. 224

I. Blowout preventer equipment, installation, testing and responsibilities will be in accordance with Phillips Petroleum Company's Blowout Preventer Standards.

II. Figure No. 7-9 or 7-10 (Drawing Attached): Casing String 9 5/8" surface BOP Size 10"; Working Pressure 3,000 psi.

III. Equipment to be furnished by Contractor:

A. Ram Type BOPs:
1. No. Required 2
2. Acceptable Manufacturers & Types
   a. Cameron Iron Works: QRC; F; SS; U
   b. Shaffer Tool Works: B; E; LWS; LWP
   c. Hydril

B. Annular Type BOPs:
1. No. Required None
2. Acceptable Manufacturers & Types
   a. Hydril - GK
   b. Shaffer - Spherical
   c. Cameron - D

C. Preventer Operating Equipment
1. Hydraulic Pump - air, steam or electrically operated of sufficient volume and pressure capacity to close the largest ram type preventer in less than 30 seconds. Electrically operated pump must be equipped with explosion proof motor and controls.
2. Manifold with a control valve for each preventer.
3. A Hydril or equivalent regulator for each annular type preventer.
4. Accumulator of sufficient volume and pressure capacity to close all preventers in the assembly without recharging. If the pump in C.1. is incapable of recharging the accumulator in excess of 1500 psi, a separate pump capable of this is to be furnished.
5. Remote control panel with a station for each preventer control valve.
6. Steel piping to connect hydraulic closing units to preventers.
7. Choke manifold with seamless steel piping and flanged or clamp hub connections. Choke manifold assembly and piping sizes as specified, on the attached drawing. All working lines, except hydraulic closing lines, shall have flanged or clamp hub connections to preventers, spools and casing heads.
8. Full opening drill string safety valve (I.D. equal or larger

III. C. (continued)
than I. D. of tool joint in use). Working pressure to equal or exceed specified BOP working pressure. O.D. and configuration such that valve can be run in the hole with adequate clearance.

9. Full opening upper Kelly cock. Working pressure to equal or exceed specified BOP working pressure.
10. Hydraulic pump of sufficient pressure rating to test preventer assembly to rated working pressure with necessary hose and fittings to connect the pump to drill pipe box or safety valve pin.
11. Drilling spool for use with single ram type preventers or with dual ram type preventers which do not have outlets between the rams.
12. Two valves on each side of drilling spool or dual preventers, one side for choke manifold connection and the other for kill line connection.
13. Hand wheels and extensions for manual operation of the ram type preventers. U-joints, extension guides, working platform(s) as necessary.
14. A 1" - 5000 PSI WP plug valve on the closing side of the annular type preventer using a XXE 1" x 4" nipple.
15. Flowlines from choke manifold to pits.
16. Pressure gauge with pressure range at least equivalent to BOP WP.

IV. Equipment to be Furnished by Phillips:

A. Test plug to seat in casing head.

B. Remote controlled chokes, if installed.

C. Casinghead with valves on outlets.

D. Inside blowout preventer, if required.

E. Mud-gas separator, if required, and necessary piping.

V. Location of Equipment & Controls:

A. Remote control panel on the rig floor adjacent to drillers position and stairway exit from the floor.

B. Accumulator-Hydraulic Control Valve Unit to be placed minimum of 50 feet from wellbore in easily accessible location.

C. Choke Manifold located 5 feet or more from the BOPs with minimum number of turns in the run.

D. Manual closing facilities installed so handwheels are outside the substructures in unobstructed location. U-joints, extension

V. (Continued)
guides and working platforms installed as necessary for proper and safe operation.

E. Choke Manifold connection, where possible, is to be made between the two bottom ram type preventers through use of a drilling spool or by connecting between rams of dual type units with outlets so installed.
1. On dual type preventers where outlets are not installed between rams, connection is to be made to a drilling spool installed between the ram type and annular type preventers.

F. Position and Type Rams will be as shown on the attached drawing.

G. Fill up line to be tied into the bell nipple above annular preventers.

H. Safety Valve, open with connections and/or subs available to fit any tool joint in use, shall be on the rig floor at all times.

VI. Testing

A. Initial Installation Test
Immediately after installation, each component part of the blowout preventer assembly including choke lines, valves and closing facilities will be tested individually by steps as outlined in the Blowout Preventer Testing Procedure section of Phillips' Blowout Preventer Standards. The test pressure will be at the working pressure specified in Item II. All components must be satisfactorily tested before drilling out.

B. Ram Change or Repair Test
1. After each ram change or when any component part of the preventer assembly, including lines and valves, is disturbed, the disturbed portion is to be tested to working pressure specified in Item II.
2. Installation of casing rams is not required for running casing.

C. Weekly Pressure Test
The first trip out of the hole after 12:01 AM, Tuesday, weekly test will be performed as outlined in the Blowout Preventer Testing Procedure which includes testing the entire assembly with water to 1/2 the specified working pressure for 10 minutes. The Kelly cock and safety valve are to be tested to the specified working pressure. The weekly test is not required where the test falls within three days after the initial installation test. Upper kelly cock valve with handle available.

D. Operational Test
Each preventer unit is to be closed and opened on each trip or

VI. D. (continued)

at least once each 48 hours (trip is not required just to actuate blind rams or pipe rams that do not fit top section of tapered string).

VII. Responsibilities

A. Contractor is to install and test the blowout preventer assembly as specified.

B. The driller is to check and record the accumulator pressure on the daily drilling report at the beginning of each tour.

C. Expense of rig time and pressure testing services for initial and weekly tests will be borne by:
1. Contractor while on footage contract.
2. Owner while on daywork contract.

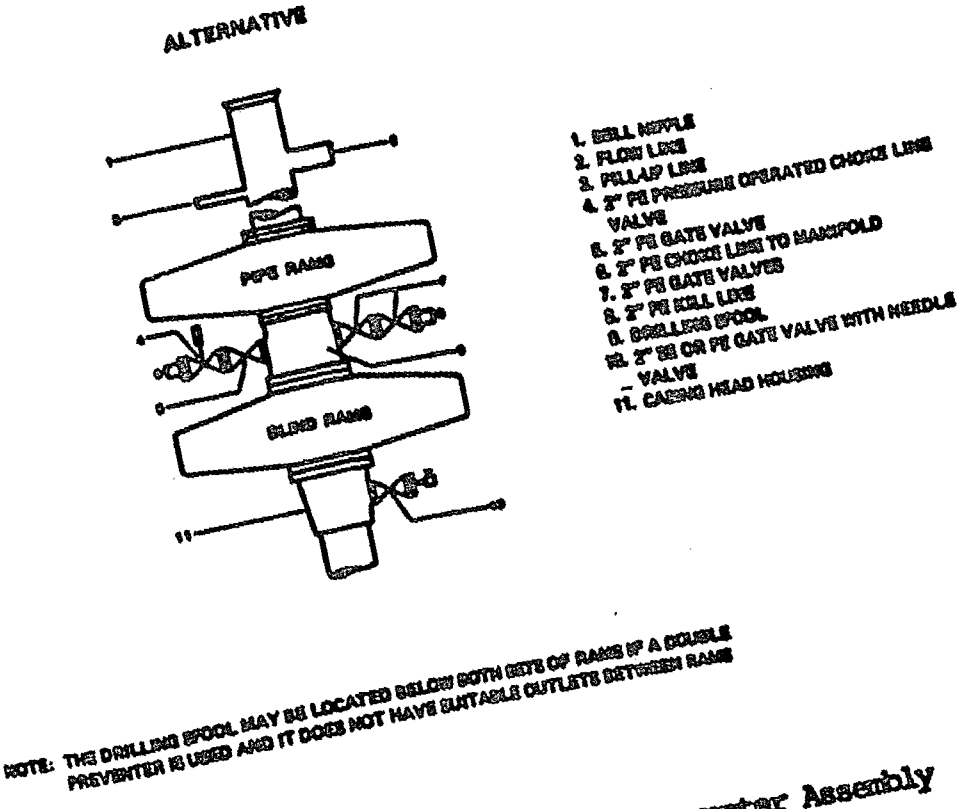


Figure 7-9. Standard Hydraulic Blowout Preventer Assembly
3 M Working Pressure Alternative 1

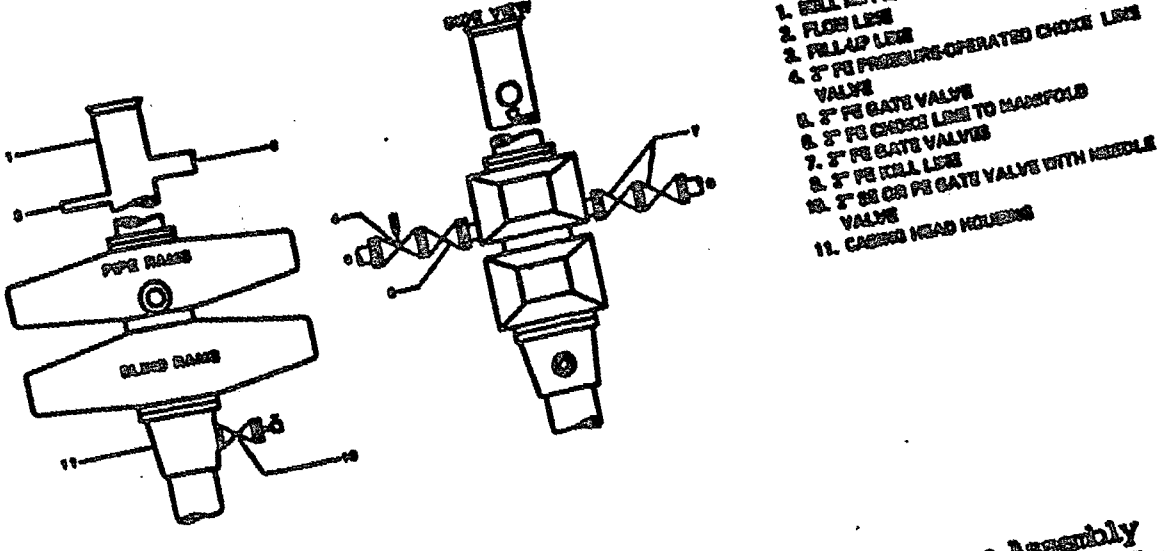


Figure 7-10. Standard Hydraulic Blowout Preventer Assembly
3 M Working Pressure Alternative 3 (without Drilling Spool)

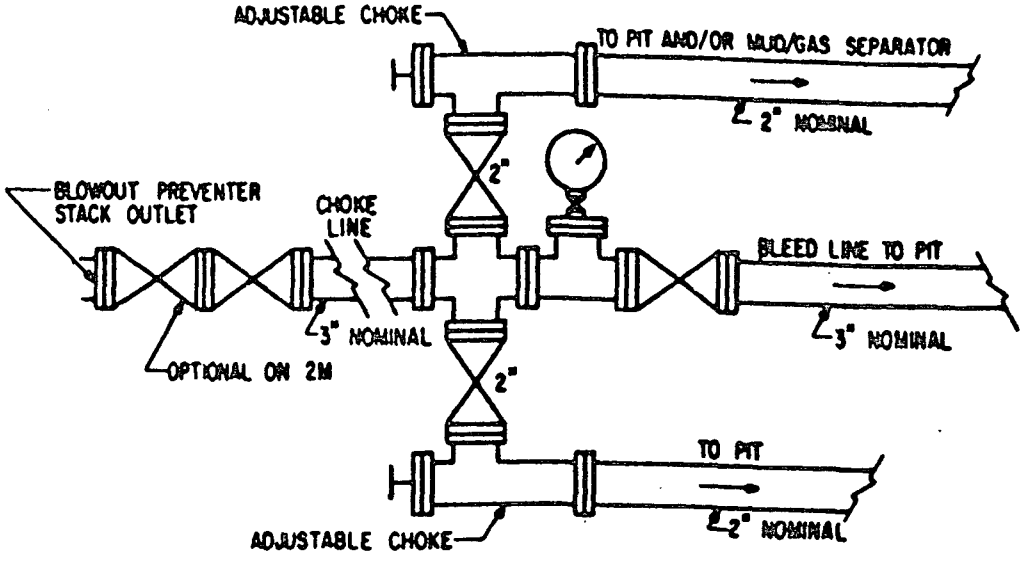
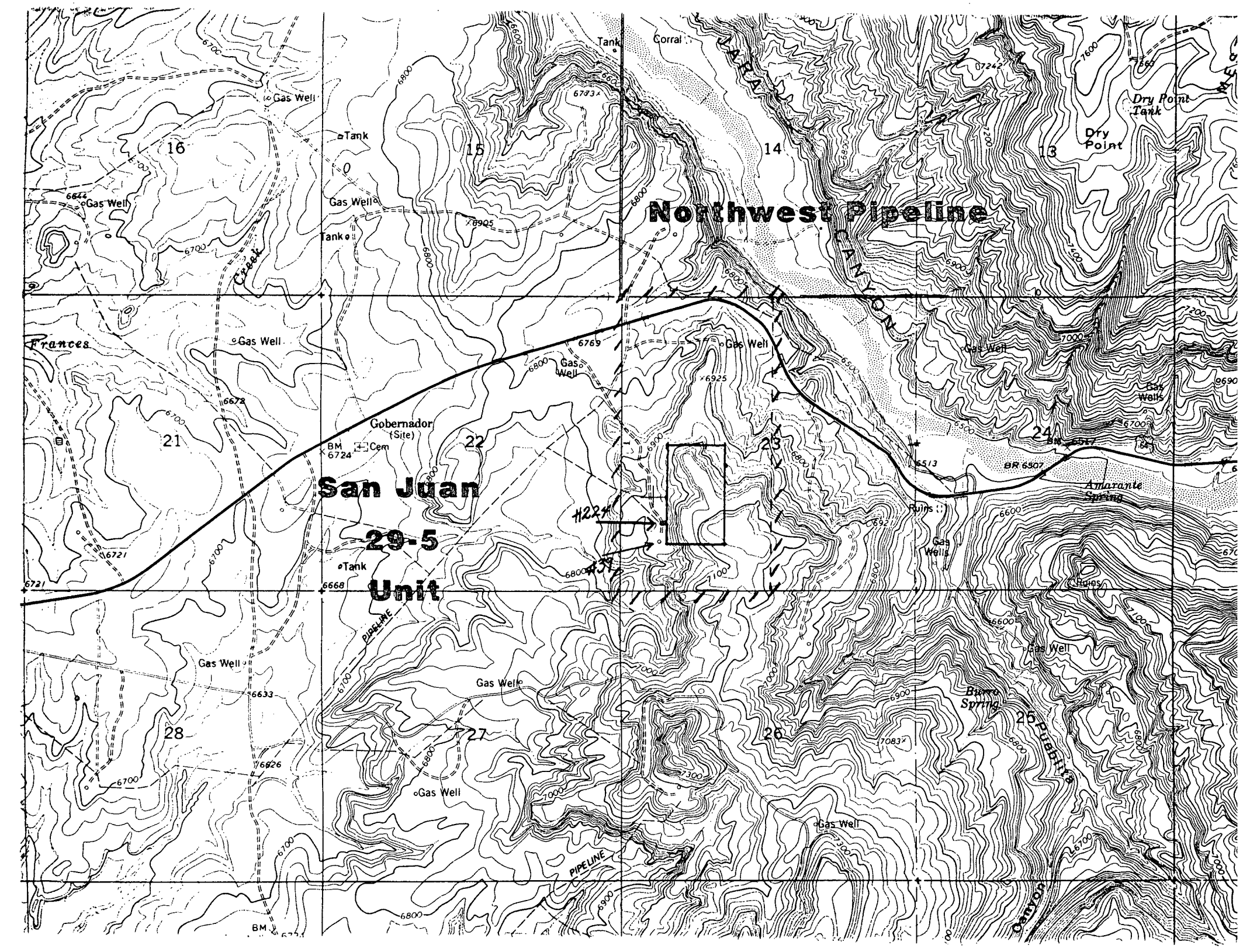
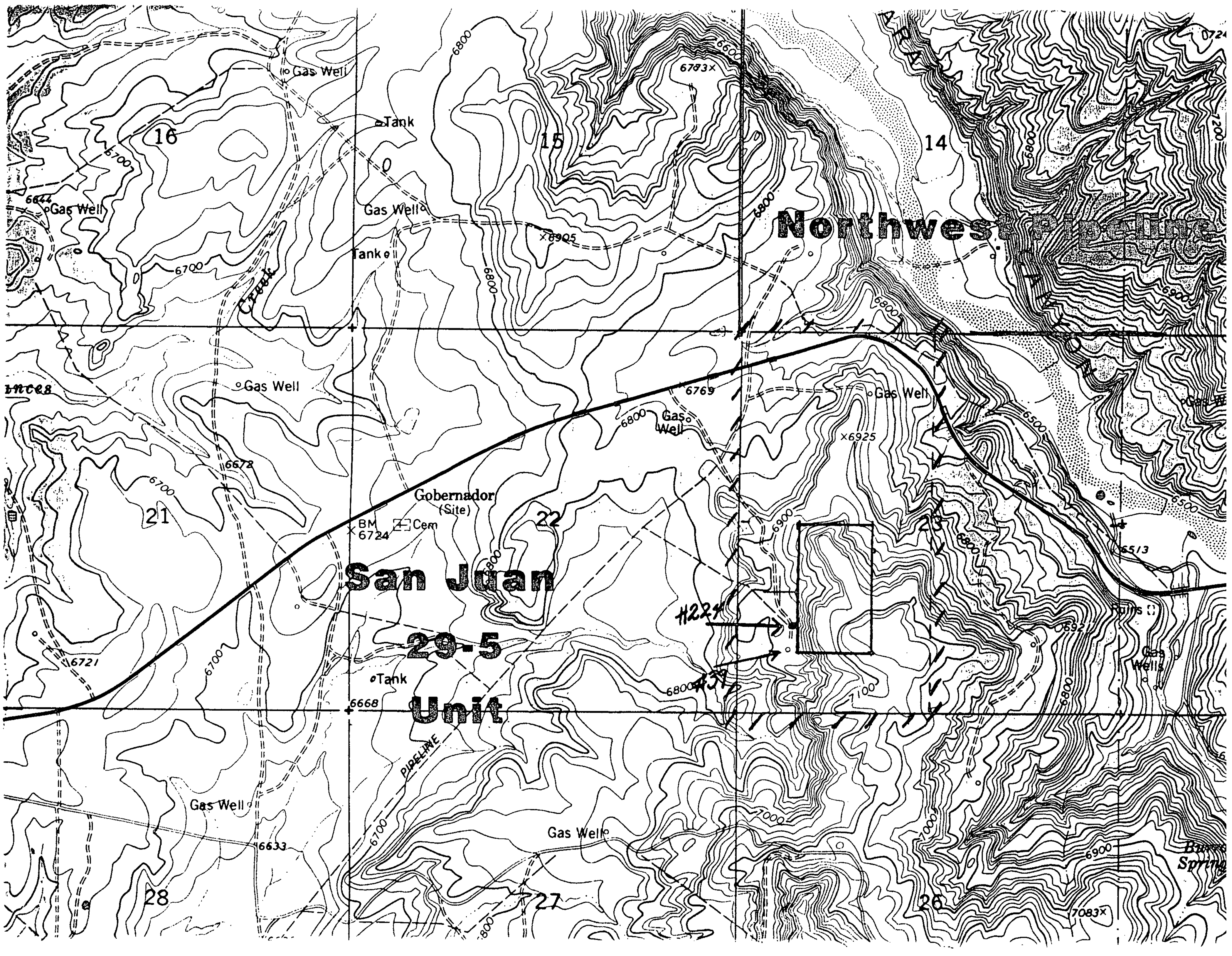


FIG. 3.A.1

TYPICAL CHOKE MANIFOLD ASSEMBLY FOR 2M AND 3M RATED WORKING PRESSURE SERVICE — SURFACE INSTALLATION


Northwest Pipeline
San Juan
29-5
Unit
#122
#31
Gobernador
(Site)
Frances
Creek
Tank
Gas Well
Corral
Dry Point
Dry Point Tank
Amarante Spring
Burro Spring
Ruins
PIPELINE
BR 6507
BM 6724
Cem
16
15
14
13
21
22
23
24
28
27
26
25



Northwest Pipeline
San Juan
29-5
Unit
Gobernador
(Site)
BM
6724
Cem
Creek
PIPELINE
Gas Well
Gas Wells
Tank
Ruins
H224
437
16
15
14
21
22
23
28
27
26
6769
6905
6925
6783
6668
6672
6721
6633
6644
6513
7083