N. M. O. C. C. copy

Copy to NMOCC

Form approved.
Budget Bureau No. 42-R1425.

30-015-21021

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

5. LEASE DESIGNATION AND SERIAL NO.: NM-6014

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

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

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

7. UNIT AGREEMENT NAME: Rocky Arroyo

8. FARM OR LEASE NAME: Rocky Arroyo "D" Com

2. NAME OF OPERATOR: El Paso Natural Gas Company

9. WELL NO.: [redacted] #2

3. ADDRESS OF OPERATOR: 1800 Wilco Building, Midland, Texas 79701

10. FIELD AND POOL, OR WILDCAT: Wildcat

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 660 FWL, 1980 FSL
At proposed prod. zone

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11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 4, T-22-S, R-22-E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: Approximately 30 miles NW of Carlsbad, New Mexico

12. COUNTY OR PARISH: Eddy

13. STATE: New Mexico

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
660	2265.10	320
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**
3000'	9400	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
4370, ~~4270.2~~

22. APPROX. DATE WORK WILL START*
12-10-73

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#	2,000	750 sxs
8 3/4"	5 1/2"	15.5# & 17#	9,400	1200 sxs

Plan is to drill 12 1/4" hole to 200', run 9 5/8" csg & cmt to surface, WOC 12 hrs, & test to 1500# for 15 mins. Drill 8 3/4" hole to 9400'. (DST's may be run on any formation indicating production during this stage of drilling.) Run 5 1/2" csg & cmt to 1000' above top of pay. WOC 24 hrs. If production is indicated, complete well in production zone (s) according to rules and regulation of N.M.O.C.C.

It is our understanding that this location is in a "Declared Water Basin". All pipe settings and cementing operations will be done according to the requirements of the proper authorities.

DECLARED WATER BASIN
CEMENT BEHIND 9 5/8 CASING MUST BE CIRCULATED.
NOTIFY USGS IN SUFFICIENT TIME TO WITNESS CEMENTING THE 5 1/2 CASING.

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ARTESIA, NEW MEXICO

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 C. D. Kuan TITLE Production Clerk DATE October 31, 1973

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE NOV 20 1973

APPROVED BY _____ TITLE DISTRICT ENGINEER DATE _____

CONDITIONS OF APPROVAL, IF ANY:

SUBJECT TO ATTACHED DEEP WELL CONTROL REQUIREMENTS DATED 6-22-73

THIS APPROVAL IS RESCINDED IF OPERATIONS ARE NOT COMMENCED WITHIN 3 MONTHS

*See Instructions On Reverse Side

NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

CORRECTED COPY

All distances must be from the outer boundaries of the Section

Operator	Lease	Well No.
EL PASO NATURAL GAS CO.	ROCKY ARROYO "D" COM.	2

Unit Letter	Section	Township	Range	County
L	4	22 SOUTH	22 EAST	EDDY

Actual Footage Location: 1980 feet from the SOUTH line and 660 feet from the WEST line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage
4370.2	~~Wildcat~~	Morrow	320 Acres

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

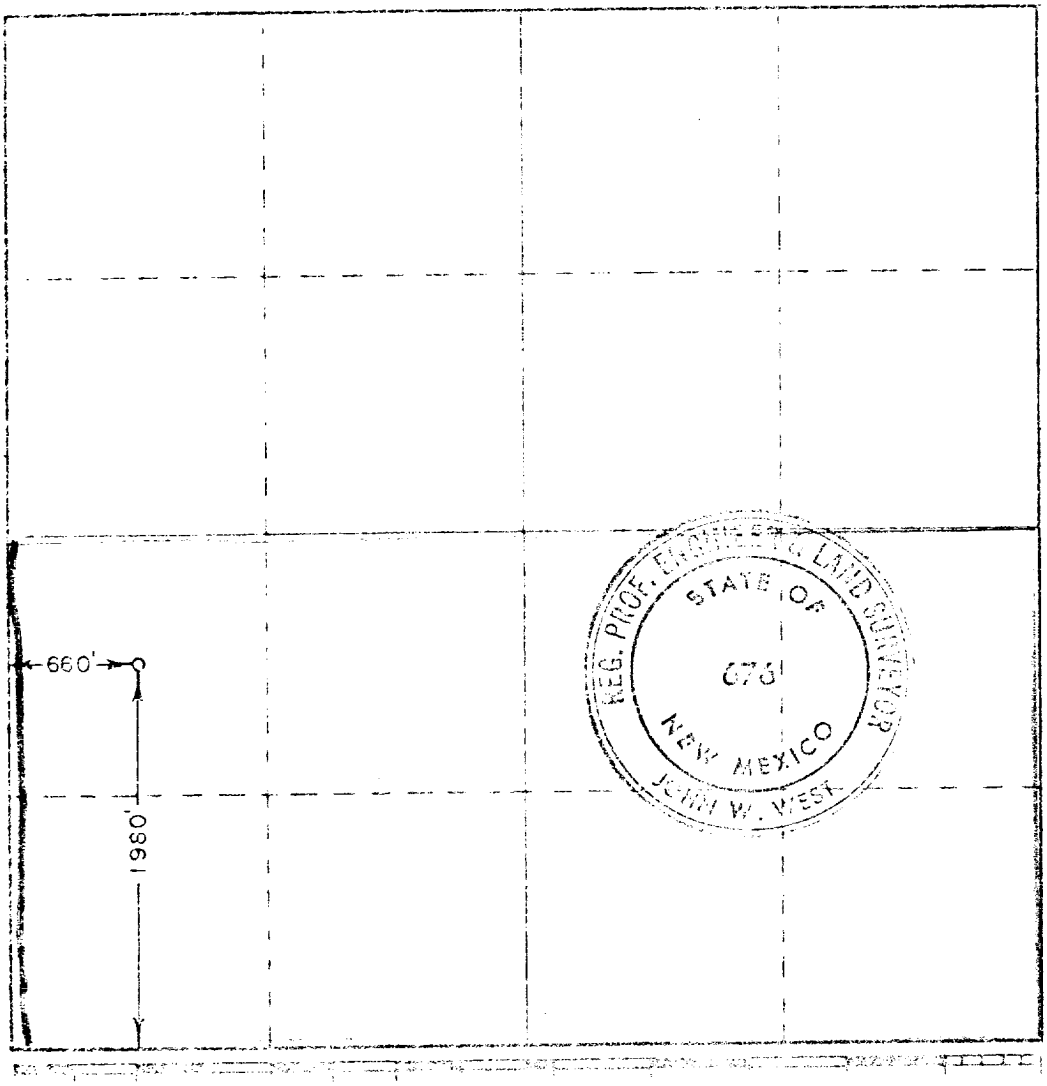
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

Yes [X] No If answer is "yes" type of consolidation Will be communitized if commercial

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 interests, has been approved by the Commission.



CERTIFICATION

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

C. D. Tyson

Name: Production Clerk

Position: El Paso Natural Gas Co.

Company: 11-16-73

Date:

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ARTESIA, NEW MEXICO

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: SEPTEMBER 27, 1973

Registered Professional Engineer and/or Land Surveyor

John W. West

Certificate No. 676

EL PASO NATURAL GAS COMPANY
Rocky Arroyo "D" Com. #2
Eddy County, New Mexico

1. Existing Road - The existing road comes to our Rocky Arroyo A #1. (Dry hole). See attached contour plat road marked in blue.

2. Planned Access Road - We will build a new caliche surface road (approx. 1 mile) from the Rocky Arroyo A #1 to the pipeline, follow the pipeline approximately 1/2 mile, then turn West off pipeline to new location. See contour map; new road is marked in red, pipeline in green.

3. Well Location - The location will be approximately 300' x 260' compacted caliche with a lined pit on the West side of location (200' x 150'). We will have an approximate 15' cut on East side of location with a 5' fill on West.

4. Lateral Roads - None are planned.

5. Tank Batteries & Flow Line - Will be located on pad if equipment is necessary.

6. Location & Type of Water Supply - We will use the same water well as was used on our other Rocky Arroyo Well.

7. Methods for Handling Waste Material - Standard procedure acceptable to all authorized government agencies will be used to dispose of waste materials.

8. Location of Camp - None is planned.

9. Location of Airstrip - None is planned.

10. Diagram of Location - See attached plat.

11. Plans for Restoration of the Surface - Location will be cleaned, leveled, and restored to a condition acceptable to all authorized government agencies.

EL PASO NATURAL GAS COMPANY
Rocky Arroyo D Com. #2
Sec. 4, T-22-S, R-22-E
Eddy County, New Mexico

PROPOSED BLOWOUT PREVENTOR PROGRAM

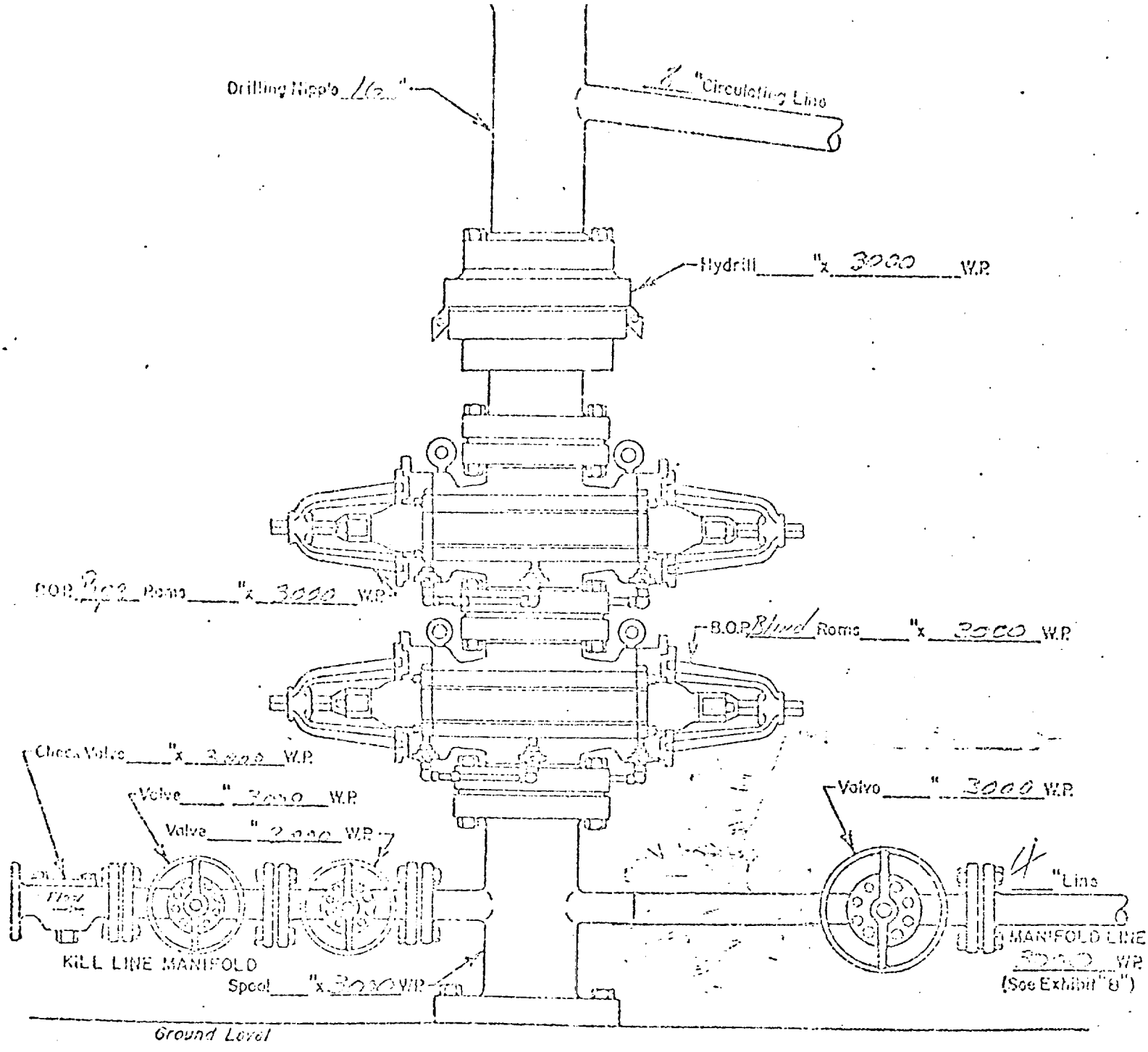
1 - on 20" casing, use rotating head tested for 500#.

2 - on 13 3/8", use double (pipe rams & blinds) with hydril tested to 3000#.

3 - on 9 5/8", use single (pipe rams), single (pipe rams & blinds) with hydril and with rotating head.

TESTED:	rotating head	-	500#
	hydril	-	3000#
	double & single	-	3000#

Will have mud separator system, all manifolding tested to 3000#.

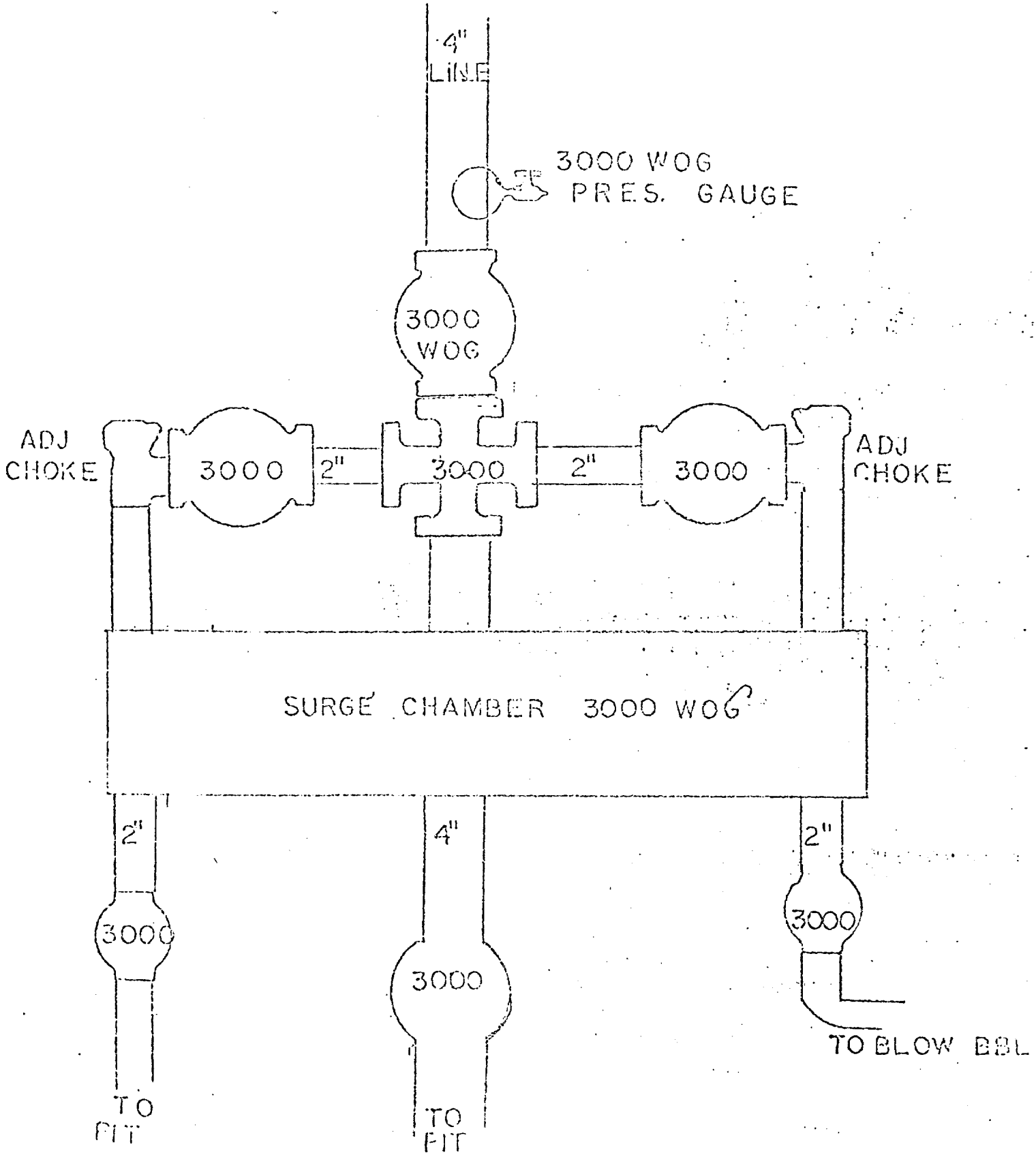


WELL HEAD B.O.P.

3000 # W.P.

☐ Manuel.

☒ Hydraulic


4" LINE
3000 WOG PRES. GAUGE
3000 WOG
ADJ CHOKE
3000
2"
3000
2"
3000
ADJ CHOKE
SURGE CHAMBER 3000 WOG
2"
4"
2"
3000
3000
3000
TO BLOW BBL
TO PIT
TO PIT

El Paso Natural Gas Company

Rocky Arroyo D Com. #2

660 FWL, 1980 FSL

Sec. 4, T-22-S, R-22-E

Eddy County, New Mexico

Suggested Mud Program:

0' - 200': Spud with AQUAGEL flocculated with lime. Treat with cottonseed hulls, FIBERTEX and HYSEAL. If severe loss occurs, blind drill ahead to casing point with water. Spot in hole prior to coming out to run casing, 200 barrels AQUAGEL viscous and treat with cotton-seed hulls, HY-SEAL and FIBERTEX. This usually helps when cementing casing.

Surface casing - 13 3/8" at 200'

200' - 2000': Drill out with water and use HY-SEAL for seepage loss of fluid. If severe loss of circulation occurs, drill ahead blind to casing point. If severe loss occurs, spot on bottom prior to coming out to run casing. 300 barrels AQUAGEL viscous mud treated with cottonseed hulls, HY-SEAL and FIBERTEX.

Intermediate casing -- 8 5/8" at 2,000'.

2,000' - 6,500': Drill out with fresh water. Treat with Ben-Ex to reduce solids buildup and treat with lime for a pH of 10.5 to help reduce corrosion. Use HY-SEAL for seepage loss of fluid. At 5,000' add 3% KCl and maintain in system. Possible mud up for DST at 5400'± depending on hole conditions.

6,500' - 8,800': Mud up at 6,500' or prior to drilling into the lower Wolfcamp porosity. Increase KCl content to 5%. Use soda ash to reduce the hardness below 200 ppm, DEXTRID/DRISPAC to reduce the filter loss at 25cc±, FLOSAL to increase the viscosity to 32-34 seconds and add 45 PPB of salt (NaCl) or brine water to help stabilize shale and increase the mud weight to 9.0-9.1 ppg. Maintain these properties to 8,800' unless hole conditions warrant a change. Use HY-SEAL for seepage loss of fluid.

8,800' - 9,600': To the existing mud, lower the fluid loss to below 10 cc with DEXTRID/DRISPAC and add 5% KCl to help prevent damage to the Morrow formation. Maintain viscosity 34-36 seconds and mud weight 9.1-9.2 ppg. Use TORQ-TRIM for defoamer and to reduce torque.

This program is designed for maximum hole stability, formation protection, geological data recovery, and penetration.