Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

30-045-24071

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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 [ ]

2. NAME OF OPERATOR: Hixon Development Company

3. ADDRESS OF OPERATOR: P.O. Box 2810, Farmington, New Mexico 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 790' FNL, 790' FEL, Section 19, T25N, R12W
At proposed prod. zone: A

5. LEASE DESIGNATION AND SERIAL NO.: NM 25447

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Hixon Federal 19

9. WELL NO.: 1

10. FIELD AND POOL, OR WILDCAT: Pictured Cliffs ext

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Section 19, T25N, R12W

12. COUNTY OR PARISH: San Juan

13. STATE: New Mexico

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 24 miles south of Farmington

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 790'

16. NO. OF ACRES IN LEASE: 319.15

17. NO. OF ACRES ASSIGNED TO THIS WELL: 160

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.:

19. PROPOSED DEPTH: 1460'

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 6438' GLE

22. APPROX. DATE WORK WILL START*: April 5, 1980

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
8-3/4"	7"	23#	90'	60 sacks CIRCULATE
5"	2-7/8"	6.5#	1460'	175 sacks CIRCULATE

It is planned to drill a slimhole shallow gas Pictured Cliffs test per the attached. Gas from this well has not been dedicated.

RECEIVED
MAR [illegible] '80
U. S. GEOLOGICAL SURVEY
FARMINGTON, N. M.

APR 9 1980
OIL CON. COM.
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. 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 [signature] TITLE Petroleum Engineer DATE 2-25-80

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

ok 3m2

APPROVED
AS AMENDED
APR 9 1980
JAMES F. SIMS
DISTRICT ENGINEER

NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PLAT

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

All distances must be from the outer boundaries of the Section.

Operator	Lease	Well No.
Hixon Development Company	Hixon Federal 19	1

Unit Letter	Section	Township	Range	County
A	19	25 North	12 West	San Juan

Actual Footage Location of Well: 790 feet from the North line and 790 feet from the East line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
6438	Pictured Cliffs	WAW-Fruitland-PC ex 1	160 Acres

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

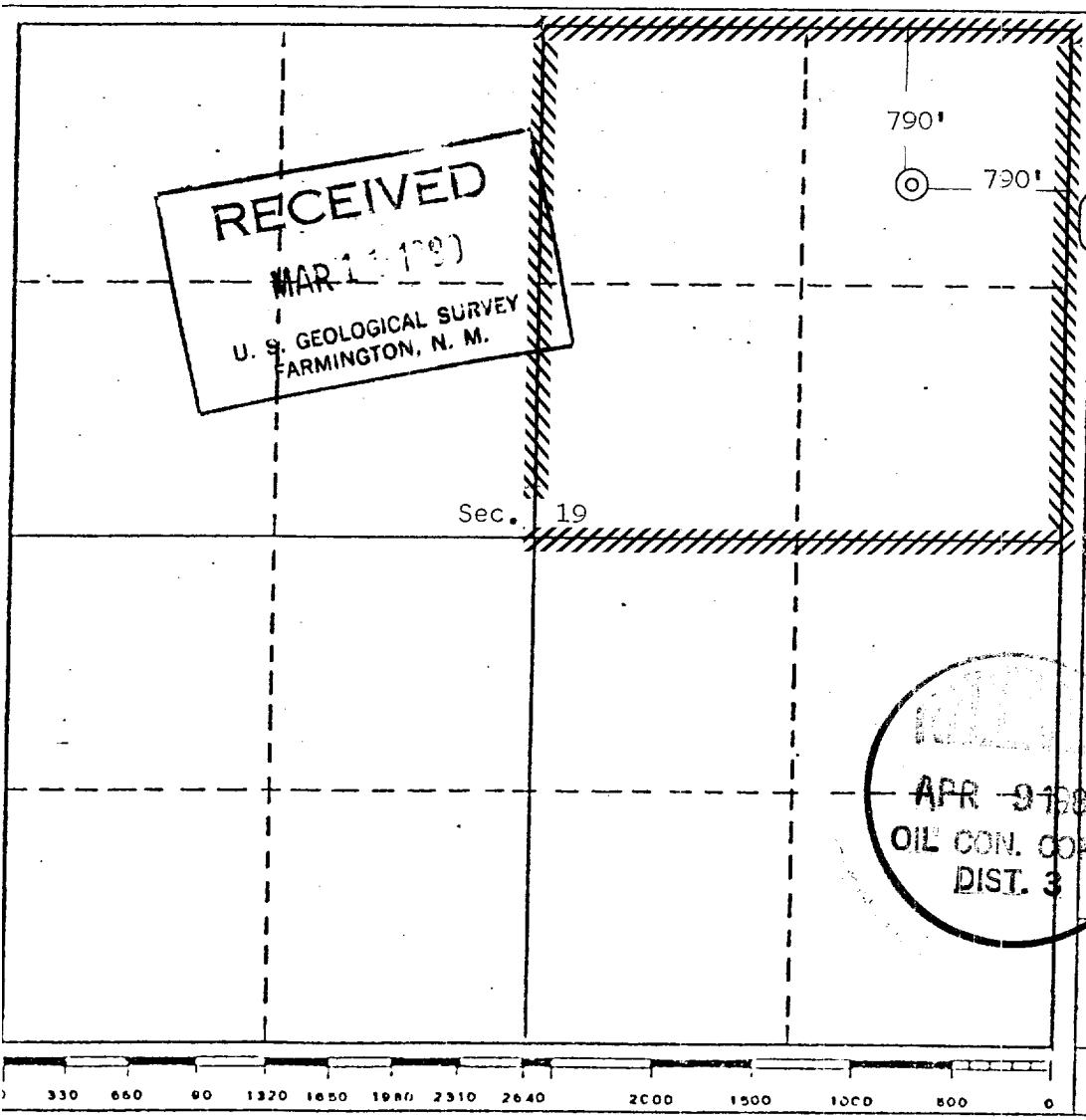
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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 ☐ No If answer is "yes," type of consolidation one ownership lease

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.

Name: Aldrich L. Kuchera
Position: Petroleum Engineer
Company: Hixon Development Company
Date: March 4, 1980

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: March 4, 1980
Registered Professional Engineer and/or Land Surveyor
Certificate No. 5979
Edgar L. Risenhoover, L.S.

APPLICATION FOR PERMIT TO DRILL
Hixon Development Company
Hixon Federal 19 Well No. 1
790' FNL, 790' FEL, Section 19, T25N, R12W
San Juan County, New Mexico

NTL-6 13 Point Requirement Outline is as follows:

1. Existing Roads - Refer to the attached topographic map. The location is adjacent to the Hixon Development Company operated Central Bisti Unit oil field. Existing well location roads in the vicinity of the Hixon Federal 19 No. 1 location are maintained by company construction vehicles.

2. Planned Access Roads - Refer to the attached maps.

3. Location of Existing Wells - A 1-mile radius map showing offset wells is attached.

4. Location of Existing and/or Proposed Facilities - The proposed well location is situated inside a developed oil and gas field containing an extensive system of oil and gas gathering lines, water injection lines, disposal lines, powerlines, fuel gas lines, etc.

   Proposed facilities for the Hixon Federal 19 No. 1 well will consist of a well head assembly, meter house and an EPNG pipeline riser, i.e. a standard shallow gas well hookup. All lines will be buried 4' deep. The pipeline riser, well head, meter run and meter building will all be located on the proposed well pad schematic. The facility will not pose any problems for any livestock.

   Restoration of any disturbed areas no longer needed for operations after drilling will be graded, contoured and raked.

5. Location and Type of Water Supply - Water fro drilling will be obtained from the NIIP.

6. Source of Construction Materials - Materials for the drilling pad will be obtained from the proposed well location, i.e. none will be hauled in.

7. Methods for Handling Waste Disposal - Any waste material incurred while drilling will be buried in the mud pits, i.e. 4' deep. Cuttings, drilling fluid, well circulation and stimulation fluids (if any) will be contained in the mud pits. The mud pits will be allowed to dehydrate and will be filled and contoured per regulations. Well site will be properly cleaned up after rigging down rotary tools.

8. Ancillary Facilities - Central Bisti Lower Gallup Unit existing facilities will be used.

9. Well Site Layout - Refer to attached plat.

10. Plans for Restoration of Surface - The mud pits will be back filled,

area leveled and contoured, raked and waste materials disposed of by burying 4' deep. Revegetation will not be carried out because seeding efforts in the area have been unsuccessful and a waste of money due to lack of moisture and blow sand conditions.

11. Other Information - Refer to Archeological Report to be submitted.

12. Operator's Representative -

Aldrich L. Kuchera
Hixon Development Company
Petroleum Center Building
Suite 101
501 Airport Drive
Farmington, New Mexico 87401

Office (505) 325 - 6984
Home (505) 325 - 3448

13. Certification - See Attached.

APPLICATION FOR PERMIT TO DRILL
Hixon Development Company
Hixon Federal 19 Well No. 1
790' FNL, 790' FEL, Section 19, T25N, R12W
San Juan County, New Mexico

Other NTL-6 Pertinent Data is as follows:

1. Estimated Log Tops -

Ojo Alamo	Surface
Farmington	328'
Fruitland	1262'
Pictured Cliffs	1285'

2. Estimated Depths of Water, Oil and Gas -

Fresh Water - Water well drilling in this area show the Ojo Alamo to be dry.

Gas Sands - 328' - TD. Gas sands and 16,800 ppm NaCl water are dispersed from about 328' to TD.

3. Weight and Type of Mud to be Used -

Surface - 0-90'; drill with air. Should water be encountered an Aquagel/lime slurry will be mixed to a 40-50 sec/qt viscosity.

Production Hole - A Dextrid/Cellex low solids mud or equivalent will be used. Any hardness will be treated with soda ash. Mud weight and drilled solids will be controlled. Mud properties will be as follows:

Mud Weight - 8.4 - 8.8 #/gallon
Viscosity - 34 - 45 sec/quart
Plastic Viscosity - 4 - 8 cps
Yield Value - 3 - 6 #/100 sq. ft.
Fluid Loss - 8 - 12 cc's/API
pH - 8.3 - 8.5
Solids Content - 5 - 1/2% maximum
Annular Velocity - 120 FPM

Note: Bottom hole pressure gradient is 3.40#/gallon. Fracture Gradient is 19.2#/gallon. We do not anticipate any drilling problems.

4. Open Hole Logs - Induction Electric Survey and Caliper Gamma Ray Compensated Neutron-Density.

5. Cased Hole Logs - Gamma Ray - CCL and Cement Bond Log.

6. Casing Program - Surface casing will be 90' 7" 23# J-55, 8rd, ST&C Range 3, ST&C, Smls, New casing.

Production casing will be 1460' 2-7/8" 6.5# J-55, 8rd, EUE, Range 1, Smls, New casing.

7. Cementing Program - Surface Casing will be cemented to surface as follows: (1) break circulation with water (2) pump 60 sacks (500% excess Class B cement slurry with 2% CaCl) (3) Drop wooden cement wiper plug and displace to casing shoe (4) WOC 12 hours.

   Production casing will be cemented to surface as follows: (1) Break circulation with mud (2) pump 20 bbl C-100 chemical wash (3) Mix and pump 175 sacks Class B cement slurry with 2% CaCl (4) flush lines, drop Omega plug and displace plug with acetic acid and 2% KCl water (5) latch in plug with 2000 psi and WOC 48 hours or to a compressive strength of 1000 psi.

8. Drilling Hazards - are minimal in this area. High pressure zones, high temperatures, sour gas or other abnormal deviations are not expected.

9. Duration of Drilling Activity - will be about 15 days from spud date to completion.

10. Pressure Control Equipment - Will be either of the two attached BOP schematics.

11. Casing Pressure Testing - Surface casing will be tested for 30 minutes to 500 psi before drilling out shoe. Production casing will be tested to 2000 psi after Omega plug latches in both surface and production casing will be factory tested to API specifications and will be new.

12. In the event the well is a dryhole, it will be plugged with prior USGS approval and the drill site restored in accordance with pertinent regulations.

HIXON DEVELOPMENT COMPANY
P. O. BOX 2810
FARMINGTON, NEW MEXICO 87401

CERTIFICATION

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

Aldrich L. Kuchera 2-25-80

Aldrich L. Kuchera
Vice President

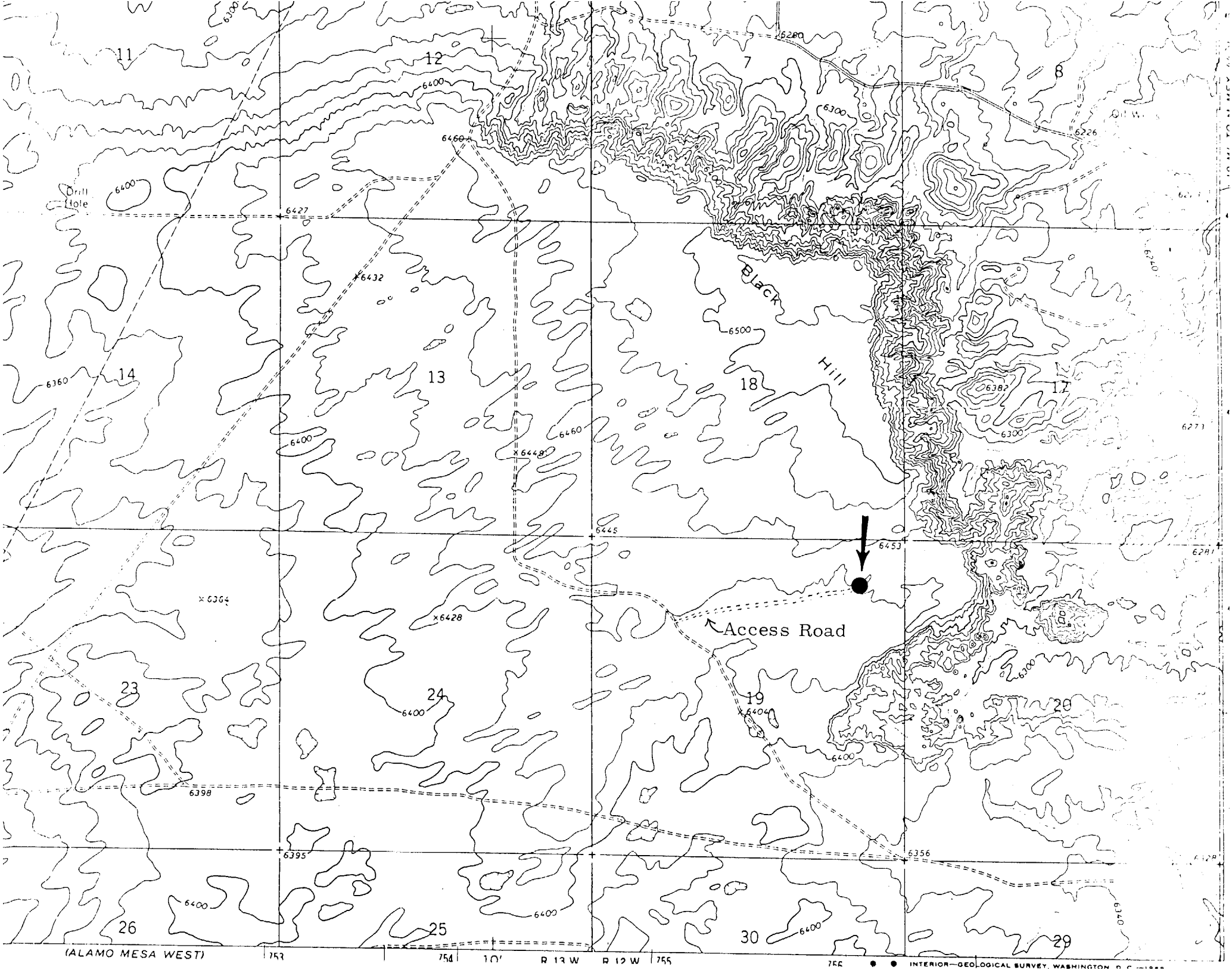
Date

Subscribed, Sworn to and Acknowledged before me this 25th day of February, 1980.

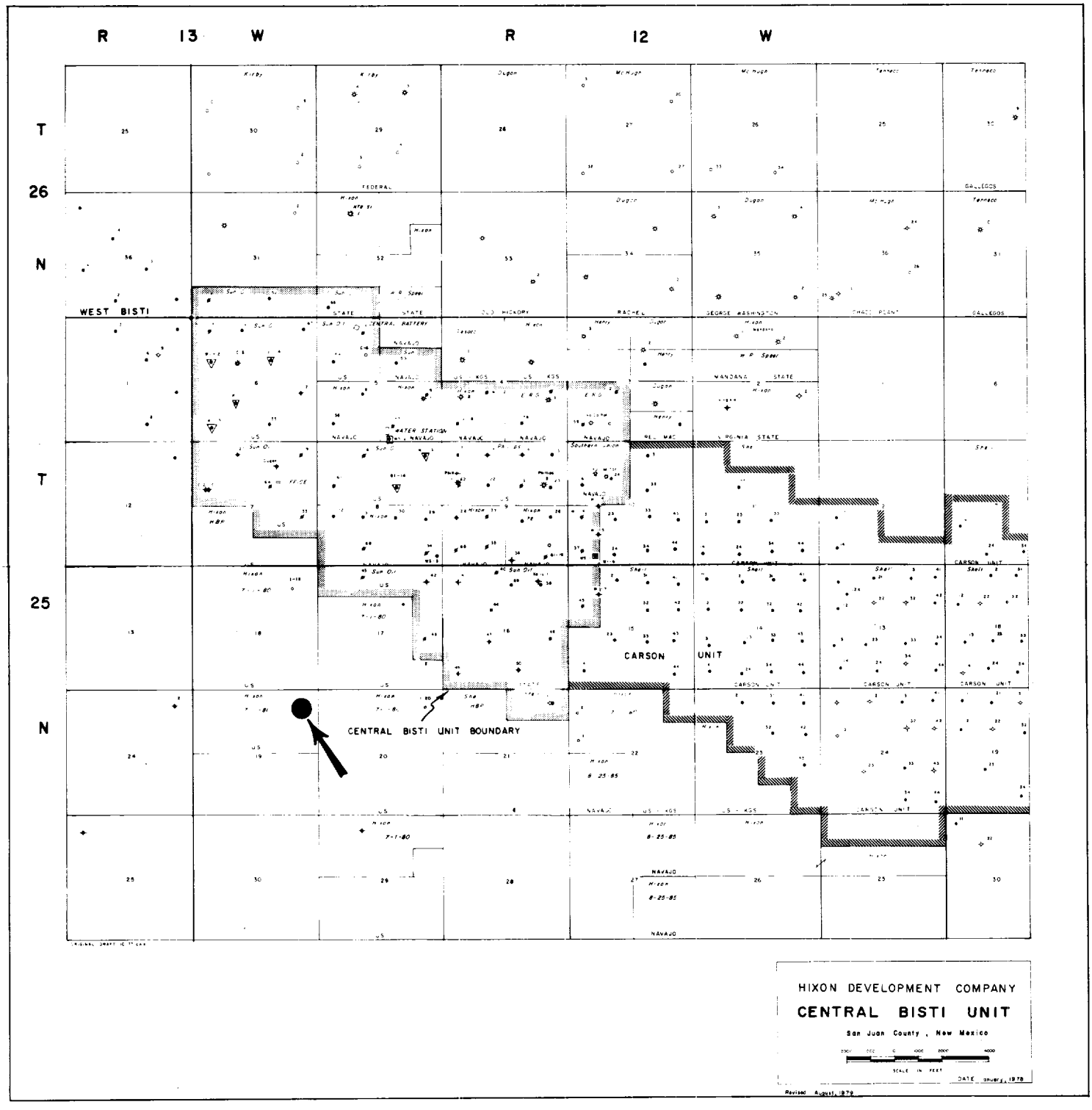
My Commission Expires: 7-25-83

Notary Public - Cindy Duncan

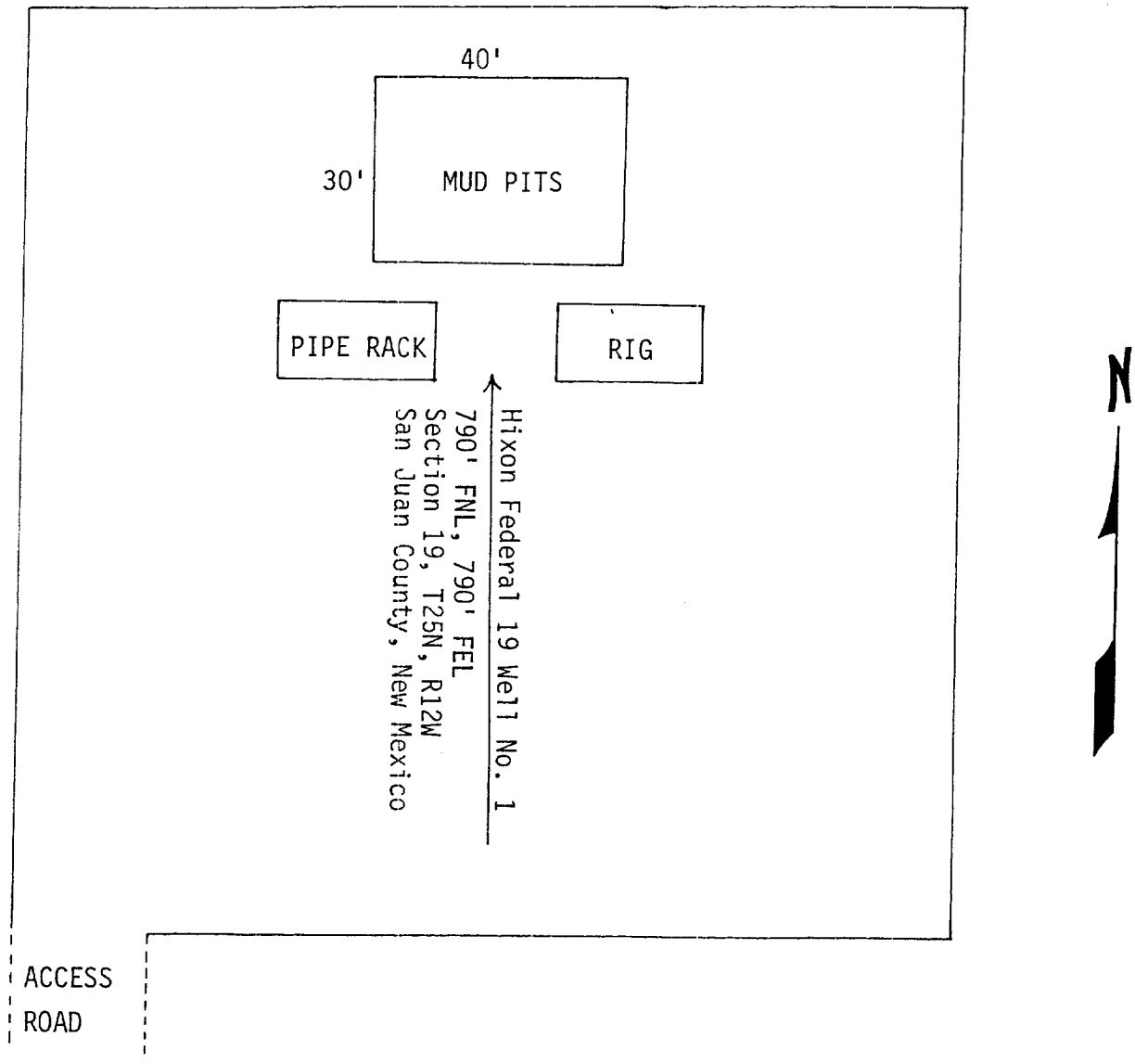
OFFICIAL SEAL
CINDY DUNCAN
NOTARY PUBLIC - NEW MEXICO
Notary Bond Filed with Secretary of State
My Commission Expires: 7-25-83


Drill Hole
Black Hill
Access Road
(ALAMO MESA WEST)
10'
INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C.

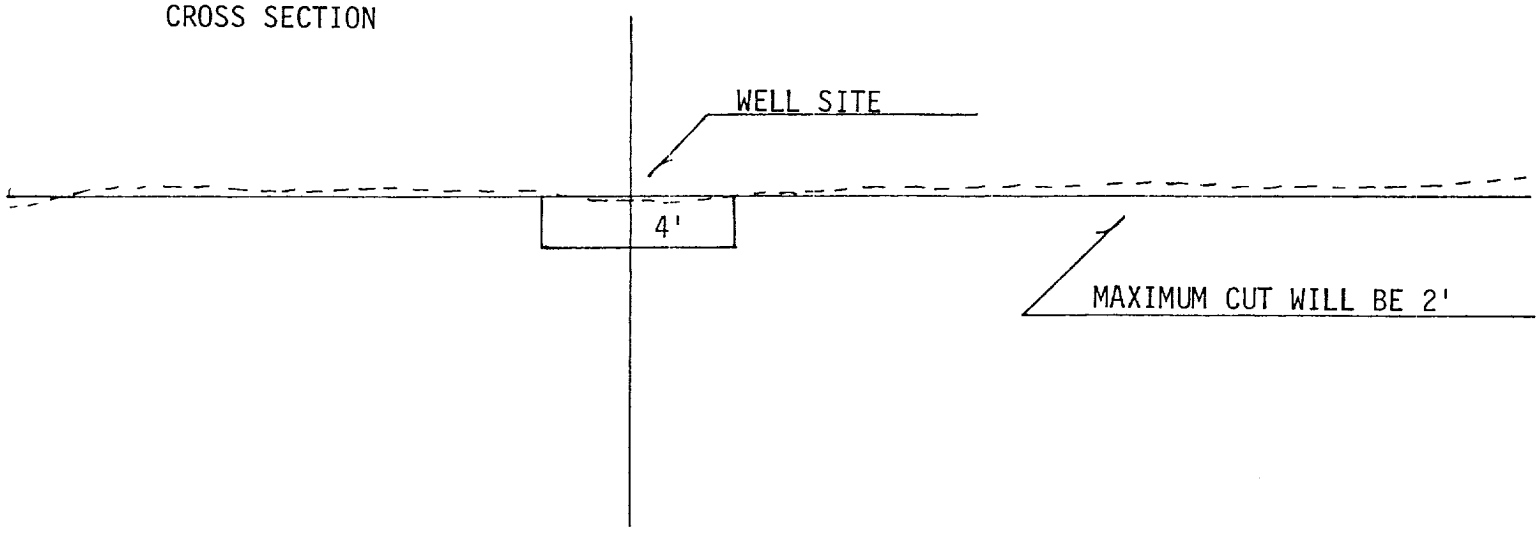
Hixon Federal 19 Well No. 1



HIXON DEVELOPMENT COMPANY
DRILLING LOCATION PLAT
HIXON FEDERAL 19 WELL NO. 1



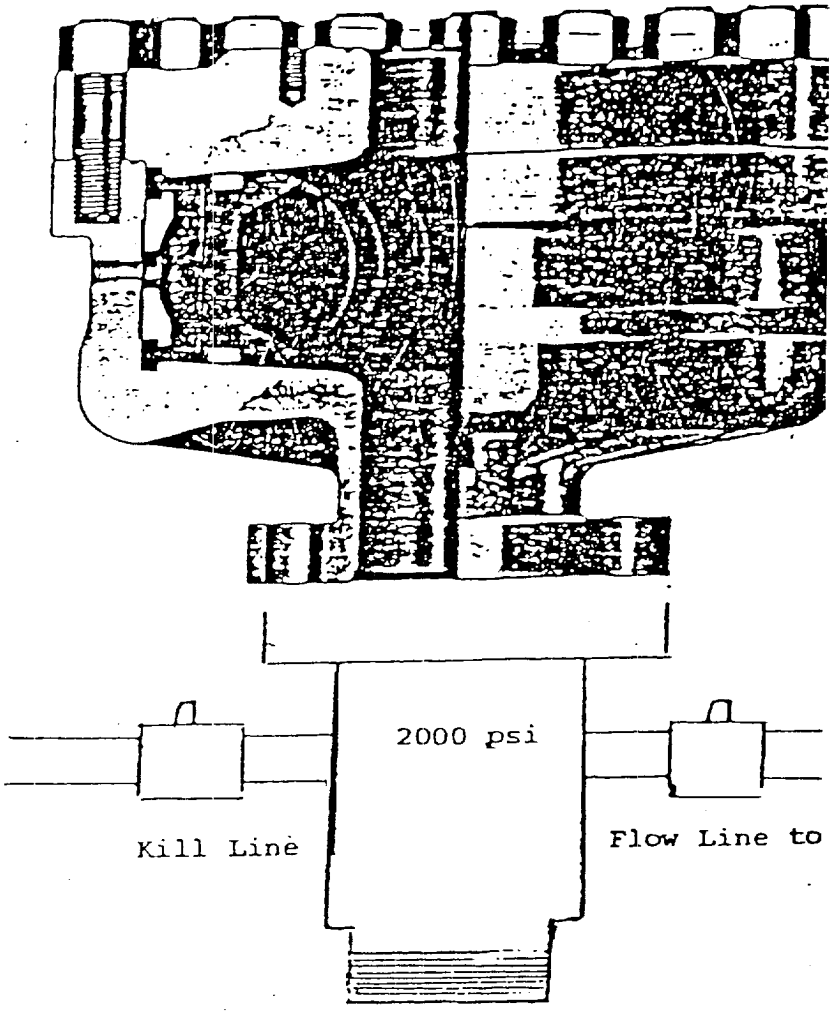
CROSS SECTION



TESTING PROCEDURES

Install BOP after setting surface pipe and pressure test to 1000 psi after drilling out from under surface pipe.

REGAN BLOWOUT PREVENTERS



TORUS BLOWOUT PREVENTER
PATENTED

The Regan Torus Blowout Preventer is used primarily on production and workover rigs for well control up to 3000 PSI working pressure

DESIGN FEATURES

a. The Torus Preventer is designed for minimum height to facilitate its use with production and workover rigs.

b. The rubber packer will conform to any object in the well bore. Sealing ability is not affected by minor damage to the inner bore.

c. The packer will seal on open hole at full working pressure.

d. The dual packer design increases the reliability of the preventer since the outer rubber is never exposed to the well bore. Under ordinary service, the outer packer is rarely replaced.

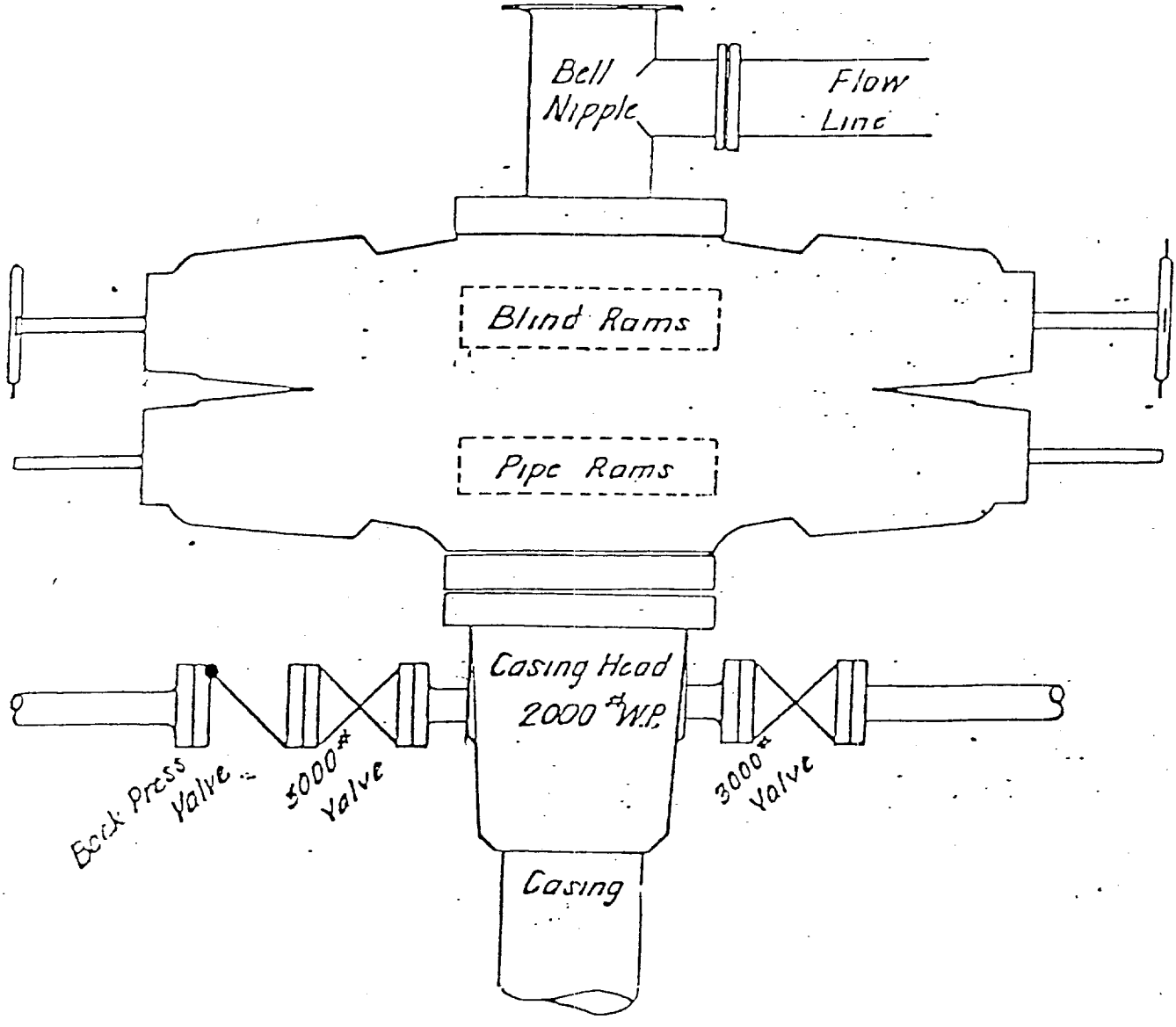
SPECIFICATIONS

Nominal Size	Test Pressure (psi)	DIMENSIONS (In.) Outside Diameter	Thru Bore	Overall Height	Weight (lb.)	End Flanges (1)	R/RX Ring Grooves	Side Outlet
6	3000 6000	27 28⅜	7⅛ 7⅛	19⅜ 21⅜	1360 1950	Nom. 6 Nom. 6	45 45	None 2" L.P.

SCHEMATIC DIAGRAM

TESTING PROCEDURES

Install BOP after setting surface pipe and pressure test to 1000 psi after drilling out from under surface pipe.



Shaffer Double Gate Blow Out Preventer
3000 #W.P., 6000 #Test, Type E