

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

## 1a. TYPE OF WORK

DRILL ☒DEEPEN ☐PLUG BACK ☐

## b. TYPE OF WELL

OIL  
WELL ☒GAS  
WELL ☐

OTHER

SINGLE  
ZONE ☐MULTIPLE  
ZONE ☐

## 2. NAME OF OPERATOR

BRUNSON &amp; McKNIGHT, INC.

## 3. ADDRESS OF OPERATOR

Box 297, Hobbs, NM 88240

## 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*

At surface

1980' FNL & 660' FWL Sec. 34, T-21-S, R-33-E  
At proposed prod. zone

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

35 mi SW Hobbs

## 15. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.  
(Also to nearest drlg. unit line, if any)

660'

## 16. NO. OF ACRES IN LEASE

400

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

40

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

none

## 19. PROPOSED DEPTH

4000'

## 20. ROTARY OR CABLE TOOLS

cable &amp; rotary

## 21. ELEVATIONS (Show whether DF, RT, GR, etc.)

SURFACE

## 22. APPROX. DATE WORK WILL START\*

5/31/73

## 23.

## PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	8 5/8"	32#	300 ft.	200 sx, circulate to surface
7 7/8"	4 1/2"	9.6#	4000 ft.	750 sx**

\*\* The quantity of cement used to cement the 4 1/2" production casing will be adequate to circulate cement. The quantity of cement used has been calculated using an excess factor of 50%.

The attached drawing depicts the type of 900 series blowout preventer that will be used.

Mud program 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

TITLE Agent

DATE 5/25/73

(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


**SHAFER HYDRAULIC BLOWOUT PREVENTERS**

(Patented)

**TYPE B and TYPE E PREVENTERS**

Shaffer Type B and Type E Blowout Preventers are similar in basic design and construction, except that the Type B has a *non-rising* locking shaft (for applications where end dimensions must be kept to a minimum)—and the Type E has a *rising* locking shaft (to provide quick indication of ram position where end dimensions

are not critical). Externally, the only visual difference between the two designs is in the end caps, as shown in Fig. 52 and 53. Internally, there are differences in the locking shaft parts, as shown in the exploded views, Figs. 58 and 61.

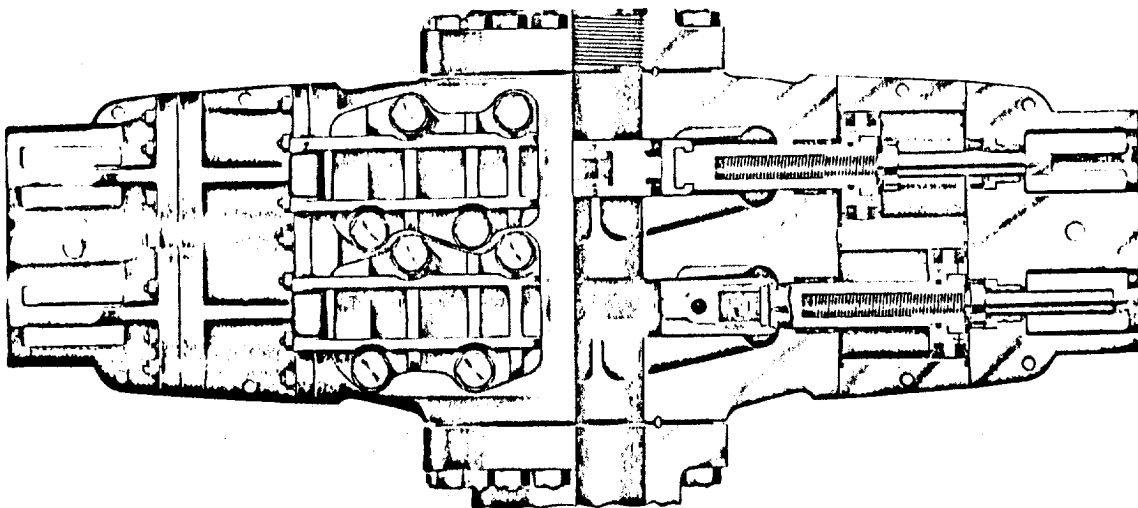


Fig. 52

Shaffer Type E Hydraulic Double Blowout Preventer—Front View

**10" Shaffer Type B Series 900, Double Hydraulic w/Payne Closing Unit.  
SIDE DOOR RAM CHANGES**

In Type B and Type E Preventers, access to the ram compartments is through heavily-ribbed side doors, which are hinged and bolted to the body. The doors are fitted with adequate packing to amply withstand the pressure rating of the Preventer, and are opened by simply loosening four cap screws in each door, whereupon they can be readily swung open. The cap screws remain in the door when opened, eliminating risk of losing or misplacing them.

Each side door incorporates a horizontal guide which, in conjunction with integral guides in the opposite side of the body, holds the ram assemblies in accurate horizontal alignment when the doors are closed. Therefore, the ram assemblies are automatically centered in the Preventer body by simply closing and

bolting the doors. Note in Figs. 15 through 18, Page 4347, the ease with which rams are changed through the side-opening doors.

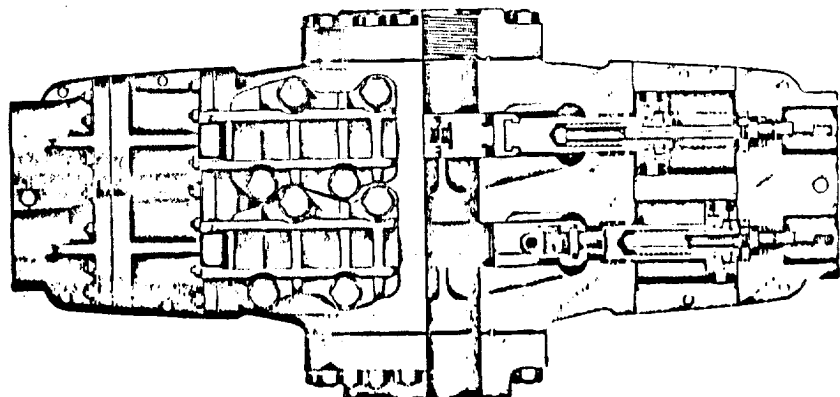


Fig. 53

Shaffer Type B Hydraulic Double Blowout Preventer—Front View

## PROPOSED MUD PROGRAM

### LEGGETT #1

0' - 350': Spud mud consisting of AQUAGEL flocculated with Lime. HYSEAL if needed for seepage loss of fluid.

350' - 1600': Drill out with existing mud and control the native viscosity 31-32 Sec/1000 cc with water additions at the flowline. Use HYSEAL for seepage loss of fluid.

1600' - 3500': Top of the Rustler Anhydrite, start additions of brine water to build and maintain volume. This should help reduce the hole enlargement in the salt section. The mud weight will increase to 10#/gallon plus from system being salt saturated from drilling of the salt section this interval. If native solids are insufficient to maintain the viscosity 31-32 Sec/1000 cc, use ZEOGEL to control the viscosity. Use HYSEAL for seepage loss of fluid. Fluid loss control is not necessary through this section.

3500' - TD: To the existing fluid, lower the fluid loss to 10-15 cc with IMPERMEX and increase the viscosity to 34-36 Sec/1000 cc with ZEOGEL. If severe seepage occurs, treat with HYSEAL and MICATEX. Maintain these properties to total depth unless hole conditions warrant a change.

**NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form O-128  
Supersedes O-128  
Effective 1-1-68

All distances must be from the outer boundaries of the Section

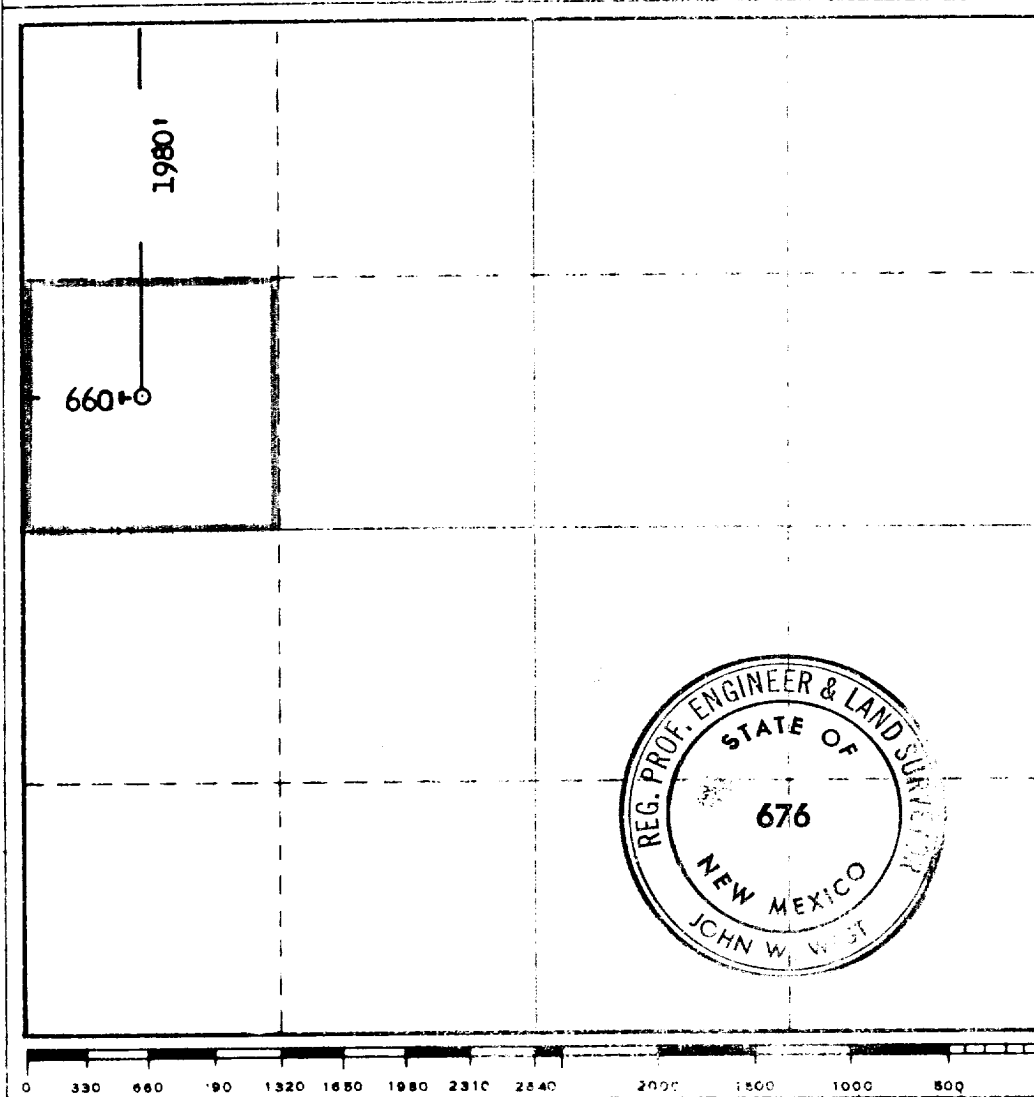
Operator <b>Brunson &amp; McKnight, Inc.</b>			Lease <b>R. F. Leggett "A"</b>		Well No. <b>1</b>
Unit Letter <b>E</b>	Section <b>34</b>	Township <b>21 South</b>	Range <b>33 East</b>	County <b>Lea</b>	
Actual Footage Location of Well: <div style="display: flex; justify-content: space-between;"> <span>1980 feet from the</span> <span><b>North</b></span> <span>line and</span> <span>660</span> <span>feet from the</span> <span><b>West</b></span> </div>					
Ground Level Elev.	Producing Formation <b>Y-7R</b>		Pool <b>WC</b>	Dedicated Acreage	

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 interests 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 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.

*[Signature]*

\_\_\_\_\_  
F. S. T. R.

\_\_\_\_\_  
Company

\_\_\_\_\_  
Date

I hereby certify that the well location shown on this plat was plotted from the 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

**5-26-1973**

Registered Professional Engineer  
and/or Land Surveyor

*[Signature]*

Certificate No.

**676**

**BYRON M. McKNIGHT**

PETROLEUM GEOLOGIST

TELEPHONE 505 393-7411

POST OFFICE BOX 297

HOBBS, NEW MEXICO 88240

May 29, 1973

U. S. Department of the Interior  
Geological Survey  
205 North Linam  
Hobbs, New Mexico 88240

Attention: Mr. Arthur R. Brown

Re: Brunson & McKnight, Inc.  
R. F. Leggett "A" #1  
1980' FNL & 660' FWL  
Sec. 34, T-21-S, R-33-E  
Lea County, New Mexico

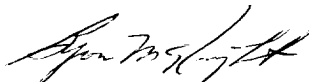
Gentlemen:

The following is a developmental plan for usage of the surface land and the drilling and completion of the captioned well.

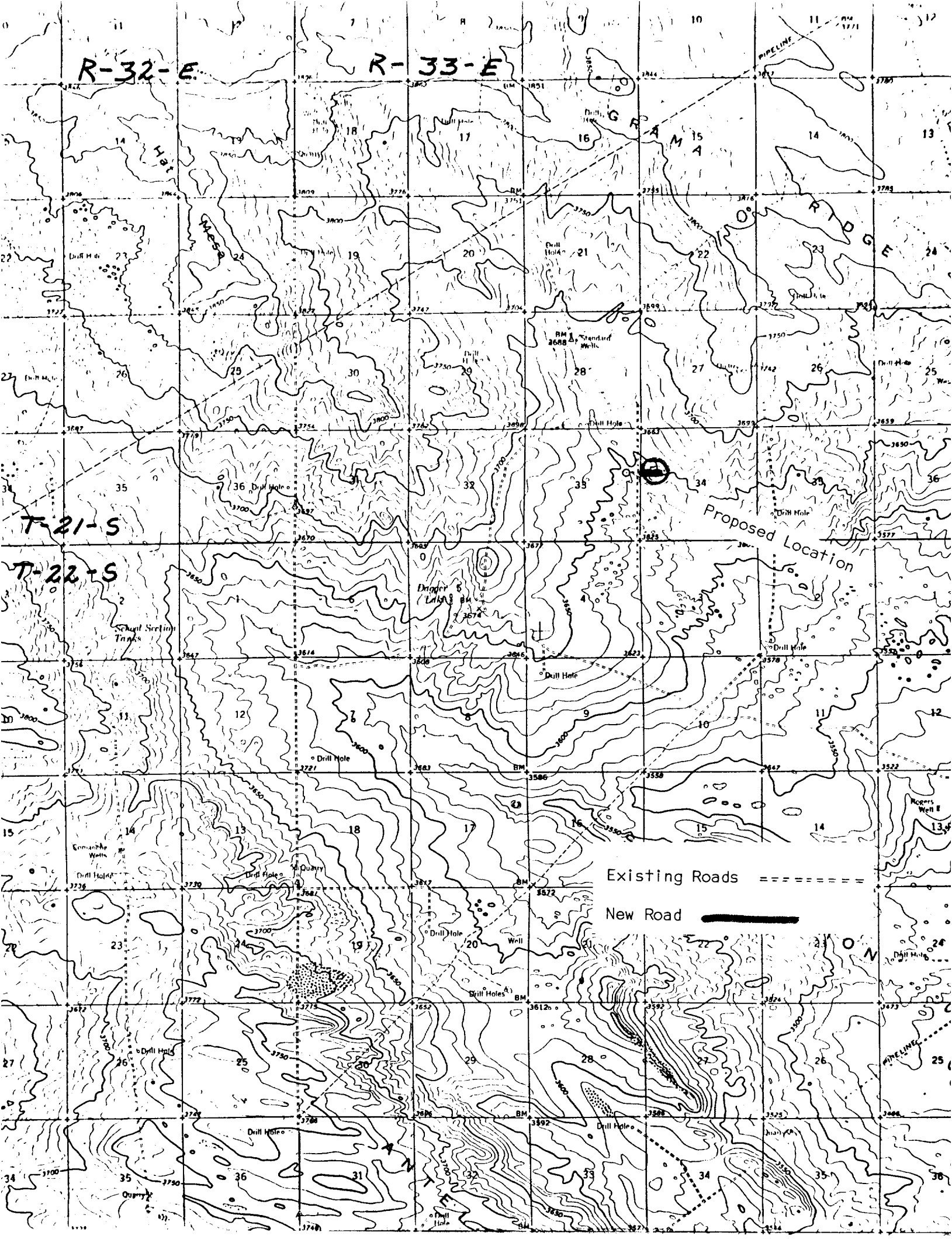
1. The attached plat shows the existing roads and the proposed new road into the location.
2. There are currently no existing wells in the section where the proposed well is to be located.
3. The attached plat shows the layout and dimensions for the rig, pits and access road.
4. There are no existing tank batteries. If commercial production is found, a tank battery will be constructed on the location of the proposed well and no additional land will be used. All flow lines will be on this location also.
5. All water required for drilling will be hauled to the location by truck.
6. All waste materials will be disposed of in a proper manner. All trash, including lunch sacks, cans, etc., will be collected and buried. All scrap metal and wood will be collected and buried or hauled away. Any waste oil or brine will be hauled away or otherwise properly disposed of.
7. After drilling activities have ceased, the location will be cleared, the pits will be leveled, and the contours of the land restored as nearly as possible to their former condition.

Yours truly,

BRUNSON & McKNIGHT, INC.



Byron M. McKnight



PURINE  
&  
DIESEL  
TANKS  
5' X 27'

WATER  
TANK  
12' X 21'

MUD  
PUMP  
14' X 27'

LIGHT  
PLANT  
4' X 8'

