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SUBMIT IN TR VCATATE

Form approved.  
Budget Bureau No. 42-R1425.UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY(Other instruc  
reverse side, 3 on

30-015-22432

## 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 ☐ARTESIAN OFFICE  
ZONE ☐

## 2. NAME OF OPERATOR

Shenandoah Oil Corporation

## 3. ADDRESS OF OPERATOR

P.O. Box 1027 - Odessa, Texas 79760  
1500 Commerce Building - Fort Worth, Texas - 76102

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

At surface

Unit "F" - ~~2310' FNL~~ and 1650' FNL - Sec. 30-18S-31E

At proposed prod. zone

2310' FNL

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

14 mi. southeast of Loco Hills, New Mexico

## 15. DISTANCE FROM PROPOSED\*

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

1650

## 16. NO. OF ACRES IN LEASE

360

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.

660

## 19. PROPOSED DEPTH

3,850

## 20. ROTARY OR CABLE TOOLS

Rotary

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

3614 Gr

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

February 20, 1978

## 23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
11-1/4	8-5/8"	24#	750'	Circulate
7-7/8	5-1/2"	14#	3,850'	Circulate

It is planned to drill to TD at 3,850', run Sidewall Neutron and Caliper Logs; set pipe to TD; cement to surface if possible; perforate and complete in Penrose and Grayburg Formations

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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. W. Downey, Jr.TITLE Division Manager, WT-NMDATE February 2, 1978

Division

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

FEB 28 1978

APPROVED BY

Joe J. Lara

TITLE

ACTING DISTRICT ENGINEER

DATE

FEB 28 1978

CONDITIONS OF APPROVAL, IF ANY:

THIS APPROVAL IS RESCINDED IF OPERATIONS  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

EXPIRES MAY 28 1978

\*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

All distances must be from the outer boundaries of the Section

Owner <b>SHENANDOAH OIL CORPORATION</b>		Lease <b>Shugart "D"</b>		Well No. <b>12</b>
Section <b>"F"</b>	Section <b>30</b>	Range <b>18 South</b>	Range <b>31 East</b>	County <b>Eddy</b>
Location of Well: 1650 feet from the North line and 2310 feet from the West line. Well No. 3614 Producing Formation <i>Permian Ab.</i> Port <i>Shugart</i> Dedicated Acreage: <b>40</b> Acres				

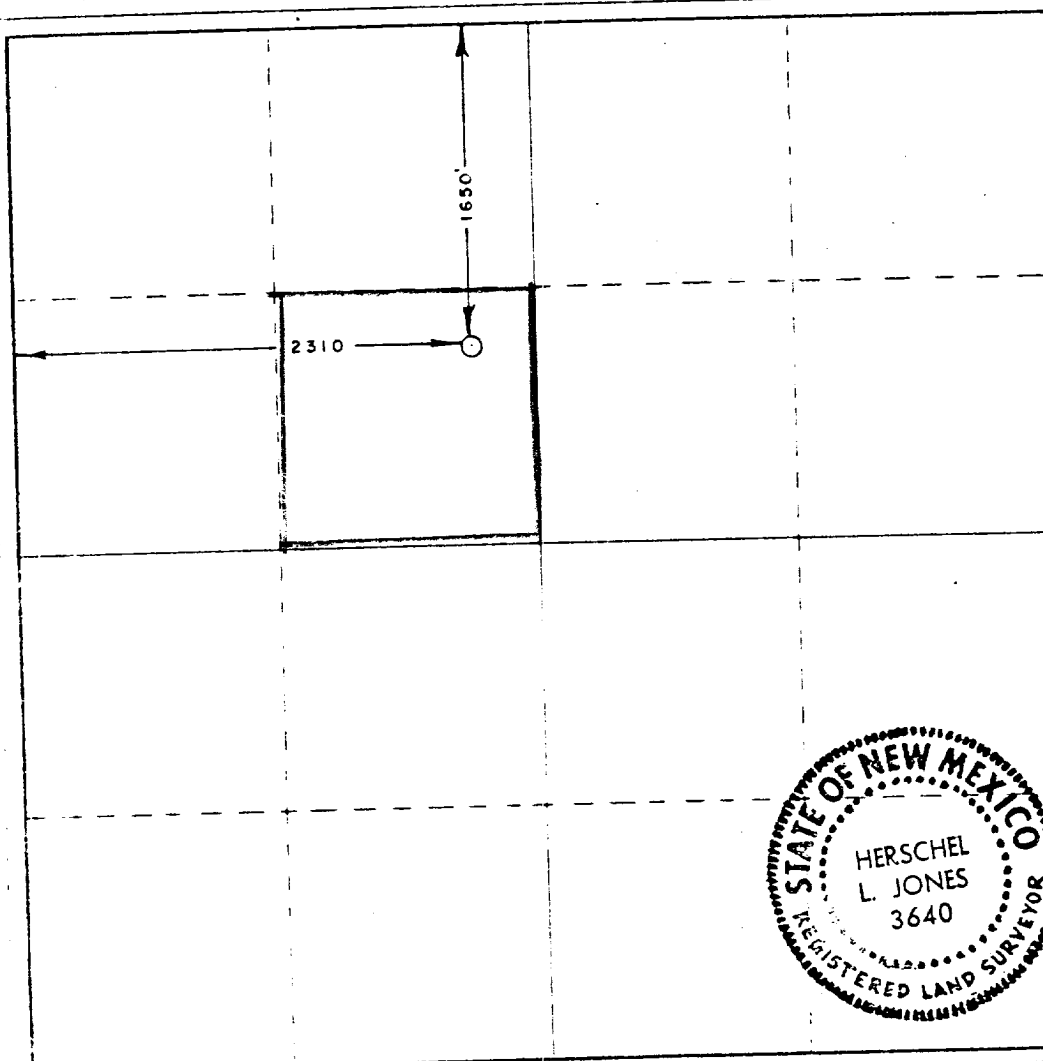
- Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- If more than one lease of different ownership is dedicated to the well, have the interests of all leases 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.

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**ARTESIA, NEW MEXICO**



CERTIFICATION

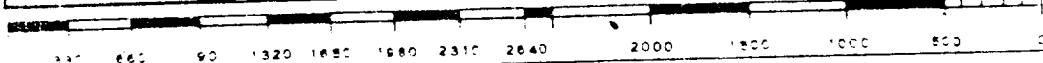
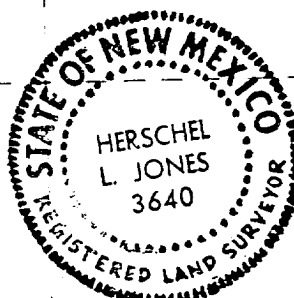
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name  
*H. Jones*  
Position  
*Surveyor*  
Company  
*Shugart*  
Date  
*2-9-78*

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  
**January 28, 1978**  
Registered Professional Engineer  
and Land Surveyor

*Herschel L. Jones*  
Certificate No. **3640**





## SHENANDOAH OIL CORPORATION

B. J. KELLENBERGER  
PRESIDENT

1500 COMMERCE BUILDING  
FORT WORTH, TEXAS 76102  
817/332-7381  
TWX: 910 890 5023

February 2, 1978

U. S. Department of the Interior  
Geological Survey - Conservation Division  
South Rocky Mountain Area  
c/o Geological Survey Office  
Post Office Drawer "U"  
Artesia, New Mexico 88210

Attention: Mr. Joe Lara

Re: Supplement to Shenandoah Oil Corporation's Application for Permit to Drill Well in Unit "E", Section 30-18S-31E, Eddy County, NM

Gentlemen:

This letter will attempt to provide all the information needed for your approval of the Application for Permit to Drill well in Unit Letter "E", Section 30-18S-31E, Eddy County, New Mexico. This information will be listed in the same order as shown in the NTL-6 Notice.

1. Location - shown on surveyor's plat
2. Elevation - shown on surveyor's plat
3. The geologic name of the surface formation is Quaternary Alluvium deposits
4. Type drilling tools used will be rotary
5. The proposed drilling depth is 3,850'
6. Estimated tops of geologic markers are:
  - (a) Upper Penrose - 3,388'
  - (b) Lower Penrose - 3,430'
  - (c) Upper Grayburg - 3,545'
  - (d) Lower Grayburg - 3,730'
7. Estimated depth for water, oil and gas-bearing formations is same as listed in No. 6 above
8. Casing program - we plan to run all new pipe as listed on Application to Drill

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9. The setting depth of all casing is shown on Application to Drill. It is planned to circulate cement on both strings. On surface string, probably Type "H" with some salt and CFR<sub>2</sub> will be used. On the production string, we will use several hundred sacks of lite cement followed by Type "H" cement with some salt, sand and CFR<sub>2</sub> as determined by the hole condition. "Mud Flush" will be used ahead of the cement on the production string. After running caliper log, it is possible that a "DV" tool may be run in 5-1/2" pipe in an attempt to circulate cement.
10. Pressure control equipment is listed as Exhibit No. 3. The BOP will be tested before drilling below surface pipe and before drilling anticipated oil and gas formations.
11. The mud program will be, as recommended, by a reliable mud engineer. We will start to mud up at approximately 3,700' with viscosity of 34-38 and 9.5# salt-gel mud.
12. Logging and testing is shown on Application to Drill.
13. No abnormal hazards are expected.
14. Anticipated starting date is February 20 - 28, 1978, or when rig is available. Duration of operations should be 8 days.

I hope that this information, along with already submitted information, will be sufficient for you to approve this Application to Drill.

Respectfully,

SHENANDOAH OIL CORPORATION



C. W. Downey, Jr., Division Manager  
West Texas-New Mexico Division

CWDJr:ah  
Enclosures

cc: D. Boland



## SHENANDOAH OIL CORPORATION

B. J. KELLENBERGER  
PRESIDENT

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FORT WORTH, TEXAS 76102  
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TWX: 910 890 5023

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U.S. GEOLOGICAL SURVEY  
ARTESIA, NEW MEXICO

United States Geological Survey  
Conservation Division  
South Rocky Mountain Area  
c/o Geological Survey Office  
Post Office Drawer "U"  
Artesia, New Mexico 88210

Re: Shenandoah Oil Corporation  
Application for Permit to  
Drill Well in Unit "E", Sec-  
tion 30-18S-31E, Eddy Coun-  
ty, New Mexico

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Gentlemen:

In regard to the "Multi-Point Surface Use and Operation Plan" to be attached to Application for Permit to Drill, the requirements to all lessees and operators of Federal Leases will be answered in this instrument in the order listed in your guidelines:

1. Existing roads and exits from main highways will be shown on Exhibit No. 1 (attached). One locatable reference point on Exhibit No. 1 is a pumping well on the east side of Highway No. 31 (6-1/4 miles south of State Highway No. 82) almost 1 mile east of proposed location. The number of this well is Shugart "A" (APCO) No. 1. The location of this well is Unit Letter "A", 660 feet FEL, Section 29-18S-31E.
2. Planned access road to proposed location is shown on Exhibit No. 1 and will be approximately 12 feet wide and 600-700 feet long. Road will be surfaced, watered and compacted and graded. No gates or fences will be needed.
3. Locations of existing producing and plugged wells are shown on Exhibit No. 1.
4. Locations of existing tank batteries, flow lines, buried injection lines are shown on Exhibit No. 2. The proposed flow line for the proposed well will be tied into an existing flow line and the oil will be produced into an existing tank battery. The proposed flow line will be approximately 400-500 feet long. Other than the flow line, no new production facilities will have to be constructed.

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5. For water supply for drilling and cementing, it is planned to purchase the water from one of the water companies in the area and truck it to the proposed location over existing road shown on Exhibit No. 1.

6. The material used to construct the proposed access road and rig location will be dug from one of several existing pits in the area. One existing pit is located between Shenandoah's Shugart "A" No. 9 Well and Federal Keohane et al "A" No. 2 Well. The materials will be hauled over existing roads.

7. For handling waste disposal, we will dig a separate pit while making location. This pit will be large enough and deep enough to cover all waste material with a two-foot cover. The drilling fluid will be allowed to evaporate and dry up and will be covered up in the pit when location is cleaned up.

8. No air strip will be constructed. All permanent type structures in the area are shown on Exhibit No. 1.

9. Layout of rig, etc. will be shown on Exhibit No. 3. The location will be kept as small as possible to accomodate rig.

10. As soon as practical after the drilling and completion of the proposed well, all the pits and all areas other than the proposed access road and the compacted location will be cleaned and pits covered. This will be a very small amount of land and should create very little impact on the environment as the topography is mostly sand with very little vegetation and no large hillsides or gullies.

11. See No. 10 above for description of topography. The surface ownership of the land for the proposed location and proposed access road are all Federal. All occupied dwelling houses and other facilities are shown on Exhibit No. 1.

12. If approved, this total operation will be overseen by our District Superintendent, Mr. Dale Boland, Post Office Box 65, Loco Hills, New Mexico, 88255; office phone (505) 677-2233; home phone (505) 396-5593; mobile phone (505) 676-3380.

If he cannot be reached, please contact C. W. Downey, Jr., Division Manager, Post Office Box 1027, Odessa, Texas, 79760; office phone (915) 381-2794.

13. Certification:


I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the state-

February 2, 1978

ments 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 Shenandoah Oil Corporation and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

February 2, 1978


Date

  
C. W. Downey, Jr.  
Division Manager

I hope that the plats and this letter will give you sufficient information to approve this Application to Drill. If you do need additional information, please call either Mr. Boland or myself at any of the phone numbers listed in the No. 12 part of this letter.

Respectfully yours,

SHENANDOAH OIL CORPORATION

  
C. W. Downey, Jr., Manager  
West Texas-New Mexico Division

CWDJr:ah  
Enclosures

cc: Mr. Dale Boland

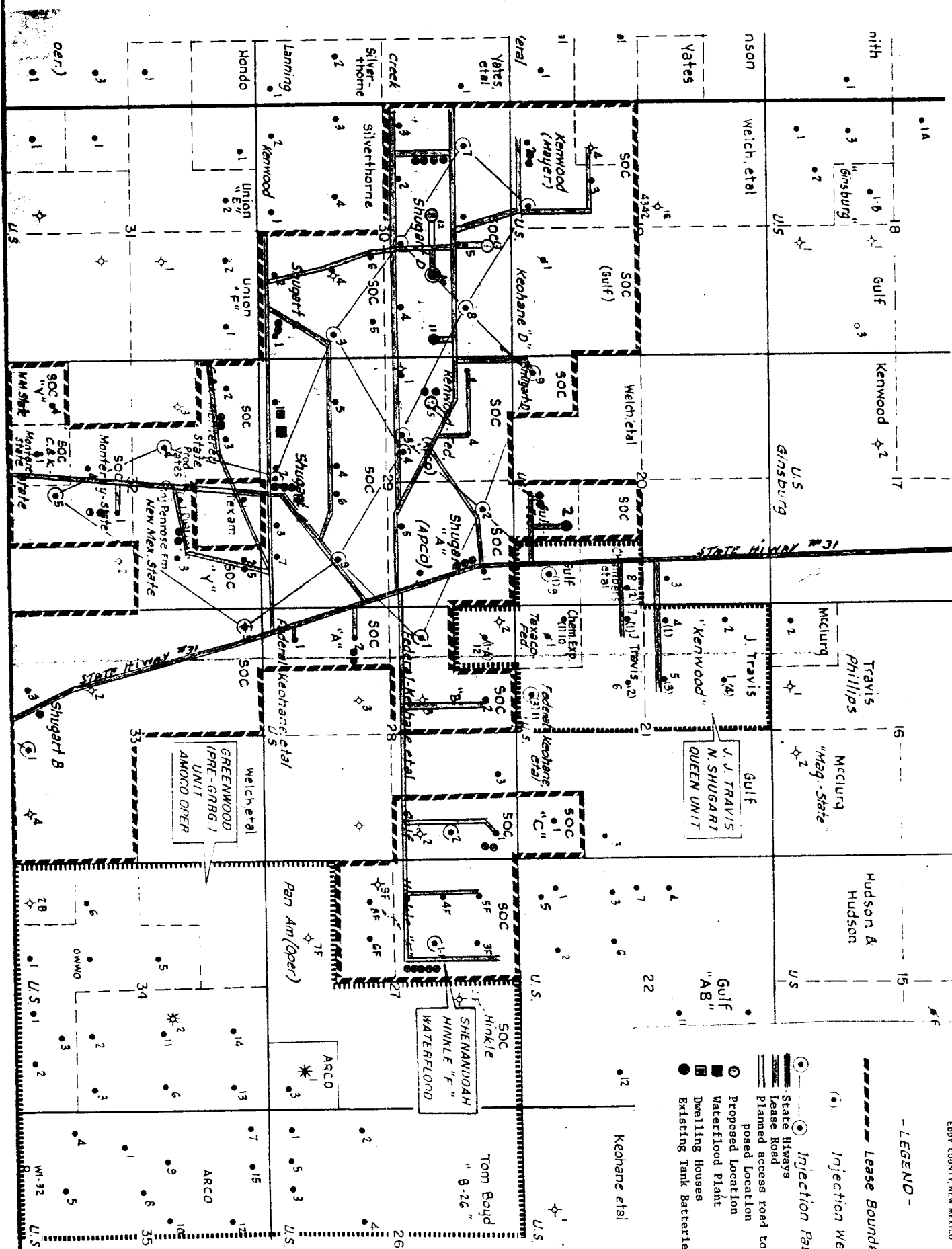
# EXHIBIT 1

SHENANDOAH OIL CORPORATION

FLOOD NO. 4  
SHUGART  
EDDY COUNTY, NEW MEXICO

## LEGEND -

- Lease Boundaries
- Injection Well
- Injection Pattern
- State Highways
- Lease Road
- Planned access road to Pro-1
- Proposed Location
- Waterflood Plant
- Dwelling Houses
- Existing Tank Batteries



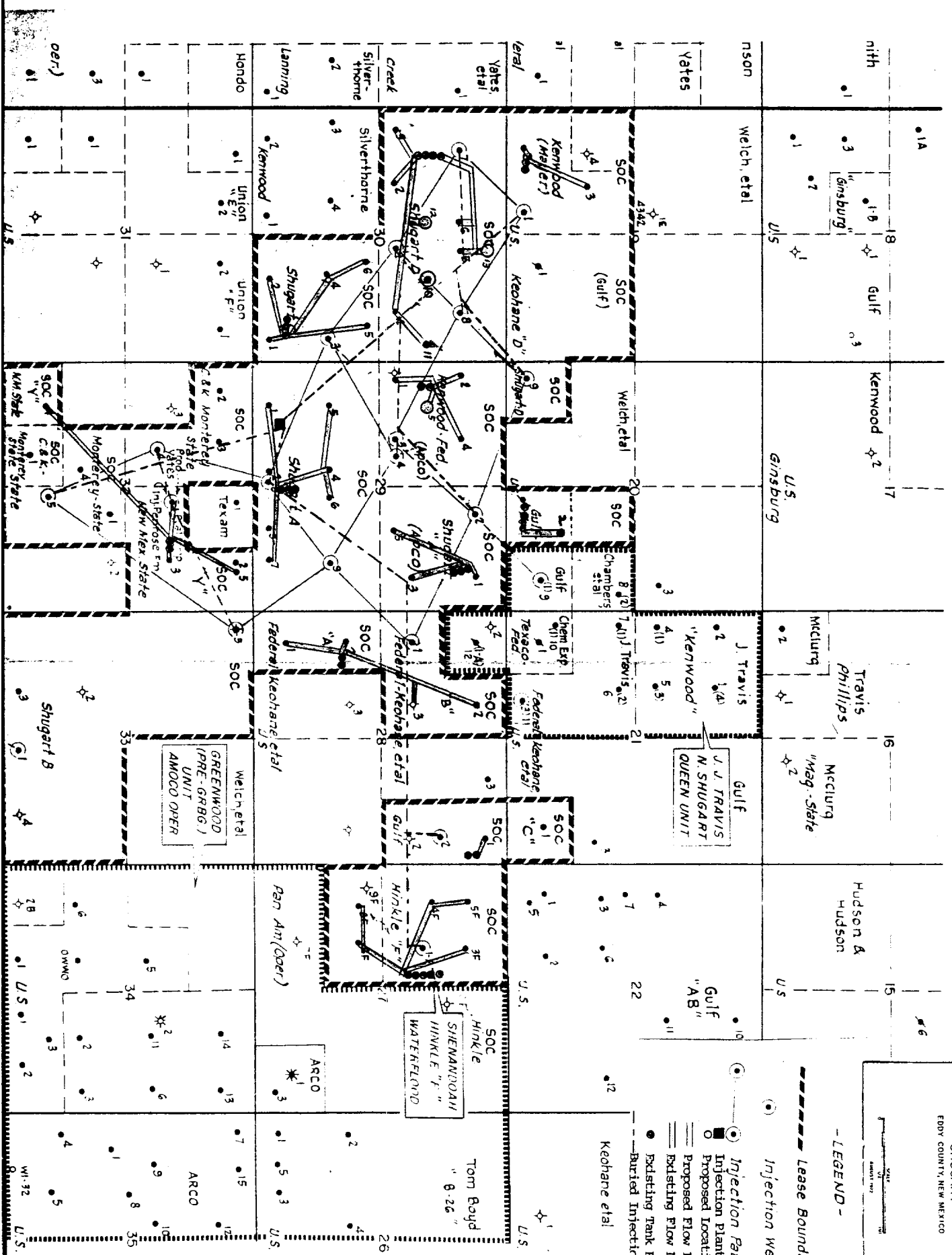


# EXHIBIT 2 R 31 E

SHENANDOAH OIL CORPORATION  
FLOOD NO. 4  
SHUGART  
EDDY COUNTY, NEW MEXICO

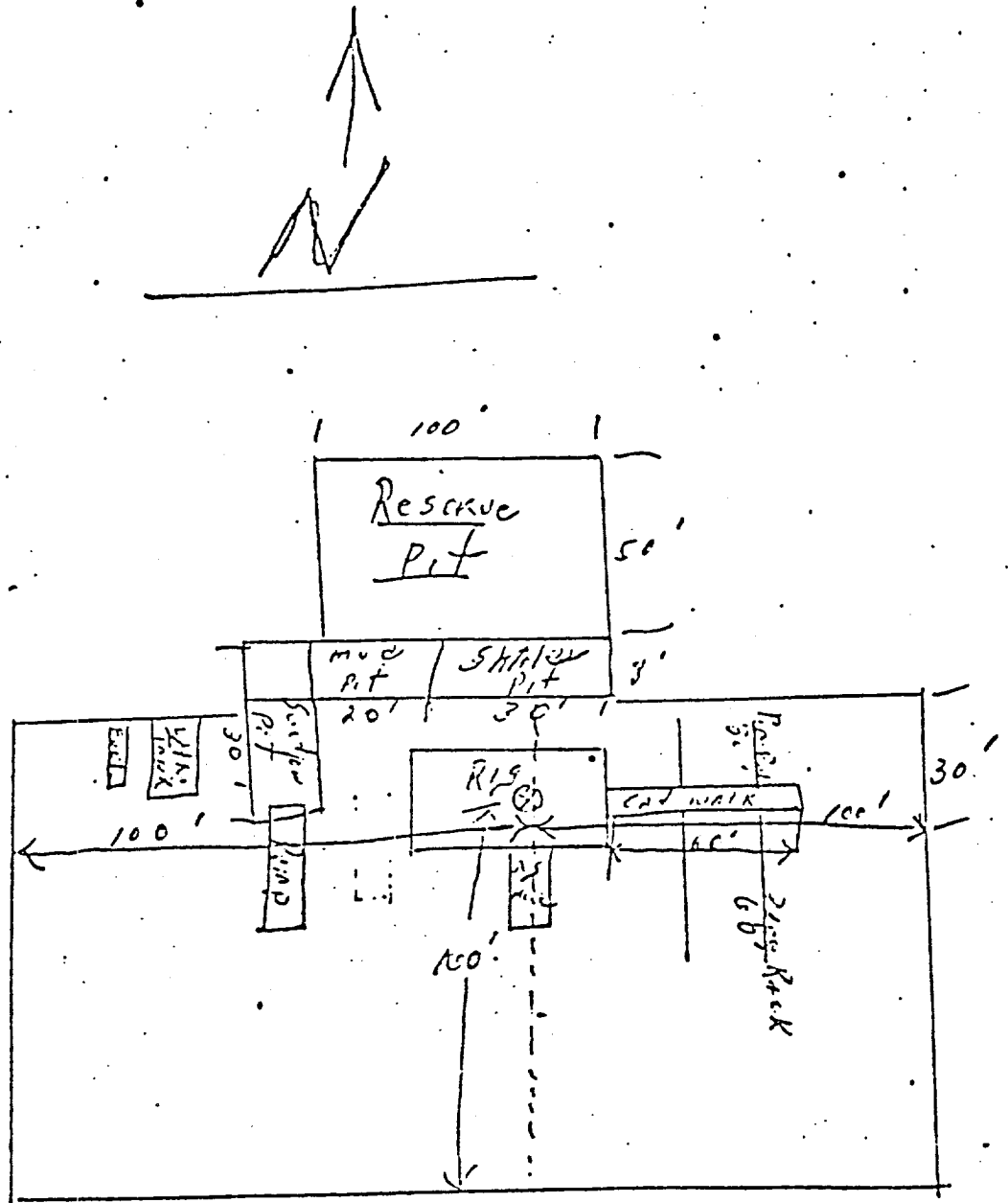
## LEGEND -

- Lease Boundaries
- Injection well
- Injection Pattern
- Injection Plant
- Proposed Location
- Proposed Flow line
- Existing Flow lines
- Existing Tank Batteries
- Buried Injection lines



T  
18  
S

RIS #1 L. CATION AND TIT Specs,  
EXHIBIT #3



Schaeffer Type E 10" Series 900 Hydraulic BOP. The waste and debris from this well will be disposed of in a reserve pit and covered up.