

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

N.M. Oil Cons. Division  
1625 N. French Dr.  
Hobbs, NM 88240

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993  
Lease Designation and Serial No.

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT-" for such proposals

**SUBMIT IN TRIPLICATE**

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Shackelford Oil Company

3. Address and Telephone No.

P.O. Box 10665 Midland, TX 7970 (915) 682-9784

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

660' FNL and 330' FEL Sec. 10 T20S R33E

NMNM-17439  
6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.

Tonto Federal #2

9. API Well No.

30-025-35101

10. Field and Pool, or Exploratory Area  
Teas Delaware

11. County or Parish, State

Lea County, NM

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☒ Notice of Intent  
☐ Subsequent Report  
☐ Final Abandonment Notice

TYPE OF ACTION

- ☐ Abandonment  
☐ Recompletion  
☐ Plugging Back  
☐ Casing Repair  
☒ Altering Casing  
☐ Other \_\_\_\_\_
- ☒ Change of Plans  
☐ New Construction  
☐ Non-Routine Fracturing  
☐ Water Shut-Off  
☐ Conversion to Injection  
☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled give subsurface locations and measured and true vertical depths for all mearkers and zones pertinent to their work.)\*

**Amended Casing Program**

Original Program:

Size	Weight	Setting Depth	Cement
8 5/8"	32# & 36#	3300'	Circulate Cement to Surface

Amended Program:

Size	Weight	Setting Depth	Cement
8 5/8"	32# & 36#	5100'	Circulate Cement to Surface

This casing program is being amended based on the approval of Chris Williams, Regional Supervisor for the OCD in the Hobbs Office

14. I hereby certify that the foregoing is true and correct

Signed

Title

Owner

Date

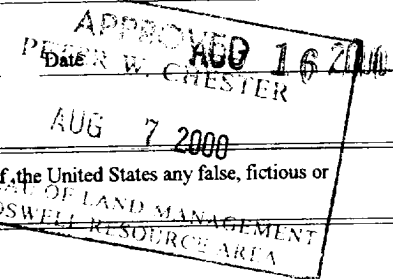
July 31, 2000

(This space for Federal or State office use)

ORIGINAL SIGNED COPY TO BE  
DISTRICT SUPERVISOR

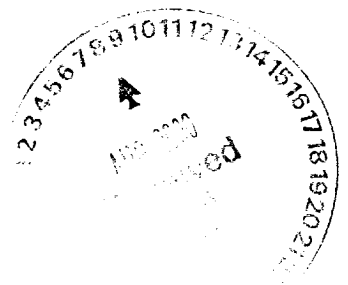
Approved by

Conditions of approval, if any:



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.

\*See Instruction on Reverse Side





**LTR**



**Job separation sheet**



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTOPER. OGRID NO. 20595  
PROPERTY NO. 230, 7  
POOL CODE 96797  
EFF. DATE 7-19-00  
API NO. 30-025-35101FORM APPROVED  
OMB NO. 1004-0136  
Expires: February 28, 1995LAND DESIGNATION AND SERIAL NO.  
NMNM - 17439  
INDIAN, ALLOTTEE OR TRIBE NAME

## APPLICATION FOR PERMIT TO

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/>		7. UNIT AGREEMENT NAME N/A	
b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		N/A	
2. NAME OF OPERATOR Shackelford Oil Company		8. FARM OR LEASE NAME, WELL NO. Tonto Federal #2	
3. ADDRESS AND TELEPHONE NO. P. O. Box 10665 Midland, TX 79702 (915) 682-9784		9. API WELL NO. 30-025-35101	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface 330' FEL 660' FNL At proposed prod. zone 330' FEL 660' FNL A		10. FIELD AND POOL, OR WILDCAT Teas Delaware	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 18.5 miles SE of Malijamar, NM		11. SEC. T. R. M., OR BLK. AND SURVEY OR AREA Sec. 10 T-20-S R-33-E	
16. NO. OF ACRES IN LEASE 160		17. NO. OF ACRES ASSIGNED TO THIS WELL 40	
19. PROPOSED DEPTH 8300'		20. ROTARY OR CABLE TOOLS Rotary	
21. ELEVATIONS (Show whether DF, RT, CR, etc.) GR 3577'		22. APPROX. DATE WORK WILL START* June 15, 2000	

SIZE OF HOLE	GRADE SIZE OF CEMENT	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2	13 3/8 J-55	48#	1350'	CIRCULATE / 65 POS. C. & WITNESS
12 1/4	8 5/8 J-55	36 & 32#	3300'	CIRCULATE / 65 POS. C. & WITNESS
7 7/8	5 1/2 J-55	17#	TD	CIRCULATE / 65 POS. C. & WITNESS

The operator proposes to drill to a depth sufficient to test the Delaware formation for oil. If non-productive, the well will be plugged and abandoned in a manner consistent with federal regulations. Specific programs as per on shore oil and gas order #1 are outlined in the following attachments:

## Drilling Program

Surface use and operating unit  
Exhibit #1/#1-A Blowout Prevention Equipment  
Exhibit #2 location & elevation plant

Exhibit #3 Planned Access Road  
Exhibit #4 Wells within one mile radius  
Exhibit #5 on back of page

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS  
SPECIAL STIPULATIONS  
ATTACHED

Exhibit #6 - Well Pad  
Exhibit #7 - Drilling Prognosis

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, 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 prevention program, if any.

SIGNED Don Shackelford TITLE Owner DATE May 12, 2000  
(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

Applicant approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY

TITLE

STATE DIRECTOR

DATE

\*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.

**RECEIVED**  
MAY 15 2000  
BLM  
ROSWELL, NM

15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31  
MAY 2000

## APPLICATION TO DRILL

In conjunction with Form 3160-3, Application for Permit to Drill, Shackelford Oil Co. submits the subject well in accordance with Bureau of Land Management requirements.

1. The geologic surface information is Quaternary.
2. The estimated tops of geologic markers are:
  1. Anhydrite 1350'
  2. Tansill 3135'
  3. Yates 3350'
  4. Seven Rivers 3650'
  5. Delaware 5400'
3. The estimated depths at which water, oil, or gas-bearing formation are expected:  
  
Water: 350' ft  
Oil & Gas: 3350' - 3700' Yates- Seven Rivers  
5400' - 8300' Delaware
4. Casing  

13 3/8"	48#	J-55	0- <del>1300</del> <sup>1350'</sup>
8 5/8"	36 & 32#	J-55	0-3300'
5 1/2"	17#	J-55	0-TD
5. Cement
  - A. Cement from 1300' to surface with 775 sx 35/65 POS C and 285 sx Class C.
  - B. Cement from 3300' , 285 sx 35/65 POS C and 705 sx Class C.
  - C. Cement from 8300' with 630 sacks Class H.
6. Pressure control equipment: Blowout preventer.
7. Mud Program: See Exhibit #7
8. No abnormal pressures are expected
9. Testing, Logging, and Coring Programs  
  
Wireline logging program: See Exhibit #7
10. Anticipated starting date: June 2000.

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88241-1980

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised February 10, 1994  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV  
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

OIL CONSERVATION DIVISION  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

Exhibit #2

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number <b>30-025-35101</b>	Pool Code <b>96797</b>	Pool Name <b>Teas, Delaware</b>
Property Code <b>23087</b>	Property Name <b>TONTO FEDERAL "10"</b>	Well Number <b>2</b>
OGRID No. <b>020595</b>	Operator Name <b>SHACKELFORD OIL COMPANY</b>	Elevation <b>3577</b>

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	10	20 S	33E		660	NORTH	330	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres <b>40</b>	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<b>OPERATOR CERTIFICATION</b>  I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.  Signature <u>Don Shackelford</u> Printed Name <b>Don Shackelford</b> Title <u>Owner</u> Date <u>May 12, 2000</u>
	<b>SURVEYOR CERTIFICATION</b>  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 belief.  MAY 6, 2000 Date Surveyed _____ LMP Signature & Seal of Professional Surveyor <u>Ronald J. Edson</u> Certificate No. <u>00-11-0582</u> RONALD J. EDSON 3239 GARY EDSON 12641 MACON McDONALD 12185



# **MULTI-POINT SURFACE USE AND OPERATIONS PLAN**

Tonto Federal #2  
660' FNL and 330' FEL  
Sec. 10, T-20-S, R-33-E  
Lea County, New Mexico

This plan is submitted with Form 3160-3, application for permit to drill, covering the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of necessary surface disturbance involved, and the procedures to be followed in rehabilitating the surface after completion of operations so that a complete appraisal can be made of the environmental effects associated with the operations.

## **1. EXISTING ROADS**

- A. The wellsite and elevation plat for the proposed Tonto Federal #2 are reflected on Exhibit #2.
- B. All roads to the location are indicated on Exhibit #3.
- C. **DIRECTIONS:**
  - 1. Proceed west from Hobbs on US 62 - 180 for 32 miles.
  - 2. Turn right on Caliche Road and continue 1.2 miles to the location on the left.

## **2. PLANNED ACCESS ROAD**

- A. See Item 1.

## **3. LOCATION OF EXISTING WELLS**

- A. The locations of existing active wells located in and immediately adjacent to Section 21 are highlighted on Exhibit #4.

## **4. LOCATION OF EXISTING AND PROPOSED FACILITIES**

- A. There is one producing well on this lease. Located below:

### **SHACKELFORD OIL COMPANY**

Section 10, T- 20 - S: R- 33 -E  
Tonto Federal #1  
1980' FNL and 660' FEL

5. **LOCATION AND TYPE OF WATER SUPPLY**

- A. It is planned to drill the proposed well with a cut- brine water system or with produced water. The water will be obtained from commercial source and will be hauled to location by truck over existing and proposed lease roads marked on Exhibit #3.

6. **SOURCES OF CONSTRUCTION MATERIALS**

- A. Caliche required for construction of the location pad and access road will be obtained from caliche on the location or from the nearest BLM approved pit.

7. **METHODS OF HANDLING WASTE DISPOSAL**

- A. Drill cuttings will be disposed of in the reserve pits.
- B. Drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry. The reserve pit will be fenced on three sides and will be totally isolated upon removal of the rig.
- C. Water produced during operations will be collected in steel tanks or a reserve pit, if volumes prove excessive. After placing the well on production, all water will be collected in tanks.
- D. Oil produced during operations will be stored at the existing battery and sold through transport trucks.
- E. Current regulations pertaining to disposal of human waste will be complied with.
- F. Trash, waste paper, garbage and junk will be kept in a trailer and disposed of at an approved landfill. All waste material will be contained to prevent scattering by the wind.
- G. All trash and debris will be removed from the well site within 30 days after drilling and/or completion operations are terminated. At the point the reserve pit is dry it will be backfilled and reclaimed as outlined by BLM specifications. Only the portion of the drilling pad used by production equipment will remain in use. If deemed dry only a dry hole marker will remain.

8. **ANCILLARY FACILITIES**

- A. No ancillary facilities will be required for this well.

9. **WELLSITE LAYOUT**

- A. Exhibit #6 shows the dimensions of the well pad and reserve pits and the location of major rig components.
- B. The ground surface at the drilling location is essentially flat.
- C. The reserve pits will be plastic lined.
- D. The pad and pit area has been staked and flagged.

10. **PLANS FOR RESTORATION OF THE SURFACE**

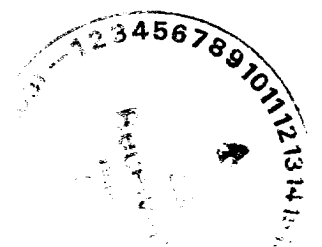
- A. After finishing drilling and/or completion operations, all equipment and other material not needed for further operations will be removed. The location will be cleared of all trash and junk, to leave the wellsite in as aesthetically pleasing a condition as possible.
- B. Unguarded pits, if any, containing fluids will be fenced until they have been filled.
- C. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management and the United States Geological Survey will be compiled with and will be accomplished as expeditiously as possible. All pits will be filled and leveled within 90 days after abandonment.

11. **SURFACE OWNERSHIP**

- A. The wellsite is owned by the Bureau of Land Management.
- B. The surface location will be restored in compliance with BLM rules.

12. **TOPOGRAPHY**

- A. The well site and access route are located in a flat area with little relief.
- B. The top soil at the wellsite is caliche.
- C. The vegetation cover at the wellsite is moderately sparse, with mesquite, grasses, yucca, scrubs oak, and weeds.
- D. No wildlife was observed but it is likely that rabbits, lizards, insects, and rodents traverse the area. The area is used for cattle grazing.
- E. There are no ponds, lakes, streams, or rivers within several miles of the wellsite.



- F. The wellsite is located on federal surface.
- G. There is no evidence of any archaeological, historical, or cultural sites in the vicinity of the location.

13. **OPERATOR'S REPRESENTATIVES**

- A. The field representatives responsible for assuring compliance with the approved surface use plan are:

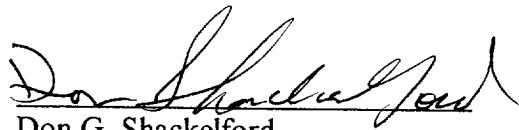
Don G. Shackelford  
Shackelford Oil Co.  
203 W. Wall Suite 401  
Midland, Texas 79701  
Phone: (915) 682-9784 (office)  
(915) 758-9195 (home)

W.L. Shackelford  
512 New Mexico Dr.  
Roswell, New Mexico 88201  
Phone: (505) 622-5902

14. **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 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 Shackelford Oil Co. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

May 12, 2000  
Date

  
Don G. Shackelford

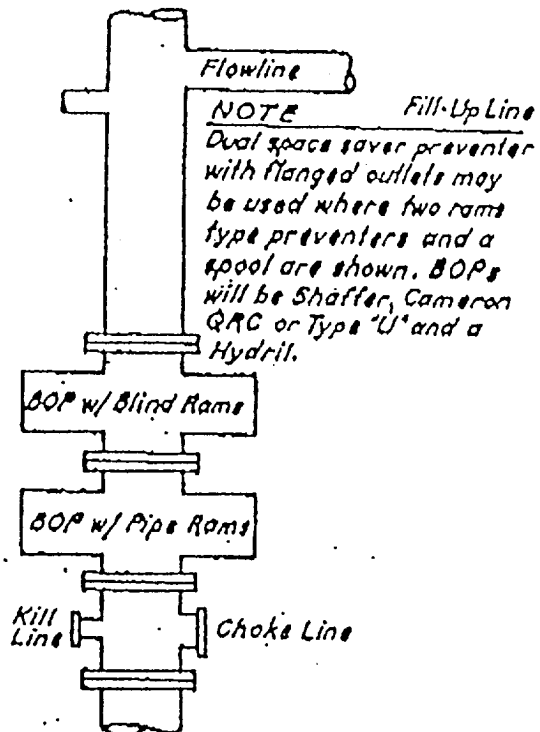


301 BOYD, E  
ALLEN, TEXAS 75002

P. O. BOX 588  
ALLEN, TEXAS 75002

(214) 727-8367

In Texas (800) 442-5224



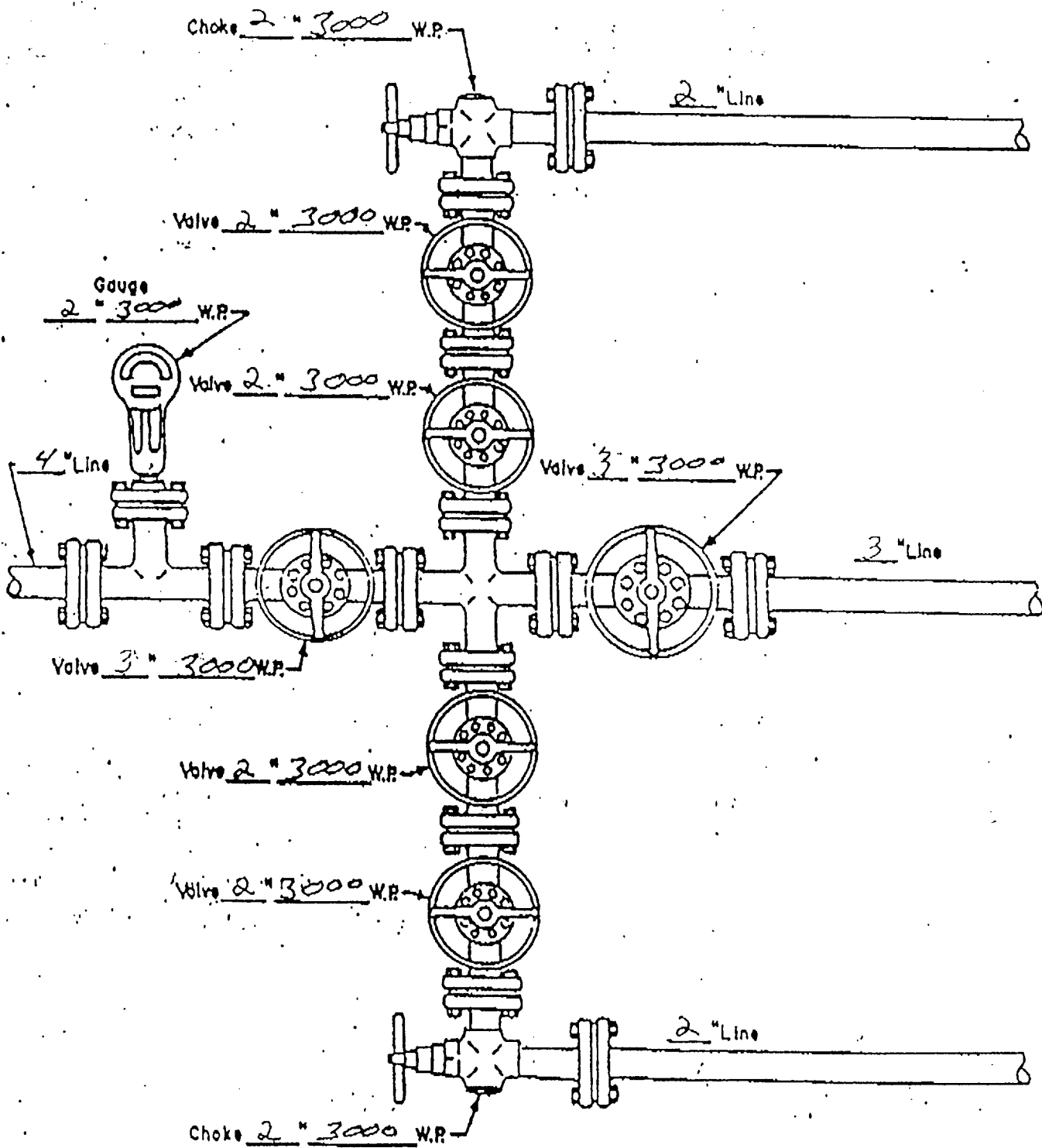
CASE I

BLOWOUT PREVENTER HOOKUP

3000<sup>+</sup> Working Pressure

# Choke Manifold

Exhibit 1-A



MANIFOLD  
3000 # W.P.

- ☒ Manual
- ☐ Hydraulic

# SHACKELFORD OIL COMPANY

## HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

### I. Hydrogen Sulfide Training

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

1. The hazards and characteristics of hydrogen sulfide (H<sub>2</sub>S).
2. The proper use and maintenance of personal protective equipment and life support system.
3. The proper use of H<sub>2</sub>S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

1. The effects of H<sub>2</sub>S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
3. The contents and requirements of the H<sub>2</sub>S Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H<sub>2</sub>S zone (within 3 days or 500 feet) and weekly H<sub>2</sub>S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H<sub>2</sub>S Drilling Operations Plan and the Public Protection Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

### II. H<sub>2</sub>S SAFETY EQUIPMENT AND SYSTEMS

Note: All H<sub>2</sub>S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H<sub>2</sub>S.



1. Well Control Equipment:
  - A. Flare line with electronic igniter or continuous pilot.
  - B. Choke manifold with a minimum of one remote choke.
  - C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
2. Protective equipment for essential personnel:
  - A. Mark II Survivor 30-minute units located in the dog house and at briefing areas, as indicated on well site diagram.
3. H2S detection and monitoring equipment:
  - A. 2 - portable H2S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H2S levels of 20 ppm are reached.
  - B. 1 - portable SO2 monitor positioned near flare line.
4. Visual warning systems:
  - A. Wind direction indicators as shown on well site diagram.
  - B. Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate. See example attached.
5. Mud program:
  - A. The mud program has been designed to minimize the volume of H2S circulated to the surface. Proper mud weight, safe drilling practices, and the use of H2S scavengers will minimize hazards when penetrating H2S bearing zones.
6. Metallurgy:
  - A. All drill strings, casing, tubing wellhead, blowout preventers, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.

7. Communication:

- A. Radio communications in company vehicles including cellular telephone and 2-way radio.
- B. Land line (telephone) communications at field office.

8. Well testing:

- A. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity which are necessary to safely and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill stem testing operations conducted in an H<sub>2</sub>S environment will use the closed chamber method of testing.

Shackelford 0:1 Co.  
#2 Tonto Federal

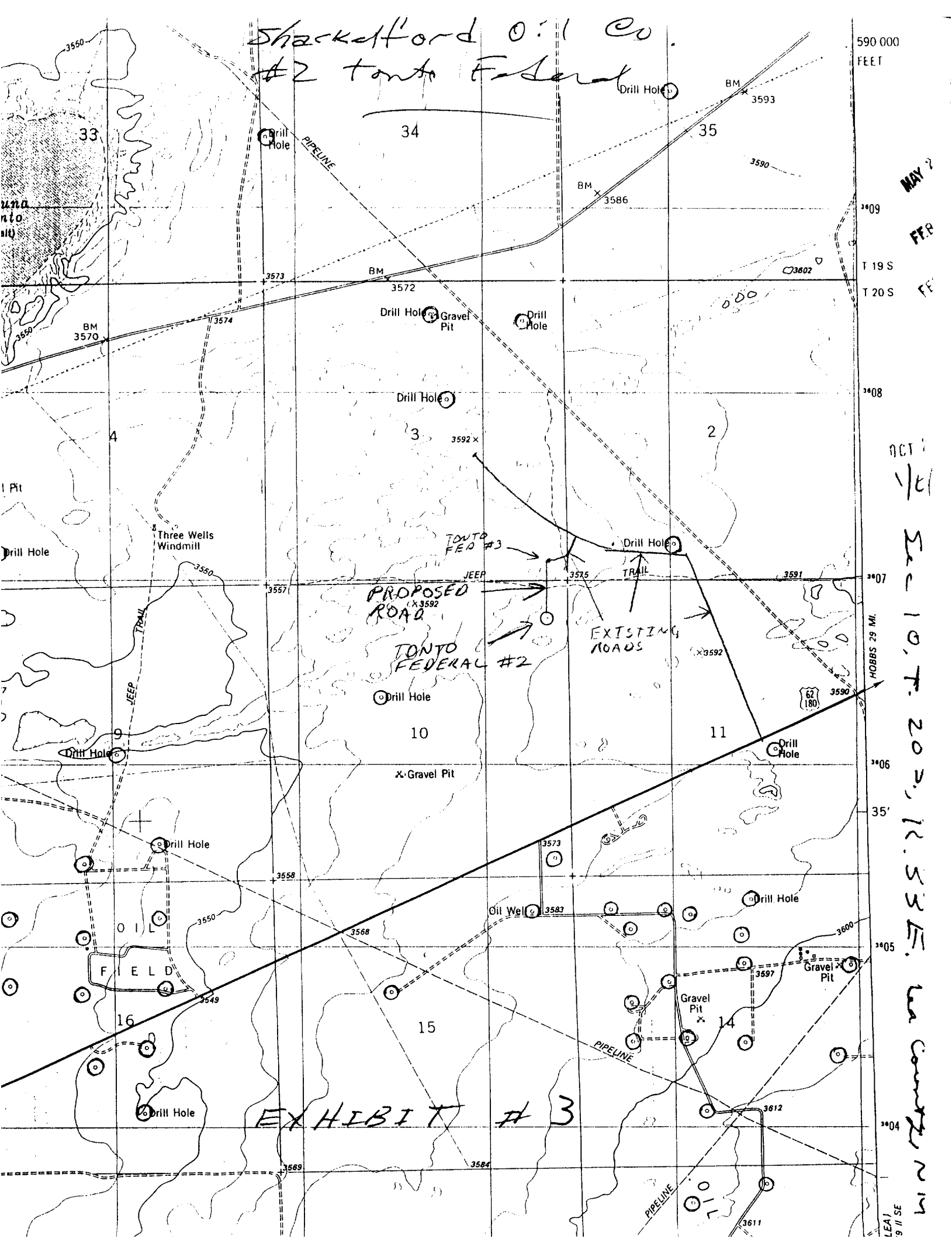


EXHIBIT #3

MAY 2

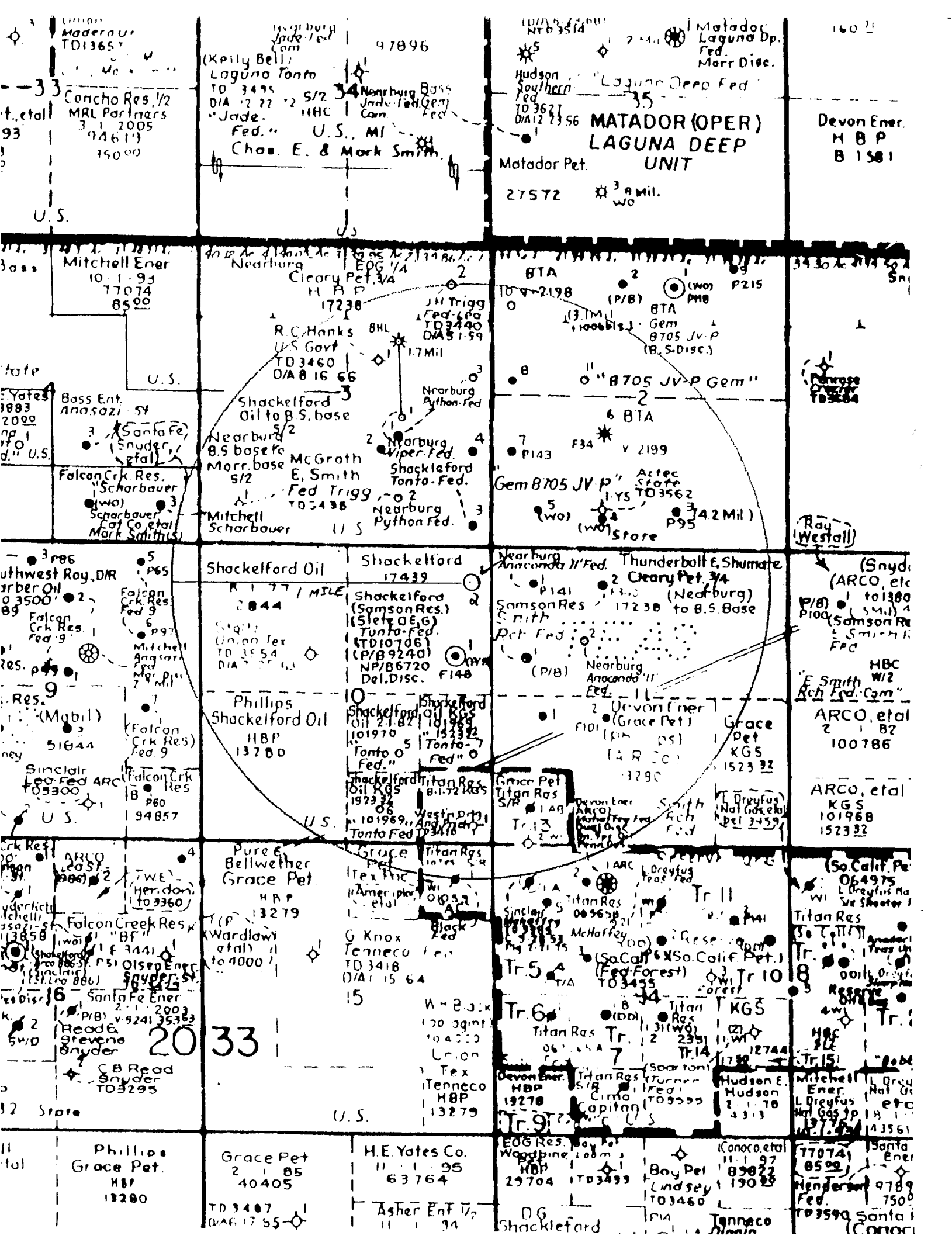
FEB

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1/6

Se - 10, T. 20 N., R. 53 E. La County N 1/4

HOBBS 29 MI.

LEA 19 11 SE



Concho Res. 1/2  
MRL Partners  
3.1.2005  
94619  
35000

(Kelly Bell)  
Laguna Tonto  
TO 3495  
DIA 12 22 '2 S/2  
"Jade" HHC  
Fed. U.S. MI  
Chas. E. & Mark Smith

Matador  
Laguna Dp.  
Fed. Morr Disc.  
Laguna Deep Fed  
TO 3627  
DIA 12 23 56  
**MATADOR (OPER)  
LAGUNA DEEP  
UNIT**  
Matador Pet.  
27572 3.8 Mil.  
WO

Devon Ener.  
H B P  
B 1501

Mitchell Ener  
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77074  
8500

Cleary Pet. 3/4  
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17238  
R.C. Hanks  
U.S. Govt  
TO 3460  
D/A 8 16 66  
Shackelford  
Oil to B.S. base  
Nearburg  
B.S. base  
McGroth  
E. Smith  
Fed Trigg  
TO 3435  
Nearburg  
Python Fed.

BTA  
2198  
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8705 JV-P  
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Gem 8705 JV-P  
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3.42 Mil)  
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Falcon Crk. Res.  
"Scharbauer"  
(wo)  
Scharbauer  
Cal Co. et al  
Mark Smith(s)

Shackelford Oil  
R 1 77 / MILE  
2844  
Shackelford  
(Samson Res.)  
(Slet O.E.G.)  
Tonto-Fed.  
TO 10706  
(P/B 9240)  
NP/B 6720  
Del. Disc.

Shackelford  
Oil 21.82  
101970  
"152332"  
Tonto-7  
Fed. O

Nearburg  
Anaconda II Fed.  
P141  
Samson Res.  
Smith  
Pet. Fed.  
(P/B)  
Nearburg  
Anaconda II  
Fed.  
2 Devon Ener.  
(Grace Pet.)  
(P/B DS)  
(A R CO)  
3280  
Grace  
Pet  
KG5  
152332

(Snyder)  
(ARCO, etc)  
101380  
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(Samson Res.)  
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W/2  
"E. Smith  
Rich Fed. Cam"  
ARCO, et al  
2 1 82  
100786

Southwest Roy, DMR  
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(Mgbl)  
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Sinclair  
Fed. ARC  
TO 3300  
U.S.

Phillips  
Shackelford Oil  
HBP  
13280

Shackelford  
Oil 21.82  
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"152332"  
Tonto-7  
Fed. O

Grace Pet  
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Devon Ener.  
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Rich Fed. Cam"  
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ARCO, et al  
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ARCO  
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Sinclair  
Fed. ARC  
TO 3300  
U.S.

Pure E.  
Bellwether  
Grace Pet  
HBP  
13279

Grace  
Pet  
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S/R  
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2 W  
Devon Ener.  
HBC  
W/2  
"E. Smith  
Rich Fed. Cam"  
ARCO, et al  
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100786

Tr 5  
Tr 6  
Titan Ras  
Tr 12  
2351  
Tr 14  
12744  
Tr 15  
12744  
HBC  
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"E. Smith  
Rich Fed. Cam"  
ARCO, et al  
2 1 82  
100786

(So. Calif. Pet.)  
064975  
L. Dreyfus Ma  
Sax Shooter  
Titan Ras  
So. T. Pet.  
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Tr. 100

Phillips  
Grace Pet.  
HBP  
13280

Grace Pet  
2 1 85  
40405  
TO 3407  
D/A 6 17 55

H.E. Yates Co.  
11.1.95  
63764  
Asher Ent 1/2  
11.1.94

EDG Res. Bay Pet  
Woodbine 100 m  
HBP  
29704 TO 3499  
D/G  
Shackelford

77074  
8500  
Henderson  
Fed.  
TO 3590  
Santa i  
(Conoco)

## **Exhibit #4**

T-20S,R-33E, Lea County

### **Section 2**

#### **Well Name**

#### **Location**

#1 State "YS"	660' FSL and 1980' FWL
#1 GEM 8705 JV-P	660' FNL and 1980' FEL
#2 GEM 8705 JV-P	660' FNL and 2310' FWL
#3 GEM 8705 JV-P	660' FSL and 1980' FEL
#4 GEM 8705 JV-P	510' FSL and 1980' FWL
#5 GEM 8705 JV-P	660' FSL and 810' FWL
#6 GEM 8705 JV-P	1980' FSL and 1980' FWL
#7 GEM 8705 JV-P	1650' FSL and 330' FWL
#8 GEM 8705 JV-P	2310' FNL and 330' FWL

### **Section 3**

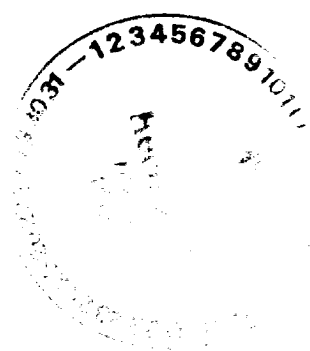
#1 US Government	1980' FNL and 1980' FEL
#1 Trigg Federal	660' FSL and 660' FWL
#2-3 Federal-Lea	657.73' FNL and 660' FEL
#1 Viper "3" Federal	2200' FSL and 1600' FEL
#1 Python "3" Federal	1900' FSL and 1650' FEL
#2 Python "3" Federal	855' FSL and 1650' FEL
#3 Tonto Federal	430' FSL and 330' FEL
#4 Tonto Federal	1650' FSL and 330' FEL

### **Section 10**

#1 Anderson - Prichard	330' FSL and 330' FEL
#1 Tonto Federal	1980' FNL and 660' FEL
#1 Union Texas	1980' FNL and 1980' FWL

### **Section 11**

#1 Federal "11"	660' FSL and 660' FWL
#2 Smith Ranch "11" Federal	2250' FSL and 2014 FWL
#1 Smith Ranch Federal	1980' FNL and 660' FWL
#2 Smith Ranch Federal	660' FNL and 1980' FWL
#1 Smith Ranch "11" Federal	2310' FSL and 900' FWL



### Section 11

#### Well Name

#### Location

#1 Anaconda "11" Federal  
WI-2 Teas Yates Unit Tr. 13

660' FNL and 660' FWL  
10' FSL and 660' FWL

### Section 15

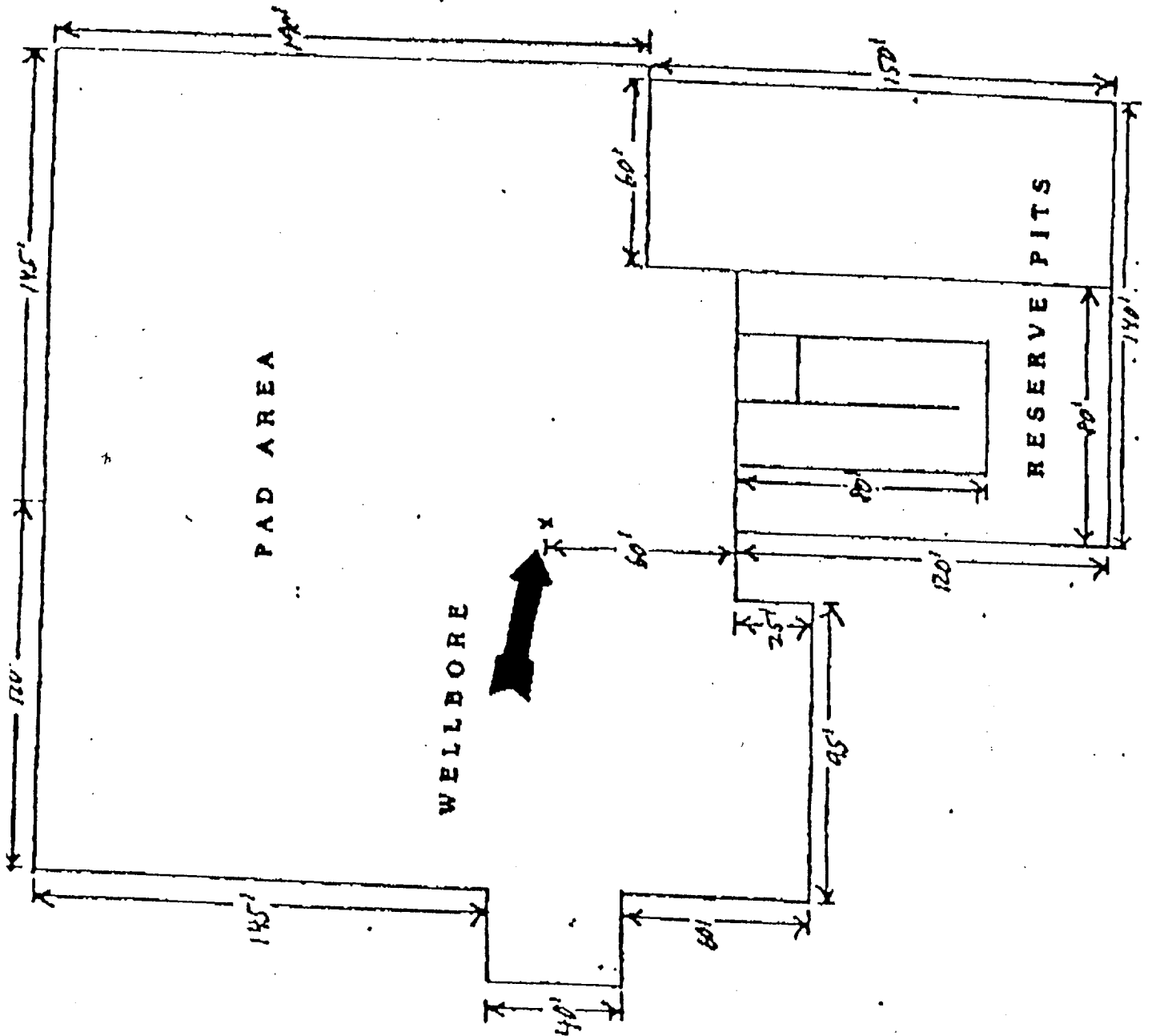
#1 Teas Yates Unit Tr. 12

660' FNL and 660' FEL

#### NOTE:

Proposed Well - Shackelford Oil Company #2 Tonto Federal 660' FNL and  
330' FEL. *Sec. 10, T. 20S., R. 33 E., Lea*  
*County, NM*

# EXHIBIT #6





**EXHIBIT #7  
DRILLING PROGNOSIS  
TONTA FEDERAL #2**

**Location:** Section 10, T- 20-S, R- 33- E

**Proposed Depth and  
Objective:**

Delaware - 8300'

**Casing Program:**

13 3/8"	J- 55	48.00#	1300'
8 5/8"	J- 55	36 & 32#	3300'
5 1/2"	J-55	17#	TD

**Logging Program:**

A compensated neutron/ formation density with gamma ray, and caliper will be run for porosity and lithology. A dual induction will be run for water saturation analysis. The gamma ray will be run from TD to the surface. If shows are indicated in Yates or Seven Rivers logs will be run over these prior to casing, other wise logs will be run from TD to intermediate casing.

**Mud Logging:**

Samples will be caught every 10' from 3000' to TD.

**Mud Program:**

0 - 1300'	Spud 17 1/2" hole with fresh water containing gel and lime, if necessary for hole cleaning. Mud weight should be 8.5 - 8.7 LB/GAL with a velocity of 33 - 35 sec/ 1000cc.
1300'-3300'	Drill out below surface pipe using 12 1/4" bit with 10 LB/GAL brine for drilling the native salt section. Lime will be added to maintain a ph of 9.5 - 10.00.
3300'-8300'	Drill out of intermediate casing with 7 7/8" bit with fresh water to TD.

## STATEMENT ACCEPTING RESPONSIBILITY OF OPERATIONS

Shackelford Oil Company  
203 W. Wall, Suite 401  
Midland, Texas 79702

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portion thereof, as described below:

Lease No. NMNM - 17439

Legal Description of Land: NE/4 of NE/4, SEC. 10 T-20-S R-33-E, Lea County,  
N.M.

Formation(s) (if applicable): 0-8300

Bond Coverage: (State if individual bonded or another's bond)  
25,000 Statewide Bond

BLM Bond file No. Statewide bond  
3104 (943C-3TF)

Authorized Signature:



Title: Owner

Date:

May 12, 2000

ABOVE DATE DOES NOT  
INDICATE WHEN  
CONFIDENTIAL LOGS  
WILL BE RELEASED

ELF 12/8/00

129421-480