

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

Manzano Oil Corporation

3. ADDRESS OF OPERATOR

P. O. Box 2107

Roswell, NM 88202

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

At surface

400' FNL & 2310' FEL Unit B

At proposed prod. zone

Same

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

23 miles south of Maljamar, NM

15. DISTANCE FROM PROPOSED\*

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

330'

16. NO. OF ACRES IN LEASE

320

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.

2284'

19. PROPOSED DEPTH

9500'

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, ET, GR, etc.)

3579' Capitan Controlled Water Basin

22. APPROX. DATE WORK WILL START\*

August 5, 1991

23.

PROPOSED CASING AND CEMENTING PROGRAM

R-111-P Potash Secretary's Potash

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8"	54.5#	350' CIRCULAR	150 sx "C" circ to surf
12 1/4"	8 5/8"	24.0#	2800' CIRCULAR	1100 sx "C" w/600 sx "H" w/50/50 poz
7 7/8"	5 1/2"	15.2 & 17#	9500'	600 sx "H" w/50/50 poz

Mud Program:

0' - 525': Fresh water native mud: mud wt. 10 ppg, Vis. 28-30, No W/L control.

525' - 7000': Brine mud: mud wt. 10 ppg, Vis. 30-32, No W/L control.

7000' - 9500': Brine mud: mud wt. 9.8-10 ppg, Vis. 30-32, W/L 10-15cc.

BOP Program:

A 11" 5000 psi wp Shaffer Type "LWS" BOP will installed on the 8 5/8" casing. Casing and BOP will be tested before drilling out with 7 7/8". BOP will be used as a 3000 psi wp system and will be tested daily.

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
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

Agent for:

July 11, 1991

TITLE Manzano Oil Corp.

DATE

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

Original Signed by Richard L. Manzano

AREA MANAGER

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

\*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.

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**AUG 13 1991**

6-2  
HORBS OFFICE

N. M. OIL CORP.  
P. O. BOX 1  
UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN 1 LOCATE\*  
(Other instructions on  
reverse side)

Form approved.  
Budget Bureau No. 1004-0136  
Expires August 31, 1985

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

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24.

SIGNED

*Georgina Smith*

Agent for:

TITLE Manzano Oil Corp.

July 11, 1991

DATE

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

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\*See Instructions On Reverse Side

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OCB  
HOBBS OFFICE

# OIL CONSERVATION DIVISION

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

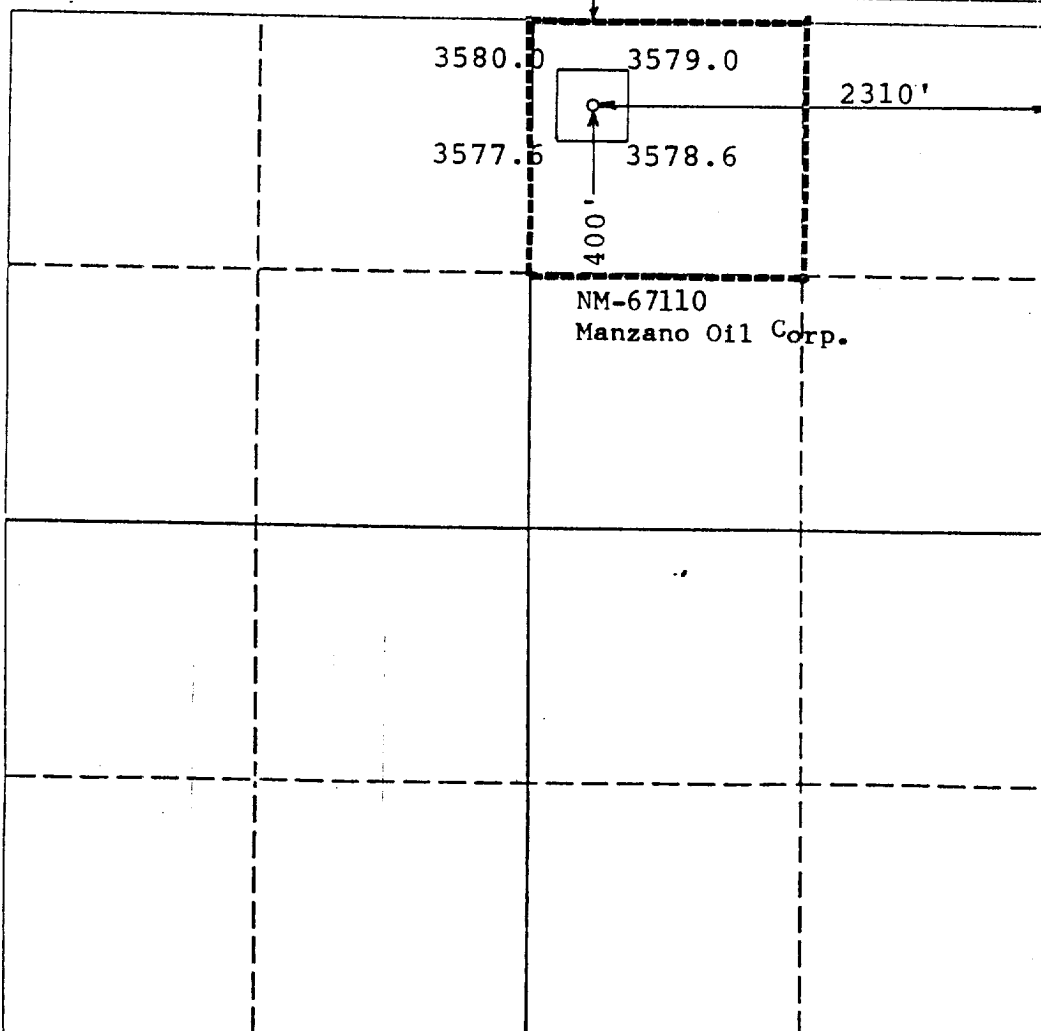
DISTRICT III  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

## WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator <b>Manzano Oil Corporation</b>			Lease <b>Federal 31-G</b>		Well No. <b>2</b>
Init Letter <b>B</b>	Section <b>31</b>	Township <b>19 South</b>	Range <b>33 East</b>	County <b>Lea</b>	
Actual Footage Location of Well: <b>400</b> feet from the <b>North</b> line and <b>2310</b> feet from the <b>East</b> line					
Ground level Elev. <b>3579</b>	Producing Formation <b>Bone Spring</b>		Pool <b>Gem Bone Spring</b>	Dedicated Acreage: <b>40</b> Acres	

- Outline the acreage dedicated to the subject well by colored pencil or hatchure 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 interest 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 interest, has been approved by the Division.



### OPERATOR CERTIFICATION

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

Signature

*George R. Smith*

Printed Name

**George R. Smith**

Position

**Agent for:**

Company

**Manzano Oil Corporation**

Date

**July 11, 1991**

### SURVEYOR CERTIFICATION

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.

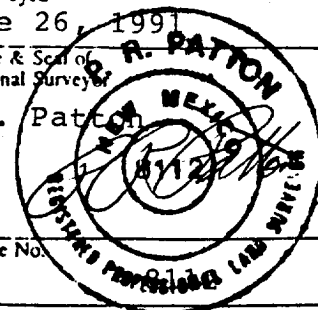
Date Surveyed

**June 26, 1991**

Signature & Seal of Professional Surveyor

**P.R. Patton**

Certificate No.



AUG 13 1991

6428  
HONOLULU

APPLICATION FOR DRILLING

MANZANO OIL CORPORATION  
Federal 31-G, Well No. 2  
400' FNL & 2310' FEL, Sec. 31-T19S-R33E  
Lea County, New Mexico  
Lease No.: NM-67110  
(Development Well)

In conjunction with Form 3160-3, Application for Permit to Drill subject well, Manzano Oil Corporation submits the following items of pertinent information in accordance with BLM requirements:

1. The geologic surface formation is recent Permian with quaternary alluvium and other surficial deposits.

2. The estimated tops of geologic markers are as follows:

Rustler	1255'	Delaware Sand	5200'
Top/Salt	1350'	Lower Delaware	7530'
Base/Salt	2750'	Bone Spring carb.	7950'
Yates	3040'	1st Bone Spring sand	8894'
Seven Rivers	3375'	T.D.	9500'
San Andres	3750'		

3. The estimated depths at which water, oil or gas formations are anticipated to be encountered:

Water: Surface water between 100' - 350'.

Gas: None expected.

Oil: Possible in the Lower Delaware 7530 - 7600'  
Possible in the 1st Bone Spring sand 8894 - 9500'

4. Proposed Casing Program: See Form 3160-3.
5. Proposed Control Equipment: See Form 3160-3 and Exhibit "E".
6. Mud Program: See Form 3160-3.
7. Auxiliary Equipment: Blowout Preventer, gas detector, Kelly cock, pit level monitor, flow sensors and stabbing valve.
8. Testing, Logging, and Coring Program:

Drill Stem Tests: One possible.

Logging: Gamma Ray:

DLL-MSFL, CNL-LTD

Surf. Csg. to T.D.

Below 8 5/8" to T.D.

Coring: None planned.

9. No abnormal pressures or temperatures are anticipated. In the event abnormal pressures are encountered the proposed mud program will be modified to increase the mud weight.
10. Anticipated starting date: August 5, 1991.  
Anticipated completion of drilling operations: Approximately 4 weeks.

AUG 13 1991

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J0004 07104

## MULTI POINT SURFACE USE AND OPERATIONS PLAN

MANZANO OIL CORPORATION  
Federal 31-G, Well No. 2  
400' FNL & 2310' FEL, Sec. 31-T19S-R33E  
Lea County, New Mexico  
Lease No. : NM-67110  
(Development Well)

This plan is submitted with the Application for Permit to Drill the above described well. The purpose of the plan is to describe the location of the proposed well, the proposed construction activities and operations plan, to be followed in rehabilitating the surface after completion of the operation so that a complete appraisal can be made of the environmental effects associated with the operations.

### 1. EXISTING ROADS:

- A. Exhibit "A" is a portion of a BLM color quad map showing the location of the existing well as staked. The well site location is approximately 44 road miles northeast of Carlsbad, New Mexico or 23 miles south of Maljamar, NM. Traveling east of Carlsbad there will be approximately 35 miles of paved highway and 9 miles of gravel ranch/oilfield roads.
- B. Directions: Travel east from Carlsbad, NM on U.S. Highway 62/180 for approximately 24 miles to NM Highway 176, then turn north for 3.8 miles to NM Highway 31/33; then north for 6 miles, which will be on NM Highway 33. Turn east on gravel road, opposite the paved entry to the Lusk Plant, for approximately 5.8 miles to a tank battery with corrals on the north, then turn south and southeast for 1.3 miles, then follow a Texas-New Mexico pipeline road for .7 mile; then southwest on a road with a Mitchell and a Manzano sign. Continue southwest for 1 mile then turn south .2 mile to location staked on an old pad about 70 feet west of existing access road.

### 2. PLANNED ACCESS ROAD:

- A. Length and Width: The proposed access road will be constructed to a 12 foot width (24' Max.) and approximately 400 feet long, which will be the rerouting of the existing road to the east side of the drill site.
- B. Construction: The proposed access road will be constructed by grading and topping with compacted caliche and will be properly drained.
- C. Turnouts: None required.
- D. Culverts: None.
- E. Cuts and Fills: None except the leveling of 2 - 3 foot sand dunes.
- F. Gates, Cattleguards: None required.
- G. Off Lease R/W: A Right of Way application is being submitted for the off lease portion of the existing roads, on Federal surface, back the NM Highway 33.

### 3. LOCATION OF EXISTING WELLS:

- A. Existing wells within a two mile radius are shown on Exhibit "C".

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

- A. There are production facilities on the lease at this time.
- B. If the well proves to be commercial, the necessary production facilities, gas separation-process equipment and tank battery will be installed on the drilling pad.

5. LOCATION AND TYPE OF WATER SUPPLY:

- A. It is planned to drill the proposed well with fresh water that will be obtained from private or commercial sources and will be transported over the existing access roads.

6. SOURCE OF CONSTRUCTION MATERIALS:

- A. Caliche for surfacing the proposed access road and well site pad will be obtained from the location, with a backup approved Federal pit in NE $\frac{1}{4}$ SE $\frac{1}{4}$ -T19S-R32E. The scraped vegetation and topsoil on the pad area will be stockpiled near the location for future rehabilitation use. No surface materials will be disturbed except those necessary for actual grading and leveling of the drill site and access road.

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.
- C. All pits will be fenced with normal fencing materials to prevent livestock from entering the area.
- D. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or a separate disposal application will be submitted to the BLM for approval.
- E. Oil produced during operations will be stored in tanks until sold.
- F. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- G. Trash, waste paper, garbage and junk will be buried in a separate trash pit and covered with a minimum of 24 inches of dirt. All waste material will be contained to prevent scattering by the wind.
- H. All trash and debris will be buried or removed from the well site within 30 days after finishing drilling and/or completion operations.

8. ANCILLARY FACILITIES:

- A. None required.

9. WELL SITE LAYOUT:

- A. Exhibit "D" shows the relative location and dimensions of the well pad, reserve pits, and major rig components. The pad and pit area has been staked and flagged, 400" X 400".
- B. Mat Size: 270' X 210', plus reserve pits.
- C. Cut & Fill: None required, except to level existing old pad and 2 -3 foot dunes outside of the existing pad.
- D. The surface will topped with compacted caliche. The pits will be plastic lined.

10. PLANS FOR RESTORATION OF THE SURFACE:

- A. After completion of drilling and/or completion operations, all equipment and other material not needed for operations will be removed. Pits will be filled and the location cleaned of all trash and junk to leave the well site in an aesthetically pleasing a condition as possible.
- B. Any unguarded pits containing fluids will be fenced and screened until they are filled.
- C. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management will be complied with and will be accomplished as expeditiously as possible. All pits will be filled and leveled within 90 days after abandonment or when sufficiently dried.

11. OTHER INFORMATION:

- A. Topography: The well site and access road are located in the Querecho Plains with 2 - 4 foot sand dunes and .3% slope to the southwest from a 3579' elevation.
- B. Soil: The topsoil at the well site is a fine sandy loam of the Kermit-Palomas soils Series with surface scatter of caliche and possible caliche formation below the surface.
- C. Flora and Fauna: The vegetation cover is a poor grass cover of three-awn, blue stem, sand dropseed, fluffgrass and other misc. native grasses along with plants of mesquite, yucca, snake broomweed, shinnery oak brush, sage, cacti and miscellaneous weeds and wildflowers. The wildlife consists of rabbits, coyotes, rattlesnakes, lizards, dove, quail and other wildlife typical of the semi-arid desert land.
- D. Ponds and Streams: Laguna Tonto is 1.5 miles to the east and Laguna Gatuna is 2.5 miles to the south.
- E. Residences and Other Structures: None.
- F. Land Use: Cattle grazing.
- G. Surface Ownership: The proposed well site and access road is on Federal surface and minerals.

11. OTHER INFORMATION:

cont.....

- H. There is no evidence of any archaeological, historical or cultural sites in the area. An archaeological survey will be conducted by Archaeological Survey Consultants, P.O. Box D, Roswell, NM 88202, and their report will be submitted to the appropriate government agencies.

12. OPERATOR'S REPRESENTATIVE:

- A. The field representative responsible for assuring compliance with the approved surface use and operations plan is as follows:


Carroll Bellah  
1002 W. Aspen  
Lovington, NM 88260  
Office Phone: (505) 676-3381  
Home Phone: (505) 396-5278

Kenneth Barbe, Jr.  
Manzano Oil Corporation  
P. O. Box 2107  
Roswell, NM 88202  
Office Phone: (505) 623-1996  
Home Phone: 622-4512

13. CERTIFICATION:

I hereby certify that I have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in the 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 Manzano Oil Corporation and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

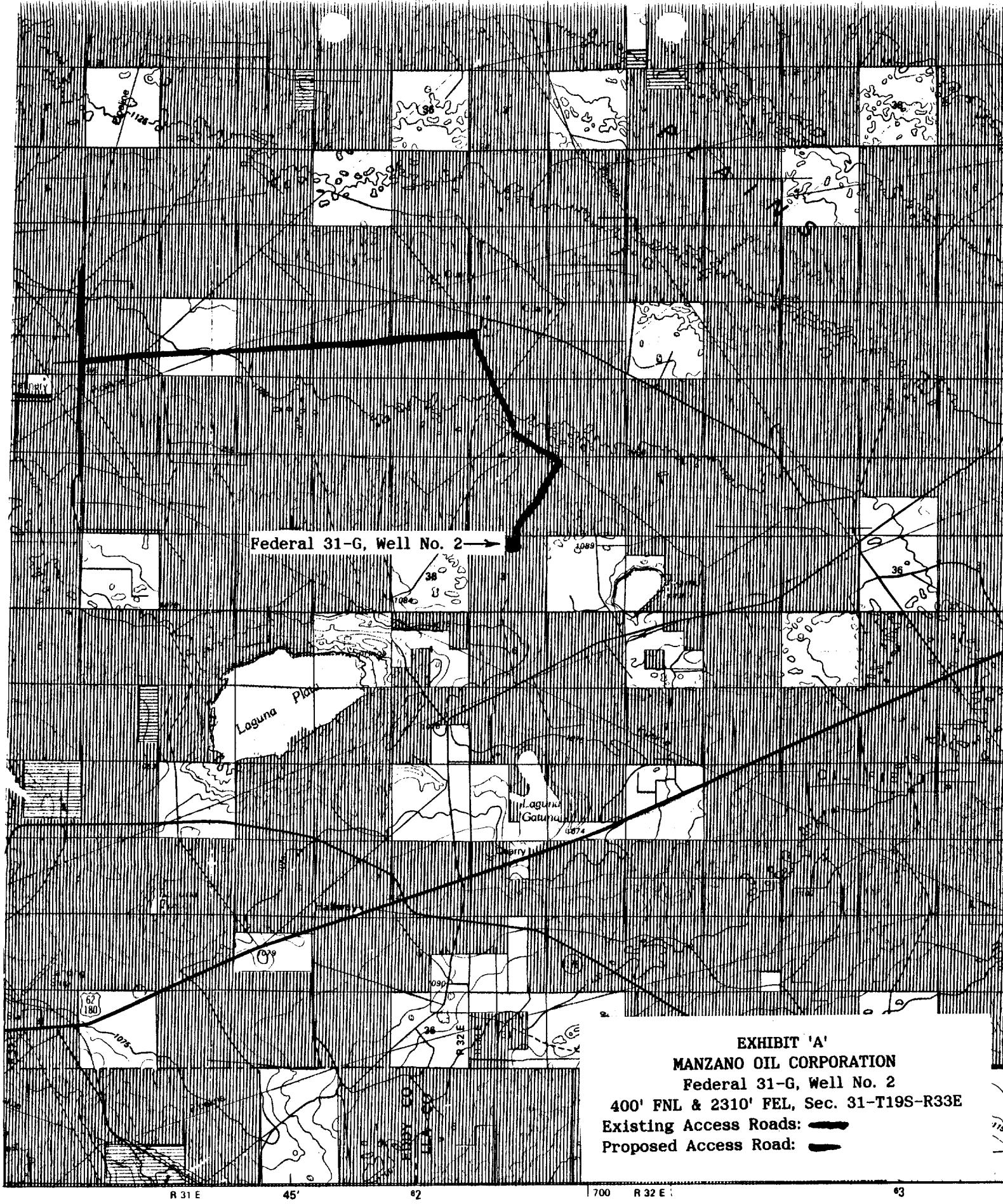
July 11, 1991

  
\_\_\_\_\_  
George R. Smith  
Agent for: Manzano Oil Corporation

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HOBBY STORE



Federal 31-G, Well No. 2 →

Loguna P...

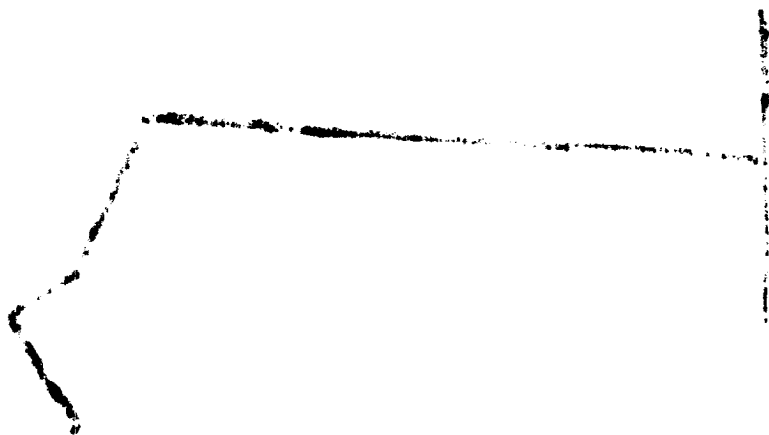
Loguna  
Gatunau

**EXHIBIT 'A'**  
**MANZANO OIL CORPORATION**  
Federal 31-G, Well No. 2  
400' FNL & 2310' FEL, Sec. 31-T19S-R33E  
Existing Access Roads:   
Proposed Access Road:

**MAP INDEX**

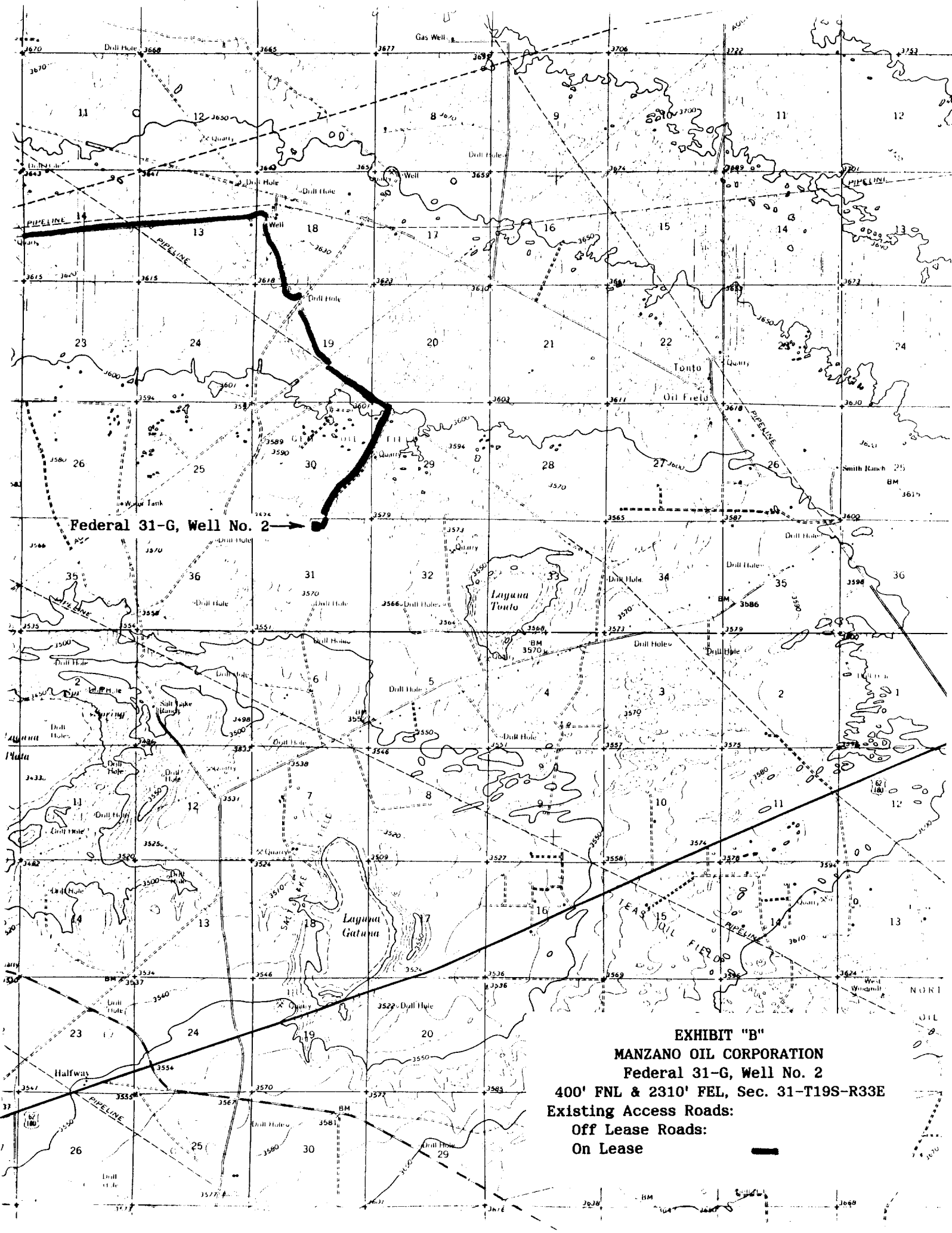
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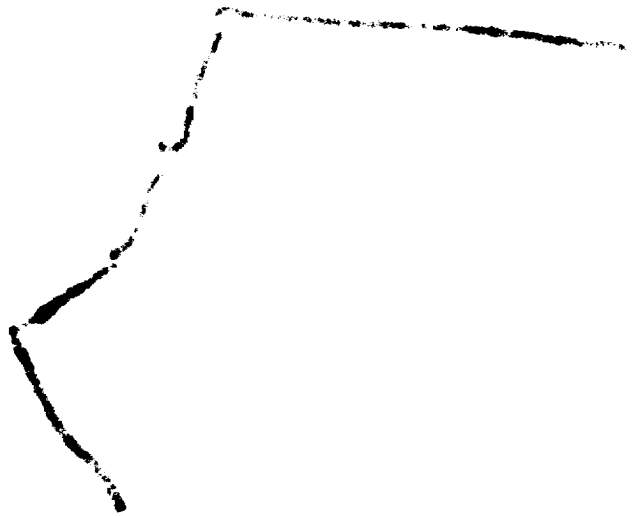
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0301-15



Federal 31-G, Well No. 2 →

**EXHIBIT "B"**  
**MANZANO OIL CORPORATION**  
**Federal 31-G, Well No. 2**  
**400' FNL & 2310' FEL, Sec. 31-T19S-R33E**  
**Existing Access Roads:**  
**Off Lease Roads:**  
**On Lease**



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U.S. DEPARTMENT OF JUSTICE  
FEDERAL BUREAU OF INVESTIGATION



# PLOT LAYOUT RIG 2

WELL DRILLING

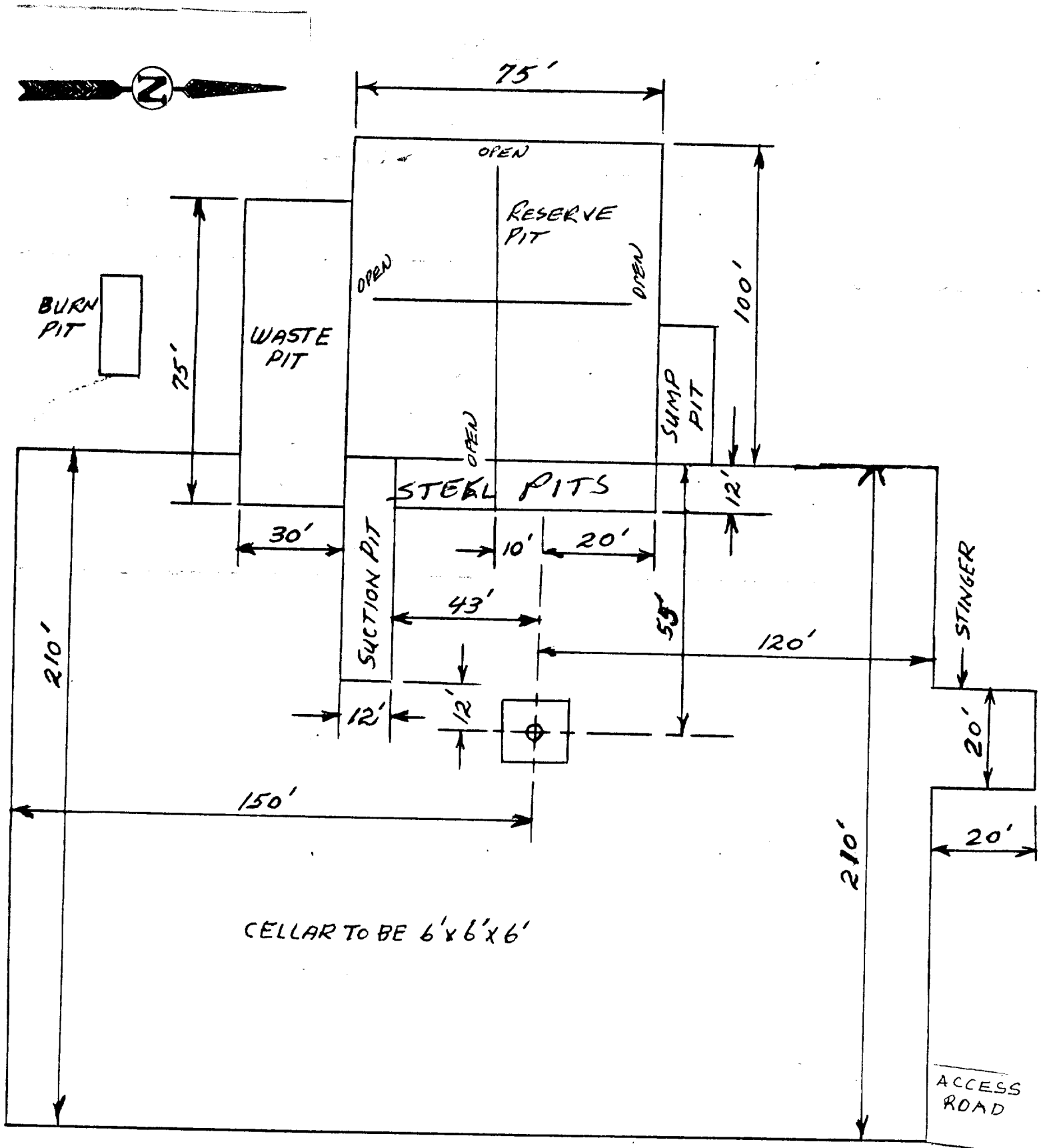
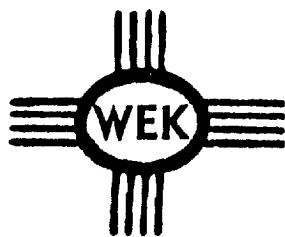


EXHIBIT "D"  
MANZANO OIL CORPORATION  
Federal 31-G, Well No. 2  
Pad & Pit Layout



KEN REYNOLDS—PRESIDENT  
ARNIE NEWKIRK—VICE-PRESIDENT

DRILLING CO., INC. — OIL WELL DRILLING CONTRACTORS

P. O. Box 1498 ROSWELL, NEW MEXICO 88202-1498  
505/623-5070 505/746-2719  
ROSWELL, NM ARTESIA, NM

## RIG #2

### BLOWOUT PREVENTOR ARRANGEMENT

11" SHAFFER TYPE LWS, 5000 psi WP  
11" CAMERON SPHERICAL, 5000 psi WP  
120 GALLON, 5 STATION KOOMEY ACCUMULATOR  
5000 psi WP CHOKE MANIFOLD

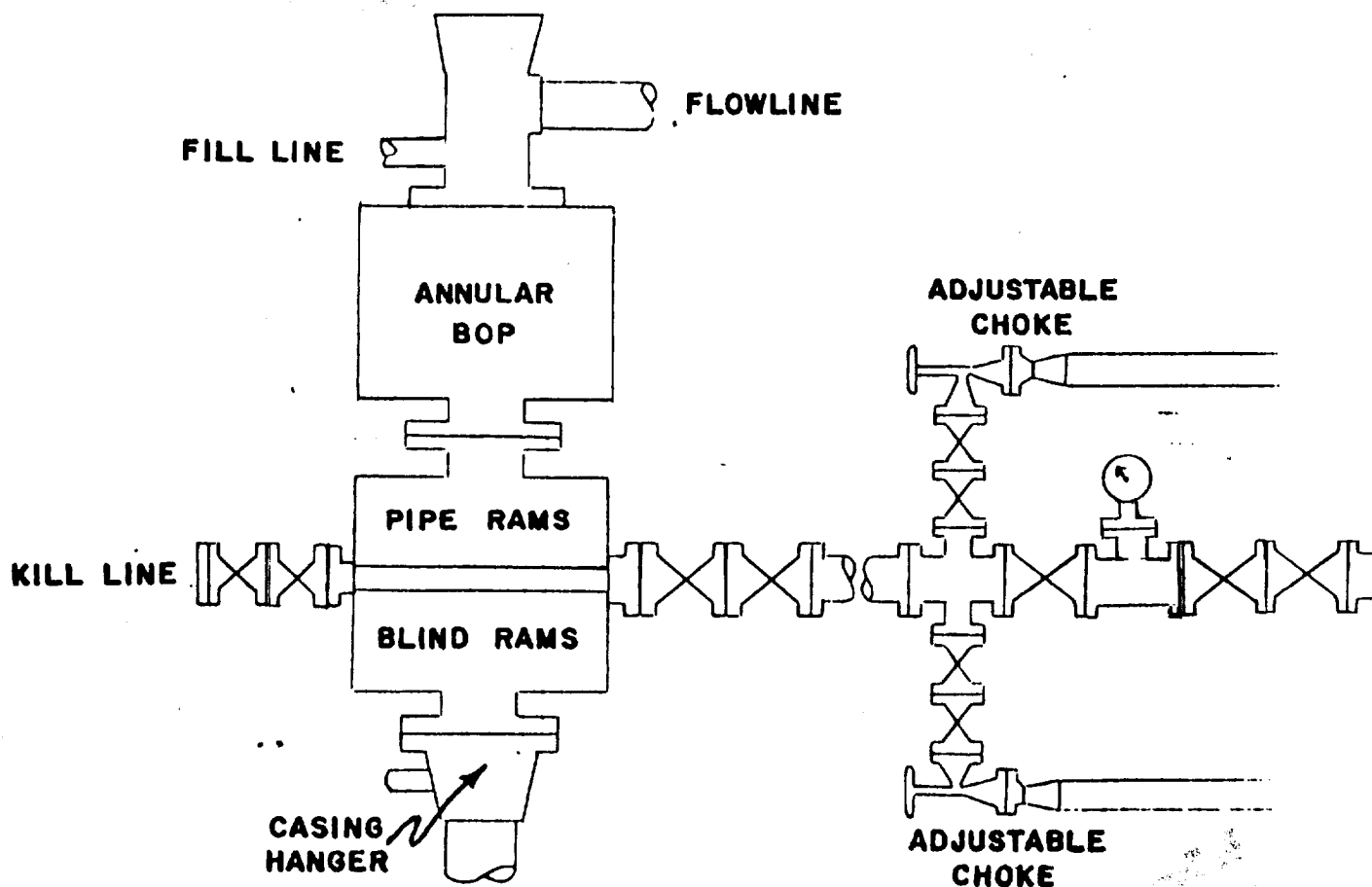


EXHIBIT "E"  
MANZANO OIL CORPORATION  
Federal 31-G, Well No. 2  
BOP Specifications