

New Mexico Oil Conservation Division, Inc.
1625 N. French Drive
Holts, NM 88240

PER. OGRID NO. 13954
PROPERTY NO. 26618120
POOL CODE 82240
EFF. DATE 9-11-00
API NO. 30-025-35153

Form 3160-3
(August 1999)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

5. Lease Serial No. NM-16835

6. If Indian, Allottee or Tribe Name

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.
Neuhaus Federal "14" #3

9. API Well No.
30-025-35153

10. Field and Pool, or Exploratory
Osudo Morrow W. Gas

11. Sec., T., R., M., or Blk. and Survey or Area

Sec. 14-T20S-R35E

12. County or Parish.
Lea

13. State
NM

1a. Type of Work: ☒ DRILL ☐ REENTER

1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone

2. Name of Operator Manzano Oil Corporation

3a. Address
PO Box 2107 Roswell, NM 88202

3b. Phone No. (include area code)
(505) 623-1996

4. Location of Well (Report location clearly and in accordance with any State requirements. *)

At surface 660' FSL & 1980' FEL
At proposed prod. zone Same

14. Distance in miles and direction from nearest town or post office*
17 miles NW of Eunice, NM

15. Distance from proposed*
location to nearest
property or lease line, ft.
(Also to nearest drig. unit line, if any) 660'

16. No. of Acres in lease
320

17. Spacing Unit dedicated to this well
320

18. Distance from proposed location*
to nearest well, drilling, completed,
applied for, on this lease, ft. 1650'

19. Proposed Depth
13,450'

20. BLM/BIA Bond No. on file
NM-2567

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3676' GL

22. Approximate date work will start*
8/24/00

23. Estimated duration
6 weeks

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature

George R. Smith

Name (Printed/Typed)

George R. Smith

Date

08/04/00

Title

Agent for: Manzano Oil Corp.

Approved by (Signature)

(ORIG. SGD.) ARMANDO A. LOPEZ

Name (Printed/Typed)

(ORIG. SGD.) ARMANDO A. LOPEZ

Date

SEP 08 2000

Title

Acting Assistant Field Manager,
Lands And Minerals

Office

ROSWELL FIELD OFFICE

APPROVED FOR 1 YEAR

Application approval does not warrant or certify the 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, are attached.

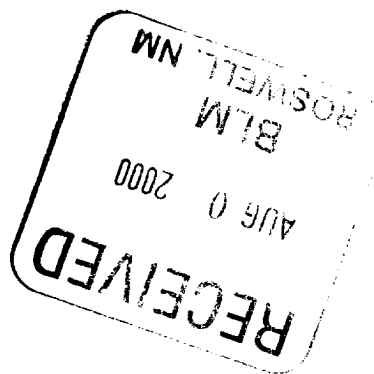
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*(Instructions on reverse)

Lease Responsibility Statement: Manzano Oil Corporation, accepts all applicable terms, conditions, stipulations and restrictions concerning operations conducted on the leased land or portion thereof.

GRS
George R. Smith

GW



District I
1025 N. French Dr., Hobbs, NM 88240
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-102
Revised March 17, 1999

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-35153		Pool Code 82240	Pool Name Osudo Morrow Gas
Property Code 26618	Property Name NEUHAUS FEDERAL "14"		Well Number 3
OGRID No. 13954	Operator Name MANZANO OIL CORPORATION		Elevation 3676.

10 Surface Location

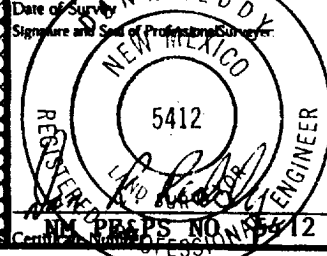
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	14	20-S	35-E		660	SOUTH	1980	EAST	LEA

11 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 320	Joint or Infill	Consolidation Code	Order No.
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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

16		NM-16835 Exxon Corp.	1980'	660'	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief Signature <u>George R. Smith</u> Printed Name <u>Manzano Oil Corp.</u> Title <u>August 4, 2000</u> Date
					18 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 belief. JULY 26, 2000 Date of Survey Signature and Seal of Professional Surveyor 

APPLICATION FOR DRILLING

MANZANO OIL CORPORATION
Neuhaus Federal "14", Well No. 3
660' FSL & 1980' FEL, Sec. 14-T20S-R35E
Lea County, New Mexico
Lease No.: NM-16835
(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	2,035'	Bone Spring	8,070'
Base/Salt	3,600'	Wolfcamp	11,150'
Yates	3,725'	Wolfcamp pay	11,300'
Queen	4,700'	Strawn	12,150'
SanAndres	5,160'	Atoka	12,350'
Delaware	6,055'	Morrow clastic	12,800'
		T.D.	13,450'

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

Water: Surface water between 100' - 350'.

Oil: Possible in the Yates, San Andres, Wolfcamp and Strawn.

Gas: Possible in the Morrow below 12, 800'.

4. Proposed Casing Program:

HOLE SIZE	CASING SIZE	WEIGHT	GRADE	JOINT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8"	54.5#	J-55	ST&C	400'	Circ. 400 sx "C"
12 1/4"	8 5/8"	24.0#	J-55	ST&C	0' - 2,500'	
12 1/4"	8 5/8"	32.0#	J-55	ST&C	2,500' - 4,200'	Circ 1500 sx lite + 300 sx "C"
7 7/8"	5 1/2"	20.0#	N-80	LT&C	0' - 1,000'	
7 7/8"	5 1/2"	17.0#	S-95	LT&C	1,000' - 2,100'	Will use the quantity of type "H"
7 7/8"	5 1/2"	17.0#	N-80	LT&C	2,100' - 10,800'	necessary to cover 600 feet above
7 7/8"	5 1/2"	17.0#	S-95	LT&C	10,800' - 13,450'	uppermost pay.

5. Proposed Control Equipment: See Exhibit "E".

BOP Program:

A 11" 5000 psi wp Schaffer Type LWS double hydraulic ram BOP, will be installed on the 8 5/8" casing. Casing and BOP will be tested before drilling out with 7 7/8". The BOP will be will be tested daily.

6. Mud Program:.	MUD WEIGHT	VIS.	W/L CONTROL
0' - 400':	Fr/water w/gel & lm	8.5 - 8.8 ppg	32 - 34 No W/L control
400' - 4000':	Cut Brine mud w/starch	10.0 - 10.1 ppg	28 - 29 No W/L control
4000' - 8000':	Fresh water:	8.4 - 8.6 ppg	28 - 29 No W/L control
8000' - 11,000':	Cut brine (50-90k)	9.5 - 10.0 ppg	29 - 29 No W/L control
11,000' - T.D.:	Cut brine (90-100k)	9.9 - 10.2 ppg	33 - 35 W/L control 15cc +/-

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: Possible in the Srawn, Wolfcamp and Morrow.
 - Logging: Gamma Ray/neutron: T.D. to surface.
 DLL-MSFL, CNL-LTD: T.D. to 8 5/8" Casing.
 - 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. Estimated BHP = 6000 psi (evac. hole) with temperature of 195°.
- 10 H₂S: None expected based on previously drilled wells.
11. Anticipated starting date: August 21, 2000.
Anticipated completion of drilling operations: Approx. 6 weeks.

MULTI POINT SURFACE USE AND OPERATIONS PLAN

MANZANO OIL CORPORATION
Neuhaus Federal "14", Well No. 3
660' FSL & 1980' FEL, Sec. 14-T20S-R35E
Lea County, New Mexico
Lease No. : NM-16835
(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 Topo map showing the location of the well as staked. The well site location is approximately 61 road miles east of Carlsbad, New Mexico or 43 road miles southwest of Hobbs, NM. Traveling east of Carlsbad there will be approximately 52 miles of paved highway and 8.8 miles of gravel oilfield/ranch road.
- B. Directions: Travel east from Carlsbad, NM on U.S. Highway 62/180 for approximately 32 miles to New Mexico Highway 176; continue on #176 for 19.7 miles to a Pearson Ranch sign .7 mile past MM 19. Turn left (north) onto a paved road for one mile that ends at the Pearson ranch house. Continue north on gravel road for 4.4 miles to a "Y", taking main road on left and continue northwest then west for 1.7 mile to entry road for caliche pit on left. Cross yellow cattle guard one mile west of pit, road turns northwest then at crossroads, turn north .3 mile to Section 14 and start of proposed access road on the right (east). The proposed access road will run east approximately 1400 feet to the southwest corner of the proposed location.

2. PLANNED ACCESS ROAD:

- A. Length and Width: The proposed access road will be constructed to a width of 12 feet and will be approximately 1400 feet in length. The proposed access road is color coded red on Exhibit "A".
- B. Construction: The proposed access road will be constructed by blading and topping with compacted caliche and will be properly drained.
- C. Turnouts: One turnout will be required, increasing the width to 20 feet for passing.
- D. Culverts: None required.
- E. Cuts and Fills: Will require the leveling of 2 to 3 foot sand dunes and deflation basins.
- F. Gates, Cattle guards: None required.
- G. Off Lease R/W: None required.

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 for Manzano Oil Corp. 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 and proposed access roads.

6. SOURCE OF CONSTRUCTION MATERIALS:

- A. Caliche for surfacing the access road and well site pad will be obtained on location, if possible, or from a private pit, owned by the Sims Ranch, in the NE $\frac{1}{4}$ SW $\frac{1}{4}$ of Sec. 24-T20S-R35E. 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 contained in trash bins to prevent scattering and will be removed for deposit in an approved sanitary land fill 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 well pad and pit area have been staked and flagged, 400' X 400'.
- B. Mat Size: 270' X 210', plus 100' X 75' reserve pits on the north.
- C. Cut & Fill: Will require a 3.5-4 foot cut on the north and northeast with fill to the southeast.
- D. The surface will be topped with compacted caliche and the dirt 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 private surface owner, the Sims Ranch, will be complied with and will be accomplished as expeditiously as possible. All pits will be filled and leveled as soon as they are sufficiently dried.

11. OTHER INFORMATION:

- A. Topography: The well site and access road are located in the High Plains of eastern New Mexico with 2 - 8 foot vegetation covered sand dunes and deflation basins with an overall 1% slope to the southeast from a 3676' GL elevation.
- B. Soil: The topsoil at the well site is a fine loamy sand of the Kermit soils and Dune land Series.
- C. Flora and Fauna: The vegetation cover on the proposed access road and location is a sparse to fair grass cover of three-awn, sand dropseed, bluestem, grama and other misc. native grasses along with plants of oakbrush, yucca, sage, broomweed, sunflowers, buckwheat, cacti and miscellaneous weeds and wildflowers. The wildlife consists of rabbits, coyotes, deer, antelope, rattlesnakes, lizards, dove, quail and other wildlife typical of the semi-arid desert land.
- D. Ponds and Streams: None in the immediate area.
- E. Residences and Other Structures: None in the area except oilfield equipment.
- F. Land Use: Cattle grazing.
- G. Surface Ownership: The proposed well site and access road is on the fee surface of the Sims Ranch with Federal minerals. A surface owner's agreement is being negotiated at this time similar to the one for the Neuhaus Fed. #2.

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 is being 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:

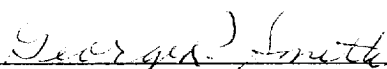
Ronnie Carre
P.O. Box 3
Loco Hills, NM 88255
Office Phone: (505) 623-1996
Home Phone: (505) 677-3454

Donnie Brown
Manzano Oil Corporation
P. O. Box 2107
Roswell, NM 88202
Office Phone: (505) 623-1996

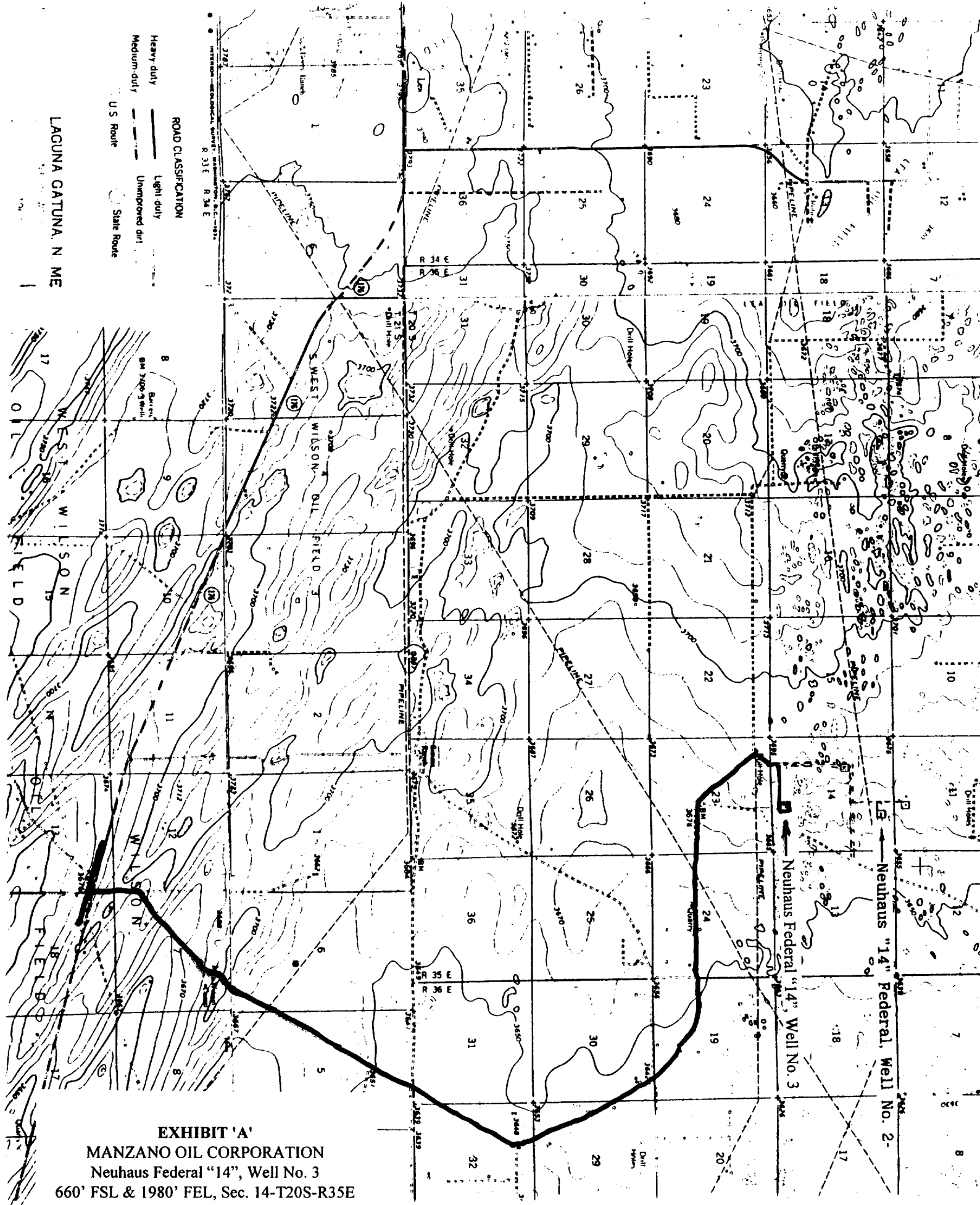
13. CERTIFICATION:

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.

August 4, 2000



George R. Smith
Agent for: Manzano Oil Corporation



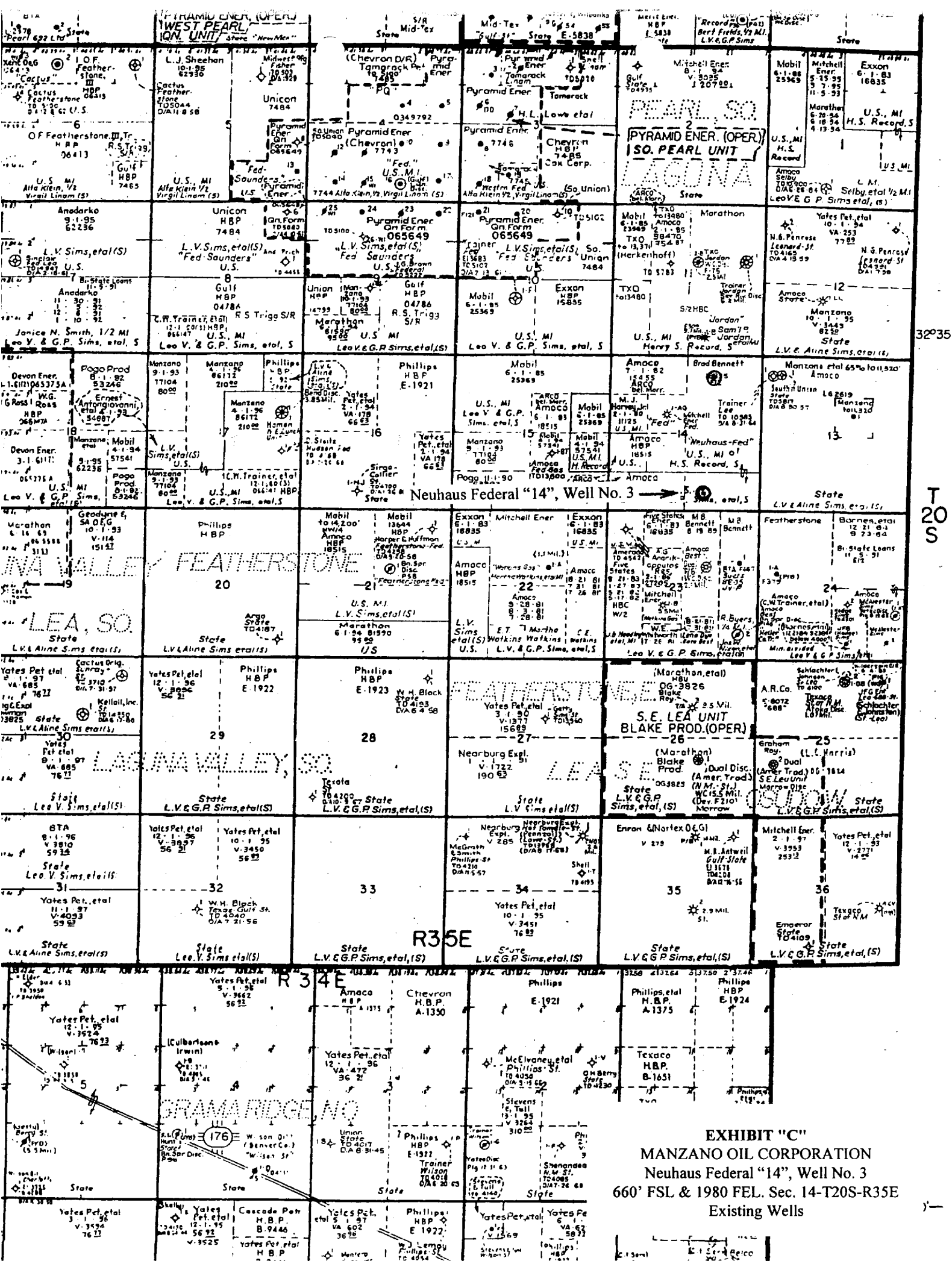


EXHIBIT "C"
MANZANO OIL CORPORATION
Neuhaus Federal "14", Well No. 3
660' FSL & 1980 FEL. Sec. 14-T20S-R35E
Existing Wells

PLOT LAYOUT - RIG 2

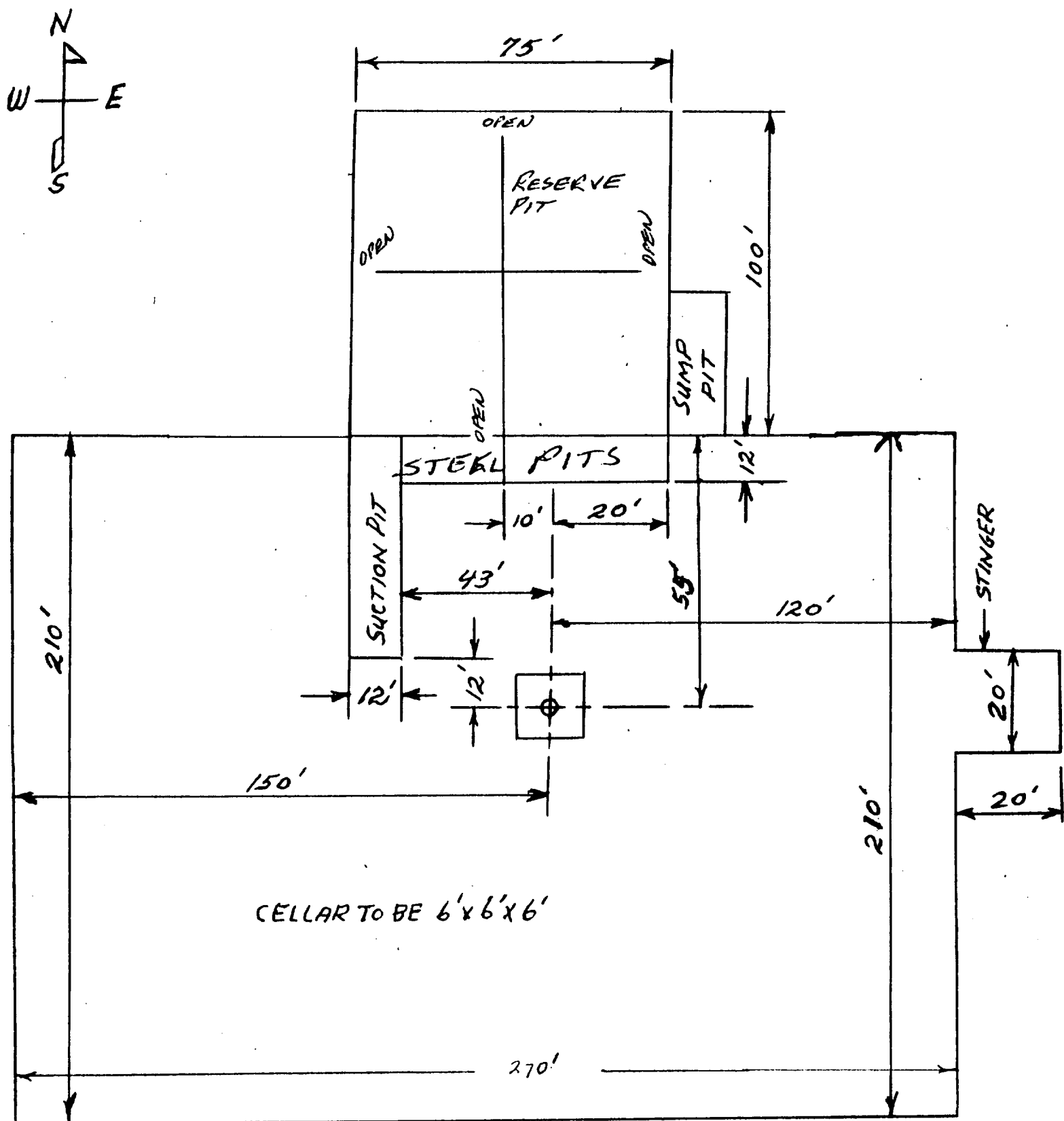


EXHIBIT "D"
MANZANO OIL CORPORATION
Neuhaus Federal "14", Well No. 3
Pad & Pit Layout

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

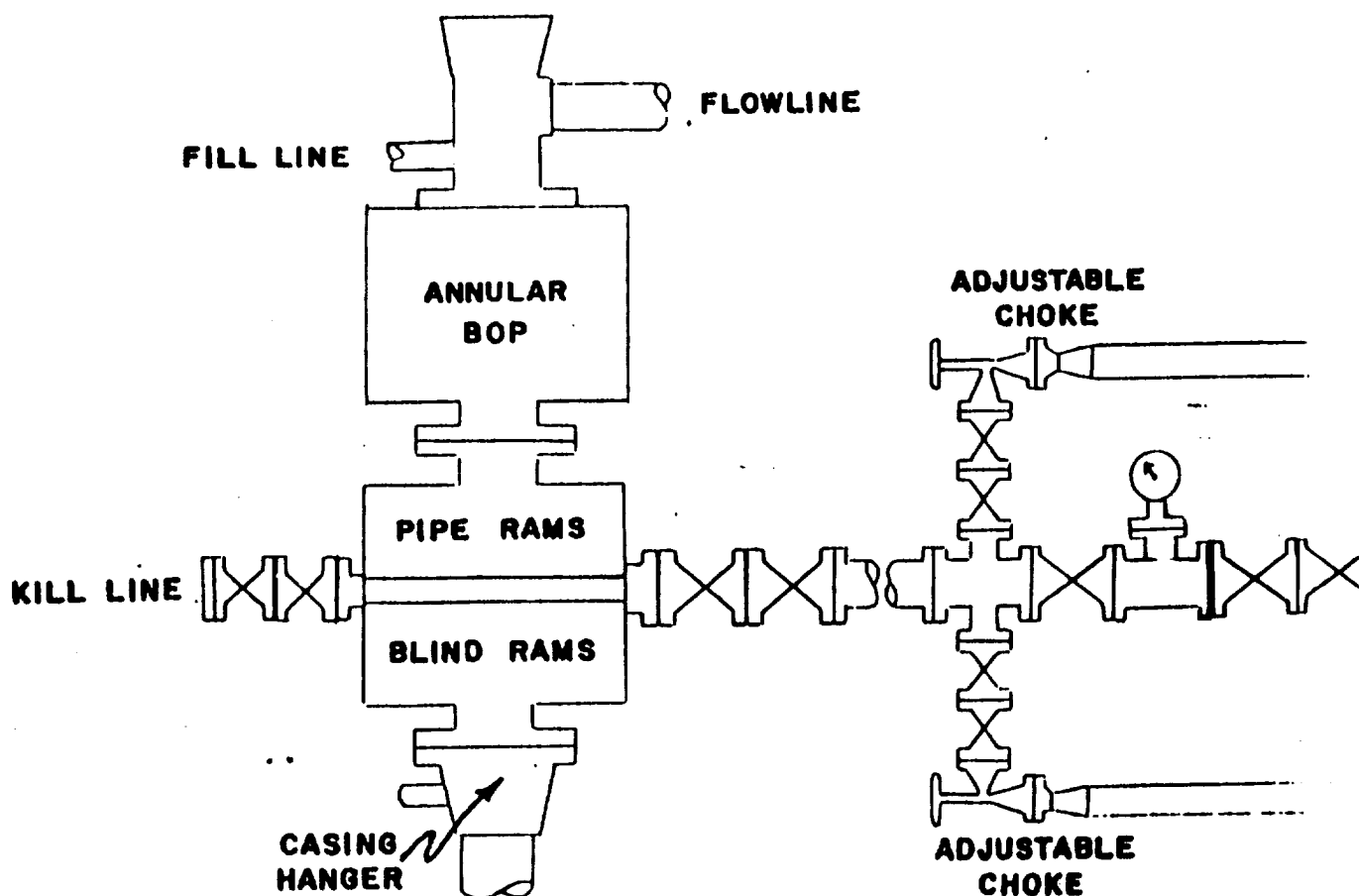


EXHIBIT "E"
MANZANO OIL CORPORATION
Wynell Federal, Well No. 9
BOP Specifications

ELF

ABOVE DATE DOES NOT
INDICATE WHEN
CONFIDENTIAL LOGS
WILL BE RELEASED