

New Mexico Oil Conservation Division, District I
1625 N. French Drive
Hobbs, NM 88240

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM-111966
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator Manzano Oil Corporation		7. If Unit or CA Agreement, Name and No.
3a. Address P.O. Box 2107 Roswell, NM 88202		8. Lease Name and Well No. Brennan Federal Com., Well #1
3b. Phone No. (include area code) (505) 623-1996		9. API Well No. 30-041-20911
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 1980' FSL & 660' FEL At proposed prod. zone same Unit I		10. Field and Pool, or Exploratory Wildcat Mississippi
14. Distance in miles and direction from nearest town or post office* 15 miles SE of Elida, NM		11. Sec., T., R., M., or Blk. and Survey of Area Sec. 33-T6S-R33E
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	12. County or Parish Roosevelt
17. Spacing Unit dedicated to this well 320	18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. N/A	13. State NM
19. Proposed Depth 9,100'	20. BLM/BIA Bond No. on file NM-2567	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 4393' GL	22. Approximate date work will start* December 28, 2004	23. Estimated duration 4 - 5 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. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification. |
| 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). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature <i>George R. Smith</i>	Name (Printed/Typed) George R. Smith	Date Nov. 22, 2004
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Title

Agent for Manzano Oil Corporation

Approved by (Signature) /S/LARRY D. BRAY	Name (Printed/Typed) /S/LARRY D. BRAY	Date DEC 30 2004
Title Assistant Field Manager, Lands And Minerals	Office ROSWELL FIELD OFFICE	APPROVED FOR 1 YEAR

Application 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, 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.

OPER. OGRID NO. **13954**
PROPERTY NO. **34519**
POOL CODE **✓**
EFF. DATE **12-05**
API NO. **30-041-20911**

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS ATTACHED

George R. Smith
George R. Smith, agent

1626 N. FRENCH DR., HOBBS, NM 88240

State of New Mexico
Energy, Minerals and Natural Resources Department

DISTRICT II

1301 W. GRAND AVENUE, ARTESIA, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

OIL CONSERVATION DIVISION

**1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505**

Form C-102
Revised JUNE 10, 2003
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-041-20911	Pool Code ✓	Pool Name Wildcat Mississippian
Property Code 34519	Property Name BRENNAN FEDERAL COM	Well Number 1
OGRIID No. 13954	Operator Name MANZANO OIL CORPORATION	Elevation 4393'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	33	6-S	33-E		1980	SOUTH	660	EAST	ROOSEVELT

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
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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**

GEODETIC COORDINATES
 NAD 27 NME

 Y=1000941.1 N
 X=734046.7 E

 LAT.=33°44'56.80" N
 LONG.=103°33'48.12" W

Well location diagram:
 - A dashed rectangle with corners at (4393.2, 4392.0), (4393.3, 4392.0), (4393.3, 4391.9), and (4393.2, 4391.9).
 - A well symbol (circle with a dot) is located at (4393.2, 4392.0).
 - Dimensions: 500' (horizontal), 500' (vertical), 660' (diagonal from corner to well), and 1980' (vertical distance from bottom of rectangle to well).

OPERATOR CERTIFICATION

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

George R. Smith
Signature

George R. Smith, agent
Printed Name

Manzano Oil Corp.
Title

11/19/04
Date

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.

OCTOBER 28, 2004

Date Surveyed **LA**

Signature & Seal of
Professional Surveyor

GARY EIDSON 11/11/04
04.11.1415

Certificate No. **GARY EIDSON** 12641

APPLICATION FOR DRILLING

MANZANO OIL CORPORATION
Brennan Federal Com., Well No. 1
1980' FSL & 660' FEL, Sec. 33-T6S-R33E
Roosevelt County, New Mexico
Lease No.: NM-111966
(Exploratory 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:

Yates	2,150'	3 Brothers	7,915'
San Andres	3,275'	Bough "C"	8,200'
Glorieta	1,500'	Penn Clastics	8,530'
Tubb	6,000'	Missippian	8,890'
Wolfcamp	7,325'	T.D.	9,100'

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

Water: Surface water between 100' - 300'.
Oil: Possible in the Bough "C" below 8200'
Gas: Possible in the Penn Clastics below 8,530'.

4. Proposed Casing Program:

HOLE SIZE	CASING SIZE	WEIGHT	GRADE	JOINT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8"	48.0#	H-40	ST&C	0' - 375'	Circ. 450 sx "C".
11"	8 5/8"	32.0#	J-55	ST&C	375' - 3,600'	Circ. 1000 sx Poz "C".
7 7/8"	5 1/2"	17.0#	L-80	LT&C	3,600' - 9,100'	1100 sx of Poz "C", TOC to 3,000'.

5. Proposed Control Equipment:

A 12" 3000 psi wp Shaffer Type LWS Double Gate BOP will be installed on the 13 3/8" casing. The casing and BOP will be tested as described in Onshore Oil & Gas Order No. 2 before drilling out with the 11". See Exhibit "E".

6. MUD PROGRAM:	MUD WEIGHT	VIS.	W/L CONTROL
0' - 375': Fresh water mud:	8.4 - 8.5 ppg	30 - 40	No W/L control
375' - 1,400': Brine mud:	9.2 - 9.3 ppg	28 - 32	No W/L control
1,400' - 3,600': Brine mud	10.0 - 10.4 ppg	32 - 34	No W/L control
3,600' - 6,700': Brine mud	8.8 - 9.2 ppg	28 - 30	No W/L control
6,700' - 7,200': Brine mud	9.8 - 10.2 ppg	50 - 60	W/L control 6 - 12 cc +/-
7,200' - 9,100': Cut brine mud	9.8 - 10.2 ppg	40 - 48	W/L control 15 - 20 cc +/-

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: As deemed necessary.

Logging: TD - 3600': GR-Azimuthal Laterlog, and GR-Compensated Density-Neutron w/optional Sonic log
3600' - surface: GR/CNL.

Coring: As dictated by logs.

Manzano Oil Corporation

Brennan Federal Com., Well No. 1

Page 2

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 partially evacuated surface pressure = 2002 psi with a temperature of 151°.
10. H₂S: None expected based on information from surrounding wells.
11. Anticipated starting date: December 20, 2004.
Anticipated completion of drilling operations: Approximately 30 – 40 days.

MULTI POINT SURFACE USE AND OPERATIONS PLAN

MANZANO OIL CORPORATION
Brennan Federal Com., Well No. 1
1980' FSL & 660' FEL, Sec. 33-T6S-R33E
Roosevelt County, New Mexico
Lease No.: NM-111966
(Exploratory 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 well as staked. The well site location is approximately 19 road miles southeast of Elida, New Mexico. Traveling northeast of Roswell, NM on U.S. Highway 70 and county roads No. RRAK and RR35S, there will be approximately 81 miles of paved highway and 5 miles of gravel county road.
- B. Directions: Travel northeast from Roswell, NM on U.S. Highway 70 for approximately 67 miles to Elida, NM; turn south on NM Hwy 114 for approximately 1 mile to paved county road RRAK. Continue south on the county road for 13 miles to end of paving and crossing of county road RR35S. Turn east on gravel county road RR35S for approximately 5 miles. The proposed access road start at this point on the north side of road and will run north .4 mile and then west for approximately 500 feet to the southeast 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 2500 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 at midpoint may be required increasing the width to 20 feet for passing.
- D. Culverts: None required.
- E. Cuts and Fills: None required.
- F. Gates, Cattle guards: One cattle guard will be required at the turnoff from the county road.
- 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 no 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, if required, 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 in NE¼NW¼ of Sec. 3-T7S-R33E. 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 landfill 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, 500' X 500'.
- B. Mat Size: 260' X 185', plus 100' X 100' reserve pits on the North.
- C. Cut & Fill: Will require a .5-foot cut on the west with fill to the east. Surface soil will be stored on the southwest corner.
- 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 required 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 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 and the fee surface owner, Johnny Firestone, 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 flat plains of eastern New Mexico with an overall .4% slope to the southeast from a 4393' GL elevation.
- B. Soil: The topsoil at the well site is a reddish brown sandy loam of the Amarillo-Clovis fine sands soils complex.
- C. Flora and Fauna: The vegetation cover on the proposed access road and location is an excellent grass cover of black grama, side oats grama, three-awn, dropseed and other misc. native grasses along with plants of yucca, mesquite, catclaw, sage, broomweed and miscellaneous weeds and wildflowers. The wildlife consists of antelope, rabbits, coyotes, rattlesnakes, lizards, dove, quail and other wildlife typical of the semi-arid desert land.
- D. Ponds and Streams: None in the area.
- E. Residences and Other Structures: The Firestone ranch house is approximately 1900 feet south of the well site.
- F. Land Use: Cattle grazing.
- G. Surface Ownership: The proposed well site and access road are on fee surface owned by Johnny Firestone, 145 Highway 267, Portales, NM 88130, Ph. #505-356-3197. A landowner agreement has been made to compensate for surface damages and to rehabilitate the surface when plugged and abandoned.

11. OTHER INFORMATION: cont.....

- H. There is no evidence of archaeological, historical or cultural sites in the area. Archaeological Survey Consultants, P. O. Box 2285, Roswell, NM 88202, is conducting an archaeological survey 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:

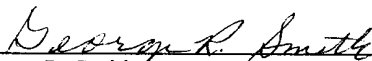
Ronnie Carre
P.O. Box 3
Loco Hills, NM 88255
Office Phone: (505) 623-1996
Home Phone: (505) 677-3454

Kenneth Barbe
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.

November 18, 2004



George R. Smith
Agent for: Manzano Oil Corporation

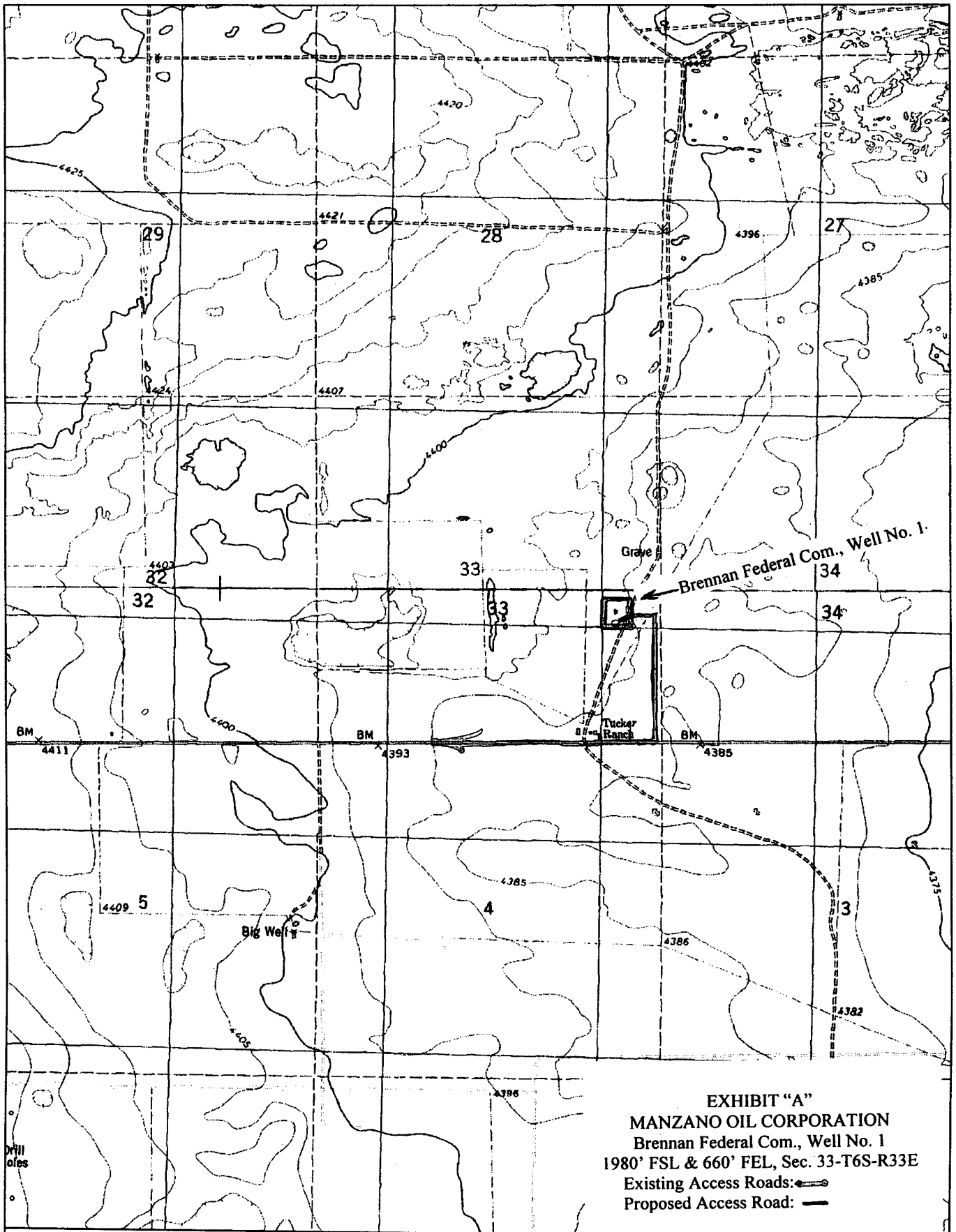
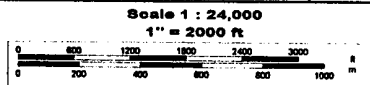


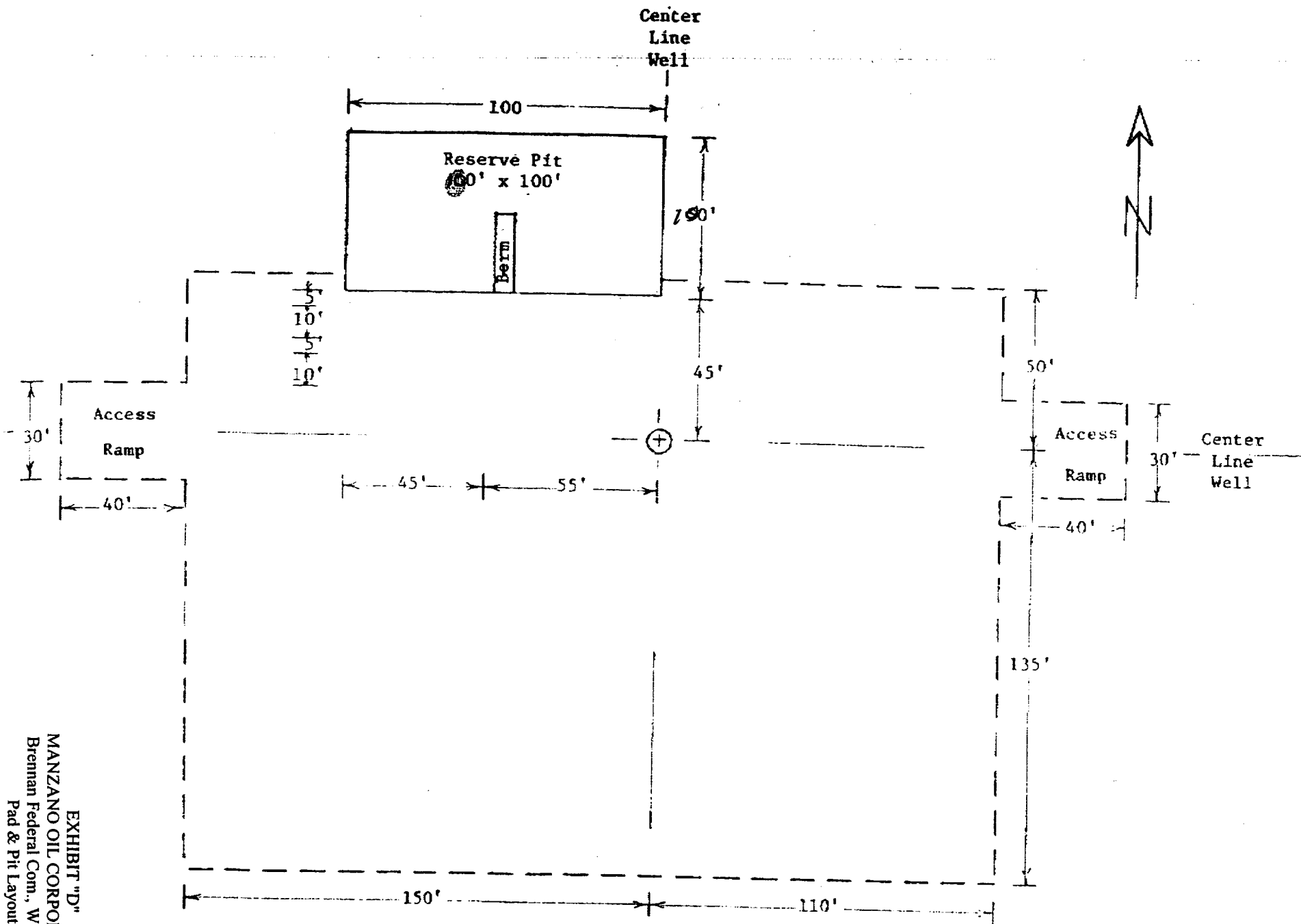
EXHIBIT "A"
 MANZANO OIL CORPORATION
 Brennan Federal Com., Well No. 1
 1980' FSL & 660' FEL, Sec. 33-T6S-R33E
 Existing Access Roads:
 Proposed Access Road:

DeLORME

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UNITED DRILLING, INC.

LOCATION PLAT

RIG # 28

Scale: 1"=40' 10-9-92

EXHIBIT "D"

MANZANO OIL CORPORATION
Brennan Federal Com., Well No. 1
Pad & Pit Layout

BOP DIAGRAM 3000# SYSTEM

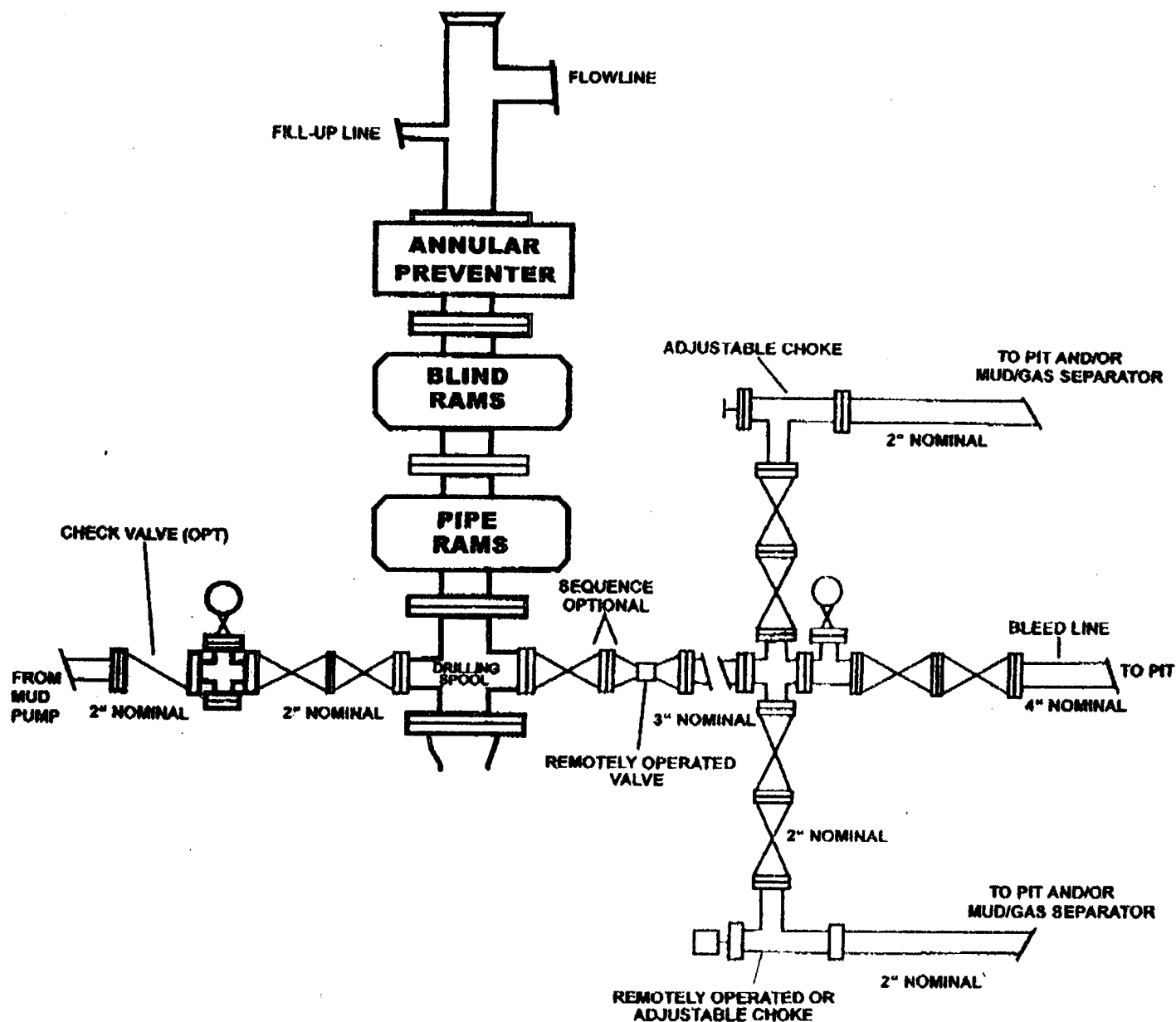


EXHIBIT "E"
MANZANO OIL CORPORATION
Brennan Federal Com., Well No. 1
BOP Specifications

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Form C-144
March 12, 2004

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☐

Type of action: Registration of a pit or below-grade tank ☐ Closure of a pit or below-grade tank ☐

Operator: Manzano Oil Corporation Telephone: 505-623-1996 e-mail address: _____

Address: P.O. Box 2107 Roswell, NM 88202

Facility or well name: Brennan Federal Com. Well #1 API #: 30-044-20911 U/L or Qtr/Qtr NESE Sec 33 T 6S R 33E

County: Roosevelt Latitude 33°44'56.80" N Longitude 103°33'48.12" W NAD: 1927 X 1983 ☐ Surface Owner Federal X State ☐ Private ☐ Indian ☐

Pit

Type: Drilling X Production ☐ Disposal ☐

Workover ☐ Emergency ☐

Lined X Unlined ☐

Liner type: Synthetic X Thickness 12 mil Clay ☐ Volume

10,000 bbl

Below-grade tank

Volume: _____ bbl Type of fluid: _____

Construction material: _____

Double-walled, with leak detection? Yes ☐ If not, explain why not.

Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)

Less than 50 feet

(20 points)

50 feet or more, but less than 100 feet

(10 points)

100 feet or more

(0 points)

Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)

Yes

(20 points)

No

(0 points)

Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)

Less than 200 feet

(20 points)

200 feet or more, but less than 1000 feet

(10 points)

1000 feet or more

(0 points)

Ranking Score (Total Points)

If this is a pit closure: (1) attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location:

onsite ☐ offsite ☐ If offsite, name of facility _____ (3) Attach a general description of remedial action taken including remediation start date and

end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface _____ ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Date: 12/15/04

Printed Name/Title George R. Smith, agent for Manzano Oil Corp.

Signature George R. Smith

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval: _____

Date: _____

Printed Name/Title _____

Signature _____

JAN 13 2005

ORIGINAL
PAUL F. [unclear]
PETROLEUM ENGINEER