

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. <u><34519></u> Brennan Federal Com., Well #2	
3b. Phone No. (include area code) (505) 623-1996		9. API Well No. 30-041-20922	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 1980' FNL & 660' FWL At proposed prod. zone same		10. Field and Pool, or Exploratory Chavaroo N. Lower Penn.	
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 or Area Sec. 34-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	17. Spacing Unit dedicated to this well 320	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1868'	19. Proposed Depth 9,000'	20. BLM/BLM Bond No. on file NM-8567	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 4,388'	22. Approximate date work will start* 2/27/06	23. Estimated duration 4 - 5 weeks	
24. Attachments DECLARED WATER BASIN			

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

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification.
- 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 1/30/06
Title Agent for Manzano Oil Corporation		
Approved by (Signature) <i>/S/LARRY D. BRAY</i>	Name (Printed/Typed) /S/LARRY D. BRAY	Date FEB 28 2006
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.

DECLARED WATER BASIN

CEMENT BEHIND THE CASING MUST BE CIRCULATED
WITNESS

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS ATTACHED

George R. Smith, agent

State of New Mexico

DISTRICT I

1625 N. FRANCH DR., HOBBBS, NM 88240

Energy, Minerals and Natural Resources Department

Form C-102

Revised JUNE 10, 2003

DISTRICT II

1301 W. GRAND AVENUE, ARTESIA, NM 88210

OIL CONSERVATION DIVISION

Submit to Appropriate District Office

1220 SOUTH ST. FRANCIS DR.

State Lease - 4 Copies

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

Santa Fe, New Mexico 87505

Fee Lease - 3 Copies

DISTRICT IV

1625 S. ST. FRANCIS DR., SANTA FE, NM 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-041-20922	Pool Code 8999 97445	Pool Name Chaveroo Lower Penn, North
Property Code 34519	Property Name BRENNAN FEDERAL	Well Number 2
OGRID No. 13954	Operator Name MANZANO, LLC	Elevation 4388'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E.	34	6-S	33-E		1980	NORTH	660	WEST	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
Dedicated Acres 320	Joint or Infill	Consolidation Code Com.	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

<p>1980'</p> <p>4386.7' 4388.8'</p> <p>660' 600'</p> <p>4386.6' 4386.2'</p> <p>GEODETTIC COORDINATES NAD 27 NME</p> <p>Y=1002250.3 N X=735372.1 E</p> <p>LAT.=33°45'09.66" N LONG.=103°33'32.31" W</p>	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>George R. Smith</i> Signature</p> <p>George R. Smith agent Printed Name</p> <p>for Manzano Oil Corp. Title</p> <p>January 30, 2006 Date</p>
	<p>SURVEYOR CERTIFICATION</p> <p>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.</p> <p>JANUARY 18, 2006</p> <p>Date Surveyed</p> <p>Signature & Seal of Professional Surveyor</p> <p><i>G. EIDSON</i> GARY EIDSON NEW MEXICO 1/24/06 06.11.0052</p>
	<p>Certificate No. GARY EIDSON 12841</p>

APPLICATION FOR DRILLING

MANZANO OIL CORPORATION
Brennan Federal Com., Well No. 2
1980' FNL & 660' FWL, Sec. 34-T6S-R33E
Roosevelt County, New Mexico
Lease No.: NM-111966
(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:

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'	Mississippian	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' - 3600': 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. 2

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: February 27, 2006.

Anticipated completion of drilling operations: Approximately 30 – 40 days.

MULTI POINT SURFACE USE AND OPERATIONS PLAN

MANZANO OIL CORPORATION
Brennan Federal Com., Well No. 2
1980' FSL & 660' FWL, Sec. 34-T6S-R33E
Roosevelt County, New Mexico
Lease No.: NM-111966
(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 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. Turn north at this point for .4 mile to the end of the north route of the access road to the Brennan Fed. Com. #1. The proposed access road will start at this point and will continue to run north 1300 feet and then east for approximately 300 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 1600 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: 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 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 NE $\frac{1}{4}$ NW $\frac{1}{4}$ 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 clearing only since location is level. 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 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 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 .5% slope to the southeast from a 4388' 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 3650 feet southwest 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:


John Thompson
Manzano Oil Corporation
P.O. Box 2107
Roswell, NM 88202
Office Phone: (505) 623-1996
Cell Phone: (505) 420-1455

Mike Hanagan
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.

January 30, 2006



George R. Smith
Agent for: Manzano Oil Corporation

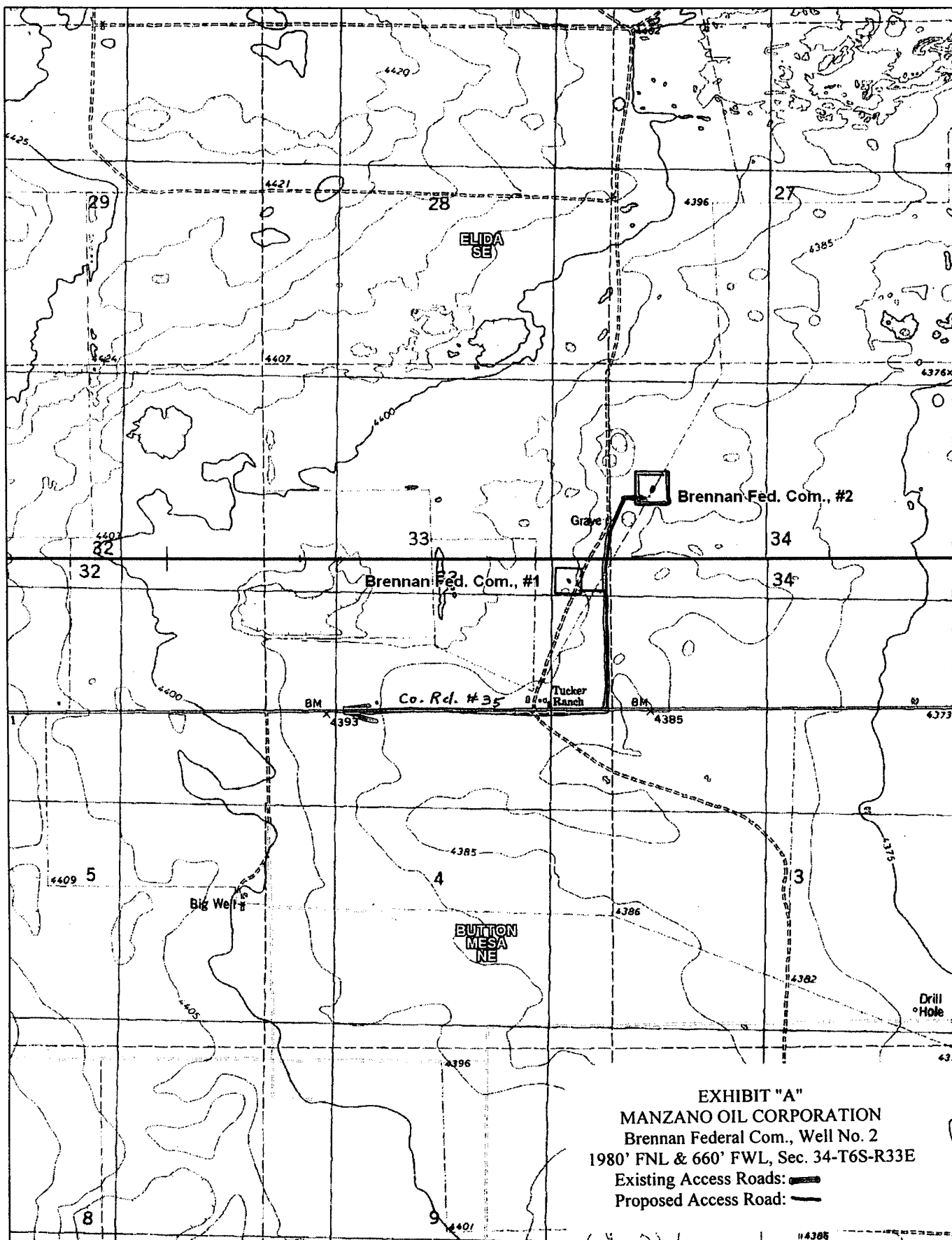


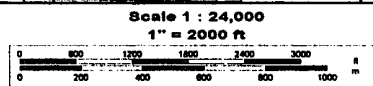
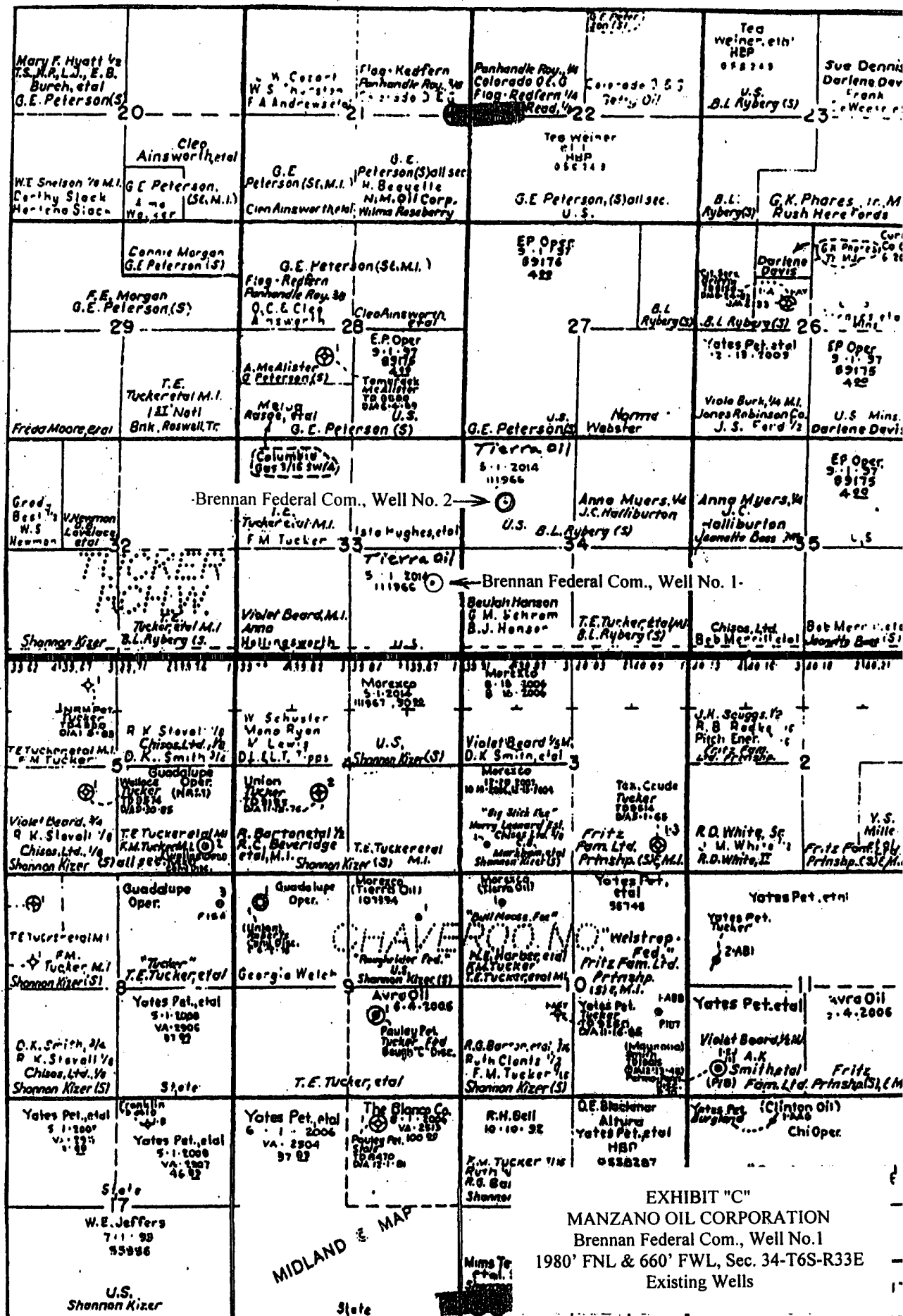


EXHIBIT "A"
 MANZANO OIL CORPORATION
 Brennan Federal Com., Well No. 2
 1980' FNL & 660' FWL, Sec. 34-T6S-R33E
 Existing Access Roads: 
 Proposed Access Road: 

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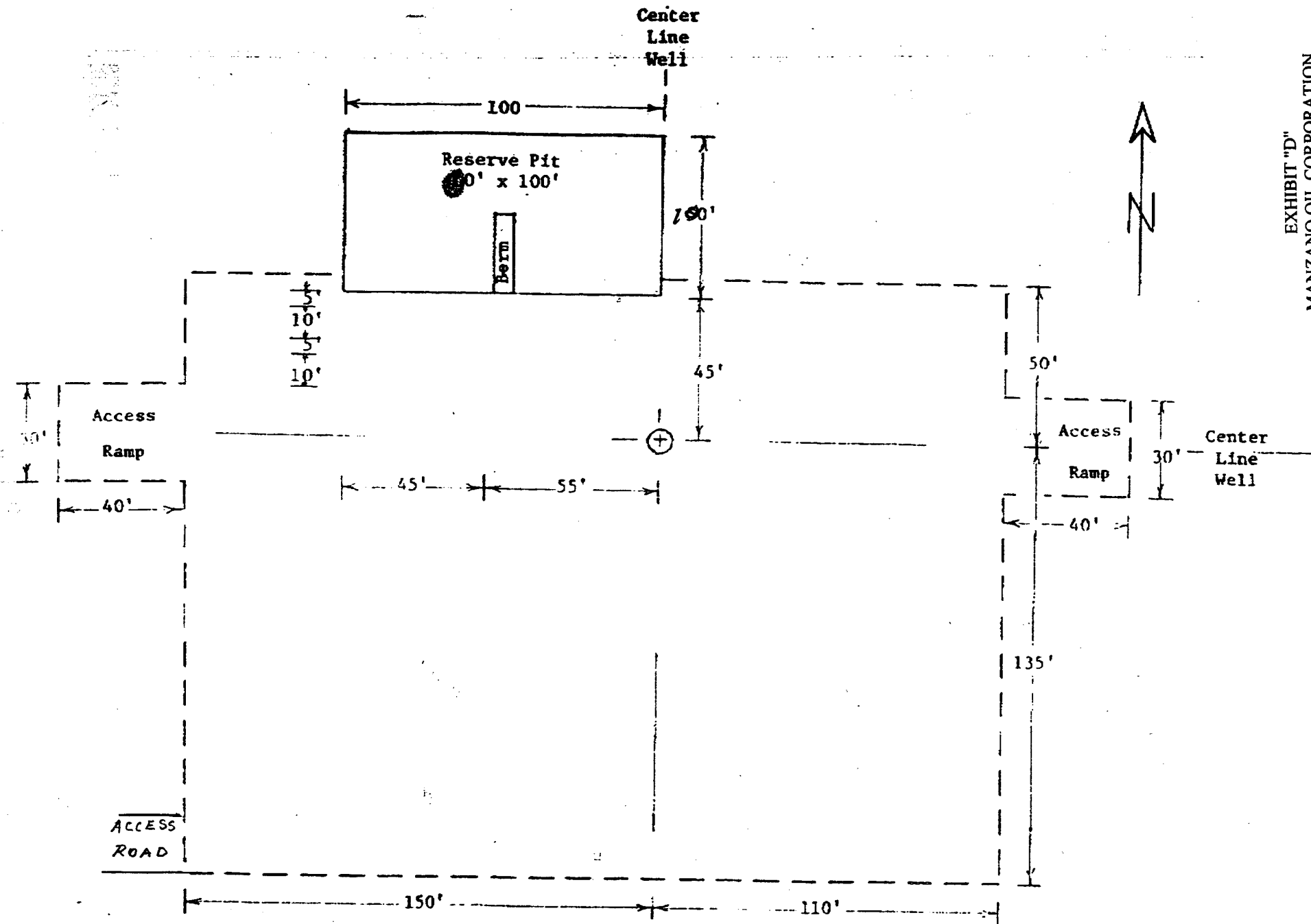


EXHIBIT "D"
MANZANO OIL CORPORATION
Brennan Federal Com., Well No. 2
Pad & Pit Layout

-2620

MANZANO OIL CORP

PAGE 01

UNITED DRILLING, INC.
LOCATION FLAT
RIG # 28
Scale: 1"=40' 10-9-92

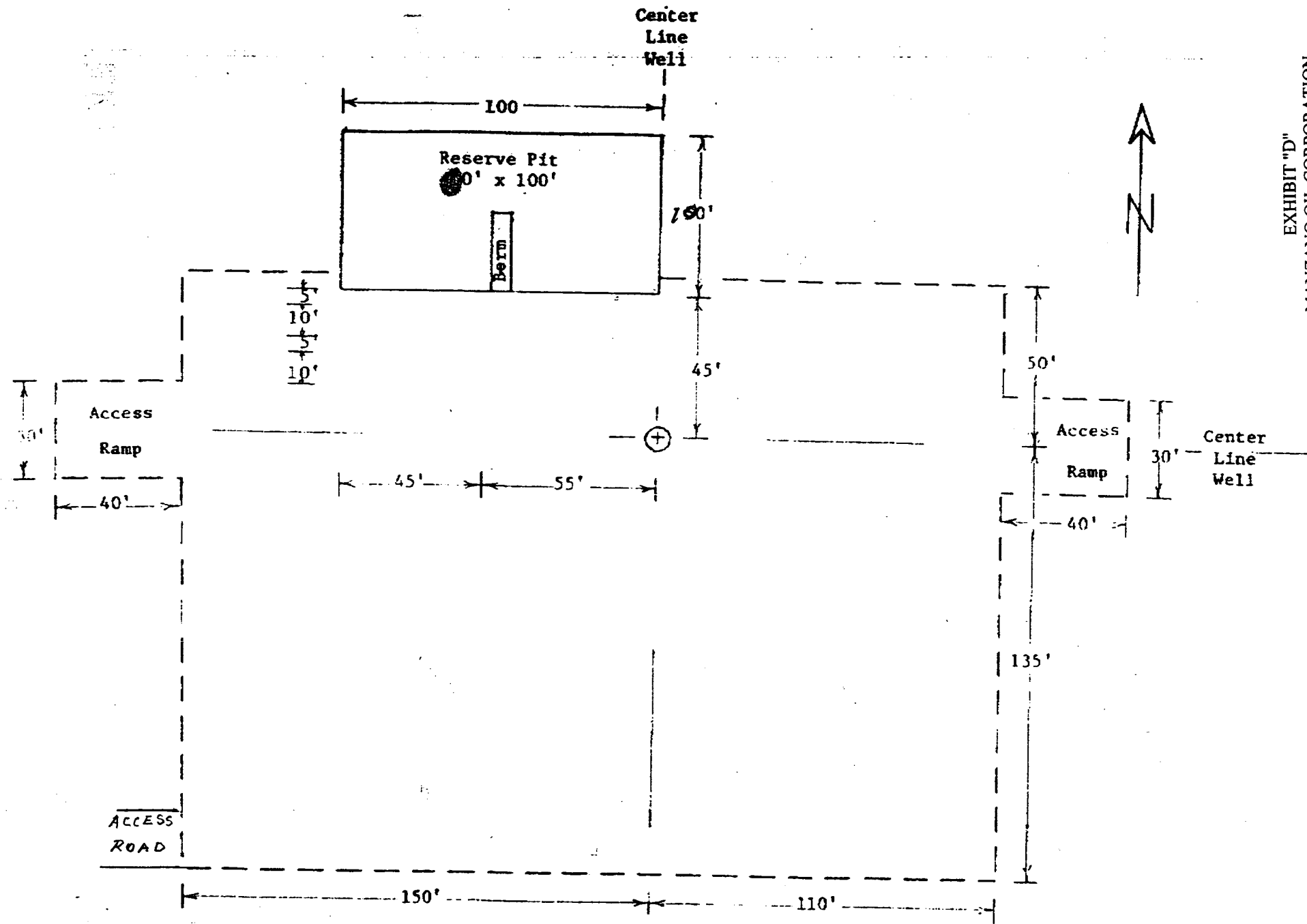


EXHIBIT "D"
 MANZANO OIL CORPORATION
 Brennan Federal Com., Well No. 2
 Pad & Pit Layout

-2620

MANZANO OIL COOP

PAGE 01

UNITED DRILLING, INC.

LOCATION PLAT

RIG #28

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

EXHIBIT A

OPERATOR: Manzano Oil Corporation

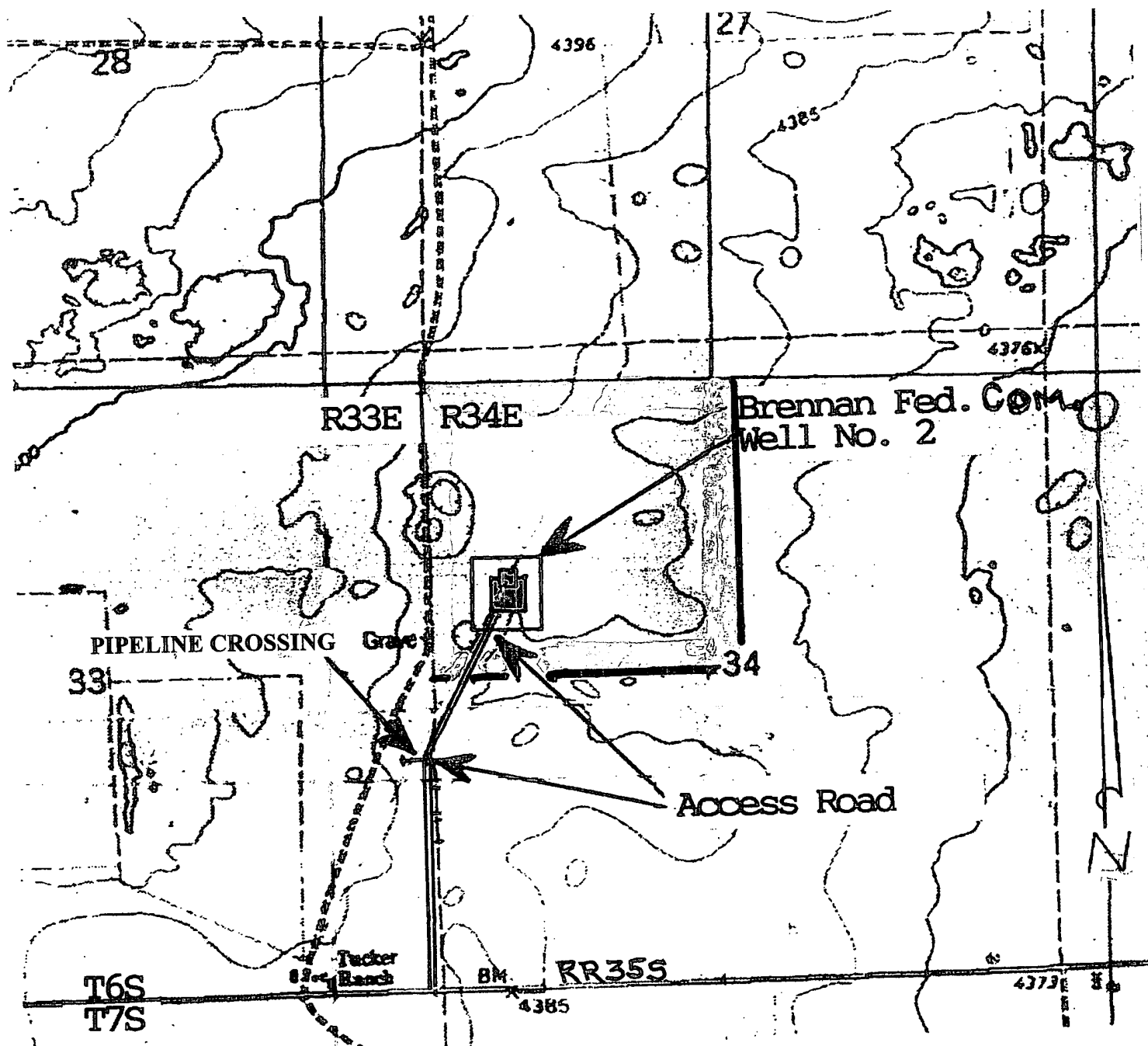
LEASE NO: NM-111966

WELL NAME & NO.: Brennan Federal Com. #2

LOCATION: Section 34, T. 6 S., R. 33 E., N.M.P.M.

QUARTER/QUARTER & FOOTAGE: SW $\frac{1}{4}$ NW $\frac{1}{4}$ - 1980' FNL & 660' FWL

COUNTY: Roosevelt County, New Mexico





United States Department of the Interior
BUREAU OF LAND MANAGEMENT
Roswell Field Office
2909 West Second Street
Roswell, New Mexico 88201

EXHIBIT B

1 of 5 pages

WELL DRILLING REQUIREMENTS

OPERATORS NAME: Manzano Oil Corporation LEASE NO.: NM-111966
WELL NAME & NO: Brennan Federal Com. #2
QUARTER/QUARTER & FOOTAGE: SW $\frac{1}{4}$ NW $\frac{1}{4}$ - 1980' FNL & 660' FWL
LOCATION: Section 34, T. 6 S., R. 33 E., NMPM
COUNTY: Roosevelt County, New Mexico

I. GENERAL PROVISIONS:

- A. The operator has the right of administrative review of these requirements pursuant to 43 CFR 3165.1(a).
- B. The operator shall hereafter be identified as the holder in these requirements. The Authorized Officer is the person who approves the Well Drilling Requirements.

II. WELL PAD CONSTRUCTION REQUIREMENTS:

- A. The BLM shall administer compliance and monitor construction of the access road and well pad. Notify Richard G. Hill at least 3 working days (72 Hours) prior to commencing construction of the access road and/or well pad. Roswell Field Office number (505) 627-0247.
- B. Prior to commencing construction of the access road, well pad, or other associated developments, the holder shall provide the dirt contractor with a copy of the approved APD signature page, a copy of the location map (EXHIBIT A), a copy of pages 1 & 2 from the Well Drilling Requirements (EXHIBIT B), and a copy of the Permanent Resource Road Requirements (EXHIBIT D).
- C. The holder shall stockpile the topsoil from the surface of the well pad. The topsoil on the Brennan Federal Com. #2 well pad is approximate 6 inches in depth. Approximately 800 cubic yards of topsoil shall be stockpiled on the Southeast corner of the well pad, opposite the reserve pit.
- D. **Reserve Pit Requirements:**
 - 1. The reserve pit shall be constructed 100' X 100' on the **North** side of the well pad.
 - 2. The reserve pit shall be constructed to a minimum depth of four (4) feet below ground level. The reserve pit shall be constructed, so that the cuttings in the reserve pit can be buried a minimum depth of three (3) feet below ground level. See **Exhibit E – Surface Reclamation/Restoration Requirements**.
 - 3. A synthetic or fabricated liner 12 mil in thickness shall be used to line the reserve pit. The liner shall meet ASTM standards that are designed to be resistant to the reserve pit contents.

WELL DRILLING REQUIREMENTS

2 of 5 pages

4. The reserve pit shall be fenced on three (3) sides during drilling operations. The fourth side shall be fenced immediately upon rig release.
5. The reserve pit shall be constructed so as not to leak, break, or allow discharge of drilling muds. Under no circumstances will the reserve pit be cut to drain drilling muds on the well location.
6. The reserve pit shall not be located in any natural drainage.
7. The reserve pit shall be equipped to deter entry by birds, bats, other wildlife, and livestock, if the reserve pit contains any oil and/or toxic fluids.
8. Drilling muds shall be properly disposed of before the reserve pit is reclaimed. Drilling muds can be allowed to evaporate in the reserve pit or be removed and transported to an authorized disposal site. The reserve pit shall be backfilled when dry.
9. Dumping of junk or trash into the reserve pit is not allowed. Junk or trash shall be removed from within the reserve pit before the reserve pit is reclaimed. **Junk or trash shall not be buried in the reserve pit.**

E. Federal Mineral Materials Pit Requirements:

1. Caliche, gravel, or other related materials from new or existing pits on Federal mineral estate shall not be taken without prior approval from the authorized officer. Contact Jerry Dutchover at (505) 627 -0236.
2. Payment for any Federal mineral materials that will be used to surface the access road and the well pad is required prior to removal of the mineral materials.
3. Mineral Materials extracted during construction of the reserve pit may be used for development of the pad and access road as needed, for the Brennan Federal Com. #2 gas well only. Removal of any additional material on location must be purchased from BLM prior to removal of any material.
 - a. An optional mineral material pit may be constructed within the archaeologically cleared area. The mineral material removed in the process can be used for pad and access road construction. However, a mineral material sales contract must be purchased from the BLM prior to removal of any material.

F. Well Pad Surfacing Requirement:

The well pad shall be surfaced with 6 inches of compacted caliche, gravel, or other approved surfacing material. The well pad shall be surfaced prior to drilling operations. **See Permanent Resource Road Requirements - EXHIBIT D - requirement #4, for road surfacing.**

G. Cave Requirements:

1. If, during any construction activities any sinkholes or cave openings are discovered, all construction activities shall immediately cease. Contact Larry Bray at (505) 627-0250.
2. The BLM Authorized Officer will, within 24 hours of notification in "A" above, conduct an on-the-ground field inspection for karst. At the field inspection the authorized field inspector will authorize or suggest mitigating measures to lessen the damage to the karst environment. A verbal order to proceed or stop the operation will be issued at that time.

III. CONDITIONS OF APPROVAL - DRILLING

I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at (505) 627-0272 in sufficient time for a representative to witness:

WELL DRILLING REQUIREMENTS

3 of 5 pages

A. Spudding B. Cementing casing: 13-3/8 inch 8-5/8 inch 5-1/2 inch C. BOP tests

2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

3. Include the API No. assigned to well by NMOCD on the subsequent report of setting the first casing string

4. A Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the BLM. The effective date of the agreement shall be prior to any sales.

II. CASING:

1. 13-3/8 inch surface casing should be set at approximately 375 feet, below usable water and circulate cement to the surface. If cement does not circulate to the surface, the BLM Roswell Field Office shall be notified at (505) 627-0272 and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.

2. Minimum required fill of cement behind the 8-5/8 inch intermediate casing is sufficient to circulate to the surface.

3. Minimum required fill of cement behind the 5-1/2 inch production casing is sufficient to tie back 500 feet above the uppermost perforation in the pay zone.

III. PRESSURE CONTROL:

1. Before drilling below the 13-3/8 inch surface casing, the blowout preventer assembly shall consist of a minimum of One Annular Preventer or Two Ram-Type Preventers and a Kelly Cock/Stabbing Valve. Before drilling below the 8-5/8 inch intermediate casing, the blowout preventer assembly shall consist of a minimum of One Annular Preventer, Two Ram-Type Preventers, and a Kelly Cock/Stabbing Valve.

2. Before drilling below the 13-3/8 inch surface casing, minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 2000 psi. Before drilling below the 8-5/8 inch intermediate casing, minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 3000 psi.

III. PRESSURE CONTROL:

1. After setting the 8-5/8 inch intermediate casing and before drilling into the Wolfcamp formation, the BOPE shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

A. The Roswell Field Office shall be notified at (505) 627-0272 in sufficient time for a representative to witness the tests.

B. The tests shall be done by an independent service company.

C. The results of the test shall be reported to the BLM Roswell Field Office at 2909 West Second Street, Roswell, New Mexico 88201-1287.

D. Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.

E. Testing must be done in a safe workman like manner. Hard line connections shall be required.

IV. DRILLING MUD:

1. Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented. Monitoring equipment shall consist of the following:

A. Recording pit level indicator to indicate volume gains and losses.

B. Flow-sensor on the flow-line to warn of abnormal mud returns from the well.

IV. **ON LEASE - WELL REQUIREMENTS:**

A. The holder shall post signs identifying the location permitted herein with the requirements contained in Onshore Oil and Gas Order #1 and 43 CFR 3162.6.

B. The following data is required on the well sign that shall be posted in a conspicuous place on the well pad. **The communitization agreement number shall be posted on the well sign.** The sign shall be kept up with current identification and shall be legible for as long as the well is in existence:

Operator Name: Manzano Oil Corporation
Well Name & No.: Brennan Federal Com. #2
Lease No.: NM-111966
Footage: 1980' FNL & 660' FWL
Location: Section 34, T. 6 S., R. 33 E.

C. UPON ABANDONMENT OF THE WELL, THE SAME INFORMATION SHALL BE INSCRIBED ON THE DRY HOLE MARKER WITH A BEADED WELD.

D. The approval of the APD does not in any way imply or grant approval of any on-lease, off-lease, or off-unit action(s). It is the responsibility of the holder to obtain other approval(s) such as rights-of-way from the Roswell Field Office or other agencies, including private surface landowner(s).

E. All vehicles, including caterpillar track-type tractors, motor graders, off-highway trucks and any other type of motorized equipment that is used in the construction of the access road and well pad shall be confined to the area(s) herein approved. The drilling rig that is used to drill the well shall also be confined to the approved area(s).

F. **Containment Structure Requirement:**

1. A containment structure or earthen dike shall be constructed and maintained around all storage facilities/batteries. The containment structure or earthen dike shall surround the storage facilities/batteries.

2. The containment structure or earthen dike shall be constructed two (2) feet high around the facilities/batteries (the containment structure or earthen dike can be constructed higher than the two (2) feet high minimum).

3. The perimeter of the containment structure or earthen dike can be constructed substantial larger for greater holding capacity of the contents of the largest tank.

4. The containment structure or earthen dike shall be constructed so that in case of a spill the structure can contain the entire contents of the largest tank, plus 24 hour production, within the containment structure or earthen dike, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

G. Painting Requirement:

All above-ground structures (e.g.: meter houses, tanks, above ground pipelines, and related appurtenance, etc.) not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Supplemental Environmental Colors" designated by the Rocky Mountain Five-State Interagency Committee. The color selected for painting all the well facilities is Olive Drab 18-0622 TPX.

H. Fence Requirement:

The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair impacted improvements to at least their former state. On private surface the holder shall contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates shall be allowed unless approved by the Authorized Officer.

I. Open-vent Exhaust Stack Requirements:

1. All open-vent exhaust stacks associated with heater-treater, separators and dehydrator units shall be modified to prevent birds and bats from entering them and to the extent practical to discourage perching and nesting.
2. New production equipment installed on federal leases after November 1st, 1993, shall have the open-vent exhaust stacks constructed to prevent the entry of birds and bats and to the extent practical, to discourage perching, and nesting.

V. Invasive and Noxious Weeds Requirement:

A. The holder shall be held responsible if noxious weeds become established within the area. Evaluation of the growth of noxious weeds shall be made upon discovery. Weed control will be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipelines, and adjacent land affected by the establishment of weeds due to this action. The holder is responsible for consultation with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policy.

B. The holder shall insure that the equipment and or vehicles that will be used to construct, maintain and administer the access roads, well pad and resulting well are not polluted with invasive and noxious weed seed. Transporting of invasive and noxious weed seed could occur if the equipment and vehicles were previously used in noxious weed infested areas. In order to prevent the spread of noxious weeds, the Authorized Officer shall require that the equipment and vehicles be cleaned with either high pressure water or air prior to construction, maintenance and administration of the access roads, well pad, and resulting well.

VI. SPECIAL REQUIREMENT(S): NONE



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EXHIBIT C

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CONDITIONS OF APPROVAL

OPERATOR: Manzano Oil Corporation

LEASE NO: NM-111966

WELL NAME & NO.: Brennan Federal Com. #2

LOCATION: Section 34, T. 6 S., R. 33 E., N.M.P.M.

QUARTER/QUARTER & FOOTAGE: SW¼NW¼ - 1980' FNL & 660' FWL

COUNTY: Roosevelt County, New Mexico

GENERAL CONDITIONS OF APPROVAL:

1. The **operator** shall hereafter be identified as the **holder** in these requirements. The Authorized Officer is the person who approves the Conditions Of Approval.
2. The holder shall indemnify the United States against any liability for damage to life or property arising from occupancy or use of public lands under this authorization.
3. The holder shall have surface use approval prior to any construction work on change(s) or modification(s) to the access road and/or well pad. The holder shall submit (Form 3160-5), Sundry Notice and Report On Wells, an original plus one (1) copy to the Roswell Field Office, stating the basis for any changes to previously approved plans. Prior to any revised construction the holder shall have an approved Sundry Notice and Report On Wells or written authorization to proceed with the change in plans ratified by the Authorized Officer.
4. **Weed Control:**
 - A. The holder shall be held responsible if noxious weeds become established within the area. Evaluation of the growth of noxious weeds shall be made upon discovery. Weed control will be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipelines, and adjacent land affected by the establishment of weeds due to this action. The holder is responsible for consultation with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policy.

B. The holder shall insure that the equipment and or vehicles that will be used to construct, maintain and administer the access roads, well pad and resulting well are not polluted with invasive and noxious weed seed. Transporting of invasive and noxious weed seed could occur if the equipment and vehicles were previously used in noxious weed infested areas. In order to prevent the spread of noxious weeds, the Authorized Officer shall require that the equipment and vehicles be cleaned with either high pressure water or air prior to construction, maintenance and administration of the access roads, well pad, and resulting well.

5. Hazardous Substances:

a. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act Of 1976, as amended (15 U.S.C. 2601, *et. seg.*) with regard to any toxic substances that are used, generated by or stored on the project/pipeline route or on facilities authorized. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193). Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation and Liability Act, Section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved Federal agency or State government.

b. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substances or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, *et. seg.* or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, *et. seg.*) on this project/pipeline (unless the release or threatened release is wholly unrelated to the holder's activity on the pipeline). This agreement applies without regard to whether a release is caused by the operator, its agent, or unrelated third parties.

6. Undesirable Events:

If, during any phase of the construction, operation, maintenance, or termination of the authorization, any oil or other pollutants, should be discharged, and impacting Federal land, the control and total removal, disposal, and cleaning up of such oil or other pollutants, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of the holder to control, dispose of, or clean up such discharge on or affecting Federal land, or to repair all damages to Federal land resulting therefrom, the Authorized Officer may take such measures as deemed necessary to control and cleanup the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve the holder of any liability or responsibility.

7. Archaeological, Paleontology, and Historical Sites:

a. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder shall be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

b. The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of the project work, the holder shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The holder or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes. Any unauthorized collection or disturbance of cultural resources may result in a shutdown order by the Authorized Officer.

8. Sanitation:

The holder shall be responsible for maintaining the site in a sanitary condition at all times; waste materials shall be disposed of promptly at an appropriate waste disposal site. "Waste" means all discarded matter including, but not limited to, human waste, trash, garbage, refuse, oil drums, petroleum products, ashes, and equipment.

9. Open-top Tanks: Any open-top tank containing oil and/or toxic fluids shall be covered with netting or equipped to prevent birds, bats, and other wildlife from entering the open-top tank.

10. Other: None



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EXHIBIT D

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PERMANENT RESOURCE ROAD REQUIREMENTS

Operator: Manzano Oil Corporation

BLM Serial Number: NM-111966

Well Name & NO.: Brennan Federal Com. #2

Location: Section 34, T. 6 S., R. 33 E.

1980' FNL & 660' FWL, Roosevelt County, N.M.

The holder agrees to comply with the following requirements:

1. GENERAL REQUIREMENTS:

- A. The **operator** shall hereafter be identified as the **holder** in these requirements. The Authorized Officer is the person who approves the Permanent Resource Road Requirements.
- B. The holder shall minimize any disturbance to structures on public domain surface. Damages caused to any structure during road construction operations shall be promptly repaired by the holder. Functional use of any structure shall be maintained at all times. The holder shall make a documented good-faith effort to contact the owner prior to disturbing any structure.
- C. When necessary to pass through an existing fence line, the fence shall be braced on both sides of the passageway prior to cutting and the fence shall be promptly repaired to at least its former state or to a higher standard than it was previously constructed.
- D. A professional engineer shall design the access road if the road grade exceeds 10 percent slope.

2. INGRESS AND EGRESS:

The access road shall be constructed to access the well pad on the **Southwest** corner of the well pad to comply with the planned access road route and private surface landowner onsite agreement.

3. ROAD TRAVELWAY WIDTH:

The travelway of the road shall be constructed 14 feet wide. The maximum width of surface disturbance shall not exceed 30 feet of road construction. The specified travelway width is 14 feet for all road travelway surfaces unless the Authorized Officer approves a different width.

4. SURFACING:

A. Beginning from the dedicated road (county road and/or state highway) all access roads on federal surface and the entire length of the new access road travelway shall be surfaced prior to drilling operations.

B. The access road travelway shall be surfaced with caliche or gravel material. If other surfacing material is used, the new type of material shall be approved by the Authorized Officer. The travelway of the road shall be surfaced with caliche material. The caliche material shall be compacted to a minimum thickness of 6 inches for the entire length of the travelway surface on the access road. The width of surfacing shall not be less than 14 feet of travelway surface. Prior to using any mineral materials from an existing federal pit, authorization must first be obtained from the Authorized Officer.

5. CROWNING AND DITCHING:

Crowning with materials on site and ditching on one side of the road, on the uphill side, shall be required. The road cross section shall conform to the cross section diagrams in Figure 1 (attached page 6). Where conditions dictate, ditching shall be required on both sides of the road. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road).

6. DRAINAGE:

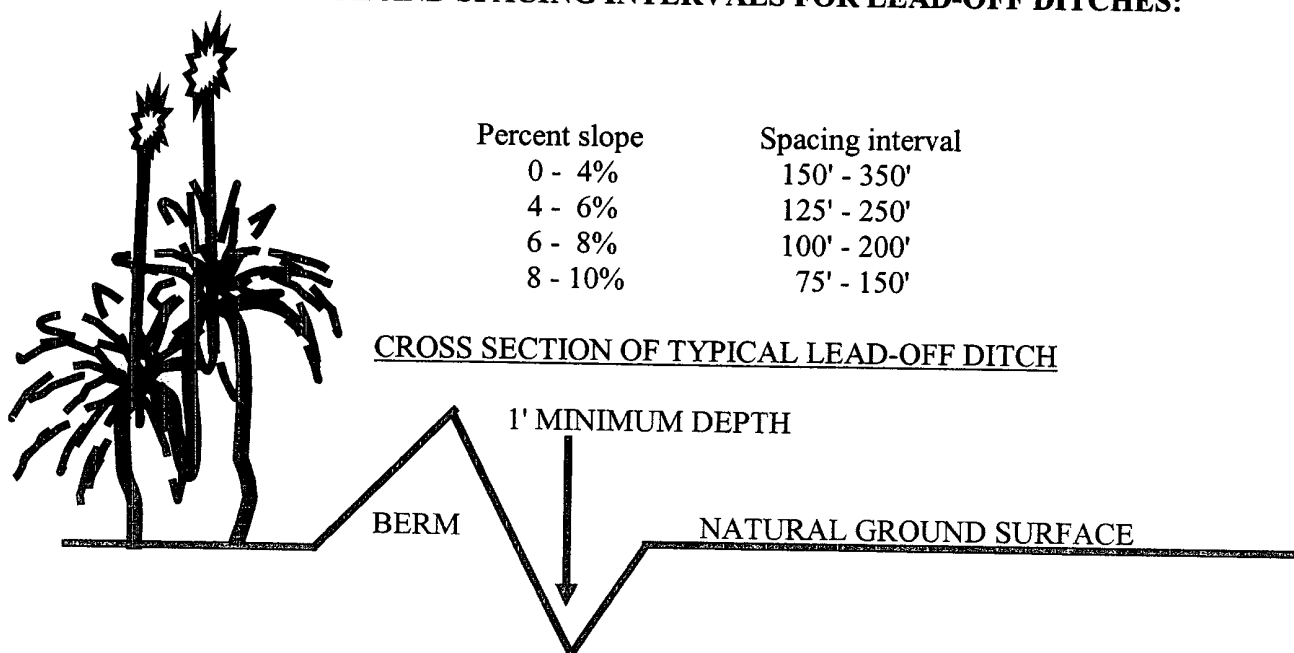
A. Drainage control shall be ensured over the entire road through the construction of ditches, sidehill outslowing and inslowing, lead-off ditches, culvert installation, and low water crossings.

B. All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval for lead-off ditches shall be determined according to the following table, but may be amended depending upon existing soil types and centerline road slope (in %):

PERCENT SLOPE AND SPACING INTERVALS FOR LEAD-OFF DITCHES:

Percent slope	Spacing interval
0 - 4%	150' - 350'
4 - 6%	125' - 250'
6 - 8%	100' - 200'
8 - 10%	75' - 150'

CROSS SECTION OF TYPICAL LEAD-OFF DITCH



PERMANENT RESOURCE ROAD REQUIREMENTS

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C. A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

D. On road slopes exceeding 2%, water flow shall drain water into an adjacent lead-off ditch. Water flow drainage location and spacing shall be determined by the following formula:

FORMULA FOR SPACING INTERVAL OF LEAD-OFF DITCHES:

$$\text{spacing interval} = \frac{400'}{\text{road slope in \%}} + 100'$$

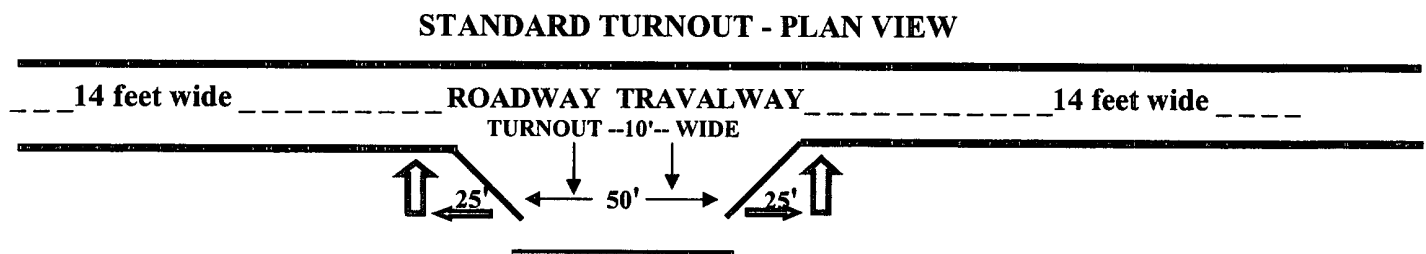
Ex. 4% slope: spacing interval = $\frac{400}{4} + 100 = 200$ feet

7. CULVERT INSTALLATION: No culverts are required on this road.

Culvert pipes shall be used where ravines, arroyo gullies, and deep waterway channel flows are crossed by the access road construction route. The culvert(s) shall not be less than XX inches in diameter (minimum 18 inch culvert). The location for the culvert installation is designated on the attached map - **EXHIBIT A**. (A culvert pipe installation diagram shall be attached to this requirement when a culvert is required to be installed, see EXHIBIT - X).

8. TURNOUTS:

Vehicle turnouts shall be constructed on all single lane roads (unless the Authorized Officer determines that the turnouts are not required). Turnouts shall be intervisible and shall be constructed on all blind curves with additional turnouts as needed to keep spacing below 1000 feet. Turnouts shall conform to the following diagram:



9. CATTLEGUARDS: NONE

A. ONE (1) CATTLEGUARD IS IN PLACE AT THE FENCE CROSSING IN THE SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$, OF SECTION 33 - T. 6 S. - R. 33 E. .

B. A cattleguard installation diagram shall be attached to this stipulation when a cattleguard is required to be installed - see EXHIBIT X - DIAGRAM A & B).

PERMANENT RESOURCE ROAD REQUIREMENTS

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C. Where used, all cattleguard grids and foundation designs and construction shall meet the American Association of State Highway and Transportation Officials (AASHTO) Load Rating H-20, although AASHTO U-80 rated grids shall be required where heavy loads, (exceeding H-20 loading,) are anticipated. (See BLM standard drawings for cattleguards – Exhibit X - Diagram A & B). Cattleguard grid length shall not be less than 8 feet and width of not less than 14 feet. A wire gate (16-foot minimum width) will be provided on one side of the cattleguard unless requested otherwise by the surface user.

10. MAINTENANCE:

A. The holder shall maintain the road in a safe, usable condition. A maintenance program shall include, but not be limited to blading, ditching, culvert installation, culvert cleaning, cattleguard maintenance, surfacing, and weed control.

B. The holder shall cooperate with other authorized users in maintenance of the road(s). Failure of the holder to share maintenance costs in dollars, equipment, materials, and manpower proportionate to the holders use with other authorized users may be adequate grounds to terminate the road use. The determination as to whether maintenance expenditures have been withheld by the holder and the decision to terminate the road use shall be at the discretion of the Authorized Officer. Upon request, the Authorized Officer shall be provided with copies of any maintenance agreements entered into by the holder.

11. PUBLIC ACCESS:

A. Public access on this road shall not be restricted by the holder without specific written approval being granted by the Authorized Officer. Gates or cattleguards on public land shall not be locked or closed to public use unless closure is absolutely necessary and is authorized in writing by the Authorized Officer.

12. ROAD REHABILITATION REQUIREMENTS:

A. SEE -SURFACE RECLAMATION/RESTORATION REQUIREMENTS - Exhibit E.

B. On private estate land the restoration procedures on the reclamation of the access road shall be accomplished in accordance with the Private Surface Land Owner concurrence. If the surface land owner does not retain the access road for his ranch operations, upon abandonment of this well, the surface material (caliche/gravel) shall be removed from the access road. The removal of the surface material on the road could be re-used for maintenance of other federal roads within close proximity of the reclaimed area or properly disposed of in a federal mineral material pit.

13. SPECIAL REQUIREMENT(S):

A. Precautionary measures shall be taken by the holder during construction of the access road to protect the existing gas pipeline(s) that the access road will cross over (See map - EXHIBIT A). The holder shall be held responsible for any damage to the existing gas pipelines. If the gas pipeline is ruptured and/or damaged the holder shall immediately cease construction operations and repair the pipeline(s). The holder shall be held liable for any unsafe construction operations that threaten human life and/or cause the destruction of equipment.

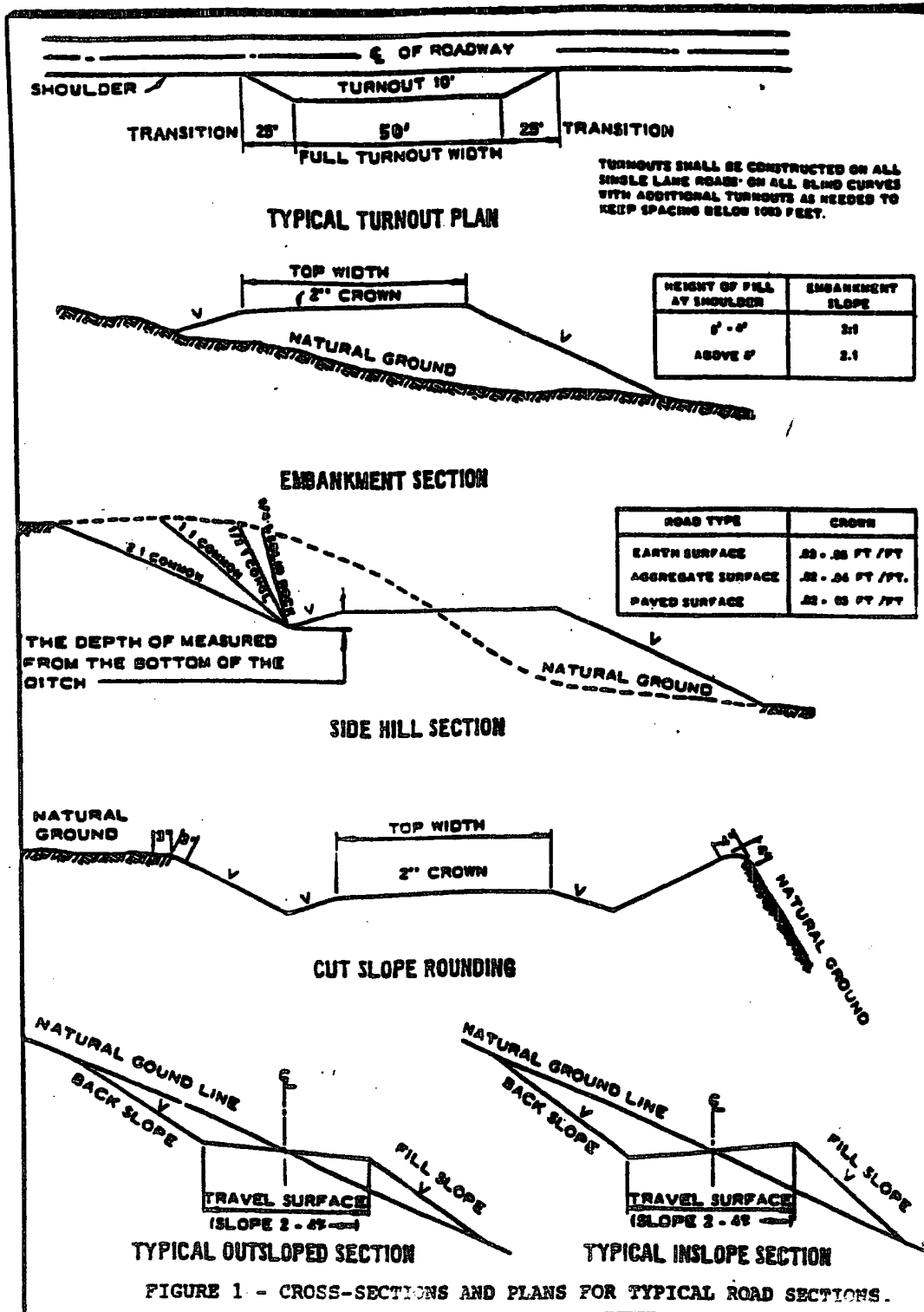


EXHIBIT A

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OPERATOR: Manzano Oil Corporation

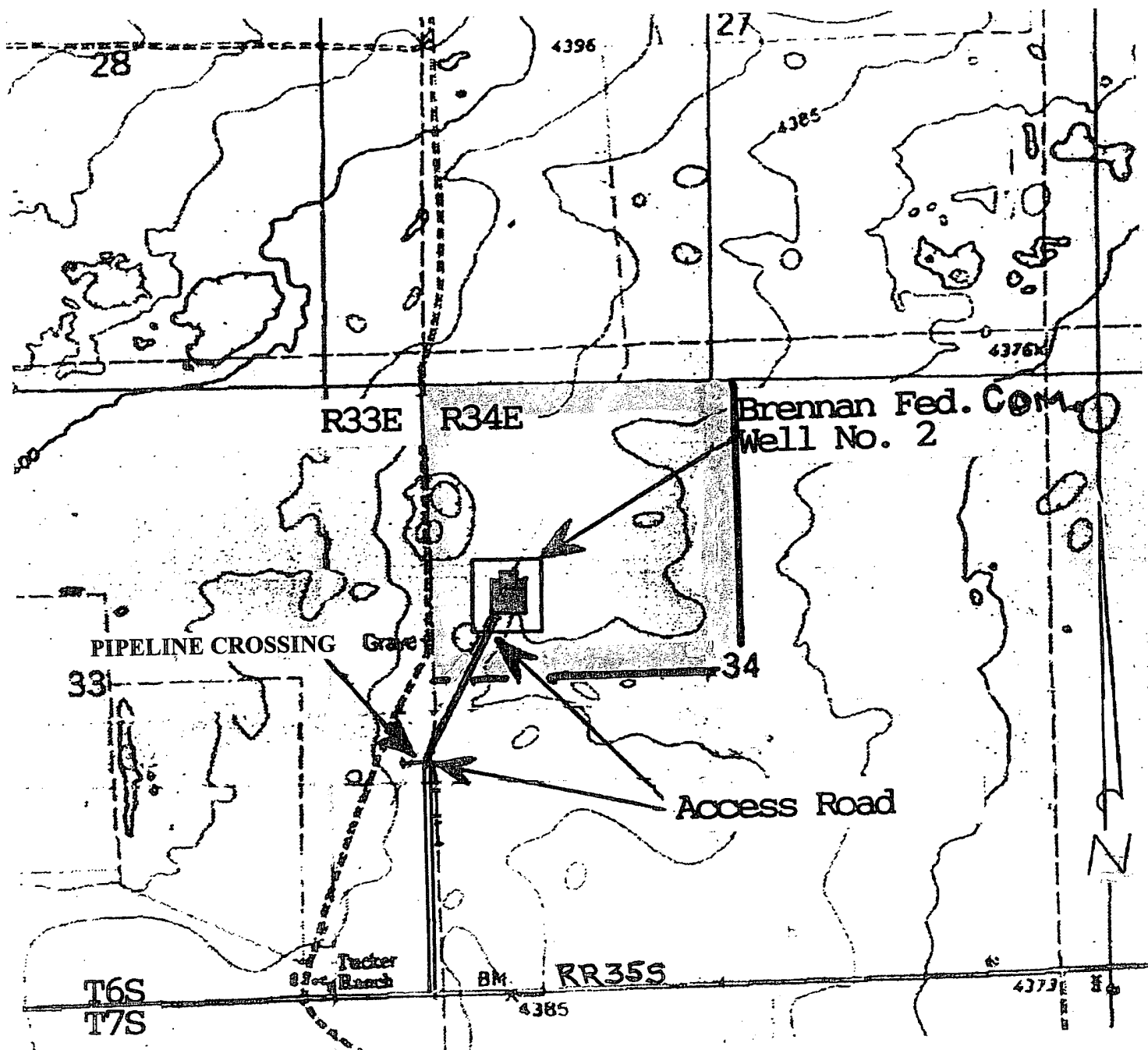
LEASE NO: NM-111966

WELL NAME & NO.: Brennan Federal Com. #2

LOCATION: Section 34, T. 6 S., R. 33 E., N.M.P.M.

QUARTER/QUARTER & FOOTAGE: SW $\frac{1}{4}$ NW $\frac{1}{4}$ - 1980' FNL & 660' FWL

COUNTY: Roosevelt County, New Mexico





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Roswell, New Mexico 88201

EXHIBIT E

1 of 5 pages

SURFACE RECLAMATION/RESTORATION REQUIREMENTS

OPERATORS NAME: Manzano Oil Corporation LEASE NO.: NM-111966
WELL NAME & NO: Brennan Federal Com. #2
QUARTER/QUARTER & FOOTAGE: SW¼NW¼ - 1980' FNL & 660' FWL
LOCATION: Section 34, T. 6 S., R. 33 E., NMPM
COUNTY: Roosevelt County, New Mexico

I. GENERAL PROVISIONS:

- A. The operator has the right of administrative review of these requirements pursuant to 43 CFR 3165.1(a).
- B. The operator shall hereafter be identified as the holder in these requirements. The Authorized Officer is the person who administers the reclamation requirements.
- C. The holder shall comply with all the surface reclamation/restoration required by the Authorized Officer pertaining to the reclamation/restoration of the access road and well pad.

II. FORM 3160-5, SUNDRY NOTICES AND REPORTS ON WELLS:

- A. The holder shall adhere to the following:
 - 1. If the well is not drilled, please notify the BLM so that an official release can be approved.
 - 2. **Downhole requirement:** If the well is a dry hole and will be plugged, approval of the proposed plugging program may be obtained orally. However, oral approval must be confirmed in writing by immediately filing a Sundry Notice And Report On Wells (Form 3160-5) "**Notice of Intention to Abandon**", an original and five (5) copies shall be submitted to the Roswell Field Office. The report should show the total depth reached, the reason for plugging, and the proposed intervals, by depths, where plugs are to be placed, type of plug, type of plugging mud, etc..
 - 3. The same notification shall be required of the Holder for the reclamation/restoration of the access road and well pad. The Holder shall initially report surface reclamation/restoration of the access road and well pad concurrently with the Downhole requirement. A Sundry Notice And Report On Wells (Form 3160-5) "**Notice of Intention to Abandon**", an original and five (5) copies shall be submitted to the Roswell Field Office. Upon receipt of the "**NOI**" the Authorized Officer shall provide the holder with the specific requirements for the reclamation/restoration of the access road and well pad.

4. **Subsequent Report Of Abandonment:** The holder shall submit a second report on Form 3160-5, Sundry Notices and Reports On Wells, an original and five (5) copies shall be submitted to the Roswell Field Office, pertaining to the reclamation/restoration of the access road and well pad. The holder shall demonstrate that the surface reclamation/restoration requirements have been complied with. The holder shall specify that the reclamation work accomplished the restoration of the disturbed areas to as near the original surface condition the land was in prior to construction of the access road and well pad.

5. **Final Abandonment Notice:** The holder shall submit a third report on Form 3160-5, Sundry Notices and Reports On Wells, an original and five (5) copies shall be submitted to the Roswell Field Office, that shall ascertain that all surface reclamation/restoration requirements have finally been completed and that the access road and well pad are ready for final inspection. The holder shall specify that the surface has been reclaimed in accordance with federal regulations and request for the final approval of the access road and well pad.

III. BOND LIABILITY:

A. Liability under bond shall be retained until all surface reclamation/restoration of the access road and well pad has been completely reclaimed to the satisfaction of the Authorized Officer.

IV. ACCESS ROAD AND WELL PAD RECLAMATION REQUIREMENTS:

1. If the well is completed, all areas of the well pad not necessary for operations shall be reclaimed to resemble the original contours of the surrounding terrain.

2. Upon abandonment of the well, cut-and-fill slopes shall be re-contoured and reduced to a slope of 3:1 or less. The road shall be recontoured to as near the original topography, as possible.

3. Upon abandonment of the well, all production equipment shall be removed from the well pad and properly disposed of.

4. On private estate land the restoration procedures on the reclamation of the access road and well pad shall be accomplished in accordance with the Private Surface Land Owner concurrence. If the surface land owner does not retain the access road and/or well pad for his ranch operations, upon abandonment of this well, the surface material (caliche/gravel) shall be removed from the access road and well pad.

5. The surfacing material that is removed can be used on existing roads in need of maintenance, or hauled to a federal material pit for disposal. If the material is to be used on a road or hauled to a material pit, contact the BLM Authorized Officer at (505) 627-0272 for possible additional requirements.

6. Upon removal of the surfacing material, the access road and well pad shall be ripped a maximum of **16** inches deep (Ripping depth will be determined by depth of soil shown in the Soil Conservation Service Survey Handbook).

7. All culverts and other road structures (e.g.: cattleguard, H-Braces, signs, etc.) shall be removed and properly disposed of.

8. All over-burden material shall be replaced in the cut areas, ditches, lead-off ditches, and any other excavated earthwork shall be back filled.
9. An earthen berm shall be constructed at the entrance of the road to prevent vehicular traffic on the reclaimed road.

V. Reserve Pit Reclamation Requirements:

- A. Upon reclamation of the reserve pit, the impervious, reinforced, synthetic or fabricated 12 mil in thickness liner shall be used to encapsulate the reserve pit cuttings.
- B. The dried cuttings in the reserve pit shall be buried a minimum depth of three (3) feet below ground level.
- C. The reserve pit area shall be covered with a three (3) feet minimum cap of clean soil or like material that is capable of supporting native plant growth. Once the reserve pit contents have been capped, the cap shall not be disturbed without NMOCD approval.
- D. Should the cuttings in the reserve pit not meet the three (3) feet below ground level depth, the excess contents shall be removed from the reserve pit until the required minimum depth of three (3) feet below ground level requirement has been met. The excess cuttings shall be removed from the well location and shall be properly disposed of at an authorized disposal site.
- E. Contact Randy Legler at (505) 627-0215, three days before commencing the reserve pit reclamation.

VI. SEEDING REQUIREMENTS:

- A. The stockpile of topsoil shall be spread over the well pad to cultivate a seed bed. The holder shall not contaminate the topsoil stockpile with the reserve pit muds and/or cuttings.
- B. The reclaimed area(s) shall be seeded with the seed mixture that was determined by the Roswell Field Office for the Desired Plant Community on this well site.
- C. The same seed mixture shall be used for the reclamation of the access road and well pad.
- D. The planting of the seed shall be done in accordance with the following seeding requirements:
 1. The topsoil soil shall be plowed under with soil turning equipment and the plowed surface shall be disked before seeding. Seed shall be planted using a drill equipped planter with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture shall be evenly and uniformly planted over the disturbed area. Smaller/heavier seeds have a tendency to drop to the bottom of the drill and are planted first; the holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed shall be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre noted below are to be doubled.

SURFACE RECLAMATION/RESTORATION REQUIREMENTS

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2. The holder shall seed all the disturbed areas with the DPC seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed per acre, (Pounds of pure live seed per acre: pounds of seed X percent purity X percent germination = pounds pure live seed). There shall be no primary or secondary noxious weeds in the seed mixture.

In accordance with State law(s) the seed should be tested for purity and viability within nine (9) months prior to sell. Commercial seed shall be either certified or registered seed. The seed mixture container shall be tagged in accordance with State law(s) and the certified seed tag shall be made available for inspection by the Authorized Officer.

3. Desired Plant Community seed mixture to be planted in pounds of pure live seed per acre:

Ecological Site: Sandy HP-3

<u>Common Name and Preferred Variety</u>	<u>Scientific Name</u>	<u>Pounds of Pure Live Seed Per Acre</u>
Blue grama, var. Lovington	<i>Bouteloua gracilis</i>	2.00 LBS.
Sideoats grama var. Vaughn or El Reno	<i>Bouteloua curtipendula</i>	3.00 LBS.
Little bluestem	<i>Schizachyrium scoparium</i>	0.50 LB.
Sand dropseed	<i>Sporobolus cryptandrus</i>	1.00 LB.
Plains bristlegrass	<i>Setaria macrostachya</i>	1.00 LB.
Indian blanketflower	<i>Gaillardia aristata</i>	0.50 LB.
Desert or Scarlet Globemallow	<i>Sphaeralcea ambigua</i> or <i>S. coccinea</i>	<u>1.00 LB.</u>
TOTAL POUNDS PURE LIVE SEED PER ACRE		9.00 LBS.

4. If one species is not available, increase ALL others proportionately. The seed mixture shall be certified weed free seed. A minimum of 4 species is required, including 1 forb species.

E. The recommended time to seed is from June 15th through September 15th. The optimum seeding time is in mid-July. Successive seeding should be done either late in the fall (Sept. 15th - Nov. 15th, before freeze up) or early as possible the following spring to take advantage of available ground moisture. However, the holder may seed immediately after completing surface abandonment requirements.

F. The seeding of the disturbed areas shall be repeated until a vegetative thicket is established on the access road and well pad. The Authorized Officer shall make the determination when the regrowth on the disturbed areas is satisfactory.

G. The holder shall be responsible for the establishment of vegetation on the access road and well pad. Evaluation of vegetation growth will not be made before the completion of the first growing season after seeding. The Authorized Officer reserves the right to require reseeding at a specific time if seed does not germinate after one growing season. Waiver of this requirement would be considered if diligent attempts to revegetate the disturbed areas have failed and the Authorized Officer determines that further attempts to replant the access road and well pad are futile.

H. Contact Mr. Randy Legler at (505) 627-0215 to witness the seeding operations, two (2) days prior to seeding the disturbed areas.

I. Invasive and Noxious Weeds Requirement:

1. The holder shall be held responsible if noxious weeds become established within the reclaimed areas. Evaluation of the growth of noxious weeds shall be made upon discovery. Weed control will be required on the disturbed land where noxious weeds exist, which includes the road, pad, associated pipeline corridor/routes, and adjacent land affected by the establishment of weeds due to this action. The holder is responsible for consultation with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policy.

2. The holder shall insure that the equipment and or vehicles that will be used to reclaim the access roads and well pad are not polluted with invasive and noxious weed seed. Transporting of invasive and noxious weed seed could occur if the equipment and vehicles were previously used in noxious weed infested areas. In order to prevent the spread of noxious weeds, the Authorized Officer shall require that the equipment and vehicles be cleaned with either high pressure water or air prior to reclamation of the access roads and well pad.

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 #2 API #: 30-041-20922 U/L or Qtr/Qtr SWNW _____ Sec 34 _____ T 6S _____ R 33E _____

County: Roosevelt Latitude 33°45'09.66" N Longitude 103°33'32.31" W NAD: 1927 X 1983 ☐ Surface Owner Federal X State ☐ Private ☐ Indian ☐

Pit	Below-grade tank	
Type: Drilling X Production <input type="checkbox"/> Disposal <input type="checkbox"/> Workover <input type="checkbox"/> Emergency <input type="checkbox"/> Lined X Unlined <input type="checkbox"/> Liner type: Synthetic X Thickness <u>12</u> mil Clay <input type="checkbox"/> Volume <u>10,000</u> bbl	Volume: _____ bbl Type of fluid: _____ Construction material: _____ Double-walled, with leak detection? Yes <input type="checkbox"/> 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)		-0-

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: 1/30/06

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: MAR 07 2006

Printed Name/Title: _____

PETROLEUM ENGINEER Signature: _____

 The sender of this message has requested a read receipt. [Click here to send a receipt.](#)

Mull, Donna, EMNRD

From: Phillips, Dorothy, EMNRD
To: Mull, Donna, EMNRD
Cc:
Subject: RE: Financial Assurance Requirement
Attachments:

Sent: Mon 3/6/2006 11:40 AM

Okay

From: Mull, Donna, EMNRD
Sent: Monday, March 06, 2006 11:12 AM
To: Phillips, Dorothy, EMNRD
Subject: Financial Assurance Requirement

Dorothy, These operators have APD intent to Drill, Deepen, Re-Entry:

Paladin Energy Corp (164070)
Energen Resources Corp (162928)
XTO Energy Inc (5380)
Northstar Operating Co (152527)
Yates Petroleum Corp (25575)
Manzano Oil Corp (13954)

What is their standing on Financial Assurance Requirement?

Please let me know. Thanks Donna