

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK  
DRILL ☒ DEEPEN ☐ PLUG BACK ☐

b. TYPE OF WELL  
OIL WELL ☐ GAS WELL ☒ OTHER ☐

2. NAME OF OPERATOR  
OXY USA Inc.

3. ADDRESS OF OPERATOR  
P.O. Box 50250 Midland, Tx. 79710

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)  
At surface  
990 FSL 1980 FEL Sec 22 (SWSE) T20S R28E  
At proposed prod. zone  
Same as above

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
9 miles North of Carlsbad, NM

10. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT.  
(Also to nearest drlg. unit line, if any) 990'

16. NO. OF ACRES IN LEASE 320

17. NO. OF ACRES ASSIGNED TO THIS WELL 320

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 1361'

19. PROPOSED DEPTH 11420'

20. ROTARY OR CABLE TOOLS Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.) 3228.6' GR

22. APPROX. DATE WORK WILL START\* After permit approval

PROPOSED CASING AND CEMENTING PROGRAM				
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	13-3/8"	48#	600'	650 sx
12-1/4"	8-5/8"	24-32#	3000'	1500 sx
7-7/8"	5-1/2"	17-20#	11420'	800 sx

It is proposed to drill this well to a TD of 11420' and test the Wolfcamp formation.

The Blowout Prevention program is as follows:

- 1) One set of drill pipe rams
- 2) One set of blind rams
- 3) One Hydril

Gas is not dedicated

Post ID-1  
12-15-89  
New Wolfcamp API

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout prevention program, if any.

24. SIGNED David Stewart TITLE Dist. Oper. Mgr. - Production DATE 11/3/89  
(This space for Federal or State office use) (Prepared by David Stewart)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_  
APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE 12-4-89  
CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions On Reverse Side

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

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised 1-1-89

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

DISTRICT I

P.O. Box 1980, Hobbs, NM 88240

DISTRICT II

P.O. Drawer DD, Artesia, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator OXY U.S.A., INC.			Lease GOVERNMENT W		Well No. 2
Unit Letter 0	Section 22	Township 20-S	Range 28-E	County NMPM	EDDY

Actual Footage Location of Well:

990 feet from the SOUTH line and 1980 feet from the EAST line

Ground level Elev. 3228.6	Producing Formation Wolfcamp	Pool Burton Flat, North	Dedicated Acreage: 320 Acres
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1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.

2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?

☒ Yes ☐ No If answer is "yes" type of consolidation

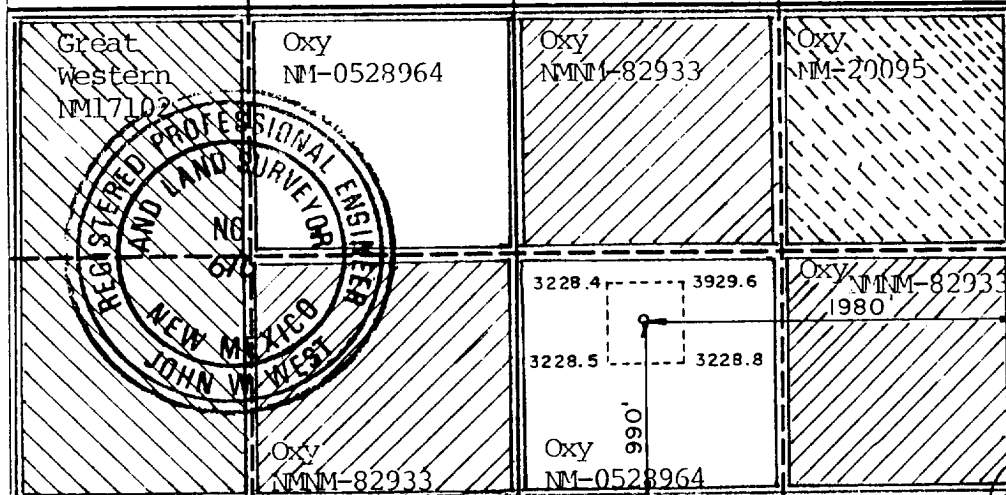
If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.

Unit Block consists of 2560 acres. Working Interest of participating companies are as follows:

Oxy USA Inc.	88.2361
Chevron	2.4450
Davol	1.1581

Joseph Dunigan	1.9841
Great Western Drlg.	2.1019
Kerr-McGee	4.0749
	100.000



OPERATOR CERTIFICATION

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

Signature  
Frank A. Vitrano

Printed Name  
Frank A. Vitrano

Position  
Operations Manager

Company  
Oxy USA Inc.

Date  
November 3, 1989

SURVEYOR CERTIFICATION

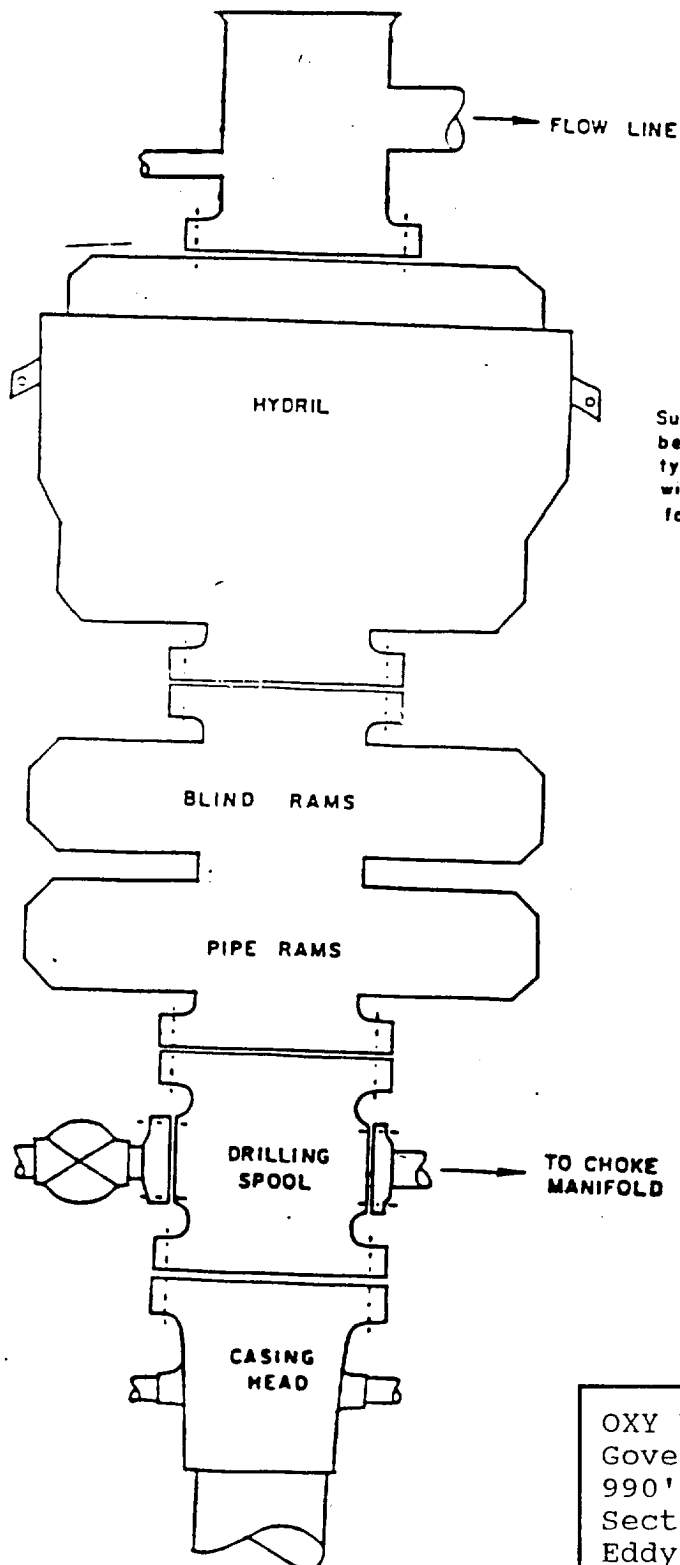
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed  
OCTOBER 27, 1989

Signature & Seal of  
Professional Surveyor

Certificate No. JOHN W. WEST, 676  
RONALD J. EIDSON, 3239

BLOWOUT PREVENTER DIAGRAM



CLOSING METHOD

Sufficient accumulator volume shall be available to operate both the bag type preventer and pipe ram preventer with a snap-action through the following steps: close-open-close.

OXY USA Inc.  
Government W No. 2  
990' FSL and 1980' FWL  
Section 22, T-20-S, R-28-E  
Eddy County, New Mexico

Federal Lease No. NM-0528964



RECEIVED

OXY USA INC.

Box 50250, Midland, TX 79710

November 3, 1989

United States Department of the Interior  
Bureau of Land Management  
Carlsbad Resource Area  
P.O. Drawer 1778  
Carlsbad, New Mexico 88220

Re: Application for Permit to Drill  
Oxy USA Inc.  
Government W No. 2  
Eddy County, New Mexico  
Lease No. NM 0528964

Gentlemen:

Oxy USA Inc. respectfully requests permission to drill our Government W No. 2, located 990' from the south line and 1980' from the east line of Section 22, T20S, R28E, Eddy County, New Mexico, Federal Lease No. NM 0528964.

The location, work area and access road have been staked. It is approximately 9 miles north of Carlsbad, New Mexico.

In accordance with requirements stipulated in Federal Onshore Oil and Gas Order No. 1 under 43 CFR 3162.1, our Application for Permission to Drill and supporting evidence is hereby submitted.

I. Application for Permit to Drill:

1. Form 3160.3, Application for Permit to Drill.
2. Form C-102 Location and Acreage Dedication Plat certified by John W. West, Registered Land Surveyor No. 676 in the State of New Mexico, dated October 27, 1989. Exhibit attached.
3. The elevation of the unprepared ground is 3228.6 feet above sea level.
4. The geologic name of the surface formation is Permian Rustler.
5. Rotary drilling equipment will be utilized to drill the well to TD 11,420' and run casing. This equipment will then be rigged down and the well will be completed with a pulling unit.

6. Proposed total depth is 11,420 feet.

7. Estimated tops of important geologic markers.

Delaware	2500'
Dean	8466'
Wolfcamp	8804'
Strawn	10013'
Atoka	10300'
Morrow	10771'
Morrow B	10950'
Morrow A	11175'
Chester	11363'
Total Depth	11420'

8. Estimated depths at which anticipated water, oil, gas or other mineral bearing formations are expected to be encountered:

Primary Objective:	Wolfcamp	8804'
Secondary Objective:	Strawn	10013'
	Atoka	10300'
	Morrow B	10950'
	Morrow A	11175'

9. The proposed casing program is as follows:

Surface:	13-3/8" OD 48# H40 ST&C new casing
Intermediate:	8-5/8" OD 24# & 32# K55 ST&C new casing
Production:	5-1/2" OD 17# & 20.0# N80 LT&C casing

10. Casing setting depth and cementing program:

- A. 20" OD conductor casing set at 30'.
- B. 13-3/8" OD surface casing set at 600' in 17-1/2" hole. Circulate cement with 650 sacks Class C with 2% CaCl<sub>2</sub>. If cement does not circulate, determine the top of cement by temperature survey then finish cementing to the surface through 1" in the annulus using Class "C" with 2% CaCl<sub>2</sub>.

C. 8-5/8" OD intermediate casing set at 3000' in 12-1/4" hole. Circulate cement with 1200 sacks Halliburton Lite with 0.25# Flocele and 5# Gilsonite followed by 300 sacks Class "C" with 2% CaCl<sub>2</sub>.

D. 5-1/2" OD production casing set @ 11420'. Cement with 500 sacks Halliburton Lite with 0.25# Flocele and 0.5% Halad 9 followed by 300 sacks Class "H" - Pozmix A 50/50 with 3# salt and 0.3% Halad 22A.

Note: Cement volumes may need to be adjusted to hole caliper.

11. Pressure Control Equipment

0' - 600'	None
600' - 3000'	12" 3000# ram type preventers with one set blind rams and one set pipe rams.
3000' - 11420'	10" 5000# ram type preventer with one set blind rams and one set pipe rams and a 3000# annular type preventer. See attached exhibit. A choke manifold and 80 gallon accumulator with floor and remote operating stations and auxiliary power system.

A kelly cock will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the rig floor.

After setting the 8-5/8" casing, the blowout preventers and related control equipment shall be pressure tested to rated working pressures by an independent testing company. Any equipment failing to test satisfactorily shall be repaired or replaced. The BLM will be notified in sufficient time for a representative to witness the tests and will be furnished a copy of the pressure test report. The BOPs will be maintained ready for use until drilling operations are completed.

BOP drills will be conducted as necessary to assure that equipment is operational and each crew is properly trained to carry out emergency duties.

Accumulator shall maintain a pressure capacity reserve at all times to provide for the close-open-close sequence of the blind and pipe rams of the hydraulic preventers.

A mud/gas separator will be installed after setting the 8 5/8" casing and be operable before drilling into the Wolfcamp formation.

12. Mud Program:

0' - 600'	Fresh water spud mud. Gel flocculated with lime. Paper for seepage. Vis 35-45 sec.
600' - 3000'	Fresh water. Wt. 8.4-8.6 ppg, Vis 28-31 sec, pH 9.5-10.5 with lime. Paper for seepage control.
3000' - 8500'	Fresh water. Wt. 8.4-8.7 ppg, vis 28-31. Lime for pH control. Paper for seepage.
8500' - 11420'	Mud up using barite for mud weight, gel for viscosity and starch for water loss to the following characteristics: Wt. 10.3 - 10.5# per gal, vis 36-42 sec, WL 10-20 cc.

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

- A. A recording pit level indicator to determine pit volume gains and losses.
- B. A pit volume totalizer for accurately determining mud volumes necessary to fill the hole on trips.

- C. A flowline sensor on the flowline to warn of any abnormal mud returns from the well.
- 13. Testing, Logging and Coring Program:
  - A. Testing program: None planned.
  - B. Mud logging program: Two man unit from 8500' to TD.
  - C. Electric logging program: CNL-LDT-Cal-GR, DLL-MSFL-Cal-GR, wireline pressure test.
  - D. Coring program: 3 - 60' cores planned. One in the Morrow B, and two in the Morrow A.
- 14. No abnormal temperatures or H2S gas are anticipated. There is a possibility of high pressure zones in the Wolfcamp, Strawn and Atoka. Adequate flare lines will be installed off the mud/gas separator and testing equipment to insure that gas may be piped away a safe distance from the well where it may be ignited and burned.
- 15. Anticipated starting date is one week to two weeks after this application is approved by the Bureau of Land Management. It should take approximately 40 days to drill the well and another 7-21 days to complete.
- 16. The Multi-Point Surface Use & Operation Plan is attached.
- 17. If the Bureau of Land Management needs additional information to evaluate this application, please advise.

Very truly yours,



Frank A. Vitrano  
Operations Manager  
Western Region  
E & P Division

SEG/bic

Attachments



## MULTI-POINT SURFACE USE AND OPERATIONS PLAN

Oxy USA Inc.  
Government W #2  
Eddy County, New Mexico  
Lease No. NM 0528964

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

The well has been staked by a registered New Mexico land surveyor and the work area staked and flagged. Dr. J. Loring Haskell has been engaged to make an archaeological reconnaissance of the work area and access road. His findings concerning cultural resources will be reported to the Bureau of Land Management.

### 1. Existing Roads

A portion of a Eddy County highway map is attached showing the location of the well as staked. The existing road system and the well site are shown in relation to the City of Carlsbad, New Mexico. Exhibit "A".

To further identify the location, the well is spotted on a copy of a USGS "Oil City, New Mexico" quadrangle map, which also shows the existing road system and proposed access road. Exhibit "B".

Directions to location:

From Carlsbad, New Mexico, go east on Highway 62-180 to mile marker 44. Turn north on Eddy County Road #243 and go 6 miles to Eddy County Road #238. Turn west on Eddy County Road #238 and go 2.5 miles, then turn south on lease road and go 1 mile. Turn east on lease road to location.

### 2. Planned Access Road

A. The planned access road is staked and flagged. It is approximately 125 feet long, going north from its originating point on the existing lease road. It will enter the southwest corner of the drilling pad. The new road is color coded red on Exhibit "B".

Multi Point Surface Use and Operations Plan  
Oxy USA Inc.'s Government W #2

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- B. Surfacing material: Six inches of caliche and water, compacted and graded.
  - C. Maximum Grade: Less than 3%.
  - D. Turnouts: None needed
  - E. Drainage Design: New access road will have a drop of 6" from center line to each side.
  - F. Culverts: None needed
  - G. Cuts and Fills: Leveling the location and upgrading the road will require no cuts or fills.
  - H. Gates or Cattleguards: None required
3. Existing wells within a one mile radius of the proposed development well are shown on Exhibit "C".
4. Location of Existing and/or Proposed Facilities
- A. If the well is productive, the tank battery and flowline will be located on the well pad and no additional surface disturbance will occur. The equipment will consist of three 300 bbl tanks and a production unit (stack pack). One of the tanks will be used to collect produced water which will be trucked to disposal. The other two tanks will be used to collect and store condensate produced from the well. All permanent above ground facilities will be painted in accordance with the BLM's painting guidelines simulating the color of sandstone brown.
  - B. All site security guidelines identified in 43 CFR 3162.7 regulations will be adhered to and a site security plan will be submitted for the Government W #2 tank battery. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed.
5. Location and Type of Water Supply
- Fresh water will be used to drill this well. It will be purchased near Carlsbad, New Mexico and transported to the well site.

Multi Point Surface Use and Operations Plan  
Oxy USA Inc.'s Government W #2

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6. Source of Construction Materials

Caliche for surfacing the new access road and the well pad will be obtained from a Federal pit located in the Section 19, T-20-S, R-29-E, Eddy County, New Mexico. Archaeological clearance has been obtained for this pit.

7. Method of Handling Waste Disposal

- A. Drill Cuttings will be disposed of in drilling pits.
- B. Drilling fluids will be allowed to evaporate in the drilling pits until pits are dry.
- C. Water produced during tests will be disposed of in the drilling pits. Oil produced during tests will be stored in test tanks until sold.
- D. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- E. Trash, waste paper, garbage and junk will be buried in a separate trash pit and covered with a minimum of 24 inches of dirt. All waste material will be contained to prevent scattering by the wind. Location of the trash pit is shown on the wellsite layout. Exhibit "D".
- F. All trash and debris will be buried or removed from the wellsite within 30 days after finishing drilling and/or completion operations.

8. Ancillary Facilities

- A. None needed.

9. Wellsite Layout

- A. The location and dimensions of the well pad, mud pits, reserve pit and location of major rig components are shown on the well site layout sketch. The V-door will be to the east and the pits to the north. Exhibit "D".
- B. Leveling of the wellsite will be required with no cuts or fills.
- C. The reserve pit will be plastic lined.

Multi Point Surface Use and Operations Plan  
Oxy USA Inc.'s Government W #2

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D. The pad and pit area have been staked and flagged.

10. Plans for Restoration of the Surface

- A. After completion of drilling and/or completion operations, all equipment and other materials not needed for operations will be removed. Pits will be filled and location cleaned of all trash and junk to leave the well site in as aesthetically pleasing condition as possible.
- B. Any unguarded pits containing fluids will be fenced until they are filled.
- C. After abandonment of the well, surface restoration will be in accordance with the rehabilitation and/or revegetation requirements of the Bureau of Land Management. This will be accomplished as expeditiously as possible. Barring unforeseen problems, all pits will be filled and leveled within 90 days after abandonment.

11. Other Information

- A. Topography: The location is flat featureless plain gently sloping to the south at about 30 feet/mile. GL elevation is 3228.6'.
- B. Soil: Sandy clay loams.
- C. Flora and Fauna: The vegetative cover is generally sparse consisting of mesquite, yucca, shinnery oak, sandsage and perennial native range grasses. Wildlife in the area is also sparse consisting of coyotes, rabbits, rodents, reptiles, dove and quail.
- D. Ponds and Streams: There are no rivers, streams, lakes or ponds in the area.
- E. Residences and Other Structures: The nearest occupied dwelling is approximately 2.5 miles northwest of the location in Section 8, T-20-S, R-28-E.
- F. Archaeological, Historical and Cultural Sites: None observed in the area. Dr. J. Loring Haskell has been engaged to make an archaeological reconnaissance of the work area and access road.
- G. Land Use: Cattle ranching and hunting in season.

Multi Point Surface Use and Operations Plan  
Oxy USA Inc.'s Government W #2

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- H. Surface Ownership: The wellsite and access road are on Federal owned surface. The surface is leased to Jimmy and Kenny Spears, 3303 Prospect, Carlsbad, New Mexico. They will be notified of our intention to drill prior to any activity.

Upon completion of the well, any plastic material used to line the pits or sumps will be cut off below ground level as far as possible and disposed of before the pits are covered. All unattended pits containing liquid will be fenced and the liquid portion allowed to evaporate before the pits are broken and backfilled.

All waste associated with the drilling operation will be buried in place in a separate trash pit. All garbage and debris left on site will be buried at least 3' deep. The well site, if a producer, will be maintained and kept clean of all trash and litter which detracts from the surrounding environment. Equipment will be maintained in accordance with good operating practice.

After the wellsite is cleaned and pits and sumps back-filled, any obstruction to the natural drainage will be corrected by ditching or terracing. All disturbed areas, including any access road no longer needed, will be ripped. Those areas will be reseeded with grass if, in the opinion of the Bureau of Land Management, it is required.

12. Operator's Representatives

The field representatives responsible for assuring compliance with the approved surface use and operations plan are as follows:

Mr. S.C. Nichols, Production Foreman  
P.O. Box 69  
Hobbs, New Mexico 88240

Office Phone: 505/393-2174  
Home Phone: 505/392-5943

Frank A. Vitrano, Operations Manager, Hobbs  
P.O. Box 50250  
Midland, Texas 79710

Office Phone: 915/685-5600  
Home Phone: 915/694-2958

Multi Point Surface Use and Operations Plan  
Oxy USA Inc.'s Government W #2

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13. Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by Oxy USA Inc. and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

DATE

11/3/89

FA Vitano  
OPERATIONS MANAGER, HOBBS

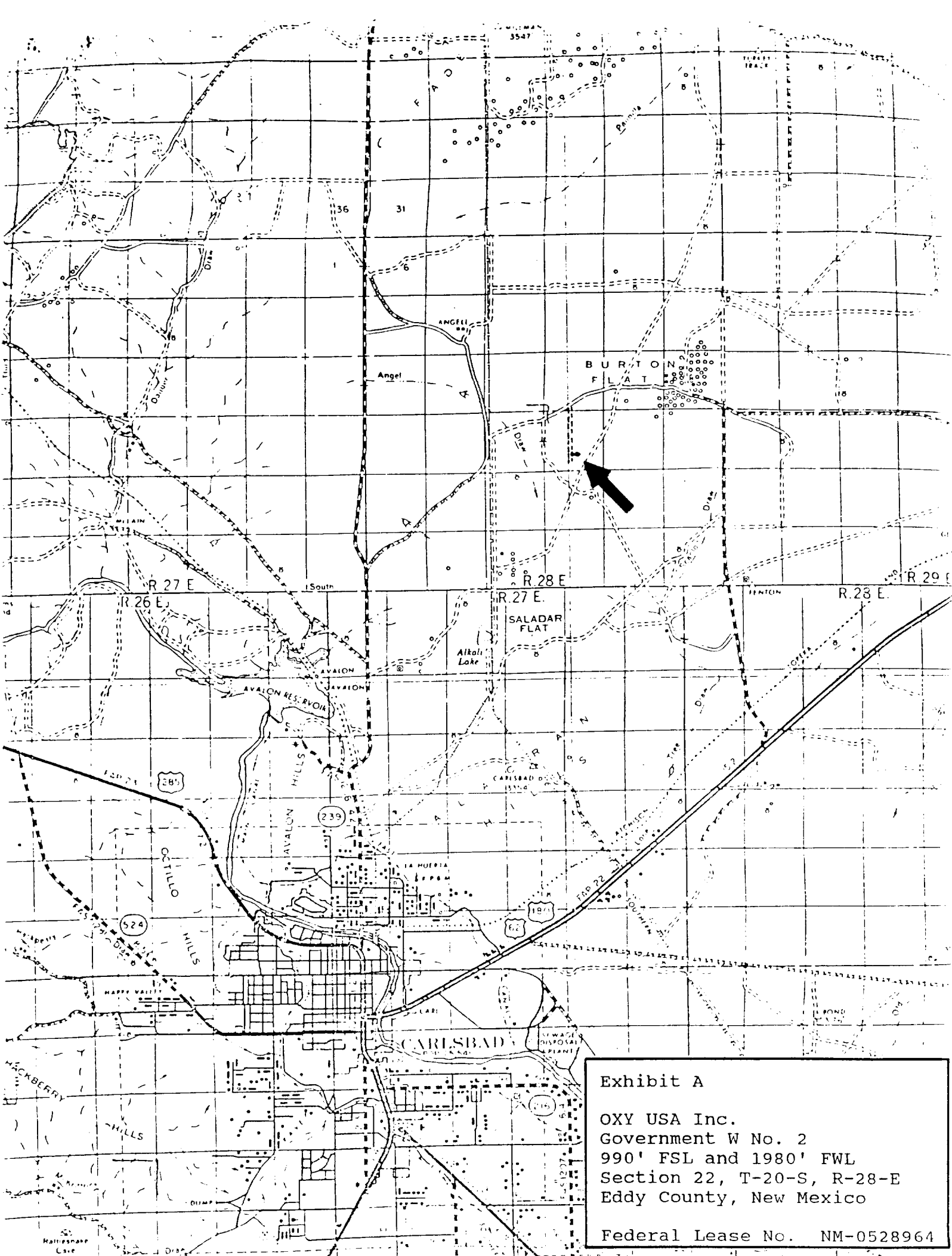
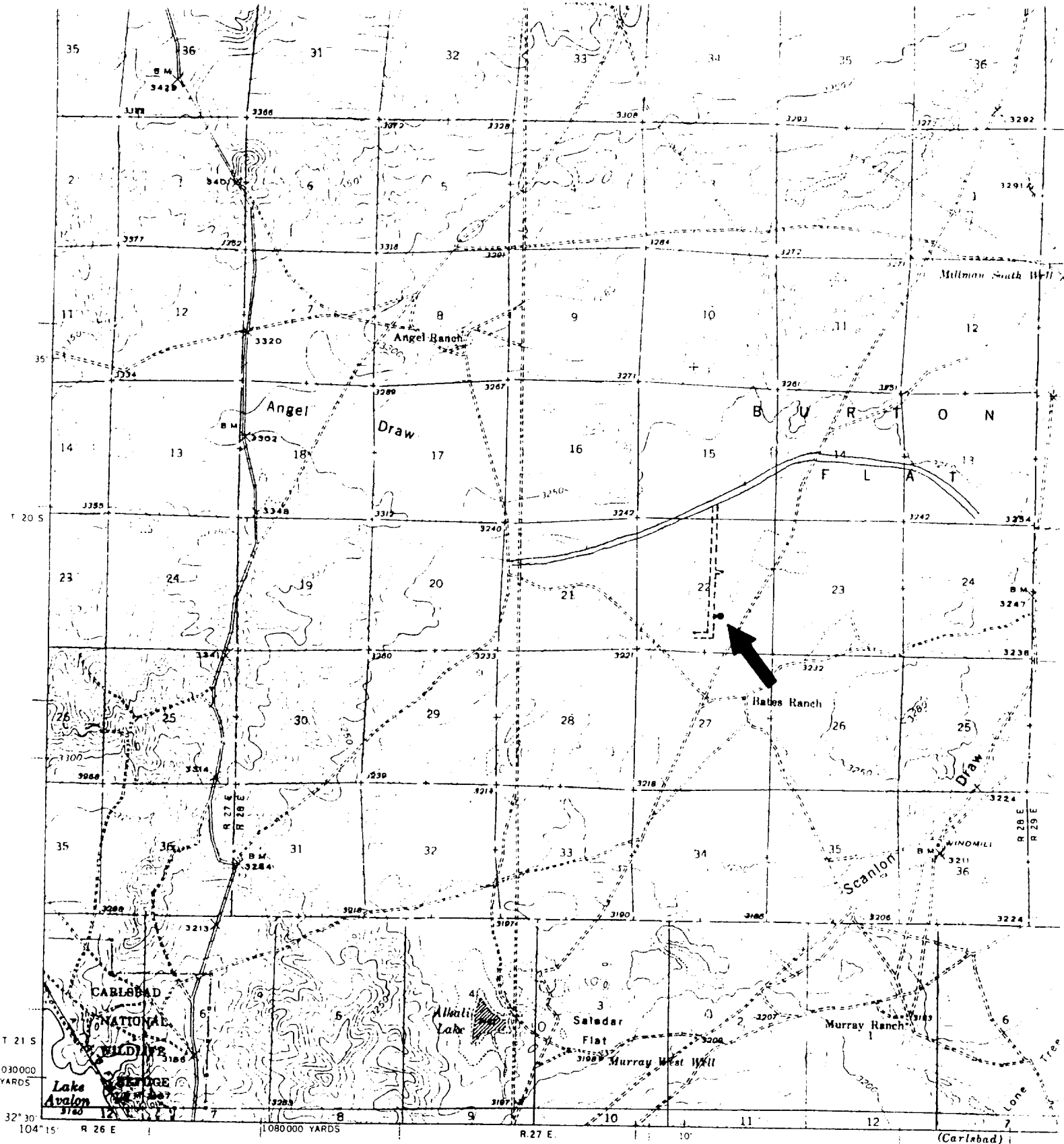


Exhibit A

OXY USA Inc.  
Government W No. 2  
990' FSL and 1980' FWL  
Section 22, T-20-S, R-28-E  
Eddy County, New Mexico

Federal Lease No. NM-0528964



Topography by Max J. Gleissner, S. T. Penick,  
M. C. McClellan, and C. E. Walker  
Surveyed in 1935 and 1938

#### ROAD CLASSIFICATION

HARD SURFACE ALL WEATHER ROADS      DRY WEATHER ROADS  
Heavy-duty ——— 4 LANE 18' LANE Improved dirt ———  
Medium-duty ——— 4 LANE 18' LANE Unimproved dirt. =====  
Loose-surface, graded, or narrow hard-surface — - - -  
□ U. S. Route      ○ State Route

TRUE NORTH  
MAGNETIC NORTH  
APPROXIMATE MEAN  
DECLINATION, 1938

#### Exhibit B

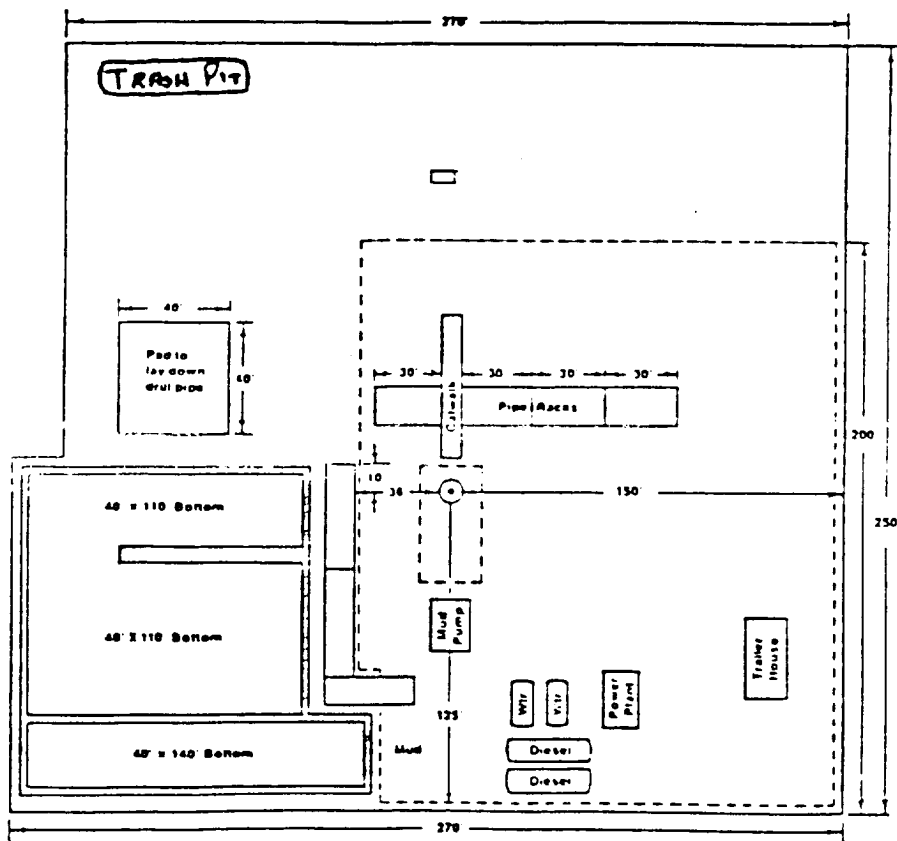
OXY USA Inc.  
Government W No. 2  
990' FSL and 1980' FWL  
Section 22, T-20-S, R-28-E  
Eddy County, New Mexico

Federal Lease No. NM-0528964





# LOCATION PLAT



## Exhibit D

OXY USA Inc.  
 Government W No. 2  
 990' FSL and 1980' FWL  
 Section 22, T-20-S, R-28-E  
 Eddy County, New Mexico

Federal Lease No. NM-0528964