

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0130
Expires: February 28, 1995

C/SF

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK
DRILL DEEPEN

b. TYPE OF WELL
OIL WELL GAS WELL OTHER SINGLE ZONE MULTIPLE ZONE

2. NAME OF OPERATOR
OXY USA Inc. *16696* 16696

3. ADDRESS AND TELEPHONE NO.
P.O. BOX 50250 MIDLAND, TX 79710-0250 915-685-5717

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements*)
At surface: 760 FSL 660 FEL SESE(P)
At proposed prod. zone: *UNDPS*
Free Morrow, NE

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*)
7 miles northeast from Loco Hills, NM

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drilg. unit line, if any.) 660'

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. N/A

19. PROPOSED DEPTH 12400'

20. ROTARY OR CABLE TOOLS R

21. ELEVATIONS (Show whether DF, RT, GR, etc.) 4207'

22. APPROX. DATE WORK WILL START* 9/15/00

12. COUNTY OR PARISH EDDY 13. STATE NM

7. LEASE DESIGNATION AND SERIAL NO. *LC029492A* *JM 04/08*

8. IF INDIAN, ALLOTTEE OR TRIBE NAME

9. UNIT AGREEMENT NAME *26598*

10. FARM OR LEASE NAME WELL NO. OXY Avenger Federal #1

11. AP WELL NO. 30-015-31310

10. FIELD AND POOL, OR WILDCAT Undesignated Morrow

11. SEC., T., E., M., OR BLK. AND SURVEY OR AREA Sec 25 T16S R31E

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	13-3/8" H40	48#	<i>WITNESS</i> 625' <i>915'</i>	450sx - circulate
12-1/4"	9-5/8" K55	36#	4500'	1215sx - circulate
8-3/4"	5-1/2" N80-S95	17#	12400'	800sx - Est TOC-9000'

ROSWELL CONTROLLED WATER BASIN

SEE OTHER SIDE

RECEIVED
OCD - ARTESIA

RECEIVED
OCD - ARTESIA
AUG 23 2000

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS

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

SIGNED: *David Stewart* TITLE: DAVID STEWART REGULATORY ANALYST DATE: 7/10/00

PERMIT NO. _____ APPROVAL DATE: _____
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:
APPROVED BY: *JOHN S. GIMITZ* *JSG* Assistant Field Manager, Lands And Minerals DATE: AUG 21 2000

*See Instructions On Reverse Side

APPROVED FOR 1 YEAR

ATTACHMENT 3160-3
OXY USA Inc.
OXY Avenger Federal #1
SEC 25 T16S R31E
Eddy County, NM

PROPOSED TD: 12400' TVD

BOP PROGRAM: 0' - 625' None

625' - 4500' 13-3/8" 3M annular preventer.

4500' - 12400' 11" 5M blind pipe rams with 5M annular preventer and rotating head below 8500'.

CASING: Surface: 13-3/8" OD 48# H40 ST&C new casing set at 625'

Intermediate: 9-5/8" OD 36# K55 ST&C new casing from 0-4500'

Production: 5-1/2" OD 17# N80-S95 LT&C new casing from 0-12400'
N80-8800' S95-3600'

CEMENT: Surface - Circulate cement with 350sx 35:65 POZ/C with 6% Bentonite + 2% CaCl₂ + .25#/sx Cello-Seal followed by 150sx Cl C with 2% CaCl₂.

Intermediate - Circulate cement with 1050sx 35:65 POZ/C with 6% Bentonite + 2% CaCl₂ + .25#/sx Cello-Seal followed by 165sx Cl C with 2% CaCl₂.

Production - Cement with 700sx 15:61:11 POZ/C/CSE with .5% FL-52 + .5% FL-25 + 8#/sx Gilsonite followed by 100sx Cl C with .7% FL-25. Estimated top of cement is 9000'.

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

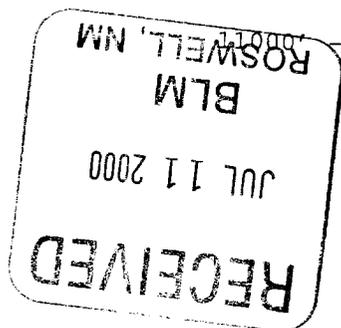
MUD: 0 - 625' Fresh water/native mud. Lime for pH control (9-10). Paper for seepage. Wt 8.7-9.2 ppg, Vis 32-34 sec

625' - 4500' Fresh/*Brine water. Lime for pH control (10.0-10.5). Paper for seepage. Wt 8.3-9.0/10.0-10.1ppg, Vis 28-29 sec
*Fresh water will be used unless chlorides in the mud system increases to 20000PPM.

4500' - 9500' Fresh water. Lime for pH control (9-9.5). Paper for seepage. Wt 8.3-8.5 ppg, Vis 28-29 sec

9500' - 11000' Cut brine. Lime for pH control (10-10.5). Wt 9.6-10.0 ppg, Vis 28-29sec

12400' Mud up with an Duo Vis/Flo Trol mud system. Wt 9.6-10.0ppg, Vis 32-36sec, WL<10cc



DISTRICT I
1625 N. French Dr., Hobbs, NM 88240

DISTRICT II
811 South First, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised March 17, 1999

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

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, New Mexico 87504-2088

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-	Pool Code	Pool Name Undesignated Morrow
Property Code	Property Name OXY AVENGER FEDERAL	Well Number 1
OGRID No. 16696	Operator Name OXY USA INC.	Elevation 4207'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	25	16 S	31 E		760	SOUTH	660	EAST	EDDY

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	Joint or Infill	Consolidation Code	Order No.
320	N		

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>LAT - N32°53'14.9" LONG - W103°49'00.1"</p> <p>J. Melton Drlg. Baxter B Fed-1 GBJKSRQNGBSA</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>David Stewart</i> Signature</p> <p>David Stewart Printed Name</p> <p>Regulatory Analyst Title</p> <p>7/12/00 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>April 5, 2000 Date Surveyed</p> <p>GARY L. JONES Signature & Seal of Professional Surveyor</p> <p>V.O. No. 0197</p> <p>Certificate No. GARY L. JONES 7977</p> <p>BASIN SURVEYS</p>

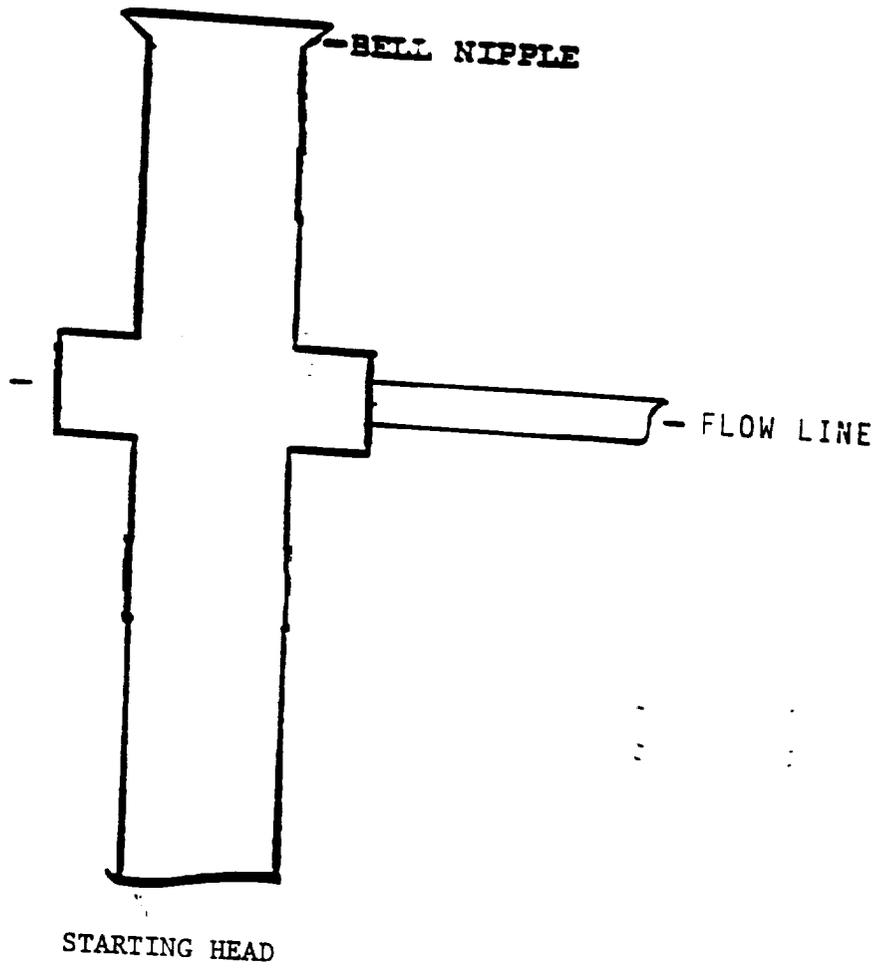
EDWARD TERPSON
1200 W. 100 AVENUE

2003 JUL 14 11 17

RECEIVED

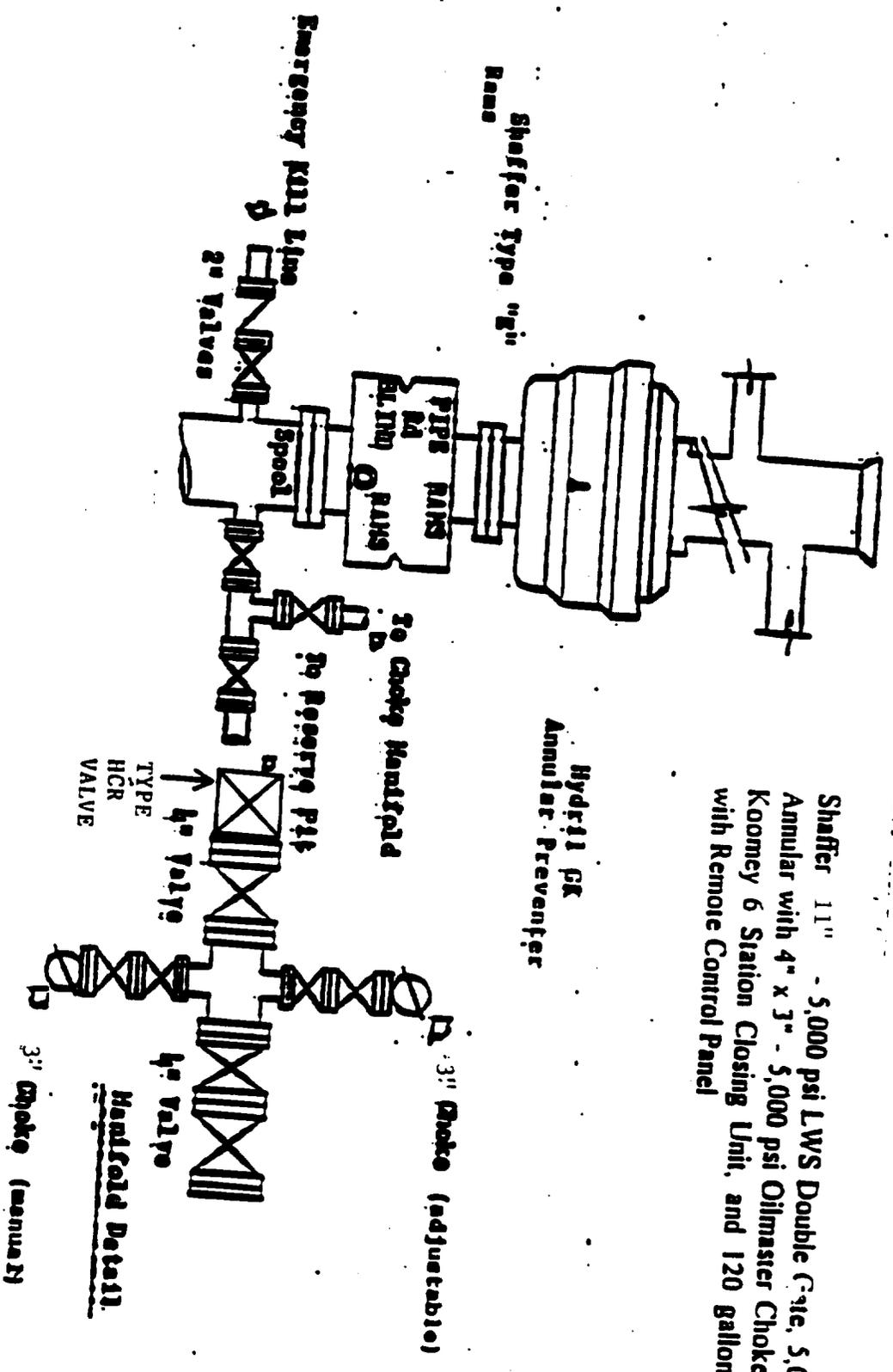
EXHIBIT A

ANNULAR PREVENTOR
TO BE USED AS DIVERTOR ONLY



BLOWOUT PREVENTOR SCHEM

EXHIBIT A



Shaffer 11" - 5,000 psi LWS Double Gate, 5,000 psi Shaffer Annular with 4" x 3" - 5,000 psi Oilmaster Choke Manifold and Koomey 6 Station Closing Unit, and 120 gallon Accumulator with Remote Control Panel

30" Manifold

MULTI-POINT SURFACE USE AND OPERATIONS PLAN

OXY USA Inc.
OXY Avenger Federal #1
Eddy County, New Mexico
Lease No. LC029492A

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, and work area have been staked by a registered New Mexico land surveyor. Desert West has been engaged to make an archaeological reconnaissance of the work area. Their findings concerning cultural resources will be reported to the Bureau of Land Management.

1. Existing Roads

A copy of a USGS "Red Lake, SE New Mexico" quadrangle map is attached showing the proposed location. The well location is spotted on this map, which also shows the existing road system. Exhibit B.

Directions to location:

From the junction of US Hwy 82 and CR 252, go north and west approximately 1.5 miles to lease road on right. Turn north on lease road 1.3 miles to a Baxter B #1 well location flag 200' north.

2. Planned Access Road

A. No new access road will be built. Exhibit B.

B. Surfacing material: N/A

C. Maximum Grade: N/A

D. Turnouts: N/A

E. Drainage Design: N/A

F. Culverts: N/A

G. Cuts and Fills: N/A

H. Gates or Cattleguards: N/A

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, production facilities will be constructed on the well pad. The facility will consist of a stack pack, one 300 bbl oil tank and one 300 bbl fiberglass water tank. All permanent above ground facilities will be painted in accordance with the BLM's painting guidelines simulating the color of sandstone brown.

Multi-Point Surface Use and Operations Plan
OXY Avenger Federal #1

Page 2

- 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 OXY Avenger Federal #1 tank battery. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed.

5. Location and Type of Water Supply

Fresh water and brine water will be used to drill this well. It will be purchased from a supply in Loco Hills and transported to the well site.

6. Source of Construction Materials

Caliche for surfacing the well pad will be obtained from a Federal pit located in Section 12, T20S, R27E, Eddy County, New Mexico.

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 collected in steel trash bins and removed after drilling and completion operations are completed. All waste material will be contained to prevent scattering by the wind.
- F. All trash and debris will be 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 minimal cuts or fills anticipated.
- C. The reserve pit will be plastic lined.
- D. While constructing the pits and material is encountered at a depth which would not allow the pits to meet the BLM stipulations with out blasting, OXY requests a variance. There will be an adequate amount of material to reclaim the pit per the stipulations.
- E. 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.
- B. Pits will be filled and location cleaned of all trash and junk to leave the well site in as aesthetically pleasing condition as possible. 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.
- C. After abandonment of the well, surface restoration will be in accordance with the land owner. This will be accomplished as expeditiously as possible. Barring unforeseen problems, all pits will be filled and leveled within 90 days after abandonment.

11. Surface Ownership

The wellsite is on Federal owned surface. The surface is leased to: E.B. Holeman Ranch, P.O. Box 84, Maljamar, NM. They will be notified of our intention to drill prior to any activity.

12. Other Information

- A. Topography: The location is a flat plain. GL elevation is 4207'.
- 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: There are no occupied dwellings within a ¼ mile radius of the location.
- F. Archaeological, Historical and Cultural Sites: Cultural resources have been recorded in the area. Desert West will be engaged to make an archaeological reconnaissance of the work area.
- G. Land Use: Cattle ranching.
- H. 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.

- I. After the wellsite is cleaned and pits and sumps backfilled, 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 land owner, it is required.

13. Operator's Representatives and Certification

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

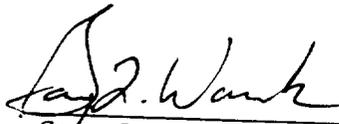
Joe Gibson, Production Coordinator
P.O. Box 69
Hobbs, New Mexico 88240
Office Phone: 505-393-2174
Home Phone: 505-390-4988

Joe Fleming
P.O. Box 50250
Midland, TX 79710-0250
Office Phone: 915-685-5858

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.

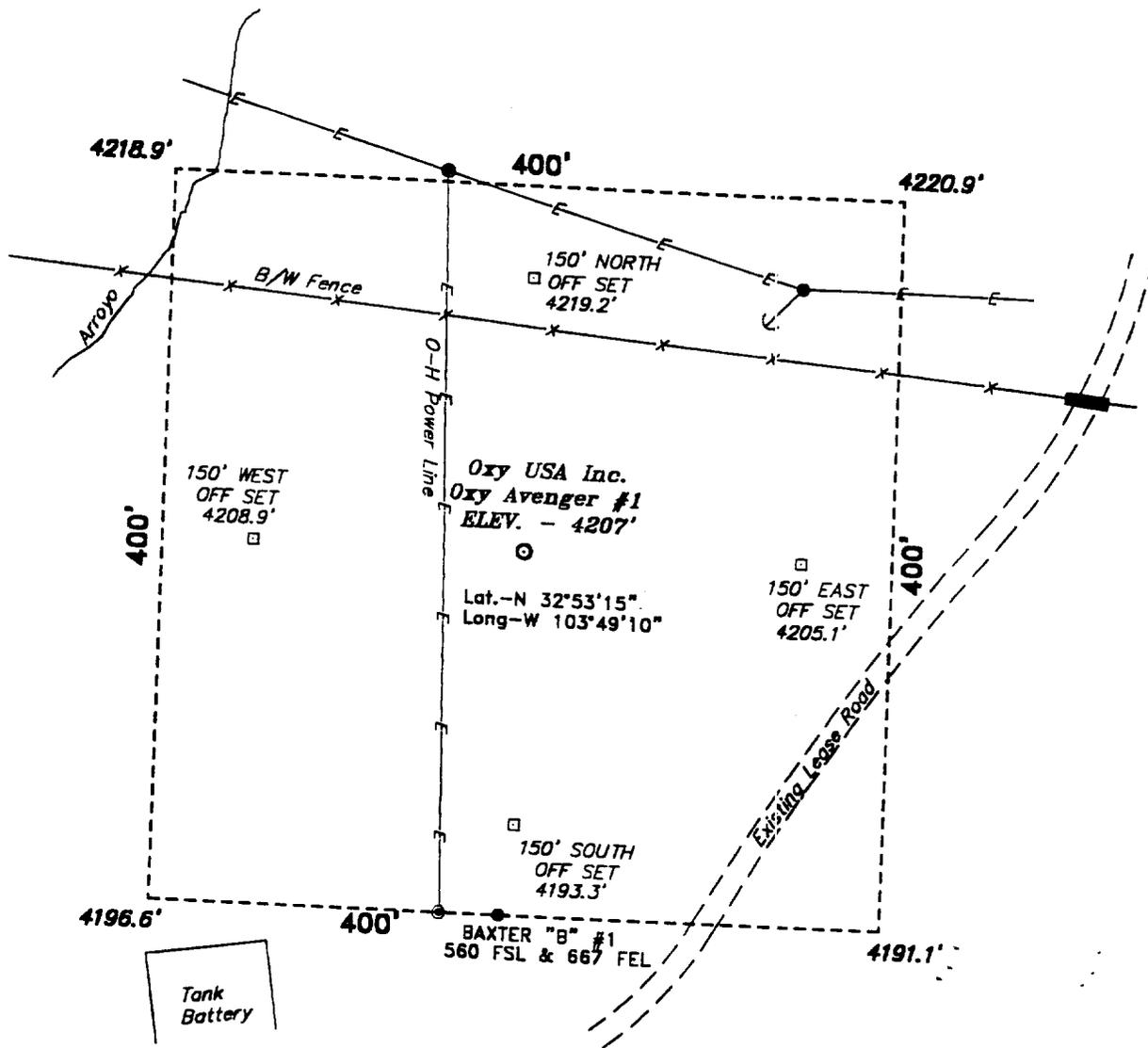
7-10-2000

DATE



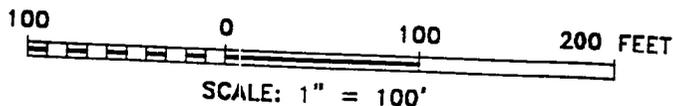
Gary L. Womack
Operations Engineer
915-685-5772
Frontier Asset Team
OXY USA Inc.

SECTION 25, TOWNSHIP 16 SOUTH, RANGE 31 EAST, N.M.P.M.,
 EDDY COUNTY, NEW MEXICO.



Directions to Location:

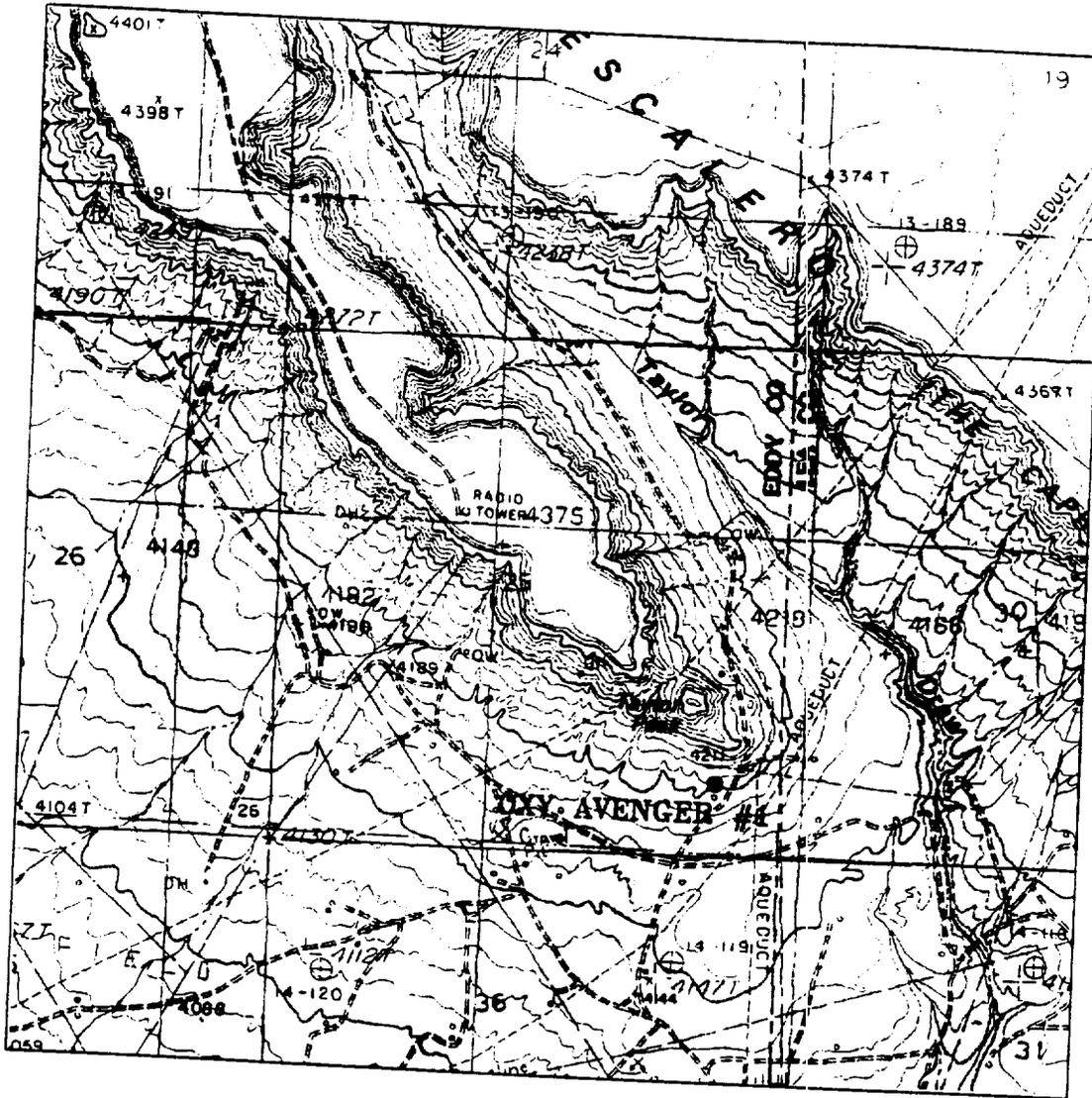
FROM JUNCTION HWY 82 & CO. RD. 252(SQUARE LAKE ROAD) JUST WEST OF HWY REST STOP, GO NORTH & WEST ON 252 FOR 1.5 MILE TO A LEASE ROAD RIGHT; THENCE GO NORTHERLY ON LEASE ROAD 1.3 MILE TO BAXTER "B" #1 WELL & LOCATION FLAG 200 FEET NORTH.



Oxy USA Inc.

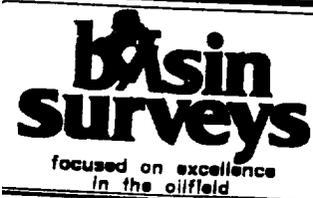
REF: Oxy Avenger No. 1 / Well Pad Topo

THE OXY AVENGER No. 1 LOCATED 760' FROM THE SOUTH LINE AND 660' FROM THE EAST LINE OF SECTION 25, TOWNSHIP 16 SOUTH, RANGE 31 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.



OXY AVENGER #1

Located at 760' FSL and 660' FEL
 Section 25, Township 16 South, Range 31 East,
 N.M.P.M., Eddy County, New Mexico.



P.O. Box 1786
 1120 N. West County Rd.
 Hobbs, New Mexico 88241
 (505) 393-7316 - Office
 (505) 392-3074 - Fax
 basin-surveys.com

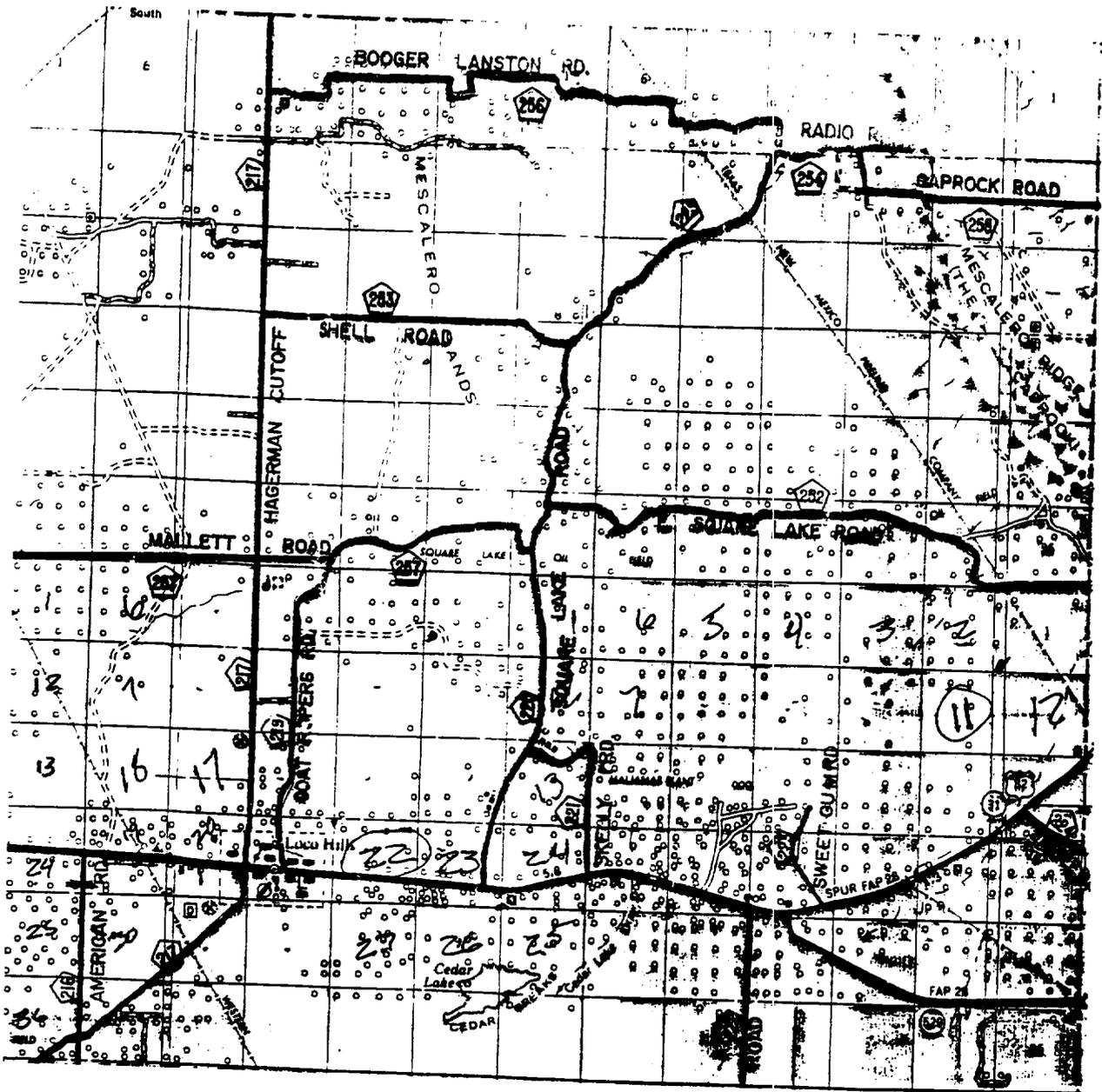
W.O. Number: 0197AA - KJG #122

Survey Date: 04-05-2000

Scale: 1" = 2000'

Date: 04-05-2000

OXY USA INC.



OXY AVENGER #1
 Located at 760' FSL and 660' FEL
 Section 25, Township 16 South, Range 31 East,
 N.M.P.M., Eddy County, New Mexico.

basin surveys
 focused on excellence
 in the oilfield

P.O. Box 1786
 1120 N. West County Rd.
 Hobbs, New Mexico 88241
 (505) 393-7316 - Office
 (505) 392-3074 - Fax
 basin-surveys.com

W.O. Number: 0197AA - KJG #122
 Survey Date: 04-05-2000
 Scale: 1" = 2 MILES
 Date: 04-06-2000

OXY USA INC.

EXHIBIT C

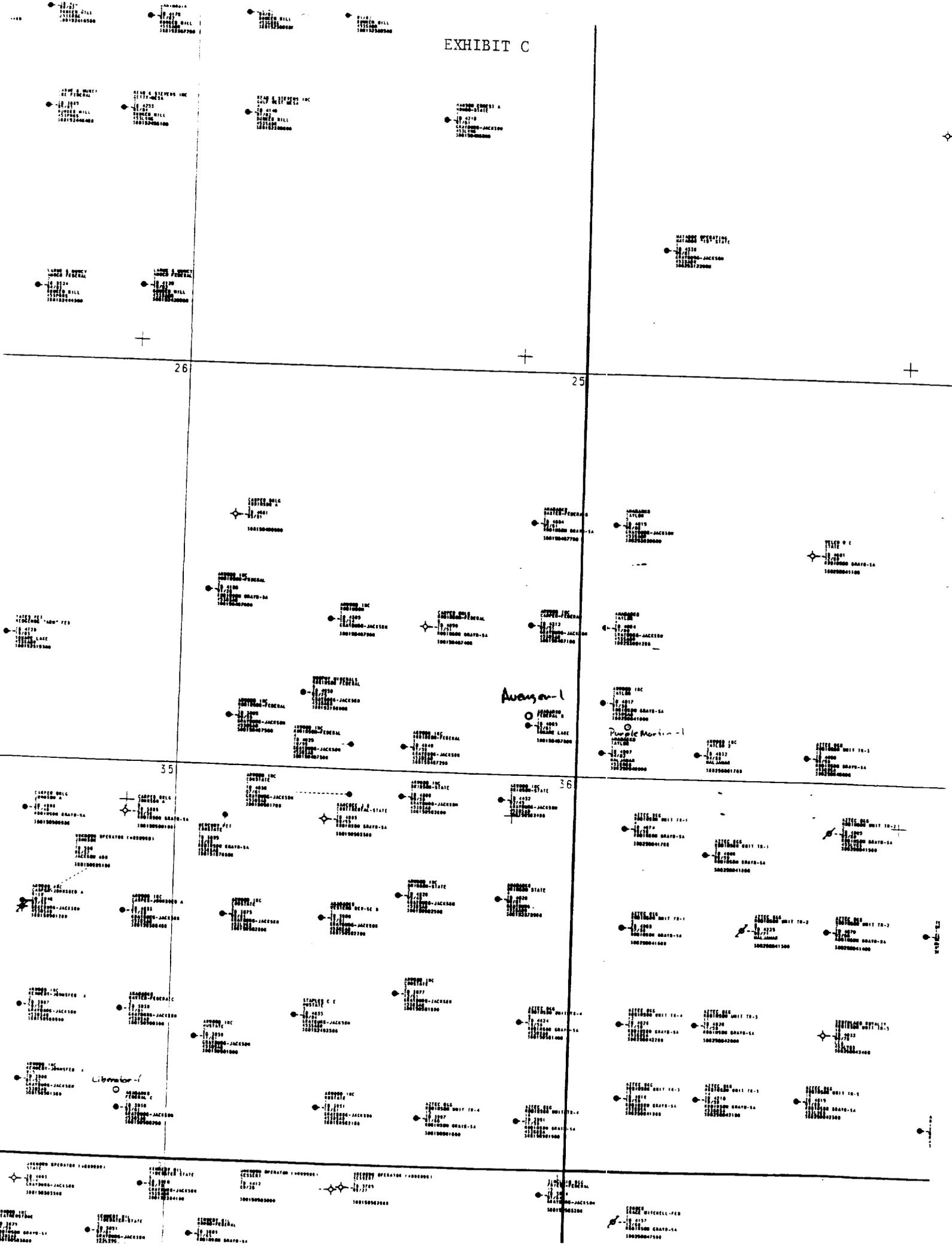
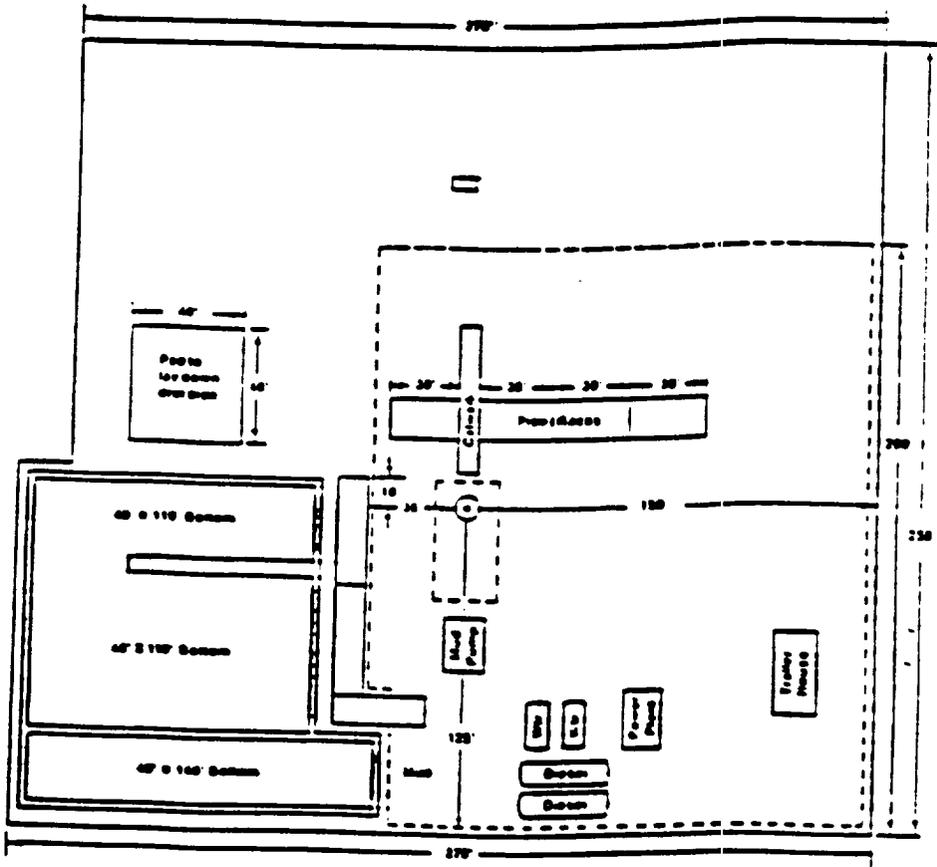


EXHIBIT D
LOCATION PLAT





Desert West

ARCHAEOLOGICAL SERVICES, INC.

May 28, 2000

Mr. Gary Womack
OXY USA, INC.
P.O. Box 50200
Midland, TX 79710

Dear Mr. Womack:

Enclosed please find your copy of Desert West Archaeological Services, Inc. (DWAS) archaeological survey report for OXY USA, INC.'s proposed Oxy Avenger Well No. 1 (Original - 660' FSL, 1450' FEL) and (Re-located - 760' FSL, 660' FEL) and associated access road in Section 25, T16S, R31E, NMPM, Eddy County, New Mexico. This survey was conducted to evaluate any potential effect that OXY USA, INC.'s proposed Oxy Avenger Well No. 1 (Original - 660' FSL, 1450' FEL) and (Re-located - 760' FSL, 660' FEL) and associated access road might have on the historic properties.

Four isolated manifestations (IM) and one archaeological site (LA 130311) were encountered and recorded during this survey. Therefore, we are recommending that archaeological clearance be granted for this undertaking of the proposed Oxy Avenger Well No. 1 staked at 760' FSL, 660' FEL and associated access road as presently staked. No further archaeological work should be required unless historic properties are discovered during construction.

An archaeologist at the Bureau of Land Management will review this report and decide whether or not OXY USA, INC. should proceed with this undertaking. Someone should advise you of that decision in that agency.

We appreciate this opportunity to serve you. If you have any questions, or feel that we might of additional service, please call our office.

Sincerely,


Arita Slate

Enclosure

Xc: Mr. Joe Gibson, OXY USA, INC., Hobbs, NM (1)
Mr. R.F. Fort, Landman, Midland, TX (1)
Bureau of Land Management, Carlsbad Field Office, Carlsbad, NM (2)

APPENDIX B.

TITLE PAGE/ABSTRACT/
NEGATIVE SITE REPORT
CARLSBAD FIELD OFFICE

BLM/ RDO 1/95

1. BLM Report No.	2. (ACCEPTED) (REJECTED)	3. NMCRIS No. 70618
4. Title of Report (Project Title): Archaeological survey of Oxy U.S.A. Inc.'s proposed Oxy Avenger Well No. 1 and associated access road in Section 25, T16S, R31E, NMPM, Eddy, NM.		5. Project Date(s) 12-18-1999, 3-10, 4-5, and 5-22-2000
7. Consultant Name & Address: Direct Charge: David Wilcox Name: Desert West Archaeological Services Address: P.O. Box 645, Carlsbad, NM 88220 Authors Name: David Wilcox Field personnel names - David Wilcox Phone (505) 887-7646		6. Report Date - 05-22-2000
10. Sponsor Name and Address: Indiv. Responsible: Mr. Gary Womack Name: Oxy U.S.A. Inc. Address: P.O. Box 50250, Midland, TX 79701 Phone (915) 685-5742		8. Permit No. 123-2920-99-U NM99-077
		9. Consultant Report No. DWAS 00-39MY
		11. For BLM Use only.
		12 ACREAGE: Total No. of acres surveyed - 8.72 Per Surface - Ownership: Federal
<p>13. Location & Area: (Maps Attached if negative survey)</p> <ul style="list-style-type: none"> a. State - NM b. County - Eddy c. BLM Field Office: Carlsbad d. Nearest City or town: Maljamar, New Mexico e. Location: Section 25, T16S, R31E (Access Road - sw/4, se/4, se/4) Well Pad footages: ORIGINAL - 660' FSL; 1450' FEL (sw/4, se/4; se/4, se/4), and RE-LOCATED - 760' FSL; 660' FEL (se/4, se/4) f. 7.5' Map Name(s) and Code Numbers(s): Maljamar NE, NM (Provisional Edition 1985 [32103-H7]). g. Area: Block: Impact: within the staked area Surveyed: 400' x 400' x 2 Linear: Impact: 604' x 30' Surveyed: 604' x 100' 		

14. a. Records Search:

Location: BLM and ARMS

Date: 12-18-1999

Conducted by: David Wilcox

List by LA# All sites within .25 miles of the project:

(Those sites within 500' are to be shown on the project map)

According to these records, there is a previous project (97-537) that bisects this proposed project's area. This seismic project went right over the new site without finding a single cultural entity pertaining to LA 130311.

b. Description of undertaking:

Class III pedestrian survey of Oxy U.S.A. Inc.'s proposed Oxy Avenger Well No. 1 and associated access road in Section 25, T16S, R31E, NMPM, Eddy, NM. The originally proposed access road connected to an existing caliche capped lease road to the south. The new re-located well pad has an existing caliche capped lease road that bisects the southeastern area of the staked location.

c. Environmental Setting (NRCS soil designation; vegetative community; etc.)

Vegetation - Assorted grasses, mesquite, littleleaf horsebrush, yucca and snakeweed.

Topography - The project lies on an alluvial fan that is abutted up against Taylor Peak (Mescalero Ridge). The area is mostly a sandy/loamy surface of slight to moderate slope with numerous ephemeral drainages/arroyos of shallow to deep depths. Some dunes of low relief with breached deflation basins (due to water run-off) are present in the area. Indurated caliche is also present. A surface salt-water disposal line bisected the original location's access road. The new well location is abutted up against an existing well and it's disturbance area. Both locations are affected by drainages. The new location is bisected on the north in an east-west tangent by a fence line and power line. This power line also bisects the well pad area in a north-south tangent.

Soils - Kimbrough-Stegall association: Loamy soils that are very shallow to moderately deep over caliche; from old alluvium.

d. Field Methods:

Transect Intervals: straight and zigzag transects, spaced not greater than 15 meters apart

Crew Size: 1 to 2 depending on the date

Time in Field: 9 hours total

Collections: no

Cultural Resource Findings: Four isolated manifestations and a new site (LA 130311) were encountered and recorded by this undertaking.

16. Management Summary (Recommendations):

Archaeological clearance for Oxy U.S.A. Inc.'s proposed Oxy Avenger Well No. 1 in Section 25, T16S, R31E, NMPM, Eddy, NM is recommended as staked provided the new location is used.

I maintain that the information provided above is correct and accurate and meets all appreciable BLM standards.

Responsible Archaeologist _____

Signature

Date

Figure 1. Topographic map of USGS 7.5' Series Maljamar NE, NM (Provisional Edition 1985) showing the project area in Section 25, T16S, R31E.

Archaeological survey of a well pad and associated access road in Section 25, T16S, R31E, NMPM, Eddy County, NM.

USGS 7.5' Series: Maljamar NE, NM (Provisional Edition 1985 [32103-H7]).
Land Status: Federal

DWAS Report No. 00-39MY
NMCRIS No. 70618

Oxy U.S.A. Inc.
Midland, TX 79701

Attention:
Mr. Gary Womack

1. Introduction

An intensive archaeological survey of Oxy U.S.A. Inc.'s proposed Oxy Avenger Well No. 1 (400' x 400'; 3.67 acres) and associated access road (604' x 100'; 1.38 acres) in Section 25, T16S, R31E, NMPM, Eddy County, NM was conducted by David Wilcox (Principal Investigator/Project Director) on 12-18-1999. A new site (LA 130311) was encountered. David Wilcox and Roger Klein (then Staff Archaeologist) recorded LA 130311 on 3-10-2000. Basin's surveyors requested that a representative of DWAS, a BLM-CFO archaeologist and BLM-CFO realty be present to find a new location for the Oxy Avenger. On 4-5-2000 David Wilcox, Ms. Tiffany Sullivan (BLM-CFO Archaeologist) and Barry Hunt (BLM-CFO Realty) met with the Basin's surveyor and investigated three separate areas for archaeology and landscape. The new location for the Oxy Avenger Well No. 1 (400' x 400'; 3.67 acres) was surveyed on 5-22-2000 by David Wilcox. Four isolated manifestations were encountered and recorded at this date. Total area surveyed was 8.72 acres. LA 130311 is a category 2 site whose information potential has not been exhausted in the field, therefore eligible for inclusion into the National Register of Historic Places. Archaeological clearance for Oxy U.S.A. Inc.'s proposed re-located Oxy Avenger Well No. 1 is recommended as staked.

2. Legal Description

USGS 7.5' Series: Maljamar NE, NM (Provisional Edition 1985 [32103-H7]).
Land Status: Federal

Section 25, T16S, R31E, NMPM, Eddy County, NM.

Well Pad: ORIGINAL - 660' FSL; 1450' FEL (sw/4, se/4, se/4, se/4)

Access Road: sw/4, se/4, se/4

Well Pad: RE-LOCATED - 760' FSL; 660' FEL (se/4, se/4)

3. Project Description

Two well pads and associated access road. Total area surveyed was 8.72 acres. South of Taylor Peak, west of the Eddy/Lea County line, north of Taylor Draw, and east of Square Lake Road.
Topography: The project lies on an alluvial fan that is abutted up against Taylor Peak (Mescalero Ridge). The area is mostly a sandy/loamy surface of slight to moderate slope with numerous ephemeral drainages/arroyos of shallow to deep depths. Some dunes of low relief with breached deflation basins (due to water run-off) are present in the area. Indurated caliche is also present. A surface salt-water disposal line bisected the original location's access road. The new well location is abutted up against an existing well and its disturbance area. Both locations are affected by drainages. The new location is bisected on the north in an east-west tangent by a fence line and power line. This power line also bisects the well pad area in a north-south tangent.
Vegetation: Assorted grasses, mesquite, littleleaf horsebrush, yucca and snakeweed.
Soils: Kimbrough-Stegall association: Loamy soils that are very shallow to moderately deep over caliche; from old alluvium.
Aspect: to the south and west due to the Mescalero Escarpment.
Elevation: 4207' @ centre stake
Lithic Resources: not found within the survey area

Water Sources: (potential) Taylor Draw, east, 1900'
(permanent) Pecos River, east, 30 miles

4. **Examination Procedure:**

Straight and zig-zag line transects, spaced not greater than 15 meters apart.
Area Delineation: Staked by the client
Visibility: 70-85% due to vegetation cover
Weather: Breezy, cool and sunny on first date; hot, sunny and calm on all other dates
Lighting Conditions: good
Work Hours on the Ground: 9 hours total
Crew Size: 1 to 2 depending on the date

5. **Findings:**

David Wilcox performed an Arms and BLM pre-field check on 12-18-1999. According to these records, there is a previous project (97-537) that bisects this proposed project's area. This seismic project went right over the new site without finding a single cultural entity pertaining to LA 130311. Four isolated manifestations and a new site (LA 130311) were encountered and recorded by this undertaking.

Isolated Manifestations (IM)

- I.M. #1 (se/4, nw/4, se/4, se/4) Consists of a thermally altered caliche scatter with no subsurface deposition, surface staining or symmetry.
I.M. #2 (se/4, nw/4, se/4, se/4) Consists of a thermally altered caliche scatter with no subsurface deposition, surface staining or symmetry.
I.M. #3 (sw/4, ne/4, se/4, se/4) Consists of a thermally altered caliche scatter with no subsurface deposition, surface staining or symmetry.
I.M. #4 (sw/4, ne/4, se/4, se/4) Consists of a thermally altered caliche scatter with no subsurface deposition, surface staining or symmetry.

Archaeological Site

LA 130311

No affect; avoidance
Eligible; category 2 site whose information potential has not been exhausted in the field
Section 25 (e/2, sw/4, se/4), T16S, R31E, NMPM, Eddy County, NM
USGS 7.5' Series: Maljamar NE, NM (Provisional Edition 1985 [32103-H7]).
UTM: Zone 13; E610536; N3639243
Bureau of Land Management, Carlsbad Field Office, New Mexico
Site Dimensions: 210 x 150 meters
Cultural Affiliation: Jornada Mogollon
Site/Component Type: artifact scatter

Site Summary:

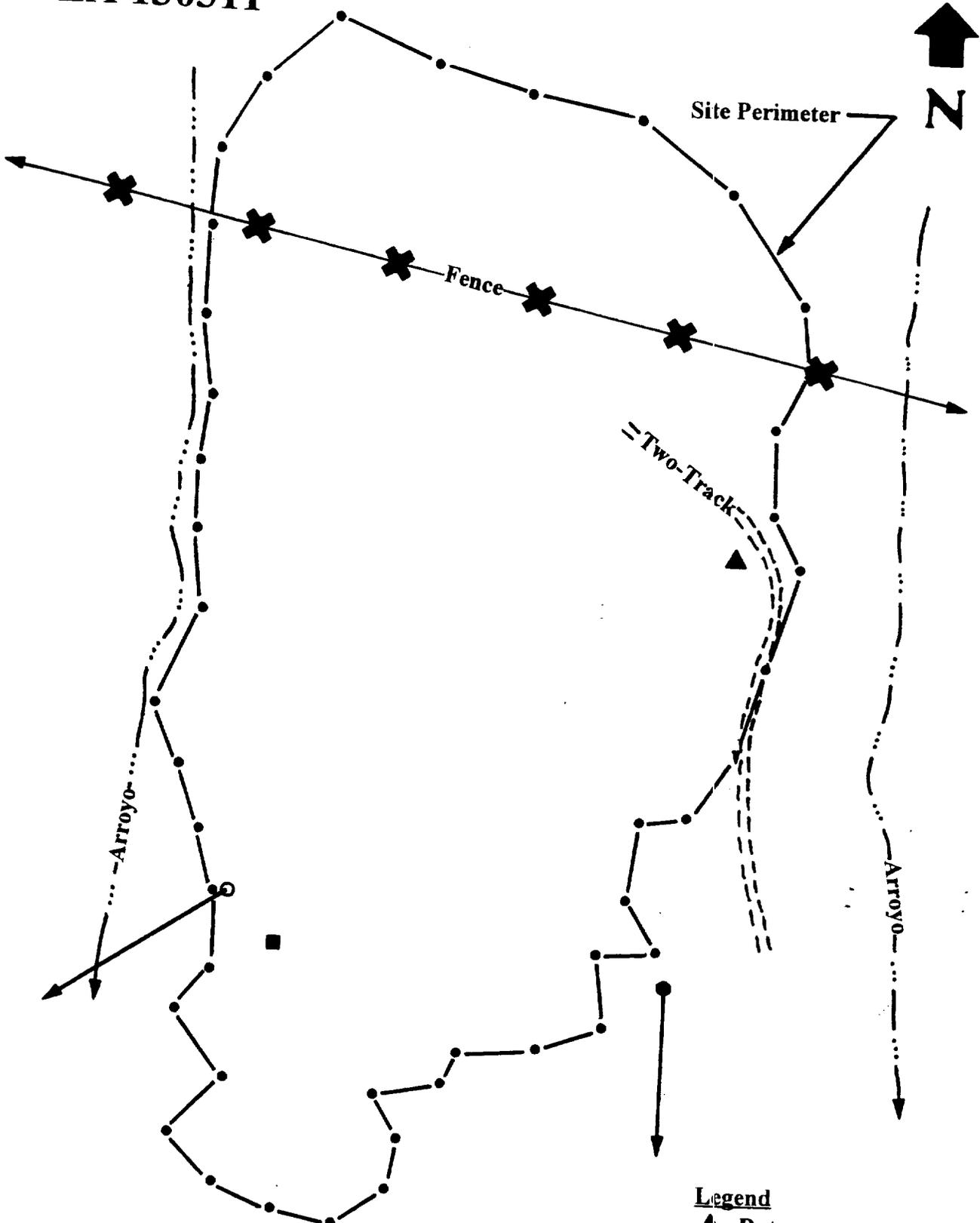
This site seems to be in fairly poor shape mostly due to the depositional/erosional environment and surface disturbances. There seems to be a very good potential for a buried in-situ component to this site. The site has a vast quantity of different pottery types, groundstone, lithics, and a thermally altered caliche scatter present. Since there is a buried potential here, the site is recommended as a category 2 site, eligible for inclusion into the National Register of Historic Places. The surface information potential for this site has not been exhausted. Originally the project was affecting the site, now due to the relocation of the well pad it will not affect the site. No further recommendations are necessary at present. The site is located on the southward sloping alluvial fan coming off of Taylor Peak (Mescalero Ridge). The area towards the northern perimeter of the site has a scree (talus) of caliche fragments turning into a more loamy/aeolian type of surface sediment towards the southern area of the site. The site rests in an area that would have benefited the occupants in terms of two diverse eco-systems (Llano Estacado and the Querecho Plains). Numerous ephemeral drainages and two deep arroyos are found within easy access to the site, or bisect the site. The assemblage here consists of a large thermally altered caliche scatter with associated ceramics,

lithics, and groundstone. No feature was encountered, but a rather tight scatter was found in the site's southwestern area, and a darker organic surface sediment was seen associated with a surface thermally altered caliche scatter just west of the site's datum. The potential for a buried dateable feature is likely. The ceramic assemblage consisted of 31 body sherds (27 Jornada Brownwares; 2 El Paso Brownwares; 1 unknown Brownware; and 1 Lincoln Black-on-red). The lithic assemblage consists of local raw materials (chalcedony, chert, ortho-quartzite, and quartzite). The lithic artifacts consisted of limited attribute flake fragments, cores, the distal end of a projectile point, flakes, and unifaces. The groundstone assemblage consists of three one sided sandstone manos. This diverse artifactual assemblage suggests a long term camp, possibly seasonal of a medium sized group. Food procurement and hunting seem to be the main focus of this camp's work activity. The cores suggest a secondary lithic procurement area.

6. **Recommendations**

Archaeological clearance for Oxy U.S.A. Inc.'s proposed re-located Oxy Avenger Well No. 1 is recommended as staked.

LA 130311



- Legend**
- ▲ - Datum
 - - SW Corner of Original Staked Location
 - ▼ - 150' East of Center Stake
 - - 6+00 Conoco Line Stake
 - - 10+00 GPM (P-3-4) Line Stake



United States Department of the Interior
Bureau of Land Management
Roswell District
2909 W. Second Street
Roswell, New Mexico 88202

Attention: Armando A. Lopez

RE: OXY Avenger Federal #1
W2 Section 25, T16S-R31E
Eddy County, New Mexico

STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

OPERATOR NAME: OXY USA Inc.
ADDRESS: P. O. Box 50250
Midland, Texas 79710

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portion thereof, as described below:

LEASE NO.: LC-029492-A
LEGAL DESCRIPTION: W2 Section 25, T16S-R31E
Eddy County, New Mexico
FORMATIONS: Below base of the Lovington formation.
BOND COVERAGE: Nationwide
BLM BOND FILE NO.: ES 0136

OXY USA Inc.

AUTHORIZED SIGNATURE:

BY:


T. Kent Woolley

TITLE: Landman Advisor
DATE: December 6, 1999

cc: David Stewart



OXY USA Inc.
P.O. Box 50250, Midland, TX 79710-0250

July 10, 2000

United States Department of the Interior
Bureau of Land Management
Roswell District Office
2909 West Second Street
Roswell, New Mexico 88201

Attn: Linda Askwig

Re: Amended Application for Permit to Drill
OXY USA Inc.
OXY Avenger Federal #1
Eddy County, New Mexico
Lease No. LC029492A

OXY USA Inc. respectfully requests that this amended application for permit to drill our OXY Avenger Federal #1 replace the previous application that was filed 12/10/99. The surface location was moved at the request of the BLM in Carlsbad. The proposed well is located 760 FSL and 660 FEL of Section 25, T16S, R31E, Eddy County, New Mexico.

If additional information is needed, please call me at 915-685-5717. Thank you for your help in this manner.

Sincerely,

A handwritten signature in cursive script, appearing to read "David Stewart".

David Stewart
Regulatory Analyst
OXY USA Inc.

Attachments



OXY USA Inc.
 P.O. Box 50250, Midland, TX 79710-0250

July 10, 2000

United States Department of the Interior
 Bureau of Land Management
 Roswell District Office
 2909 West Second Street
 Roswell, New Mexico 88201

Re: Application for Permit to Drill
 OXY USA Inc.
 OXY Avenger Federal #1
 Eddy County, New Mexico
 Lease No. LC029492A

Gentlemen:

OXY USA Inc. respectfully requests permission to drill our OXY Avenger Federal #1 located 760 FSL and 660 FEL of Section 25, T16S, R31E, Eddy County, New Mexico, Federal Lease No. LC029492A. The proposed well will be drilled to a TD of approximately 12400' (TVD). The location and work area has been staked. It is approximately 7 miles northeast of Loco Hills, 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 Gary L. Jones, Registered Land Surveyor No. 7977 in the State of New Mexico, dated April 5, 2000.
3. The elevation of the unprepared ground is 4207 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 12400' (TVD), 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 12400' TVD.
7. Estimated tops of important geologic markers.

Wolfcamp	9500' TVD
Atoka	11000' TVD
Morrow	11700' TVD
8. Estimated depths at which anticipated water, oil, gas or other mineral bearing formations are expected to be encountered:

Primary Objective:	Morrow	11700' TVD
Secondary Objective:	Atoka	11000' TVD

9. The proposed casing program is as follows:
- Surface: 13-3/8" 48# H40 ST&C new casing set at 625'
 - Intermediate: 9-5/8" 36# K55 ST&C new casing from 0-4500'
 - Production: 5-1/2" 17# N80-S95 LT&C new casing from 0-12400'
N80-8800' S95-3600'

10. Casing setting depth and cementing program:

- A. 13-3/8" surface casing set at 625' in 17-1/2" hole.
Circulate cement with 350sx 35:65 POZ/C w/ 6% Bentonite + 2% CaCl₂ + .25#/sx Cello-Seal followed by 150sx Class C w/ 2% CaCl₂.

If cement does not circulate, a temperature survey will be run to find the TOC and then finish cementing to surface through 1" using Class C with 2% CaCl₂.

- B. 9-5/8" intermediate casing set at 4500' in 12-1/4" hole.
Circulate cement with 1050sx 35:65 POZ/C w/ 6% Bentonite + 2% CaCl₂ + .25#/sx Cello-Seal + 5#/sx Gilsonite followed by 165sx Class C w/ 2% CaCl₂.

If hole conditions dictate, a DV tool may be run to ensure that the intermediate string is cemented to surface.

If cement does not circulate, a temperature survey will be run to find the TOC and then finish cementing to surface through 1" using Class C with 2% CaCl₂.

Note: Cement volumes may be adjusted according to fluid caliper.

- C. 5-1/2" production casing set at 12400'. Cement with 700sx 15:61:11 POZ/C/CSE w/ .5% FL-25 + .5% FL-52 + 8#/sx Gilsonite followed by 100sx Class C w/ .7% FL-25.

Estimated top of cement is 9000'.

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

11. Pressure Control Equipment

- 0' - 625' None
- 625' - 4500' 13-3/8" 3000# annular preventer.
- 4500' - 12400' 11" 5000# ram type preventers with one set blind rams and one set pipe rams and a 5000# annular type preventer. A choke manifold and 120 gallon accumulator with floor and remote operating stations and auxiliary power system. Rotating head below 8500'. Exhibit A.

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 9-5/8" casing, the blowout preventers and related control equipment shall be pressure tested to 5000 psi. Any equipment failing to test satisfactorily shall be repaired or replaced. Results of the BOP test will be recorded in the Driller's Log. The BOP's 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.

12. Mud Program:

0 - 625'

Fresh water/native mud. Lime for pH control (9-10). Paper for seepage.
Wt. 8.7-9.2 ppg, vis 32-34 sec.

625' - 4500'

Fresh/*brine water. Lime for pH control (10-10.5). Paper for seepage.
Wt. 8.3-9.0/10.0-10.1 ppg, vis 28-29 sec.
*Fresh water will be used unless chlorides in the mud system increase to 20000PPM.

4500' - 9500'

Fresh water. Lime for pH control (9-9.5). Paper for seepage.
Wt. 8.3-8.5 ppg, vis 28-29 sec.

9500' - 11000'

Cut brine. Lime for pH control (10-10.5).
Wt. 9.6-10.0 ppg, vis 28-29 sec.

11000' - 12400'

Mud up with an Duo Vis/Flo Trol system.
Wt. 9.6-10.0 ppg, Vis 32-36sec, WL<10cc.

Mud system monitoring equipment with derrick floor indicators and visual/audio alarms shall be installed and operative prior to drilling into the Wolfcamp formation. This equipment will remain in use until the production casing is run and cemented. Monitoring equipment shall consist of the following:

- 1) A recording pit level indicator.
- 2) A pit volume totalizer.
- 3) A flowline sensor.

13. Testing, Logging and Coring Program:
 - A. Testing program: No DST's are anticipated.
 - B. Mud logging program: One-man unit from 6000' to TD.
 - C. Electric logging program: CNL/LDT/CAL/GR, DLL/CAL/GR.
 - D. Coring program: Possible sidewall rotary cores.
14. No abnormal temperatures, or H₂S gas are anticipated. The highest anticipated pressure gradient would be .55psi/ft. Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely.
15. Anticipated starting date is September 15, 2000. It should take approximately 30 days to drill the well and another 10 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,



David Stewart
Regulatory Analyst
OXY USA Inc.

DRS/drs

Attachments