

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

N.M. Oil Cons. DIV-Dist. 2  
301 W. Grand Avenue  
Artesia, NM 88210

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		6. If Indian, Allottee or Tribe Name	
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		7. Unit or CA Agreement Name and No.	
2. Name of Operator OXY USA WTP Limited Partnership		8. Lease Name and Well No. 35243 OXY Harrier Federal #1	
3a. Address P.O. Box 50250 Midland, TX 79710-0250	3b. Phone No. (include area code) 432-685-5717	9. API Well No. 30-015-34434	
4. Location of Well (Report location clearly and in accordance with any State requirements)* At surface 740 FNL 1780 FWL NENW(C) At proposed prod. zone		10. Field and Pool, or Exploratory Undsg. Fren Morrow, NE	
14. Distance in miles and direction from nearest town or post office* 7 miles northeast from Loco Hills, NM		11. Sec., T., R., M., or Blk. and Survey or Area Sec 35 T16S R31E	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any) 740'	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. N/A	19. Proposed Depth 12500'	20. BLM/BIA Bond No. on file 125 0136 EAH 6194690	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 4078'	22. Approximate date work will start* 12/1/05	23. Estimated duration 30 days	

24. Attachments

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

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

25. Signature 	Name (Printed/Typed) David Stewart	Date 10/6/05
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Title

Sr. Regulatory Analyst

Approved by (Signautre) /s/ Joe G. Lara	Name (Printed/Typed) /s/ Joe G. Lara	Date NOV 15 2005
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ACTING

FIELD MANAGER

Office

CARLSBAD FIELD OFFICE

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.

APPROVAL FOR 1 YEAR

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)

515, 29.5

Roswell Controlled Water Basin

WITNESS: 13<sup>3/4</sup> CSG CEMENT JOBS

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHED

OXY Harrier Federal #1  
740 FNL 1780 FWL NENW(C) SEC 35 T16S R31E Eddy County, NM  
Federal Lease No. LC-29438-A

PROPOSED TD: 12500' TVD

BOP PROGRAM: 0-625' None

625-4500' 13-3/8" 3M annular preventer, to be used as  
divertor only.

4500-12500' 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'  
17-1/2" hole

Intermediate: 9-5/8" OD 36# K55/HCK55 ST&C new casing from 0-4500'  
12-1/4" hole

Production: 5-1/2" OD 17# N80-HP110 LT&C new casing from 0-12500'  
8-3/4" hole 8750'-N80 3650'-HP110

CEMENT: Surface - Circulate cement with 350sx HES light PP w/ 2% CaCl<sub>2</sub>  
+ .25#/sx Flocele followed by 250sx PP w/ 2% CaCl<sub>2</sub> + .25#/sx Flocele.

Intermediate - Circulate cement with 1100sx IFC w/ .25#/sx Flocele  
followed by 200sx PP w/ 2% CaCl<sub>2</sub>.

Production - Cement with 600sx Interfill H w/ .1% HR-7 followed by  
400sx Super H w/ .5% HR-344 + .4% CFR-3 + 5#/sx Gilsonite + 1#/sx  
salt + .2% HR-7. Estimated top of cement is 7500'.

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.

4500-8700' Fresh water. Lime for pH control (9-9.5). Paper  
for seepage.  
Wt 8.3-8.5 ppg, Vis 28-29 sec

8700-10000' Cut brine. Lime for pH control (10-10.5).  
Wt 9.6-10.0 ppg, Vis 28-29sec

10000-12500' Mud up with an Duo Vis/Flo Trol mud system.  
Wt 9.6-10.0ppg, Vis 32-36sec, WL<10cc

# State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102

Revised JUNE 10, 2003

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

DISTRICT I

1225 N. FRENCH DR., HOBBES, NM 88240

DISTRICT II

1301 W. GRAND AVENUE, ARTESIA, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Artec, NM 87410

DISTRICT IV

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

## OIL CONSERVATION DIVISION

1220 SOUTH ST. FRANCIS DR.

Santa Fe, New Mexico 87505

### WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-015-	Pool Code 96996	Pool Name Undesignated Fren Morrow, Northeast
Property Code	Property Name OXY HARRIER FEDERAL	Well Number 1
OGRID No. 192463	Operator Name OXY U.S.A. W.T.P., LP	Elevation 4078'

#### Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	35	16-S	31-E		740	NORTH	1780	WEST	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 320	Joint or Infill N	Consolidation Code	Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<p>GEODETIC COORDINATES NAD 27 NME</p> <p>Y=685395.4 N X=650636.3 E</p> <p>LAT.=32°52'59.77" N LONG.=103°50'33.51" W</p>	<h4>OPERATOR CERTIFICATION</h4> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p></p> <p>Signature David Stewart Printed Name Sr. Regulatory Analyst Title 10/6/05 Date</p> <h4>SURVEYOR CERTIFICATION</h4> <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>SEPTEMBER 13, 2005</p> <p>Date Surveyed Signature &amp; Seal of Professional Surveyor Professional Surveyor NEW MEXICO GARY E. EDSON 05.11.1392 Certificate No. GARY E. EDSON 12841</p>
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State of New Mexico  
Energy Minerals and Natural Resources

Form C-144  
March 12, 2004

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

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: OXY U.S.A. W.T.P. Limited Partnership Telephone: 432.685.5683 e-mail address: fred\_ray@oxy.com

Address: P.O. Box 50250 Midland, TX 79710

Facility or well name: OXY Harrier No. 1 API #: 30-015 U/L or Qtr/Qtr: NENW (C) Sec 35 T 16S R 31E

County: Eddy Latitude 32°52'59.77"N Longitude 103°50'33.51"W NAD: 1927 ☒ 1983 ☐ Surface Owner Federal ☒ State ☐ Private ☐ Indian ☐

**Pit**

Type: Drilling ☒ Production ☐ Disposal ☐

Workover ☐ Emergency ☐

Lined ☒ Unlined ☐

Liner type: Synthetic ☐ Thickness 12 mil Clay ☐ Volume 11000  
bbl

**Below-grade tank**

Volume: bbl Type of fluid:

Construction material:

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

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

Less than 50 feet	(20 points)
50 feet or more, but less than 100 feet	(10 points)
100 feet or more	( 0 points) 0

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) 0

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) 0

<b>Ranking Score (Total Points)</b>	0
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**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: October 3, 2005

Printed Name/Title: Fred Ray / Operation Specialist

Signature

*Fred Ray*

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: OCT 14 2005 Field Supervisor

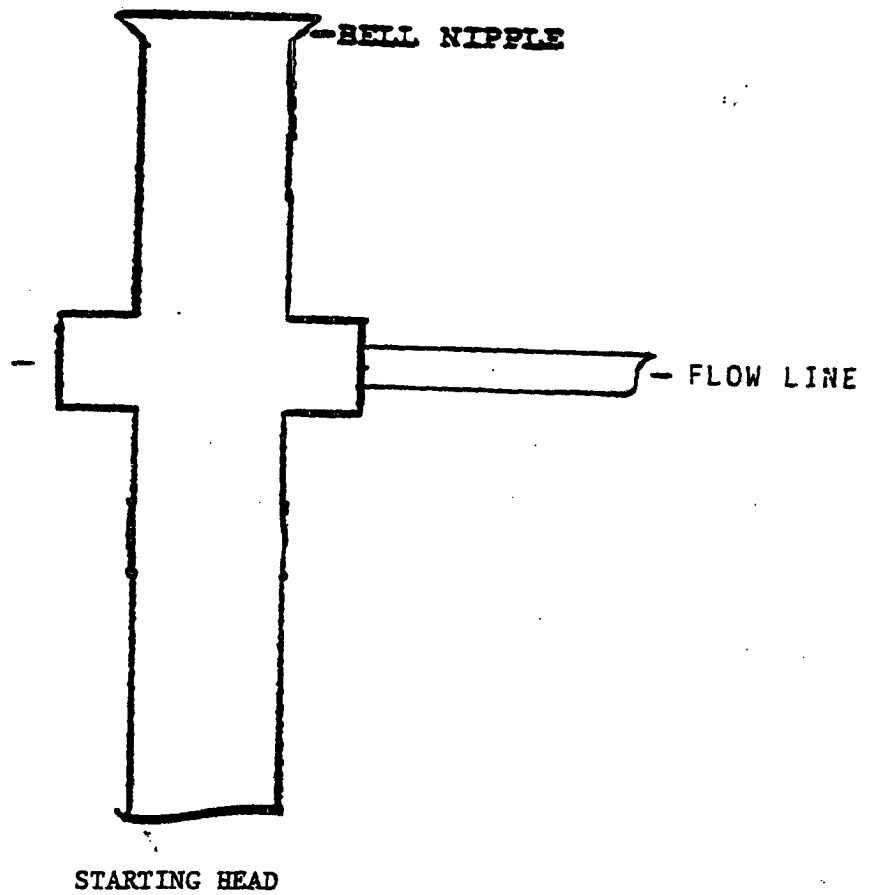
Printed Name/Title

Signature

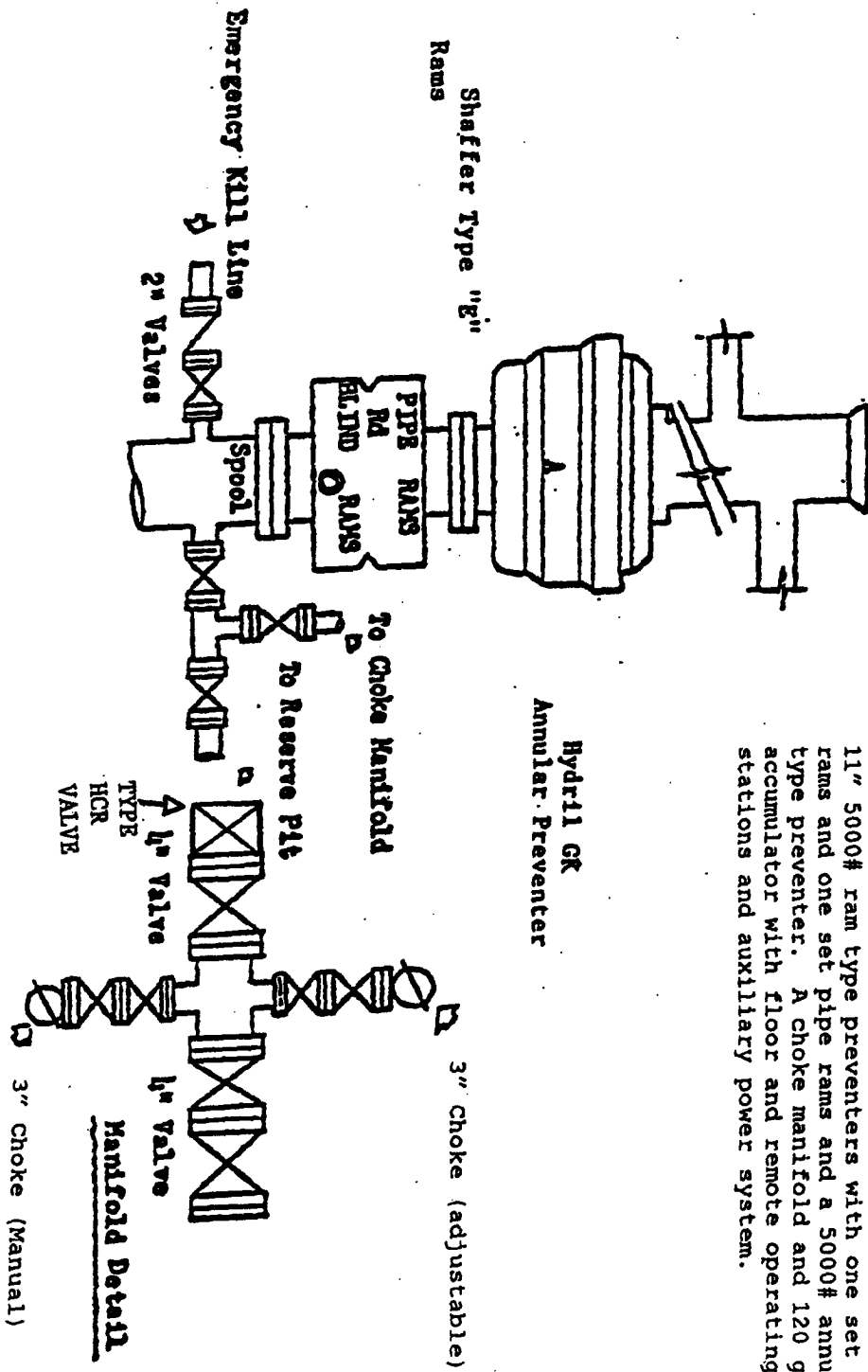
*[Signature]*

EXHIBIT A

ANNULAR PREVENTOR  
TO BE USED AS DIVERTOR ONLY



BLOWOUT PREVENTOR SCHEME



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.

## MULTI-POINT SURFACE USE AND OPERATIONS PLAN

OXY USA WTP Limited Partnership  
OXY Harrier Federal #1  
Eddy County, New Mexico  
Lease No. LC-29438-A

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. Boone Archaeological Services, LLC 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 "Maljamar NE, 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 intersection of CR 220 and CR 252, go east-northeast on CR 252 approximately 5.1 miles. Turn left at the Tom R. Cone well #1 and go north approx. 0.1 miles. Existing road bends right and go northeast approx. 0.15 miles. Road bends left and goes northwest approx. 0.16 miles. Location is approximately 600' south.

### 2. Planned Access Road

- A. A new access road will be built. The access road will run approximately 998' southwest from an existing road to the location. Exhibit B.
- 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: N/A
- F. Culverts: None needed
- G. Cuts and Fills: Leveling the location will require minimal 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.

**Multi-Point Surface Use and Operations Plan**  
**OXY Harrier Federal #1**  
**Page 2**

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.
- 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 Harrier 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 the Section 33, T16S, R31E, Eddy County NM.

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. See attachment.
- A. Leveling of the wellsite will be required with minimal cuts or fills anticipated.



- B. The reserve pit will be plastic lined.
- C. While constructing the pits and material is encountered at a depth which would not allow the pits to meet the BLM stipulations without blasting, OXY requests a variance. There will be an adequate amount of material to reclaim the pit per the stipulations.
- 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.
- 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: The Holeman Revocable Trust, P.O. Box 84, Maljamar, NM 88264. 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 4078'.
- 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: None within 2 miles.
- F. Archaeological, Historical and Cultural Sites: Cultural resources have been recorded in the area. Boone Archaeological Services, LLC 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:

John Erickson  
Production Coordinator  
P.O. Box 69  
Hobbs, New Mexico 88240  
Office Phone: 505-393-2174  
Cellular: 505-390-6426

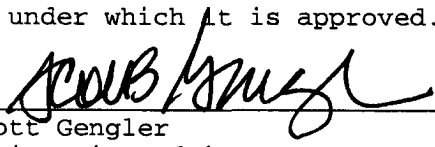
Joe Fleming  
Drilling Coordinator  
P.O. Box 50250  
Midland, TX 79710-0250  
Office Phone: 915-685-5858

Calvin C. (Dusty) Weaver  
Operation Specialist  
P.O. Box 2000  
Levelland, TX 79336  
Office Phone: 806-229-9467  
Cellular: 806-893-3067

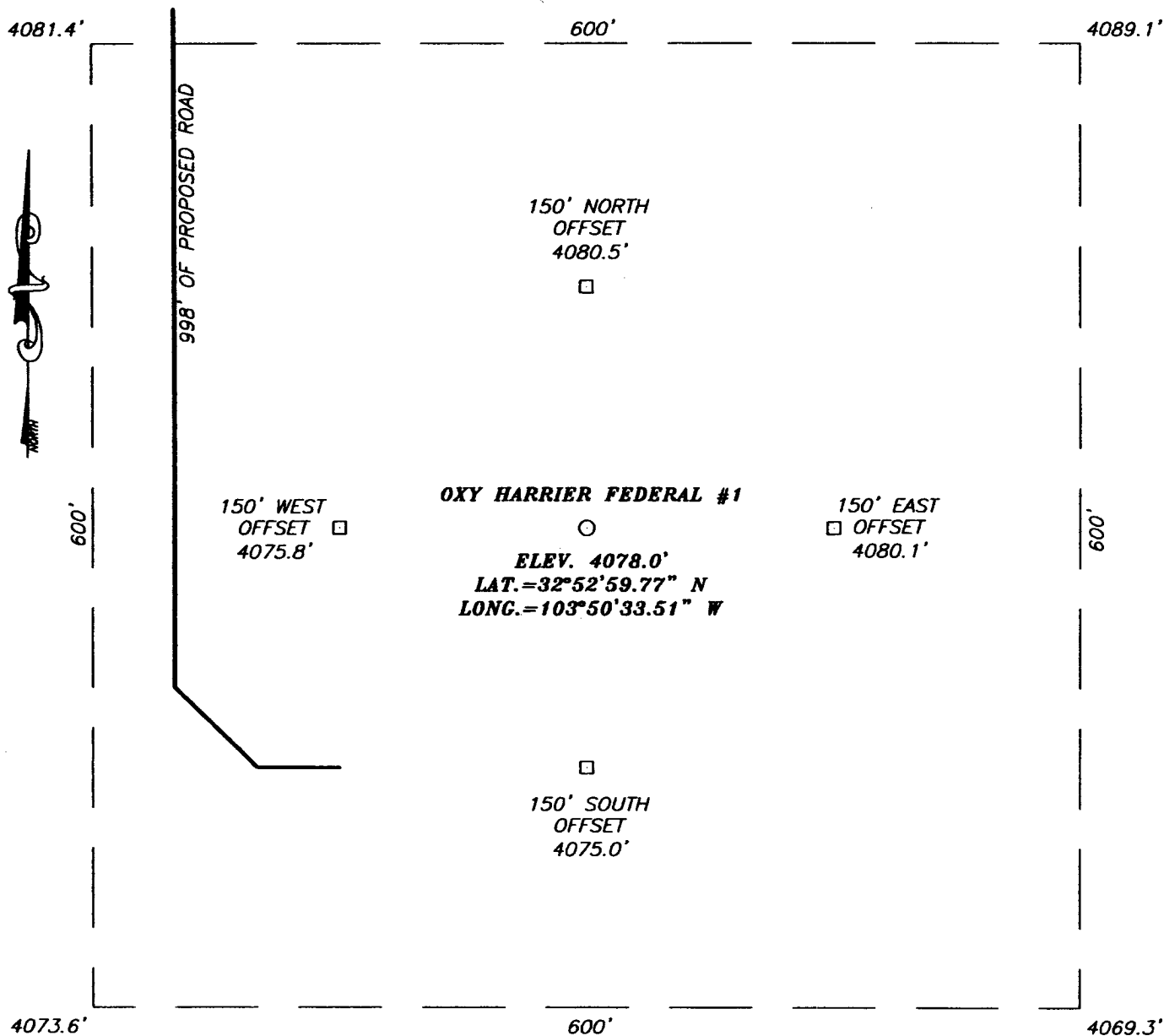
Terry Asel  
Operation Specialist  
1017 W. Stanolind Rd.  
Hobbs, NM 88240  
Office Phone: 505-397-8217  
Cellular: 505-631-0393

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 WTP Limited Partnership and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

10/6/2005  
DATE

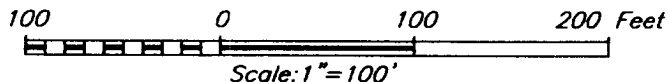
  
\_\_\_\_\_  
Scott Gengler  
Engineering Advisor  
432-685-5825  
South Permian Asset Team  
OXY USA WTP Limited Partnership

**SECTION 35, TOWNSHIP 16 SOUTH, RANGE 31 EAST, N.M.P.M.,**  
**EDDY COUNTY, NEW MEXICO**



**DIRECTIONS TO LOCATION**

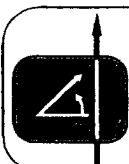
FROM THE INTERSECTION OF SQUARE LAKE RD.  
(CO. RD. #220) & CO. RD. #252 (EAST SQUARE  
LAKE RD) GO EAST-NORTHEAST ON CO. RD. #252  
APPROX. 5.1 MILES. TURN LEFT AT THE TOM R.  
CONE #1 WELL AND GO NORTH APPROX. 0.1  
MILES. EXISTING ROAD BENDS RIGHT AND GO  
NORTHEAST APPROX. 0.15 MILES. ROAD BENDS  
LEFT AND GOES NORTHWEST APPROX. 0.16 MILES.  
THIS LOCATION IS APPROX. 600' SOUTH.



**OXY U.S.A. W.T.P., LP**

OXY HARRIER FEDERAL #1 WELL  
LOCATED 740 FEET FROM THE NORTH LINE  
AND 1780 FEET FROM THE WEST LINE OF SECTION 35,  
TOWNSHIP 16 SOUTH, RANGE 31 EAST, N.M.P.M.,  
EDDY COUNTY, NEW MEXICO.

Survey Date: 9/13/05		Sheet 1 of 1 Sheets	
W.O. Number: 05.11.1392		Dr By: LA	Rev 1:N/A
Date: 9/20/05	Disk: CD#4	05111392	Scale: 1"=100'



PROVIDING SURVEYING SERVICES  
SINCE 1946

**JOHN WEST SURVEYING COMPANY**

412 N. DAL PASO  
HOBBBS, N.M. 88240  
(505) 383-3117

**OXY USA WTP  
Limited Partnership  
PO Box 50250  
Midland, TX 79710**

**Hydrogen Sulfide (H<sub>2</sub>S)  
Contingency Plan**

**For**

**Oxy Harrier Fed. No. 1  
740 ft FNL, 1780 ft FWL  
Sec 35, T16S, R31E  
Eddy County, NM**

**And**

**McVay Rig 8**

## **TABLE OF CONTENTS**

<b><u>ITEM</u></b>	<b><u>PAGE</u></b>
PREFACE .....	3
LOCATION MAP .....	4
RIG SKETCH.....	5
EMERGENCY RESPONSE ACTIVATION AND GENERAL RESPONSIBILITIES	6
SPECIFIC EMERGENCY GUIDANCE	
- H2S Release .....	8
- Well Control .....	10
PUBLIC RELATIONS .....	13
PHONE CONTACTS – OP DOWNHOLE SERVICES GROUP .....	14
EMERGENCY PERSONELL NOTIFICATION NUMBERS.....	15
PHONE CONTACTS – OP PRODUCTION AND PLANT PERSONNEL .....	16
PHONE CONTACTS – OP HES PERSONNEL .....	16

## **PREFACE**

An effective and viable Contingency Plan is intended to provide prior planning and guidance in responding to emergency incidents. The primary considerations in its development are protection of personnel, the public, company and public property, and the environment.

Although the plan addresses varied emergency situations which may occur, it recognizes that flexibility and the use of the organization's knowledge and experience is critical to safe resolution of emergency incidents. Response actions outlined in the plan provide a framework, which may be placed into operation without confusion. These actions should promote quick and decisive actions during the critical initial period and immediately following an emergency. As the response progresses, additional guidelines and procedures may need to be implemented as the situation dictates. In addition, all emergency incidents must be properly reported per the Oxy Incident Reporting and Notification Policy, state and federal requirements, etc.

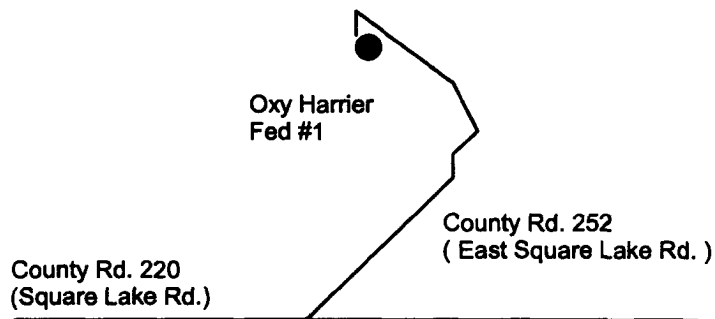
This Contingency Plan is intended for use on Oxy Downhole Services Group projects and the operations within their area of responsibility, such as drilling, critical well work, etc.

A copy of the Plan shall be maintained in the Top Dog House, Rig Managers trailer, and Company Representative's trailer if applicable.

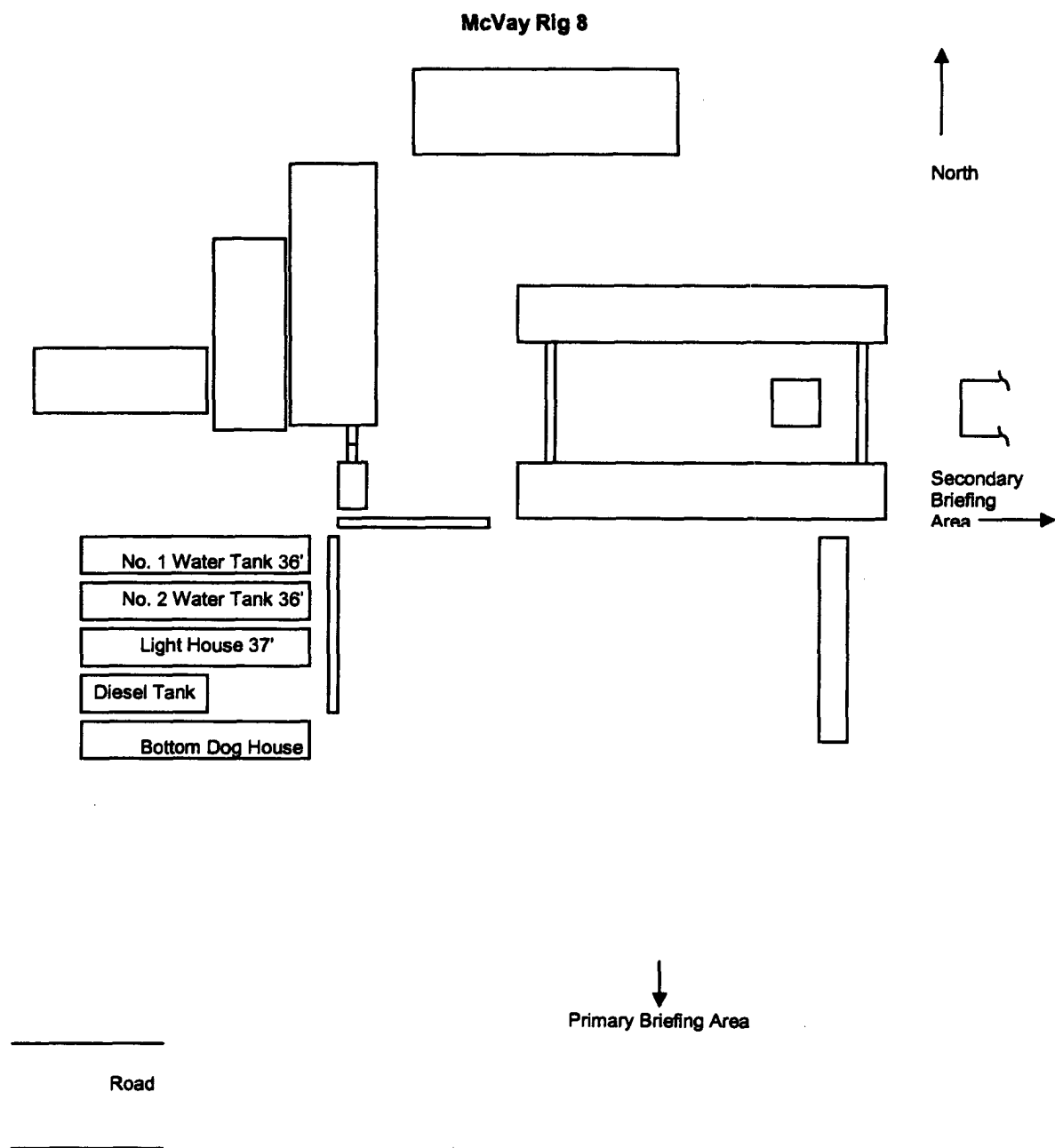
**Oxy Harrier Fed No. 1**  
**Y = 685395.4 N**  
**X = 650636.3 E**  
**Lat. 32°52'59.77 N**  
**Long. 103°50'33.51" W**



**NORTH**



**DIRECTIONS TO LOCATION:** From the intersection of CR 220 and CR 252, go east-northeast on CR 252 approximately 5.1 miles. Turn left at the Tom R. Cone well #1 and go north approx. 0.1 miles. Existing road bends right and go northeast approx. 0.15 miles. Road bends left and goes northwest approx. 0.16 miles. Location is approximately 600' south.





## **EMERGENCY RESPONSE ACTIVATION AND GENERAL RESPONSIBILITIES**

### ***Activation of the Emergency Action Plan***

- A. In the event of any emergency situation, all personnel on location should first ensure that the following items are initiated. After that, they should refer to the appropriate Specific Emergency Guidance sections on pages ten (10) through twelve (12) in this document for further responsibilities:
1. Notify the senior ranking contract representative on site.
  2. Notify Oxy representative in charge.
  3. Notify civil authorities if the Oxy Representative can not be contacted and the situation dictates.
  4. Perform rescue and first aid as required (without jeopardizing additional personnel).

### ***General Responsibilities***

#### **Oxy Permian Personnel:**

- A. Operations Specialist: The Oxy Drilling/Critical Well Servicing Operations Specialist or contract personnel serving in that capacity will serve as Operations Chief Officer for all emergency incidents. The Operations Chief Officer is responsible for:
1. Notification to the Downhole Services Team Leader of the incident occurrence.
  2. Notification to the local RMT/PMT leader of the incident occurrence, and the need for the designated local RMT/PMT Incident Commander to act in that capacity for the response effort.
  3. Sole control of all tactical activities directed toward reducing the immediate hazard, establishing situational control and restoring the operations to a non-emergency state.
- B. Local RMT/PMT Designated Incident Commander: The Oxy local RMT/PMT Designated Incident Commander will serve as the overall Incident Commander for the drilling or critical well servicing emergency incident. The Incident Commander is responsible for:
1. Coordinating with the Downhole Services Team Leader for notification to the Oxy Crisis Management team of the incident occurrence.
  2. Establishing and managing the overall incident command structure and response from inception through restoration of normal activities in the area.
- C. Downhole Services HES Tech: The Downhole Services HES Tech (or his designate) is responsible for reporting to the incident as soon as reasonably possible, to provide support to the response effort as required by the Operations Chief Officer or the Incident Commander.

**Contract Drilling Personnel** will immediately report to their assigned stations and perform their duties as outlined in the appropriate Specific Emergency Guidance sections on pages ten (10) through twelve (12) in this document.

**Other Contractor Personnel** will report to the safe briefing area to assist Oxy personnel and civil authorities as requested when it is safe to do so and if they have been adequately trained in their assigned duties.

**Civil Authorities** (Law Enforcement, Fire, and EMS) will be responsible for:

1. Establishing membership in the Unified Incident Command.
2. As directed by the Incident Commander and the Unified Command, control site access, re-route traffic, and provide escort services for response personnel.
3. Perform all fire control activities in coordination with the Unified Command.
4. Initiate public evacuation plans as instructed by the Incident Commander.
5. Perform rescue or recovery activities with coordination from the Unified Command.
6. Provide medical assistance as dictated by the situation at hand.

### **H2S RELEASE**

The following procedures and responsibilities will be implemented on activation of the H2S siren and lights.

#### **All Personnel:**

1. On alarm, don escape unit (if available) and report to upwind briefing area.

#### **Rig Manager/Tool Pusher:**

1. Check that all personnel are accounted for and their condition.
2. Administer or arrange for first aid treatment, and /or call EMTs as needed.
3. Identify two people best suited to secure well and perform rescue, and instruct them to don SCBA.
4. Notify Contractor management and Oxy Representative.
5. Remain at the briefing area, assess and monitor personnel and overall situation for hazards or conditions that might warrant a change in the action plan.

#### **Two People Responsible For Shut-in and Rescue:**

1. Don SCBA and acquire tools to secure well and perform rescue, i.e., wrenches, retrieval ropes, etc.
2. Utilize the buddy system to secure well and perform rescue(s).
3. Return to the briefing area and stand by for further instructions.

#### **All Other Personnel:**

1. Isolate the area and prevent entry by other persons into the 100 ppm ROE. Additionally the first responder(s) must evacuate any public places encompassed by the 100 ppm ROE. First responder(s) must take care not to injure themselves during this operation. Company and/or local officials must be contacted to aid in this operation. Evacuation of the public should be beyond the 100 ppm ROE.

#### Oxy Representative:

1. Remain at the briefing area, assess and monitor personnel and overall situation for hazards or conditions that might warrant a change in the action plan.
2. Notify Operation Specialists or Team Leader and RMT Leader or Local Incident Commander, and Police, Fire Department, or other local emergency services as required.

#### Training

There will be an initial training session prior to encountering a known or probable H<sub>2</sub>S zone (within 3 days or 500 feet) and weekly H<sub>2</sub>S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H<sub>2</sub>S Drilling Operations Plan and the Public Protection Plan (Contingency Plan). This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

#### Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO<sub>2</sub>). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police shall be the Incident Command of any major release. Ignition of the well will be with the concurrence of the drilling team leader and the Oxy Crisis Management Team as time allows.

#### Characteristics of H<sub>2</sub>S and SO<sub>2</sub>

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H <sub>2</sub> S	1.189 Air = 1	10 ppm	100 ppm	600 ppm
Sulfur Dioxide	SO <sub>2</sub>	2.21 Air = 1	2 ppm	N/A	1000 ppm

### Contacting Authorities

Oxy Permian personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as; type and volume of release, wind direction, location of release, etc. Be prepared with all information available. The following call list of essential and potential responders has been prepared for use during a release. This response plan must be in coordination with the State of New Mexico's 'Hazardous Materials Emergency Response Plan' (HMER).

## **WELL CONTROL**

The following procedures will be implemented when a loss of primary control is indicated. Indicators of loss of primary control are flow from the well, an increase in pit volume, or when the drilling fluid used to fill the hole on trips is less than the calculated pipe displacement volume. The emergency signal for well control procedures will be a single long blast of the rig air horn.

### **Kick While Drilling - Procedures And Responsibilities**

#### **Driller:**

1. Stop the rotary and hoist the kelly above the rotary table.
2. Stop the mud pump(s).
3. Check for flow.
4. If flowing, sound the alarm immediately.
5. Ensure that all crew members fill their responsibilities to secure the well.
6. Record drill pipe and casing shut-in pressures and pit volume increase and begin kill sheet.

#### **Derrickman:**

1. Go to BOP/choke manifold area.
2. Open choke line valve on BOP.
3. Signal to Floorman #1 that the choke line is open.
4. Close chokes after annular or pipe rams are closed.
5. Record shut-in casing pressure and pit volume increase.
6. Report readings and observations to Driller.
7. Verify actual mud weight in suction pit and report to Driller.
8. Be readily available as required for additional tasks.

#### **Floorman # 1:**

1. Go to accumulator control station and await signal from Derrickman.
2. Close annular preventer and HCR on signal (if available, if not then close pipe rams).
3. Record accumulator pressures and check for leaks in the BOP or accumulator system.
4. Report to Driller, and be readily available as required for additional tasks.

#### **Floorman # 2:**

1. Start water on motor exhausts.
2. Notify Contractor Tool Pusher or Rig Manager of well control situation.
3. Check location for ignition sources and extinguish or turn off, and stop any welding in progress.
4. Report to Driller, and be readily available as required for additional tasks.

**Floorman # 3:**

1. Stand-by with Driller, and be readily available as required for additional tasks.

**Tool Pusher/Rig Manager:**

1. Notify Oxy Representative and report to rig floor.
2. Review and verify all pertinent information.
3. Communicate information to Oxy Representative, and confer on an action plan.
4. Finalize well control worksheets, calculations and preparatory work for action plan.
5. Initiate and ensure the action plan is carried out.
6. Communicate any changes in well or site conditions, or any indications that the action plan needs to be revised to the Oxy representative.

**Oxy Representative:**

1. Notify Operation Specialists or Team Leader and RMT Leader or Local Incident Commander, and Police, Fire Department, or other local emergency services as required.

**Kick While Tripping - Procedures and Responsibilities**

**Driller:**

1. Sound the alarm immediately when pipe displacement volume is less than 75% of calculated.
2. Position the upper tool joint just above rotary table and set slips.
3. Check for flow.
4. Ensure that all crew members fill their responsibilities to secure the well.
5. Record drill pipe and casing shut-in pressures and pit volume increase, and begin kill sheets.

**Derrickman:** (same as while drilling)

**Floor Man # 1:**

1. Install full opening valve (with help from Floorman #2) in top drill string connection.
2. Tighten valve with make up tongs.
3. Go to accumulator control station and await signal from Derrickman.
4. Close annular preventer and HCR valve on signal (if available, if not then close pipe rams).
5. Record accumulator pressures and check for leaks in the BOP and accumulator system.
6. Report to Driller, and be readily available as required for additional tasks.

**Floor Man # 2:**

1. Assist installing full opening valve in drill string.
2. Position back-up tongs for valve make-up.
3. Start water on motor exhausts.
4. Notify Contractor Tool Pusher or Rig Manager of well control situation.
5. Check location for ignition sources and extinguish or turn off, and stop any welding in progress.
6. Report to Driller, and be readily available as required for additional tasks.

**Floorman # 3, Rig Manager/Tool Pusher, and Oxy Representative:** (same as while drilling)

## ***PUBLIC RELATIONS***

Oxy recognizes that the news media have a legitimate interest in incidents at Oxy facilities that could affect the public. It is to the company's benefit to cooperate with the news media when incidents occur because these media are our best liaison with the public.

Our objective is to see that all reports of any emergency are factual and represent the company's position fairly and accurately. Cooperation with news media representatives is the most reliable guarantee that this objective will be met.

All contract and Oxy employees are instructed **NOT** to make any statement to the media concerning the emergency incident. If a media representative contacts any employee, they should refer them to the designated Emergency Command Center where they should contact the Incident Commander or his designated relief for any information concerning the incident.



# OXY PERMIAN DOWNHOLE SERVICES GROUP

	LOCATION	OFFICE	HOME	CELL	PAGER
<b>Manager Operations Support</b>					
Hardesty, Steve	Midland	432-685-5880	432/694-6441	713-560-8095	
<b>Team Leader</b>					
Pennington, Randy	Midland	432-685-5684	432/689-7642	432-556-0207	
			Toledo Bend =	318-590-2349	
<b>Operations Specialists</b>					
Fleming, Joe	Midland	432-685-5858	432/699-0875	432-425-6075	
Ray, Fred	Midland	432-685-5683	432/362-2857	432-661-3893	
<b>HES Tech</b>					
Thompson, Don	Midland	432-685-5719	432/684-3900	432-556-1505	

## **Emergency Notification Numbers**

<b>Public Authorities</b>		
New Mexico State Police	Artesia	505/746-2704
New Mexico State Police	Carlsbad	505/885-3137
New Mexico State Police	Hobbs	505/392-5588
Eddy County Sheriff's Office	Artesia	505/746-2704
Eddy County Sheriff's Office	Carlsbad	505/887-7551
Lea County Sheriff's Office	Hobbs	505/393-2515
Local Emergency Planning Center	Eddy County	505/887-9511
Local Emergency Planning Center	Lea County	505/397-9231
New Mexico Oil & Gas Commission	Artesia	505/748-1283
New Mexico Oil & Gas Commission	Hobbs	505/393-6161
NM Emergency Response Center	Hobbs	505/827-9222

<b>Emergency Services</b>		
Fire Fighting, Rescue, Ambulance, Police	Artesia	911
Fire Fighting, Rescue, Ambulance, Police	Carlsbad	911
Fire Fighting, Rescue, Ambulance, Police	Hobbs	911
Flight For Life	Lubbock	806/743-9911
Aerocare	Lubbock	806/747-8923
Med Flight Air Ambulance	Albuquerque	505/842-4433

<b>Other Emergency Services</b>		
Boots and Coots		1/800-256-9688
Cudd Pressure Control	Midland	432/699-0139
B.J. Services	Artesia	505/746-3569
Halliburton	Artesia	505/746-2757

**OXY Permian Production and Plant Personnel  
OXY Permian Crisis Team Hotline Notification (713) 935-7210**

PERSON	LOCATION	OFFICE	FAX	CELL	PAGER
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<b>Asset Management-Operations Areas</b>					
OXY Permian General Manager: Tom Menges	Houston	(281) 552-1147	(281) 552-1484	(713) 560-8038	
South Permian Asset: Matt Hyde	Midland	(432) 685-5802	(432) 685-5930	(432) 556-5016	

<b>RMT/PMT Leaders: South Permian Asset</b>					
Frontier RMT: John Nicholas	Midland	(432) 685-5600	(432)	(432)	(432)

PERSON	LOCATION	OFFICE	FAX	CELL	PAGER
<b>Production Coordinators: S. Permian Asset</b>					
New Mexico: John Erickson	Hobbs	(505) 393-2174	(505) 397-2671	(505) 390-6426	(505) 370-6836

**OXY Permian HES Personnel  
OXY Permian Crisis Team Hotline Notification (713) 935-7210**

PERSON	LOCATION	OFFICE	FAX	CELL	PAGER
<b>HES Coordinators &amp; Area of Responsibility</b>					
Frontier: Ricky Tyler	Midland	(432) 685-5707	(432) 685-5742	(432) 556-5790	(432)
<b>HES Techs &amp; Area of Responsibility</b>					
Hobbs RMT: Steve Bishop	Hobbs	(505) 397-8251	(505) 397-8204	(505) 390-4784	(877) 339-1954-1118#
Frontier-New Mexico: Rick Kerby	Hobbs	(505) 393-2174	(505) 393-2671	(505) 390-8639	(505) 370-6527

**OXY USA WTP Limited Partnership**  
P.O. Box 50250, Midland, TX 79710-0250

October 6, 2005

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 WTP Limited Partnership  
OXY Harrier Federal #1  
Eddy County, New Mexico  
Lease No. LC-29438-A

Gentlemen:

OXY USA WTP Limited Partnership respectfully requests permission to drill our OXY Harrier Federal #1 located 740 FNL and 1780 FWL of Section 35, T16S, R31E, Eddy County, New Mexico, Federal Lease No. LC-29438-A. The proposed well will be drilled to a TD of approximately 12500' (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 G. Eidson, Registered Land Surveyor No. 12641 in the State of New Mexico, dated September 23, 2005.
3. The elevation of the unprepared ground is 4078 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 12500' (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 12500' TVD.
7. Estimated tops of important geologic markers.

Wolfcamp	8800' TVD
Strawn	11200' TVD
Atoka	11450' TVD
Morrow	11850' TVD

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

Primary Objective:	Morrow	11850' TVD
Secondary Objective:	Atoka	11450' 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/HCK55 ST&C new casing from 0-4500'

Production: 5-1/2" 17# N80/HP110 LT&C new casing from 0-12500'

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 HES light PP w/ 2% CaCl<sub>2</sub> + .25#/sx Flocele followed by 250sx PP w/ 2% CaCl<sub>2</sub> + .25#/sx Flocele.

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% CaCl<sub>2</sub>.

- B. 9-5/8" intermediate casing set at 4500' in 12-1/4" hole.  
Circulate cement with 1100sx IFC w/ .25#/sx Flocele followed by 200sx PP w/ 2% CaCl<sub>2</sub>.

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% CaCl<sub>2</sub>.

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

- C. 5-1/2" production casing set at 12500' in 8-3/4" hole.  
Cement with 600sx Interfill H w/ .1% HR-7 followed by 400sx Super H w/ .5% HR-344 + .4% CFR-3 + 5#/sx Gilsonite + 1#/sx salt + .2% HR-7.

Estimated top of cement is 7500'.

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

11. Pressure Control Equipment

0-625'	None
625-4500'	13-3/8" 3M annular preventer, to be used as divertor only. Exhibit A
4500-12500'	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. 8.3-9.0/10.0-10.1ppg, vis 28-29 sec. *Fresh water will be used unless chlorides in the mud system increase to 20000PPM.
4500-8700'	Fresh water. Lime for pH control (9-9.5). Paper for seepage. Wt. 8.3-8.5 ppg, vis 28-29 sec.
8700-10000'	Cut brine. Lime for pH control (10-10.5). Wt. 9.6-10.0 ppg, vis 28-29 sec.
10000-12500'	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. H2S Contingency Plan is attached per NMOCD requirements. 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 December 6, 2005. 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  
Sr. Regulatory Analyst  
OXY USA WTP LP

DRS/drs

Attachments

## CONDITIONS OF APPROVAL - DRILLING

**Operator's Name:** OXY USA WTP LIMITED PARTNERSHIP  
**Well Name & No.** 1 – OXY HARRIER FEDERAL  
**Location:** 740' FNL & 1780' FWL – SEC 35 – T16S – R31E – EDDY COUNTY  
**Lease:** LC-029438-A

### I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Roswell Field Office, 2909 West Second St., Roswell NM 88201, (505) 627-0272 for wells in Chaves and Roosevelt Counties; the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 234-5909 or (505) 361-2822 (After hours) - for wells in Eddy County; and the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (505) 393-3612 for wells in Lea County, in sufficient time for a representative to witness:

A. Spudding

B. Cementing casing: 13-3/8 inch 9-5/8 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. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing ( size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15 day time frame.

4. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.

### II. CASING:

1. The 13-3/8 inch surface casing shall be set at 625 feet, below usable water and cement circulated to the surface. If cement does not circulate to the surface the appropriate BLM office shall be notified 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. The minimum required fill of cement behind the 9-5/8 inch salt protection casing is circulate cement to the surface.

3. The minimum required fill of cement behind the 5-1/2 inch production casing is cement shall extend upward a minimum of 500 feet above the uppermost hydrocarbon bearing interval.



### **III. PRESSURE CONTROL:**

1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the 13-3/8 inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.
2. Minimum working pressure of the blowout preventer and related equipment (BOPE) required for drilling the surface and intermediate casing shall be 2000 psi. Minimum working pressure of the blowout preventer and related equipment (BOPE) required for drilling below the 9-5/8 inch casing shall be 5000 psi.
3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.
  - The tests shall be done by an independent service company.
  - The results of the test shall be reported to the appropriate BLM office.
  - 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.
  - Testing must be done in a safe workman-like manner. Hard line connections shall be required.
  - BOPE must be tested prior to drilling into the Wolfcamp Formation by an independent service company.

### **IV. DRILLING MUD:**

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:

1. Recording pit level indicator to indicate volume gains and losses.
2. Mud measuring device for accurately determining the mud volumes necessary to fill the hole during trips.
3. Flow-sensor on the flow line to warn of abnormal mud returns from the well.