Attachment C-101 OXY GR 8 State #1 660 FSL 660 FEL P SEC 8 T22S R34E Lea County, NM State Lease No. VO-5785

PROPOSED TD: 13400' TVD

**BOP PROGRAM:** 0 - 1700' None

1700 - 5000' 13-3/8" 3M annular preventer, to be used as

divertor only.

5000 - 13400' 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 1700'

17-1/2" hole

Intermediate: 9-5/8" OD 36-40# K55 ST&C new casing from 0-5000'

12-1/4" hole

Production: 7" OD 26# L80 LT&C new casing from 0-11600'

8-3/4" hole

Liner: 4-1/2" OD 11.6# P110 LT&C casing from 10900-13400'

6-1/4" hole

CEMENT: Surface - Circulate cement with 1300sx 35:65 POZ/C with 6% Bentonite + 2% CaCl<sub>2</sub> + .25#/sx Cello-Seal followed by 200sx Cl C with 2% CaCl<sub>2</sub>.

- 20 Caci2 - .25#/sk Cello-Seal Tollowed by 200sk Ci C with 20 Caci2

Intermediate - Circulate cement with 1200sx 35:65 POZ/C with 6% Bentonite + 2% CaCl<sub>2</sub> + .25#/sx Cello-Seal followed by 200sx Cl C

with 2% CaCl<sub>2</sub>.

Production - Cement with 500sx Super H w/ .5% HR-344 + .4% CFR-3 + .5%/sx Gilsonite + 1%/sx salt + .2% HR-7. Estimated top of cement is

7700'.

Liner - Cement with 220sx Super H w/ .5% HR-344 + .4% CFR-3 + 5#/sx Gilsonite + 1#/sx salt + .2% HR-7. Estimated top of cement is 10900'.

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

MUD: 0 - 1700' Fresh water/native mud. Lime for pH control

(9-10). Paper for seepage. Wt 8.7-9.2 ppg, Vis 32-34 sec

1700 - 5000' 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.

5000 - 9500' Fresh water. Lime for pH control(9-9.5). Paper

for seepage.

Wt 8.3-8.5 ppg, Vis 28-29 sec

9500 - 11600' Cut brine. Lime for pH control (10-10.5).

Wt 9.6-10.0 ppg, Vis 28-29sec

11600 - 13400' Mud up with an Duo Vis/Flo Trol mud system.

Wt 9.6-10.0ppg, Vis 32-36sec, WL<10cc

SPACING UNIT: S/2

ESTIMATED FORMATION TOPS: (Grama Ridge 8 State-1 - 3002530046) Morrow-12692' Atoka-12070' Strawn-11845' Wolfcamp-11408' Additional Tops- Bone Springs-8380' 1st Bone Springs-9605'  $2^{\rm nd}$  Bone Springs-10160'

**SPUD DATE:** 4/1/05

ARCH SURVEY: N/A

DIRECTIONS TO LOCATION: Going east on SH 176, turn right .3 miles part mile post 19 and go south approximately .1 miles. Follow bend to the right and go approx. 2.9 miles. Follow bend to the left and go south approx. 1.3 miles to fence. Turn right and go s-sw approx. .7 miles to intersection. Continue straight on westerly road approx. 2.5 miles. Turn left (south) and go approx. .6 miles. Proposed location is approx. 100' west.

WELLSITE LAYOUT: V-Door-East Pits-North

SURFACE OWNER: New Mexico State Land Office

SURFACE LESSEE: Merchant Livestock Co., 102 N. Canyon, Carlsbad, NM

LEASE RESPONSIBILTY STATEMENT: N/A

NEAREST RESIDENCE OR OTHER STRUCTURE: None within 2 miles

**SOURCE OF CONSTRUCTION MATERIALS -** Caliche for surfacing the well pad will be obtained from onsite material.

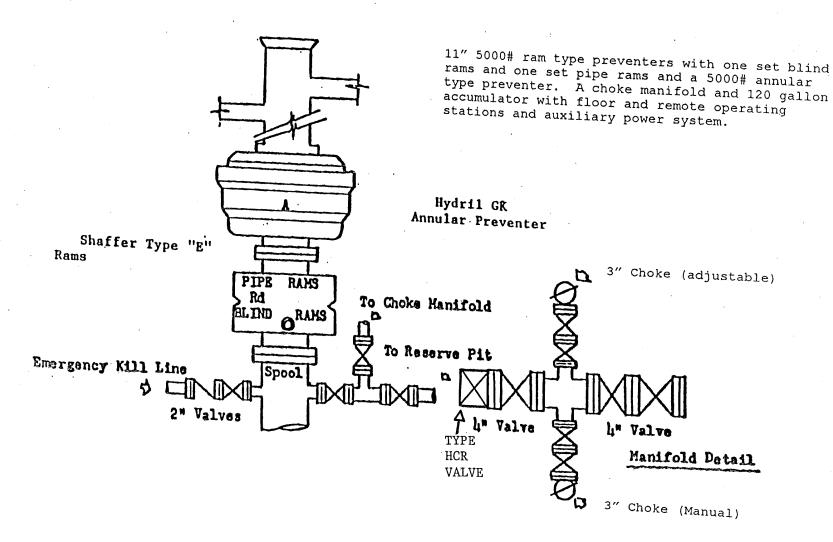
H<sub>2</sub>S CONTINGENCY PLAN: 3/24/05

DIRECTIONAL SURVEY PLAN: N/A

**PIT PERMIT:** 3/24/05

ANNULAR PREVENTOR
TO BE USED AS DIVERTOR ONLY

STARTING HEAD



Choke Manifold

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

Hydrogen Sulfide (H2S) Contingency Plan

For

OXY GR 8 State No. 1 660 ft FSL, 660 ft FEL Sec 8, T22S, R34E Lea County, NM

And

McVay Drilling Co., Rig No. 5

## **TABLE OF CONTENTS**

<u>ITEM</u>	<u>PAGE</u>
PREFACE	. 3
LOCATION MAP	. 4
RIG SKETCH	. 5
EMERGENCY RESPONSE ACTIVATION AND GENERAL RESPONSIBILITIES	6
SPECIFIC EMERGENCY GUIDANCE - H2S Release - Well Control	. 8 . 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**

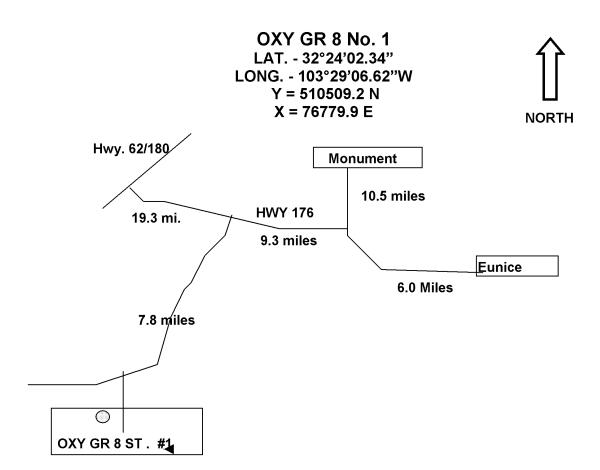
An effective and viable Contingency Plan is intended to provide prior planning and guidance in responding to emergency incidents. The primary considerations in its development are protection of personnel, the public, company and public property, and the environment.

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.

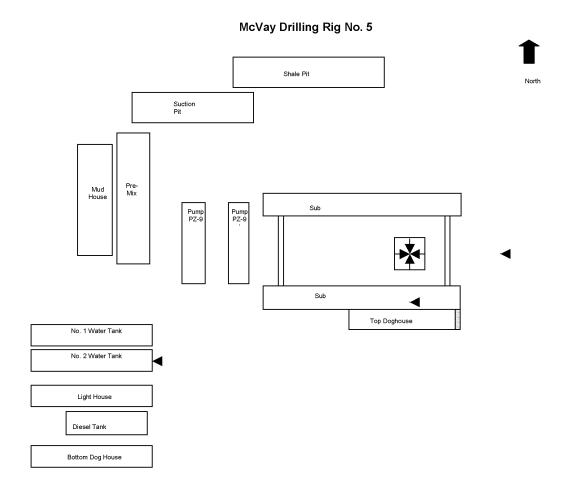
This Contingency Plan is intended for use on Oxy Downhole Services Group projects and the operations within their area of responsibility, such as drilling, critical well work, etc.

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

.



From Monument, NM go South on HWY. # 8 for 10.5 miles. Turn right on HWY. # 176 for 9.3 miles. Turn left on lease road For 7.8 miles turn left for 0.5 miles to location.



#### **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:
  - 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.
  - 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.
  - 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 H2S zone (within 3 days or 500 feet) and weekly H2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H2S 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 (SO2). 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.

## Characteristics of H2S and SO2

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

 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.

#### <u>Derrickman:</u> (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.

<u>Floorman # 3, Rig Manager/Tool Pusher, and Oxy Representative:</u> (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 <u>NOT</u> 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
Manager Operations	Support				
Hardesty, Steve	Midland	432-685-5880	432/694-6441	713-560-8095	
Team Leader					
Pennington, Randy	Midland	432-685-5684	432/689-7642	432-556-0207	713-312-8186
			Toledo Bend =	318-590-2349	
Operations Specialis	ts				
Fleming, Joe	Midland	432-685-5858	432/699-0875	432-425-6075	432-498-3281
Ray, Fred	Midland	432-685-5683	432/362-2857	432-661-3893	432-499-3432
HES Tech					
Thompson, Don	Midland	432-685-5719	432/684-3900	432-556-1505	

## **Emergency Notification Numbers**

Public Authorities				
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		

Emergency Services					
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	806/7478923			
Med Flight Air Ambulance	Albuquerque	505/842-4433			

Other Emergency Services				
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

LOCATION	OFFICE	FAX	CELL	PAGER
Houston	(281) 552-1147	(281) 552-1484	(713) 560-8038	
Midland	(432) 685-5802	(432) 685-5930	(432) 556-5016	
set				
LOCATION	OFFICE	FAX	CELL	PAGER
LUCATION				LAGEN
Asset	OFFICE	'''	OLLL	FAGEN
	Houston	Houston (281) 552-1147 Midland (432) 685-5802	Houston (281) (281) 552-1147 552-1484 Midland (432) (432) 685-5802 685-5930	Houston (281) (281) (713) 552-1147 552-1484 560-8038 Midland (432) (432) (432) 685-5802 685-5930 556-5016

PERSON	LOCATION	OFFICE	FAX	CELL	PAGER
<b>HES Coordinators &amp; Area of Re</b>	sponsibility				
Frontier: Ricky Tyler	Middleamd	((41322)) 6885-57/07/	((41332)) 65855-557/4122	(413322)) <b>55</b> 8-5720	
<b>HES Techs &amp; Area of Responsi</b>	bility				
Hobbs RMT:	Hobbs	(505)	(505)	(505)	(877)
Steve Bishop		397-8251	397-8204	390-4784	339-1954-
·					1118#
Frontier-New Mexico:	Hobbs	(505)	(505)	(505)	(505)
Rick Kerby		393-2174	393-2671	390-8639	370-6527

District 1 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

## State of New Mexico Energy Minerals and Natural Resources

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

March 12, 2004

Form C-144

For drilling and production facilities, submit to appropriate NMOCD District Office.

For downstream facilities, submit to Santa Fe

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 \( \subseteq \text{Closure of a pit or below-grade tank} \)

To assess toggistiation of a pit	of below-grade tank Closure of a pit or below-	grade tank	
Operator: _OXY U.S.A. W.T.P. Limited PartnershipTelephone: 432.68	855683_e-mail address: fred ray@oxy.com		
Address: _P.O. Box 50250 Midland, TX 79710			
Facility or well name: OXY GR 8 State # 1 API #: 30-005 37/60	U/L or Qtr/Qtr_ SESE (P) Sec8 T 22S R	34E	
County: LeaLatitude32°24'02.34"N Longitude_103°29'0	06.62"W_NAD: 1927 🛛 1983 🗌 Surface Owner	 r Federa! □ State ⊠ Private □ Indian □	
Pit	Below-grade tank		
Type: Drilling Production Disposal	Volume:bbl Type of fluid:		
Workover	Construction material:		
Lined Unlined	Double-walled, with leak detection? Yes [] If	not, explain why not.	
Liner type: Synthetic Thickness12_mil Clay Volume 11,000 bbl			
Depth to ground water (vertical distance from bottom of pit to seasonal high	Less than 50 feet (30.84'-62.57')	(20 points) 20	
water elevation of ground water.)	50 feet or more, but less than 100 feet	(10 points)	
	100 feet or more	( 0 points)	
Wellhead protection area: (Less than 200 feet from a private domestic	Yes (900' East of Mrs. Villa's water well)	(20 points) 0	
water source, or less than 1000 feet from all other water sources.)	No	( 0 points)	
Distance to surface water: (horizontal distance to all wetlands, playas,	Less than 200 feet	(20 points)	
irrigation canals, ditches, and perennial and ephemeral watercourses.)	200 feet or more, but less than 1000 feet	(10 points) 0	
o watercourses.)	1000 feet or more ( 900' from Pecos River)	( 0 points)	
	Ranking Score (Total Points)	20	
If this is a pit closure: (1) attach a diagram of the facility showing the pit's	relationship to other equipment and tanks. (2) Indic	rate disposal location	
onsite offsite offsite, name of facility	. (3) Attach a general description of remedial ac-	tion taken including roundisting and the state of the sta	
date. (4) Groundwater encountered: No Yes If yes, show depth below	w ground surface ft and attach same	the results (5) Attack and and	
diagram of sample locations and excavations.			
I hereby certify that the information above is true and complete to the best of n been/will be constructed or closed according to NMOCD guidelines , a g Date: March 10,2005	ny knowledge and belief. I further certify that the general permit [], or an (attached) alternative O	above-described pit or below-grade tank has	
Printed Name/TitleFred Ray / Operation Specialist	,	neclan	
Your certification and NMOCD approval of this application/closure does not report the endanger public health or the environment. Nor does it relieve the opening the environment of the environment of the environment of the environment.	••		
Approval:			
Printed Name/TitlePETROLEUM ENGINEER	Signature Hand		
	organism of the same		