Form 3160-3 (August 1999)

# **UNITED STATES** BUREAU OF LAND MANAGEMENT . OCD-ARTESIA

H-OGFORM APPROVED OMB NO. 1004-0136 Expires: November 30, 2000

APPLICATION FOR PERMIT TO DRILL	OR	REENTER	PAECEIV	ED 5	Lease Serial No NM-12828	•
la. Type of Work X DRILL REENTI	ER		JUL 1 2 2	006	. If Indian, Allote	e or Tribe Name
1b. Type of Well Oil Well X Gas Well Other	X) s	ingle Zone	Multiple 2on	EO!	. Unit or CA Agn	sement Name and No.
2. Name of Operator					. Lease Name and	i Well No.
OXY USA WTP Limited Partnership		[ ( )	192463	1.5	US 13 Fede	ral #4 301969
3a. Address			No. (include area coo	1e) ?	API Well No	? = 0 + 7
P.O. Box 50250 Midland, TX 79710-0250  4. Location of Well (Report location clearly and in accordance with any St.	ata aa		<u>32-685-5717</u>		30-015-	25011
At surface 140 FSL 1840 FEL SWSE(0) Sec 12	ин еч	8		L		<u> Hills Up. Penn</u>
At proposed prod. zone 660 ENI 1000 EFI NUNF(R)	٠.	- 12	In Apprecia			, or Blk. and Survey or Are
000 THE 1300 TEE HMILE(D)	<u> 26</u>	c 13	an Carelin		Sec 12 T2	
14. Distance in miles and direction from nearest town or post office*			_		2. County or Paris	
10 miles west from Car					ddy	NM NM
<ol> <li>Distance from proposed*         location to nearest     </li> </ol>	16	. No. of Acres	s in lease	17. Spac	ing Unit dedicate	d to this well
property or lease line, ft. SL-140' BHL-660' (Also to nearest drg. unit line, if any)			320		3	20
18. Distance from proposed location*	19	. Proposed D	epth	20. BLN	A/BIA Bond No.	on file
to nearest well, drilling, completed, applied for, on this lease, ft. 1520	8	600'(VD)	8950'(MD)		ES	0136
21. Elevations (Show whether DF, KDB, RT, GL, etc.	2:	2. Approxima	te date work will sta	rt*	23. Estimated	duration
3858.1'			8/1/06			30 days
:	24. A	ttachments	Corbba	i Com	rofed Wote	Balc .
The following, completed in accordance with the requirements of Onshore O	il and	Gas Order N				
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan</li> <li>A Surface Use Plan (if the location is on National Forest System Lands, SUPO shall be filed with the appropriate Forest Service Office).</li> </ol>	the	5. Oper 6. Such	20 above). ator certification.		•	existing bond on file (see
25. Signuature	Name	(Printed/Typ	nad)		l n	ate
25. Signature		id Stewar	,			5/10/06
Title						
Sr. Regulatory Analyst						
Approved by (Signautre)	Name	(Printed/Typ	ped)		D	ate
/b/ Russell E. So.		/S/ R	ed) Russell E. Sc	orens	en	JUL 1 0 2006
ACTINFIELD MANAGER	Offic	C	ARLSBAD			
Application approval does not warrant or certify that the applicant holds le conduct operations thereon.  Conditions of approval, if any, are attached.	gal or	equitable titl	e to those rights in t	the subje	ot lease which wo	Puld entitle the applicant to R 1 YEAR

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowlingly and willfully to make to any department or agency of the

\*(Instructions on Reverse)

DECLARED WATER BASIN CEMENT BEHIND THE 9 CASING MUST BE CIRCULATED WITHESS

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS AMACUPA

If earthen pits are used in association with the drilling of this well, an OCD pit permit must be obtained prior to pit construction.

United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Attachment 3160-3 US 13 Federal #4 SL-140 FSL 1840 FEL SWSE(O) SEC 12 T22S R24E BHL-660 FNL 1980 FEL NWNE(B) SEC 13 T22S R24E Eddy County, NM Federal Lease No. NM-12828

PROPOSED TD:

8600' TVD 8950' TMD

BOP PROGRAM:

0-1600'

None

1600-8600'

11" 5M blind pipe rams with 5M annular

preventer.

CASING:

Surface:

9-5/8" OD 36# K55 ST&C new casing from 0-1600'

14-3/4" hole

Production:

7" OD 26# N80 LT&C new casing from 0-8600'

8-3/4" hole

CEMENT:

Surface - DV Tool @ +/- 600', cement  $1^{\rm st}$  stage with 515sx HES light premium plus w/ 2% CaCl<sub>2</sub> + .25#/sx Flocele followed by 250sx PP w/ 2% CaCl<sub>2</sub>. Cement  $2^{\rm nd}$  stage with 340sx HES light premium plus w/ 2% CaCl<sub>2</sub> + .25#/sx Flocele followed by 100sx PP w/ 2% CaCl<sub>2</sub>.

Production - DV Tool @ +/- 6000', cement  $1^{\rm st}$  stage with  $100 \, \rm sx$  (Foamed with Nitrogen) Premium Acid Soluble Cement w/ 2% Zonesealant 2000 followed by 350 sx (Foamed with Nitrogen) Premium Cement w/ 2% Zonesealant 2000 followed by 150 sx Super H Cement w/ .5% Halad(R) + .4% CFR-3 + 5#/sx Gilsonite + 1#/sx Salt + .25% HR-7. Cement  $2^{\rm nd}$  stage with 410 sx IFC cement w/ 5#/sx Gilsonite + .25#/sx Flocele followed by 100 sx PP w/ 2% CaCl<sub>2</sub>.

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

MUD:

0-1600'

Fresh water/native mud. Lime for pH control

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

1600-8600'

Mud up with an Duo Vis/Flo Trol mud system.

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

1000

#### State of New Mexico

DISTRICT I 1625 N. FRENGH DR., HOBBS, NM 88240

Rnergy, Minerals and Natural Resources Department

DISTRICT II 1301 W. GRAND AVENUE, ARTESIA, NN 88210

# OIL CONSERVATION DIVISION 1220 SOUTH ST. FRANCIS DR.

Form C-102 Revised October 12, 2005 Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

DISTRICT III 1000 Rio Brazos Rd., Aztec, NM 87410 Santa Fe, New Mexico 87505

AMENDED	REPORT

DISTRICT IV 1220 S. ST. FRANCES DR., SANTA PR. NM 87506	WELL LOCATION AND A	CREAGE DEDICATION I	PLAT
API Number	Pool Code		ool Name
30-015-	21160		Hills Upper Penn
Property Code	Prope	Well Number	
34322	US FEI	4	
OGRID No.	-	tor Name	Elevation
192463		A WTP LP	3858'

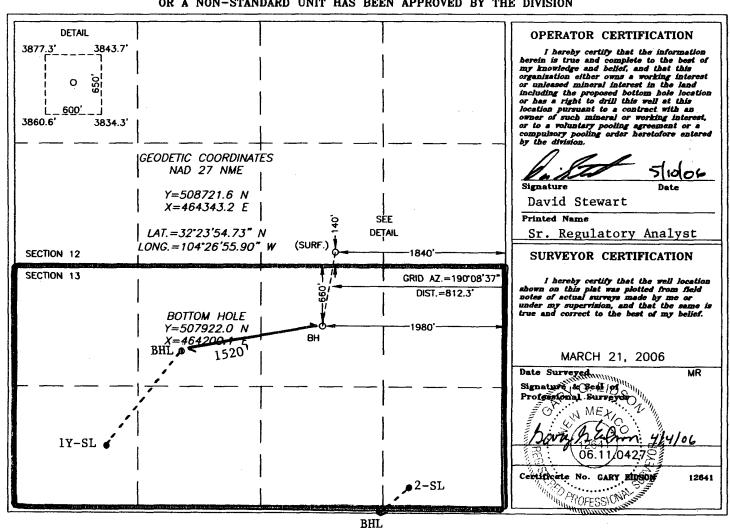
#### Surface Location

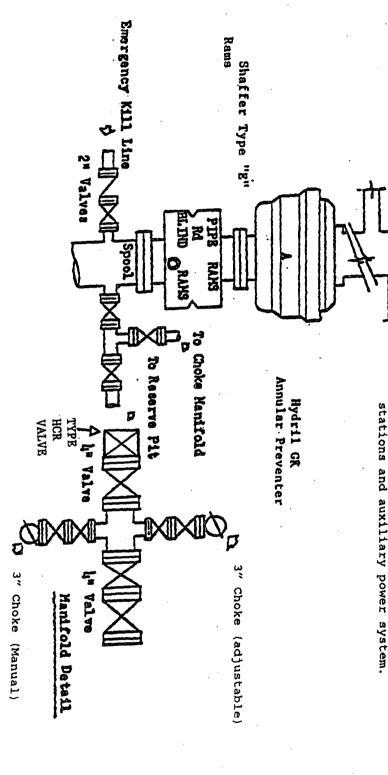
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	12	22-S	24-E		140	SOUTH	1840	EAST	EDDY

#### 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
В	13	22-S	24-E		660	NORTH	1980	EAST	EDDY
Dedicated Acres	Joint o	r Infili Co	nsolidation (	Code Or	der No.				
320	Y								

#### 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





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 stafform and auxiliary nower system.

Choke Manifold

#### MULTI-POINT SURFACE USE AND OPERATIONS PLAN

OXY USA WTP Limited Partnership
US 13 Federal #4
Eddy County, New Mexico
Lease No. NM-12828

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 "Azotea Peak, 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 USH 285 and CR 406, go west-southwest on CR 406 approximately 2.0 miles. Turn left and go southwest approx. 6.8 miles. Turn left and go south approx. 0.34 miles. Turn left and go east approx. 250', this location is approx. 250' north.

#### 2. Planned Access Road

- A. A new access road will be built. The access road will run approximately 2150' southeast/east/northeast 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.

Gates or Cattleguards: None required

- 3. Existing wells within a one mile radius of the proposed development well are shown on Exhibit C.
- 4. Location of Existing and/or Proposed Facilities
  - A. If the well is productive, existing production facilities will be utilized.
  - 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 US 13 Federal #4 tank battery. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed.

#### Multi-Point Surface Use and Operations Plan US 13 Federal #4 Page 2

#### 5. Location and Type of Water Supply

Fresh water and brine water will be used to drill this well. It will be purchased 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, T22S R24E, Eddy County, NM.

#### 7. Method of Handling Waste Disposal

- A. Drill Cuttings will be disposed of in an existing lined reserve 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 put in storage tanks and 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 north and the pits to the west. Exhibit D.
- B. Leveling of the wellsite will be required with minimal cuts or fills anticipated.
- C. The reserve pit will be plastic lined, per NMOCD requirements, the C-144 is attached.
- 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.

#### Multi-Point Surface Use and Operations Plan US 13 Federal #4 Page 3

#### 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 Travelstead Ranch, 573 Queen Hwy, Carlsbad, NM 88220. 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 3858.1'.
- B. Soil: Shallow, calcareous and grayish-brown, loose to slightly compact, stony silty loam overlying limestone bedrock. Slopes consist primarily of limestone rock and small pockets of colluvium and alluvium.
- 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: No residence 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.

#### Multi-Point Surface Use and Operations Plan US 13 Federal #4 Page 4

#### 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

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

Joe Fleming Drilling Coordinator P.O. Box 50250 Midland, TX 79710-0250 Office Phone: 432-685-5858

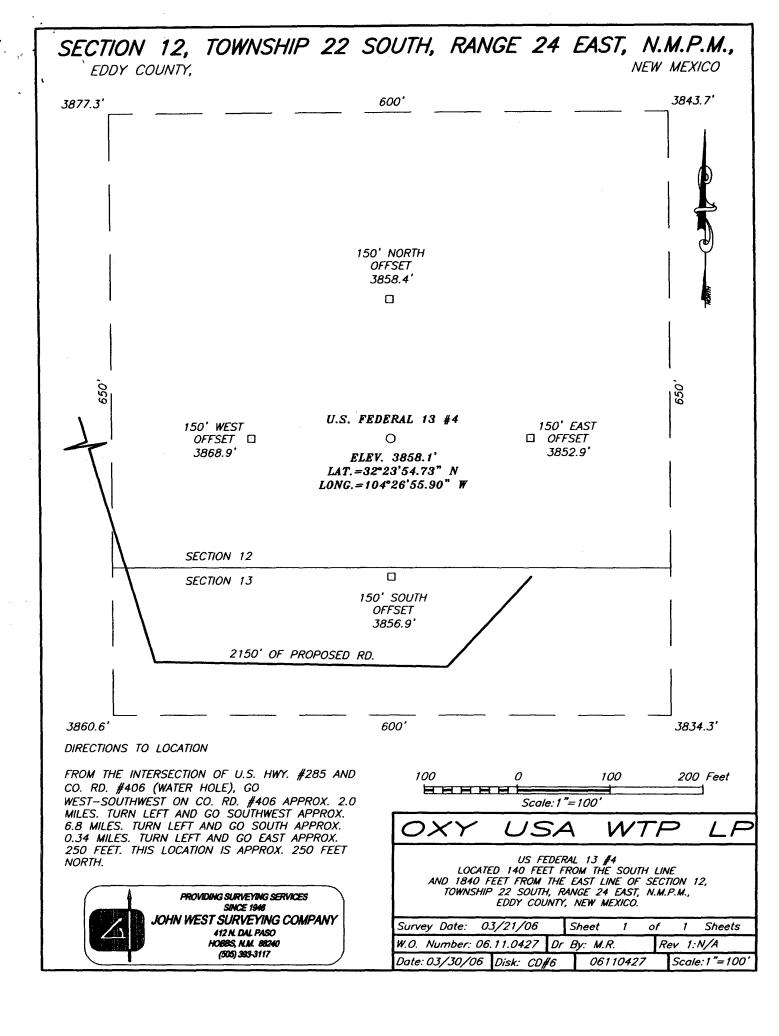
Terry Asel Operation Specialist 1017 W. Stanolind Rd. Hobbs, NM 88240 Office Phone: 505-397-8217 Cellular: 505-631-0393

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.

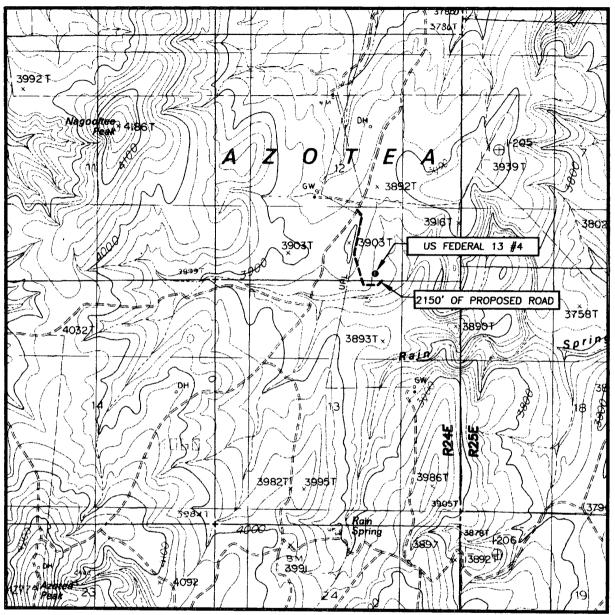
Engineering Advisor 432-685-5825

South Permian Asset Team

OXY USA WTP Limited Partnership



# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: AZOTEA PEAK, N.M. – 20'

SEC. 12 TWP. 22-S RGE. 24-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 140' FSL & 1840' FEL

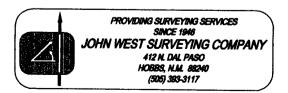
ELEVATION 3858'

OPERATOR OXY USA WTP LP

LEASE US FEDERAL 13

U.S.G.S. TOPOGRAPHIC MAP

AZOTEA PEAK, N.M.





# **Proposal**

Report Date: April 26, 2006

Client: OXY

Field: Eddy County, NM

Structure / Slot: US Federal 13 #4 / US Federal 13 #4

Well: US Federal 13 #4 Borehole: US Federal 13 #4

UWI/AP#:

Survey Name / Date: US Federal 13 #4\_r1 / April 26, 2006

Tort / AHD / DDI / ERD ratio: 12.000° / 794.29 ft / 3.983 / 0.092

Grid Coordinate System: NAD27 New Mexico State Planes, Eastern Zone, US Feet

Location Lat/Long: N 32 23 54.733, W 104 26 55.895 Location Grid N/E Y/X: N 508721.600 ftUS, E 464343.200 ftUS

Grid Convergence Angle: -0.06189968°

Grid Scale Factor: 0.99991055

Survey / DLS Computation Method: Minimum Curvature / Lubinski

Vertical Section Azimuth: 174.290°

Vertical Section Origin: N 0.000 ft, E 0.000 ft

TVD Reference Datum: RKB

TVD Reference Elevation: 0.0 ft relative to Sea Bed / Ground Level Elevation: 0.000 ft relative to

Magnetic Declination: 8.594°

Total Field Strength: 49174,136 nT

Magnetic Dip: 60.318°

Declination Date: April 26, 2006

Magnetic Declination Model: IGRF 2005

North Reference: Grid North

Total Corr Mag North -> Grid North: +8.656°

Local Coordinates Referenced To: Well Head

Comments	Measured Depth	inclination	Azimuth	TVD	Vertical Section	NS	EW	Closure	Closure Azimuth	DLS	Tool Face
	(ft)	( deg )	( deg )	(ft)	(ft)_	(ft)	(ft)	(ft)	(deg)	(deg/100 ft)	( deg )
Tie-In	0.00	0.00	174.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	174.29M
KOP	4562.04	0.00	174.29	4562.04	0.00	0.00	0.00	0.00	0.00	0.00	174.29M
	4600.00	0.76	174.29	4600.00	0.25	-0.25	0.03	0.25	174.29	2.00	174.29M
	4700.00	2.76	174.29	4699.95	3.32	-3.30	0.33	3.32	174.29	2.00	174.29M
	4800.00	4.76	174.29	4799.73	9.88	-9.83	0.98	9.88	174.29	2.00	174.29M
	4900.00	6.76	174.29	4899.22	19.91	-19.81	1.98	19.91	174.29	2.00	0.00G
	5000.00	8.76	174.29	4998.30	33.41	-33.25	3.32	33.41	174.29	2.00	0.00G
	5100.00	10.76	174.29	5096.84	50.36	-50.11	5.01	50.36	174.29	2.00	0.00G
EOC	5162.04	12.00	174.29	5157.66	62.60	-62.29	6.23	62.60	174.29	2.00	0.00G
Target	7761.17	12.00	174.29	7700.00	602.99	-600.00	60.00	602.99	174.29	0.00	0.00G
PBHL	8681.28	12.00	174.29	8600.00	794.29	-790.35	79.04	794.29	174.29	0.00	0.00G

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

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

For

US 13 Federal # 4 SL-140 FSL 1840 FEL Sec 12, T22S, R24E Eddy County, NM

And

Patterson Rig #503

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# **PREFACE**

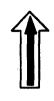
An effective and viable Contingency Plan is intended to provide prior planning and guidance in responding to emergency incidents. The primary considerations in its development are protection of personnel, the public, company and public property, and the environment.

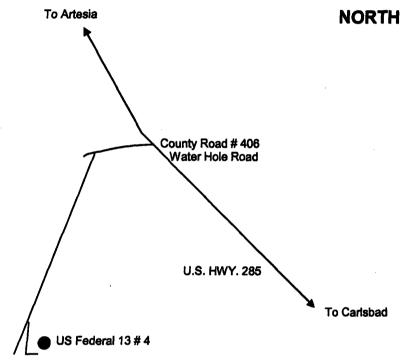
Although the plan addresses varied emergency situations which may occur, it recognizes that flexibility and the use of the organization's knowledge and experience is critical to safe resolution of emergency incidents. Response actions outlined in the plan provide a framework, which may be placed into 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.

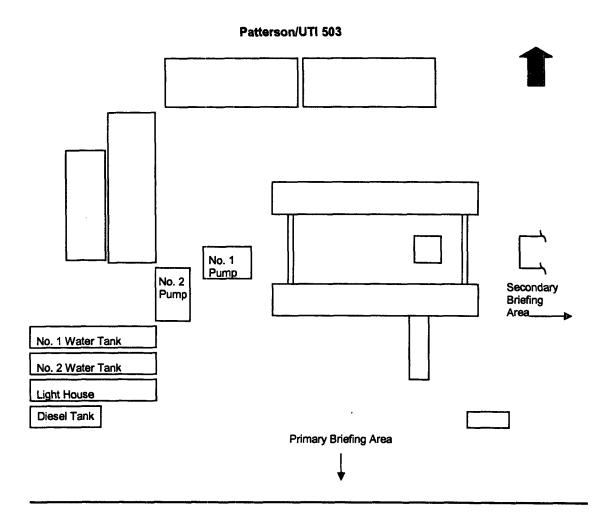
A copy of the Plan shall be maintained in the Top Dog House, Rig Managers trailer, and Company Representative's trailer if applicable.

US Federal 13 # 4 Y = 508721.6 N X = 464343.2 E Lat. 32°23'54.73"N Long. 104°26'55.90" W





**DIRECTIONS TO LOCATION:** From the intersection of USH 285 and CR 406, go west-southwest on CR 406 approximately 2.0 miles. Turn left and go southwest approx. 6.8 miles. Turn left and go south approx. 0.34 miles. Turn left and go east approx. 250', this location is approx. 250' north.



# **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 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. 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 H2S and SO2

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:

 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.

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 <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 :					
Hardesty, Steve	Midland	432-685-5880	432/694-6441	713-560-8095	Control of the Contro
Team Leader				and the second	186.70
Pennington, Randy	Midland	432-685-5684	432/689-7642	432-556-0207	**************************************
		<u> </u>	Toledo Bend =	318-590-2349	
Operations Specialist					
Fleming, Joe	Midland	432-685-5858	432/699-0875	432-425-6075	
Ray, Fred	Midland	432-685-5683	432/362-2857	432-661-3893	
HES Technology					
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						

Emerg	gency 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 Em	ergency 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) 935-7219

PERSON	LOCATION	OFFICE	FAX	CELL	PAGER
A CONTRACTOR (CAR) CONTRACTOR CON			HEADER B. C.		34.4.4
Asset Management-Operations Areas			to properly	*** 1 3 1	200
OXY Permian General Manager:	Houston	(281)	(281)	(713)	
Tom Menges		552-1147	552-1484	560-8038	
South Permian Asset:	Midland	(432)	(432)	(432)	
Matt Hyde		685-5802	685-5930	556-5016	
		ARREST CONTROL (The fact of the fact on the Control of the Control	Charles and the second second	de anno de la companya de la company	COLUMN TO SERVICE DE PRODUCTION DE L'ANDRE D
RMT/PMT Leaders: South Permian As	المربال المستجيب والمستقيل المستقيل المستوالي المستوال المستوالي المستوالي المستوالي المستوالي المستوالي المستوالي	""(表现 <b>的数字</b> 等)。		B. A. C. Start	
Frontier RMT:	Set Midland	(432)			
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Frontier RMT:	المربال المستجيب والمستقيل المستقيل المستوالي المستوال المستوالي المستوالي المستوالي المستوالي المستوالي المستوالي	1 '			
Frontier RMT: John Nicholas	Midland	685-5600			
Frontier RMT: John Nicholas PERSON	Midland	1 '	FAX	CELL	PAGER
Frontier RMT: John Nicholas PERSON Production Coordinators: S. Permian	Midland	685-5600	FAX		<b>李杨斯</b>
RMT/PMT Leaders: South Permian As Frontier RMT: John Nicholas  PERSON Production Coordinators: S. Permian New Mexico: John Erickson	Midland	685-5600	FAX: (505) 397-2671	(505) 390-6426	(505) 370-6836

PERSON AND AND AND AND AND AND AND AND AND AN	LOCATION:	OFFICE	FAX	CEL	PAGER
HES Coordinators & Area of Responsibility	 		l e		#T-94
HES Techs & Area of Responsibility					
Hobbs RMT: Steve Bishop	Hobbs	(505) 397-8251	(505) 397-8204	(505) 390-4784	(877) 339-1954- 1118#
Frontier-New Mexico:	Hobbs	(505)	(505)	(505)	(505)

#### OXY USA WTP Limited Partnership

# OCD-ARTESIA

P.O. Box 50250, Midland, TX 79710-0250

May 10, 2006

United States Department of the Interior Bureau of Land Management Carlsbad District Office 620 East Greene Street Carlsbad, New Mexico 88220

Re: Application for Permit to Drill
OXY USA WTP Limited Partnership
US 13 Federal #4
Eddy County, New Mexico

Lease No. NM-12828

#### Gentlemen:

OXY USA WTP Limited Partnership respectfully requests permission to drill our US 13 Federal #4 located at a surface location of 140 FSL and 1840 FEL of Section 12, T22S, R24E and a proposed bottom-hole location of 660 FNL 1980 FEL of Section 13, T22S, R24E, Eddy County, New Mexico, Federal Lease No. NM-12828. The proposed well will be drilled to a TD of approximately 8600' (TVD) and 8950' (TMD). The location and work area has been staked. It is approximately 10 miles west of Carlsbad, New Mexico.

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

- I. Application for Permit to Drill:
  - 1. Form 3160.3, Application for Permit to Drill.
  - 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 April 4, 2006.
  - The elevation of the unprepared ground is 3858.1 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 8600' (TVD), and run casing. This equipment will then be rigged down and the well will be completed with a pulling unit.
  - Proposed total depth is 8600'(TVD) and 8950'(TMD).
  - 7. Estimated tops of important geologic markers.

Delaware 1550' TVD Bone Spring 3225' TVD Wolfcamp 7775' TVD Cisco-Canyon 8150' TVD

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

Primary Objective: Cisco-Canyon 8150' TVD
Secondary Objective: Wolfcamp 7775' TVD

#### APD - US 13 Federal #4 Page 2

9. The proposed casing program is as follows:

15501

Surface:

9-5/8" 36# K55 ST&C new casing set at 1:600"

Production:

7" 26# N80 LT&C new casing from 0-8600'

10. Casing setting depth and cementing program:

A. 9-5/8" surface casing set at 1600' in 12-1/4" hole. DV Tool @ +/- 600', cement 1st stage with 515sx HES light premium plus w/ 2% CaCl<sub>2</sub> + .25#/sx Flocele followed by 250sx PP w/ 2% CaCl<sub>2</sub>. Cement 2nd stage with 340sx HES light premium plus w/ 2% CaCl<sub>2</sub> + .25#/sx Flocele followed by 100sx PP w/ 2% CaCl<sub>2</sub>.

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. 7" production casing set at 8600' in 8-3/4" hole. DV Tool @ +/- 6000', cement 1st stage with 100sx(Foamed with Nitrogen)
Premium Acid Soluble Cement w/ 2% Zonesealant 2000
followed by 350sx (Foamed with Nitrogen) Premium Cement w/
2% Zonesealant 2000 followed by 150sx Super H Cement w/ .5%
Halad(R) + .4% CFR-3 + 5#/sx Gilsonite + 1#/sx Salt + .25%
HR-7. Cement 2nd stage with 410sx IFC cement w/ 5#/sx
Gilsonite + .25#/sx Flocele followed by 100sx PP w/ 2%
CaCl<sub>2</sub>.

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

11. Pressure Control Equipment

0-1600

None

1550' 1600-8600'

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. 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.

#### APD - US 13 Federal #4 Page 3

12. Mud Program:

15501 0-1<del>600</del>1

Fresh water/native mud. Lime for pH control

(9-10). Paper for seepage.

1550

Wt.8.7-9.2 ppg, vis 32-34 sec.

1600-8600'

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.
  - 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 August 1, 2006. 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 Limited Partnership

DRS/drs Attachments

# Conditions of Approval Cave and Karst

## Cave/Karst Surface Mitigation

The following stipulations will be applied to minimize impacts during construction, drilling and production.

#### Berming:

Any tank batteries will be constructed and bermed large enough to contain any spills that may occur.

Bermed areas will be lined with rip-stop padding to prevent tears or punctures in liners and lined with a permanent 20 mil plastic liner.

### Closed Mud System with Cuttings Removed:

A closed mud system or steel tanks will be utilized to drill the well. All fluids and cuttings will be hauled off site for disposal.

# Cave/Karst Subsurface Mitigation

The following stipulations will be applied to protect cave/karst and ground water concerns:

#### Rotary Drilling with Fresh Water:

Rotary drilling techniques in cave or karst areas will include the use of fresh water as a circulating medium in zones where caves or karst features are expected. See geologist report for depth.

#### **Directional Drilling:**

Kick off for directional drilling will occur at least 100 feet below the bottom of the cave occurrence zone as identified in the geologic report.

# Casing:

All casing will meet or exceed National Association of Corrosion Engineers specifications pertaining to the geology of the location and be run to American Petroleum Institute and BLM standards.

#### Cementing:

All casing strings will be cemented to the surface.

#### Lost Circulation:

ALL lost circulation zones from the surface to the base of the cave occurrence zone will be logged and reported.

Regardless of the type of drilling machinery used, if a bit drops of four feet or more and circulation losses greater then 75 percent occur simultaneously while drilling in any cavebearing zone, drilling operations will immediately stop and the BLM will be notified by the operator. The BLM will assess the consequences of the situation and work with operator on corrective actions to resolve the problem.

#### **Delayed Blasting:**

Any blasting will be a phased and time delayed.

#### **Abandonment Cementing:**

Upon well abandonment the well bore will be cemented completely from 100 feet below the bottom of the cave bearing zone to the surface.

#### **Pressure Tests:**

Annual pressure tests will be performed by the Operator on all casing annuli. If the test results indicated a casing failure, remedial actions approved by the BLM will be undertaken to correct the problem.

#### **Differential Shut-off Systems:**

A leak detection system and differential shut off systems will be installed for pipelines and tanks used in production or drilling.

## **Record Keeping:**

The Operator will track customary drilling activities, including the rate of penetration, pump pressure, weight on bit, bit drops, percent of mud returns, and presence of absence of cuttings returning to the surface. As part of customary record keeping, each detectable void or sudden increase in the rate of penetration not attributable to a change in the formation type should be documented and evaluated as it is encountered.

#### CONDITIONS OF APPROVAL - DRILLING

Operator's Name: OXY USA WTP Limited Partnership Well No. 4 - US 13 Federal

Location: SHL: 140' FSL & 1840' FEL BHL: 660' FNL & 1980' FEL sec. 12, T. 22 S., R. 24 E.

Lease: NM-12828

BHL sec. 13, T. 22 S., R. 24 E.

#### I. DRILLING OPERATIONS REQUIREMENTS:

- 1. The Bureau of Land Management (BLM) is to be notified at (505) 234-5972 in sufficient time for a representative to witness:
- A. Spudding
- B. Cementing casing: 9-5/8 inch \_7 inch
- C. BOP tests
- 2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
- 3. Include the API No. assigned to well by NMOCD on the subsequent report of setting the first casing string.
- 4. A Hydrogen Sulfide Contingency Plan should be activated prior to drilling in the <u>Cisco</u> formation. A copy of the plan shall be posted at the drilling site.

#### **II. CASING:**

- 1. <u>9-5/8</u> inch surface casing should be set <u>at approximately 1550 feet</u>, below usable water and circulate cement to the surface. If cement does not circulate to the surface, the BLM Carlsbad Field 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. Minimum required fill of cement behind the <u>7</u> inch production casing is <u>sufficient to tie back 500 feet above the top</u> of the uppermost perforation in the pay zone.

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

- 1. Before drilling below the <u>9-5/8</u> inch surface casing, the blowout preventer assembly shall consist of a minimum of One Annular Preventer, Two Ram-Type Preventers, and a Kelly Cock/Stabbing Valve.
- 2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 3000 psi.
- 3. After setting the <u>9-5/8</u> inch surface casing string and before drilling into the <u>Wolfcamp</u> formation, the BOPE shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.
- A. The BLM Carlsbad Field Office shall be notified at (505) 234-5972 in sufficient time for a representative to witness the tests.
- B. The tests shall be done by an independent service company.
- C. The results of the test shall be reported to the BLM Carlsbad Field Office at 620 East Greene Street, Carlsbad, New Mexico 88220-6292.
- D. Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
- E. Testing must be done in a safe workman like manner. Hard line connections shall be required.

## CONDITIONS OF APPROVAL - DRILLING (CONTINUED)

Operator's Name: OXY USA WTP Limited Partnership Well No. 4 - US 13 Federal

Location: SHL: 140' FSL & 1840' FEL BHL: 660' FNL & 1980' FEL sec. 12, T. 22 S., R. 24 E.

Lease: NM-12828

BHL sec. 13, T. 22 S., R. 24 E.

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

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

- A. Recording pit level indicator to indicate volume gains and losses.
- B. Flow-sensor on the flow-line to warn of abnormal mud returns from the well.