# District I 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

# State of New Mexico Energy Minerals and Natural Resources

Form C-101 May 27, 2004

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit to appropriate District Office

☐ AMENDED REPORT

1220 S. St. Francis Dr., Santa Fe, NM 87505 Santa Fe, NM 87505													
APP	LICAT	ON	FOI	R PERMIT	г то р	RILL. R	E-ENT	ER. D	EEPEN.	. PLUGBA	CK.	OR AD	D A ZONE
				Operator Name	and Addr	ess				<sup>2</sup> OGRID			,
				PETROLEUM		••		RECE	IV-	Number	11	5970	
				ORTH BIG 101	SPRIN	G .				API Numbe	er -		
				TOI ND, TEXAS	7970	1		NOV 0		30 -	, _	_ 3	4450
Propo							erty Name	<b>UD:A</b>	ntrok	M	<u> </u>		ell No.
(3=	778			CA	RLSBAI	TOLES		M.				•••	1
DUBLI	N RANC	H-MC	ORRC	Proposed Pool I DW (7614	0)					in Prof	osed l	Pool 2	•
						7 Surfa	ice Loca	tion					
UL or lot no.	Section	Town	ıship	Range -	Lot	Idn Fo	et from the		outh line	Feet from the		st/West line	County
I	29	229	<u> </u>	28E	1		340'	SOUT	11	<del></del>	EA	ST	EDDY
				<sup>8</sup> Propo	sed Bott	om Hole L	ocation If	Differer	nt From Si	urface			<u></u> .
UL or lot no.	Section	Town	ship	Range	Lot	idn Fe	eet from the	North S	outh line	Feet from the	Ea	st/West line	County
				-		dditional '		ormati					
" Work	Type Code N			12 Well Type Co G	de	ROTA	Cable/Rotary .RY		1	lease Type Code P		" Gro 303!	und Level Elevation
16 N	NO NO		1	<sup>17</sup> Proposed Dep . 2 <b>,</b> 750	ith	t	Formation RROW		UNKN	"Contractor OWN		WHEN A	Spud Date APPROVED
Depth to Grou	indwater	18'-	+ ~	20 Points	Distanc	e from nearest	fresh water	well un	known	Distance from	n near	est surface w	ater 1400 '
Pin Liner	A CONTRACTOR OF THE CONTRACTOR												
	d-Loop Syst	_	,						_	cine X Diesel-C	Dil-bas	ed D Gas'	Air 🗌
		-	•	21	Propo	sed Casin	g and C	ement	Program	1			
Hole S		<u> </u>	Casi	ng Size		g weight/foot		Setting D		Sacks of Co			Estimated TOC
26"	1120	20'		nductor		VA		40'		Redi-mix		Sur	face
	17½"		3/8			3#	4	00'		440 Sx			1
12½"		9	5/8	jtt.	40#		64	6400'		1495 Sx.		1	
8	3/4"	5 <sup>1</sup>	ź!!		17# & 20#		12,7	12,750'		1055 Sx.		Est	TOC 6000'
				his application i am, if any. Use				the data o	on the preser	nt productive zone	e and p	proposed nev	v productive zene.
Describe the t	nowout pre-	vention	i progra	am, ii any. Ose	accitionar	sheets it neces	isary.						
							-						
									•				
									Acac	ondition of	anr	roval, if	during
Acad	conditio	n of	ann	roval, a	ידי	ያቲያ ለጥጥለር	HED CE	CCT	nit cor	nstruction v	vate	r is	
				submitted		EE ATTAC	uen su	EEI	ph cor	ntered or if	wat	er seeps	s in pits
					<u>.</u>				ofter o	construction	the	OCD N	MUS <u>T</u>
and approved prior to the commencement of closure						ı	RE C	ONTACTE	DI	MMEDI	ATEY!		
	dures.	CIIL	)I CI	<u>osuic</u>			_		<u>DL C</u>	OIVIIIOIL			
		inform	nation (	given above is tr	ue and com	ralete to the b		1	011.00	NICEDIA:		· D.U.T.C	ION
of my knowle	dee and bel	icf. I fu	irther	certify that the	drilling p	it will be	4.10	//	OIL CO	ONSERVAT	$\frac{100}{100}$	4 DI V 12	ION
constructed : an (attached				uidelines 🔼. a oved plan 🔲.	general p	ermit ∐, or 7	Appro	Ved by:		m) W.	1	E.	THE S
Printed name:	Тоо т	Tar	1100	6001	r/ /	enice	Title:	N	La Company	HI	S	ege.	
Title: Agen		Jal	ııca	7001	·	ruce		val Dara	FC as	2005  -			
			(				1 Appro	vai Dati	SEC W	e come I E	xəirat	ion Da <b>GE</b>	0 2 2006
E-mail Addre				1									*.
Date: 11/0	JI/U5			Phone: 50	5_301_	-8503	1 Condi	tions of A	pproval Arta	ched 🔲			

UNIT PETROLEUM COMPANY
CARLSBAD TOLES FED. COM. # 1
UNIT "I" SECTION 29
T22S-R28E EDDY CO. NM

- 1. Drill 26" hole to 40'. Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
- 2. Drill  $17\frac{1}{2}$ " hole to 400'. Run and set 400' of 13 3/8" 48# H-40 ST&C casing. Cement with 440 Sx. of Class "C" cement +  $\frac{1}{2}$ # Flocele/Sx, + 2% CaCl, circulate cement to surface.
- 3. Drill  $12\frac{1}{4}$ " hole to 6400'. Run and set 6400' of 9 5/8" casing as follows: 2400' of 9 5/8" 40# HCK-55 LT&C, 4000' of 9 5/8" 40# J-55 LT&C casing. Cement with 1295 Sx. of Class "C" POZ cement + additives, tail in with 200 Sx. of Class "C" neat cement. circulate cement to surface.
- 4. Drill 8 3/4" hole to 12,750'. Run and set 12,750' of  $5\frac{1}{2}$ " casing as follows: 1750' of  $5\frac{1}{2}$ " 20# P-110 LT&C, 11,000' of  $5\frac{1}{2}$ " 17# HCP-110 LT&C casing. Cement with 615 Sx. of ComCrete Blend, and tail in with 440 Sx. of TXI Light Weight cement + additives. Top of cement must be at least 500' above the uppermost hydrocarbon producing interval. Estimate top of cement 6000' 400' into the 9 5/8" Intermediate casing.

#### State of New Mexico

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

Energy, Minerals and Natural Resources Department

DISTRICT II
1301 W. GRAND AVENUR, ARTESIA, NM 88210

OIL CONSERVATION DIVISION 1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505 Revised JUNE 10, 2003 Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

3039

Form C-102

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

115970

DISTRICT IV WELL LOCATION AND ACREAGE DEDICATION PLAT ☐ AMENDED REPORT 1220 S. ST. FRANCIS DR., SANTA FR, NM 87505 Pool Code Pool Name API Number 76140 DUBLIN RANCH-MORROW (GAS) Property Code Property Name Well Number CARLSBAD TOLES FEDERAL COM 1 OGRID No. Operator Name Elevation

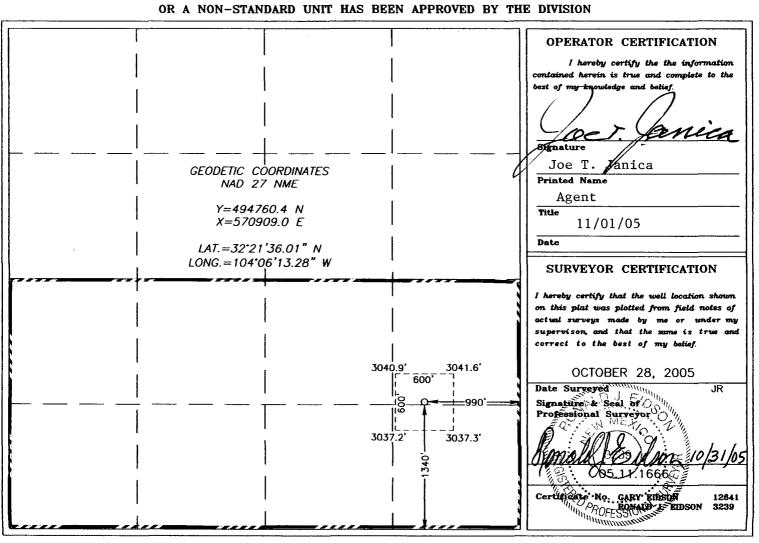
# UNIT PETROLEUM COMPANY Surface Location

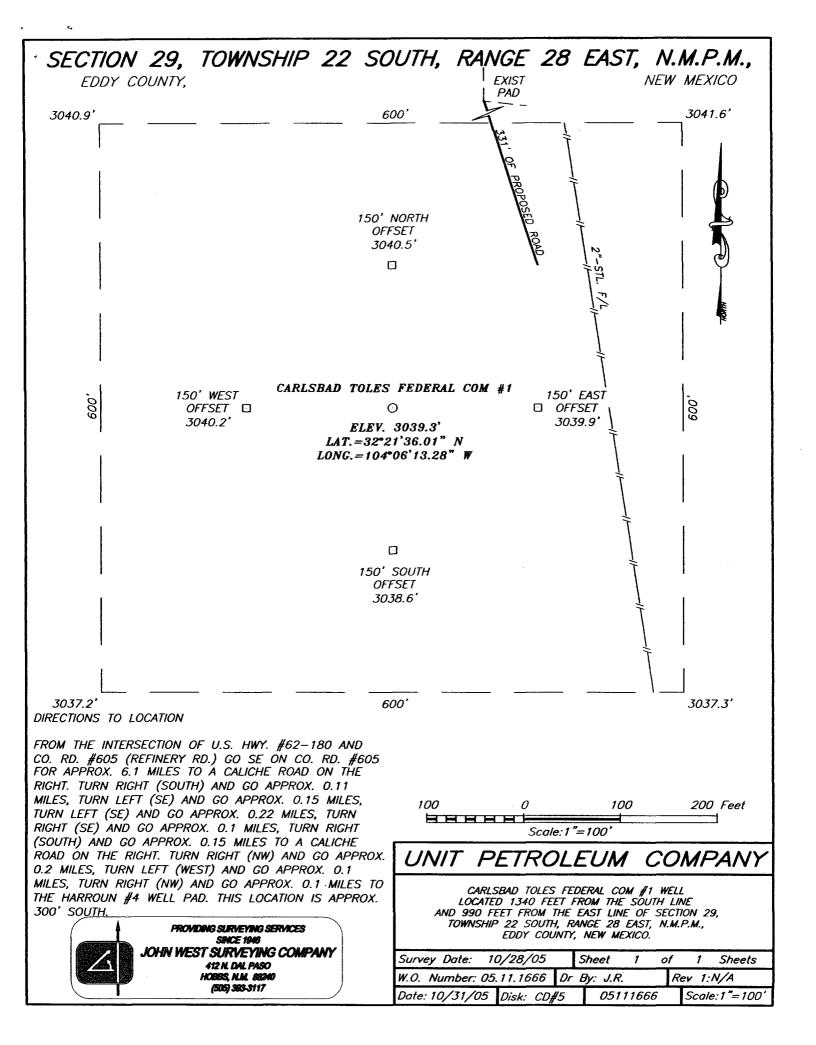
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	Rast/West line	County
1	29	22-S	28-E		1340	SOUTH	990	EAST	EDDY

#### Bottom Hole Location If Different From Surface

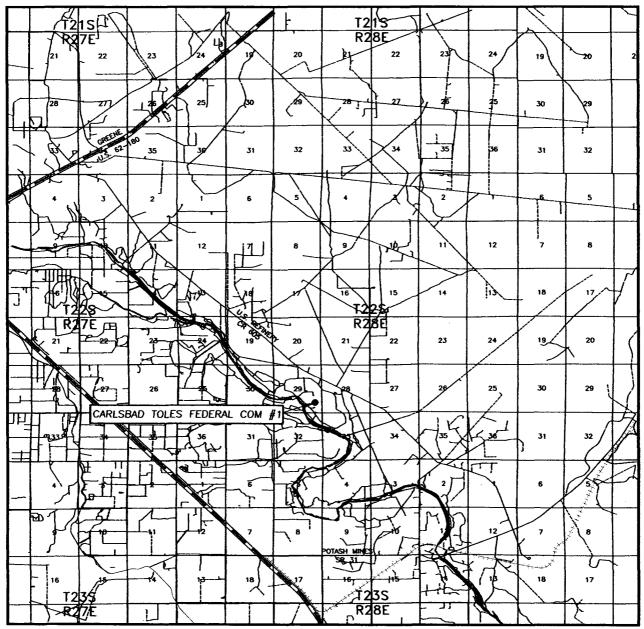
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres	Joint o	r Infill Co	pasolidation (	Code Or	der No.				L
320									

## 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





# VICINITY MAP



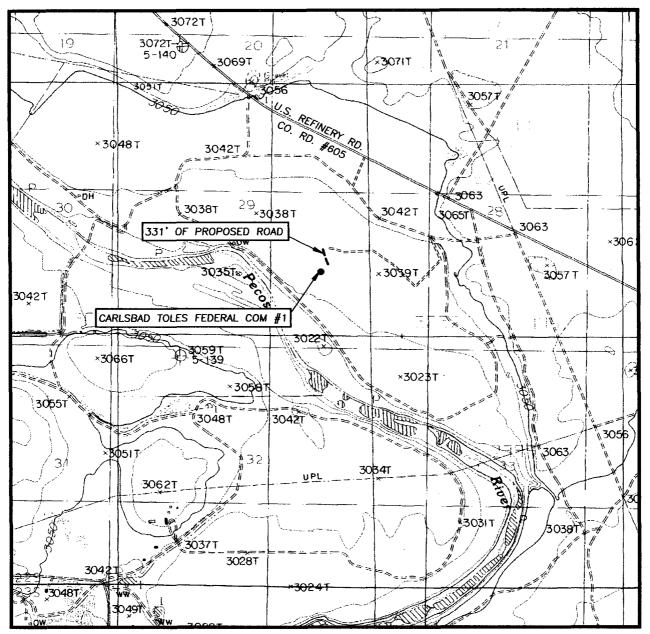
SCALE: 1" = 2 MILES

SEC. 29 TWP.	<u>22-S</u> RGE. <u>28-E</u>
SURVEY	N.M.P.M.
COUNTY	EDDY
DESCRIPTION 13	340' FSL & 990' FEL
ELEVATION	3039'
OPERATOR	UNIT PETROLEUM COMPANY
LEASE CARLBAD	TOLES FEDERAL COM





# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

LOVING, N.M.

CONTOUR INTERVAL: LOVING, N.M. - 10'

SEC. <u>29</u> TWP. <u>2</u>	<u>2−S_RGE28−E</u>
SURVEY	N.M.P.M.
COUNTY	EDDY
DESCRIPTION 1340	)' FSL & 990' FEL
ELEVATION	3039'
OPERATOR	NIT PETROLEUM COMPANY
LEASE CARLSBAD	TOLES FEDERAL COM
U.S.G.S. TOPOGRA	PHIC MAP

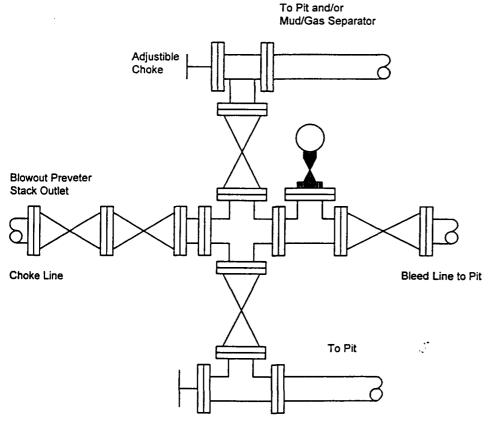


# **BLOWOUT PREVENTER SYSTEM**

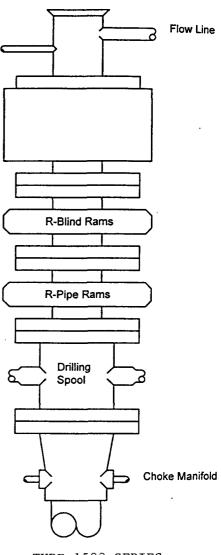
5000 PSI



## Choke Manifold Assembly for 5M WP System



Adjustible Choke



TYPE 1500 SERIES 5000 psi WP

#### UNIT PETROLEUM COMPANY

#### HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

IF THE SUPERVISING PERSON ON LOCATION DETERMINES THAT THE RELEASE OF H<sub>2</sub>S CANNOT BE CONTAINED AND THAT THE WORKERS ON LOCATION AND THE GENERAL PUBLIC IS IN DANGER HE WILL TAKE NECESSARY STEPS TO NOTIFY ALL AUTHORITIES AND COMMENCE EMERGENCY ACTION TO TAKE CONTROL OF THE H<sub>2</sub>S.

UNIT PETROLEUM COMPANY	OFFICE	MOBIL	HOME
UNIT PETROLEUM COMPANY	432-685-9020		
MAT DOFFER	432-685-9020	432-557-5038	432-689-4272
LYNN PARKER	ŧτ	432-556-7538	
RAY HERRINGTON	11	432-553-5577	

#### EMERGENCY RESPONSE NUMBERS

STATE POLICE	EDDY CO.	505-748-9718
STATE POLICE	LEA CO.	505-392-5588
SHERIFF	EDDY CO.	505-746-2701
SHERIFF	LEA CO.	505-393-2515
EMERGENCY MEDICAL SERVICE	EDDY CO. LEA CO	911 or 505-746-2701 911 or 505-394-3258
EMERGENCY RESPONSE	EDDY CO.	505-

#### HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

#### APPLICABILITY:

The provisions of this plan are effective when drilling operations are conducted in areas where zones may be penetrated that are known to contain, or may be reasonably expected to contain, hydrogen sulfide gas in concentrations of 100 parts per million or more.

#### TRAINING REQUIREMENTS:

- A. When conducting drilling operations in an area where hydrogen sulfide gas might be encountered, all personnel at the well site will have had proper training in the following areas:
  - 1. The hazards and characteristics of hydrogen sulfide gas (H2S).
  - 2. Toxicity of hydrogen sulfide and sulfur dioxide.
  - 3. Hydrogen sulfide gas detectors, warning systems, evacuation procedures, and proper use and maintenance of personal protective equipment.
  - 4. Proper rescue procedures, first aid, and artificial respiration.
- B. In addition, supervisory personnel will be trained in the following areas:
  - 1. The effects of hydrogen sulfide on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
  - 2. Corrective action and shut-in procedures when drilling or reworking a well, and blowout prevention and well control procedures.
  - 3. The contents and requirements of the Hydrogen Sulfide Drilling Operations Plan and the Public Protection Plan.

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

#### A. Attached is a detailed well site diagram showing:

- Drilling rig orientation
- Prevailing wind direction (Southwest)
- Location of briefing areas
- Location of Caution/Danger Signs
- Location of hydrogen sulfide monitors
- Location of wind direction Indicators

#### HYDROGEN SULFIDE SAFETY EQUIPMENT:

- A. All safety equipment and systems will be installed, tested and deemed operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone reasonably expected to contain hydrogen sulfide.
- B. During drilling operations, a flare line will be routed from the BOP manifold to the reserve pit. Should suspected sour gas be vented through the flair line, a flare pistol will be used to ignite the flare.
- C. Protective equipment for essential personnel will be installed and maintained as follows:
  - 1. 30-minute air packs will be maintained on the rig floor and near the briefing area.
  - 2. 30-minute work units will be maintained at the H25 trailer and/or on the rig floor.
  - 3. 30-minute escape units will be maintained on the rig floor.
  - 4. 300 cu. ft. air cylinders will be maintained in the H2S trailer.
  - 5. Associated breathing air equipment will also be installed and maintained.
  - 6. Hydrogen sulfide monitor will be located in the doghouse on the rig floor with sensors placed on the rig floor, at the bell nipple, the shale shaker, and in the pit area.
  - 7. An audible/visual alarm will be located near the doghouse on the rig floor.

#### VISUAL WARNING SYSTEMS:

- A. High visibility Caution/Danger signs will be posted on roads providing direct access to the well location.
- B. Green, yellow, and red condition flags to be displayed to denote Normal Conditions, Potential Danger, and Danger, H2S Present.
- C. Wind socks to be located at the protection center and in the pit area to continuously indicate wind direction.

#### CIRCULATING MEDIUM:

A. Drilling fluid to be conditioned to minimize the volume of H2S circulated to the surface.

#### SPECIAL WELL CONTROL EQUIPMENT:

A. In addition to the normal BOP stack and choke manifold, a drilling head will be used to help control and H2S contaminated drilling.

#### WELL TESTING:

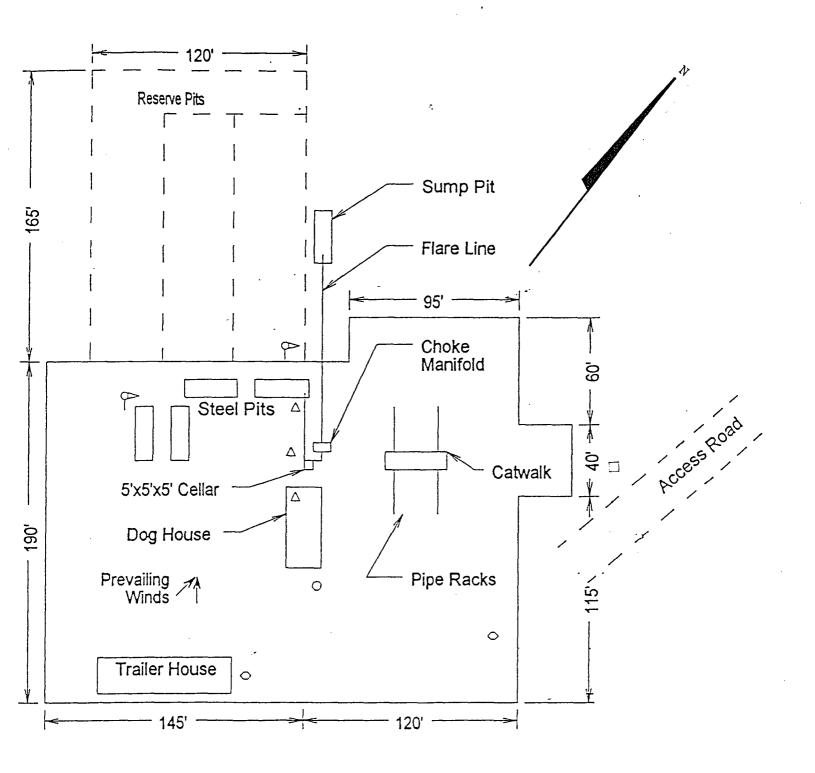
A. Drill stem testing of zones known, or reasonably expected, to contain hydrogen sulfide in concentrations of 100 pps or more will use the closed chamber method of testing.

#### COMMUNICATION:

A. Radio communication will be available at the drilling rig and also in company vehicles.

#### ADDITIONAL INFORMATION:

A. Additional information concerning Emergency Reaction Steps, Ignition Procedures, Training Requirements, and Emergency Equipment Requirements will be available on location at the well site.



- Wind Direction Indicators (wind sock or streamers)
- △ H2S Monitors (alarms at bell nipple and shale shaker)
- Briefing Areas
- Remote BOP Closing Unit
- Sign and Condition Flags

#### RIG LAY OUT PLAT

UNIT PETROLEUM COMPANY
CARLSBAD TOLES FED. COM. # 1
UNIT "I" SECTION 29
T22S-R28E EDDY CO. NM

UNIT PETROLEUM COMPANY
CARLSBAD TOLES FED. COM # 1
UNIT "I" SECTION 29
T22S-R28E EDDY CO. NM

## Table of Contents

ITEM	PAGE
Preface	
Well Site Description.	4
Radius of Exposure Map	5
Emergency Response Activation and General Responsibilities	6
H <sub>2</sub> S Release	7
Characteristics of H <sub>2</sub> S and SO <sub>2</sub>	9
Location Layout.	10
Contact List	12
Well Control.	13
Public Relations	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 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 state and federal requirements, etc.

The Contingency Plan is intended for use on Unit Petroleum Co. projects, such as drilling critical well work, completions, etc.

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

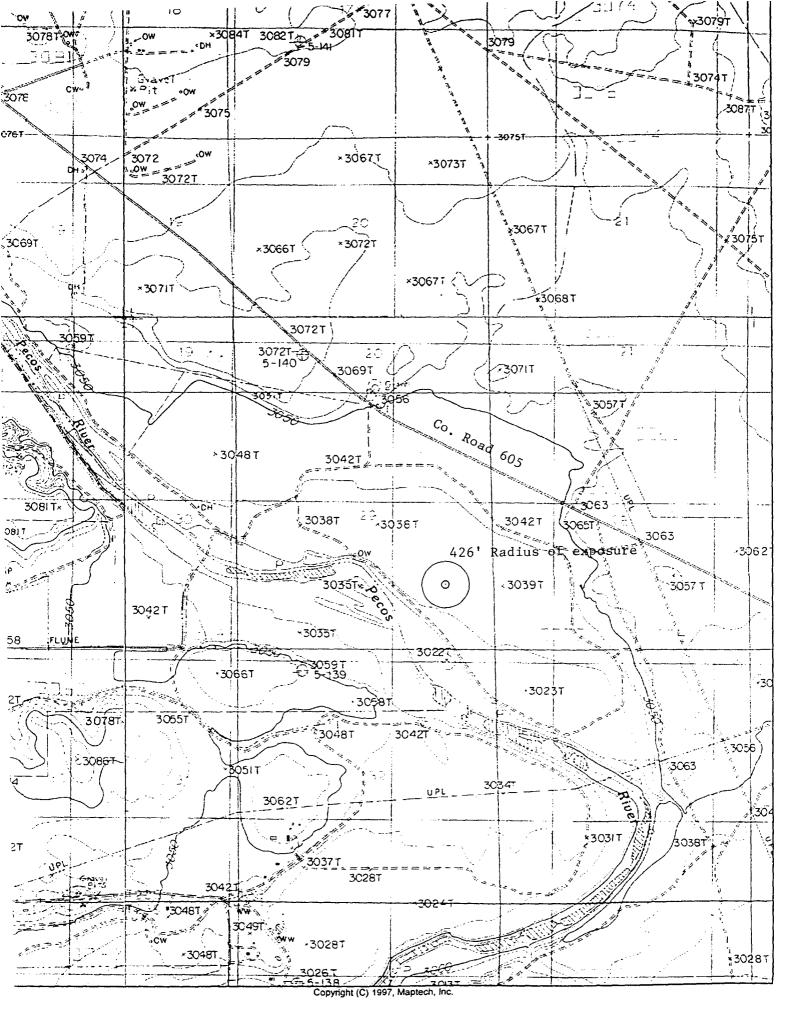
#### WELL AND LOCATION INFORMATION

UNIT PETROLEUM COMPANY Well CARLSBAD TOLES FEDERAL COM. # 1 was staked Oct. 28 2005 at a location of 1340' FSL & 990' FEL SECTION 29 T22S-R28E EDDY CO. NM. Approximately 8 miles Southeast of Carlsbad New Mexico and .5 miles Southwest Co. Road 605. This area is relatively flat with a slight dip to the Southwest toward the Pecos River.

UNIT PETROLEUM COMPANY has drilled wells in Section 28 & 29 and have not encountered any sign of  $\rm H_2S$  while drilling of their wells. There are no dwellings within 1/2 mile of location.

 $[(1.589) (.05) (200,000)]^{.6258} = 426'$  Radius of exposure

Even though there is no record of  $H_2S$  being present in this area monitering equipment will be on location with all safety precautions will be observed.



#### 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 thirteen (13) through fifteen (15) in this document for further responsibilities:
  - 1. Notify the senior ranking contract representative on site.
  - 2. Notify Unit Petroleum Company's representative in charge.
  - 3. Notify civil authorities if the Unit Petroleum Company Representative cannot be contacted and the situation dictates.
  - 4. Perform rescue and first aid as required(without jeopardizing additional personnel).

#### General Responsibilities

Unit Petroleum Company Personnel:

- A. Engineer: The Unit Petroleum Company Drilling Engineer 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 Unit Petroleum Company Management.
  - Sole control of all tactical activities directed toward reducing the immediate hazard, establishing situational control and restoring the operations to a non-emergency state.
  - 3. Coordinating with Drilling Foreman for notification and incident control.
  - 4. Establishing and managing the overall incident command structure and response from inception through restoration of normal activities in the area.
- B. Drilling Foreman (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.

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 thirteen (13) through fifteen (15) in this document.

OTHER CONTRACTOR PERSONNEL will report to the safe briefing area to assist Unit Petroleum Company 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 Unified Command.
- 6. Provide medical assistance as dictated by the situation at hand.

#### H<sub>2</sub>S RELEASE

The following procedures and responsibilities will be implemented on activation of the  ${\rm H}_2{\rm S}$  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 Unit Petroleum Company 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. Teams will be organized to stop traffic on Highway 137 and prevent entry into the ROE.
- 2. 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. In the event of a release of gas containing H<sub>2</sub>S the first responder must secure the area and prevent entry of other persons into the 100 ppm radius of exposure (ROE). The ROE should be recalculated and any public places within the ROE must be evacuated.

#### UNIT\_PETROLEUM COMPANY 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 Drilling Engineer/Operations Chief Officer, 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.

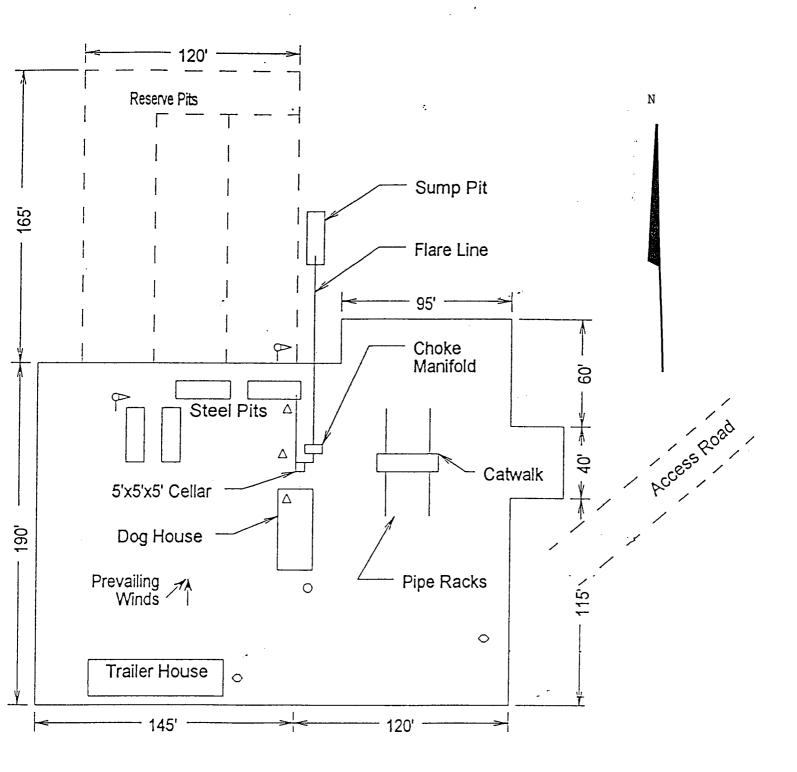
### Ignition of Gas Source

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 H<sub>2</sub>S and S0<sub>2</sub>

Gas Characteristics							
Name	Chemical Formula	S.G. Air=1.0 *	Threshold Limit	Hazardous Limit	Lethal Concentration		
Hydrogen Sulphide	H <sub>2</sub> S	1.89	10 ppm	100 ppm/hr.	600 ppm		
Sulfur Dioxide	SO <sub>2</sub>	2.21	2 ppm		1000 ppm		

<sup>\*</sup> Caution - Gases are heavier than air and will concentrate in low confined areas.



- Wind Direction Indicators (wind sock or streamers)
- △ H2S Monitors (alarms at bell nipple and shale shaker)
- Briefing Areas
- Remote BOP Closing Unit
- □ Sign and Condition Flags

#### CONTACTING AUTHORITIES

Unit Petroleum Company 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).

Location	Entity	Phone No.:
Carlsbad	Sheriff's office	505-887-7551
Carlsbad	State Police	505-885-3137
Artesia	New Mexico Oil Conservation Division	505-748-1283
	Ambulance	911
Carlsbad	Fire Department	505-885-2111
Artesia	Fire Department	505-746-2701
Carlsbad	Local Emergency Planning Committee	505-887-3798
MIDLAND TEXAS	UNIT PETROLEUM COMPANY MATT DOFFER LYNN PARKER RAY HERRINGTON	432-685-9020  OFFICE 432-685-9020  CELL 432-557-5038  OFFICE 432-685-9020  CELL 432-556-7538  OFFICE 432-685-9020  CELL 432-553-5577
Other Contacts		·
Artesia	Halliburton Services	505-746-2757
Artesia	Sweatt Construction, Inc.	505-748-1238
Hobbs	Nova Mud, Inc.	505-393-8786
Artesia	Indian Fire & Safety, Inc.	505-746-4660
Odessa, TX	Wild Well Control, Inc.	432-550-6202
Odessa, TX	Cudd Pressure Control, Inc.	432-563-3356
Lubbock, TX	Flight for Life	806-743-9911
Albuquerque, NM	Med Flight Air Ambulance	505-842-4433

#### 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 Unit Petroleum Company Representative and report to rig floor.
- 2. Review and verify all pertinent information.
- 3. Communicate information to Unit Petroleum Company 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 Unit Petroleum Co. Representative.

#### Unit Petroleum Co. Representative

1. Notify Drilling Engineer/Operations Chief Officer, and Police, Fire Dept. or other local emergency services as required.

#### KICK WHILE TRIPPING - PROCEDURES & 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. Rio Manager/Tool Pusher, and UNIT PETROLEUM COMPANY representative (same as while drilling).

#### PUBLIC RELATIONS

Unit Petroleum Company recognizes that the news media have a legitimate interest in incidents at Unit Petroleum Company 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 wit 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 Unit Petroleum Co. 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.