Permitee:N	Iewbourne Oil Company
Location Name:	Pecos River "20" # 1

CITY OF CARLSBAD

PERMIT

Carlsbad Code of Ordinances, Chapter 34

API# 30-015-34230

☐ Re-enter / Deepen Existing Well

ACTIVITY PERMITTED

■ Drill Well

☐ Construct / Operate Pipeline

surizing Facility		njection Facility	, IECEIVE
Water		☐ Water	OUL 24 2000
Gas		☐ Gas	
RMATION	T		
Permittee	Registe	ered Agent	Emergency Contact
Mewbourne Oil Company			N M Young
PO Box 5270			
Hobbs, NM 88241			1/
(505) 393-5905			(505) 393-5905
(505) 397-6252			(505) 397-6252
and OPERATOR REPRES	ENTATI	VE (Drilling Perm	nits Only)
Tool Pusher		Operator Repre	sentative
		•	
	Water Gas PRMATION Permittee Mewbourne Oil Company PO Box 5270 Hobbs, NM 88241 (505) 393-5905 (505) 397-6252 and OPERATOR REPRES	Water Gas PRMATION Permittee Register Mewbourne Oil Company PO Box 5270 Hobbs, NM 88241 (505) 393-5905 (505) 397-6252 and OPERATOR REPRESENTATION	Water Gas Gas Gas Gas RMATION Permittee Registered Agent Mewbourne Oil Company PO Box 5270 Hobbs, NM 88241 (505) 393-5905 (505) 397-6252 and OPERATOR REPRESENTATIVE (Drilling Perm

LOCATION OF PERMITTED ACTIVITY
See Attached Exhibit "A".
Name of Well or Facility: Pecos River "20" # 1
COUNCIL APPROVAL DATE
January 25, 2006
INSPECTION FEE
\$5,000.00 paid to the City
Date: November 4, 2005 Form: Cash Cashier's Check
■ Certified Check
CONDITIONS
This permit incorporates by reference all the provisions of:
Chapter 34 of the City of Carlsbad Code of Ordinances
Attached as Exhibit "B"
All applicable requirements of the:
OCD;
State Land Office; and
Bureau of Land Management
 All applicable terms and conditions of the Wellhead and Water Facilities Protection
Ordinance.
 Such other terms or provisions as the City may consider to be necessary
☐ Attached as Exhibit "C" ☐ None
• For Wells:
Approved Drilling Program
Attached as Exhibit "D"
Approved Operating Conditions
Attached as Exhibit "E"
The specifications and requirements of:

Bureau of Land Management Onshore Oil and Gas Operations; Federal and Indian Oil and Gas Leases; Onshore Oil and Gas Order No. 2, Drilling operations, 43 CFR 3160; and

OCD Rule 118, Hydrogen Sulfide Gas - Public Safety

as such may be amended from time to time, whether or not the well is otherwise subject to the jurisdiction or control of the Bureau of Land Management or the OCD. The specifications and requirements of that Order No. 2 and Rule 118 shall constitute minimum acceptable levels of performance. When Chapter 34, this permit, or other applicable law, rule or regulation impose a higher or more stringent standard, then that higher or more stringent standard shall apply.

BOND	INSURANCE
Amount (minimum of \$100,000):	Amount (minimum of \$5,000,000):
\$100,000	\$5,000,000
☐ As set by City Council:	☐ As set by City Council:
\$	_\$
Date Received:	Date Received:
February 17, 2006	Certificate of Insurance: March 7, 2006
	Complete Copy of Policy:
The issuance of a permit constitutes a contract b	etween the City and the permittee that the permittee shall
abide by all conditions set by the City and shall	be liable and must pay the reasonable attorney's fees and
costs incurred by the city in a successful enforcen	nent of the provisions of Chapter 34 of the City of Carlsbac
Code of Ordinances.	
	FTER THE DATE OF ITS APPROVAL IF THE
PERMITEE HAS NOT UNDERTAKEN TH	E ACTIVITY AUTHORIZED BY THIS PERMIT.
	S PERMIT IS UNDERTAKEN WITHIN ONE YEAR
	PPROVAL, THE PERMIT SHALL CONTINUE FOR
	AS IS PRODUCED OR UNTIL SUCH TIME AS THE
	PERATION OF SUCH WELL OR FACILITY FOR
WHICH THE PERMIT WAS ISSUED.	
્રા વાર્કોન્ડ્ર એ મેર્કિમાં મહત્ત્રો છે. જ્યારામાં ઉપય	
CITY OF CARLSBAD:	
$\sim (\langle \rangle)$	(/2/2/12-
HADDY DID CEGO OUTY AND ID HOTELATOR	
HARRY BURGESS CITY ADMINISTRATOR	R Date U
\mathcal{J}	
DEDMITTER.	
PERMITTEE:	
. 1	
(Name and Title) District	
	Mayager 1. lanlar
(Name and Title)	Manager 6/20/06 Date



STATE OF NEW MEXICO)	NOTARY PUBLIC STATE OF NEW MEXICO
COUNTY OF EDDY) ss.	My Commission Expires: 4/16/08
The foregoing instrument was s 20 06, by NM Young (Name)	rigned and acknowledged before me this 30 day of June, Abbs District Manager (Title)
My Commission Expires:	Lini 1 Man
ען ועןטט	NOTARY PUBLIC

EXECUTE IN TRIPLICATE ORIGINALS

One original for the City; Other two originals for the Permittee

MEWBOURNE OIL COMPANY

P.O. Box 5270 Hobbs, NM 88241

November 4, 2005

Dear Mr. Tully,

Enclosed is Mewbourne Oil Company's application to drill the Pecos River "20" #1, located 868' FSL & 990' FEL of Sec 20-T22S-R27E in Eddy County, NM. Please also note that included with the application is:

- 1. Application for City of Carlsbad
- 2. Company check for filing and inspector's fees
- 3. Form C-101
- 4. Form C-102
- 5. Certified surveyor's plat
- 6. Surface ownership
- 7. Drilling prognosis including:
 - a. Mewbourne's Contingency Plan
 - b. Projected Tops and Structural Relationships
 - c. Geological Prognosis
 - d. List of potential water aquifers and oil and/or gas zones
 - e. Mud program
 - f. Casing and cement program
 - g. Evaluation program
- 8. Multi-point Surface Use and Operations plan
- 9. Hydrogen Sulfide Operations Plan
- 10. Blowout Preventer procedures complete with schematics
- 11. Diagram of well pad with rig structures
- 12. Diagram of proposed production facilities
- 13. Hydrogen Sulfide contingency plan
- 14. Emergency Assistance Telephone Numbers
- 15. Third-party Hydrogen Sulfide Radius of Exposure study

If any questions, please feel free to contact me at the Hobbs Office (505) 393-5905 or by cell phone (505) 390-0999.

N. M. Young

Hobbs District Manager

CITY OF CARLSBAD, NM P.O. BOX 1569 CARLSBAD, NM 88221

OIL AND GAS WELLS AND PIPELINES APPLICATION FOR PERMIT

Carlsbad Code of Ordinances, Chapter 34

A separate application is required for each well, trunkline pipeline and each water or gas repressurizing or injection facility.

TYPE OF PERMIT REQUESTED	INSPECTION / FILING FEE							
☑ Drill Well	\$5,000.00							
☐ Re-enter/Deepen Existing Well	\$5,000.00							
☐ Water/Gas Repressurizing/Injection Facility	□ \$5,000.00							
☐ Trunk Line	\$5,000.00							
Other:	\$500.00							
(Describe)								
Applicant Name:	Mewbourne Oil Company							
Applicant's Address: Street / P.O. Box:	P.O. Box 5270							
City, State, Zip Code:	Hobbs, NM 88240							
If Corporation, Name of NM Registered Agent:								
Application Contact Name and Title:	N. M. Young - District Manager							
Address:	P.O. Box 5270 Hobbs, NM 88240							
Telephone Number(s): Office 505								
Fax Number:	505 397-6252							
Emergency Contact Name and Title:	ct Name and Title: ,N. M. Young - District Manager							
Address:	P.O. Box 5270 Hobbs, NM 88240							
Telephone Number(s): Office 509	5 393-5905 Cell 505 390-0999							
Name of lease owner(s): Mewbourne Oil Com	npany							
Accurate description of facility location (with legal description easements to be used by pipeline(s): SE/4 of SE/4 of Section 20 T22 See also attached certified St	2S R27E of Eddy Co., NM							
Proposed depth of well or pipeline:								
12,100' 1 /2,200	TVD							

Identify location of public notice signage:							
Carlsbad Current-Argus, 3900 blk of Thomason, City Hall							
Detailed explanation of operating pressures of all pipelin	es and facilities:						
Pressure range of wellhead, gathering lines, and Sales line expected to be 450 to 550 psig							
Location and operating characteristics of compressor, or	ompressor control and safety devices:						
Hi-Lo safety valve located	@ wellhead W/ Controller @ Stackpack						
Attachments:							
☐ Surveyor's Plat, including: ☐	All Applications and Forms Submitted to or Received from:						
	Ø OCD, List: <u>C-101</u> and <u>C-102</u>						
Q Surface Contours							
O Right-of-Way Boundaries O BLM, List:							
O Distance to Nearest:							
Residential Structure	O State Land Office, List:						
Commercial Structure							
₩ Well Drilling Program □	Well Re-Entry or Deepening Information (Sec. 34-33(c))						
O Not Applicable O Not Applicable							
/							
Signature of authorized agent:	Date: 11/4/05						
Typed or Printed name of authorized agent:	1.M. Young						
This application shall be filed with the City Admi	nistrator. Applications to drill, reenter or deepen a well o						

This application shall be filed with the City Administrator. Applications to drill, reenter or deepen a well or to install a water or gas repressurizing or injection facility or a trunk line shall be accompanied by an inspection fee of \$5,000.00. All other applications shall be accompanied by a non-refundable filing fee of \$500.00. The filing fee shall be paid in cash, company check, cashier's check or certified check made payable to the City of Carlsbad.

If a permit is granted, it will incorporate by reference and require compliance with all applicable City Ordinances and regulations, including, but not limited to the Wellhead and Water Protection Area, and all applicable laws, rules, regulations and requirements of the OCD, the State Land Office and the Bureau of Land Management. For a well, the permit will include by reference and require compliance with BLM Onshore Oil and Gas Order No. 2 (Drilling Operations) and OCD Rule 118 (Hydrogen Sulfide Gas). A PERMIT EXPIRES ONE YEAR AFTER THE DATE OF ITS APPROVAL if the permittee has not undertaken the activity authorized by the permit.

Y 45 F F 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	More as as a late of the analysis of the second	- 10 - HE - 11	1 11 1 11 11 11 1 1	1 1 2 2
Inspection Fee:	5 5,000	Payment:	☐ Cash	Company Check
Filing Fee:	№ \$500		☐ Cashier's Check	☐ Certified Check
Permit Action:	☐ Approved by Coun	cil 🗓 Disa	approved by Council	
Date of Action:				

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

1220 S. St. Francis Dr., Santa Fe, NM 87505

Oil Conservation Division 1220 South St. Francis Dr.

State of New Mexico
Energy Minerals and Natural Resources RECEIVED

Submit to appropriate District Office

Conservation Division

AMENDED REPORT

SURFACE CASING

APPL	ICATI	ON FO	R PERMIT	TO DI	RILL, RE-1	ENTE	R, DE	EPEN	N, PLUGBA	CK, OR	ADD	A ZONE
			Operator Name	and Addre	SS				14744	OGRID No	ımber	
			Mewbourne Of Po Box						20	API Num		
J Drong	-tr. Codo		Hobbs, NM		³ Property	Nome			1302 0	15- 3	५ ८ ३ ° Well N	
Prope	rty Code 240	169									wen r	NO.
	<u> </u>		Proposed Pool 1		Pecos Riv	er 20			10 Prop	osed Pool 2	<u> </u>	
	⁹ Proposed Pool 1 South Carlsbad Morrow								гюр	08CU F001 2		
					⁷ Surface	Locati	ion			ı		
UL or lot no.	Section	Township	Range	Lot I			North/Sc	outh line	Feet from the	East/West lin	ne	County
P	20	228	27E	86		8	S		990	E		Eddy
			No8 Prop	osed Bott	tom Hole Loca	ation If	Differer	nt From	Surface			
UL or lot no.	Section	Township	Range	Lot I	dn Feet fro	om the	North/Sc	outh line	Feet from the	East/West li	ne	County
	·	·		Ad	ditional We	ell Info	rmatic	on		<u> </u>		·····
	Type Code N		¹² Well Type Co G	de		e/Rotary R		14	Lease Type Code P	1:	⁵ Ground	Level Elevation 3128'
	fultiple No		¹⁷ Proposed Dep 12100	th	T	mation rrow			19 Contractor TBA			Spud Date ASAP
Depth to Grou		100 ves	= 20 pts		e from nearest fres in 1000 from all o			20 pts	Distance from	n nearest surfa e 10 pts	ace wate	T
· · · · · · · · · · · · · · · · · · ·	: Synthetic		nils thick Clay		lume: 24000_	bbls			Method: Producti			
Close	ed-Loop Sys	tem [Fre	esh Water	X Brine X Dies	el/Oil-hased	□ Gas	Air 🖂
	od Loop 5 75	WOID	21	Propos	ed Casing a	ınd Ce	ment I	rogra	m	or on bases	Gao	····
Hole S	Size	Ca	ising Size		g weight/foot		etting De		Sacks of Ce	ement	Es	stimated TOC
17 1/2	2"		13 3/8"		48# 400'			400		Surface		
12 1/2	4"		9 5/8"		40#		2100'		1000		Surface	
8 3/4		ļ	7"		26#	ļ	8900' 1500			Tie Back `		
6 1/8		1 =====================================	5"	in to DEE	18#	A CV riv	ive the data on the present productive zon				Tie Back	
			ogram, if any. Us				e ine data	on the p	resent productive 2	one and propo	osea ne	w productive zone.
BOP Program	n: 13 ¾" 2	k Hydril (s	ee Exhibit #2) fror	n surface c	asing to intermed	liate TD.	Schaffer	LWS or	equivalent (Double	-Ram Hydrau	ilic) 11"	5000# with
Hydril. (See	Exhibit #2/	A) from sur	face casing to tota	l depth. Re	otating head, PV?	r, flow m	onitors a	nd mud g	as Separator from	he Wolfcamp	to TD.	
Mud Program	n:							A6 I	COMPINAL OF	annnessa)	4 Des	IN CO. AL ACTION OF
	0' to 400	' Fres	h Water, spud mue	d, lime for l	PH and LCM as t	needed fo	r seepage					AILED CLOSURE PL
	400' to 21		e Water, lime for h h Water, lime for h			, 0			isi be apphove	D RFLOKE (RE MAY COMMENC
	2100' to 8 8900' to 3		n water, fille for i brine. 9.3 #/g, Ca				and LCM	as neede	d for seepage			
			•		•							
C:	~~ (6	Co 21-1	. d 0	•		T	ب لم .	l				
23 I hereby	rtify that th	e informati	on given above is	true and co	mplete to the	70 5	A Y	OH C	ONIGEDIA	מע זעטויי	дата	NAT
best of my kn	owledge an	id belief. I	lurther certify th	at the drill	ing pit will be		<i>M</i> V	OIL C	ONSERVAT	HON DIV	/181C	JIN
			O guidelines X, a	general pe	ermit 🔲, or an	Approv	ved by:		T	IM W. G	MUE	
(attached) al		appro	oved plan .	74					DISTRIC	TISU	PER	VISOR
Printed name	: Kristi Gre	en	THIT	gree		Title:		26	2005			
Title: Hobbs	Production			<i>V</i>		Approv	val Date:		E	xpiration Da	JUL	2 6 2006
E-mail Addre	ess:		condition of									
Date: 07/19/0	05	_	construction water seeps			nditi	ions of Ap	oproval A	tutoriou			PUD & TIME
		0, 1,	water sceps	in pies	artes				IU W	HINESS (JEM L	ENTING OF

construction the OCD MUST BE

CONTACTED IMMEDIATELY!

1625 N. Prench Dr., Hobbs, 491 68240 DISTRICT II 811 South First, Artesia, NM 88210

105 do Brazos Rd., Aztec, NM 87410

DISTRICT IV 2040 South Pacheco, Santa Fe, NM 87505

DISTRICT III

Energy, Minerals and Natural Resources Department

Revised March 17, 1999 instruction on back Submit to Appropriate District Office

State Lease - 4 Copies Fee Lease - 3 Copies

OIL CONSERVATION DIVISION P.O. Box 2088

Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

	API Number Pool Code Pool Name South Carlsba							Pool Name South Carlsbad Morrow					
Property Code			Property Name PECOS RIVER "20"						umber				
OGRID N 1474				Elevation 3128									
					Surface Loca	ation							
UL or lot No.	Section	Township	Range	Lot idn	Feet from the	North/South line	Feet from the	East/West line	County				
P	20	22S	27E		868	SOUTH	990	EAST	EDDY				

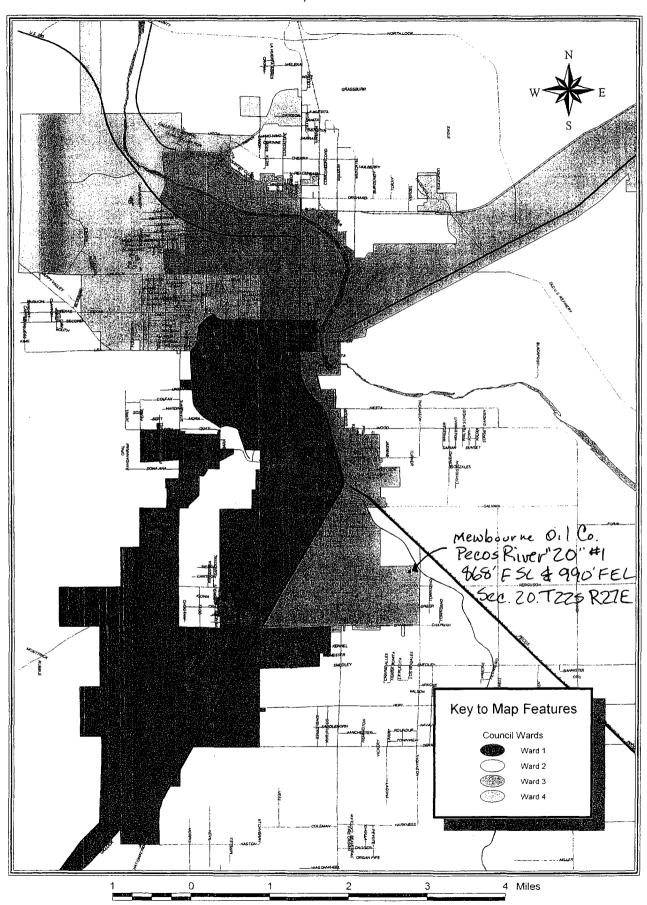
Bottom Hole Location If Different From Surface

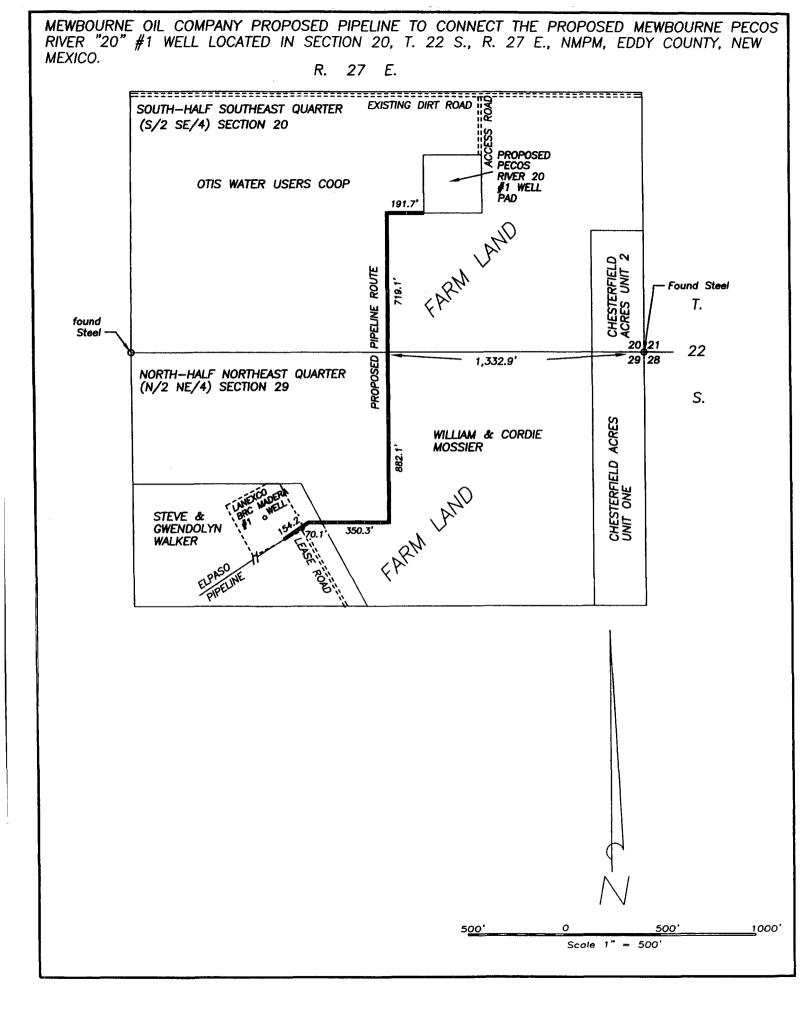
UL or lot No.	Section	Township	Range	Lot idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres	Joint o	or Infill C	onsolidation (Code Or	der No.	<u> </u>			<u>l</u>
320									

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

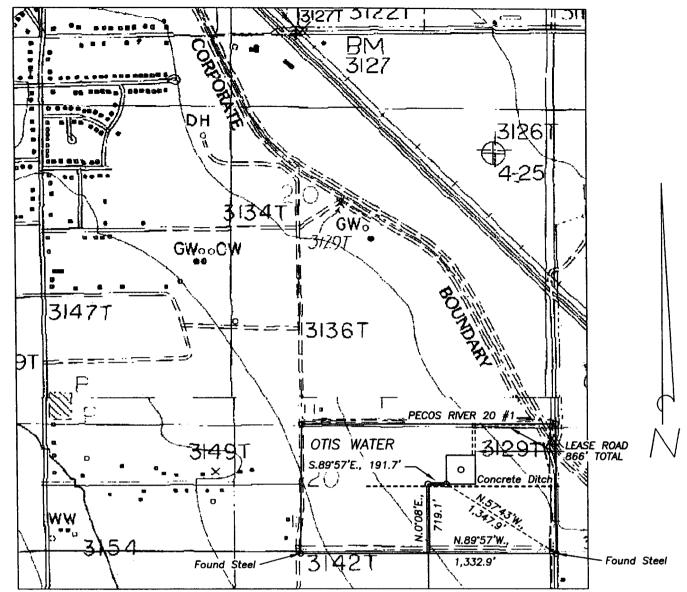
	OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and betief. Signature
	Kristi Green Printed Name Hobbs Regulatory Title 06/22/05 Date SURVEYOR CERTIFICATION
	I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervison, and that the same is true and correct to the best of my bettef. 6/07/2005 Date Surveyed
N.32°22'23.4" W.104°12'22.4" N.499455.1 E.539395.5 (NAD-27)	Signature & Sear of Professional States of Sta

COUNCIL WARDS Carlsbad, New Mexico





SECTION 20, TOWNSHIP 22 SOUTH, RANGE 27 EAST, NMPM, EDDY COUNTY, NEW MEXICO.

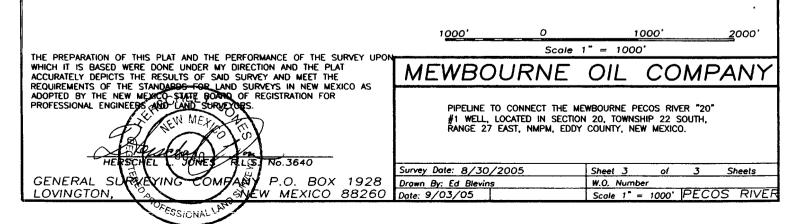


DESCRIPTION:

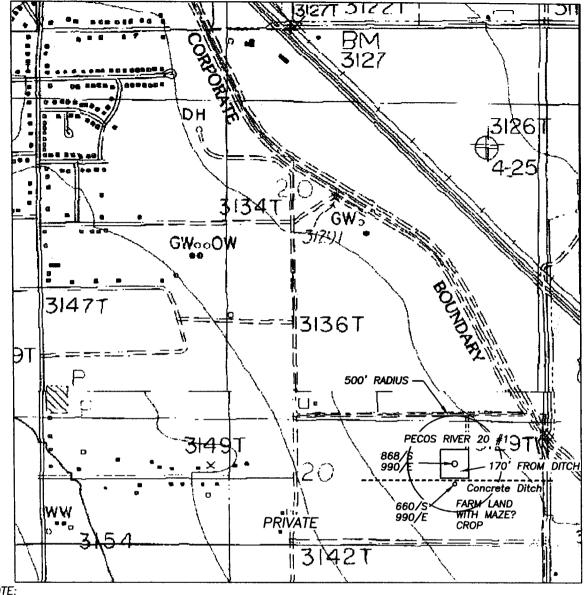
A PIPELINE RIGHT OF WAY 30 FEET WIDE, BEING 15 FEET TO THE LEFT AND RIGHT OF THE FOLLOWING DESCRIBED CENTERLINE AS SHOWN IN RED ON THIS PLAT.

BEGINNING AT A POINT LOCATED ON THE SOUTH SECTION LINE AND BEARING N.89°57'E., 1,332.9 FEET DISTANT FROM THE SOUTHEAST CORNER OF SECTION 20, TOWNSHIP 22 SOUTH, RANGE 27 EAST, NMPM, EDDY COUNTY, NEW MEXICO; THENCE N.0°08'E., 719.1 FEET; THENCE S.89°57'E., 191.7 FEET TO A POINT LOCATED N.57°43'W., 1,347.9 FEET DISTANT FROM THE SOUTHEAST CORNER OF SAID SECTION 20.

910.8 FEET = 55.2000 RODS, MORE OR LESS.



SECTION 20, TOWNSHIP 22 SOUTH, RANGE 27 EAST, NMPM, EDDY COUNTY, NEW MEXICO.



THIS LOCATION (PECOS RIVER 20 #1) FALLS IN FARM LAND AND THIS IS TO CERTIFY THAT THERE ARE NOT ANY HOUSES, BARNS OR DWELLINGS OF ANY KIND WITHIN A 500 FOOT RADIUS OF THE WELL CENTER HOLE.

<u>2</u>000' 1000 1000' Scale 1" = 1000' THE PREPARATION OF THIS PLAT AND THE PERFORMANCE OF THE SURVEY UPON WHICH IT IS BASED WERE DONE CHOPPENY DIRECTION AND THE PLAT ACCURATELY DEPICTS THE RESULTS OF SAID SURVEY AND MEET THE REQUIREMENTS OF THE STANDARDS OF REAL SURVEY IN NEW MEXICO AS ADOPTED BY THE NEW MEXICO STATE BOARD OF RESIDENTIATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS. **MEWBOURNE** COMPANY OIL LEASE ROAD TO ACCESS THE MEWBOURNE PECOS RIVER "20" #1 WELL, LOCATED IN SECTION 20, TOWNSHIP 22 SOUTH, RANGE 27 EAST, NMPM, EDDY COUNTY, NEW MEXICO. Survey Date: 6/06/2005 Sheet 1 Sheets GENERAL SURVEYING COMPAN P.O. BOX 1928 Drawn By: Ed Blevins W.O. Number LOVINGTON NEW MEXICO 88260 Scale 1" = 1000' PECOS RIVER Date: 6/06/05

8/22/2005 11:04:47 COUNTY OF EDDY 0254992 OTIS WATER USERS COOPERAT	IVE	0	Year 2009 Centr	UNITTENA 0 Livsk
Dist CI			Land	32715 Full
PO BOX 5069		0	Impr	10905 Txbl
CARLSBAD NM 88	2001 5060		P.P.	0 Exmpt
Rend% 0 BOOK 437 PG 1088	3221 5069	0	M.H.	10905 Net
Prop <u>4</u> <u>158</u> <u>130</u> <u>397</u> <u>461</u> Last (Cha by GAY	on	2004/05/24	at 8:10:53
House# 1/2 Street Name()	J 12 2000	Quad	Bldg# Apt	# TRIADICion
Loc- 4003 S THOMASON ROAD		~	J-	20030127
	ion 20			
Quarters NE NW SW	SE Y F4 on	Desc wi	11 prompts	and Imita In am
			TT PTOMPCS	SEC/TWS/RGE
PT OF S2SE, BEG SE COR, W 270' TO	2004/05/21 10	6:27:25	GAY	SEC/TWS/RGE UNITELEVA
POB, N 89 DEG 36' 42" W 2392.25', N	2004/05/21 10	6:27:25 6:27:25	GAY GAY	·
POB, N 89 DEG 36' 42" W 2392.25', N 0 DEG 2' 16" W 330.63', N 1 DEG 8'	2004/05/21 10 2004/05/21 10	6:27:25 6:27:25 6:27:25	GAY GAY GAY	UNITELEVA
POB, N 89 DEG 36' 42" W 2392.25', N 0 DEG 2' 16" W 330.63', N 1 DEG 8' 7" E 1001.83', S 89 DEG 55' 4" E	2004/05/21 10 2004/05/21 10 2004/05/21 10	6:27:25 6:27:25 6:27:25 6:27:25	GAY GAY GAY GAY	UNITELEVA UNITELEVA
POB, N 89 DEG 36' 42" W 2392.25', N 0 DEG 2' 16" W 330.63', N 1 DEG 8' 7" E 1001.83', S 89 DEG 55' 4" E 2651.85', S 0 DEG 24' 20" W 718', N	2004/05/21 10 2004/05/21 10 2004/05/21 10 2004/05/21 10	6:27:25 6:27:25 6:27:25 6:27:25 6:27:25	GAY GAY GAY GAY GAY	UNITELEVA UNITELEVA UNITELEVA
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POB, N 89 DEG 36' 42" W 2392.25', N 0 DEG 2' 16" W 330.63', N 1 DEG 8' 7" E 1001.83', S 89 DEG 55' 4" E 2651.85', S 0 DEG 24' 20" W 718', N 89 DEG 36' 42" W 270', S 0 DEG 24' 20" W 630' TO POB	2004/05/21 10 2004/05/21 10 2004/05/21 10 2004/05/21 10 2004/05/21 10 2004/05/21 10	6:27:25 6:27:25 6:27:25 6:27:25 6:27:25 6:27:25 6:27:25	GAY GAY GAY GAY GAY GAY GAY	UNITELEVA UNITELEVA UNITELEVA UNITELEVA UNITELEVA
POB, N 89 DEG 36' 42" W 2392.25', N 0 DEG 2' 16" W 330.63', N 1 DEG 8' 7" E 1001.83', S 89 DEG 55' 4" E 2651.85', S 0 DEG 24' 20" W 718', N 89 DEG 36' 42" W 270', S 0 DEG 24'	2004/05/21 10 2004/05/21 10 2004/05/21 10 2004/05/21 10 2004/05/21 10 2004/05/21 10	6:27:25 6:27:25 6:27:25 6:27:25 6:27:25 6:27:25 6:27:25	GAY GAY GAY GAY GAY GAY GAY	UNITELEVA UNITELEVA UNITELEVA UNITELEVA UNITELEVA UNITELEVA

F1=Update F4=Prompt F5=Insert F7=Ownr Info F8=Values F9=Prop Info F10=Appraisal F3=Cancel F12=Return

8/18/2005 11:05:01 COUNTY OF EDDY Year 2005 UNITSIXC 0256985 Dist CI NonRend% 0 0 Centrl 256098 Full WALKER, STEVE M & GWENDOLYN (JT) FinCo 27267 Land 85366 Txbl 228831 Impr 5500 Exmpt 505-302-0 P.P. PO BOX 2343 0 M.H. 79866 Net 77 88221 2343 CARLSBAD 0 Livstk

Quantity Property Description Code ValueDesc Rate 4 158 131 173 099 131 CROP/FARM 49.27 420.00 010 CSWCD BOOK 309 PG 844 6898 WALKER TRACTS NO 2 TRACT 1A MAP# 271A-W-1A CAB# 3 163-1 LOC W OF 4210 OLD CAVERN HWY ODD SHAPE TRACT

Bottom

Print=Y

FulT

20694

F3=Cancel F4=Prompt() F6=Chg Yrs F12=Return

8/18/2005 11:12:29 C 0258051 Dist CI MOSSIER, WILLIAM N & C	CORDIE I	NonRend9 FinCo		1937 <u>4</u> 0	Centrl Land Impr	6458	Full
302 VALLEY VIEW CARLSBAD N	885- 4 IM 88220	4632		0	P.P. M.H. Livstk	6458	Net
Pos to() Property Description 4 000 130 454 001 4000 THOMASON ROAD BOOK 328 PG 1019 SECTION-29 TOWNSHIP-2 BEG 270'W OF NE COR,S W 1308.54' TO N LINE C ACRES SUBD,W 1171.5',N W 1496.43 TO N SEC LIN 03" E 1888.74' TO POB MAP#271A-2.1	22S RANGI 00 DEG 1! CHESTERFII 1 27 DEG !	131 010 E-27E 5'23" ELD 59'23	ValueDesc CROP/FARM CSWCD				nt=Y FulT 19374
LOC OFF 4000 THOMASON F3=Cancel F4=Prompt()		Yrs F12=1	N/R	-Value	es Full es Taxak es Net	ole	19374 6458 6458 ottom

Well Design Summary

Mewbourne Oil Company Pecos River "20" #1

Surface Interval

Hole Size: 17 ½"

Depth: ± 400' TVD

Casing Size: 13 3/8", 48#, H-40, ST&C Mud Design: Fresh/Native/Spud Mud

Drilling Parameters:

Notify NMOCD prior to spudding well and in sufficient time to witness cementing of surface pipe. Bottom hole stabilization should be used to minimize deviation. A shock sub is recommended. Seepage should be controlled with paper and multi-seal sweeps. Total loss of circulation should not be encountered in this interval. After drilling to 400+' TVD, pump heavy LCM sweep and circulate ½ hour. A wiper trip is recommended if excessive drag is noticed.

Casing:

Run 13 %" casing with Texas Pattern guide shoe and an insert float in the top of the first joint. Thread-lock guide shoe and 2 joints together. Centralizers go in the middle of first joint, on the second coupling, and the fourth coupling.

Cement:

After casing is on bottom, displace casing volume with rig pump. RU cementers and cement as per attached recommendation. If cement does not circulate, refer to Contingency 399-1. If cement does circulate, WOC 4 hours before cutting off and NU Annular BOP. WOC for 18 hours as required by NMOCD and test casing to 1250 psig prior to drilling out shoe joint.

Potential Problems:

- Major fluid losses or total loss of returns should not be encountered in this interval. If returns are lost and cannot be regained with conventional LCM pills, dry drill to casing point. Cementing program should be revised if dry-drilled to include a Frac Gel sweep and 180 sacks of thixotropic Class "H" cement.
- > Failure of primary cementing of casing. See Contingency 399-1

Well Design Summary

Mewbourne Oil Company Pecos River "20" #1

Intermediate Interval

Hole Size: 12 1/4 "

Depth: ±2100' TVD

Casing Size: 9 5/8", 40#, K-55 / N-80, ST&C

Mud Design: 10# Brine

Drilling Parameters:

H₂S monitors and related safety equipment should be in operation by 1000' or prior to drilling the Yates formation. Bottom hole stabilization should be used to minimize hole deviation and aid hole cleaning. A shock sub is necessary for drilling this interval. Brine will be used and should be kept clean and free of drilled solids by circulating the inner reserve pit. Chloride content should be maintained at 170-190K ppm throughout entire interval. Periodic salt gel/LCM sweeps will aid in removal of cuttings and seepage encountered. Partial to total loss of returns is possible in this interval.

Casing:

A fluid caliper should be run 100-200' prior to TD to calculate cement volume <u>required to circulate</u> cement to surface. Upon reaching C.P., a sweep and at least one bottoms-up of circulation time must be realized. Run a float shoe, one shoe joint, and a float collar. Strap weld the bottom 6 joints and float equipment. Run centralizers/turbolizers in the middle of the 1st joint, middle of the third, and then alternate every other collar for a total of 5 centralizers and 5 turbolizers. Fill casing with drilling fluid every 30 joints or less as needed.

Cement:

Notify NMOCD prior to cementing casing and testing BOP.

After casing is on bottom, displace casing volume with rig pump. RU cementers and cement as per attached recommendation. Cement volume should be adjusted after running of fluid caliper. If cement does not circulate, refer to Contingency 399-3. If cement does circulate, NU 5000# BOP, testing with a third party, and WOC 18 hrs before drilling out. Test casing to 1500 psig prior to drilling shoe. A formation integrity test must be run after drilling no more than 50' of new formation to 11 ppg EMW.

Potential Problems:

- ➤ Loss of Returns Partial or total loss of returns could occur throughout this interval. If returns fall below 25% of pumped volumes, see Contingency 399-4. Partial returns can be resolved with regular viscous/LCM sweeps.
- > If excessive drag is noted, ream back to bottom prior to running casing.
- > Offset wells in the immediate vicinity recorded severe deviation of up to 4 3/4° from between 600' and 2100'.

Well Design Summary

Mewbourne Oil Company Pecos River "20" #1

Production Interval

Hole Size:

6 1/8"

Depth:

± 12.200' TVD

Casing Size:

5", 18#, HCP-110, ULTSJ, LT&C

Mud Design:

From C.P. to TD

Upon drill out and completion of successful EMW test,

increase mud weight as directed per company

representative. Mud properties will be adjusted as per mud

recommendation or as hole dictates.

Drilling Parameters:

Bottom hole stabilization is recommended to ensure minimization of deviation and optimize penetration rate. At possible test intervals or before logging, mud properties may be adjusted to compensate for hole conditions. Sufficient circulating time to allow proper hole cleaning should reduce the potential for fill on bottom. If DST is deemed necessary,

refer to Contingency 399-7.

Casing:

If 5" casing is deemed necessary, a float shoe, 1 or 2 joints, and a float collar should be thread locked. Double-bow tandem rise centralizers/ double-bow spring turbolizers should be placed 15' above the shoe, top of the 2nd joint, then every third connection for a total of 15. Casing should be filled every 50 joints or as needed. Circulate only as much as necessary on fill-ups. Upon reaching TD with casing,

circulate bottoms up prior to cementing.

Cement:

Cement volumes and types to be determined upon review of

caliper logs and stimulation requirements.

Potential Problems:

- Weekly BOP drills will be conducted and recorded on the IADC sheet on all crews. Slow pump rates will be conducted and recorded by one tour daily.
- Monitor steel pits for an hour each tour and record any losses. Each driller should note time to break circulation after connections and survey.
- Company Representative and Toolpusher required on location at all times during this interval until rig release as per City Ordinance 2004 -17 Chapter 34 Sec. 34-64 b.

Interval: Surface

Operation: Failed primary cement job due to loss of circulation

- 1. Notify district office of OCD or BLM of intention to run temperature survey to determine the top of cement.
- 2. Wait for six hours for cement to cure prior to running temperature survey.
- 3. RU slickline unit and run temperature survey to determine top of cement.
- 4. PU 1" string of flush joint pipe with mule shoe on bottom and run in hole to tag top of cement.
- 5. Pump sufficient volume of fresh water through string to assure pipe is clear. Mix 25 sacks of Class "C" cement with 4% CaCl and pump through 1" tubing. Mix CaCl in neat cement "on the fly."
- 6. Pull 1" tubing out of hole and WOC for two hours.
- 7. TIH with 1" to tag cement. If distance to cement has not decreased, repeat steps #5 and #6. If distance has decreased, repeat step #5 and #6 increasing to 50 sacks of Class "C" cement. After two plugs, dump 50-70 buckets of pea gravel down annulus. (Approval required)
- 8. TIH with 1" pipe and tag cement. If distance has decreased, attempt to fill annulus with fresh water, noting volume to fill. From observed volume, calculate cement needed to fill annular void.
- 9. Pump sufficient Class "C" cement with 4% CaCl to fill annulus.

Interval: Surface

Operation: Stuck pipe due to loss of circulation

- 1. If unable to establish circulation, pull bit and lay down stabilizers and run "slick."
- Resume drilling dry. If required aerate fluid with 1000 SCFM air and 4 BPM fluid.
- 3. If pipe sticks, work pipe to maximum safe limits.
- 4. Run free point survey and back-off drill string 30+' and stuck point.
- 5. PU screw-in sub with bumper sub and jars. Screw back in to drill string and activate jars to free stuck pipe. LD any section of drill string that has been subjected to explosives.
- 6. If unable to jar loose, or if more than one collar is stuck, increase viscosity of mud system to 35 sec/qt and increase LCM to 7 lb/bbl.
- 7. PU rotary shoe and four joints of wash pipe. Run jars above wash pipe.
- 8. Wash over drill string and spot viscous mud on bottom. TOH with wash pipe.
- 9. PU screw-in sub with bumper sub and jars. Screw back in to drill string and activate jars to free stuck pipe. Do not use rotary table to break out connections. LD fishing tools plus any section of drill string that has been subjected to explosives.
- 10. TIH "slick" and resume drilling.

Interval: Intermediate

Operation: Failed primary cement job due to loss of circulation

- 1. Notify district office of OCD or BLM of intention to run temperature survey to determine the top of cement.
- 2. Wait for six hours for cement to cure prior to running temperature survey.
- 3. RU slickline unit and run temperature survey to determine top of cement.
- 4. PU 1" string of flush joint pipe with mule shoe on bottom and run in hole to tag top of cement.
- 5. Pump sufficient volume of fresh water through string to assure pipe is clear. Mix 25 sacks of Class "C" cement with 4% CaCl and pump through 1" tubing. Mix CaCl in neat cement "on the fly."
- 6. Pull 1" tubing out of hole and WOC for two hours.
- 7. TIH with 1" to tag cement. If distance to cement has not decreased, repeat steps #5 and #6. If distance has decreased, repeat step #5 and #6 increasing to 50 sacks of Class "C" cement.
- 8. TIH with 1" pipe and tag cement. If distance has decreased, attempt to fill annulus with fresh water, noting volume to fill. From observed volume, calculate cement needed to fill annular void.
- 9. Pump sufficient Class "C" cement with 4% CaCl to fill annulus.

Interval: Intermediate

Operation: Loss of circulation (in excess of 25%)

- 1. MI and RU air compressor units.
- 2. Decrease pump speed to 5 bpm and bring air compressors on-line at 500 SCFM.
- 3. If circulation is established with aerated fluid, adjust air to maintain fluid level in pit.
- 4. Add inhibitor to aerated fluid to prevent corrosion of tubulars.
- Watch for excessive drag or torque. Pump viscous sweeps with LCM periodically to maximize lifting of cuttings and minimize seepage. Increase air volume if necessary to effectively lift cuttings.
- 6. Circulate a minimum of 1 hour at TD of interval while pumping sweeps to clean the hole.
- 7. Spot viscous pill containing LCM prior to TOH to run casing.

Air Package Specifications

- 1500 psi WP two-stage booster compressor
- 3 850 SCFM air compressors with 250 psi WP
- Mist pump with mixing pit
- Chemical injection pumps
- Two operators for 24 hour service
- System capacity 2350 SCFM at 1200 psi WP

Daily supplemental cost while air package is in service: \$5,600

Interval: Intermediate

Operation: Stuck pipe due to loss of circulation

- 1. If unable to establish circulation, pull bit and lay down stabilizers and run "slick."
- Resume drilling dry. If required aerate fluid with 1000 SCFM air and 4 BPM fluid.
- 3. If pipe sticks, work pipe to maximum safe limits.
- 4. Run free point survey and back-off drill string 30+' and stuck point.
- 5. PU screw-in sub with bumper sub and jars. Screw back in to drill string and activate jars to free stuck pipe. LD any section of drill string that has been subjected to explosives.
- 6. If unable to jar loose, or if more than one collar is stuck, increase viscosity of mud system to 35 sec/qt and increase LCM to 7 lb/bbl.
- 7. PU rotary shoe and four joints of wash pipe. Run jars above wash pipe.
- 8. Wash over drill string and spot viscous mud on bottom. TOH with wash pipe.
- 9. PU screw-in sub with bumper sub and jars. Screw back in to drill string and activate jars to free stuck pipe. Do not use rotary table to break out connections. LD fishing tools plus any section of drill string that has been subjected to explosives.
- 10. TIH "slick" and resume drilling.

Interval: Intermediate

Operation: Failed primary cement job due to void in wellbore

- 1. Notify district office of OCD or BLM of intention to run temperature survey to determine the top of cement.
- 2. Wait for six hours for cement to cure prior to running temperature survey.
- 3. RU slickline unit and run temperature survey to determine top of cement.
- 4. PU 1" string of flush joint pipe with mule shoe on bottom and run in hole to tag top of cement.
- 5. Pump sufficient volume of fresh water through string to assure pipe is clear. Mix 25 sacks of Class "C" cement with 4% CaCl and pump through 1" tubing. Mix CaCl in neat cement "on the fly."
- 6. Pull 1" tubing out of hole and WOC for two hours.
- 7. TIH with 1" to tag cement. If depth to top of cement continues to decrease, proceed to step #12.
- 8. If depth to top of cement does not decrease, pick up second string of 1" FJ tubing and run both strings to top of cement. Pump through both strings to assure pipe is clear. Pump 500 gallons of Flocheck down one string while spotting 50 sacks of Class "C" cement with 4% CaCl down the second string. Pull both strings as quickly as possible to avoid sticking.
- 9. WOC for two hours. TIH with 1" pipe and tag top of cement. If the top of cement has not decreased, pull tubing out of the hole and proceed to step #10. If the depth to the top of cement has decreased, proceed to step #12.
- 10. Dump four yards of pea gravel down annulus.
- 11. Return to step #5
- 12. If depth to top of cement continues to decrease, continue spotting 25 sack plugs of Class "C" cement with 4% CaCl until annulus will sustain a column of fresh water.

13. TIH with 1" tubing and tag top of cement. Calculate annular volume and sufficient cement to circulate to surface.

Interval: Production

Operation: Drill Stem Test

- 1. Drill through test interval. Check for gain in pit volume.
- Circulate and condition mud for sufficient weight and viscosity of +35 sec/qt.
- 3. Circulate bottoms up and evaluate cuttings for drill stem test. Make short trip and check bottom for fill. Check for flow prior to pulling bit.
- 4. Select setting depth for packers and pull out of hole.
- 5. Test tank and flow lines should be installed prior to anticipated test interval. Check flow lines for integrity and security. Check test tank for mechanical integrity and location. Test tank should be located in a safe position for winds and potential ignition sources. Determine maximum desirable drill pipe pressure in the event of tool closure prematurely. Determine applicable required water cushion.
- 6. Pick up test tools as follows:
 - Anchor length to be determined by desired test interval.
 - Perforated subs minimum length of three feet.
 - Sample chamber
 - Tandem (2) packers
 - Jars
 - Bypass sub
 - Metering sub
 - Circulating sub
 - Minimum of two pressure recorders (top and bottom)
- 7. Set packers and open tool. Conduct standard test unless conditions dictate otherwise. Evaluate during test for additional test duration.
 - 30 minute initial flow period
 - 60 minute initial shut in period
 - 60 minute final flow period
 - 120 minute final shut in period

- 8. Test through choke to pit or flow to tank as conditions dictate. All liquid hydrocarbons should be diverted to test tank. Shut tools if maximum drill pipe pressure is reached during flow period. Observe annulus drop for indications of packer failure.
- 9. Release packers and pull tools out of hole. If formation fluid is observed or indicated within drill string, drop bar and reverse fluid to test tank.
- 10. Lay down test tools and evaluate data. Initial reports should be forwarded as soon as available to Hobbs, Tyler, and Midland offices for distribution.
- 11. Resume drilling operations.

Interval: Production

Operation: Differential sticking due to excessive seepage

- 1. If drill string becomes stuck due to excessive seepage, pull to maximum safe strength of drill pipe and continue circulating.
- 2. Pump 30 bbls viscous sweep and continue circulating while working drill string.
- 3. Spot 50 bbls of oil around bottom hole assembly. Shut pumps down and allow oil to soak for a minimum of 4 hours. Resume working pipe.
- 4. If string is not free, run free point survey. Back off drill string one connection above stuck point and pull remaining pipe.
- 5. PU shoe, wash pipe, and jars. TIH to wash over drill string until free. Pull wash pipe out of hole.
- 6. PU screw in sub, jars, and bumper sub. Screw into fish and retrieve from well.
- 7. LD fishing tools. LD any section of drill string exposed to explosive charges.
- 8. Resume drilling while increasing LCM in mud system to control further seepage.

Interval: Production

Operation: Influx of formation fluids into wellbore (kick)

- Observe pit volume for gain. If pit gain is noted, immediately pick up Kelly and check for flow from annulus. Notify supervisory personnel immediately.
- 2. If flow is noted, shut Kelly valve and blow out preventers and record stabilized pressures on the drill pipe and annulus.
- 3. Fill out kill sheet. Sample kill sheet is provided with this prognosis.
- If annular pressure exceeds 80% of burst pressure of intermediate casing, reduce pressure on annulus by flowing through choke. If possible, avoid putting liquid hydrocarbons in mud pits or reserve pits.
 - Rated burst pressure of 8 %" 32# J-55 casing is 3930 psig. Maximum allowable @ 80% is 3150 psig.
 - Rated burst pressure of 9 %" 36# J-55 casing is 3520 psig. Maximum allowable @ 80% is 2800 psig.
 - For other sizes, grades, and weights of casing, check dimensions and strengths of API casing.
- Circulate weighted mud down drill pipe while holding back pressure on annulus according to kill sheet calculations. Monitor mud weight returning to surface and adjust accordingly. Mud weight should exceed BHP mud weight equivalent by 0.5 ppg.
- 6. When returning mud weight is equal to mud weight being pumped, check well for flow.
- 7. If flow is not observed, resume drilling.
- 8. Continue checking for flow on each connection.
- 9. Upon reaching TD, tripping, or test point, circulate for two full circulations and spot a weighted pill on bottom.

	Surface Straight Hole pg 1 of 3 2202 Oil Center Court Houston, Texes USA 77073 Phone: 281.784.4700 E-mail: wildwell@wildtwell.com @Wild Well Control, Inc. 2004	Tour Notes		Complete Killshreete Active of Complete Complete Science of Complet
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Interval: Production

Operation: Loss of circulation

- 1. Pull drill string into intermediate casing.
- 2. Build mud volume and condition mud with LCM. Pump mud down drill string until circulation is established.
- 3. Resume drilling with "slick" bottom hole assembly. Maintain LCM in mud to control seepage.

MEWBOURNE OIL COMPANY WEST TEXAS - NEW MEXICO GEOLOGIC PROGNOSIS

WELL NAME: Pecos River *20" NO: 1 API:							DATE:	August 16, 2005	5
DOCATION: 868' FSL & 990' FEL, Section 20, T228, R27E							BY:	Mike Burke	
DOCATION: 868' FSL & 990' FEL, Section 20, T228, R27E									
PROSPECT/FIELD: South Carlebad COUNTY: Eddy					NO:	1	_API:		
PTD: 12,000									
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SECONDARY Middle Morrow Orange Sand 11,401 150 acres 10-15 G							-		
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SECONDARY Delaware Cherry Canyon 3250 40 acres 25-50 0								·····	
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MM Blue Sand 11,495 -8350 MM Green Sand 11,545 -8400 Lower Morrow 11,645 -8500 LM Yellow Sand 11,699 -8554 LM Brown Sand 11,731 -8586 Barnett 11,787 -8642 TD 11,937 -8792 MUD LOGGING: SERVICE COMPANY: Morco Geological Services COST: UNIT ON AT: 1900 EST. DAYS: 20 OPEN HOLE LOGGING: SERVICE COMPANY: Baker Hughes 1. Compensated Density- Neutron Gamma Ray 2. Dual Laterolog-Microlaterolog INTERVAL: Casing to TD/GR Neutron to surface INTERVAL: Casing to TD 3. RFT INTERVAL: As needed REMARKS: 1. Possible high pressure in Wolfcamp.	MM Oran	ge Sand	11,401	-8256					
MM Green Sand			11,451	-8306					
Lower Morrow LM Yellow Sand LM Orange Sand LM Orange Sand LM Brown Sand 11,699 -6554 LM Brown Sand 11,731 -8586 Bamett 11,787 -8842 TD 11,937 -6792 MUD LOGGING: SERVICE COMPANY: Worco Geological Services COST: UNIT ON AT: 1900 EST. DAYS: 20 OPEN HOLE LOGGING: SERVICE COMPANY: Baker Hughes 1. Compensated Density- Neutron Gamma Ray 2. Dual Laterolog-Microlaterolog 3. RFT INTERVAL: INTERVAL: Casing to TD/GR Neutron to surface INTERVAL: Casing to TD INTERVAL: As needed			11,495	-8350					
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REMARKS:		- Olog-Microl	aterolog						
Possible high pressure in Wolfcamp.					INTERVAL	: As neede	2 0		
		n nroneuma :	n Wolfname						

MOC PROJECTED TOPS & STRUCTURAL RELATIONSHIPS

	MOC Pecos River "20" #1					Black River Corp. BRC - Madera #1				
	20-G 3141		9-P					29-B		
KB			3145				316	52		
			Anticip	ated	E	ncounte	red			
	MD	SS	MD	55	MD	88	THICK	MD	SS	
Top Salt	500	2641	584	2562				667	2495	
Base Salt	1827	1314	1844	1301				1861	1301	
Lamar Limestone	1869	12 7 2	1888	1258		<u> </u>		1906	1256	
Delaware	2040	1101	2044	1101		<u> </u>		2048	1114	
Bone Spring	5317	-2176	5330	-2185			<u> </u>	5343	-2181	
1st Sand	6358	-3217	6357	-3212				6356	-3194	
2nd Sand	6990	-3849	6991	-3846		ļ		6992	-3830	
3rd Sand	8432	-5291	8469	-5324				8506	-5344	
Wolfcamp	8756	<u>-5615</u>	8781	-5636				8805	-5643	
Pay	9518	-6377	9560	-6415				9602	-6440	
Strawn	10,107	-6966	10154	-7009				10,201	-7039	
Atoka	10,506	-7365	10541	-7396				10,575	-7413	
Atoka Shale	10,656	-7515	10692	-7547				10,728	-7566	
Atoka Sand	10,688	-7547	10721	-7576				10,753	-7591	
Atoka Carbonate	10,812	-7671	10848	-7703				10,884	-7722	
Morrow Carbonate	10,988	-7847	11027	-7882				11,065	-7903	
Morrow "A" Carbonate	11,207	-8066	11251	-8106				11,294	-8132	
Upper Morrow Sand	11,288	-8147	11334	-8189				11,380	-8218	
Middle Morrow Carbonate	11,314	-817 3	11366	-8221				11,417	-8255	
MM Orange Sand	11,356	- 82 15	11401	-8256				11,445	-8283	
MM Pink Sand	11,408	-8267	11451	-8306				11,493	-8331	
MM Blue Sand	11,459	-8318	11495	-8350				11,530	-8368	
MM Green Sand	11,500	-8359	11545	-8400				11,590	-8428	
Lower Morrow	11,596	-8455	11645	-8500				11,694	-8532	
LM Yellow Sand	11,596	-8455	11645	-8500				11,694	-8532	
LM Orange Sand	11,648	-8507	11699	-8554				11,750	-8588	
LM Brown Sand	11,681	-8540	11731	-8586				11,780	-8618	
Barnett	11739	-8598	11787	-8642				11,835	-8673	
TD	11,782	8641	11937	-8792				11,850	8688	

Mewbourne Oil Company Pecos River "20" #1

Anticipated Water Aquifers and Oil and/or Gas Zones

Conductor: 40' cemented w/ Redimix to surface

Water Aquifers: Researched top to be between 50' and 75'

See report from New Mexico Office of State Engineer next page

Potential Oil and/or Gas Zones:

Bone Springs

1st Sand 6356' 2nd Sand 6992' 3rd Sand 8506'

Wolfcamp

Pay 9602'

Atoka

Sand 10753'

Morrow

Main objective 11380' – TD

New Mexico Office of the State Engineer Well Reports and Downloads

Township: 228 Rang	e: 27E Sections: 20						
NAD27 X: Y:	Zone: Searc	ch Radius:					
County: Basin:	▼ Number:	Suffix:					
Owner Name: (First)	Owner Name: (First) (Last) C Non-Domestic C Domestic						
Well / Surface Data Report	Avg Depth to Water Report	Water Column Report					
Clea	r Form WATERS Menu Help						

AVERAGE DEPTH OF WATER REPORT 10/12/2005

								(peben	Macer III	reec
Bsn	Tws	Rng	Sec	Zone	x	Y	Wells	Min	Max	Avg
C	22S	27E	20				8	50	95	69

Record Count: 8

Recommended Drilling Fluids Program

Mewbourne Oil Company * Pecos River "20" Fee # 1 * Sec 20, T-22-S, R-27-E, Eddy,

General Geological Data

Tops/Bases	Formation	Lithology	Notes/Challenges
0' - 220'	Quaternary	Sand	Seepage, caving
220' - 260'	Dewey Lake	Red sandstone	Seepage
260' - 400'	U. Rustler	Dolomitic anhydrite	Marker betw. FW sands & salt
400' - 500'	U. Rustler	Dolomitic anhydrite	Marker betw. FW sands & salt
500' - 650'	L. Rustler	Anhydritic dolomite	
650' - 1,320'	Salado	Salt, anhydrite & dolomite stringers	Dissolution, hole enlargement
1,320' - 1,820'	Capitan Reef	Limestone	Vugular, fractured, heavy seepage, lost circulation
1,820' - 1,860'	Lamar	Limestone	Top of Delaware Mt. Group
1,860' - 2,100'			Top or Document Mic Group
2,100' - 2,750'		Limestone	
2,750' - 3,820'	Cherry Canyon	Shaly calcareous sand	
3,820' - 5,300'	Brushy Canyon	Shaly sand	
5,300' - 8,400'	Bone Spring	Limestone	seepage, lost circ.
8,400' - 8,500'	Dean	Shaly sand	
9,000' - 9,800'	Wolfcamp	Cherty limestone	
9,800' - 10,210'	Cisco/Canyon	Limey shale	
10,210' - 10,800'	Strawn	Shaly limestone	Poss. gas kick
10,800' - 11,050'	Atoka	Sandy shale, mostly shale	Poss. gas kick
	Lower Atoka Lime	Limestone	Poss. gas kick
11,400' - 11,600'	Morrow Clastics	Shaly calcareous sand	Poss. underpressured, seepage, lost circulation
11,475' - 11,725'		Shaly calcareous sand	Poss. underpressured, seepage, lost circulation
11,725' - 12,200'	Lower Morrow	Cherty limestone	TD

Recommended Drilling Fluids Program

Mewbourne Oil Company * Pecos River "20" Fee # 1 * Sec 20, T-22-S, R-27-B. Eddy,

		Projected	Mud Properties		1 12 -
INTERVAL: 0 - 40	00	17.5" hole		13.375" csg	
Depth	Mud WL - ppg	Viscosity	Filtrate	pН	Solids - % by vol
0' - 400'	8.9-9.6	32-34	NC	7-9	3-8
INTERVAL: 400 -	2,100	12.25" hole		9.625" csg	
Depth	Mud Wt ppg	Viscosity	Filtrate	pli	Chlorides - ppm
400' - 2,100'	10.0	28	N/C	10.0	186k
INTERVAL: 2,100	- 8,900	8.75" hole		7'' csg	
Depth	Mud Wt ppg	Viscosity	Filtrate	pii	Chlorides - ppm
2,100' - 8,900'	8.4-9.3	28	N/C	10.0	3-80K
INTERVAL: 8,900	- 12,200	6.125" hole		5" csg	
Depth	Mud Wt ppg	Viscosity	Filtrate	pH	Chlorides - ppm
8,900' - 9,800'	10.0	28	N/C	10.0	186K
9,600' - 10,200'	10.0-10.4	28-30	NC	10.0	195K
10,200' - 10,800'	10.4-11.0	36-38	8cc	10.0	195K
10,800' - 12,200'	11.0-12.0	38-42	6cc	10.0	195K

Mewbourne Oil Company * Pocos River "20" Fee # 1 * Sec 20, T-22-S, R-27-E, Eddy,

INTERVAL: 0 - 40	0 1	17.5" hole	1 days 13,37	75" csg		l drill bits	
Product	Function		Treatment	Unit Size	Usage	Unit Price	Total Price
Bentonite	Viscosifier		10-15 ppb	100#	"סל	\$5.91	\$413,70
Cedar Fiber/Fiber Plug	LCM, sealant		6-10 ppb in sweeps	40#	30	\$4.85	\$145.50
Ground Paper	Seepage and sw	reeps	1-3 sacks per 100 feet	40#	40	\$6.80	\$272.00
Lime	pH additive and	flocculant	1 sack per 15 sacks of bentonite	50#	10	\$4,12	\$41,20
Maxi-Seal/Fiber Seal/Chem Seal	LCM, sealant		6-10 ppb in sweeps	40#	30	\$9.24	\$277.20
Plastic	Storage aid		Cover mud	1 roll	1	\$37.50	\$37,50
					Inte	rvoi Total	\$4 197 10

Projected Mud Properties

Depth	Mud Wt ppg	Viscosity	Filtrate	pН	Solids - % by vol.
0" - 400"	8.9-9.6	32-34	N/C	7-9	3-8

General Geological Data

Tops/Rases	Formation	Lithology	Notes/Challenges
0 - 220	Quaternary	Sand	Seepage, caving
220 - 260	Dewey Lake	Red sandstone	Seepage
260' - 400'	U. Rustler	Dolomitic anhydrite	Marker betw. FW sands & salt

Interval Notes for 0 - 400

Drill surface with a Fresh Water spud mud. Maintain the viscosity as needed to clean the large diameter hole. Add small amounts of Lime to flocculate the Bentonite for better carrying capacity. Periodically sweep the hole with Ground Paper to control seepage and to aid in hole cleaning. If severe lost circulation is encountered dry drill to total depth running periodic hole sweeps consisting of Bentonite for 50-60 viscosity with 10-20 ppb of various fibrous LCM's. Run Fresh Water as necessary to control weight and volume. We suggest sweeping the hole at total depth with a viscous (50-60) Fresh Water Gel pill (40-50bbl) prior to tripping out of hole to run casing.

Mewbourne Oil Company * Pecos River "20" Fee # 1 * Sec 20, T-22-S, R-27-E, Eddy,

INTERVAL: 400 -	2,100	12.25" hole	4 days	9.625" csg		l drill bits	
Product	Function		Treatment	Unit Size	lisage	Unit Price	Total Price
Ground Paper	Seepage and	sweeps	1-3 sacks per 100 feet	40#	20	\$8.80	\$136.00
Lime	pH additive		,5-,75 ppb	50#	30	\$4,12	\$123.60
MF-55/MaPlus(non-ionic)	Flocoulant		1 qt in 50 gal water every 4	hr. 5 gal.	1	\$82.65	\$82.65
Salt Gel	Viscosifier		12-14 ppb in sweeps	50#	40	\$7.23	\$289.20
		v · z. z-			int	erval Total:	\$631.45

Projected Mud Properties

1	Depth	Mud Wt, - ppg		Filtrate	pli	Chlorides - ppm
	400 - 2,100	10.0	28	N/C	10.0	186k

General Geological Data

Top	eseall/eq	Formation.	Lithology	Notes/Challenges
	400' - 500'	U. Rustler	Dolomitic anhydrite	Marker betw. FW sands & salt
	500 - 650	L. Rustler	Anhydritic dolomite	
	550° - 1,320°	Salado	Salt, anhydrite & dolomite stringers	Dissolution, hole enlargement
1	,320 - 1,820	Capitan Reef	Limestone	Vugular, fractured, heavy seepage, lost circulation
	1,820' - 1,860'	Lamar	Limestone	Top of Delaware Mt. Group
	1,860' - 2,100'	Delaware		17

Interval Notes for 400 - 2,100

Drill out with Brine circulating the inner reserve pit. Use Brine additions for volume and dilution to control solids, weight and to minimize the leaching of the salt sections. Use Lime for pH control. Periodically sweep the hole with Ground Paper to aid in seepage control and hole cleaning. Small amounts of MF-55 may be added to flocculate fine solids and keep the fluid clean. Should severe losses be encountered in the Capitan Reef consider dry drilling to total depth sweeping the hole with viscous(50-60) Salt Water Gel pills consisting of 10-20 ppb of fibrous LCM.

Mewbourne Oil Company * Pecos River "20" Fcc # 1 * Sec 20, T-22-S, R-27-E, Eddy.

INTERVAL: 2,100	- 8,900	8.75" hole	15 days	7" csg			2 drill bits	
Product	l'unction .		Tre:dment		Unit Size	t sage	Unit Price	Total Price
Cedar Fiber/Fiber Plug	LCM, sealant		10-20 ppb in sweeps	,~	40#	30	\$4,85	\$145.50
Ground Paper	seepage and	sweeps	1-3 sacks per 200 feet		40 #	60	\$6.80	\$408.00
Lime	pH additive		.5-,75 ppb	• • • • • • • • • • • • • • • • • • • •	50#	70	\$4.12	\$288,40
Maxi-Seal/Fiber Seal/Chem Seal	LCM, sealant		10-20 ppb in sweeps		40#	30	\$9.24	\$277.20
MF-55/ViePlus(non- ionic)	Flocculant		1 qt in 50 gal water every 4	hr.	5 gel.	3	\$82.65	\$247.95
Salt Gel	Viscosifier		12-14 ppb in sweeps		50 #	80	\$7.23	\$578.40
						Int	erval Total:	\$1,945,45

Projected Mud Properties

Depth	Mud Wt ppg	Viscosity	Filtrate	pН	Chlorides - ppm
2,100 - 8,900	8.4-9.3	28	N/C	10.0	3-80K

General Geological Data

	Tops/Bases	Fernation	Lithology	Notes/Challenges
[2,100 - 2,750	Cherry Carryon/Manzanita	Umestone	
	2,750 - 3,820	Cherry Canyon	Shaly calcareous sand	
Г	3,820 - 5,300	Brushy Canyon	Shaly sand	, , ,
	5,300 - 8,400	Bone Spring	Limestone	seepage, lost circ,
Ĺ	8,400 - 8,900	Dean	Shaly sand	** /

interval Notes for 2,100 - 8,900

Drill out from under the intermediate casing with Fresh Water circulating the outer reserve. Continue to use Lime for pH control. Use small amounts of MF-55 to flocculate fine solids and keep the fluid clear. Ground Paper additions periodically will control seepage and aid in hole cleaning. Should hole conditions dictate sweep the hole with viscous(50-60) Salt Water Gel pills to aid in hole cleaning. Should losses be encountered in the Lower Bone Spring add 10-20 ppb of fibrous LCM to the pills. At total depth sweep and spot a viscous(50-60) Salt Water Gel pill to ensure a clean hole for logs.

NOTE: the Marbob CCAP State Com #2 had a gas kick at 9,868' after setting 7" that required 11.0 ppg mud. It probably occurred in the transition between the Wolfcamp and the Cisco/Canyon. Be sure to set 7" above this zone.

Mewbourne Oil Company * Pecos River "20" Fee # 1 * Sec 20, T-22-S, R-27-E, Eddy,

INTERVAL: 8,900	- 12,200	6,125" holc	17 days	5" csg		5 drill bits	
Product	Function		Treatment	Unit Size	Unage	Unit Price	Total Price
Bartle-Bulk	Weighting a	gent	As needed	1 ton	150	\$195.00	\$29,250,00
Biocide (STC)	Biocide		1 gal/100 bbls.	5 gal, .	30	\$67.50	\$2,025,00
Caustic Soda	pH additive		.25 ppb	50#	30	\$20.90	\$627.00
Drispac/Poly Pac/StaFlo/Aquapac	Filtrate cont	rol, secondary viscosifier	.575 ppb	50#	20	\$172.72	\$3,454.40
KCL	Weighting a	igent	As needed for weight	50#	450	\$8.23	\$3,703.50
Mica	LCM, seala	nt	3-10 ppt in pills	50#	40	\$10.99	\$439.60
M-I-X II/Delta P	LCM, sealar	nt	3-10 ppb in pills	25#	30	\$25.50	\$765.00
Nut Plug	LCM, seala	nt	3-10 ppb in pills	50#	40	\$12.09	\$483.60
Silicone Defoamer	Defoamer		As needed	5 gal.	20	\$74.46	\$1,489.20
Soda Ash	Calcium remover		.575 ppb	50#	400	\$9.10	\$3,640.00
White Starch	Filtrate cont	rol	1.5-1.7 ppb	50#	100	\$23.25	\$2,325.00
XCD Polymer/Flozan	Viscosifier		.575 ppb	25#	40	\$159.50	\$6,380.00

Interval Total:

\$54,582,30

Projected Mud Properties

Depth	Mud Wt ppg	Viscosity	Filtrate	рН	Chlorides - ppm
8,900 - 9,800	10.0	28	N/C	10.0	186K
9,600 - 10,200	10.0-10.4	28-30	N/Ç	10.0	195K
10,200 - 10,800	10.4-11.0	36-38	8cc	10.0	195K
10,800 - 12,200	11.0-12.0	38-42	6ec	10.0	195K

General Geological Data

Tape/Bases	i cormation	Lithology	Notes/Challenges
8,900 - 9,800	Wolfcamp	Cherty limestone	
9,800 - 10,210	Cisco/Canyon	Limey shale	
10,210 - 10,800	Strawn	Shaly limestone	Poss. gas kick
10,800 - 11,050	Atoka	Sandy shale, mostly shale	Poss. gas kick
10,900 - 11,400	Lower Atoka Lime	Limestone	Poss. gas kick
11,400 - 11,600	Morrow Clastics	Shafy calcareous sand	Poss. underpressured, seepage, lost circulation
11,475 - 11,725	Middle Morrow	Shaly calcareous sand	Poss. underpressured, seepage, lost circulation
11,725 - 12,200	Lower Morrow	Cherty limestone	TD

Mewbourne Oil Company * Pecos River "20" Fee # 1 * Sec 20, T-22-S, R-27-E. Eddy.

Interval Notes for 8,900 - 12,200

Drill out with 10.0 ppg Brine. Circulate the reserve. Use Caustic Soda to control the pH at 10.0 Sweep the hole as necessary with viscous XCD Polymer pills to ald in hole cleaning. Prior to entering the Strawn return to the working pits and weight up as necessary with KCL and Soda Ash. Pre-treat the system with STC (blocide) to prevent bacteria growth. Add White Starch/Drispac to lower the filtrate to below 8cc. Drill ahead controlling the weight above 10.4 ppg with additions Barite. Use Mica, M-I-X II and Nut plug to control seepage. Lower the filtrate to below 6cc prior to entering the Morrow. Use XCD Polymer for viscosity as needed to control hole cleaning and to support any Barite that may be needed. Use Silicone Defoamer to prevent aeration of the mud while adding polymers and Barite. Maintain mud weight as necessary (11.0-14.0ppg) to prevent kicks and allow safe trips. Viscous pills containing Salt Gel and 6-15 ppb of various grades LCM may be needed to control seepage that may occur. We suggest the use of a Linear Shaker centrifuge and Degasser on this well.

NOTE: there is a possibility of gas kicks in the top of the Cisco/Canyon (10.5ppg) and in the Strawn (up to 12.0 ppg).

Operator: MEWBOURNE OIL COMPANY | Well Name: Pecos River 20-1

Project ID: 30-015-34230 | Location: Eddy Co. NM

<u>Design Parameters:</u> <u>Design Factors:</u> Mud weight (9.63 ppg) : 0.500 psi/ft Collapse : 1.200 Shut in surface pressure : 200 psi Burst : 1.10 8 Round Internal gradient (burst) : 0.000 : 2.00 (J) psi/ft Annular gradient (burst) : 0.000 psi/ft Buttress : 1.60 (J) Tensile load is determined using air weight Other | : 1.50 (J) Service rating is "Sweet" Body Yield : 1.50 (B)

	Length (feet)		Weight		∍ Joir		Depth	Drift (in.)	Cost
 1	400	13.375	48.00	H-40) ST&C	2	400	12.559	
 	Load	Collapse Strgth (psi)	S.F.		Min Int Strgth (psi)	S.F.	Load	Tension d Strgth s) (kips)	S.F.
 1	1 200	740	3.700	200	1730		•	20 322	16.77 J

Prepared by : , Artesia, New Mexico

Date : 08-16-2005

Remarks :

Minimum segment length for the 400 foot well is 400 feet.

Surface string:

Next string will set at 2,100 ft. with 10.00 ppg mud (pore pressure of 1,091 psi.) The frac gradient of 0.500 psi/ft at 400 feet results in an injection pressure of 200 psi Effective BHP (for burst) is 200 psi.

The minimum specified drift diameter is 12.250 in.

The design factors used in this casing string design are as shown above. As a general guide-line, Lone Star Steel recommends using minimum design factors of 1.125 - Collapse (with evacuated casing), 1.0 - Burst, 1.8 - 8 Round Tension, 1.6 - Buttress Tension, and 1.5 - Body Yield. Collapse strength under axial tension was calculated based on the Westcott. Dunlop and Kemler curve. Engineering responsibility for use of this design will be that of the purchaser.

Costs for this design are based on a 1987 pricing model. (Version 1.06+)

Operator: MEWBOURNE OIL COMPANY | Well Name: Pecos River 20-1

Project ID: 30-015-34230 Location: Eddy Co. NM

<u>Design Parameters:</u> <u>Design Factors:</u>

Mud weight (10.00 ppg) : 0.519psi/ft Collapse : 1.200 Shut in surface pressure : 1470 Burst : 1.10 Internal gradient (burst) : 0.000 psi/ft 8 Round : 2.00 (J) Annular gradient (burst) : 0.000 psi/ft Buttress : 1.60 (J) Tensile load is determined using air weight Other | : 1.50 (J) Service rating is "Sweet" Body Yield 1.50 (B)

	Length (feet)	Size (in.)			. Joir		Depth (feet)		Cost
1	2,100	9.625	40,00 36.00	K-55	ST&C	2	2,100	8.765	
	•	Collapse Strgth (psi)	S.F.	Load	Min Int Strgth (psi)	S.F.	 Load (kips)	_	S.F.
 1	1091	2020	1.852	1470	3520	2.39	 75.60		5.60 J

Prepared by : , Artesia, New Mexico

Date : 08-16-2005

Remarks :

Minimum segment length for the 2,100 foot well is 100 feet.

Surface/Intermediate string:

Next string will set at 8,900 ft. with 9.30 ppg mud (pore pressure of 4,300 psi.) The frac gradient of 0.700 psi/ft at 2,100 feet results in an injection pressure of 1,470 psi Effective BHP (for burst) is 1,470 psi.

The minimum specified drift diameter is 8.750 in.

The design factors used in this casing string design are as shown above. As a general guide-line, Lone Star Steel recommends using minimum design factors of 1.125 - Collapse (with evacuated casing), 1.0 - Burst, 1.8 - 8 Round Tension, 1.6 - Buttress Tension, and 1.5 - Body Yield. Collapse strength under axial tension was calculated based on the Westcott, Dunlop and Kemler curve. Engineering responsibility for use of this design will be that of the purchaser.

Costs for this design are based on a 1987 pricing model. (Version 1.06+)

Operator: MEWBOURNE OIL COMPANY | Well Name: Pecos River 20-1

Project ID: Location: Eddy Co., NM

<u>Design Parameters:</u>	<u>Design Factors</u>	<u>:</u>	
Mud weight (9.30 ppg) : 0.483 psi/ft	Collapse	: 1.200	
Shut in surface pressure : 6230 psi	Burst	: 1.10	
Internal gradient (burst) : 0.000 psi/ft	8 Round	: 2.00	(J)
Annular gradient (burst) : 0.483 psi/ft	Buttress	: 1.60	(J)
Tensile load is determined using air weight	0ther	: 1.50	(J)
Service rating is "Sweet"	Body Yield	: 1.50	(B)

•	Length	Size (in.)	_		e Joir		Depth feet)		Cost
, 1	8,900	7.000	26.00	Ls-	110 LT&	2	8,900	6.151	
•	Load	Collapse Strgth (psi)	S.F.	Load		S.F.	Load (kips)	_	· ·
•	•	7800		•			•		

Prepared by : Mike Johnson, Artesia, New Mexico

Date : 11-04-2005

Remarks :

Minimum segment length for the 8,900 foot well is 1,000 feet.

Intermediate string:

Next string will set at 12,200 ft. with 10.40 ppg mud (pore pressure of 6.591 psi.) The frac gradient of 0.700 psi/ft at 8.900 feet results in an injection pressure of 6.230 psi Effective BHP (for burst) is 6.230 psi, the BHP load is 1.930 psi (using an annular mud of 9.30 ppg) and the differential gradient is -0.480 psi/ft.

The minimum specified drift diameter is 6.125 in.

The design factors used in this casing string design are as shown above. As a general guideline, Lone Star Steel recommends using minimum design factors of 1.125 - Collapse (with evacuated casing), 1.0 - Burst, 1.8 - 8 Round Tension, 1.6 - Buttress Tension, and 1.5 - Body Yield. Collapse strength under axial tension was calculated based on the Westcott, Dunlop and Kemler curve. Engineering responsibility for use of this design will be that of the purchaser. Costs for this design are based on a 1987 pricing model. (Version 1.06+)

Operator: MEWBOURNE OIL COMPANY | Well Name: Pecos River 20-1

Project ID: 30-015-34230 Location: Eddy co. NM

<u>Design Parameters:</u> <u>Design Factors:</u>

psi/ft Collapse Mud weight (10.40 ppg) : 0.540 : 1.200 Shut in surface pressure : 6591 psi Burst : 1.10 Internal gradient (burst) : 0.000 8 Round : 2.00 psi/ft (J) psi/ft Annular gradient (burst) : 0.000 Buttress : 1.60 (J) Tensile load is determined using air weight Other : 1.50 (J) Service rating is "Sweet" Body Yield : 1.50 (B)

	T 1-	S:	We i ch t	Grade	Joi		Depth	Drift	Cost
1	Length	Size	Weight	Grade	101	.TIC	Depth		Cost
l	(feet)	(in.)	(lb/ft)				(feet)	(in.)	I
									
1									1
1 1	2,300	5.000	15.00	N-80	AB	FL-4S	11,000	4.283	1
•							-		
2	1,200	5.000	15.00	S-95	AB	FL-4S	12,200	4.283	l
									
J	ı	Collapse	1:	Burst	Min Int	Yield	1	Tension	I
I	Load	Strgth	s.f.	Load	Strgth	S.F	. Loa	d Strgth	S.F.
1	(psi)	(psi)	1	(psi)	(psi)		(kip	s) (kips)	1
-	+								
1			i				i		!
1.	5943	7144	1.202	6591	8290	1.26	5 52.	50 230	4.38 J
1 2	6591	9380	1.423	6591	9840	1.49	9 18.	00 253	14.06 J

Prepared by : , Artesia, New Mexico

Date : 08-16-2005

Remarks :

Minimum segment length for the 12,200 foot well is 1,000 feet.

The liner string design has a specified top of 8,700 feet, and the choice of connection is NL Atlas Bradford.

The burst load shown is the pressure at the of the segment.

The mud gradient and bottom hole pressures (for burst) are 0.540 psi/ft and 6,591 psi, respectively.

The design factors used in this casing string design are as shown above. As a general guideline, Lone Star Steel recommends using minimum design factors of 1.125 - Collapse (with evacuated casing), 1.0 - Burst, 1.8 - 8 Round Tension, 1.6 - Buttress Tension, and 1.5 - Body Yield. Collapse strength under axial tension was calculated based on the Westcott, Dunlop and Kemler curve. Engineering responsibility for use of this design will be that of the purchaser. Costs for this design are based on a 1987 pricing model. (Version 1.06+)



Mewbourne Oil Co PECOS RIVER 20 FEE #1

API # 30-015-34230-0000

SEC20 T22S R27E Eddy County, New Mexico August 16, 2005

Well Recommendation

Prepared for:
MIKE JOHNSON
COMPANY REPRESENTATIVE

Prepared by:
Matt Boese
Region Engineer

Fax 397 6252



PowerVision®

POWERPRO · POWERTRAX · POWERLINK

Service Point:

Artesia

Bus Phone:

(505) 746-3140

Fax:

(505) 746-2293

Service Representatives:

Larry Johnson Senior Sales Rep Artesia, New Mexico

Mobile:

505-746-7165

Fax:

505-746-2293

Well Name:

PECOS RIVER 20 FEE #1 Job Description: 13 3/8" surface casing @ 400'.

Date:

August 16, 2005



Proposal No: 180655540A

WELL_DATA

ANNULAR GEOMETRY

ANNULAR I.D.	DEPTH(ff)				
(in)	MEASURED	TRUE VERTICAL			
17.500 HOLE	400	400			

SUSPENDED PIPES

DIAMETE	R (in)	WEIGHT	DEP	TH(ft)
O.D.	I.D.	(ibs/ft)	MEASURED	TRUE VERTICAL
13.375	12,715	48	400	400

Float Collar set @

360 ft

Mud Density

8.50 ppg

Mud Type

Water Based

Est. Static Temp.

83 ° F

Est. Circ. Temp.

80 ° F

VOLUME CALCULATIONS

232 ft 0.6946 cf/ft X

100 % excess = 322.0 cf

168 ft 0.6946 cf/tt х

with 100 % excess 233.7 cf with

40 ft 0.8818 cf/ft х

35.3 cf (inside pipe) with 0 % excess

TOTAL SLURRY VOLUME =

591.0 cf

105 bbls

Well Name:

PECOS RIVER 20 FEE #1 Job Description: 13 3/8" surface casing @ 400'.

Date:

August 16, 2005



Proposal No: 180655540A

FLUID SPECIFICATIONS

FLUID	VOLUME CU-FT		VOLUME FACTOR	AMOUNT AND TYPE OF CEMENT
Lead Slurry	322	1	1.98	= 163 sacks (35:65) Poz (Fly Ash):Class C Cement + 2% bwoc Calcium Chloride + 0.25 lbs/sack Cello Flake + 5 lbs/sack LCM-1 + 6% bwoc Bentonite + 98.4% Fresh Water
Tail Slurry	269	1	1.34	= 200 sacks Class C Cement + 2% bwoc Calcium Chloride + 56.4% Fresh Water
Displacement				56.5 bbls 56.5 bbls WATER @ 8.4 ppg @ 8.4 ppg
CEMENT PROPERTIE	S			
				SLURRY SLURRY
				NO. 1 NO. 2
Slurry Weight (ppg)				12.50 14.80
Slurry Yield (cf/sack)				1.98 1.34
Amount of Mix Water (gr	os)			10.27 6.36

Well Name:

PECOS RIVER 20 FEE #1

Job Description: 9 5/8" intermediate casing @ 2,100'.

Date:

August 16, 2005



Proposal No: 180655540A

WELL DATA

ANNULAR GEOMETRY

ANNULAR I.D.	DEPTH(ft)			
(in)	MEASURED	TRUE VERTICAL		
12.715 CASING	400	400		
12.250 HOLE	2,100	2,100		

SUSPENDED PIPES

DIAMETER (in)		WEIGHT	DEP	TH(ft)
O.D.	I,D.	(lbs/ft)	MEASURED	TRUE VERTICAL
9.625	8.921	36	2,100	2,100

Float Collar set @

2,060 ft

Mud Density

9 00 ppg

Mud Type

Water Based

Est. Static Temp.

96 ° F

Est. Circ. Temp.

89 ° F

VOLUME CALCULATIONS

400 ft	X	0.3/65 cf/ft	with	0 % excess	=	150.6 ເໃ
1,298 ft	x	0.3132 cf/ft	with	100 % excess	=	813.2 cf
402 ft	Х	0.3132 cf/ft	with	100 % excess	=	251.6 cf

17.4 cf (inside pipe) 0 % excess 40 ft 0.4341 cf/ft with Х

> TOTAL SLURRY VOLUME = 1232.8 cf

> > 220 bbis

Well Name:

PECOS RIVER 20 FEE #1

Job Description: 9 5/8" intermediate casing @ 2,100'.

Date:

August 16, 2005



Proposal No: 180655540A

FLUID SPECIFICATIONS

FLUID	VOLUME CU-FT	•	VOLUME FACTOR	AMOUNT AND TYPE OF CEMENT
Lead Slurry	964	I	1.96	= 491 sacks (35:65) Poz (Fly Ash):Class C Cement + 1% bwoc Calcium Chloride + 0.25 lbs/sack Cello Flake + 5 lbs/sack LCM-1 + 6% bwoc Bentonite + 98% Fresh Water
Tail Slurry	269	1	1.34	= 200 sacks Class C Cement + 2% bwoc Calcium Chloride + 56.4% Fresh Water
Displacement CEMENT PROPERTIE	s			159,3 bbls WATER @ 8.4 ppg
	_			SLURRY SLURRY NO. 1 NO. 2
Slurry Weight (ppg)				12.50 14.80
Slurry Yield (cf/sack)				1.96 1.34
Amount of Mix Water (gp	s)			10.22 6.36

Well Name:

PECOS RIVER 20 FEE #1

Job Description: 7" long string casing @ 8,900'.

Date:

August 16, 2005



Proposal No: 180655540A

WELL DATA

ANNULAR GEOMETRY

ANNULAR I.D.	DEPTH(ft)			
(in)	MEASURED	TRUE VERTICAL		
8.921 CASING	2,100	2,100		
8,750 HOLE	8,900	8,900		

SUSPENDED PIPES

DIAMETI	ER (in)	WEIGHT	DEP	TH(ft)
O.D.	l.D.	(lbs/ft)_	MEASURED	TRUE VERTICAL
7.000	6.366	23	8,900	8,900

STAGE: 1

Float Collar set @

8,860 ft

Mud Density

9.50 ppg

Mud Type

Water Based

Est. Statio Temp.

149 ° F

Est. Circ. Temp.

130 ° F

VOLUME CALCULATIONS

2.900 ft

0.1503 ct/ft X

with

35 % excess

=

40 ft

0.2210 cf/ft X

with

0 % excess

588.5 cf

8.8 cf (inside pipe)

TOTAL SLURRY VOLUME =

597.4 cf

106 bbls =

STAGE: 2

Stage Collar set @

6,000 ft

Mud Density

9.50 ppg

Mud Type

Water Based

Est. Static Temp.

126 ° F

Est. Circ. Temp.

111 ° F

VOLUME CALCULATIONS

500 ft 0.1668 cf/ft X 3,319 ft 0.1503 cf/ft х

with with with

0 % excess 35 % excess

83.4 cf 673.5 cf

581 ft 0.1503 cf/ft X

35 % excess

118.0 cf

TOTAL SLURRY VOLUME =

874.9 cf

156 bbls

Well Name:

PECOS RIVER 20 FEE #1 Job Description: 7" long string casing @ 8,900'.

Date:

August 16, 2005



Proposal No: 180655540A

FLUID SPECIFICATIONS

STAGE NO.: 1

FLUID	VOLUME CU-FT	-	VOLUME FACTOR	AMOUNT AND TYPE OF CEMENT
Slurry	597	1	1.28	= 466 sacks Class H Cement + 1% bwoc BA-58 + 0.3% bwoc FL-52 + 1% bwoc FL-62 + 0.1% bwoc Sodium Metasilicate + 51.9% Fresh Water
Displacement				348.8 bbls WATER @ 8.4 ppg
CEMENT PROPERTIES	8			
				SLURRY
				NO. 1
Slurry Weight (ppg)				15.10
Slurry Yield (cf/sack)				1.28
Amount of Mix Water (gp	s)			5.84

STAGE NO.: 2

FLUID	VOLUME CU-FT		VOLUME FACTOR	AMOUNT AND TYPE OF CEMENT
Lead Slurry	757	1	1.94	= 390 sacks (35:65) Poz (Fly Ash):Class H Cement + 0.25 lbs/sack Cello Flake + 0.4% bwoc FL-52 + 6% bwoc Bentonite + 102% Fresh Water
Tail Slurry	118	1	1.18	= 100 sacks Class H Cement
Displacement CEMENT PROPERTIE	s			236.2 bbls WATER @ 8.4 ppg
				SLURRY SLURRY NO. 1 NO. 2
Slurry Weight (ppg)				12.50 15.60
Slurry Yield (cf/sack)				1.94 1.18
Amount of Mix Water (g	ps)			10.65 5.23

Well Name:

PECOS RIVER 20 FEE #1

Date:

Job Description: 5" liner @ 12,200'. August 16, 2005

Proposal No: 180655540A

WELL DATA

ANNULAR GEOMETRY

ANNULAR I.D.	DEPTH(ft)			
(in)	MEASURED	TRUE VERTICAL		
6.366 CASING	8,900	8,900		
6.125 HOLE	12,200	12,200		

SUSPENDED PIPES

DIAMETER (in)		WEIGHT	DEP'	TH(ft)
O.D.	I.D.	(lbs/ft)	MEASURED	TRUE VERTICAL
5.000	4.408	15	12,200	12,200

Float Collar set @

12,160 ft

Mud Density

10.00 ppg

Mud Type

Water Based

Est. Static Temp.

174 ° F

Est. Circ. Temp.

138 ° F

VOLUME CALCULATIONS

500 ft 0.0847 cf/ft with 0 % excess 42.3 cf X 3,300 ft X 0.0683 cf/ft with 35 % excess = 304.1 cf

40 ft 0.1060 cf/ft with 0 % excess 4.2 cf (inside pipe)

> 350.7 cf TOTAL SLURRY VOLUME =

> > 63 bbls

Well Name:

PECOS RIVER 20 FEE #1

Date:

Job Description: 5" liner @ 12,200'. August 16, 2005



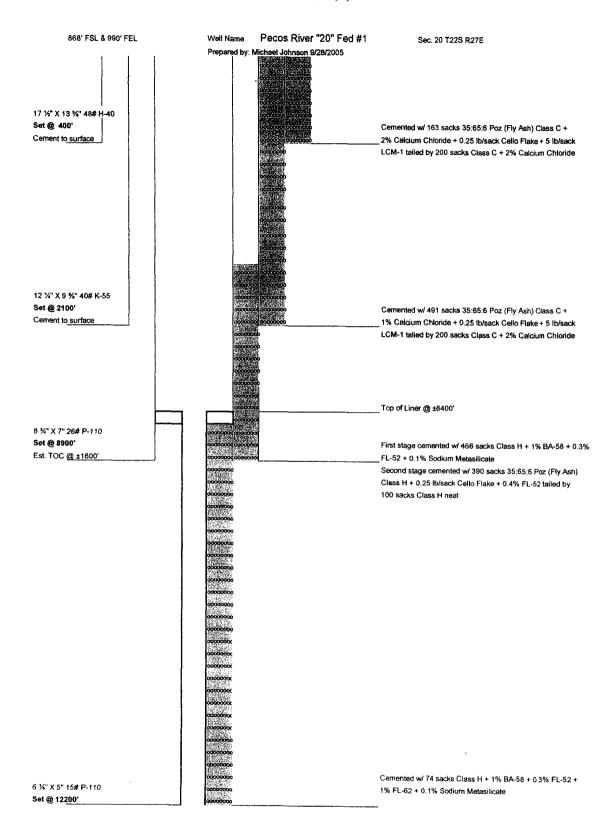
Proposal No: 180655540A

FLUID SPECIFICATIONS

S	bace
---	------

500.0 gals MUD CLEAN II

FLUID	VOLUME CU-FT	VOLUME FACTOR	AMOUNT AND TYPE OF CEMENT
Slurry	351 /	1.28	 274 sacks Class H Cement + 1% bwoc BA-58 + 0.3% bwoc FL-52 + 1% bwoc FL-62 + 0.1% bwoc Sodium Metasilicate + 51.9% Fresh Water
Displacement			229.5 bbls Water
CEMENT PROPERTIE	s		
			SLURRY
			NO. 1
Slurry Weight (ppg)			15.10
Slurry Yield (cf/sack)			1.28
Amount of Mix Water (gp	s)		5.84



Mewbourne Oil Company

Evaluation Program Pecos River "20" #1

Electric wireline logs will be run on second intermediate interval (8 3/4" Hole) and production interval (6 1/8" Hole)

Logging suites chosen:

Compensated Density- Neutron Gamma Ray Dual Laterlog- Microlaterlog Repeat Formation Test

No other evaluation procedures anticipated

DST procedure covered in Contingency 399-7

MULTI-POINT SURFACE USE AND OPERATIONS PLAN MEWBOURNE OIL COMPANY

Pecos River 20 #1 868' FSL & 990' FEL Section 20-T22S-R27E Eddy County, New Mexico

This plan is submitted with Form 3160-3, Application for Permit to Drill, Covering the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of the surface disturbance involved, and the procedures to be followed in restoring the surface so that a complete appraisal can be made of the environmental impact associated with the proposed operations.

1. Existing Roads:

- A. Exhibit #3 is a road map showing the location of the proposed well. Exhibit #3A is a topographic map showing the location of the proposed well and access road. Existing roads are highlighted in red and proposed roads are highlighted in yellow.
- B. Directions to location from Carlsbad, NM: South on Canal street to Old Caverns Hwy and turn left. Continue east then road will turn south. Continue approx 1 mile to Elgin Road and turn left. Continue east 0.75 miles to new location.

2. Proposed Access Road:

- A Will need 866 of new road.
- B. The access to the location will be limited to 16' in width and will adequately drain runoff and control erosion as presently constructed.

3. Location of Existing and/or Proposed Facilities:

- A. There are no production facilities on this lease at the present time.
- B. In the event that the well is productive, production facilities will be located on the well pad.
- C. All production vessels left on location will be painted to conform with BLM painting stipulations within 180 days of installation.

4. Location and Type of Water Supply

The well will be drilled with a combination of fresh water and brine water based mud systems. The water will be obtained from commercial suppliers in the area and/or hauled to the location by transport trucks over existing and proposed roads as indicated in Exhibit #3.

5. Source of Construction Materials

All material required for construction of the drill pad and access roads will be obtained from private, state, or federal pits. The construction contractor will be solely responsible for securing construction materials required for this operation and paying any royalties that may be required on those materials.

Pecos River 20 #1 Page 2

6. Methods of Handling Waste Disposal:

- A. Drill cuttings not retained for evaluation purposed will be disposed of in the reserve pit.
- B. Drilling fluids will be allowed to evaporate in the reserve pit prior to closure.
- C. Water produced during operations will be disposed of in the reserve pit.
- D. If any liquid hydrocarbons are produced during operations, those liquids will be stored in suitable tanks until sold.
- E. Current regulations regarding the proper disposal of human waste will be followed.
- F. All trash, junk, and other waste materials will be stored in proper containers to prevent dispersal and will be removed to an appropriate facility within one week of cessation of drilling and completion activities.

7. Ancillary Facilities

There are no ancillary facilities within the immediate vicinity of the proposed well site.

8. Well Site Layout

- A diagram of the drill pad is shown in Exhibit #5. Dimensions of the pad, pits, and location of major rig components are shown.
- B. The reserve pit will be lined with a high quality plastic sheeting to prevent migration of fluids
- C. The pad dimension of 400' X 250' has been staked and flagged.

9. Plans for Restoration of Surface

- A. Upon cessation of the proposed operations, if the well is abandoned, the location and road will be ripped and re-seeded. The reserve pit area, after allowing to dry will be leveled. The entire location will be restored to the original contour as much as reasonable possible. All trash, garbage, and pit lining will be hauled to appropriate disposal to assure the location is aesthetically pleasing as reasonable possible. All restoration work will be completed within 180 days of cessation of activities.
- B. The disturbed area will be restored by re-seeding during the proper growing season.
- C. Three sides of the reserve pit will be fenced prior to and during drilling operations. The reserve pit will be fenced on the fourth side after the drilling rig is removed to prevent the endangerment of livestock. The fence will remain in place until the pit area has been leveled and restored.
- D. Upon cessation of the proposed operations, if the well is not abandoned, the reserve pit area will be restored as per OCD guidelines. Any additional caliche required for production facilities will be obtained from a source as described in Section 6.
- E. Within 90 days of cessation of drilling and completion operations, all equipment not necessary for production operations will be removed. The location will be cleaned of all trash and junk to assure the well site is left as aesthetically pleasing as reasonably possible.

MULTI-POINT SURFACE USE AND OPERATIONS PLAN MEWBOURNE OIL COMPANY

Pecos River 20 #1 Page 3

10. Surface Ownership:

The surface is owned by:

Walterscheid Trucking & Farms, Inc

3226 Tidwell Road Carlsbad, NM 88220

(505) 361-3432 (Phillip Walterscheid)

11. Other Information:

A. Topography: Refer to the archaeological report for a detailed description of flora,

fauna, soil characteristics, dwellings, and historical or cultural sites.

B. The primary use of the surface at the location is for grazing of livestock.

12. Operator's Representative:

Through APD approval, drilling, completion and production operations: A.

> N.M. Young, District Manager Mewbourne Oil Company PO Box 5270 Hobbs, NM 88241 505-393-5905

13. Certification

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 currently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed by Mewbourne Oil Company, its contractors and subcontractors, in accordance with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Date: Fruiti que for N.H. Voung Signature: 07/19/05

N.M. Young, District Manager Mewbourne Oil Company PO Box 5270 Hobbs, NM 88241 (505) 393-5905

Hydrogen Sulfide Drilling Operations Plan

Mewbourne Oil Company

Pecos River 20 #1 868' FSL & 990' FEL Section 20-T22S-R27E Eddy County, New Mexico

1. Hydrogen Sulfide Training

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will have received training from a qualified instructor in the following areas prior to entering the drilling pad area of the well:

- A. The hazards and characteristics of hydrogen sulfide gas.
- B. The proper use of personal protective equipment and life support systems.
- C. The proper use of hydrogen sulfide detectors, alarms, warning systems, briefing areas, evacuation procedures.
- D. The proper techniques for first aid and rescue operations.

Additionally, supervisory personnel will be trained in the following areas:

- A. The effects of hydrogen sulfide on metal components. If high tensile tubular systems are utilized, supervisory personnel will be trained in their special maintenance requirements.
- B. Corrective action and shut in procedures, blowout prevention, and well control procedures while drilling a well.
- C. The contents of the Hydrogen Sulfide Drilling Operations Plan.

There will be an initial training session prior to encountering a know hydrogen sulfide source. The initial training session shall include a review of the site specific Hydrogen Sulfide Drilling Operations Plan.

2. Hydrogen Sulfide Safety Equipment and Systems

All hydrogen sulfide safety equipment and systems will be installed, tested, and operational prior to drilling below the intermediate casing.

A. Well Control Equipment

- 1. Flare line with automatic igniter or continuous ignition source.
- 2. Choke manifold with minimum of one adjustable choke.
- 3. Blowout preventers equipped with blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit
- 4. Auxiliary equipment including rotating head and annular type blowout preventer.

B. Protective Equipment for Essential Personnel

Thirty minute self contained work unit located at briefing area as indicated on well site diagram.

C. Hydrogen Sulfide Protection and Monitoring Equipment

Two portable hydrogen sulfide monitors positioned on location for optimum coverage and detection. The units shall have audible sirens to notify personnel when hydrogen sulfide levels exceed 20 ppm.

D. Visual Warning Systems

- 1. Wind direction indicators as indicated on the well site diagram.
- 2. Caution signs shall be posted on roads providing access to location. Signs shall be painted a high visibility color with lettering of sufficient size to be readable at reasonable distances from potentially contaminated areas.

3. Mud Program

The mud program has been designed to minimize the amount of hydrogen sulfide entrained in the mud system. Proper mud weight, safe drilling practices, and the use of hydrogen sulfide scavengers will minimize hazards while drilling the well.

4. Metallurgy

All tubular systems, wellheads, blowout preventers, drilling spools, kill lines, choke manifolds, and valves shall be suitable for service in a hydrogen sulfide environment when chemically treated.

5. Communications

State & County Officials phone numbers are posted on rig floor and supervisors trailer. Communications in company vehicles and tool pushers are either two way radios or cellular phones.

6. Well Testing

Drill stem testing is not an anticipated requirement for evaluation of this well. A drill stem test is required, it will be conducted with a minimum number of personnel in the immediate vicinity. The test will be conducted during daylight hours only.

7. General Requirements

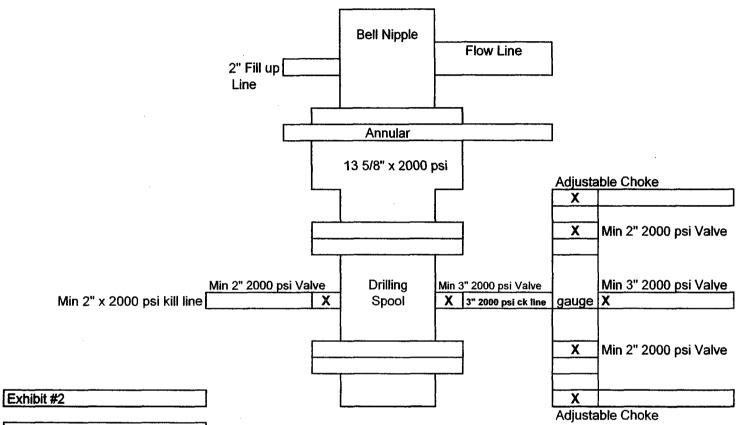
MOC has researched this area and no high concentrations of H2S was found. MOC will have on location and working all H2S safety equipment before Delaware formations.

Notes Regarding Blowout Preventer Mewbourne Oil Company

Pecos River 20 #1 868' FSL & 990' FEL Section 20-T22S-R27E Eddy County, New Mexico

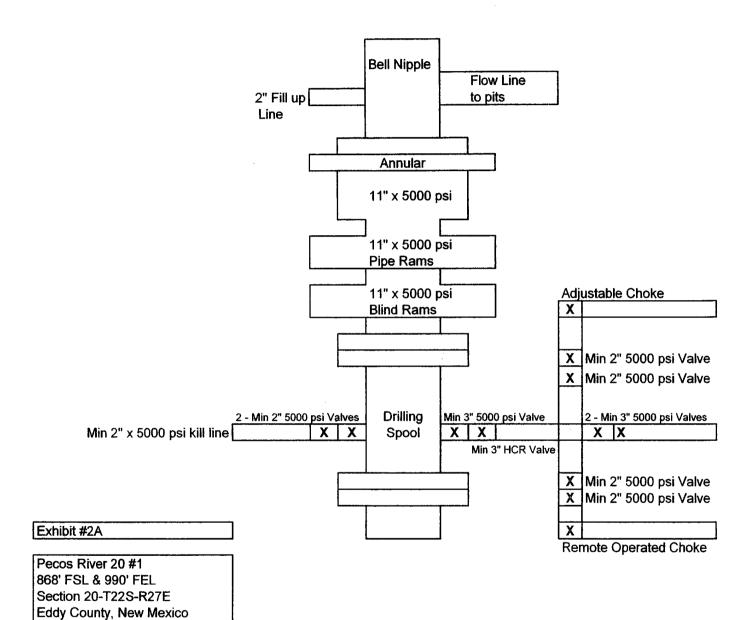
- 1. Drilling nipple (bell nipple) to be constructed so that it can be removed without the use of a welder through the opening of the rotary table, with minimum internal diameter equal to blowout preventer bore.
- 2. Blowout preventer and all fittings must be in good condition with a minimum 5000 psi working pressure.
- 3. Safety valve must be available on the rig floor at all times with proper connections to install in the drill string. Valve must be full bore with minimum 5000 psi working pressure.
- 4. Equipment through which bit must pass shall be at least as large as internal diameter of the casing.
- 5. A kelly cock shall be installed on the kelly at all times.
- 6. Blowout preventer closing equipment to include and accumulator of at least 40 gallon capacity, two independent sources of pressure on closing unit, and meet all other API specifications.

Mewbourne Oil Company BOP Scematic for 12 1/4" Hole



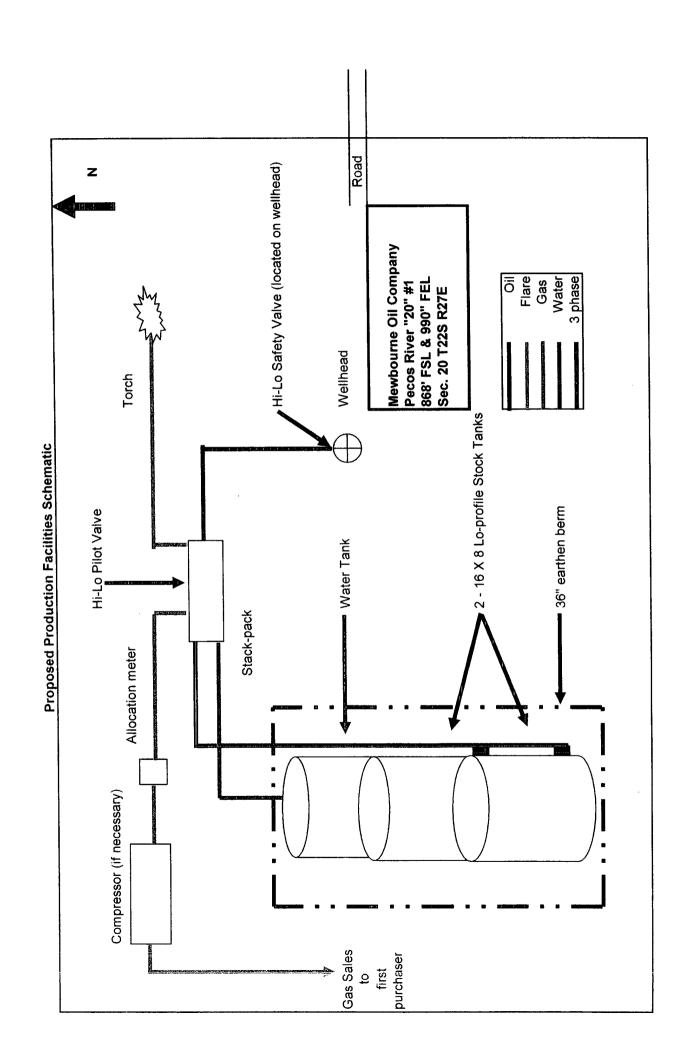
Pecos River 20 #1 868' FSL & 990' FEL Section 20-T22S-R27E Eddy County, New Mexico New Mexico

Mewbourne Oil Company BOP Scematic for 8 3/4" or 7 7/8" Hole



New Mexico

Rig Location Schematic



Mewbourne Oil Company Pecos River "20" #1

Production Facilities Specifications

Flowlines and Gathering Lines:

Below Ground: 0.188 wall thickness API 5L-X42 PE beveled w/ TG-3 coating

Tested to 1800 psig for 4 hours.

Above Ground: 0.224 wall thickness uncoated

Tested to 1800 psig for 4 hours.

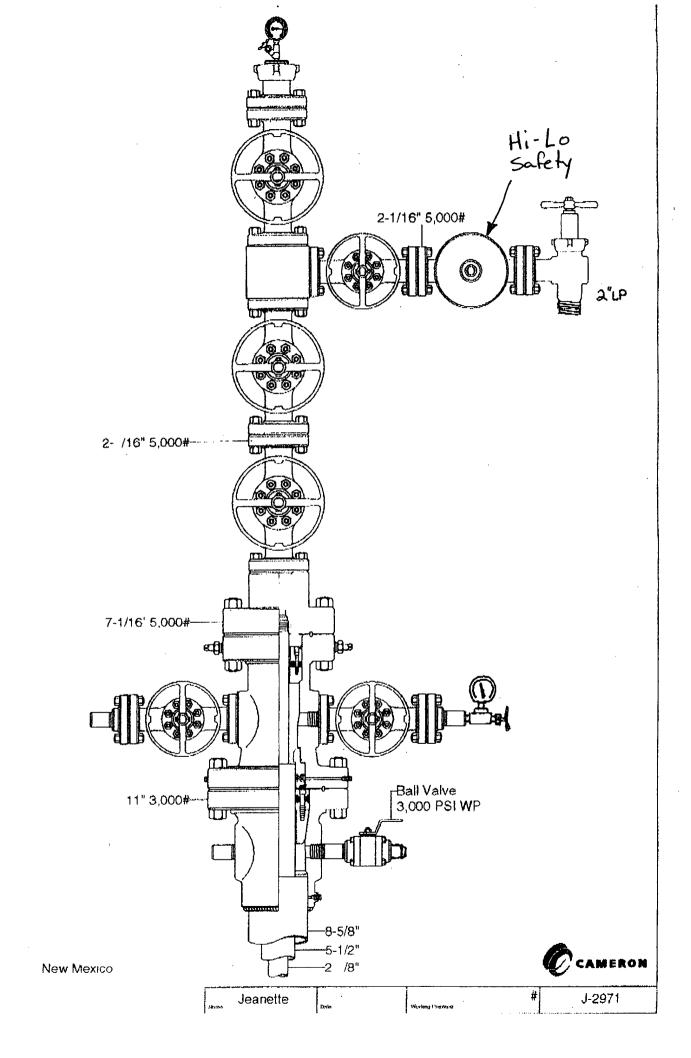
All welding done by certified welders to API specifications.

Compressor, located on location, will be equipped with hospital mufflers.

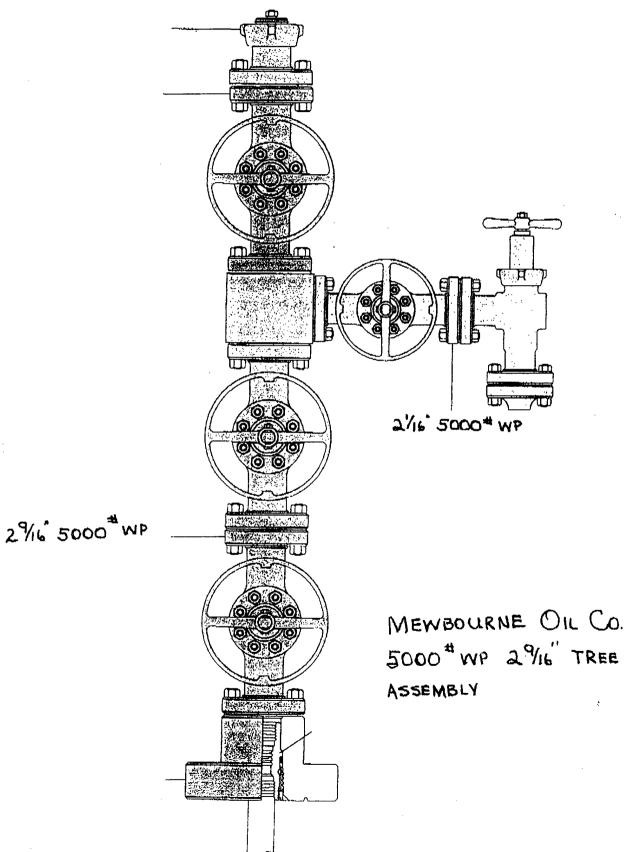
Well Heads:

See technical drawings immediately following this page.

Mewbourne Oil Company guarantees complete and vigilant compliance with City Ordinance 2004-17 Subsection 34-68 governing surface equipment, storage tanks, and separators.







H2S

CONTINEGENCY PLAN

FOR

MEWBOURNE OIL COMPANY

PECOS RIVER 20 #1

(868' FSL & 990' FEL of Sec 20-T22S-R27E)

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1. H2S CONTINGENCY PLAN SECTION

Scope

This contingency plan establishes guidelines for all company employees and contract employees whose work activities may involve exposure to Hydrogen Sulfide gas (H2S).

Objective

- 1. Prevent any and all accidents and prevent the uncontrolled release of H2S into the atmosphere.
- 2. Provide proper evacuation procedures to cope with emergencies.
- Provide immediate and adequate medical attention should an injury occur.

Discussion of Plan

Implementation: This plan, with all details, is to be fully implemented before drilling below 1000'.

Emergency Response Procedure: This section outlines the conditions and denotes steps to be taken in the event of an emergency.

Emergency Equipment and Procedure: This section outlines the safety and emergency equipment that will be required for the drilling of this well.

Training Provisions: This section outlines the training provisions that must be adhered to prior to drilling below 1000^{\prime} .

Emergency Call Lists: Included are the telephone numbers of all persons that would need to be contacted should an emergency occur.

Briefing: This section deals with the briefing of all people involved in the drilling operation.

Public Safety: Public Safety Personnel will be made aware of the drilling of this well.

Check Lists: Status Check Lists and Procedural Check Lists have been included to insure adherence to the plan.

General Information: A general information section has been included to supply support information.

2. EMERGENCY PROCEDURES SECTION

Emergency Procedures

- I. In the event of any evidence of H2S level above 10 ppm, take the following steps immediately:
 - A. Secure breathing apparatus.
 - B. Order non-essential personnel out of the danger zone.
 - C. Take steps to determine if the H2S level can be corrected or suppressed and if so, proceed with normal operations.
- II. If uncontrollable conditions occur, proceed with the following:
 - A. Take steps to protect and / or remove any public downwind of the rig including partial evacuation or isolation. Notify necessary Public Safety personnel and Mewbourne Oil Company, Drilling Superintendent, Micky Young of the situation.
 - B. Remove all personnel to the Safe Briefing Area.
 - C. Notify public safety personnel for help with maintaining roadblocks and implementing evacuation.
 - D. Determine and proceed with the best possible plan to regain control of the well. Maintain tight security and safety procedures.

III. Responsibility

- A. The Company Approved Supervisor shall be responsible for the total implementation of the plan.
- B. The Company Approved Supervisor shall be in complete command during any emergency.
- C. The Company Approved Supervisor shall designate a back up Supervisor in the event that he / she is not available.

3. Emergency Procedure Implementation

I. Drilling or Tripping

A. All Personnel

- When alarm sounds, don escape unit and report to upwind Safe Briefing Area
- Check status of other personnel (Buddy System).
- 3. Secure breathing apparatus.
- 4. Await order from Supervisor

B. Drilling Foreman

- 1. Report to the upwind Safe Briefing Area.
- 2. Don breathing apparatus and return to the point of release with the Tool Pusher or Driller (Buddy System).
- 3. Determine the concentration of H2S.
- 4. Assess the situation and take appropriate control measures.

C. Tool Pusher

- 1. Report to the upwind Safe Briefing Area.
- 2. Don breathing apparatus and return to the point of release with the Drilling Foreman or Driller (Buddy System).
- 3. Determine the concentration of H2S.
- 4. Assess the situation and take appropriate control measures.

D. Driller

- 1. Don escape unit.
- Check monitor for point of release.
- 3. Report to the Safe Briefing Area.
- 4. Check the status of other personnel (in a rescue attempt, always use the buddy system).
- 5. Assign the least essential person to notify the Drilling Foreman and Tool Pusher, in the event of their absence.
- 6. Assume the responsibility of the Drilling Foreman and Tool Pusher until they arrive, in the event of their absence.

E. Derrick Man

1. Remain in the Safe Briefing Area until otherwise instructed by Supervisor.

F. Mud Engineer

- Report to Safe Briefing Area.
- When instructed, begin check of mud for pH level and H2S level.

G. Safety Personnel

- Don appropriate breathing apparatus.
- 2. Check status of all personnel.
- 3. Await instructions from Drilling Foreman

II. Taking a Kick

- A. All personnel report to Safe Briefing Area.
- B. Follow standard BOP procedures.

III. Open Hole Logging

- A. All unnecessary personnel should leave the rig floor.
- B. Drilling Foreman and Safety personnel should monitor the conditions and make necessary safety equipment recommendations.

IV. Running Casing or Plugging

- A. Follow "Drilling or Tripping" procedures.
- C. Assure that all personnel have access to protective equipment.

4. Simulated Blowout Control Drills

All drills will be initiated by activating alarm devices (air horn). One long blast, on air horn, for Actual and Simulated Blowout Control Drills. The Drilling Foreman or Tool Pusher will perform this operation at least one time per week for each of the following conditions, with each crew:

Drill 1

Bottom Drilling

Drill 2

Tripping Drill Pipe

In each of these drills, the initial reaction time to shutting in the well shall be timed as well as the total time for the crew to complete its entire pit drill assignment. The times must be recorded on the IADC Driller's Log as "Blowout Control Drill".

Drill No.:	
Reaction time to shut-in: minutes,	seconds.
Total time to complete assignment: m	inutes, seconds

I. Drill Overviews

- A. Drill No. 1--Bottom Drilling
 - 1. Sound the alarm immediately
 - Stop the rotary and hoist the kelly joint above the rotary table.
 - 3. Stop the circulatory pump.
 - 4. Close drill pipe rams.
 - Record casing and drill pipe shut-in pressures and pit volume increases.
- B. Drill No. 2--Tripping Drill Pipe
 - 1. Sound the alarm immediately
 - Position the upper tool joint just above the rotary table and set slips.
 - 3. Install a full opening valve or inside blowout preventer tool in order to close the drill pipe.
 - 4. Close the drill pipe rams.
 - 5. Record the shut-in annular pressure.

II. Crew Assignments

A. Drill No. 1-Bottom Drilling

1. Driller

- a. Stop the rotary and hoist Kelly joint above the rotary table.
- b. Stop the circulatory pump.
- c. Check flow.
- d. If flowing, sound the alarm immediately.
- e. Record the shut-in drill pipe pressure.
- f. Record all data reported by the crew.
- g. Determine the mud weight increase needed or other courses of action.

2. Derrickman

- a. Open choke line valve at BOP.
- b. Signal Floor Man #1 at accumulator, that choke line is open.
- c. Close choke and upstream valve after pipe tams have been closed.
- d. Read the shut-in annular pressure and report readings to Driller.

3. Floor Man #1

- a. Close the pipe tams after receiving the signal from the Derrickman.
- b. Report to Driller for further instructions.

4. Floor Man #2

- a. Notify the Tool Pusher and Operator Representative of the H2S alarms.
- b. Check for open fires and if safe to do so, extinguish them.
- c. Stop all welding operations.
- d. Turn off all non-explosion proof lights and instruments.
- e. Report to Driller for further instructions.

5. Tool Pusher

- a. Report to the rig floor.
- b. Have a meeting with all crews.
- c. Compile and summarize all information.
- d. Calculate the proper kill weight.
- e. Ensure that proper well procedures are put into action.

6. Operator Representative

- a. Notify the Drilling Superintendent.
- b. Determine if an emergency exists and if so, activate the contingency plan.

B. Drill No. 2-Tripping Pipe

1. Driller

- Sound the alarm immediately when mud volume increase has been detected.
- b. Position the upper tool joint just above the rotary table and set slips.
- c. Install a full opening valve or inside blowout preventor tool to close the drill pipe.
- d. Check flow.
- e. Record all data reported by the crew.
- f. Determine the course of action.

2. Derrickman

- a. Come down out of derrick.
- b. Notify Tool Pusher and Operator Representative.
- Check for open fires and, if safe to do so, extinguish them.
- d. Stop all welding operations.
 - e. Report to Driller for further instructions.

3. Floor Man #1

- a. Pick up full opening valve or inside blowout preventors and stab into tool joint above rotary table (with Floor Man #2).
- b. Tighten valve with back-up tongs.
- c. Close pipe rams after signal from Floor Man #2.
- d. Read accumulator pressure and check for possible highpressure fluid leaks in valves or piping.
- e. Report to Driller for further instructions.

4. Floor Man #2

- a. Pick-up full opening valve or inside blowout preventors and stab into tool joint above rotary table (with Floor Man #1).
- b. Position back-up tongs on drill pipe.
- c. Open choke line valve at BOP.
- d. Signal Floor Man #1, at accumulator, that choke line is open.
- close choke and upstream valve after pipe rams have been closed.
- f. Check for leaks on BOP stack and choke manifold.
- q. Read annular pressure.
- h. Report readings to the Driller.

5. Tool Pusher

- a. Report to rig floor.
- b. Have a meeting with all crews.
- c. Compile and summarize all information.
- d. Calculate proper kill weight.
- e. See that proper well kill procedures are put into action.

6. Operator Representative

- a. Notify Drilling Superintendent.
- b. Determine if an emergency exists, and if so, activate the contingency plans.

III. IGNITION PROCEDURES SECTION

Responsibility

The decision to ignite the well is the responsibility of the DRILLING FOREMAN in concurrence with the STATE POLICE. In the event the Drilling Foreman is incapacitated, it becomes the responsibility of the RIG TOOL PUSHER. This decision should be made only as a last resort and in a situation where it is clear that:

- 1. Human life and property are endangered.
- There is no hope of controlling the blowout under the prevailing conditions.

If time permits, notify the main office, but do not delay if human life is in danger. Initiate the first phase of the evacuation plan.

Instructions for Igniting the Well

- 1. Two people are required for the actual igniting operation. Both men must wear self-contained breathing apparatus and attach a safety rope. One man must monitor the atmosphere for explosive gases with the Explosimeter, while the Drilling Foreman is responsible for igniting the well.
- 2. The primary method to ignite is a 25mm flare gun with a range of approximately 500 feet.
- 3. Ignite from upwind and do not approach any closer than is warranted.
- 4. Select the ignition site best suited for protection and which offers an easy escape route.
- 5. Before igniting, check for the presence of combustible gases.
- 6. After igniting, continue emergency actions and procedures as before.
- 7. All unassigned personnel will limit their actions to those directed by the Drilling Foreman.

NOTE: After the well is ignited, burning Hydrogen Sulfide will convert to Sulfur Dioxide, which is also highly toxic. Do not assume the area is safe after the well is ignited.

IV. TRAINING PROGRAM SECTION

Training Requirements

When working in an area where Hydrogen Sulfide gas (H2S) might be encountered, definite training requirements must be carried out. The Company Supervisor will insure that all personnel, at the wellsite, have had adequate training in the following:

- 1. Hazards and characteristics of H2S.
- 2. Physical effects of Hydrogen Sulfide on the human body.
- 3. Toxicity of Hydrogen Sulfide and Sulfur Dioxide.
- 4. H2S detection.
- 5. Emergency rescue.
- 6. Resuscitators.
- 7. First aid and artificial resuscitation.
- 8. The effects of H2S on metals.
- 9. Location Safety.

Service company personnel and visiting personnel must be notified in the zone contains H2S. Each service company must provide adequate training and equipment for their employees before they arrive at the well site.

EMERGENCY EQUIPMENT SECTION

Emergency Equipment Requirements

- I. Signs
 - A. Located at the location entrance with the following information:

CAUTION - POTENTIAL POISON GAS HYDROGEN SULFIDE NO ADMITTANCE WITHOUT AUTHORIZATION

- II.* Fresh air breathing equipment
 - A. Air line units for all rig personnel on location.
 - B. Cascade system with hose lines to rig floor and one to the derrickman and other operation areas. Spare cascade (trailer) on location.
- III. Wind Socks or Wind Streamers
 - A. Two 10" windsocks located at strategic locations at a height visible from the rig floor.
 - B. Wind streamers (if preferred) to be placed at various locations on the wellsite to insure wind consciousness at all times. (Corners of location).
- IV. Hydrogen Sulfide detector and alarms.
 - A. 1 four channel H2S monitor with alarms.
 - B. 4 Sensors, located at floor, bell nipple, shale shaker and pits.0
 - * C. Hand operated detectors with tubes.
 - D. H2S monitor tester.
- V. Condition sign and flags
 - A. One each of green, yellow and red condition flags to be displayed to denote conditions:

GREEN Normal Conditions
YELLOW Potential Danger
RED Danger, H2S Present

- B. The condition flag shall be posted at the location entrance.
- VI.* Auxiliary rescue equipment
 - A. Stretcher
 - B. Two 100' lengths of 5/8" nylon rope.
- VII.* Mud Inspection devices
 - A. Garrett Gas Train or Hach Tester for inspection of Hydrogen Sulfide concentration in the mud system.
- VIII. Fire Extinguishers
 - A. Adequate fire extinguishers shall be located at strategic locations.
- IX. Blowout prevention equipment
 - A. The well shall have hydraulic BOP equipment for the anticipated BHP.
 - B. Equipment must be tested upon installation.
- X.* Combustible gas detectors
 - A. There shall be one combustible gas detector on location at all times.
- XI. BOP Testing
 - A. BOP, Choke Line and Kill Line will be tested as specified by operator

XII. Audio System

- A. Radio/cellular communications shall be available at the rig.
- B. Radio/cellular communications shall be available at the rig floor or trailer.
- C. Radio/cellular communications shall be available on vehicles.

XIII. Special control equipment

- A. Hydraulic BOP equipment with remote control on ground.
- B. Rotating head at surface casing point.

XIV. Evacuation Plan

- A. Evacuation routes should be established prior to spudding each well.
- B. Should be discussed with all rig personnel.

XV. Designated Areas

- A. Parking and visitor area.
 - 1. All vehicles are to be parked at a pre-determined safe distance from the wellhead.
 - 2. Designated smoking area.
- B. Safe Briefing Area
 - 1. Two Safe Briefing Areas shall be designated on either side of the location at the maximum allowable distance from the well bore so they offset prevailing winds or they are at a 180 degree angle if wind directions tend to shift in the area.
 - Personal protective equipment should be stored in both protection centers or if a moveable trailer is used, it should be kept upwind of existing winds. When wind is from the prevailing direction, both protection centers should be accessible.
- *Additional equipment will be available at Callaway Safety Equipment Co., Inc., (505) 392-2973, 3229 Industrial, Hobbs, New Mexico, 88240.
- · Additional personal Hydrogen Sulfide monitors on location for all hands.
- · Automatic Flare igniter installed on rig.

VI. CHECK LIST SECTION

Status Check List

NOTE:	Date each item as they are implemented.	
1.	Sign at location entrance	
2.	Two (2) windsocks (in required locations)	
3.	Wind streamers (if required)	
4.	30 minute pressure demand air packs on location for all rig personnel and mud loggers.	
5.	Air packs, inspected and ready for use.	
6.	Spare bottles for each air pack (if required)	
7.	Cascade system and hose line hook up	
8.	Cascade system for refilling air bottles	
9.	Choke manifold hooked up and tested (Before drilling out surface casing)	
10.	Remote Hydraulic BOP control (hooked up and tested before drilling out surface casing)	
11.	BOP Preventor tested (before drilling out surface casing)	
12.	Mud engineer on location with equipment to test mud for Hydrogen Sulfide	
13.	Safe Briefing Areas set up	
14.	Condition sign and flags on location and ready	
15.	Hydrogen Sulfide detection system hooked up	
16.	Hydrogen Sulfide alarm system hooked up	
17.	Stretcher on location at Safe Briefing Area	
18.	1 - 100' length of 5/8" nylon rope on location	
19.	1 - 20 # or 30 # ABC fire extinguisher in safety trailer in addition to those on rig	
20.	Combustible gas detector on location and tested	-
21.	All rig crews and supervisors trained (as required)	

22.	Access restricted for unauthorized personnel	
23.	Drills on H2S and well control procedures	
24.	All outside service contractors advised of potential Hydrogen Sulfide on well	
25.	NO SMOKING sign posted	
26.	Hand operated H2S detector with tubes on location	
27.	25 mm flare gun with flares	
28.	Automatic Flare igniter installed on rig	
	,	

Procedural Check List

Perform the following on each tour:

- 1. Check fire extinguishers to see that they have the proper charge.
- 2. Check breathing equipment to insure that it has not been tampered with.
- 3. Check pressure on supply air bottles to see that they are capable of recharging.
- 4. Make sure all of the Hydrogen Sulfide detection systems are operative.

Perform the following each week:

- 1. Check each piece of breathing equipment to make sure that the demand regulator is working. This requires that the bottle be opened and the mask assembly be put on tight enough so that when you inhale, you get air.
- 2. Blowout preventor skills.
- 3. Check supply pressure on BOP accumulator stand-by source.
- 4. Check all work/escape units for operation: demand regulator, escape bottle air volumes, supply bottle air volume.
- 5. Check breathing equipment mask assembly to see that straps are loosened and turned back.
- 6. Check pressure on breathing equipment air bottles to make sure they are charged to full volume.
- 7. Check breathing equipment air bottles to make sure all demand regulators are working. This requires that the bottles be opened and the mask assembly be put on tight enough so that when you inhale, you get air.
- 8. Confirm pressure on all supply air bottles.
- Perform breathing equipment drills with on-site personnel.

Check the following supplies for availability:

- a. Stretcher
- b. Safety belts and ropes
- c. Emergency telephone lists
- d. Spare air bottle
- e. Spare oxygen bottles (if resuscitator required)
- f. Hand operated H2S detectors and tubes
- 10. Test the Explosimeter to verify batteries are good.

VII. BRIEFING PROCEDURE SECTION

Briefing Procedures

The following scheduled briefings will be held to insure the effective drilling and operation of this project:

Pre-Spud Meeting

Date:

Prior to spudding the well

Attendance:

Drilling Supervisor
Drilling Engineer
Drilling Foreman
Rig Pushers
Rig Driller

Rig Driller Mud Engineer

All Safety Personnel Service Companies

Purpose:

Review and discuss the well program, step by step, to insure complete understanding of assignments and responsibilities.

VIII. EVACUATION PLAN SECTION

General Plan

The direct lines of action prepared by CALLAWAY SAFETY EQUIPMENT CO., INC. to protect the public from hazardous gas situations are as follows:

- 1. When the company approved supervisor (Drilling Foreman, Tool Pusher, Driller) determine Hydrogen Sulfide gas cannot be limited to the well location and the public will be involved, he will activate the evacuation plan. Escape routes are noted on the Area map.
- 2. Company safety personnel or designee will notify the appropriate local government agency that a hazardous condition exists and evacuation needs to be implemented.
- 3. Company approved safety personnel that have been trained in the use of Hydrogen Sulfide detection equipment and self-contained breathing equipment will be utilized.
- 4. Law Enforcement personnel (State Police, Sheriff's Department, local Police Department and local Fire Department) will be called to aid in setting up and maintaining road blocks. Also, they will aid in evacuation of the public if necessary.

NOTE: Law enforcement personnel will not be asked to come into a contaminated area. Their assistance will be limited to uncontaminated areas. Constant radio contact will be maintained with them.

5. After the discharge of gas has been controlled, "Company" safety personnel will determine when the area is safe for re-entry.

See Emergency Reaction Plan

EMERGENCY ASSISTANCE TELEPHONE LIST

PUBLIC	SAFETY
--------	--------

MEWBOURNE OIL CO.

Frosty Latham	Drilling Foreman	390-4103 738-8040	•
Micky Young	Drilling Superintend	390-0999 392-0869	

SAFETY CONTRACTOR

Callaway Safety Equipment	Hobbs	(505) 393-2973
	Odessa	(915) 561-5049

Affected Public Notification List

(within a 65' radius of exposure @ 100 ppm)

The geologic zones that will be encountered during drilling are known to contain hazardous quantities of H2S. The accompanying map illustrates the affected areas of the community. The residents within this radius will be notified via a hand delivered written notice describing the activities, potential hazards, conditions of evacuation, evacuation drill siren alarms and other precautionary measures.

Evacuee Description:

Residents - There are no residents that

Hive within 1000'.

Notification Process:

A continuous siren audible to all residents will be activated, signaling evacuation of previously

notified and informed residents.

Evacuation Plan:

All evacuees will migrate lateral to the wind

direction.

The Oil Company will identify all homebound or highly susceptible individuals and make special evacuation preparations, interfacing with the local fire and emergency medical services as necessary.

Callaway Safety Equipment

	_		 	 	,	 	 	 	 	 	 	
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100 ppm Radius of Exposure-feet from	source	0.00										
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Estimated Zero Back pressure FLOW RATE cubic	feet/day	000'06										
	Sample	0ppm										
	Sample Point	#2000356										
	Date	6/29/2005										
	Location	Pecos River 9#3										:

Prepared by: Callaway Safety Equipment Jerry Caudill 3229 Industrial Drive Hobbs, NM 88240 505-392-2973 Callaway Safety Technician_

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Laboratory Services, Inc.

2609 West Marland Hobbs, New Mexico 88240

Telephone: (505) 397-3713

FOR:

Mewbourne Oil Company

Attention: Tommy Jones

P. O. Box 5270

Hobbs, New Mexico 88241

SAMPLE:

Sta. # 2000356

IDENTIFICATION: Pecos River 9 #3

COMPANY:

Mewbourne Oil Co.

LEASE: PLANT:

GAS (XX)

SAMPLE DATA: DATE SAMPLED: ANALYSIS DATE:

PRESSURE - PSIG

SAMPLE TEMP. °F

ATMOS. TEMP. °F

6/29/05 2:05pm

6/30/05

105

111

95

SAMPLED BY: ANALYSIS BY: LIQUID ()

Tommy Jones Vicki McDaniel

REMARKS:

COMPONENT ANALYSIS

COMPONENT		MOL PERCENT	GPM
Design of Colffield	(1100)		
Hydrogen Sulfide	(H2S)		
Nitrogen	(N2)	2.807	
Carbon Dioxide	(CO2)	1.540	
Methane	(C1)	73.446	
Ethane	(C2)	11.717	3.126
Propane	(C3)	6.266	1.723
I-Butane	(IC4)	0.774	0.253
N-Butane	(NC4)	1.816	0.571
I-Pentane	(IC5)	0.510	0.186
N-Pentane	(NC5)	0.499	0.180
Hexane Plus	(C6+)	0.625	0.271
	-	0.020	0.271
		100.000	6.310
BTU/CU.FT. – DRY	1261		MOLECULAR WT. 22.3427
AT 14.650 DRY	1257		
AT 14.650 WET			
AT 14.73 DRY			
AT 14.73 WET	· — - ·		
711 17170 WEI	1242		
SPECIFIC GRAVITY CALCULATED			PAXED
MEASURED)		





John L. Wortham & Son, L.P.

Insurance & Risk Management

February 17, 2006

Mr. Drew Greene Mewbourne Oil Co. P.O. Box 7698 Tyler, TX 75711

Re: Bond Renewals

Dear Drew:

Please find the enclosed invoices representing the renewal premium for each of the following bonds:

Invoice no. 530688 \$1,000 \$50,000 Blanket Plugging Bond

Bond No. 22015675 To: State of New Mexico Term: March 25, 2006/2007

Invoice no. 530689 \$500 \$25,000 Surety Bond for Plugging

Bond No. 22015676 To: State of Oklahoma Term: March 17, 2006/2007

Invoice no. 530668 \$2,000 \$100,000 Oil Well Drilling Bond

Bond No. 22015712

To: City of Carlsbad, New Mexico Term: February 8, 2006/2007

Prior to filing the original bond with the City of Carlsbad, it must be signed by the President or Vice President of Mewbourne Oil Co. with the corporate seal affixed. The copy is for Mewbourne's file.

The captioned bonds are continuous in form. If the bonds are not to be continued, please let us know as soon as possible. Payment is due upon receipt. Should you have any questions, please feel free to call.

Sincerely,

JOHN L. WORTHAM & SON, L.P.

Your Have

John L. Wortham & Son, L.P.

Telephone: Houston 713.346.1074 Galveston 409.763.0002

Facsimile: 409.763.4173

Oil Well Drilling Permit Bond

Bond No. 22 015 712	
Bond Amount \$100,000.00	
KNOW ALL MEN BY THESE PRESENTS, That we, Me as Principal, and the Liberty Mutual Insurance Comp in the State of New Mexico, are held and firmly bound us Obligee, in the penal sum of One Hundred Thousand of the payment of which sum well and truly to be made, bind ourselves, our heirs, executors, administrators, sucfirmly by these presents.	pany as Surety, authorized to do business nto the City of Carlsbad, New Mexico, as and no/100(\$100,000.00) we, the said Principal and the said Surety,
WHEREAS, the Principal has applied to the Obligee for identified as Pecos River 20 #1 within the city I	
NOW, THEREFORE, THE CONDITION OF THIS OBLIC comply with all applicable City code and ordinance provide the City of Carlsbad, New Mexico; and, in addition, the beginning promptly pay all legally imposed fines, penalties, attorned upon permittee by reason of his breach of any terms, pecity code and ordinance provisions.	isions relating to the drilling of an oil well in ond will be conditioned that the Principal will eys' fees, and other assessments imposed
PROVIDED, HOWEVER, THE LIABILITY OF THE SUR full force and effect for the full period of the permit, and above named, or until fifteen days after receipt by the Surety, or its authorized agent, stating that the liability canceled; and provided further, that nothing herein sha have accrued under this bond prior to the date of such	d renewals thereof, issued to the Principal Obligee of a written notice signed by such of such Surety is thereby terminated and all affect any rights or liabilities which shall
Signed, sealed and dated this 8th day of February	, 20 06 .
_	Mewbourne Oil Company Principal By: Jereph Company Principal Vice Res - Admin.
- -	Liberty Mutual Insurance Co Surety By: Attorney in Fact Jammye Langford

Fo confirm the validity of this Power of Attorney call I-610-832-8240 between 9:00 am and 4:30 pm EST on any business day.

THIS POWER OF ATTORNEY IS NOT VALID UNLESS IT IS PRINTED ON RED BACKGROUND.

This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

LIBERTY MUTUAL INSURANCE COMPANY **BOSTON, MASSACHUSETTS POWER OF ATTORNEY**

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company, bu	irsuami io and dv	authority of the	DV-law and /	-uuiionzauo	ii neremaner seci	orum does ne	reby name, cons	titute and appoint	-1	

PHILIP N. BAIR, VICIE COLEMAN, JIMMYE LANGFORD, PHYLLIS RAMIREZ, ERIC S. FEIGHL, MILDRED L. MASSEY, JANIE CERMENO, JOYCE A. JOHNSON, ALL OF THE CITY OF HOUSTON, STATE OF TEXAS......

each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its DOLLARS (\$ 40,000,000.00**** execution of such undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents, shall be as binding upon the Company as if they had been duly signed by the president and attested by the secretary of the Company in their own proper persons.

That this power is made and executed pursuant to and by authority of the following By-law and Authorization:

ARTICLE XIII - Execution of Contracts: Section 5. Surety Bonds and Undertakings.

Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys in-fact, as may be necessary to act in behalf of the Company to make. execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

By the following instrument the chairman or the president has authorized the officer or other official named therein to appoint attorneys-in-fact:

Pursuant to Article XIII. Section 5 of the By-Laws, Garnet W. Elliott, Assistant Secretary of Liberty Mutual Insurance Company, is hereby authorized to appoint such attorneys-in-fact as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations,

That the By-law and the Authorization set forth above are true copies thereof and are now in full force and effect.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Company and the corporate seal of Liberty Mutual Insurance Company has been affixed thereto in Plymouth Meeting, Pennsylvania this 16th day of

LIBERTY MUTUAL INSURANCE COMPANY



Garnet W. Elliott, Assistant Secretary

COMMONWEALTH OF PENNSYLVANIA COUNTY OF MONTGOMERY

On this 16th day of March 2005, before me, a Notary Public, personally came Garnet W. Elliott, to me known, and acknowledged that he is an Assistant Secretary of Liberty Mutual Insurance Company; that he knows the seal of said corporation; and that he executed the above Power of Attorney and affixed the corporate seal of Liberty Mutual Insurance Company thereto with the authority and at the direction of said corporation. IN TESTIMONY WHEREOF, Thave hereunto subscribed my name and affixed my notarial seal at Plymouth Meeting, Pennsylvania, on the day and year first above written.

Teresa Pastella, Notary Public Plymouth Twp., Montgomery County My Gommission Expires Mar. 28, 2005 Membur, Perincylvania Association of Notaries

CERTIFICATE

I, the undersigned, Assistant Secretary of Liberty Mutual Insurance Company, do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy, is in full force and effect on the date of this certificate; and I do further certify that the officer or official who executed the said power of attorney is an Assistant Secretary specially authorized by the chairman or the president to appoint attorneys-in-fact as provided in Article XIII, Section 5 of the By-laws of Liberty Mutual Insurance Company.

This certificate and the above power of attorney may be signed by facsimile or mechanically reproduced signatures under and by authority of the following vote of the board of directors of Liberty Mutual Insurance Company at a meeting duly called and held on the 12th day of March, 1980.

VOTED that the facsimile or mechanically reproduced signature of any assistant secretary of the company, wherever appearing upon a certified copy of any power of attorney issued by the company in connection with surety bonds, shall be valid and binding upon the company with the same force and effect as though manually affixed.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seal of the said company, this



David M. Carey, Assistant Secretary

ACOND CERTIF	-ICATE OF LIA	BILITY INS	TY INSURANCE			MDD(YY) 5/2006
RODUCER JOHN L. WORTHAM & SON, L.P. P.O. BOX 1388		ONLY AND HOLDER. T	THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.			
HOUSTON, TEXAS 77251-1388		ALIENTIE		AFFORDING COVERA		011.
073564-20-59 dxs -	kjones	INSURER A. St. F	Paul Fire & Marine Ins			
MEWBOURNE OIL COMPANY P. O. BOX 7698 TYLER, TX 75711		INSURER B: Commerce & Industry Insurance Co.				
		INSURER C: Twin City Fire Insurance Company				
		INSURER D: Hartford Insurance Co. of Midwest				
		INSURER E:				
COVERAGES THE POLICIES OF INSURANCE LISTED BREQUIREMENT, TERM OR CONDITION OF THE INSURANCE AFFORDED BY THE PORGEREGATE LIMITS SHOWN MAY HAVE	F ANY CONTRACT OR OTHER DOC DLICIES DESCRIBED HEREIN IS SUI	CUMENT WITH RESPECT BJECT TO ALL THE TERM 6.	TO WHICH THIS CEI IS, EXCLUSIONS AN	RTIFICATE MAY BE ISSUE	D OR MAY	PERTAIN,
ISR TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MW/DD/YY)	LIM	пs	
A GENERAL LIABILITY	VK04201244	07/01/2005	07/01/2006	EACH OCCURRENCE	\$	1,000,000
COMMERCIAL GENERAL LIABILITY				FIRE DAMAGE (Any one fire)	\$	100,000
CLAIMS MADE ✓ OCCUR				MED EXP (Any one person)	\$	5,000
				PERSONAL & ADV INJURY	\$	1,000,000
				GENERAL AGGREGATE	+	2,000,000
GEN'L AGGREGATE LIMIT APPLIES PER POLICY PRO- JECT LOC	:			PRODUCTS - COMP/OP AGG	\$	2,000,000
AUTOMOBILE LIABILITY ANY AUTO	61UENTT6307 O/S 61UENTT6312 TX	07/01/2005 07/01/2005	07/01/2006 07/01/2006	COMBINED SINGLE LIMIT (Ea accident)	\$	1,000,000
ALL OWNED AUTOS SCHEDULED AUTOS				BODILY INJURY (Per person)	:	
HIRED AUTOS NON-OWNED AUTOS				BODILY INJURY (Per accident)	\$	
				PROPERTY DAMAGE (Per accident)	\$	
GARAGE LIABILITY				AUTO ONLY - EA ACCIDENT	\$	
ANY AUTO				OTHER THAN EA AC	c s	
				AUTO ONLY: AGO	3 \$	10,000,000
EXCESS LIABILITY	VK04201244	07/01/2005	07/01/2006	EACH OCCURRENCE	- \$	10,000,000
OCCUR CLAIMS MADE				AGGREGATE	\$	10,000,000
DEDUCTIBLE				ļ		
RETENTION \$ 10,000					\$	
B WORKERS COMPENSATION AND	WC3288818	07/01/2005	07/01/2006	✓ WC STATU- OTH	1- 5	
EMPLOYERS' LIABILITY	113233515	0.10112000		E.L. EACH ACCIDENT	1	1,000,00
		ļ		E.L. DISEASE - EA EMPLOY		1,000,00
				E.L. DISEASE - POLICY LIM		1,000.000
DESCRIPTION OF OPERATIONS/LOCATIONS/ CITY OF CARLSBAD IS INCLUDED WRITTEN CONTRACT AS RESPEC	AS ADDITIONAL INSURED ON	ALL POLICIES EXCEPT	T WORKERS COM		QUIRED E	
CERTIFICATE HOLDER	DDITIONAL INSURED; INSURER LETTER:	CANCELLA	TION (BELOW &	SEE DEVEDGE		

IMPORTANT

If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. A statement On this certificate does not confer rights to the certificate holder in lieu of such endorsement(s). If SUBROGATION IS WAI VED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

DISCLAIMER

The Certificate of Insurance on the reverse side of this form does not constitute a contract between the issuing insurer(s), authorized representative or producer, and the certificate holder, nor does it affirmatively or negatively amend, extend, or alter the coverage afforded by the policies listed thereon.

CANCELLATION NOTICE

The CANCELLATION NOTICE on the CERTIFICATE OF INSURANCE is amended to include the following additional wording: The Insurance Company may cancel the described policy(ies) by mailing or delivering ten (10) days written notice of cancellation to the Certificate Holder for:

(1) Non Payment of premium or (2) any other circumstance permitted by state law or policy conditions.

Affidavit

On December 29, 2005, I placed an ad in the Carlsbad Current-Argus stating all relevant information required by City Ordinance 2004-17 Sec. 34-34. The ad was first run on January 1, 2006. On Friday January 13, 2006, I was notified by Richard Aguilar, Environmental Services manager for the City of Carlsbad that the meeting was delayed until January 25, 2006, because of scheduling conflicts in the City Council. I changed this date in my ad on the same day. This ad ran every Sunday and Wednesday ending with the January 22, 2006 publication.

On December 30, 2005, I placed an order with Bright Sign Ad Company of Hobbs, NM. The sign was constructed according to templates provided on the City of Carlsbad website. On January 7, 2006 the sign was completed and installed at the entrance to the proposed site. On Monday January 16, 2006 I made a date correction to the sign reflecting the new date of the meeting.

I hereby certify that all stipulations set forth in City Ordinance 2004-17 Sec. 34-34 entitled "Notice" have been adhered to in a timely manner.

Michael J. Johnson Petroleum Engineer Mewbourne Oil Company Hobbs District Office (505) 393-5905 (505) 631-6322

Affidavit of Publication

State of New Mexico, County of Eddy, ss.

Dawn Higgins, being first duly sworn, on oath says:

That she is Business Manager of the Carlsbad Current-Argus, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county: that the same is a duly qualified newspaper under the laws of the State wherein legal notices and advertisements may be published: that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof on the date as follows, to wit:

January 1	2006
January 4	2006
January 8	2006
January 11	2006
January 15	2006
January 18	2006
January 22	2006

That the cost of publication is \$ 761.84 and that payment thereof has been made and will be assessed as court costs.

Subscribed and sworn to before me this

day of

الدامغر وبالرز وتباور ويزامه والمتوامية ويؤمية ويؤمية وترامين وترامية وترامية وترامية وترامية وترامية وترامية My commission expires

Notary Public

DEBORAH S. PENALUNA

NOTARY SOMO FILED WITH SECRETARY OF STATE
by Commission Fundage 1-9-10

Public Notice

Mewbourne Oil Company

On January 25, 2006, Mewbourne Oil Company will appear before the Governing Body of the City of Carlsbad, 101 N. Halagueno Street, to request a permit to drill the Pecos
River "20" #1 to 12,200
feet. The proposed gas
well is located 868 feet from the South line and 990 feet from the East line of Section 20, Township 22 South, Range 27 East, more commonly known to be commonly known to be
1/4 of a mile northwest
of the intersection of
Thomason (CR 701)
and Donovan (CR
820).
Questions regarding
this application may be
directed to Mickey
Young. Hobbs District Young, Hobbs District Manager, 706 S. Cecil, Hobbs, New Mexico 88240, Office (505) 393-5905. Copies of the application for permit can be obtained at the Office obtained at the Omice of the City Clerk, 101 N. Halagueno, Carls-bad, New Mexico, (505) 887-1191 until

5:00 p.m. January 25, 2006.

Affidavit of Publication

State of New Mexico, County of Eddy, ss.

Dawn Higgins, being first duly sworn, on oath says:

That she is Business Manager of the Carlsbad Current-Argus, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of the State wherein legal notices and advertisements may be published; that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof on the date as follows, to wit:

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January 15	2006
January 18	2006
January 22	2006

That the cost of publication is \$ 761.84 and that payment thereof has been made and will be assessed as court costs.

Subscribed and sworn to before me this

24 day of January, 2006

OFFICIAL SINOTARY RUBICO
DEBORAH S. PENALUNA
NOTARY PUBLIC - NEW MEDICO
NOTARY SOUD FRED WITH SECRETARY OF STATE
My Commission Espires 1910

Public Notice

Mewbourne Oil Company

On January 25, 2006, Mewbourne Oil Company will appear before the Governing Body of the City of Carlsbad, 101 N. Halagueno Street, to request a permit to drill the Pecos River "20" #1 to 12,200 feet. The proposed gas well is located 868 feet from the South line and 990 feet from the East line of Section 20, Township 22 South, Range 27 East, more commonly known to be 1/4 of a mile northwest of the intersection of Thomason (CR 701) and Donovan (CR 820).

Questions regarding this application may be directed to Mickey Young, Hobbs District Manager, 706 S. Cecil, Hobbs, New Mexico 88240, Office (505) 393-5905.

Copies of the application be obtained at the Office

tion for permit can be obtained at the Office of the City Clerk, 101 N. Halagueno, Carlsbad, New Mexico, (505) 887-1191 until 5:00 p.m. January 25, 2006.

Affidavit of Publication

State of New Mexico, County of Eddy, ss.

Dawn Higgins, being first duly sworn, on oath says:

That she is Business Manager of the Carlsbad Current-Argus, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of the State wherein legal notices and advertisements may be published; that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof on the date as follows, to wit:

January 1	2006
January 4	2006
January 8	2006
January 11	2006
January 15	2006
January 18	2006
January 22	2006

That the cost of publication is \$ 761.84 and that payment thereof has been made and will be assessed as count costs.

Subscribed and sworn to before me this

24 day of January, 2006 Deborah S. Penaluna

OFFICIAL NOTATIVE PUBLIC - 10 DEBORAH S. PENALUNA

NOTATIVE BOOK PRINT WELLOW OF STATE

My Commission Expires 1-1-10

Public Notice

Mewbourne Oil Company

On January 25, 2006, Mewbourne Oil Company will appear before the Governing Body of the City of Carlsbad, 101 N Halagueno. Street, to request a permit to drill the Pecos River "20" #1 to 12,200 feet. The proposed gas well is located 868 feet from the South line and 990 feet from the East line of Section 20, Township 22 South, Range 27 East, more commonly known to be 1/4 of a mile northwest of the intersection of Thomason (CR 701) and Donovan (CR 820). Questions regarding this application may be directed to Mickey Young, Hobbs District Manager, 706 S. Cecil, Hobbs, New Mexico, 88240, Office (505) 393-5905. Copies of the application for permit can be obtained at the Office of the City Clerk, 101 N. Halagueno, Carlsbadd, New Mexico, 505) 887-1191 until 5:00 p.m. January 25,

2006.