			er DD sia, NN 88210	A ¥41		
DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill or to deepen or reentry to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals SUBMIT IN TRIPLICATE SUBMIT IN TRIPLICATE Use "APPLICATION FOR PERMIT—" for such proposals I to use this form for proposals to drill or to deepen or reentry to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals I to use this form for proposals to drill or to deepen or reentry to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals I to use this form for proposals to drill or to deepen or reentry to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals I to use this form for proposals to drill or to deepen or reentry to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals I to use this form for proposals to drill or to deepen or reentry to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals I to use this form for proposals to drill or to deepen or reentry to a different reservoir. I to use the deepen of the de	11511			1	FORM APPROVED	
BUREAU OF LAND MANAGEMENT SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to dill or to deepen or reentry to a different reservoir. SUBMIT IN TRIPLICATE 1 "Devide "APPLICATION FOR PERMIT—" for such proposals NA 1 "Devide "APPLICATION FOR PERMIT—" for such proposals NA 1 "Devide "APPLICATION FOR PERMIT—" for such proposals NA 1 "Devide "APPLICATE Na of CA. agreement Designance 1 "Devide Well Storage Area 1 "Devide Well Storage Area 2 "Weil "Devide Well Nume to Appendent Designance 2 "Anse of Opendent Report Do Tot Storage 2 "Anse of Opendent Report Do Tot Storage Area 2 "Anse of Opendent Report Do Tot Storage Area 2 "OHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA 1 TYPE OF SUBMISSION TYPE OF ACTION 2 "Andread Method Report Do Storage of Teas 3 Suboopent Report Dorage France 3 Suboopent Report Dorage Report 4 I Incerve confly that the foregoing of the different relation of thema and use pertinent deats, and give pertinent de					Budget Bureau No. 1004-0135	
DOULDO DI LING METORISANCE SUNDRY NOTICES AND REPORTS NO WELLS Conduces this form for proposals to different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals Name different reservoir. Name different reservoir. <td colspa<="" td=""><td colspan="3"></td><td>-</td><td>5. Lease Designation and Serial No.</td></td>	<td colspan="3"></td> <td>-</td> <td>5. Lease Designation and Serial No.</td>				-	5. Lease Designation and Serial No.
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill to to deepen or reentry to a different reservoir. Use "APPLICATION FOR PERMIT" for such proposals NA SUBMIT IN TRIPLICATE 1 "per of Well 1 "per of Well SUBMIT IN TRIPLICATE Na Storage Area Net Well Area Well Storage Area Net Well Storage Area Net Well Storage Area Net Well Colspan="2">Storage Area Net Well Colspan="2">Storage Area Net Well Colspan="2">Storage Area Net Well Colspa	BUREAU OF LAND MANAGEMENT					
Do not use this form for proposals to drill or to despen or reentry to a different reservoir. Use "APPLICATION FOR PERMIT	SUNDRY NOTICES	AND REPORTS	ON WELLS		6. If Indian, Allottee or Tribe Name	
SUBMIT IN TRIPLICATE 7. If User CA. Agreenet Despaces 1 "Dye of Well Gas Storage 7. If User CA. Agreenet Despaces 2 Nues of general 0. Red eral No. 2 3 Address and Telephone No. 0. Red eral No. 2 3 Address and Telephone No. 0. Red eral No. 2 3 Address and Telephone No. 0. The Star Well No. 2 3 Address and Telephone No. 100 or EA. (J.W. Mulloy Assoc, Inc Agent) 3 Address and Telephone No. 100 or EA. (M. of Sharey Description) 4 Location of Well (Protage, Sec. T. R. M. of Sharey Description) 30 - 015 - 20635 100 or EA. (J.W. Mulloy TeL Unit G 100 or EA. (J.W. Mulloy New York) State Sec 2 7 T - 25 - S R - 24 - E Eddy , NMX 2 CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION TYPE OF ACTION 2 None Adjuster Report Change of Pans 3 Descript Proposed or Complete Destrongen User Stores None-Route Fracting 3 Descript Proposed or Complete Destrongen User Stores Oner	Do not use this form for proposals to drill or to deepen or reentry to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals SUBMIT IN TRIPLICATE 1. Type of Well Oil Gas X Other Gas Storage 2. Name of Operator El Paso Natural Gas Co., (J.W.Mulloy Assoc, Inc Agent) 3. Address and Telephone No. 1110 N. Big Spring St., Midland, Tx 79701 (915-687-0323)				NA	
1 Type of Well Storage						
Image: Grain String Grain Storage I. Well Nums and No. Image: Operator B. Well Nums and No. Image: Operator Grain String St., Midland, Tx 79701 (915-687-0323) Address and Tolephone No. 30-015-20635 Inter Operator Solvespream Inter Operator Inter Operator						
A Tube Operator A tore of partial Gas Co., (J.W.Mulloy Assoc, Inc Agent) A ANT Well No. B AT Well No. B A ANT WE					8. Well Name and No.	
E1 Paso Natural Gas Co., (J.W.Mulloy Assoc, Inc. 2 Adding J Address of Teppone No. 30-015-20635 1110 N. Big Spring St., Midland, Tx 79701 (915-687-0323) 30-015-20635 100 Field as boot of Exploratory Area 30-015-20635 1300 ' FNL & 1980' FEL Unit G 0. Sec 27 T-25-S R-24-E 0. 12 CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION TYPE OF ACTION 12 CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION TYPE OF ACTION 13 Notice of Intent Abandonment 14 Locando of Complete Operations (Clearly state all pertunent details, and give pertunent datas, including antimated data of during any proposed work. If well is directionally dutic group and and manager of all markers and zones perminent to this work.)* 13 Describe Proposed or Completed Operations (Clearly state all pertunent datas, including antimated data of during any proposed work. If well is directionally dutic group and and manager of all markers and zones perminent to this work.)* SEE ATTACHED Tate Agent Describe the foregoing a lobe and correct 14 Thereby centify that the foregoing a lobe and correct Tate Agent Describe the social content and and correct 13 Describe Proposed or Complete Operations (Clearly state all pertintent data core all markers and zones perminent to thi						
11110 N. Big Spring St., Midland, TX /9701 (913-68/20323) Washington Ranch Mo 1980' FNL & 1980' FEL Unit G Unit G Sec 27 T-25-S R-24-E Eddy, NMX 12 CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION TYPE OF ACTION Image: Subsquent Report Change of Pans Image: Subsquent Report Cause State Image: State Cause State Image: Subsquent Report Cause State Image: Subsquent Report Cause State Image: State C					30-015-20635	
1980' FNL & 1980' FEL Unit G II. Courty or Prank, Sale Sec 27 T-25-S R-24-E Eddy, NMX 12 CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION TYPE OF ACTION IM Noice of Intex Adandoment Image: Subsequent Report None Routing Facturing Image: Subsequent Report Casing Repair Image: Subsequent Report at a function of the subsequent Report at a functin of the subsequent Report at a function of th					10. Field and Pool, or Exploratory Area Washington Ranch Mon	
Sec 27 T-25-S R-24-E Eddy, NMX 12 CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION TYPE OF ACTION Image: Subsequent Report Change of Plass Image: Subsequent Report Prugging Back Image: Final Abandonment Notice Other Subsequent Report Image: Subsequent Report Conversion to Injection Image: Subsequent Report Other Image: Subsequent Report Describe Proposed or Completed Operations (Clearly state all pertirent deal), and give pertirent date, including estimated date of saming any proposed work. If well is directionally drille give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)* SEE ATTACHED Image: True Agent Image: Multicon Multicon Determent date foregoing al rule and correct Signed					11. County or Parish, State	
TYPE OF SUBMISSION TYPE OF ACTION Image: Subsequent Report Change of Plans Image: Subsequent Report Plagging Back Image: Subsequent Report Other Image: Subsequent Report Image: Subsequent Report Image: Subsequent Report Image: Subseque					Eddy, NMX	
TYPE OF SUBMISSION TYPE OF ACTION Image: Subsequent Report Change of Plans Image: Subsequent Report Plugging Back Image: Subsequent Report Change of Plans Image: Subsequent Report Change of Subsequent Report Image: Subsequent Report	CHECK APPROPRIATE BOX(s) TO INDICAT	E NATURE OF NO		T, OR OTHER DATA	
Image: Subsequent Report Recompletion New Construction Image: Subsequent Report Caling Repair Water Statu-Off Image: Subsequent Report Completion Dispose Water Image: Subsequent Report Dispose Water Dispose Water Image: Subsequent Report and the vertical depths for all markers and zones pertinent dates, including estimated date of starting any proposed work. If well is directionally drille SEE ATTACHED Image: Subsequent Report Image: Subsequent Report Image: Start Subsequent Report Dispose Water Image: Subsequent Report SEE ATTACHED Image: Subsequent Report Image: Subsequent Report Image: Subsequent Report Subsequent Report Dispose Marker Image: Subsequent Report Image: Start Subsequent Report Imarkers and zones pertinent data subsequent		,				
Image: Subsequent Report Image: Subseque	Notice of Intent	X				
Image: Subsequent Report Image: Subsequent Report Image: Subsequent Report Image: Subsequent Report Image: Subsequent Report Image: Subsequent Report Image: Subsequent Report Image: Subsequent Report Image: Subsequent Report Image: Subsequent Report Image: Subsequent Report Image: Subsequent Report Image: Subsequent Report Image: Subsequent Report Image: Subsequent Report Image: Subsequent Report <t< td=""><td>—</td><td></td><td>ר י ר</td><td></td><td></td></t<>	—		ר י ר			
Final Abandonment Noice Final Abandonment Noice Attering Cating Other Other Noise Reconstraints duality completion as Well Completion of Engetion as Well 13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled and true vertical deptiles for all markers and zones pertinent to this work.)* Completion of Engetime details, and zones pertinent to this work.)* SEE ATTACHED Completion of Engetime details, and zones pertinent to this work.)* If I Completion of Engetime details, and zones pertinent to this work.)* Completion of Engetime details, and zones pertinent to this work.)* Completion of Engetime details, and zones pertinent to this work.)* Completion of Engetime details, and zones pertinent to this work.)* Completion of Engetime details, and zones pertinent to this work.)* 	Subsequent Report		7			
Image: Additional text for the second sector of the sector of the second sector of the sec		Ē	-		Conversion to Injection	
 13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drille give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)* SEE ATTACHED If I arrive a starting and proposed work is the starting and correct is and correct signed _J.W. Mulloy Mulloy Trite _Agent	Final Abandonment Nouce	Ē	 -		(Note: Report results of multiple completion on Well	
SEE ATTACHED III I bereby certify that the foregoing is the and correct Signed J.W. Mulloy Mulloy Title Agent Date <u>7-20-95</u>					Completion or Recompletion Report and Log form.)	
14. I hereby certify that the foregoing is true and correct Signed J.W. Mulloy Mulloz Title Agent Date					2 12 16 PIL	
Signed J.W. Mulloy Mulloz Title Agent Date				· · · · ·		
	14. I hereby certify that the foregoing is true and correct	loz : Tinla	Agent		Date7-20-95	
		7		E i?	Date 8/29/95	

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

July 31, 1995

El Paso Natural Gas Co. Recommended Plugging Procedure Federal "O" Well #2 Washington Ranch Gas Storage Area Eddy Co, New Mexico

The well was originally drilled as the Government "M" Well No 2 by Cities Oil Company and completed as a gas well June 2, 1972. The well later became the property of El Paso Natural Gas Company and since that time has been utilized as an observation well for their Washington Ranch Gas Storage Project.

The attached Schematic (Fig #1) shows the condition of the well during the period of time it was used as an observation well and at the time the recent work-over commenced. The attached daily report is a detailed account of the effort made to recover the fish in this well and to repair the casing failure. Also included is an estimated accumulative cost of the operation.

A review of Fig #1 indicates that the casing had failed prior to commencement of their work-over, but the 2 7/8" tubing was intact. This is evidenced by the report of 3-31-95 because when the tubing was pressured to 1400 psi and there was no evidence of communication with the annlus.

The proposed plugging procedure is as follows and is illustrated on the included schematics:

- 1. Run 2 7/8" tubing to ± 1500'.
- Pump 200 sx slurry of designed cement. Close in and monitor the 8 5/8" - 5 1/2" and 5 1/2" - 2 7/8" annlus.
- 3. Pull 2 7/8" tbg up to ± 800' and then run back to original depth, allowing time for slurry to thicken.
- 4. Pump 100 sx slurry of designed cement. Close in and monitor 8 5/8" - 5 1/2" and 5 1/2" - 2 3/8" annlus. Pull 2 7/8" tubing up to ± 800' then run to original depth, allowing time for slurry to thicken. Continue this operation as many times as necessary until a squeeze pressure is obtained.
 (As pumping continues the separate zones will be filled with

(As pumping continues the separate zones will be related a cement and will be squeezed. This operation is shown in the schematics Fig #2 thru #5.)

- 5. Spot 100 sx cement plug @ ± 1644', or as deep as possible.
- 6. POH w/2 7/8" tbg.
- 7. Run log to determine the cement top behind the 5 1/2" casing.
- 8. Perforate 5 1/2" casing just above the cement top.
- 9. Break circulation to surface and circulate cement to surface.
- 10. Close 8 5/8" 5 1/2" annlus and pressure to ± 500 psi. Release pressure & spot 100' plug in 5 1/2" casing just
- A above squeeze perforations.
 11. Set surface plug, install marker and clear location.

(The schematic in Fig #6 illustrates the condition of the bore hole after final plugging operations. The schematic shown in Fig #7 shows the theoretical conditions that would exist if the well had been abandoned in to normal manner. The recommended procedure is an improvement because individual zones are actually squeezed off and not simply separated by plugs.)

J.W. MULLOY ASSOCIATES, INC.

Johnny Mulloy

JWN/bh

L>+NOTE: Sufficient cement must be used to provide 100' cmt. plug across 85/8" csg shoe in 85/8" x 5/2" annulus and inside of 5/2" csy, or a separate plug should be placed across the 85/8" csg. shoe. In either case, this plug must be tagged to verify its position.

-2-



FIGURE #1. Well conditions on March 3, 1995, when workover commenced.



zone is squeezed.







FIGURE #5. Well conditions w/all zines squeezed.



