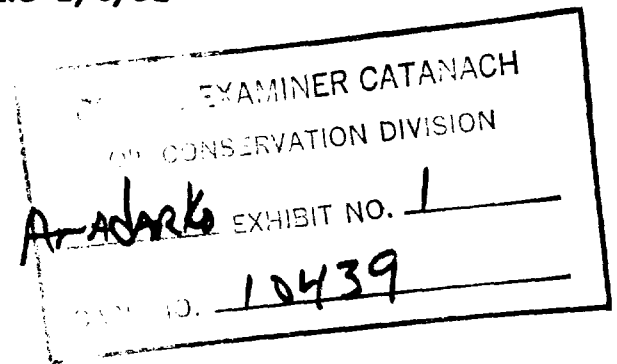


**ANADARKO PETROLEUM CORPORATION
EXXON SWD NO. 3 HEARING 2/6/92**



- I. Why we need the disposal well.
 - A. Water from Exxon No. 1
 - 1. Options
 - a. Trucking
 - b. Laguna Gatuna
 - c. Disposal well
-
- II. Permits
 - A. BLM has been approved (OCD has copy)
 - B. NMOCD Permit
 - 1. Offset Mineral Owners contacted w/no objections
 - 2. Surface Owner contacted w/no objections
 - 3. Application made based on
 - a. NMOCD Rule 701-D-1,2,3
 - b. Capitan Reefs poor water quality
-
- III. Sources of Information
 - A. Personal Experience
 - 1. Severe lost circulation
 - 2. Water saline & sour (H₂S)
 - B. City of Carlsbad
 - 1. Max Cordova - Environmental Engineer
 - 2. Jim Harrison - Water Dept.
 - C. State Engineers Office Roswell
 - D. State Engineers - Technical Report #38
(Capitan Aquifer Observation - Well Network Carlsbad to Jal New Mexico by W. L. Hiss w/cooperation of USGS)
-
- IV. Capitan Reef
 - A. Put up slide #1
 - 1. Explain reef building on edge of Delaware Basin
 - a. Point out Delaware Basin, Reef, State Lines, City of Carlsbad, Jal, Exxon #3, WSW #1
 - 2. Reef Today
 - a. Outcrops in Mts west of Carlsbad, Pecos River, Dip of Reef east to south
 - 3. Water west of Pecos fresh w/source greatly dependant on local weather
 - 4. East of Pecos reef appears to be fractured and the saline Pecos River is source of part of eastern reef water
 - 5. Current use of water west of Pecos is fresh water for City of Carlsbad. I visited w/both Mr. Cordova & Mr. Harrison - they said as does the Tech Report #38 that the Capitan Reef west of Pecos is not supplied by same source.

6. Water withdraw east of the Pecos is for refining & waterflooding in Eddy, Lea, Winkler & Ward Counties.

B. Put up slide #2

1. Explain Tech Report #38 & observation wells, point to Exxon #3, WSW #1, Little Eddy Unit I, rest of the 16 wells monitored.

C. Slide #3 Explain

1. West to East
2. Increase subsea depth
3. Flow of ground water in reef east
4. Decrease in water level of eastern reef
 - a. eg FL 6/67 to 3/76 dropped 500' to 600' during study
5. Compare Water Analysis

I - SECONDARY OR OTHER ENHANCED RECOVERY, PRESSURE MAINTENANCE, SALT WATER DISPOSAL, AND UNDERGROUND STORAGE

Order No. R-6702, effective July 1, 1981, amended, adopted and renumbered Rules 701 through 708.

RULE 701. INJECTION OF FLUIDS INTO RESERVOIRS (As Amended by Order No. R-930, December 28, 1956; Order No. R-1525, November 9, 1959; Order No. R-1644, May 1, 1960; Order No. R-2490, May 28, 1963; Order No. R-2764, September 8, 1964; Order No. R-2761, January 1, 1965; Order No. R-3092, July 18, 1966; Order No. R-3375, March 1, 1968; Order No. R-3933, June 1, 1970; Order No. R-4348, September 1, 1972; Order No. R-4381, September 1, 1972; Order No. R-6702, July 1, 1981; and Order No. R-8390, February 1, 1987.)

(See Section IV, Secondary Recovery, for Complete Order No. R-1525.)

A. PERMIT FOR INJECTION REQUIRED (As Amended by Order No. R-6702, July 1, 1981.)

The injection of gas, liquefied petroleum gas, air, water, or any other medium into any reservoir for the purpose of maintaining reservoir pressure or for the purpose of secondary or other enhanced recovery or for storage or the injection of water into any formation for the purpose of water disposal shall be permitted only by order of the Division after notice and hearing, unless otherwise provided herein.

B. METHOD OF MAKING APPLICATION (As Amended by Order No. R-2490, May 28, 1963; Order No. R-3375, March 1, 1968; and Order No. R-6702, July 1, 1981.)

(1) Application for authority for the injection of gas, liquefied petroleum gas, air, water or any other medium into any formation for any reason, including but not necessarily limited to the establishment of or the expansion of water flood projects, enhanced recovery projects, pressure maintenance projects, and salt water disposal, shall be by submittal of Division Form C-108 complete with all attachments.

(2) The applicant shall furnish, by certified or registered mail, a copy of the application to the owner of the surface of the land on which each injection or disposal well is to be located and to each leasehold operator within one-half mile of the well.

(3) Administrative Approval

If the application is for administrative approval rather than for a hearing, it must also be accompanied by a copy of a legal publication published by the applicant in a newspaper of general circulation in the county in which the proposed injection well is located. (The details required in such legal notice are listed on Side 2 of Form C-108.)

No application for administrative approval may be approved until 15 days following receipt by the Division of Form C-108 complete with all attachments including evidence of mailing as required under paragraph 2 above and proof of publication as required by paragraph 3 above.

If no objection is received within said 15-day period, and a hearing is not otherwise required, the application may be approved administratively.

C. HEARINGS

If a written objection to any application for administrative approval of an injection well is filed within 15 days after receipt of a complete application, or if a hearing is required by these rules or deemed advisable by the Division Director, the application shall be set for hearing and notice thereof given by the Division.

D. SALT WATER DISPOSAL WELLS (As Amended by Order No. R-2490, May 28, 1963; Order No. R-2761, January 1, 1965; Order No. R-3375, March 1, 1968; Order No. R-6702, July 1, 1981; and Order No. R-8390, February 1, 1987.)

The Division Director shall have authority to grant an exception to the requirements of Rule 701-A for water disposal wells only, without hearing, when the waters to be disposed of are mineralized to such a degree as to be unfit for domestic, stock, irrigation, or other general use, and when said waters are to be disposed of into a formation older than Triassic (Lea County only) and provided no objections are received pursuant to Rule 701-B 3.

(I-SECONDARY OR OTHER ENHANCED RECOVERY, PRESSURE MAINTENANCE, SALT WATER DISPOSAL, AND UNDERGROUND STORAGE - Cont'd.)

2. Disposal will not be permitted into zones containing waters having total dissolved solids concentrations of 10,000 mg/l or less except after notice and hearing, provided however, that the Division may establish exempted aquifers for such zones wherein such injection may be approved administratively.

3. Notwithstanding the provisions of paragraph 2. above, the Division Director may authorize disposal into such zones if the waters to be disposed of are of higher quality than the native water in the disposal zone.

E. PRESSURE MAINTENANCE PROJECTS

1. Pressure maintenance projects are defined as those projects in which fluids are injected into the producing horizon in an effort to build up and/or maintain the reservoir pressure in an area which has not reached the advanced or "stripper" state of depletion.

2. All applications for establishment of pressure maintenance projects shall be set for hearing.

The project area and the allowable formula for any pressure maintenance project shall be fixed by the Division on an individual basis after notice and hearing.

3. Pressure maintenance projects may be expanded and additional wells placed on injection only upon authority from the Division after notice and hearing or by administrative approval.

The Division Director shall have authority to grant an exception to the hearing requirements of Rule 701-A for the conversion to injection of additional wells within a project area provided that any such well is necessary to develop or maintain efficient pressure maintenance within such project and provided that no objections are received pursuant to Rule 701-B(3).

F. WATER FLOOD PROJECTS (As Amended by Order No. R-2764, September 8, 1964; Order No. R-3092, July 18, 1966; Order No. R-3375, March 1, 1968; Order No. R-3933, June 1, 1970; Order No. R-4348, September 1, 1972; Order No. R-4381, September 1, 1972; and Order No. R-6702, July 1, 1981.)

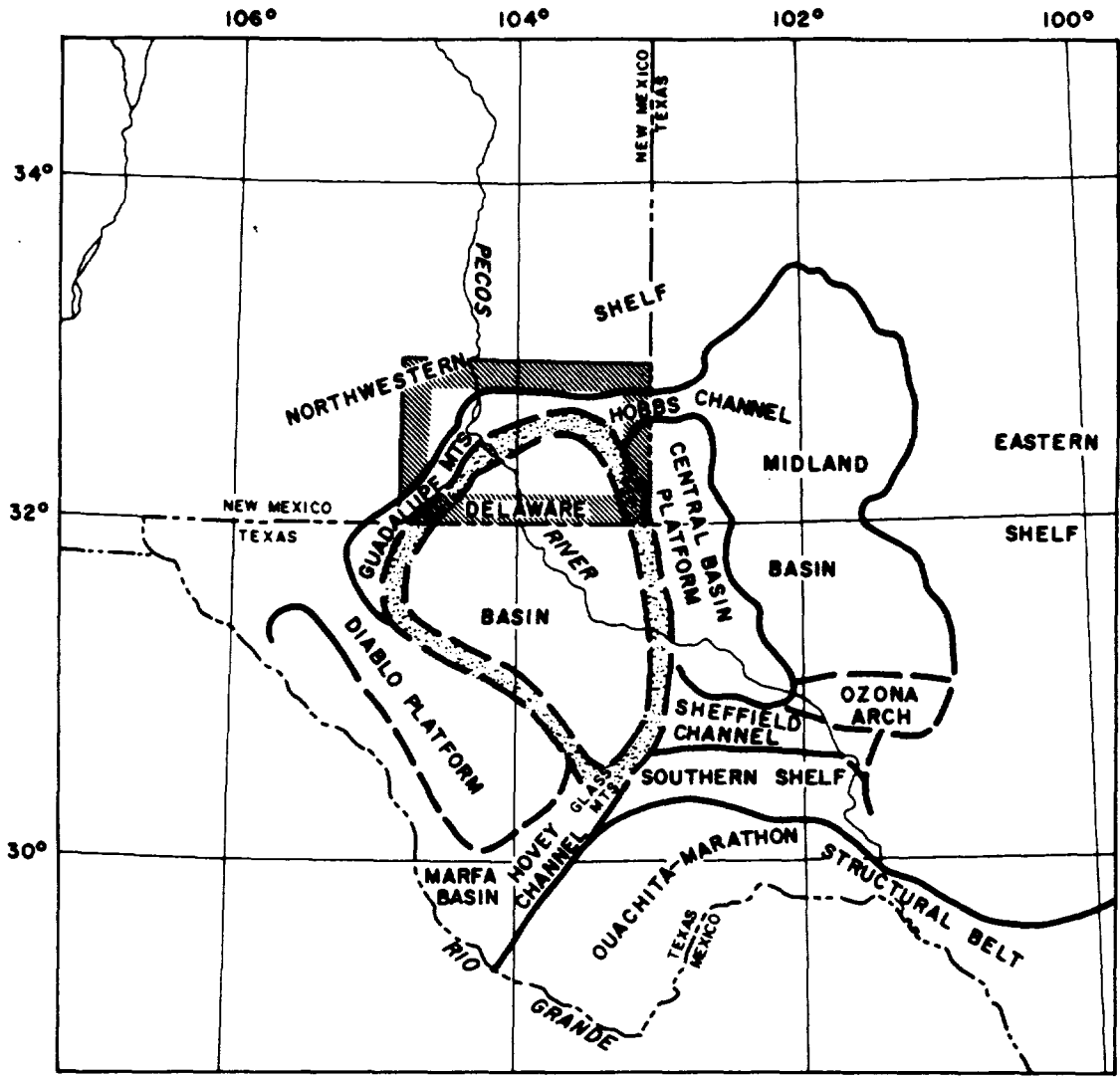
1. Water flood projects are defined as those projects in which water is injected into a producing horizon in sufficient quantities and under sufficient pressure to stimulate the production of oil from other wells in the area, and shall be limited to those areas in which the wells have reached an advanced state of depletion and are regarded as what is commonly referred to as "stripper" wells.

2. All applications for establishment of water flood projects shall be set for hearing.

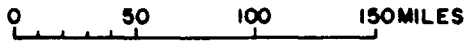
The project area of a water flood project shall comprise the proration units owned or operated by a given operator upon which injection wells are located plus all proration units owned or operated by the same operator which directly or diagonally offset the injection tracts and have producing wells completed on them in the same formation; provided however, that additional proration units not directly nor diagonally offsetting an injection tract may be included in the project area if, after notice and hearing, it has been established that such additional units have wells completed thereon which have experienced a substantial response to water injection.

3. The allowable assigned to wells in a water flood project area shall be equal to the ability of the wells to produce and shall not be subject to the depth bracket allowable for the pool nor to the market demand percentage factor.

Nothing herein contained shall be construed as prohibiting the assignment of special allowables to wells in buffer zones after notice and hearing. Special allowables may also be assigned in



Base from U.S. Geological Survey
United States base map.



EXPLANATION



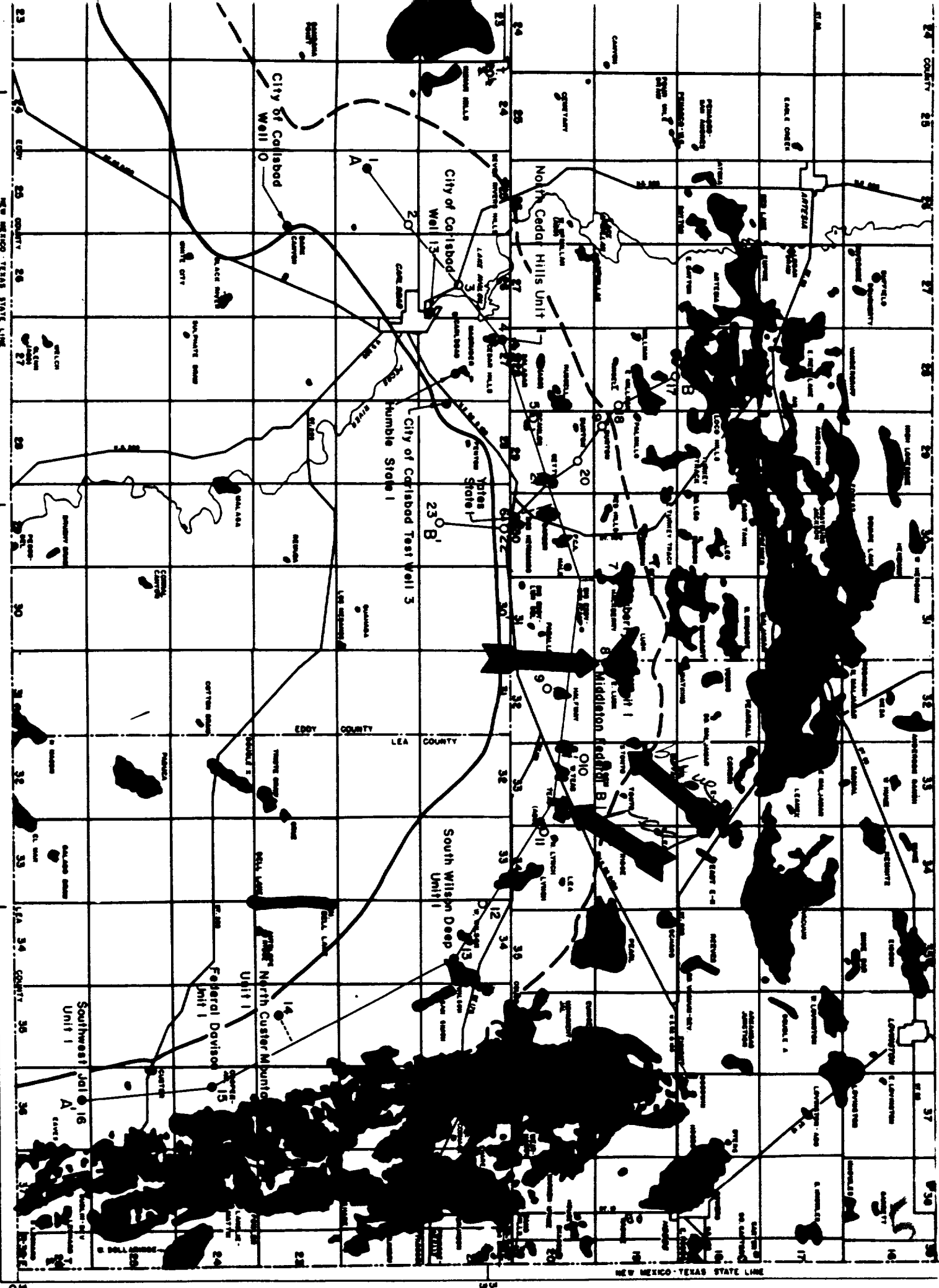
Report area



Approximate position of Capitan and Goat Seep Limestones

Figure 1.--Tectonic elements in the Permian basin of west Texas and southeastern New Mexico (modified after Oriol, Meyers, and Crosby, 1967).

Logical Survey,
Swell 38,



NEW MEXICO - TEXAS STATE LINE

Figure 3.--Longitudinal stratigraphic section A-A' showing the position of the Capitan aquifer, Eddy and Lea Counties, New Mexico.

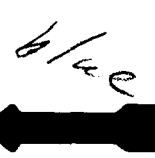
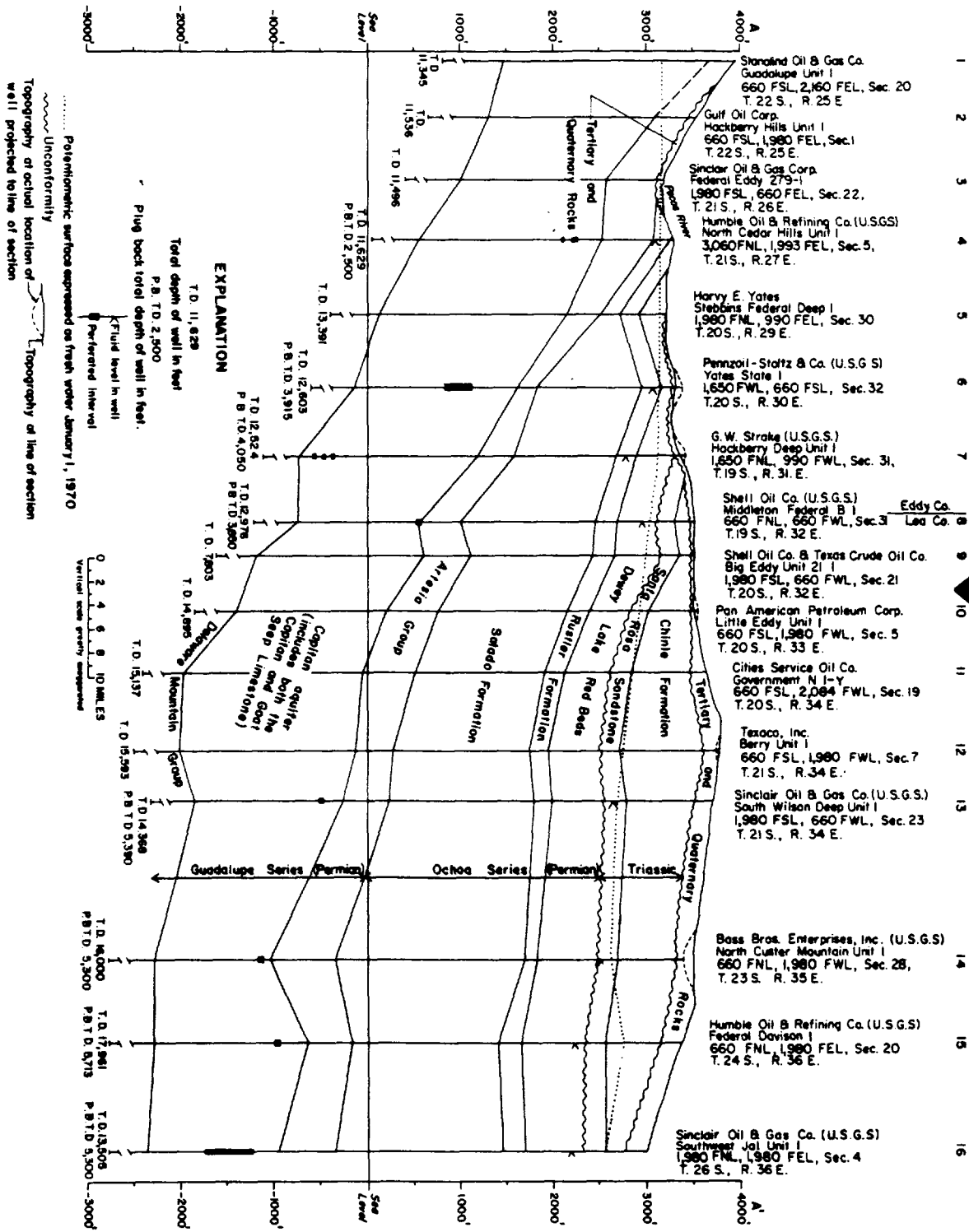


Table 2. --Chemical quality of water in Capitan aquifer observation wells - Concluded

Location number	Well name	Aquifer	Producing interval or sampling depth (feet)	Date	Silica (SiO ₂)	Calcium (Ca)	Magnesium (Mg)	Sodium + Potassium (Na+K)	Bicarbonate (HCO ₃)	Carbonate (CO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Fluoride (F)	Total dissolved solids	Hardness as CaCO ₃	Calcium magnesium	Non-carbonate	Specific gravity 20°C	Specific conductance (microhos at 25°C)	pH	
20.30.32.341	Yates State 1 - Concluded	Capitan	1,000 ² / ₄₆₁₀	12-29-71	---	1,452	600	13,808	595	---	4,410	22,016	---	43,712	6,100	---	---	1.031	---	50,000	7.1
32.341	do.	do.	1,500 ² / ₄₆₁₀	12-29-71	---	1,452	552	14,387	576	---	4,480	22,726	---	43,730	5,900	---	---	1.031	---	52,083	7.1
32.341	do.	do.	2,000 ² / ₄₆₁₀	12-29-71	---	1,452	552	14,385	571	---	4,480	22,726	---	43,858	5,900	---	---	1.030	---	50,000	7.1
32.341	do.	do.	2,500 ² / ₄₆₁₀	12-29-71	---	946	482	10,348	134	---	3,080	16,689	---	32,058	4,350	---	---	1.022	---	43,680	6.9
19.31.31.132 ^{1/2}	Hockberry Deep Unit 1	do.	2,113 ² / ₄₆₂₇	12-15-66	---	---	---	---	---	---	---	87,500	---	---	---	---	---	1.109	---	175,000	---
31.132 ^{1/2}	do.	do.	3,005 ² / ₄₆₂₇	12-15-66	---	---	---	---	---	---	---	87,000	---	---	---	---	---	1.109	---	174,000	---
31.132 ^{1/2}	do.	do.	3,746 ² / ₄₆₂₇	12-15-66	---	---	---	---	---	---	---	87,500	---	---	---	---	---	1.109	---	174,000	---
31.132 ^{1/2}	do.	do.	3,832 ² / ₄₆₂₇	12-15-66	---	---	---	---	---	---	---	102,000	---	---	---	---	---	1.109	---	174,000	---
31.132 ^{1/2}	do.	do.	3,936 ² / ₄₆₂₇	12-15-66	---	---	---	---	---	---	---	106,000	---	---	---	---	---	1.130	---	194,000	---
31.132 ^{1/2}	do.	do.	750 ² / ₄₆₂₇	10-21-71	---	1,892	1,767	69,691	5	---	5,320	112,210	---	191,024	12,000	---	---	1.115 ^{12/}	---	200,000	5.0
31.132 ^{1/2}	do.	do.	1,520 ² / ₄₆₂₇	10-21-71	---	1,848	1,842	68,569	0	---	5,110	110,790	---	186,307	12,200	---	---	1.114	---	196,078	4.9
31.132 ^{1/2}	do.	do.	2,020 ² / ₄₆₂₇	10-21-71	---	1,804	1,699	69,879	2	---	5,250	112,210	---	190,993	11,500	---	---	1.115	---	200,000	5.0
31.132 ^{1/2}	do.	do.	2,770 ² / ₄₆₂₇	10-21-71	---	1,716	1,825	69,736	10	---	5,250	112,210	---	190,902	11,800	---	---	1.115	---	200,000	5.25
31.132 ^{1/2}	do.	do.	3,270 ² / ₄₆₂₇	10-21-71	---	1,760	1,701	69,874	5	---	5,110	112,210	---	190,791	11,400	---	---	1.116	---	200,000	5.1
31.132 ^{1/2}	do.	do.	3,770 ² / ₄₆₂₇	10-21-71	---	1,980	1,883	66,796	649	---	4,970	107,949	---	184,227	12,700	---	---	1.112	---	196,078	7.1
19.32.31.110 ^{2/2}	Middleton Federal B 1	Seven Rivers	2,922 ² / _{2,957}	9-26-63	9.2	1,032	537	8,510	357	---	3,430	13,210	---	27,200	4,688	---	---	1.024	---	---	7.8
31.110	do.	do.	2,922 ² / _{2,957}	10-26-66	---	1,200	446	7,810	460	0	3,650 ^{8/}	12,500 ^{8/}	---	25,800	4,830	4,650	---	1.017	48	16,100	6.8
31.110 ^{2/2}	do.	do.	2,922 ² / _{2,957}	10-26-66	---	1,095	953	7,950	389	---	454 ^{8/}	17,900 ^{8/}	---	28,740	---	---	---	1.020	---	---	7.5
21.34.23.310 ^{2/2}	South Wilson Deep Unit 1	Capitan	4,169-4,187	10-25-66	---	---	---	---	---	---	---	5,920	---	---	---	---	---	1.012	---	---	---
23.310	do.	do.	4,169-4,187	10-25-66	---	1,040	302	3,190	480	0	2,820	5,250	---	12,800	3,830	3,460	---	1.008	22.0	18,300	6.7
23.35.28.170 ^{1/2}	North Carter Mountain Unit 1	do.	4,470-4,507	10-12-66	---	---	---	---	---	---	---	23,200	---	---	---	---	---	1.029	---	59,500	6.4
28.120 ^{162/2}	do.	do.	4,470-4,507	10-12-66	---	1,500	1,270	11,370	488	---	465	23,900	---	---	---	---	---	1.034	---	---	---
24.36.20.210 ^{1/2}	Federal Davison 1	do.	1,073 ^{668/}	11-4-66	---	---	---	---	---	---	---	157,000	---	---	---	---	---	1.173	---	215,000	---
20.210 ^{1/2}	do.	do.	2,134 ^{668/}	11-4-66	---	---	---	---	---	---	---	160,000	---	---	---	---	---	1.177	---	219,000	8.0
20.210 ^{1/2}	do.	do.	4,000 ^{668/}	11-4-66	---	---	---	---	---	---	---	161,000	---	---	---	---	---	1.176	---	219,000	8.2
20.210 ^{1/2}	do.	do.	5,500 ^{668/}	11-4-66	---	---	---	---	---	---	---	160,000	---	---	---	---	---	1.179	---	220,000	8.3
20.210 ^{1/2}	do.	do.	1,500 ^{668/}	11-15-72	---	820	1,592	66,389	288	14	6,215	103,688	---	173,448	---	---	---	1.109	---	---	8.7
26.36.4.270 ^{1/2}	Southwest Jail Unit 1	do.	4,199-4,695	6-14-66	---	---	---	---	---	---	---	87,500	---	---	---	---	---	1.106	---	168,000	---

1/ Water does not represent formation fluid.
 2/ Commercial service laboratory analysis.
 3/ Density of oil at top of fluid column is 0.816 at 17.5°C.
 4/ Spot samples in fluid column.
 5/ Temperature program interval 600-906.
 6/ Production interval 200-139.
 7/ Production interval 4,278-4,785.
 8/ Production interval 4,278-4,785.
 9/ Difference in chloride and sulfate due to determination by different methods.
 10/ Producing interval 2,092-2,515.
 11/ Producing interval 1,538-1,916.
 12/ Density of oil at top of fluid column is 0.796 at 20°C.

Note: (Wells are listed in order of increasing distance from Carlsbad, N. Mex. along trace of the Capitan aquifer. Analyses are by U.S. Geological Survey unless otherwise indicated. Chemical constituents are in milligrams per liter.)



Unichem International

707 North Leech

P.O.Box 1499

Hobbs, New Mexico 88240

Company : ANADARKO
 Date : 10-10-1991
 Location: TEAS YATES WSW #1 (on 10-10-1991)

	Sample 1
Specific Gravity:	1.075
Total Dissolved Solids:	105532
pH:	6.75
IONIC STRENGTH:	1.919

<u>CATIONS:</u>		me/liter	mg/liter
Calcium	(Ca ⁺²)	80.0	1600
Magnesium	(Mg ⁺²)	60.0	729
Sodium	(Na ⁺¹)	1660	38100
Iron (total)	(Fe ⁺²)	0.002	0.060
Barium	(Ba ⁺²)	0.031	2.10
Manganese	(Mn ⁺²)	0.003	0.090

<u>ANIONS:</u>			
Bicarbonate	(HCO ₃ ⁻¹)	7.60	464
Carbonate	(CO ₃ ⁻²)	0	0
Hydroxide	(OH ⁻¹)	0	0
Sulfate	(SO ₄ ⁻²)	96.8	4650
Chloride	(Cl ⁻¹)	1690	60000

<u>DISSOLVED GASES</u>		
Carbon Dioxide	(CO ₂)	10.0
Hydrogen Sulfide	(H ₂ S)	119

SCALING INDEX (positive value indicates scale)

<u>Temperature</u>		Calcium Carbonate	Calcium Sulfate
86°F	30°C	-0.06	-17
122°F	50°C	0.87	-17
140°F	60°C	1.2	-17
168°F	76°C	1.8	-12
176°F	80°C	1.9	-12
200°F	93°C	2.4	-12

*GASB
 Well File*

Anadarko Petroleum Corp.
 P.O. Drawer 130
 Artesia, NM 88210

Report Date: October 21, 1991
 Lab In Date: October 21, 1991
 Sample Date: October 18, 1991

Dear Jerry Buckles

Teas Yates WSN #1
 , Source Well :

Listed below please find our water analysis report from Teas Yates

Specific Gravity: 1.080
 Total Dissolved Solids: 111993
 PH: 6.50
 Ionic Strength: 2.050

CATIONS:

		mg/liter
Calcium:	(Ca++)	1400
Magnesium:	(Mg++)	1336
Sodium:	(Na+)	40062
Iron (Total)	(Fe++)	1.20
Barium	(Ba++)	0.00
Manganese:	(Mn++)	.48
Resistivity:		

ANIONS:

Bicarbonate:	(HCO3-)	415
Carbonate:	(CO3--)	0
Hydroxide:	(OH-)	0
Sulfate:	(SO4--)	3280
Chloride:	(Cl-)	65500

GASES:

Carbon Dioxide:	(CO2)	10.0
Oxygen:	(O2)	*****
Hydrogen Sulfide:	(H2S)	136.0

SCALE INDEX (Positive Value Indicates Scale Tendency) * indicates tests were not run.

Temperature		CaCO3 SI	CaSO4 SI
86F	30.0C	-.37	-37.04
104F	40.0C	-.16	-36.66
122F	50.0C	.10	-35.52
140F	60.0C	.43	-34.66
168F	70.0C	.76	-34.08
176F	80.0C	1.15	-33.79

If you have any questions or require further information, please contact us.

Sincerely,

 Sharon Wright
 Laboratory Technician

cc: Charlie Copeland
 Jeff White - Midland

bc: Joe Hay
 John Offutt

P O BOX 1468
 MOMBANS TEXAS 79756
 PH 943-3234 OR 583-1040

Martin Water Laboratories, Inc.

709 W INDIANA
 MIDLAND TEXAS 79701
 PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 1091211
 TO: Mr. George Buehler SAMPLE RECEIVED 10-23-91
P. O. Box 2497, Midland, TX 79702 RESULTS REPORTED 10-28-91

COMPANY Anadarko Petroleum Corporation LEASE Tess Yates Water Supply #1
 FIELD OR POOL _____
 SECTION _____ BLOCK _____ SURVEY _____ COUNTY Lee STATE NM
 SOURCE OF SAMPLE AND DATE TAKEN:

- NO. 1 Raw water - taken from Capitan Reef water supply well (3,700'). 10-22-91
- NO. 2 FOOT 3000' to 3700' C.A.
- NO. 3 _____
- NO. 4 _____

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES				
	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0857			
pH When Sampled				
pH When Received	7.12			
Bicarbonate as HCO ₃	519			
Supersaturation as CaCO ₃				
Undersaturation as CaCO ₃				
Total Hardness as CaCO ₃	6,600			
Calcium as Ca	1,540			
Magnesium as Mg	668			
Sodium and/or Potassium	46,157			
Sulfate as SO ₄	4,208			
Chloride as Cl	72,439			
Iron as Fe	0.88			
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	125,531			
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen.				
Hydrogen Sulfide	95.0			
Resistivity, ohms/m at 77° F.	0.080			
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks Please contact us if we can be of any assistance in interpretation of the above results.

Form No. 3

By _____

Waylan C. Martin, M.A.

10

cc: Mr. Dan Kernagan, Midland

Unichem International

707 North Leech

P.O.Box 1499

Hobbs, New Mexico 88240

Company : ANADARKO
 Date : 10-10-1991
 Location: Exxon Federal #1 - Wellhead (on 8/12/91)

	Sample 1
Specific Gravity:	1.157
Total Dissolved Solids:	219389
pH:	6.30
Resistivity:	0.047 ohms ● 76°F
IONIC STRENGTH:	4.952

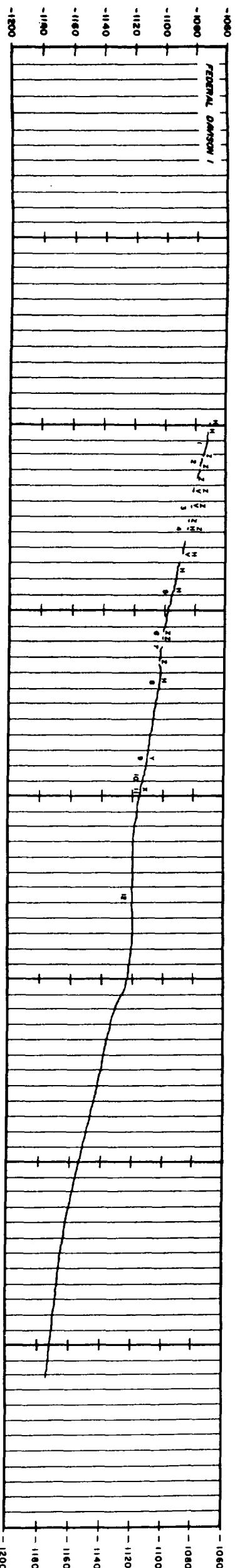
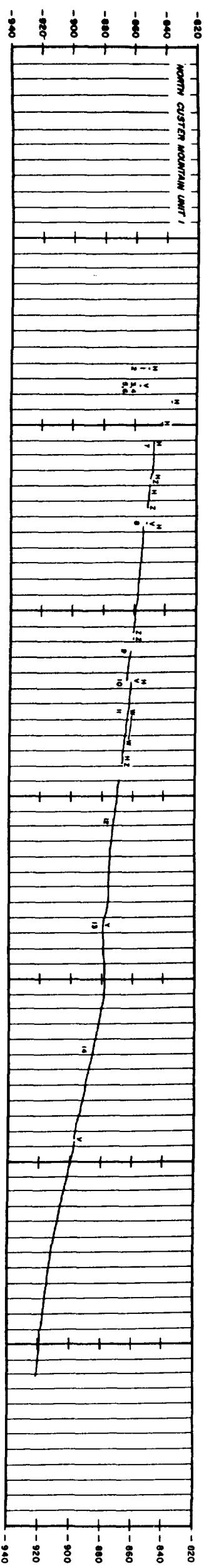
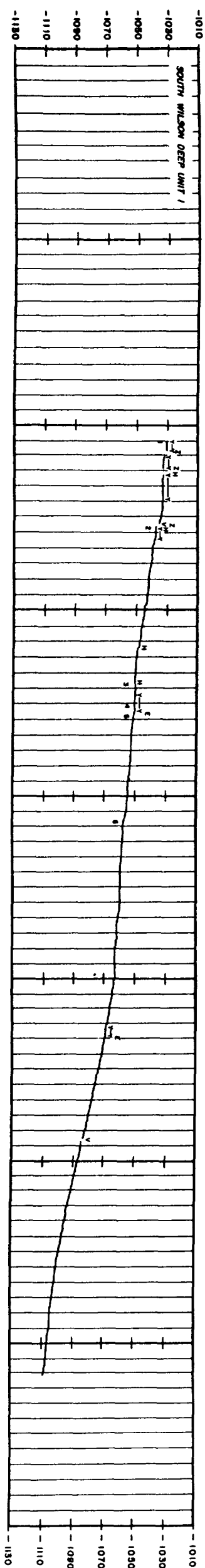
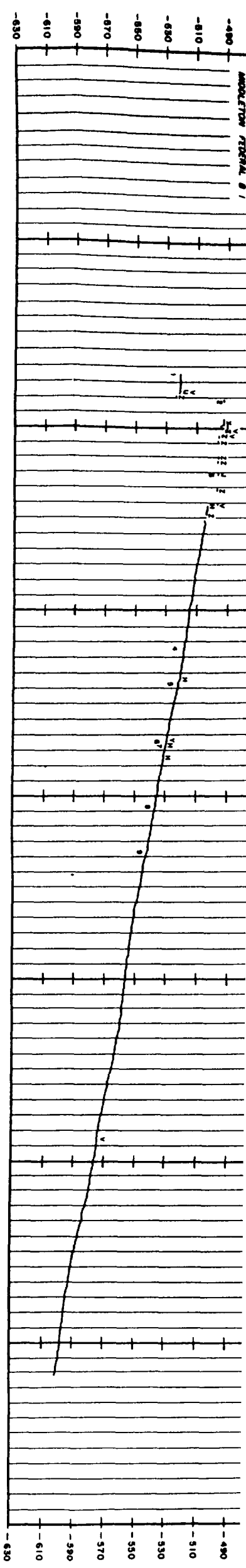
<u>CATIONS:</u>		me/liter	mg/liter
Calcium	(Ca ⁺²)	1150	23000
Magnesium	(Mg ⁺²)	832	10100
Sodium	(Na ⁺¹)	1980	45600
Iron (total)	(Fe ⁺²)	0.752	21.0
Barium	(Ba ⁺²)	0.051	3.50
Manganese	(Mn ⁺²)	0.190	5.23

<u>ANIONS:</u>		me/liter	mg/liter
Bicarbonate	(HCO ₃ ⁻¹)	4.20	256
Carbonate	(CO ₃ ⁻²)	0	0
Hydroxide	(OH ⁻¹)	0	0
Sulfate	(SO ₄ ⁻²)	9.89	475
Chloride	(Cl ⁻¹)	3950	140000

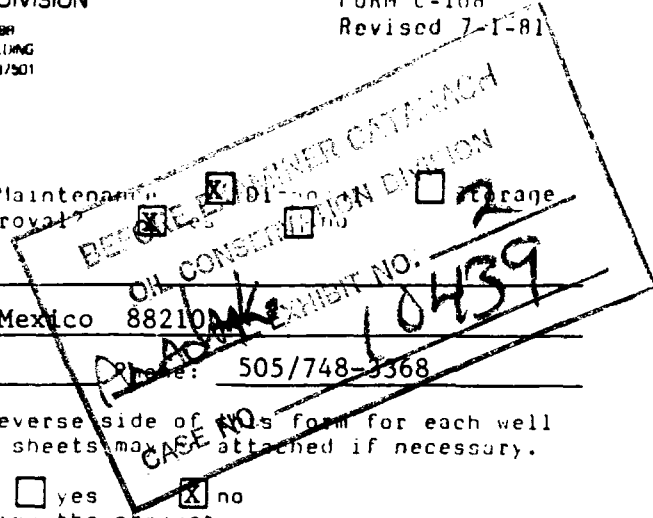
SCALING INDEX (positive value indicates scale)

<u>Temperature</u>		<u>Calcium Carbonate</u>	<u>Calcium Sulfate</u>
104°F	40°C	2.5	1.00
122°F	50°C	2.7	1.00
140°F	60°C	3.1	1.00
168°F	76°C	3.6	1.0
176°F	80°C	3.8	1.0

11



APPLICATION FOR AUTHORIZATION TO INJECT



I. Purpose: Secondary Recovery Pressure Maintenance Disposal Storage
Application qualifies for administrative approval.

II. Operator: Anadarko Petroleum Corporation
Address: P. O. Drawer 130, Artesia, New Mexico 88210
Contact party: Jerry E. Buckles
Phone: 505/748-3368

III. Well data: Complete the data required on the reverse side of the form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? yes no
If yes, give the Division order number authorizing the project _____.

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

* VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

* X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)

* XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification

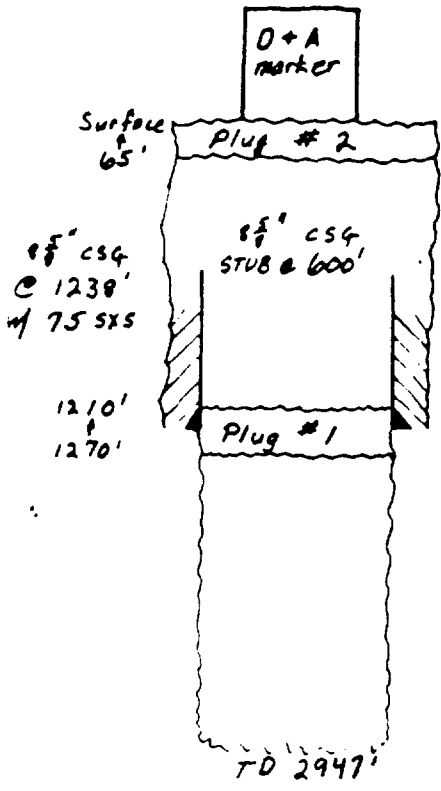
I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: George R.S. Buehler Title Staff Production Engineer

Signature: George R.S. Buehler Date: October 11, 1991

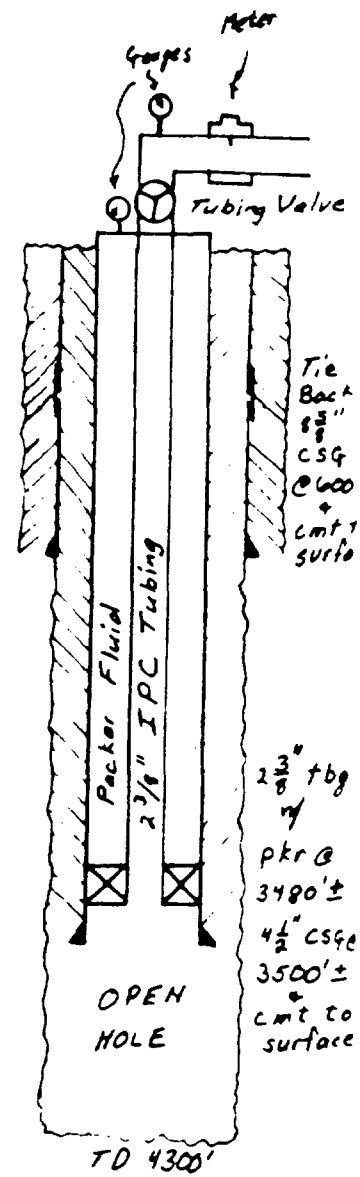
* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal.

III A
WELL DATA SHEET



Before Re-entry

Date Spudded: February 24, 1957
 Plugged: March 2, 1957
 8-5/8" casing @ 1238' w/75 sxs
 14 jts 28#
 26 jts 24#
 TD 2947'
 Cut and pulled 600' of 8-5/8" casing plugs
 #1 1270' to 1210'
 #2 65' to surface



After Re-entry

8-5/8" casing 1238' to surface
 1) Dress off csg stub & run fluid caliper
 2) Bowl over & cement to surface
 Drill new 7-7/8" hole 2947' to 4300'
 Set 4-1/2 csg @ 3500' & cement to surface
 Set 2-3/8" IPC tbg @ 3485'± w/Arrow - Set 1 J-lock Injection Packer
 (Injection Into Zone 3500' to 4300')
 Estimated Avg. Inj 1000 BWPD
 Estimated Avg Inj Pres 200 psi
 Estimated Maximum Pres 700 psi

III B

- 1) Disposal Formation: Capitan Reef
- 2) Disposal Interval: 3500-4300 (Open Hole)
- 3) Well was originally drilled to a TD of 2947'
The original operator Hudson & Hudson, Inc. had filed an intent to drill to 3100' with rotary tools and then change to cable tools and drill to 4300', set 5-1/2" casing and complete an oil well with perforations. Hudson & Hudson, Inc. never finished drilling the well but instead plugged the well March 2, 1957.
- 4) Well was partially drilled and abandoned prior to TD.
Plug #1 1270' to 1210' (amt cmt NR)
8-5/8" csg cut & pulled @ 600'
Plug #2 65' to surface (amt cmt NR)
- 5) The highest possible oil zone in this area is the Yates @ 2833' to 3255'

The next lower possible oil zone in this area is the Delaware @ 4977' to 7700'

Top row of the map showing various land parcels and company names. Key entries include "Mary Nellis Fed", "Conoco Amoco", and "Mendon Oil".

Second row of the map. Notable features include "MARBOB (OPER.) LUSK (SEV. RIV'S UNIT)", "Sun-BP", "Chevron", and "Mary Nellis Fed".

Third row of the map. Large text labels "WEST" and "TONTON" are visible across the middle. Other labels include "Hopper-Barnett", "Anadarko", and "Union".

Fourth row of the map. Large text labels "LUSK" and "TONTON" are visible. Other labels include "Anadarko", "Meridian Oil", and "Union".

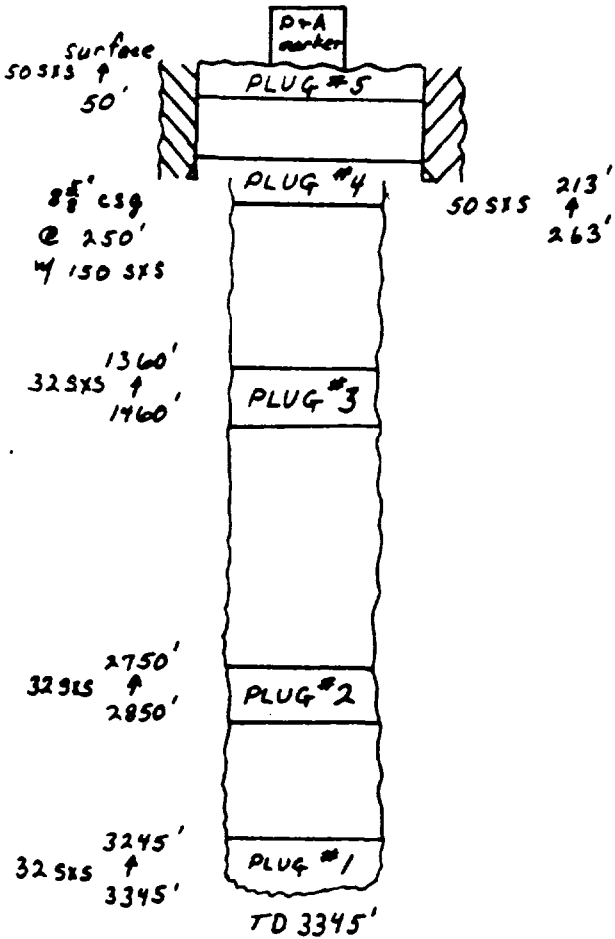
Fifth row of the map. Large text labels "LUSK" and "TONTON" are visible. Other labels include "Meridian Oil", "Union", and "Chevron".

Sixth row of the map. Large text labels "LUSK" and "GERONIMO" are visible. Other labels include "Union", "Anadarko", and "Yates Petroleum".

Seventh row of the map. Large text labels "SALT LAKE" and "GERONIMO" are visible. Other labels include "Yates Petroleum", "Mitchell Energy", and "Anadarko".

Eighth row of the map. Large text labels "HALFWAY" and "GERONIMO" are visible. Other labels include "Yates Petroleum", "Mitchell Energy", and "Anadarko".

WELL DATA SHEET



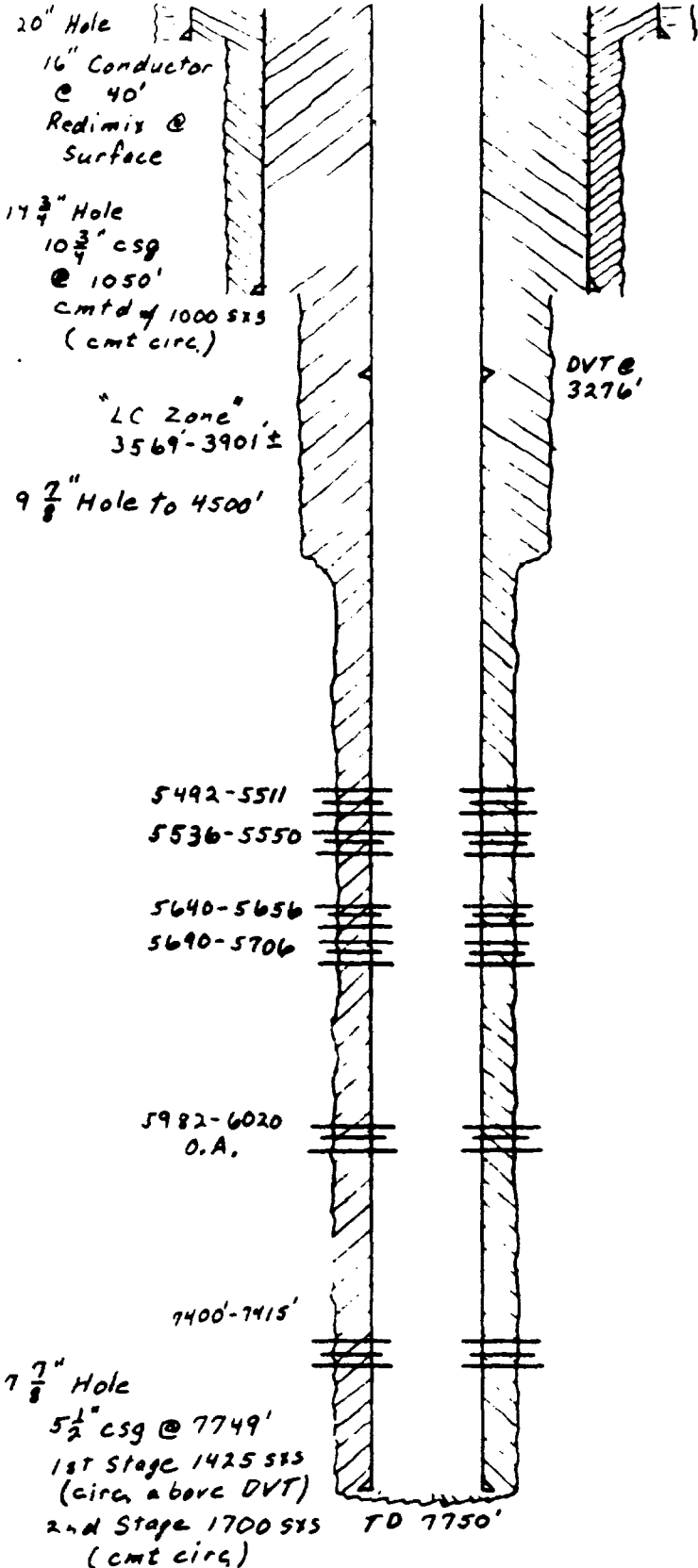
Date Spudded: July 4, 1960
 Plugged: July 12, 1960
 8-5/8" csg @ 250' w/150 sxs
 TD 3345
 Plug #1 32 sxs 3345'-3245'
 Plug #2 32 sxs 2850'-2750'
 Plug #3 32 sxs 1460'-1360'
 Plug #4 50 sxs 263'-213'
 Plug #5 50 sxs 50'-surface

NOTE: This well appears to
 of penetrated the top
 of the capitan reef.

(Applied for disposal
 zone is 3500'-4300')

VI

WELL DATA SHEET



Date Spudded: June 5, 1991
 Completed: August 5, 1991
 20" Hole
 16" csg set @ 40' & redimixed to surface
 14-3/4" Hole
 10-3/4" csg set @ 1050'
 Cmt'd w/1000 sxs (cmt circ)
 9-7/8" Hole to 4500'
 LC @ 3569 to 3901±
 Regain circ w/400 sxs cmt
 Hole 7-7/8" (reduce bit size @ 4500')
 TD 7750'
 5-1/2" csg @ 7749
 FC @ 7702
 DVT @ 3276
 1st stage w/1425 sxs (cmt to DVT)
 Open DVT & circ out 75 sxs
 2nd stage w/1700 sxs
 circ out 227 sxs

DELAWARE PERFORATIONS

perfs 7400-15 2 SPF
 perfs 5982, 86, 89, 92, 96, 98, 6003, 08, 10
 13, 16, 20 2 SPF
 perfs 5640-56 & 5690-5706
 perfs 5492-5511 & 5536-50 2 SPF

EXXON Federal No. 1
 1980' FNL & 560' FWL
 Sec. 19, T19S, R33E

- VII.
 - 1) Avg inj rate 500 BWPD, Max inj rate 1000 BWPD
 - 2) Type system - Closed system
 - 3) 200 avg inj pres max inj pres 700 psi
 - 4&5)
 - a) Water Analysis of EXXON Federal No. 1 - see attached analysis by Unichem #4a
 - b) Compatability of two waters - see attached analysis by Unichem #4b
 - c) Water Analysis of Capitan Reef Water from Anadarko's Teas Yates Unit Water Supply Well No. 1 in Section 14-20S-33E - see attached analysis by Unichem #4c

- VIII.
 - a) Lithology - Limestone
 - b) Geological Name - Capitan Reef
 - c) Top/Reef-3255''
 - d) Base/Reef-4977'
 - e) Drinking Water
 - 1) Name of drinking water zone - Triassic
 - 2) Depth to bottom of drinking water zone - 850 feet
 - 3) Drinking Water under disposal zone - None

- IX. Proposed stimulation to disposal zone - 2000 gallons 15% HCl

- X. Logs & Tests - None, well was never drilled to TD

- XI.
 - 1) Water analysis from drinking water well within 1 mile
 - a) Location of drinking water well - Sec. 18, T19S, R33E
 - b) Analysis - see attached sheet from State Engineer's Office
 - c) Date sample taken - 2-15-83

- XII. See Exhibit XII

- XIII. The following list includes the names of all parties notified of Anadarko's intention to install and operate a water disposal well (namely the EXXON Federal SWD No. 1). See attached list.



Home Office 707 N. Leach, P.O. Box 1499 / Hobbs, NM 88240 / Ph. 505/393-7751, Fax 505/393/6754

October 10, 1991

Jerry Buckles
Anadarko Petroleum Corp.
P. O. Drawer 130
Artesia, NM 88210

Dear Mr. Buckles:

Enclosed please find our water analyses and compatibility reports from the Teas Yates WSW #1 and Exxon Federal #1.

If you have any questions or require further information, please contact us.

Sincerely,

A handwritten signature in black ink that reads 'Sharon Wright'. The signature is fluid and cursive, with the first name 'Sharon' being more prominent than the last name 'Wright'.

Sharon Wright
Laboratory Technician

SW/sr

cc: Bill Polk
Joe Hay
John Offutt
Charlie Copeland
Jeff White

Unichem International

707 North Leech

P.O.Box 1499

Hobbs, New Mexico 88240

Company : ANADARKO
 Date : 10-10-1991
 Location: Exxon Federal #1 - Wellhead (on 8/12/91)

	Sample 1
Specific Gravity:	1.157
Total Dissolved Solids:	219389
pH:	6.30
Resistivity:	0.047 ohms ● 76°F
IONIC STRENGTH:	4.952

<u>CATIONS:</u>		me/liter	mg/liter
Calcium	(Ca ⁺²)	1150	23000
Magnesium	(Mg ⁺²)	832	10100
Sodium	(Na ⁺¹)	1980	45600
Iron (total)	(Fe ⁺²)	0.752	21.0
Barium	(Ba ⁺²)	0.051	3.50
Manganese	(Mn ⁺²)	0.190	5.23

<u>ANIONS:</u>		me/liter	mg/liter
Bicarbonate	(HCO ₃ ⁻¹)	4.20	256
Carbonate	(CO ₃ ⁻²)	0	0
Hydroxide	(OH ⁻¹)	0	0
Sulfate	(SO ₄ ⁻²)	9.89	475
Chloride	(Cl ⁻¹)	3950	140000

SCALING INDEX (positive value indicates scale)

<u>Temperature</u>		Calcium Carbonate	Calcium Sulfate
104°F	40°C	2.5	1.00
122°F	50°C	2.7	1.00
140°F	60°C	3.1	1.00
168°F	76°C	3.6	1.0
176°F	80°C	3.8	1.0

Unichem International

707 North Leech

P.O.Box 1499

Hobbs, New Mexico 88240

Company : ANADARKO

Date : 10-10-1991

Location: TEAS YATES & EXXON FEDERAL - COMPATIBILITY (on 10-10-1991)

	<u>Sample 1</u>
Specific Gravity:	1.149
Total Dissolved Solids:	208003
pH:	6.35
IONIC STRENGTH:	4.649

<u>CATIONS:</u>		<u>me/liter</u>	<u>mg/liter</u>
Calcium	(Ca ⁺²)	1040	20800
Magnesium	(Mg ⁺²)	755	9170
Sodium	(Na ⁺¹)	1950	44800
Iron (total)	(Fe ⁺²)	0.677	18.9
Barium	(Ba ⁺²)	0.049	3.36
Manganese	(Mn ⁺²)	0.172	4.72

<u>ANIONS:</u>			
Bicarbonate	(HCO ₃ ⁻¹)	4.54	277
Carbonate	(CO ₃ ⁻²)	0	0
Hydroxide	(OH ⁻¹)	0	0
Sulfate	(SO ₄ ⁻²)	18.6	893
Chloride	(Cl ⁻¹)	3720	132000

<u>DISSOLVED GASES</u>		
Carbon Dioxide	(CO ₂)	1.00
Hydrogen Sulfide	(H ₂ S)	11.9
Oxygen	(O ₂)	0

SCALING INDEX (positive value indicates scale)

<u>Temperature</u>		<u>Calcium Carbonate</u>	<u>Calcium Sulfate</u>
86°F	30°C	1.6	8.6
122°F	50°C	2.5	8.3
140°F	60°C	2.9	8.3
168°F	76°C	3.4	8.0
176°F	80°C	3.6	8.0
200°F	93°C	4.1	8.0

Comments:

COMPATIBILITY = TEAS YATES = 10% & EXXON FEDERAL FEDERAL = 90%

10

The attached exhibit 4c is capitan reef water, sampled from Anadarko's Teas Yates Unit's Water Supply Well No. 1, located approximately 9 miles southwest of the EXXON Federal SWD No. 3. The WSW No. 1's legal is 1330' FNL & 1330' FWL of Section 14, T20S, R33E, Lea County. The producing capitan reef perforations are:

3660-3663
3674-3681
3696-3700
3708-3711
3724-3727
3746-3749
3758-3762

Anadarko produces approximately 3000 BWPD from the Teas Yates Unit WSW No. 1.

Unichem International

707 North Leech

P.O.Box 1499

Hobbs, New Mexico 88240

Company : ANADARKO
 Date : 10-10-1991
 Location: TEAS YATES WSW #1 (on 10-10-1991)

	Sample 1
Specific Gravity:	1.075
Total Dissolved Solids:	105532
pH:	6.75
IONIC STRENGTH:	1.919

<u>CATIONS:</u>		me/liter	mg/liter
Calcium	(Ca ⁺²)	80.0	1600
Magnesium	(Mg ⁺²)	60.0	729
Sodium	(Na ⁺¹)	1660	38100
Iron (total)	(Fe ⁺²)	0.002	0.060
Barium	(Ba ⁺²)	0.031	2.10
Manganese	(Mn ⁺²)	0.003	0.090

<u>ANIONS:</u>		me/liter	mg/liter
Bicarbonate	(HCO ₃ ⁻¹)	7.60	464
Carbonate	(CO ₃ ⁻²)	0	0
Hydroxide	(OH ⁻¹)	0	0
Sulfate	(SO ₄ ⁻²)	96.8	4650
Chloride	(Cl ⁻¹)	1690	60000

<u>DISSOLVED GASES</u>		mg/liter
Carbon Dioxide	(CO ₂)	10.0
Hydrogen Sulfide	(H ₂ S)	119

SCALING INDEX (positive value indicates scale)

<u>Temperature</u>		Calcium Carbonate	Calcium Sulfate
86°F	30°C	-0.06	-17
122°F	50°C	0.87	-17
140°F	60°C	1.2	-17
168°F	76°C	1.8	-12
176°F	80°C	1.9	-12
200°F	93°C	2.4	-12



STATE OF NEW MEXICO

STATE ENGINEER OFFICE

ELUID MARTINEZ
STATE ENGINEER

ROSWELL

DISTRICT II
1900 West Second St.
Roswell, New Mexico 88201
(505) 622-6521

October 2, 1991

George Buehler
Anadarko Petro Corporation
P. O. Box 2497
Midland, Texas 79702

Dear Mr. Buehler:

Please find enclosed the information you requested from our office concerning wells in the area of 19S.32E.

If our office can be of any further assistance to you, please do not hesitate to contact us.

Sincerely,

A handwritten signature in cursive script that reads "Kenneth H. Fresquez".

Kenneth Fresquez
Field Supervisor

KF/lc
enc.

DPN

Temp

Clawless

Pl. Call

Water Date

Depth

owner ship

File #

DPN

Line #	Date	Time	Lat	Long	Depth	Temp	Clawless	Pl. Call	Water Date	Depth	owner ship	File #
7448	CP	0	76/11/01	5E0	5TK	195.29E.25.44332	3326.00	BP	94	2560	48	15-08504
7449	CP	0	76/11/01	5E0	5TK	195.29E.25.44332	3320.00	TANK	100	2571	0	282
7476	CP	0	76/03/14	5E0	5TK	195.29E.25.44332	3326.00	BP	134	2525	45	0552
7477	CP	0	76/03/14	5E0	5TK	195.29E.25.44332	3326.00	BP	166	2530	70	0553
7478	CP	0	76/03/14	5E0	5TK	195.29E.25.44332	3326.00	BP	194	2530	0	482
7479	CP	0	76/03/14	5E0	5TK	195.29E.25.44332	3326.00	BP	222	2530	0	482
7480	CP	0	76/03/14	5E0	5TK	195.29E.25.44332	3326.00	BP	250	2530	0	482
7481	CP	0	76/03/14	5E0	5TK	195.29E.25.44332	3326.00	BP	278	2530	0	482
7482	CP	0	76/03/14	5E0	5TK	195.29E.25.44332	3326.00	BP	306	2530	0	482
7483	CP	0	76/03/14	5E0	5TK	195.29E.25.44332	3326.00	BP	334	2530	0	482
7484	CP	0	76/03/14	5E0	5TK	195.29E.25.44332	3326.00	BP	362	2530	0	482
7485	CP	0	76/03/14	5E0	5TK	195.29E.25.44332	3326.00	BP	390	2530	0	482
7486	CP	0	76/03/14	5E0	5TK	195.29E.25.44332	3326.00	BP	418	2530	0	482
7487	CP	0	76/03/14	5E0	5TK	195.29E.25.44332	3326.00	BP	446	2530	0	482
7488	CP	0	76/03/14	5E0	5TK	195.29E.25.44332	3326.00	BP	474	2530	0	482
7489	CP	0	76/03/14	5E0	5TK	195.29E.25.44332	3326.00	BP	502	2530	0	482
7490	CP	0	76/03/14	5E0	5TK	195.29E.25.44332	3326.00	BP	530	2530	0	482
7491	CP	0	76/03/14	5E0	5TK	195.29E.25.44332	3326.00	BP	558	2530	0	482
7492	CP	0	76/03/14	5E0	5TK	195.29E.25.44332	3326.00	BP	586	2530	0	482
7493	CP	0	76/03/14	5E0	5TK	195.29E.25.44332	3326.00	BP	614	2530	0	482
7494	CP	0	76/03/14	5E0	5TK	195.29E.25.44332	3326.00	BP	642	2530	0	482
7495	CP	0	76/03/14	5E0	5TK	195.29E.25.44332	3326.00	BP	670	2530	0	482
7496	CP	0	76/03/14	5E0	5TK	195.29E.25.44332	3326.00	BP	698	2530	0	482
7497	CP	0	76/03/14	5E0	5TK	195.29E.25.44332	3326.00	BP	726	2530	0	482
7498	CP	0	76/03/14	5E0	5TK	195.29E.25.44332	3326.00	BP	754	2530	0	482
7499	CP	0	76/03/14	5E0	5TK	195.29E.25.44332	3326.00	BP	782	2530	0	482
7500	CP	0	76/03/14	5E0	5TK	195.29E.25.44332	3326.00	BP	810	2530	0	482
7501	CP	0	76/03/14	5E0	5TK	195.29E.25.44332	3326.00	BP	838	2530	0	482
7502	CP	0	76/03/14	5E0	5TK	195.29E.25.44332	3326.00	BP	866	2530	0	482
7503	CP	0	76/03/14	5E0	5TK	195.29E.25.44332	3326.00	BP	894	2530	0	482
7504	CP	0	76/03/14	5E0	5TK	195.29E.25.44332	3326.00	BP	922	2530	0	482
7505	CP	0	76/03/14	5E0	5TK	195.29E.25.44332	3326.00	BP	950	2530	0	482
7506	CP	0	76/03/14	5E0	5TK	195.29E.25.44332	3326.00	BP	978	2530	0	482
7507	CP	0	76/03/14	5E0	5TK	195.29E.25.44332	3326.00	BP	1006	2530	0	482

XII

I, George R.S. Buehler, affirm Anadarko's geological and engineering departments have reviewed the available geological and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

Affirmed this day October 14, 1991

BY George R.S. Buehler
Staff Production Engineer

XIII

WELLSITE SURFACE OWNER AND OFFSET OPERATORS TO
EXXON FEDERAL SWD NO. 1

Surface Owner

USA
Carlsbad Resource Area
P. O. Box 1778
Carlsbad, New Mexico 88220

Offset Operators

19S-33E

Sec. 18 SW/4 SW/4 (Lot 4)
Centennial
Box 1837
Roswell, New Mexico 88202

Sec. 18 Lot 3, E/2 SW/4, SE/4 and E/2 NE/4 Sec. 19
Francis H. Hudson
616 Texas Street
Fort Worth, Texas 76102

Delmar H. Lewis
616 Texas Street
Fort Worth, Texas 76102

Edward R. Hudson, Jr.
1000 First National Bldg.
Fort Worth, Texas 76102

Sec. 19 Lot 1 & 2 W/2 NE/4 & E/2 NW/4 and SE/4 SE/4 Sec. 13-19S-32E
Exxon Company, USA
P. O. Box 1600
Midland, Texas 7902-1600

Sec. 19 Lots 3 & 4, E/2 SW/4 & SE/4
Firo Corporation
P. O. Box 8148
Roswell, New Mexico 88202

Partco, Inc.
P. O. Drawer R
Artesia, New Mexico 88210

Edward R. Hudson
616 Texas Street
Fort Worth, Texas 76102

William A. Hudson
616 Texas Street
Fort Worth, Texas 76102

**XIII
(Continued)**

**WELLSITE SURFACE OWNER AND OFFSET OPERATORS TO
EXXON FEDERAL SWD NO. 1**

Harvey E. Yates Co.
P. O. Box 1933
Roswell, New Mexico 88202

19S-32E

Sec. 24 NE/4
Anadarko Petroleum Corporation
P. O. Box 2497
Midland, Texas 79702

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, Kathi Bearden

of the Hobbs Daily News-Sun, a daily newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not a supplement thereof for a period

of _____

One weeks.
Beginning with the issue dated

Oct. 1, 1991
and ending with the issue dated

Oct. 1, 1991

Kathi Bearden
General Manager

Sworn and subscribed to before

me this 8 day of

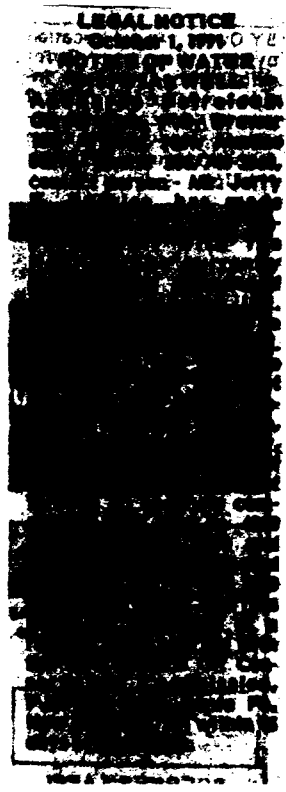
Oct, 1991

Paula Parrish
Notary Public.

My Commission expires _____

Aug. 5, 1995
(Seal)

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.



ILLEGIBLE

REMARKS: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.
Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check boxes for additional service(s) requested.

1. Show to whom delivered, date, and addressee's address. (Basic charge)
2. Restricted Delivery (Basic charge)

3. Article Addressed to:
USA
Carlsbad Resource Area
P O Box 1778
Carlsbad New Mexico 88220

4. Article Number
P-567 722 899

Type of Service:
 Registered Insured
 Certified COD
 Express Mail Return Receipt for Merchandise

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Addressee's Address (ONLY if requested and fee paid)

6. Signature - Address
X

6. Signature - Agent
X *Betty Hill*

7. Date of Delivery

PS Form 3811, Mar. 1985 • U.S.G.P.O. 1985-212-866 DOMESTIC RETURN RECEIPT



P-567 722 899
RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERAGE PROVIDED
FOR INTERNATIONAL MAIL
See Reverse

SENT TO
USA
Carlsbad Resource Area
Street and No.
P O Box 1778
P.O. State and ZIP Code
Carlsbad New Mexico 88220

Postage *.98*

Certified Fee *1.00*

Special Delivery Fee

Restricted Delivery Fee

Return Receipt showing to whom and Date Delivered *1.00*

Return Receipt showing to whom, Date and Address of Delivery

TOTAL Postage and Fees *2.98*

Postmark or Date

U.S.G.P.O. 153506
PS Form 3800, June 1985

Fold at line over top of envelope to the right

REMARKS: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.
Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check boxes for additional service(s) requested.

1. Show to whom delivered, date, and addressee's address. (Basic charge)
2. Restricted Delivery (Basic charge)

3. Article Addressed to:
Centenial
Box 1837
Roswell New Mexico 88202

4. Article Number
P-567 722 900

Type of Service:
 Registered Insured
 Certified COD
 Express Mail Return Receipt for Merchandise

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Addressee's Address (ONLY if requested and fee paid)

6. Signature - Address
X

6. Signature - Agent
X *Roman*

7. Date of Delivery

PS Form 3811, Mar. 1985 • U.S.G.P.O. 1985-212-866 DOMESTIC RETURN RECEIPT



P-567 722 900
RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERAGE PROVIDED
FOR INTERNATIONAL MAIL
See Reverse

SENT TO
Centenial
Street and No.
Box 1837
P.O. State and ZIP Code
Roswell New Mexico 88202

Postage *.98*

Certified Fee *1.00*

Special Delivery Fee

Restricted Delivery Fee

Return Receipt showing to whom and Date Delivered *1.00*

Return Receipt showing to whom, Date and Address of Delivery

TOTAL Postage and Fees *2.98*

Postmark or Date

U.S.G.P.O. 153506
PS Form 3800, June 1985

ILLEGIBLE

SEND: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.
Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check boxes for additional service(s) requested.

1. Show to whom delivered, date, and addressee's address. 2. Restricted Delivery (Extra charge)

3. Article Addressed to: Francis H Hudson 616 Texas Street Fort Worth Texas 76102	4. Article Number P-567 722 901 Type of Service: <input checked="" type="checkbox"/> Registered <input type="checkbox"/> Insured <input type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise Always obtain signature of addressee or agent and DATE DELIVERED .
5. Signature - Address X	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature - Agent X <i>W. Clark</i>	
7. Date of Delivery OCT 17 1991	

PS Form 3811, Mar. 1985 • U.S.G.P.O. 1985-212-865 DOMESTIC RETURN RECEIPT

SEND: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.
Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check boxes for additional service(s) requested.

1. Show to whom delivered, date, and addressee's address. 2. Restricted Delivery (Extra charge)

3. Article Addressed to: Delmar H Lewis 616 Texas Street Fort Worth Texas 76102	4. Article Number P-567 722 902 Type of Service: <input checked="" type="checkbox"/> Registered <input type="checkbox"/> Insured <input type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise Always obtain signature of addressee or agent and DATE DELIVERED .
5. Signature - Address X	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature - Agent X <i>W. Clark</i>	
7. Date of Delivery OCT 17 1991	

PS Form 3811, Mar. 1985 • U.S.G.P.O. 1985-212-865 DOMESTIC RETURN RECEIPT

ILLEGIBLE

P-567 722 901
RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERED
NOT FOR INTERNATIONAL MAIL
See Reverse

U.S.G.P.O. 153-606
PS Form 3800, June 1985

Sent to	Francis H Hudson
Street and No.	616 Texas Street
P.O. State and ZIP Code	Fort Worth Texas 76102
Postage	.98
Certified Fee	1.00
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	1.00
Return Receipt showing to whom Date and Address of Delivery	
TOTAL Postage and Fees	2.98
Postmark or Date	

P-567 722 902
RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERED
NOT FOR INTERNATIONAL MAIL
See Reverse

U.S.G.P.O. 153-606
PS Form 3800, June 1985

Sent to	Delmar H Lewis
Street and No.	616 Texas Street
P.O. State and ZIP Code	Fort Worth Texas 76102
Postage	.98
Certified Fee	1.00
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	1.00
Return Receipt showing to whom Date and Address of Delivery	
TOTAL Postage and Fees	2.98
Postmark or Date	

Fold at line over top of envelope to the right of the return address.

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.
Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check boxes for additional services requested.

1. Show to whom delivered, date, and addressee's address. 2. Restricted Delivery (Extra charge)

3. Article Addressed to:
Edward R. Hudson Jr
616 Texas Street
Fort Worth, Texas 76102

4. Article Number
P 143 463 010

Type of Service:
 Registered Insured
 Certified COD
 Express Mail Return Receipt for Merchandise

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature - Address
X

6. Signature - Agent
X *Clarke*

7. Date of Delivery
OCT 23 1991

8. Addressee's Address (ONLY if requested and fee paid)
Clarke

PS Form 3811, Mar. 1985 * U.S.G.P.O. 1985-212-885 DOMESTIC RETURN RECEIPT

P 143 463 010

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
See Reverse

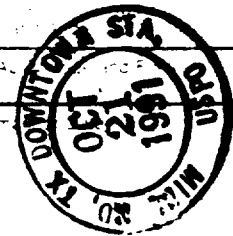
Edward R. Hudson Jr
616 Texas Street
Fort Worth, Texas 76102

.98
1.00

1.00

2.98

PS Form 3800, June 1985



SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.
Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check boxes for additional services requested.

1. Show to whom delivered, date, and addressee's address. 2. Restricted Delivery (Extra charge)

3. Article Addressed to:
Exxon Company USA
P O Box 1600
Midland Texas 79702-1600

4. Article Number
P-567 722 904

Type of Service:
 Registered Insured
 Certified COD
 Express Mail Return Receipt for Merchandise

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature - Address
X

6. Signature - Agent
X *[Signature]*

7. Date of Delivery
OCT 14 1991

8. Addressee's Address (ONLY if requested and fee paid)

PS Form 3811, Mar. 1985 * U.S.G.P.O. 1985-212-885 DOMESTIC RETURN RECEIPT

P-567 722 904

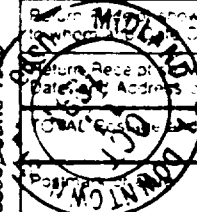
RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
See Reverse

Sent to	Exxon Company USA
Street and No	P O Box 1600
P.O. State and ZIP Code	Midland Texas 79702
Postage	\$.98
Certified Fee	1.00
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt for Merchandise	1.00
Return Receipt for Address Delivery	
Special Delivery Fees	2.98

U.S.G.P.O. 153-606

PS Form 3800, June 1985



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ILLEGIBLE

P-567 722 905

RECEIPT FOR CERTIFIED MAIL

NO ASSURANCE OF DELIVERY PROVIDED
EXCEPT FOR INTERNATIONAL MAIL

See Reverse

U.S.G.P.O. 153-506

PS Form 3800, June 1985

Sent to	Firo Corporation
Post Office No.	P O Box 8148
Post Office and ZIP Code	Roswell New Mexico 88202
Postage	.98
Certified Fee	1.00
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt by First-Class Mail Only	1.00
Return Receipt by Registered Mail Only	
Return Receipt by Certified Mail Only	
Return Receipt by Express Mail Only	
TOTAL Postage and Fees	2.98
Postmark or Date	

Fold at line over top of envelope of the return address

Complete this form and attach to the return receipt for certified mail. Failure to do this will prevent the card from being returned to you. The postal service will provide you the name of the person to whom to send the date of delivery, and the date of delivery, and the following services are provided. Contact post office for fees and check boxes for additional services requested.

1. Show to whom delivered, date, and addressee's address. Restricted Delivery (Extra charge)

3. Article Addressed to:
Firo Corporation
P O Box 8148
Roswell New Mexico 88202

4. Article Number
P-567 722 905

Type of Service:
 Registered Insured
 Certified COD
 Express Mail Return Receipt for Merchandise

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature - Addressee
X *Juanita McDonald*

6. Signature - Agent
X *Hilmar [Signature]*

7. Date of Delivery
10/11/85

8. Addressee's Address ONLY if requested and fee paid

PS Form 3811, Mar. 1985 • U.S.G.P.O. 266-212-866 • DOMESTIC RETURN RECEIPT

The copy of the permit sent to Partco, Inc. was returned by the postal service marked (ATTEMPTED NOT KNOWN). Anadarko attempted to locate Partco, Inc. through both the Artesia City Hall and the Artesia Chamber of Commerce. Anadarko believes Partco, Inc. no longer exists.

ILLEGIBLE

P-567 722 906

RECEIPT FOR CERTIFIED MAIL

NO ASSURANCE OF DELIVERY PROVIDED
EXCEPT FOR INTERNATIONAL MAIL

See Reverse

U.S.G.P.O. 153-506

PS Form 3800, June 1985

Sent to	Partco Inc
Post Office No.	P O Drawer R
Post Office and ZIP Code	Artesia New Mexico 88210
Postage	.98
Certified Fee	1.00
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt by First-Class Mail Only	1.00
Return Receipt by Registered Mail Only	
Return Receipt by Certified Mail Only	
Return Receipt by Express Mail Only	
TOTAL Postage and Fees	2.98
Postmark or Date	

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● **Instructions:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4. Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check boxes for additional services requested.

1. Show to whom delivered, date, and addressee's address. 2. Restricted Delivery (Extra charge)

3. Article Addressed to:
 William A. Hudson
 616 Texas Street
 Fort Worth, Texas 76102

4. Article Number
 P 143 463 011

Type of Service:
 Registered Insured
 Certified COD
 Express Mail Return Receipt for Merchandise

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature - Address
 X

6. Signature - Agent
 X *[Signature]*

7. Date of Delivery
 OCT 23 1991

8. Addressee's Address (ONLY if requested and fee paid)

PS Form 3811, Mar. 1985 • U.S.G.P.O. 1985-212-865 DOMESTIC RETURN RECEIPT

P 143 463 011

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE IS PROVIDED FOR INTERNATIONAL MAIL
 See Reverse

William A. Hudson

616 Texas Street

Fort Worth, Texas 7610

.98
 1.00

1.00

2.98

PS Form 3800 June 1985



● **Instructions:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4. Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check boxes for additional services requested.

1. Show to whom delivered, date, and addressee's address. 2. Restricted Delivery (Extra charge)

3. Article Addressed to:
 Harvey E Yates
 P O Box 1933
 Roswell New Mexico 88202

4. Article Number
 P-576 722 914

Type of Service:
 Registered Insured
 Certified COD
 Express Mail Return Receipt for Merchandise

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature - Address
 X

6. Signature - Agent
 X *[Signature]*

7. Date of Delivery
 10-15-91

8. Addressee's Address (ONLY if requested and fee paid)

PS Form 3811, Mar. 1985 • U.S.G.P.O. 1985-212-865 DOMESTIC RETURN RECEIPT

P-576 722 914

PT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE IS PROVIDED FOR INTERNATIONAL MAIL
 See Reverse

Sent to:
 Harvey E Yates

Street and No.
 P O Box 1933

P.O. State and ZIP Code
 Roswell New Mexico 88202

Postage *1.98*
 Certified Fee *1.00*

Special Delivery Fee

Restricted Delivery Fee

Return Receipt showing to whom and Date Delivered *1.00*

Return Receipt showing to whom Date and Address of Delivery

POSTAGE and Fees *2.98*

Postmark or Date

23

U.S.G.P.O. 153-506

PS Form 3800 June 1985

ILLEGIBLE

Fold at line over top of envelope to the right of the return address.