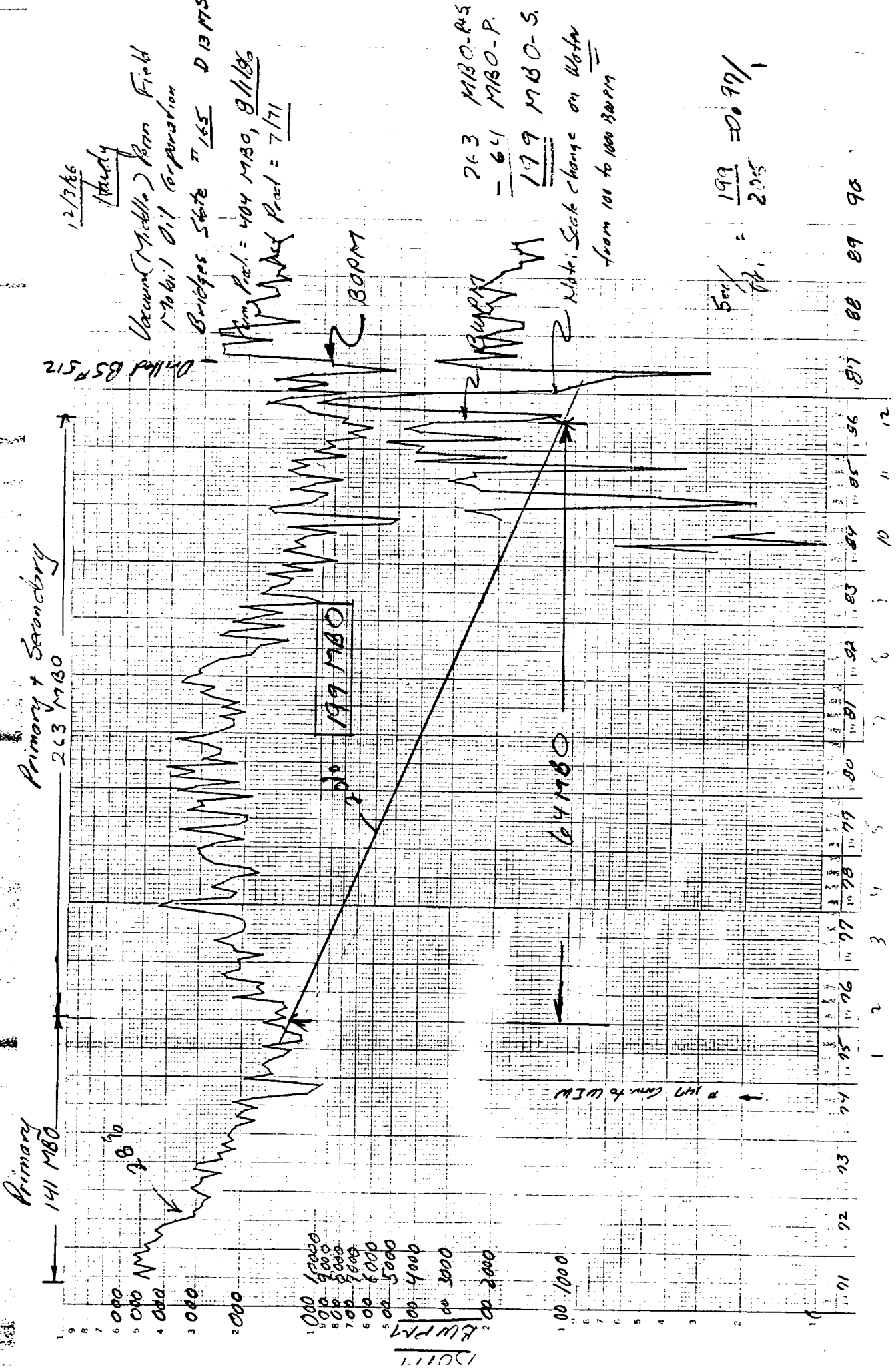


EXHIBIT NO. 8

W. Tres Papalotes Field  
 Structure Map, T/Pay  
 CI - 21'  
 T-14-S, R-34-E  
 Lea County, N.M.  
 Scale: 1" = 2000'

4001  
1111  
26



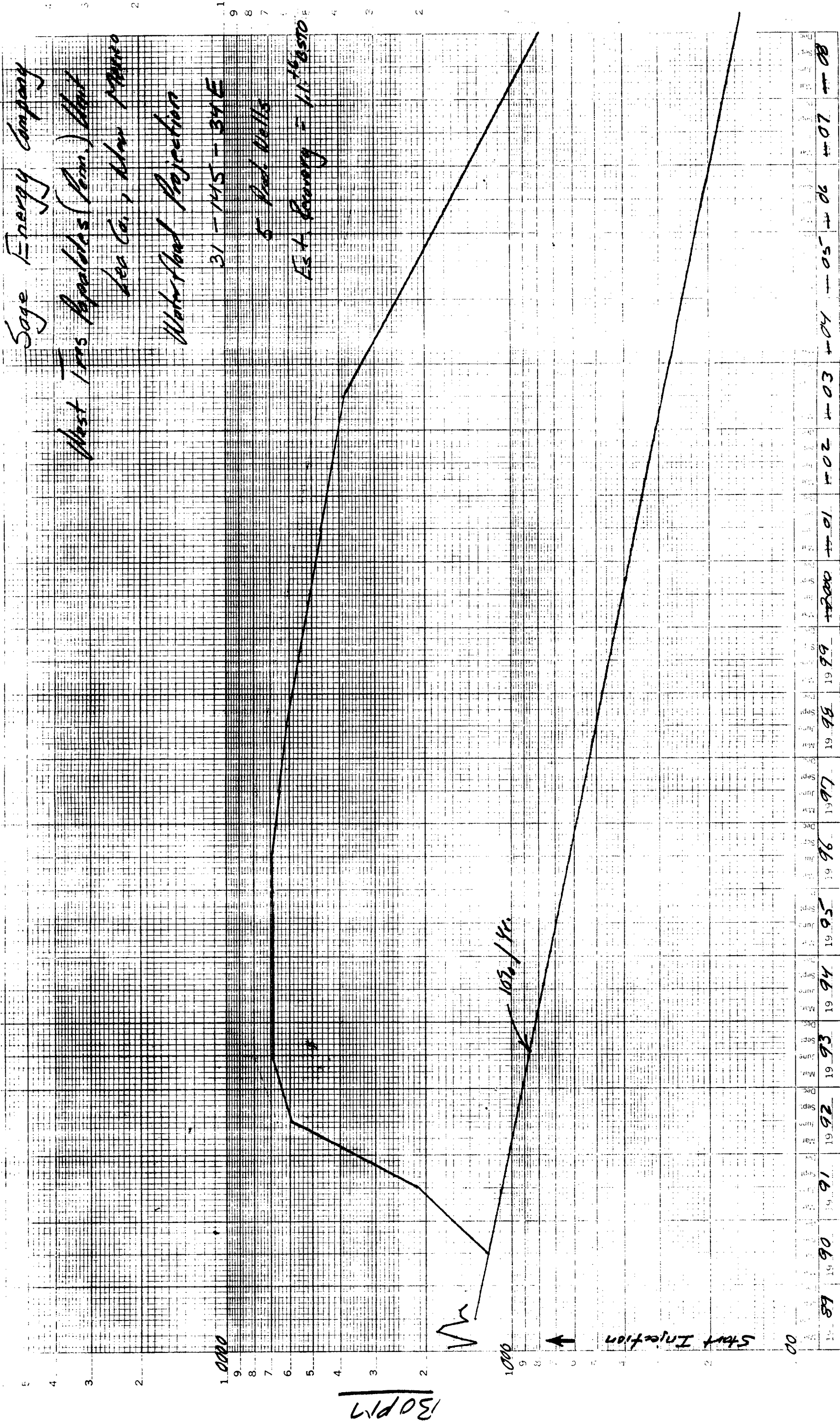


EXHIBIT NO. 10

1/13 Morrow Disc  
(3. Min. 215  
Notes S/R  
1224 S.C.  
E-580 w Pennzoil  
Gulf-Bridges St  
Angle 1013 70  
256 MP 0130  
Gulf  
2 c Tr 4

Sage  
2-B  
to 8900  
B-2244  
Tr. 2  
Marathon St  
Mobil  
B-1520

233  
Mobil  
PB10550  
K-5786  
6000  
L-5391  
Store

1/13 Morrow Disc  
Dual  
520  
76  
263  
512  
WI  
72  
140

77  
134  
226  
79  
Field  
Outline  
Bridges-St.  
158 mi  
(WO)  
506  
S.I.  
State

37574  
Mobil  
B-1527  
NO. VACUUM  
EAST  
Texas  
B-161  
MOBIL  
DK  
N.M.S.

Mobil  
46  
70  
40  
259  
284  
64  
WI  
60  
175  
125  
(D.D.)  
51  
76  
42  
(WO) WI  
(OPER)  
282  
WI  
501  
Dual  
State

45  
7/71  
MP  
65  
Dual  
13  
Mabil  
11/70  
36  
169  
S.I.  
Dual  
6/74  
63  
285  
WI  
250  
w Mobil  
NCT  
Bridges-St. 219-w  
506  
Str. Disc  
520  
502  
State

223  
PI40  
3765 Ac  
MOBIL  
12  
WI  
DK  
N.M.S.  
3767 Ac  
Mobil  
B-1527  
18  
Tr. 26  
Mobil  
Eik-St.  
Eikon  
Frusader  
T-10  
Vacuum Middle Penn Field  
Mobil Bridges State  
6029  
19000  
Tr. 1  
202  
E

Mobil  
55  
WI  
129  
190  
53  
280  
51  
128  
192  
151  
43  
234  
WI

205  
WI  
26 BOPD  
13 BWPD  
MBO-Prod. 1/87  
7/87  
Mobil  
20  
WI  
Santo Fe  
20  
WI  
Santo Fe  
113  
Triple  
197  
24  
A.R. Co  
Shell  
222  
DIOC

205  
WI  
26 BOPD  
13 BWPD  
MBO-Prod. 1/87  
7/87  
Mobil  
20  
WI  
Santo Fe  
20  
WI  
Santo Fe  
113  
Triple  
197  
24  
A.R. Co  
Shell  
222  
DIOC  
Exxon  
ARCO

EXHIBIT NO. 13

PROJECTION OF ESTIMATED PRODUCTION AND REVENUE

AS OF  
7-1-69

SAGE ENERGY COMPANY INTEREST

INITIAL WORKING INTEREST 1.000000  
INITIAL REVENUE INTEREST 0.849575

LEASE NAME : TRES PAPANOTES WF  
FIELD NAME : TRES PAPANOTES, W  
CITY, STATE : LEA, NM  
OPERATOR : SAGE ENERGY CO

PROBABLE RESERVES

PERIOD ENDING	GROSS OIL/COND MR	NET OIL/COND MR	GROSS GAS MMF	NET GAS MMF	INCL OIL	GROSS REVENUE	PROD+AV TAXES	NET INVESTMT	OPERATING EXPENSE	NET REVENUE	CUM P.W.
7-1-90	2.000	0.000	0.000	0.000	0.0	0.0	0.0	1498.9	175.2	-1674.1	-1335.1
7-1-91	13.024	10.497	0.000	0.000	195.0	195.0	15.8	0.0	185.7	-6.5	-1340.7
7-1-92	59.494	47.952	0.000	0.000	969.1	969.1	78.4	0.0	196.8	693.9	-993.9
7-1-93	72.000	58.032	0.000	0.000	1276.7	1276.7	103.2	0.0	208.6	964.9	-302.7
7-1-94	72.000	58.032	0.000	0.000	1344.6	1344.6	108.7	0.0	221.1	1014.8	358.1
7-1-95	72.000	58.032	0.000	0.000	1435.0	1435.0	114.4	0.0	236.4	1066.2	989.3
7-1-96	72.000	58.032	0.000	0.000	1499.9	1499.9	121.3	0.0	248.5	1130.1	1997.6
7-1-97	71.219	57.403	0.000	0.000	1572.3	1572.3	127.1	0.0	263.4	1130.8	2175.8
7-1-98	65.954	53.159	0.000	0.000	1543.1	1543.1	124.8	0.0	279.2	1139.1	2582.5
7-1-99	60.396	48.679	0.000	0.000	1497.9	1497.9	121.1	0.0	295.9	1080.9	3119.6
7-1-0	55.307	44.577	0.000	0.000	1454.0	1454.0	117.6	0.0	313.7	1022.7	3495.
7-1-1	50.646	40.821	0.000	0.000	1411.3	1411.3	114.1	0.0	332.5	964.7	3918.
7-1-2	46.378	37.381	0.000	0.000	1369.9	1369.9	110.8	0.0	352.4	906.7	4093.
7-1-3	42.470	34.231	0.000	0.000	1329.8	1329.8	107.5	0.0	373.6	848.7	4327.
7-1-4	38.891	31.346	0.000	0.000	1253.8	1253.8	101.4	0.0	384.5	767.9	4520.
SUBTOTAL	791.779	638.174	0.000	0.000	18132.4	18132.4	1466.2	1498.9	4065.5	11101.8	4520.
REMAINING	275.221	221.828	0.000	0.000	8873.1	8873.1	717.5	0.0	4600.9	3554.8	620.1
TOTAL OF 27.0 YRS	1067.000	860.002	0.000	0.000	27005.5	27005.5	2183.7	1498.9	3666.3	14656.6	5141.5
CUM PROD	0.000		0.000								
ULTIMATE	1067.000		0.000								

BASED ON ESCALATED PRICES AND COSTS

INITIAL PRICES BEFORE PRODUCTION TAXES: 18.5000 \$/BBL - 0.0000 \$/MCF  
MAXIMUM COMPLETIONS: 5 OIL - 0 GAS INITIAL OPRG COST 15000 \$/MO

PRESENT WORTH PROFILE

FOR 6.00 PCT, PRESENT WORTH IS \$6237.3  
FOR 12.00 PCT, PRESENT WORTH IS \$4261.0  
FOR 15.00 PCT, PRESENT WORTH IS \$3237.7  
FOR 20.00 PCT, PRESENT WORTH IS \$2065.2  
FOR 25.00 PCT, PRESENT WORTH IS \$1303.9

LOCATION: 31-148-34E

INCREMENTAL WF RESERVES BASED ON VACUUM MIDDLE PENN WF (MOBIL)  
INTERESTS & RESERVES FOR SAGE WELLS ONLY (25% OF TOTAL TP & PROD)

NETHERLAND, SEWELL & ASSOCIATES, INC. - DALLAS

**TABLES**

**1 and 2**

Table NO.1  
Part I  
Tract Unit Participation - Tract Basis

Tract	Lease/Wells	Owner	Type	Gross WI	Net NRI	Tract Participation (100% Ultimate)	Unit Participation Expense	Unit Participation Revenue
1	New Mexico State 30 #1	Sage State of New Mexico Sage	WI	1.0000000	.8025000	.1527267	.1527267	.1225631
			RI	-	.1875000	.1527267	-0-	.0286363
			ORR	-	.0100000	.1527267	-0-	.0015273
TOTAL			1.0000000	1.0000000	.1527267	.1527267	.1527267	
2	New Mexico State 1, 2, 3	Sage State of New Mexico Sage	WI	1.0000000	.7500000	.5640217	.5640217	.4230163
			RI	-	.1250000	.5640217	-0-	.0705027
			ORR	-	.1250000	.5640217	-0-	.0705027
TOTAL			1.0000000	1.0000000	.5640217	.5640217	.5640217	
3	State of New Mexico, V-2160	Sage State of New Mexico Sage	WI	1.0000000	.8233333	-0-	-0-	-0-
			RI	-	.1666667	-0-	-0-	-0-
			ORR	-	.0100000	-0-	-0-	-0-
TOTAL			1.0000000	1.0000000				
4	State of New Mexico, V-1791	Sage State of New Mexico Sage	WI	1.0000000	.8233333	.0561122	.0561122	.0461991
			RI	-	.1666667	.0561122	-0-	.0093520
			ORR	-	.0100000	.0561122	-0-	.0005611
TOTAL			1.0000000	1.0000000	.0561122	.0561122	.0561122	

EXHIBIT "C"  
Part I  
Tract Unit Participation - Tract Basis

Tract	Lease/Wells	Owner	Type	Gross WI	Net NRI	Tract Participation (100% Ultimate)	Unit Participation Expense	Unit Participation Revenue
5	John Etcheverry #1	Sage	WI	1.0000000	.7718750	.1798006	.1798006	.1387836
		John Etcheverry	RI	-	.1015626	.1798006	-0-	.0182610
		Adella P. Tindale	RI	-	.0429687	.1798006	-0-	.0077258
		Josephine Selvege	RI	-	.0429687	.1798006	-0-	.0077258
		FDIC-A/C P. Metts	ORR	-	.0075000	.1798006	-0-	.0013485
		J.M. Huber Corp.	ORR	-	.0156250	.1798006	-0-	.0028094
		Sage	ORR	-	.0100000	.1798006	-0-	.0017980
Sage	ORR	-	.0075000	.1798006	-0-	.0013485		
TOTAL				1.0000000	1.0000000	.1798006	.1798006	.1798006
6	John Etcheverry "A" #2	Sage	WI	1.0000000	.8125000	.0473388	.0473388	.0384628
		John Etcheverry	RI	-	.1015626	.0473388	-0-	.0048078
		Adella Tindale	RI	-	.0429687	.0473388	-0-	.0020341
		TOTAL				1.0000000	1.0000000	.0473388
TOTAL				1.0000000	1.0000000	1.0000000	1.0000000	1.0000000



Table No. 2  
Part II  
Tract & Unit Participation - Owner Basis

Tract	Owner	Type	Gross WI	Net NRI	Tract Participation (100% Ultimate)	Unit Participation Expense	Unit Participation Revenue
1)	Sage	WI	1.0000000	.8025000	.1527267	.1527267	.1225631
2)	Sage	WI	1.0000000	.7500000	.5640217	.5640217	.4230163
3)	Sage	WI	1.0000000	.8233333	-0-	-0-	-0-
4)	Sage	WI	1.0000000	.8233333	.0561122	.0561122	.0461991
5)	Sage	WI	1.0000000	.7718750	.1798006	.1798006	.1387836
6)	Sage	WI	1.0000000	.8125000	.0473388	.0473388	.0384628
5)	Sage	ORR	-0-	.0075000	.1798006	-0-	.0013485
1)	Sage	ORR	-0-	.0100000	.1527267	-0-	.0015273
3)	Sage	ORR	-0-	.0100000	-0-	-0-	-0-
4)	Sage	ORR	-0-	.0100000	.0561122	-0-	.0005611
5)	Sage	ORR	-0-	.0100000	.1798006	-0-	.0017980
2)	Sage	ORR	-0-	.1250000	.5640217	-0-	.0705027
	Total						.8447625
5)	John Etcheverry	RI	-0-	.1015626	.1798006	-0-	.0182610
6)	John Etcheverry	RI	-0-	.1015626	.0473388	-0-	.0048078
	Total						.0230688

EXHIBIT "C"  
Part II

Tract & Unit Participation - Owner Basis

Tract	Owner	Type	Gross WI	Net NRI	Tract Participation (100% Ultimate)	Unit Participation Expense	Unit Participation Revenue
5)	J.M. Huber Corp.	ORR	-0-	.0156250	.1798006	-0-	.0028094
5)	FDIC- R. Metts	ORR	-0-		.0075000	-0-	.0013485
1)	State of New Mexico	RI	-0-	.1875000	.1527267	-0-	.0286363
2)	State of New Mexico	RI	-0-	.1250000	.5640217	-0-	.0705027
3)	State of New Mexico	RI	-0-	.1666667	-0-	-0-	-0-
4)	State of New Mexico	RI	-0-	.1666667	.0561122	-0-	.0093520
	Total						.1084910
5)	Josephine Selvage	RI	-0-	.0429687	.1798006	-0-	.0077258
6)	Josephine Selvage	RI	-0-	.0429687	.0473388	-0-	.0020341
	Total						.0097599
5)	Adella P. Tindale	RI	-0-	.0429687	.1798006	-0-	.0077258
6)	Adella P. Tindale	RI	-0-	.0429687	.0473388	-0-	.0020341
	Total						.0097599
	Grand Total						1.0000000



BEFORE EXAMINER SIGNATURE  
 OIL COMPLETION DIVISION  
 EXHIBIT NO. E  
 CASE NO. 9825+9826

AREA OF REVIEW JOHN ETCHEVERRY NO. 2-A INJECTION WELL

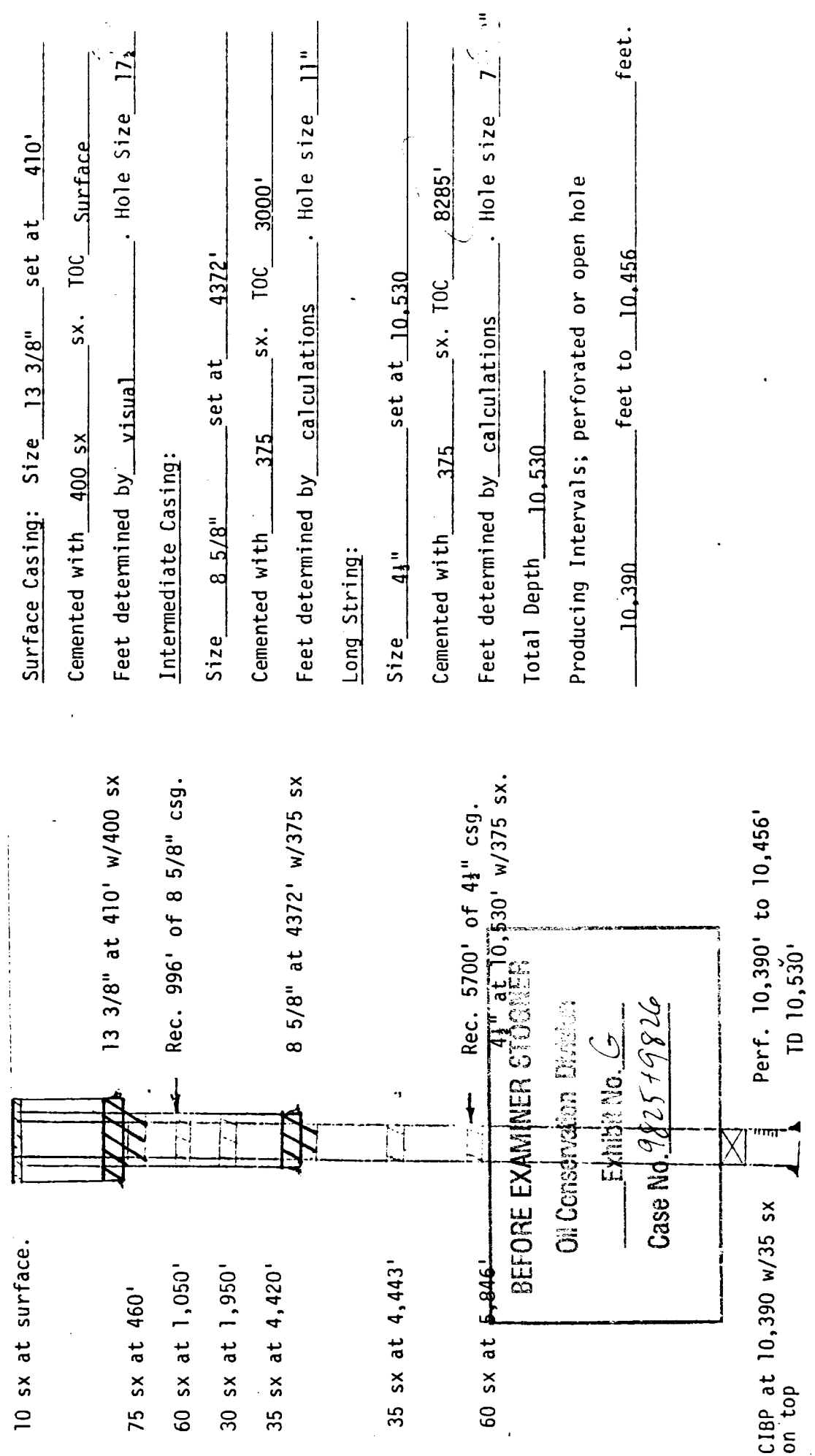
OPERATOR	LOCATION	TYPE	COMPLETION	DATE	PB/TD	CASTING PROGRAM AND CEMENT	PERFORATIONS
Sage Energy Company John Etcheverry No. 1	Sec. 29, T-14, R-34-E	Oil		8-24-71	10,535'	12 3/4" at 390' with 400 sxs 8 5/8" at 4400' with 375 sxs 4 1/2" at 10,535' with 375 sxs	10,400 to 10,418 10,440 to 10,446 10,465 to 10,475
Newbourne Oil Company Shell State No. 1	Sec. 30, T-14 R-34-E	Oil		2-2-72	10,510'	12 3/4" at 395' with 415 sxs 8 5/8" at 4420' with 375 sxs 4 1/2" at 10,510' with 375 sxs	10,384 to 10,403
Newbourne Oil Company Shell State No. 1A	Sec. 30, T-14, R-34-E	Oil		7-19-72	10,530'	13 3/8" at 410' with 400 sxs 8 5/8" at 4372' with 375 sxs 4 1/2" at 10,530' with 375 sxs	10,390 to 10,456
Texas Crude & Sinclair Oil Marchris-State No. 1	Sec. 30, T-14, T-34-E	D&A		5-16-72	10,704'	13 3/8" at 285' with 275 sxs 8 5/8" at 4491' with 350 sxs	
Newbourne Oil Company Etcheverry No. 1A	Sec. 29, T-14, R-34-E	D&A		11-28-71	10,515'	13 3/8" at 390' with 400 sxs 8 5/8" at 4418' with 375 sxs	
Newbourne Oil Company Etcheverry No. 2A	Sec. 29, T-14-S, R-34-E	Oil			10,500	12 3/4" at 431' with 425 sxs. 8 5/8" at 4400' with 375 sxs 4 1/2" at 10,500' with 375 sxs	10,402 to 10,470
Sage Energy Company New Mexico "30" State	Sec. 30, T-14, R-34-E	Oil			10,518'	13 3/8" at 443' with 450 sxs 8 5/8" at 4482' with 2000 sxs 5 1/2" at 10,561 with 380 sx.	10,392 to 10,407
C. W. Trainer Marie No. 1	Sec. 29, T-14-S, R-34-E	D&A		11-9-62	10,600	10 3/4" at 307' with 200 sxs 7 5/8" at 4337' with 250 sxs	

1042-470

PLUGGED WELL DATA

Operator Name Mewborne Oil Company Lease Name Shell "A" State Well No. 1  
Footage Location 2080' FNL and 560' FEL Section 30 Township 14S Range 34E  
County Lea Date P&A 11-30-78

SCHEMATIC



TABULAR DATA

Surface Casing: Size 13 3/8" set at 410'  
Cemented with 400 sx. TOC Surface  
Feet determined by visual. Hole Size 17 1/2"  
Intermediate Casing:  
Size 8 5/8" set at 4372'  
Cemented with 375 sx. TOC 3000'  
Feet determined by calculations. Hole size 11"  
Long String:  
Size 4 1/2" set at 10,530  
Cemented with 375 sx. TOC 8285'  
Feet determined by calculations. Hole size 7 1/2"  
Total Depth 10,530  
Producing Intervals; perforated or open hole  
10,390 feet to 10,456 feet.

CIBP at 10,390 w/35 sx on top

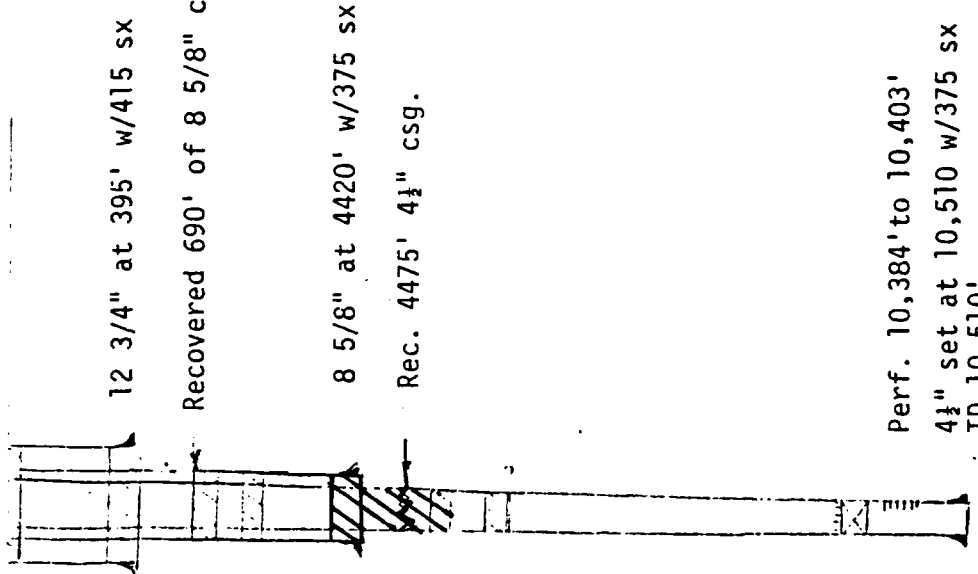
Perf. 10,390' to 10,456'  
TD 10,530'

PLUGGED WELL DATA

Operator Name Mewbourne Oil Company Lease Name Shell State Well No. 1  
 Footage Location 560' FSL and 560' FEL Section 30 Township T-14-S Range R-34-E  
 County Lea County, New Mexico Date P&A 12-21-84

SCHEMATIC

10 sx at surface  
 75 sx at 340' - 445'  
 75 sx at 690' - 805'  
 30 sx at 1945'  
 50 sx in top of 4 1/2" stub.  
 50 sx at 4525'  
 20 sx at 5922'



12 3/4" at 395' w/415 sx  
 Recovered 690' of 8 5/8" csg.  
 8 5/8" at 4420' w/375 sx  
 Rec. 4475' 4 1/2" csg.

CIBP at 10,340' w/4 sx on top.

Perf. 10,384' to 10,403'  
 4 1/2" set at 10,510 w/375 sx TD 10,510'

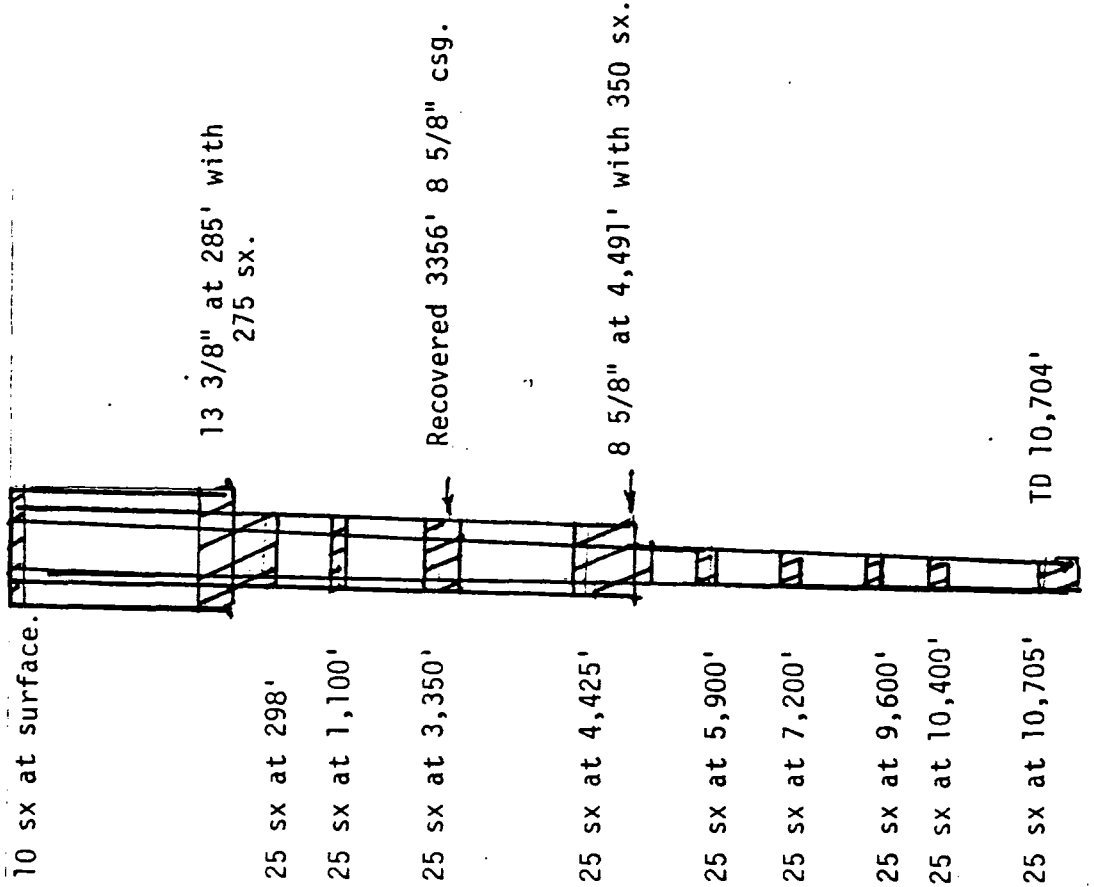
TABULAR DATA

Surface Casing: Size 12 3/4" set at 395'  
 Cemented with 415 sx. TOC Surface  
 Feet determined by Visual. Hole Size 17 1/2"  
 Intermediate Casing:  
 Size 8 5/8" set at 4420'  
 Cemented with 375 sx. TOC 2430'  
 Feet determined by calculations. Hole size 11"  
 Long String:  
 Size 4 1/2" set at 10,510'  
 Cemented with 375 sx. TOC 8288'  
 Feet determined by calculations. Hole size 7"  
 Total Depth 10,510'  
 Producing Intervals; perforated or open hole  
10,384 feet to 10,403 feet

PLUGGED WELL DATA

Operator Name Tex.-Crude/Sinclair O&GCo. Lease Name Machris-State Well No. 1  
 Footage Location 660' FN and 660' FE Section 30 Township 14-S Range 34-E  
 County Lea Date P&A June, 1949

SCHEMATIC



TABULAR DATA

Surface Casing: Size 13 3/8" set at 285'  
 Cemented with 275 sx. TOC Surface  
 Feet determined by visual. Hole Size 17 1/4"  
 Intermediate Casing:  
 Size 8 5/8" set at 4491'  
 Cemented with 350 sx. TOC 3651'  
 Feet determined by Calculations. Hole size 11"  
 Long String:  
 Size None set at \_\_\_\_\_  
 Cemented with \_\_\_\_\_ sx. TOC \_\_\_\_\_  
 Feet determined by \_\_\_\_\_ . Hole size \_\_\_\_\_  
 Total Depth 10,704  
 Producing Intervals; perforated or open hole  
 \_\_\_\_\_ NA \_\_\_\_\_ feet to \_\_\_\_\_ NA \_\_\_\_\_ feet.

Corrected 8/6/89

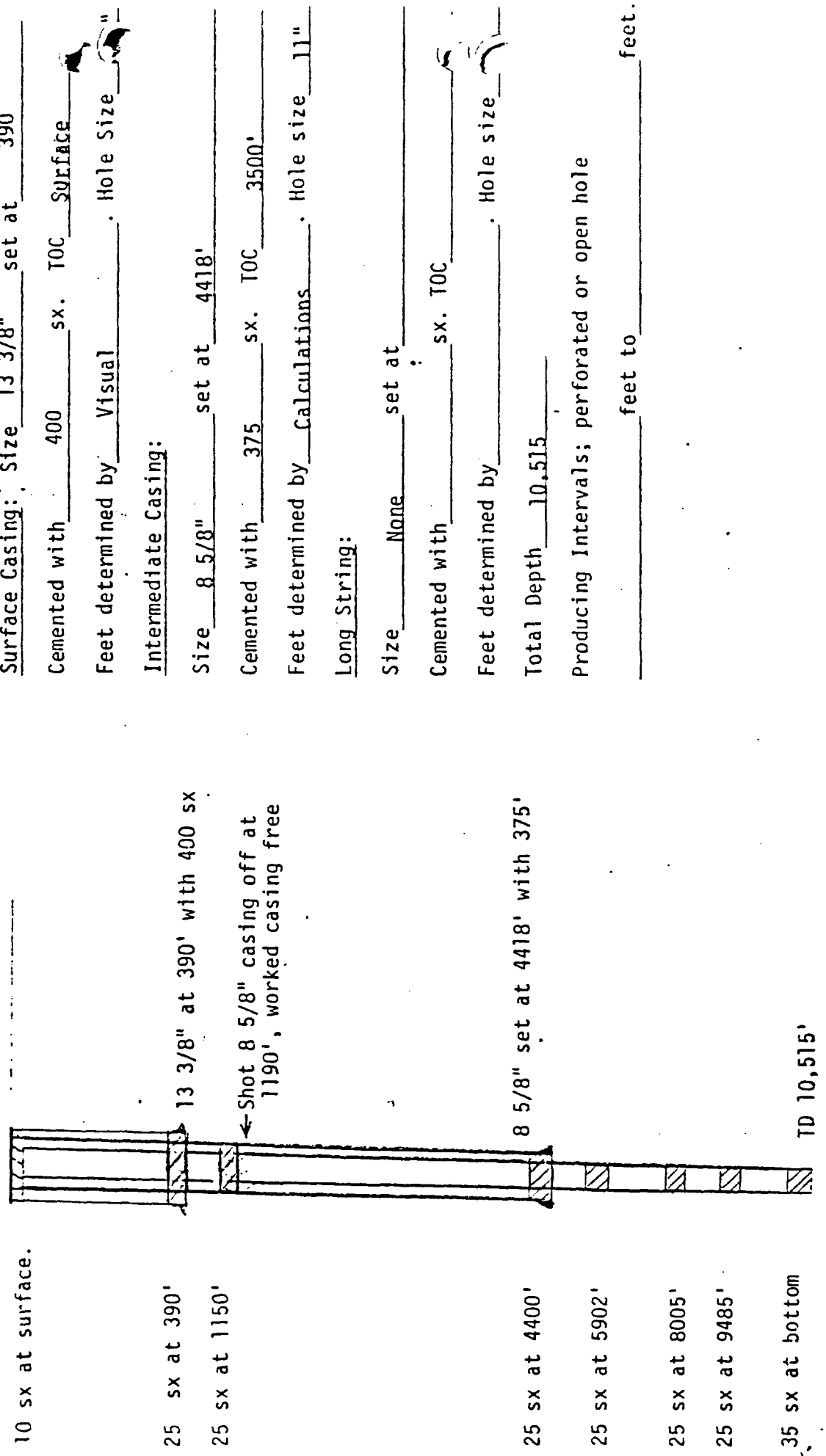
PLUGGED WELL DATA

Operator Name Mark Production Co-Mewborne Oil Lease Name John Etchevery, Jr. "A" Well No. 1 Jerry N. Nobby

Footage Location 1980 FNL and 1830 FWL Section 29 Township 14S Range 34E

County Lea Date P&A 1-20-72

SCHEMATIC



TABULAR DATA

Surface Casing: Size 13 3/8" set at 390  
 Cemented with 400 sx. TOC SURFACE  
 Feet determined by Visual. Hole size "  
 Intermediate Casing:  
 Size 8 5/8" set at 4418'  
 Cemented with 375 sx. TOC 3500'  
 Feet determined by Calculations. Hole size 11"  
 Long String:  
 Size None set at \_\_\_\_\_  
 Cemented with \_\_\_\_\_ sx. TOC \_\_\_\_\_  
 Feet determined by \_\_\_\_\_ . Hole size \_\_\_\_\_  
 Total Depth 10,515  
 Producing Intervals; perforated or open hole \_\_\_\_\_ feet to \_\_\_\_\_ feet.

35 sx at bottom TD 10,515'



INJECTION WELL DATA SHEET

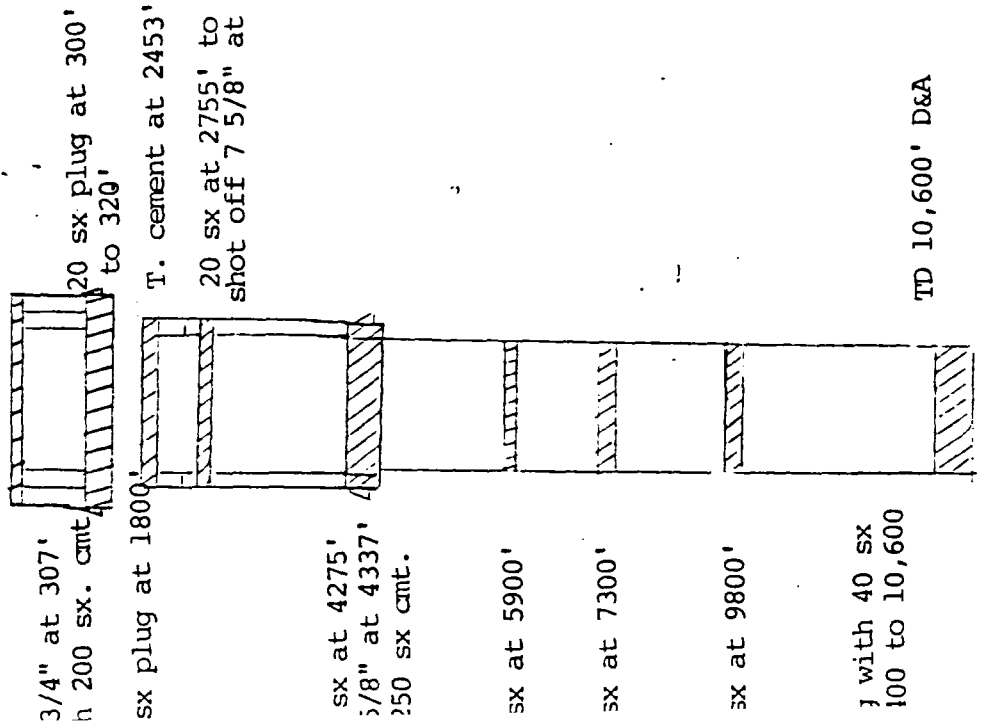
SIDE 1

C. W. Trainer  
OPERATOR

Maria  
LEASE

1 1980' FNL and 1980' FEL T-14-S R-34-E  
FOOTAGE LOCATION SECTION TOWNSHIP RANGE

Schematic



Tabular Data

Surface Casing  
 Size 10 3/4" @ 307' Cemented with 200 sx.  
 TOC Surface feet determined by visual

Intermediate Casing  
 Size 7 5/8" at 4337' Cemented with 250 sx.  
 TOC 2453' feet determined by calculated  
 Hole size 9 7/8"

Long string  
 Size " Cemented with " sx.  
 TOC " feet determined by "  
 Hole size 6 3/4"  
 Total depth 10,600'

Injection Interval " feet  
 (perforated or open-hole, indicate which)

TD 10,600' D&A

INJECTION WELL DATA SHEET

SLIDE 1

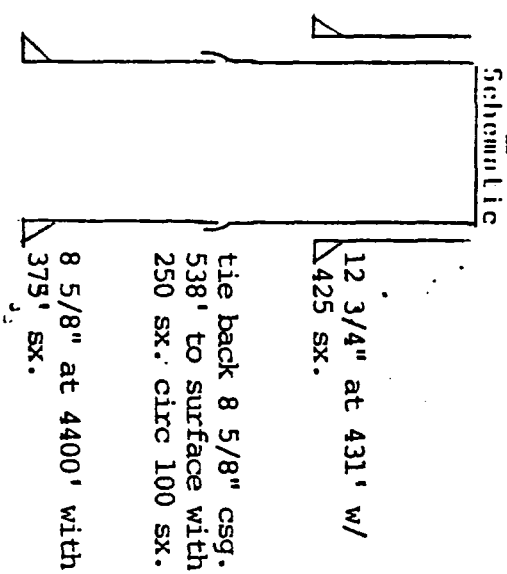
SAGE ENERGY COMPANY  
OPERATOR

John Etcheverry, Jr. "A"

LEASE

WELL NO. 2 Unit Letter "E", 2080' FNL and 560' FWL of Section 29, Township 14S, R-14-E, ~~Dea~~ ~~County~~, New Mexico  
FOOTAGE LOCATION SECTION TOWNSHIP

BEHRENS EXAMINER STOCKER  
Oil Conservation Division  
Case No. 9825+9826  
Exhibit No. H



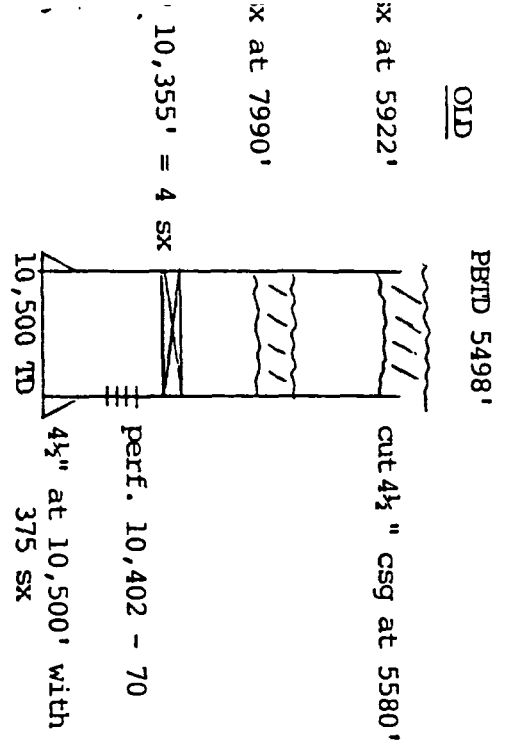
Surface Casing Tabular Data  
Size 12 3/4" " Cemented with 425 sx.  
TOC surface feet determined by visual

Hole size NA  
Intermediate Casing  
Size 8 5/8" " Cemented with 375 sx.  
TOC feet determined by

Hole size  
Long string  
Size 4 1/2" " Cemented with 375 sx.

TOC 8288 feet determined by Calculations  
Hole size 7 7/8"  
Total depth 10,500  
Injection Interval

10,402' feet to 10,470' feet  
(perforated or open-hole, indicate which)



PBTD 5498'  
OTD  
cut 4 1/2" csg at 5580'  
perf. 10,402 - 70  
4 1/2" at 10,500' with 375 sx  
10,355' = 4 sx

INJECTION WELL DATA SHEET -- SIDE 2

Tubing size 2 7/8" lined with Internal Plastic Coating set in a  
(material)

Baker Model "R" packer at 10,400± feet  
(brand and model)

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation Bough "C" (Permo Penn)

2. Name of Field or Pool (If applicable) Tres Papalotes Perm West

\*3. Is this a new well drilled for injection?  Yes  No

If no, for what purpose was the well originally drilled? Oil and gas exploration

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (bags of cement or bridge plug(s) used) NO

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. None

\* Etcheverry "A" #2 was re-entered (6/89) to make a water injection well. It will be sidetracked with kick off point at 5498' and BHL 500' to North at 10,600± ft.

HALLIBURTON DIVISION LABORATORY

HALLIBURTON SERVICES

MIDLAND DIVISION

HOBBS, NEW MEXICO 88240

LABORATORY WATER ANALYSIS

New Mexico "30" Water Source Well

No. \_\_\_\_\_

Date 2-4-88

*Well File*

*Exhibit II*

To Sage

This report is the property of Halliburton Company and neither it nor any part thereof nor a copy thereof is to be published or disclosed without first securing the express written approval of laboratory management; it may however, be used in the course of regular business operations by any person or concern and employees thereof receiving such report from Halliburton Company.

Submitted by \_\_\_\_\_ Date Rec. \_\_\_\_\_

Well No. \_\_\_\_\_ Depth \_\_\_\_\_ Formation \_\_\_\_\_

County \_\_\_\_\_ Field 513 Source \_\_\_\_\_

	NM St #3	Fresh	
Resistivity	.063 @ 70°	4.75 @ 70°	
Specific Gravity	1.105	1.000	
pH	6.2	7.4	
Calcium (Ca)	6650	500	*MPL
Magnesium (Mg)	690	Nil	
Chlorides (Cl)	89,000	400	
Sulfates (SO <sub>4</sub> )	2424	50	
Bicarbonates (HCO <sub>3</sub> )	216	204	
Soluble Iron (Fe)	34	Nil	

Remarks:

BEFORE EXAMINER SIGNATURE

Oil Conservation Division

Exhibit No. I

Case No. 982549826

\*Milligrams per liter

Respectfully submitted,

Analyst: \_\_\_\_\_

HALLIBURTON COMPANY

cc:

By \_\_\_\_\_ CHEMIST

NOTICE

THIS REPORT IS LIMITED TO THE DESCRIBED SAMPLE TESTED. ANY USER OF THIS REPORT AGREES THAT HALLIBURTON SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE, WHETHER IT BE TO ACT OR OMISSION, RESULTING FROM SUCH REPORT OR ITS USE.

GENERAL SCALE PROGRAM  
MIXING OF TWO WATERS

SAGE  
NM ST #3

TEMPERATURE(F)= 100.

*N. Mexico State #3*  
*Fresh Water Well*

TYPE OF IONS	CONCENTRATION(MG/L)	
	WATER #1	WATER #2
SODIUM	51196.	0.
CALCIUM	6650.	500.
MAGNESIUM	69.	0.
IRON(FERROUS)	16.	0.
IRON(FERRIC)	16.	0.
CHLORIDE	89000.	400.
BICARBONATE	216.	204.
CARBONATE	0.	0.
SULFATE	2424.	50.
TOTAL DISSOLVED SOLIDS	149587.	1154.
PH	6.2	7.4
SPECIFIC GRAVITY	1.105	1.000

TYPE OF SCALE	AMT FORMED (GMS/L)	AMT SOLUBLE (GMS/L)	SCALE INDEX	SCALING TENDENCY
100.0 % WATER #1    0.0 % WATER #2				
CALCIUM SULFATE	4.345	3.295	1.049	POSITIVE = <i>Yes</i>
CALCIUM CARBONATE	-----	-----	0.169	POSITIVE "
90.0 % WATER #1    10.0 % WATER #2				
CALCIUM SULFATE	3.919	3.484	0.435	POSITIVE "
CALCIUM CARBONATE	-----	-----	0.067	POSITIVE "
80.0 % WATER #1    20.0 % WATER #2				
CALCIUM SULFATE	3.494	3.653	-0.159	NEGATIVE <i>No</i>
CALCIUM CARBONATE	-----	-----	-0.007	NEGATIVE "
70.0 % WATER #1    30.0 % WATER #2				
CALCIUM SULFATE	3.068	3.793	-0.725	NEGATIVE "
CALCIUM CARBONATE	-----	-----	-0.075	NEGATIVE "

SAGE  
NM ST #3

TYPE OF SCALE	AMT FORMED (GMS/L)	AMT SOLUBLE (GMS/L)	SCALE INDEX	SCALING TENDENCY
60.0 % WATER #1		40.0 % WATER #2		
CALCIUM SULFATE	2.643	3.896	-1.254	NEGATIVE
CALCIUM CARBONATE	-----	-----	-0.121	NEGATIVE
50.0 % WATER #1		50.0 % WATER #2		
CALCIUM SULFATE	2.217	3.948	-1.731	NEGATIVE
CALCIUM CARBONATE	-----	-----	-0.146	NEGATIVE
40.0 % WATER #1		60.0 % WATER #2		
CALCIUM SULFATE	1.792	3.928	-2.136	NEGATIVE
CALCIUM CARBONATE	-----	-----	-0.137	NEGATIVE
30.0 % WATER #1		70.0 % WATER #2		
CALCIUM SULFATE	1.366	3.813	-2.447	NEGATIVE
CALCIUM CARBONATE	-----	-----	-0.083	NEGATIVE
20.0 % WATER #1		80.0 % WATER #2		
CALCIUM SULFATE	0.941	3.532	-2.592	NEGATIVE
CALCIUM CARBONATE	-----	-----	0.082	POSITIVE
10.0 % WATER #1		90.0 % WATER #2		
CALCIUM SULFATE	0.515	2.961	-2.446	NEGATIVE
CALCIUM CARBONATE	-----	-----	0.438	POSITIVE
0.0 % WATER #1		100.0 % WATER #2		
CALCIUM SULFATE	0.090	1.581	-1.492	NEGATIVE
CALCIUM CARBONATE	-----	-----	1.187	POSITIVE

SCALE PROGRAM FOR 1 WATER

SAGE  
 NM ST #3  
 LEA  
 NEW MEXICO

ION	CONC. (MG/L)		
SODIUM	50004.		
POTASSIUM	0.		
CALCIUM	6650.		
MAGNESIUM	690.		
IRON	N.D.	PH	6.20
CHLORIDE	89000.	SPECIFIC GRAVITY	1.1050
BICARBONATE	216.	RESISTIVITY	0.06
CARBONATE	0.	IONIC STRENGTH	2.7841
SULFATE	2424.	TDS	148984.

TYPE OF SCALE	SOLUBILITY (PTB)	SCALE INDEX	SCALE (PTB)	SCALING TENDENCY
---------------	------------------	-------------	-------------	------------------

TEMPERATURE(F)= 80.0

CALCIUM SULFATE	1157.	0.13	364.	STRONG
CALCIUM CARBONATE	158.	-0.11	-34.	NONE

TEMPERATURE(F)= 93.3

CALCIUM SULFATE	1158.	0.13	363.	STRONG
CALCIUM CARBONATE	110.	0.05	14.	SLIGHT

TEMPERATURE(F)= 106.7

CALCIUM SULFATE	1149.	0.14	372.	STRONG
CALCIUM CARBONATE	76.	0.21	48.	SLIGHT

TEMPERATURE(F)= 120.0

CALCIUM SULFATE	1137.	0.14	384.	STRONG
CALCIUM CARBONATE	50.	0.40	74.	SLIGHT

NOTE: PTB = POUNDS PER THOUSAND BARRELS

*Fresh water source*

WATER ANALYSIS - HALLIBURTON SERVICES

Located NW/4 of SW/4 of Section 29, T-14-S,  
R-34-E, Lea County, New Mexico.

Res. at 70° = 5.41 ohms

G. S. = 1.000

PL = 7.8

Ca ++ = 100 ppm

Ma ++ = 100 ppm

Cl - = 75 ppm

SO<sub>4</sub> -- = 70 ppm

Bicarb = 168 ppm

Fe = None

513 ppm

BEFORE EXAMINER SIGNATURE

Oil Conservation Division

Exhibit No. J

Case No. 982579826



**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 box(es) for additional service(s) requested.

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

3. Article Addressed to:  Yates Petroleum Company 105 South 4th Street Artesian, New Mexico 88210	4. Article Number P 248 625 558
	Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail
Always obtain signature of addressee or agent and DATE DELIVERED.	
5. Signature - Addressee X	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature - Agent X <i>Carol Kougat</i>	
7. Date of Delivery 10-31-87	

PS Form 3811, Feb. 1986 DOMESTIC RETURN RECEIPT

**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 box(es) for additional service(s) requested.

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

3. Article Addressed to:  Enron Oil and Gas Co. O. Box 2267 Midland, Texas 79702	4. Article Number P 248 625 556
	Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail
Always obtain signature of addressee or agent and DATE DELIVERED.	
5. Signature - Addressee X <i>Enron</i>	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature - Agent X	
7. Date of Delivery	

PS Form 3811, Feb. 1986 DOMESTIC RETURN RECEIPT

BEFORE EXAMINER STORAGE  
Oil Conservation Division  
Exhibit No. K  
Case No. 982579826

**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 box(es) for additional service(s) requested.

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

3. Article Addressed to:  John Etcheverry, Jr. O. Box 1656 Lovington, New Mexico 88260	4. Article Number P 248 625 557
	Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail
Always obtain signature of addressee or agent and DATE DELIVERED.	
5. Signature - Addressee X <i>Marcy Etcheverry</i>	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature - Agent X <i>1</i>	
7. Date of Delivery 11-21-89	

PS Form 3811, Feb. 1986 DOMESTIC RETURN RECEIPT