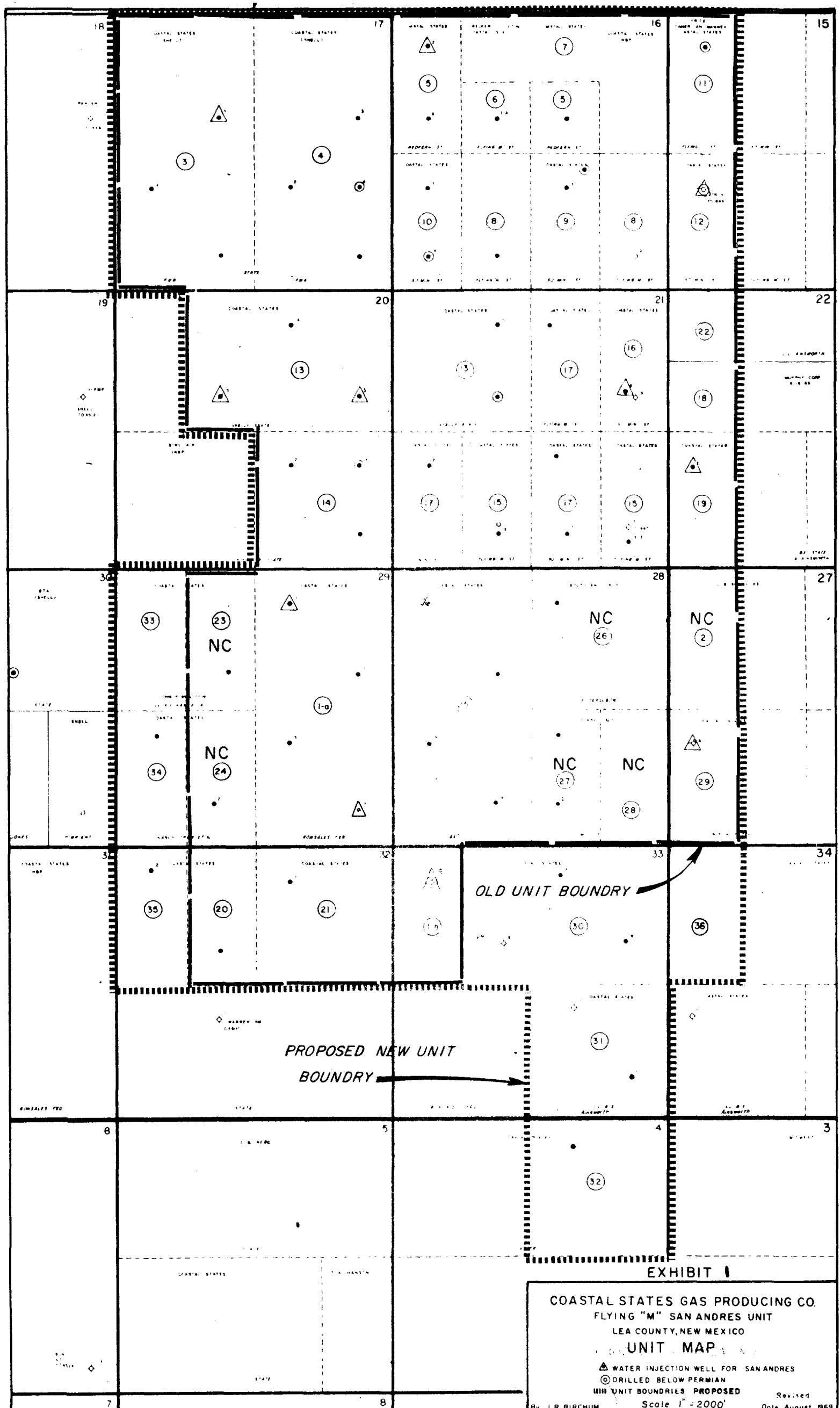


EXHIBIT 5

PARAMETERS AND FORMULA FOR THE  
PROPOSED EXPANSION OF FLYING "M" (SAN ANDRES) UNIT  
9-24-69

Tract No.	Company Lease	No. Wells	%	Primary Current Rate		%	Cum. 3-1-69	%	Rem. Prim.	%	Ult. Prim.		%	Prod. Acres	%	1st Phase		2nd Phase	
				Sept.-Feb. 1968-69	1968-69						3-1-69	Prim.				Prim.	25% Acres	75% Cur. Rt.	25% Acres
Coastal States																			
23	McGuffin	1	1.8868	17,130	8.2369	87,975	3.8942	61,025	8.2368	149,000	4.9667	70,889	1.6936	6,6011	4,1484				
33	McGuffin	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
24	Nancy Trow	1	1.8868	7,041	3.3856	26,911	1.1913	25,084	3.3857	51,995	1.7332	80,000	0.9137	.2284	1,7777				
34	Nancy Trow	1	1.8868	8,535	4.1041	30,987	1.3716	30,406	4.1041	61,393	2.0464	80,000	1.9113	3.0170	2,0126				
30	Gonsales Fed. "33"	2	3,7736	14,901	7.1651	44,364	1.9638	53,085	7.1651	97,449	3.2483	191,306	4.5705	6.5164	3,5788				
31	Ainsworth "33"	1	1.8868	5,084	2.4446	8,172	0.3617	18,112	2.4447	26,284	0.8761	118,934	2.8415	2.5439	1,3675				
32	State "4"	1	1.8868	6,674	3.2092	6,674	0.2954	23,776	3.2092	30,450	1.0150	139,804	3.3401	3.2419	1,5963				
2	Gonsales "27"	-	-	-	-	-	-	-	-	-	-	7,381	0.1763	0.0441	0.0441				
36	Coastal Sec. 34	-	-	-	-	-	-	-	-	-	-	12,545	0.2997	0.0749	0.0749				
Total Coastal		7	13,2076	59,365	28.5456	205,083	9.0780	211,488	28.5456	416,571	13.8857	739,101	17.6580	25.8236	14,8287				
Warren American																			
35	State "2"	1	1.8868	-0-	-0-	327	0.0145	-0-	-0-	327	0.0109	38,306	0.9152	0.2288	0.2370				
Southland Royalty																			
26	Ferguson	1	1.8868	8,170	3.9285	75,139	3.3260	29,105	3.9284	104,244	3.4748	135,091	3.2275	3.7533	3,4130				
27	McCoy	2	3,7736	13,629	6.5535	61,359	2.7161	48,554	6.5536	109,913	3.6638	80,000	1.9113	5.3929	3,2257				
28	McCoy	-	-	-	-	-	-	-	-	-	-	47,798	1.1420	0.2855	.2855				
Total Southland Royalty		3	5.6604	21,799	10.4820	136,498	6.0421	77,659	10.4820	214,157	7.1386	262,889	6.2798	9.4317	6,9242				
Flying "M" SA Unit																			
Total Unit		42	79,2452	126,802	60.9725	1,917,213	84.8654	451,732	60.9724	2,368,945	78.9648	3,145,327	75.1460	64.5159	78,0101				
1a, 1b, 3 thru 22, & 25		4	TOTAL	53	100.0000	207,966	100.0000	2,259,121	100.0000	740,879	100.0000	3,000,000	100.0000	4,185,623	100.0000	100.0000			

5



**EXHIBIT I**

**COASTAL STATES GAS PRODUCING CO.**  
**FLYING "M" SAN ANDRES UNIT**  
**LEA COUNTY, NEW MEXICO**  
**UNIT MAP**

▲ WATER INJECTION WELL FOR SAN ANDRES  
 ● DRILLED BELOW PERMIAN  
 --- UNIT BOUNDRIES PROPOSED

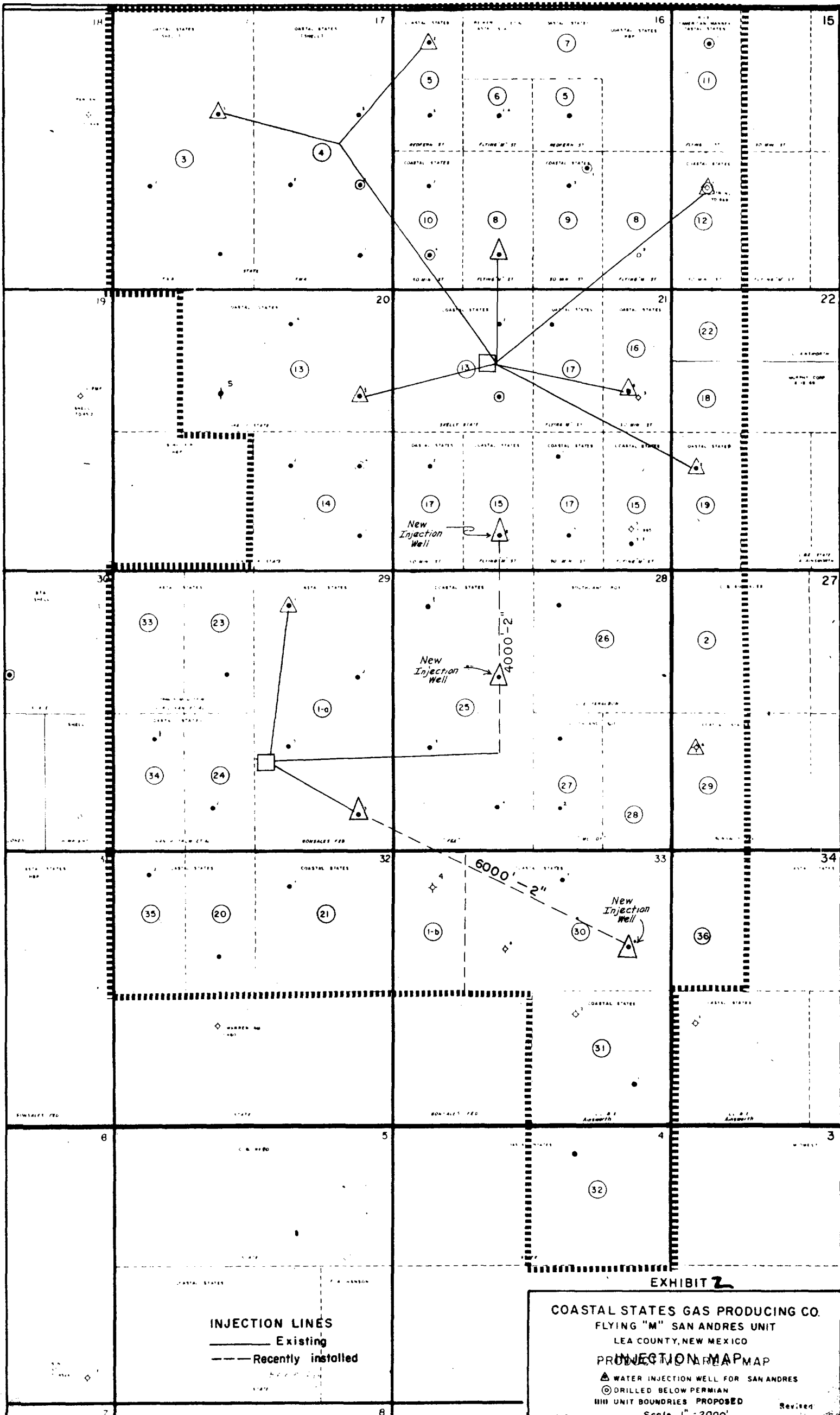
Revised  
 Date August 1959  
 By J. R. BIRCHUM Scale 1" = 2000'

EXHIBIT 5

PARAMETERS AND FORMULA FOR THE  
PROPOSED EXPANSION OF FLYING "M" (SAN ANDRES) UNIT  
9-24-69

Tract No.	Company Lease	No. Wells	%	Primary Current Rate Sept.-Feb. 1968-69		Cum. 3-1-69	%	Rem. Prim.	%	Ult. Prim.	%	Prod. Acres	%	1st Phase 25% Acres 75% Cur. Rt.		2nd Phase 25% Acres 75% Ult. Prim.	
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33	McGuiffin	-	-	-	-	-	-	-	-	-	-	38.242	0.9137	.2284	.2284		
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Total Coastal																	
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Total Southland Royalty																	
		3	5.6604	21,799	10.4820	136,498	6.0421	77,659	10.4820	214,157	7.1386	262.889	6.2798	9.4317	6.9242		
Flying "M" SA Unit																	
1a, 1b, 3 thru 22, & 25	Total Unit	42	79.2452	126,802	60.9725	1,917,213	84.8654	451,732	60.9724	2,368,945	78.9648	3,145.327	75.1460	64.5159	78.0101		
TOTAL		53	100.0000	207,966	100.0000	2,259,121	100.0000	740,879	100.0000	3,000,000	100.0000	4,185.623	100.0000	100.0000	100.0000		

#5



INJECTION LINES  
 — Existing  
 - - - Recently installed

**EXHIBIT 2**  
**COASTAL STATES GAS PRODUCING CO.**  
**FLYING "M" SAN ANDRES UNIT**  
**LEA COUNTY, NEW MEXICO**  
**INJECTION MAP**

▲ WATER INJECTION WELL FOR SAN ANDRES  
 ○ DRILLED BELOW PERMIAN  
 IIII UNIT BOUNDARIES PROPOSED



# United States Department of the Interior

GEOLOGICAL SURVEY  
WASHINGTON, D.C. 20242

November 2, 1970

Coastal States Gas Producing Company  
c/o Hinkle, Bondurant, Cox & Eaton  
Post Office Box 10  
Roswell, New Mexico 88201

RECEIVED

NOV 12 1970

Attention: Mr. Clarence E. Hinkle

HINKLE, BONDURANT, COX & EATON  
ROSWELL, NEW MEXICO

Gentlemen:

Your application of October 1, 1970, filed with the Oil and Gas Supervisor, Roswell, New Mexico, requests preliminary approval of a proposed expansion of the Flying "M" San Andres unit area, Lea County, New Mexico, and approval of the proposed basis of participation for the commitment of currently noncommitted tracts within the unit area.

The lands proposed for addition to the unit area consist of 240 acres of Federal land, 239.48 acres of State of New Mexico land, and 400 acres of fee land. The expansion will increase the unit area from 4,240.00 acres to 5,119.48 acres. All tracts included in the proposed addition contain lands indicated by available geologic information to be within the productive limits of the San Andres reservoir. The inclusion of these tracts in the unit area and the commitment of unit tracts 23, 24, 26, 27 and 28 is deemed necessary to obtain maximum recovery of secondary oil through better control of waterflood operations in the south end of the field.

No objection will be offered to the proposed expansion and commitment of currently noncommitted tracts within the unit area on the same basis of participation as the tracts added to the unit by the proposed expansion, provided the expansion is accomplished in accordance with the applicable provisions of section 3 of the unit agreement within a reasonable period of time.

When the Oil and Gas Supervisor, Roswell, New Mexico, is asked to grant final approval of the proposed expansion, a minimum of five copies of the request for final approval should be submitted along with five copies of each of the necessary joinders and evidence that the request has been approved by the appropriate officials of the State of New Mexico.

Sincerely yours,

W. A. Radlinski  
Acting Director

Appl Ex 3  
2/11/71

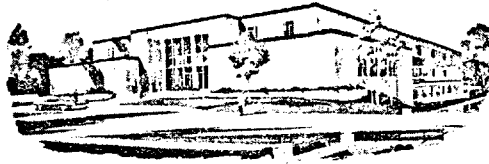
#3

State of New Mexico

RECEIVED

OCT 10 1970

HINKLE, BONDURANT, COX & EATON  
ROSWELL, NEW MEXICO



Commissioner of Public Lands

October 9, 1970

ALEX J. ARMIJO  
COMMISSIONER

P. O. BOX 1148  
SANTA FE, NEW MEXICO

Hinkle, Bondurant, Cox & Eaton  
600 Hinkle Building  
P. O. Box 10  
Roswell, New Mexico 88201

Re: Expansion of Flying "M"  
San Andres Unit Area

Gentlemen:

The Commissioner of Public Lands has this date given preliminary concurrence to the proposed expansion of the Unit Area and the proposed commitment of Tracts 23, 24, 26, 27, and 28 which are within the present area but which have never been committed to the unit; also the participation formula for the above mentioned tracts and the tracts which are within the proposed expanded area, subject to like concurrence by the United States Geological Survey and the Oil Conservation Commission.

The proposed expansion embraces 879.48 acres comprised of 239.48 State land, 240 Federal and 400 Fee land. Such expansion will increase the Unit Area from 4,240.00 to 5,119.48 acres.

Please submit two (2) copies of the application for final approval accompanied by appropriate joinders for all the tracts now being committed to the unit. This office requires the ratifications of all Lessees of Record for each State tract that is to be committed.

Very truly yours,

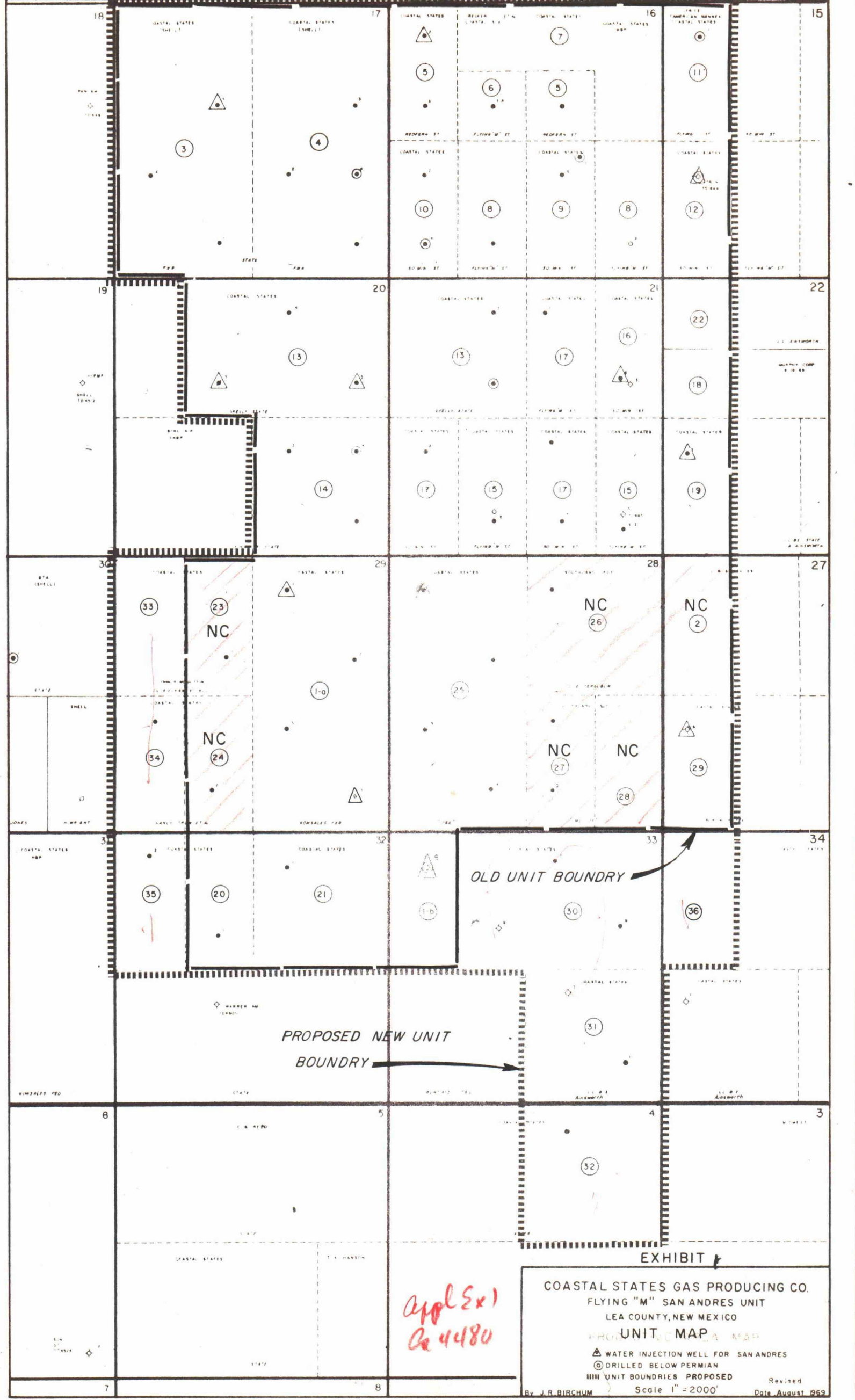
*Gordon G. Marcum, II*  
GORDON G. MARCUM, II, Director  
Oil and Gas Department

AJA/GGM/s

cc: USGS-Roswell, New Mexico  
OCC- Santa Fe, New Mexico

*Agustin 4* # 4





*Appl Ex 1  
Co 4480*

**EXHIBIT**

**COASTAL STATES GAS PRODUCING CO.**  
**FLYING "M" SAN ANDRÉS UNIT**  
**LEA COUNTY, NEW MEXICO**

**PROPOSED UNIT MAP**

▲ WATER INJECTION WELL FOR SAN ANDRÉS  
 ○ DRILLED BELOW PERMIAN  
 IIIII UNIT BOUNDARIES PROPOSED

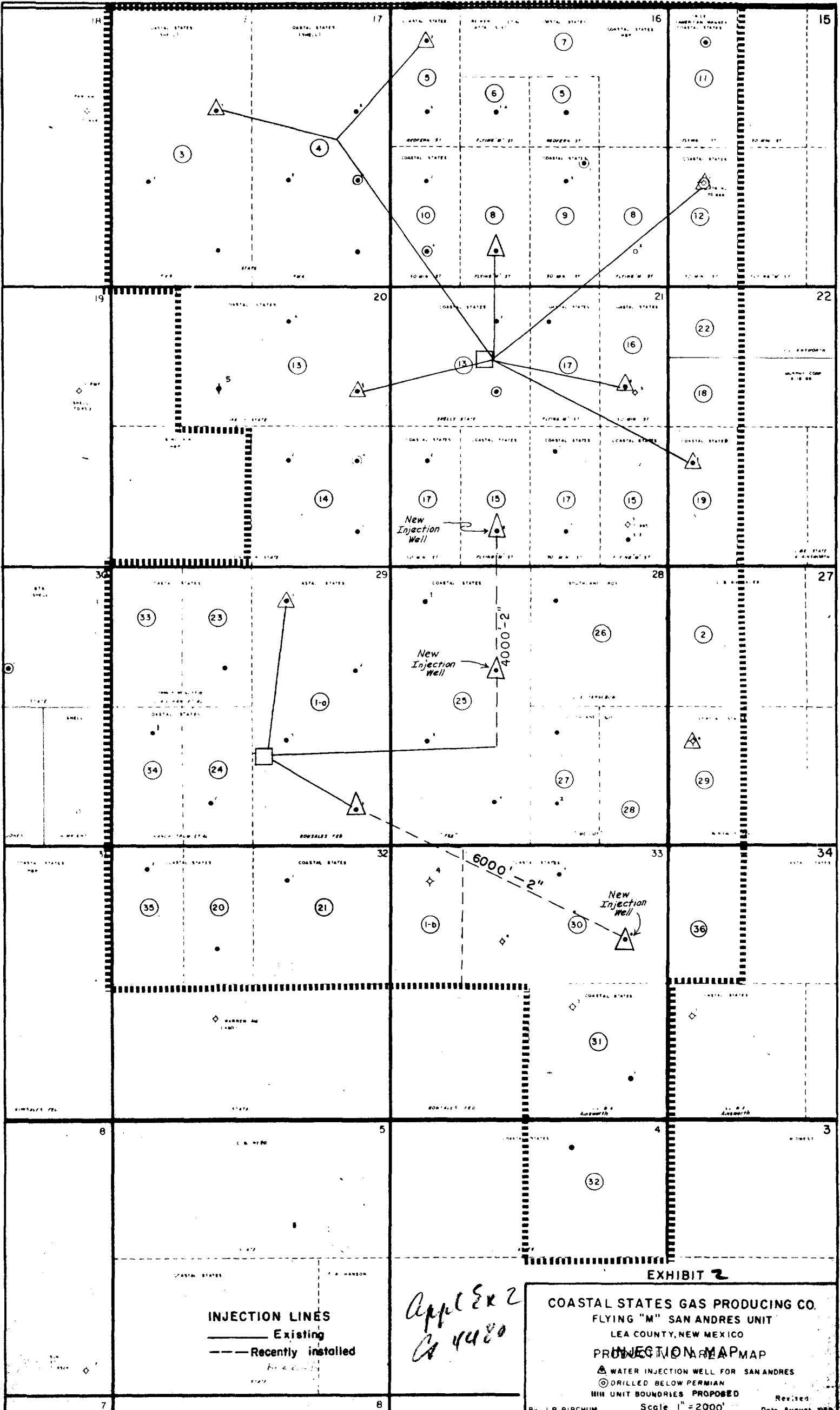
Revised  
 By J. R. BIRCHUM Scale 1" = 2000' Date August 1969





BEFORE EXAMINED UNDER  
 OIL CONSERVATION ACT  
 1-6-71 EXHIBIT NO. App # 1  
 CASE NO. 4480

**EXHIBIT 1**  
 COASTAL STATES GAS PRODUCING CO.  
 FLYING "M" SAN ANDRES UNIT  
 LEA COUNTY, NEW MEXICO  
 UNIT MAP  
 WATER INJECTION WELL FOR SAN ANDRES  
 DRILLED BELOW PERMIAN  
 UNIT BOUNDRIES PROPOSED  
 By J. R. BIRCHUM Scale 1" = 2000' Revised Date August 1969

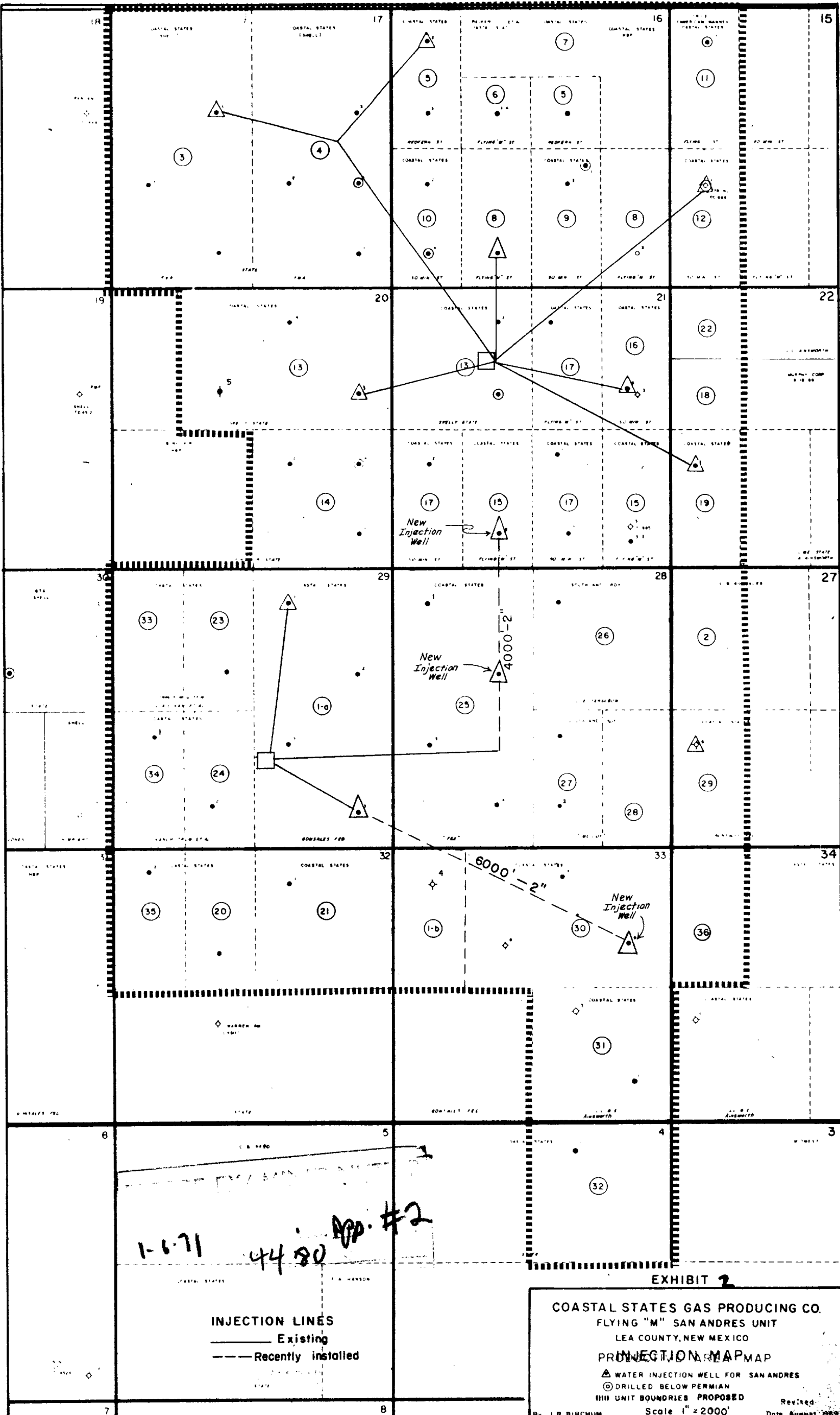


INJECTION LINES  
 — Existing  
 - - - Recently installed

*App Ex 2  
 4480*

**EXHIBIT 2**

**COASTAL STATES GAS PRODUCING CO.**  
**FLYING "M" SAN ANDRES UNIT**  
 LEA COUNTY, NEW MEXICO  
**PROPOSED INJECTION MAP**  
 WATER INJECTION WELL FOR SAN ANDRES  
 DRILLED BELOW PERMIAN  
 UNIT BOUNDARIES PROPOSED  
 Scale 1" = 2000'



1-6-71 4480 App. #2

INJECTION LINES  
 — Existing  
 - - - Recently installed

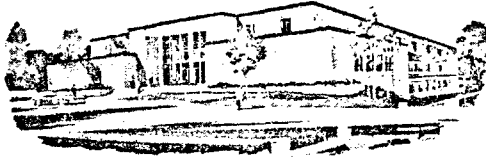
EXHIBIT 2  
 COASTAL STATES GAS PRODUCING CO.  
 FLYING "M" SAN ANDRES UNIT  
 LEA COUNTY, NEW MEXICO  
 INJECTION MAP  
 WATER INJECTION WELL FOR SAN ANDRES  
 DRILLED BELOW PERMIAN  
 III UNIT BOUNDRIES PROPOSED  
 Scale 1" = 2000'  
 Revised Date August 1959

State of New Mexico

RECEIVED

OCT 10 1970

HINKLE, BONDURANT, COX & EATON  
ROSWELL, NEW MEXICO



Commissioner of Public Lands

October 9, 1970

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BEFORE EXAMINED  
1-6-71  
CASE NO. 3840  
#4  
4980

Very truly yours,  
*Gordon G. Marcum, II*  
GORDON G. MARCUM, II, Director  
Oil and Gas Department

AJA/GGM/s  
cc: USGS-Roswell, New Mexico  
OCC- Santa Fe, New Mexico

Exhibit \* 2