

CONSERVATION DIVISION

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: Secondary Recovery Pressure Maintenance Disposal Storage
Application qualifies for administrative approval? SEP 18 1973 SEP 9 1973

II. Operator: Texaco Producing, Inc

Address: P.O. BOX 723, Hobbs, New Mexico, 88240

Contact party: Mr James A. Head Phone: 505-397-0421

III. Well data: Complete the data required on the reverse side of this 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 NMOCD R4680, 10-3-73.

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. (attached)

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.). (attached)

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. (attached)

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. (attached)

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: James A. Head Title Area Manager

Signature: [Signature] Date: 9-10-90

* 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. NMOCD R4680, October 3, 1973 (attached)

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used. see attached injection well data sheet

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

see attached injection well data sheet

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;
- (3) the formation name and depth with expected maximum injection rates and pressures; and
- (4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

NEW MEXICO OIL CONSERVATION DIVISION - Form C-108, cont'd

Summary of Details for Conversion of Well to Injection Status

MLMU #44
Langlie-Mattix 7-R, Queen
9-05-90

Sec 36, T23S, R37E
Unit N, 660FSL, 1980FWL
3326' GL

- III. All pertinent well data is included on the well schematic sheet. Hole sizes were not recorded on the original drilling reports but cement was circulated to the surface.
- V. Map of wells within a 2 mile radius is attached. A 1/2 mile radius circle is drawn on it.
- VI. Data for sections VI, VIII, X and XI have been previously submitted under NMOCD R4680 dated 10-03-73. Further data covering water flood expansion was covered by WFX Order 460 dated 5-10-78. Conversion of wells #16 and #27 was covered by WFX-572 dated 6-24-88.
- VII. Proposed average daily injection rate is 400 Bbls per day and anticipated maximum rate is 600 Bbls per day. Maximum pressure should not exceed 1100 psi and the average injection pressure will not exceed 697 psi until a step rate test establishes a higher limit. The system will be closed.
- IX. Subject well will be stimulated in stages with 5000 gallons 15% NEFE with a tubing pressure not to exceed 4500 psi.
- XII. Based on current geological and engineering data, there is no evidence of natural or artificially induced open faults and there is no communication between the injection zone and any subsurface source of drinking water.
- XIII. A notarized copy of a "Proof of Notice" is included.

NOW, on this 20th day of November, 1973, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Skelly Oil Company, seeks authority to institute a waterflood project in the Myers Langlie-Mattix Unit Area, Langlie-Mattix Pool, Lea County, New Mexico, by the injection of water into the Lower Seven Rivers and Queen formations through 84 injection wells as shown on Attachment "A" to this order.

(3) That the wells in the project area are in an advanced state of depletion and should properly be classified as "stripper" wells.

(4) That the proposed waterflood project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

(5) That the operator should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface from injection, production, or plugged and abandoned wells.

(6) That the subject application should be approved and the project should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That the applicant, Skelly Oil Company, is hereby authorized to institute a waterflood project in the Myers Langlie-Mattix Unit Area, Langlie-Mattix Pool, Lea County, New Mexico, by the injection of water into the Lower Seven Rivers and Queen formations through 84 injection wells as described on Attachment "A" to this order.

(2) That prior to initial injection of water into any of said injection wells, the operator shall obtain the approval of supervisor of the Commission's Hobbs district office as to the casing and cementing of said well.

(3) That injection into each of said wells shall be through cement-lined tubing, set in a packer which shall be located within 50 feet of the casing shoe or uppermost perforation through which water is to be injected; that the casing-tubing annulus of each singly completed injection well shall be loaded with an inert fluid and equipped with an approved pressure gauge or attention-attracting leak detection device.

(4) That the operator shall immediately notify the supervisor of the Commission's Hobbs district office of the failure of the tubing or packer in any of said injection wells, the leakage of water or oil from around any producing well, or the leakage of water or oil from any plugged and abandoned well within the project area and shall take such timely steps as may be necessary or required to correct such failure or leakage.

LANGLIE-MATTIX POOL
(Myers Langlie-Mattix Unit Waterflood)
Lea County, New Mexico

Order No. R-4680. Authorizing Skelly Oil Company to Institute a Waterflood Project in the Myers Langlie-Mattix Unit Area in the Langlie-Mattix Pool, Lea County, New Mexico, November 20, 1973.

Application of Skelly Oil Company for a Waterflood Project, Lea County, New Mexico.

CASE NO. 5087
Order No. R-4680

ORDER OF THE COMMISSION

BY THE COMMISSION: This cause came on for hearing at 9 a.m. on October 31, 1973, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

(LANGLIE-MATTIX (MYERS LANGLIE-MATTIX UNIT WATERFLOOD) POOL - Cont'd.)

(5) That the subject waterflood project is hereby designated the Skelly Myers Langlie Mattix Unit Waterflood Project and shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

(6) That monthly progress reports of the waterflood project herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

IT IS FURTHER ORDERED:

(1) That any of the aforesaid injection wells which has previously been approved as a Jalmat-Langlie Mattix dual completion producer is hereby approved for continued production from the Jalmat Pool and injection into the Langlie Mattix Pool.

(2) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

Tract Number	Unit Well No.	Unit Letter	Section	Former Operator	Former Lease Name and Well No.
19	43	M	29	Texas Pacific	Blinebry No. 1
17	45	O	29	Conoco	Stewart 29 No. 1
21	7	C	30	Texas Pacific	Blinebry A No. 10
20	13	E	30	Texas Pacific	Blinebry A No. 11
47	28	I	30	Gackle	Cowden No. 2
46	39	M	30	Gackle	Cowden B No. 2
49	71	E	31	Gackle	Cowden C No. 2
49	73	G	31	Gackle	Cowden C No. 5
14	95	I	31	Texaco	Blinebry A No. 2
15	97	K	31	Texaco	Blinebry B No. 3
15	105	M	31	Texaco	Blinebry B No. 2
15	107	O	31	Texaco	Blinebry B No. 4
34	55	A	32	Great Western	Leonard B No. 5
34	57	C	32	Great Western	Leonard B No. 3
38	91	I	32	Amerada	State LMA No. 2
36	109	M	32	Texaco	State B-4 No. 1
50	53	C	33	Resler-Sheldon	Fanning B No. 5
50	79	E	33	Resler-Sheldon	Fanning No. 1
52	89	K	33	Byrom	Davis No. 2
53	113	M	33	Byrom	Davis B No. 1
56	115	O	33	Johnson-French	Davis No. 1
44	10	A	25	Reserve Flag	Carter No. 1 Lynn B-25
1	34	K	25	Redfern	Lynn B-25 No. 3
1	35	M	25	Flag Redfern	Lynn B-25 No. 4
2	37	O	25	Conoco	Lynn B-25 No. 4
30	63	A	36	Amerada	St. LMT No. 5
30	65	C	36	Amerada	St. LMT No. 7
30	69	G	36	Amerada	St. LMT No. 3
33	99	I	36	Gulf	Holt B No. 1
32	103	O	36	Skelly	Mexico D No. 2
TOWNSHIP 24 SOUTH, RANGE 36 EAST, NMPM					
7	138	A	1	Conoco	Vaughn B No. 3
6	206	E	12	Conoco	Vaughn A 12 No. 1
64	208	G	12	Atlantic	Cooper No. 1
66	239	I	12	Atlantic	Toby No. 2
65	241	K	12	Skelly	Cooper No. 1
TOWNSHIP 23 SOUTH, RANGE 37 EAST, NMPM					
16	47	M	28	Conoco	Stewart 28 No. 1
3	3	C	29	Gulf	La Munyon No. 18
3	17	E	29	Gulf	La Munyon No. 2
3	19	G	29	Gulf	La Munyon No. 15
17	24	I	29	Conoco	Stewart 29 No. 2
22	26	K	29	Texas Pacific	Blinebry A No. 4
TOWNSHIP 24 SOUTH, RANGE 37 EAST, NMPM					
39	120	C	2	Skelly	Mattix A No. 5
40	154	E	2	Skelly	Mattix A No. 2
42	156	G	2	Skelly	Mexico P No. 2
46	157	K	2	Skelly	Mattix No. 4
16	122	A	3	Hunt	Mattix A No. 22

ATTACHMENT "A"

WATER INJECTION WELLS

MYERS LANGLIE MATTIX UNIT AREA

Lea County, New Mexico

Tract Number	Unit Well No.	Unit Letter	Section	Former Operator	Former Lease Name and Well No.
--------------	---------------	-------------	---------	-----------------	--------------------------------

TOWNSHIP 23 SOUTH, RANGE 36 EAST, NMPM

44	10	A	25	Reserve	Carter No. 1
1	34	K	25	Flag	Lynn B-25
1	35	M	25	Redfern	Lynn B-25 No. 3
2	37	O	25	Flag Redfern	Lynn B-25 No. 4
2	37	O	25	Conoco	Lynn B-25 No. 4
30	63	A	36	Amerada	St. LMT No. 5
30	65	C	36	Amerada	St. LMT No. 7
30	69	G	36	Amerada	St. LMT No. 3
33	99	I	36	Gulf	Holt B No. 1
32	103	O	36	Skelly	Mexico D No. 2

TOWNSHIP 23 SOUTH, RANGE 37 EAST, NMPM

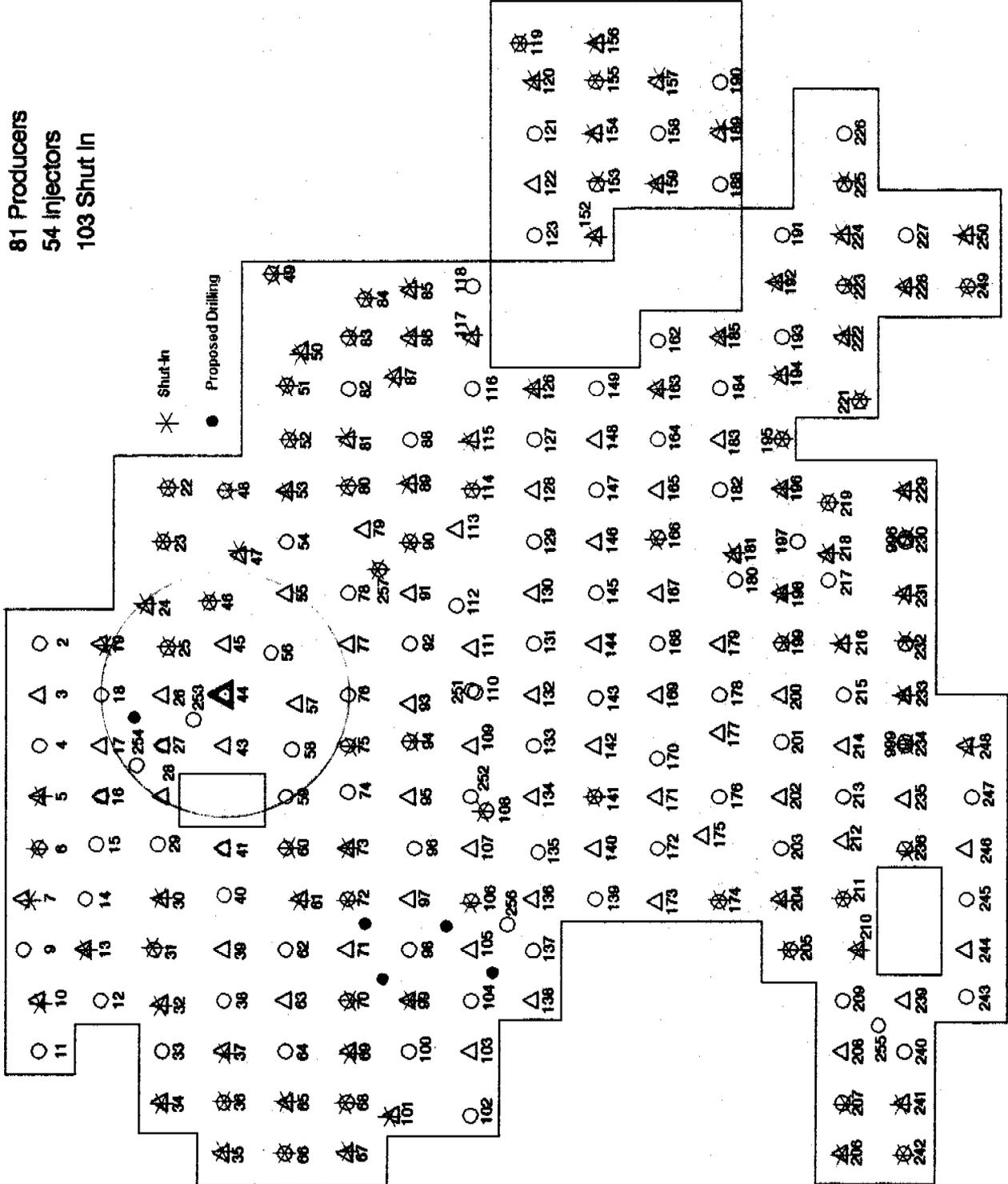
16	47	M	28	Conoco	Stewart 28 No. 1
3	3	C	29	Gulf	La Munyon No. 18
3	17	E	29	Gulf	La Munyon No. 2
3	19	G	29	Gulf	La Munyon No. 15
17	24	I	29	Conoco	Stewart 29 No. 2
22	26	K	29	Texas Pacific	Blinebry A No. 4

(LANGLIE-MATTIX (MYERS LANGLIE-MATTIX
UNIT WATERFLOOD) POOL - Cont'd.)

Tract Number	Unit Well No.	Unit Letter	Section	Former Operator	Former Lease Name and Well No
11	152	G	3	Hunt	Mattix A No. 4
10	159	I	3	Hunt	Mattix A No. 5
61	146	E	4	Texaco	Fanning No. 4
28	132	C	5	Amoco	Meyers B No. 22
28	142	E	5	Amoco	Meyers B No. 17
60	144	G	5	Texaco	Fanning No. 7
26	169	K	5	Texas Pacific	Meyers No. 8
26	177	M	5	Texas Pacific	Meyers No. 2
62	179	O	5	Texaco	Young No. 3
28	134	A	6	Amoco	Meyers B No. 22
58	136	C	6	Gulf	Eaves A No. 1
28	140	G	6	Amoco	Meyers B No. 19
26	171	I	6	Texas Pacific	Meyers No. 6
26	175	O	6	Texas Pacific	Meyers No. 5
28	202	A	7	Amoco	Meyers B No. 20
27	210	E	7	Amoco	Meyers B No. 6
28	212	G	7	Amoco	Meyers B No. 10
69	235	I	7	Skelly	Liberty Rty. No. 3
67	237	K	7	King War- ren & Dye	Toby No. 2
68	244	M	7	Skelly	Toby No. 1
69	246	O	7	Skelly	Liberty Rty. No. 1
72	198	A	8	Texas Pacific	Hodges No. 5
29	200	C	8	Texas Pacific	Jack No. 3
29	214	E	8	Texas Pacific	Jack No. 1
72	216	G	8	Texas Pacific	Hodges No. 4
73	231	I	8	Amerada	Hodges No. 1
70	233	K	8	Conoco	Cooper No. 2
79	194	A	9	Byrom	Sinclair No. 1
75	196	C	9	Cont- Emsco	Hair No. 1
74	218	E	9	Atlantic	Hair No. 2
27	229	K	9	Amoco	Meyers B No. 5
13	192	C	10	Hunt	Mattix B10 No. 2
63	222	E	10	Gulf	Carr No. 2
12	224	G	10	Hunt	Mattix B No. 4
63	228	K	10	Gulf	Carr No. 3
12	250	O	10	Hunt	Mattix B No. 3

MYERS LANGLEIE MATTIX UNIT

81 Producers
 54 Injectors
 103 Shut In



DUPLICATE

NEW MEXICO OIL CONSERVATION COMMISSION

FORM C-103
(Rev. 3-55)

MISCELLANEOUS REPORTS ON WELLS

(Submit to appropriate District Office as per Commission Rule 1196)

Name of Company Gulf Oil Corporation			Address Box 766, Kermit, Texas			
Lease M. K. Stewart	Well No. 1	Unit Letter J	Section 29	Township 23S	Range 37E	
Date Work Performed May 11-12, 1960	Pool Jalmat Gas		County Lea			

THIS IS A REPORT OF: (Check appropriate block)

<input type="checkbox"/> Beginning Drilling Operations	<input type="checkbox"/> Casing Test and Cement Job	<input type="checkbox"/> Other (Explain):
<input checked="" type="checkbox"/> Plugging	<input type="checkbox"/> Remedial Work	

Detailed account of work done, nature and quantity of materials used, and results obtained.

Plugged back from ~~3142~~' to 2772' with 100 sax cement. Plugged back to 2767' with 25 sax cement. Plugged back to 2297' with 40 sax cement. Pressured to 1000# pressure. Held OK.
Displaced water in hole with mud back to 25' from surface.
Spotted cement plug from 25' to surface.
Installed well marker.

Witnessed by M. O. Daugherty	Position Prod. Foreman	Company Gulf Oil Corporation
--	----------------------------------	--

FILL IN BELOW FOR REMEDIAL WORK REPORTS ONLY

ORIGINAL WELL DATA

D F Elev. 3307' GL	T D 3620'	P B T D -	Producing Interval 3520-3620'	Completion Date 9-8-49
Tubing Diameter 2-3/8"	Tubing Depth 3600'	Oil String Diameter 5-1/2"	Oil String Depth 3520'	

Perforated Interval(s)

Open Hole Interval 3520-3600 3620'	Producing Formation(s) Penrose
---	--

RESULTS OF WORKOVER

Test	Date of Test	Oil Production BPD	Gas Production MCFPD	Water Production BPD	GOR Cubic feet/Bbl	Gas Well Potential MCFPD
Before Workover						
After Workover	Well standing TA before plugged and abandoned.					

OIL CONSERVATION COMMISSION

I hereby certify that the information given above is true and complete to the best of my knowledge.

Approved by <i>Fred A. Clements</i>	Name <i>W. M. Whitaker</i>
Title Oil & Gas Director	Position Area Petroleum Engineer
Date	Company Gulf Oil Corporation

LEGAL NOTICE

Notice is hereby given of the application of Texaco Inc., Attention: James A. Head, Assistant District Manager of Operations, P. O. Box 728, Hobbs, New Mexico, 88240, Telephone (505) 393-7191, to the Oil Conservation Division, New Mexico Energy & Minerals Department, for approval of the following injection well(s) for the purpose of pressure maintenance.

Well(s) No(s) .: 44

Lease/Unit Name: Myers Langlie Mattix Unit

Location: Unit Letter N, 660'FSL, 1980'FWL, Section 29, T23S, R37E

Lea County, New Mexico

The injection formation is Langlie Mattix (Seven Rivers & Queen) at a depth of 3,484 feet below the surface of the ground. Expected maximum injection rate is 600 barrels per day, and expected maximum injection pressure is 1100 pounds per square inch. Interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico, 87501, within fifteen (15) days of this publication.



STATE OF NEW MEXICO OIL CONSERVATION DIVISION
ENERGY AND MINERALS DEPARTMENT
 OIL CONSERVATION DIVISION
 HOBBS DISTRICT OFFICE

SEP 13 AM 9 16

7-17-96

GARREY CARRUTHERS
GOVERNOR

POST OFFICE BOX 198C
HOBBS, NEW MEXICO 88241-198C
(505) 393-6161

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

WFX-599

RE: Proposed:

- MC _____
- DHC _____
- NSL _____
- NSP _____
- SWD _____
- WFX _____
- PMX _____

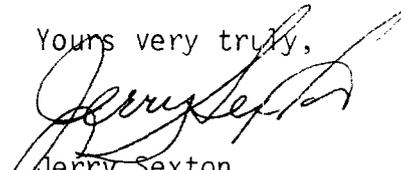
Gentlemen:

I have examined the application for the:

Seyaco Producing Inc. Myers Langlie Mattie ct #44-N 2923-37
 Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

OK

Yours very truly,

 Jerry Sexton
 Supervisor, District I

/ed