STATE OF NEW MEXICO
ENERGY, MINERALS and NATURAL
RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
PO BOX 2088
SANTA FE, NM 87504-2088

FORM C-108
Revised 7-1-81

RECEIVED
OIL CONSERVATION DIVISION

'93 FEB 8 05

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: ____ Secondary Recovery ____ Pressure Maintenance X Disposal ____ Storage
Application qualifies for administrative approval? X Yes ___ No

II. OPERATOR: TEJAS OPERATORS, INC.

ADDRESS: P.O. BOX 58, MIDLAND, TEXAS 79702

CONTACT PARTY: J.M. SIMPSON PHONE: 915 684-8421

III. WELL DATA: Complete the data required on the reverse side of this form for each well processed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project: ___ Yes X 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 sources 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: J. M. SIMPSON TITLE: PRESIDENT

SIGNATURE: J M Simpson DATE: 2-4-93

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

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

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.

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.

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, PO Box 2088, Santa Fe, NM 87504-2088 within 15 days.

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

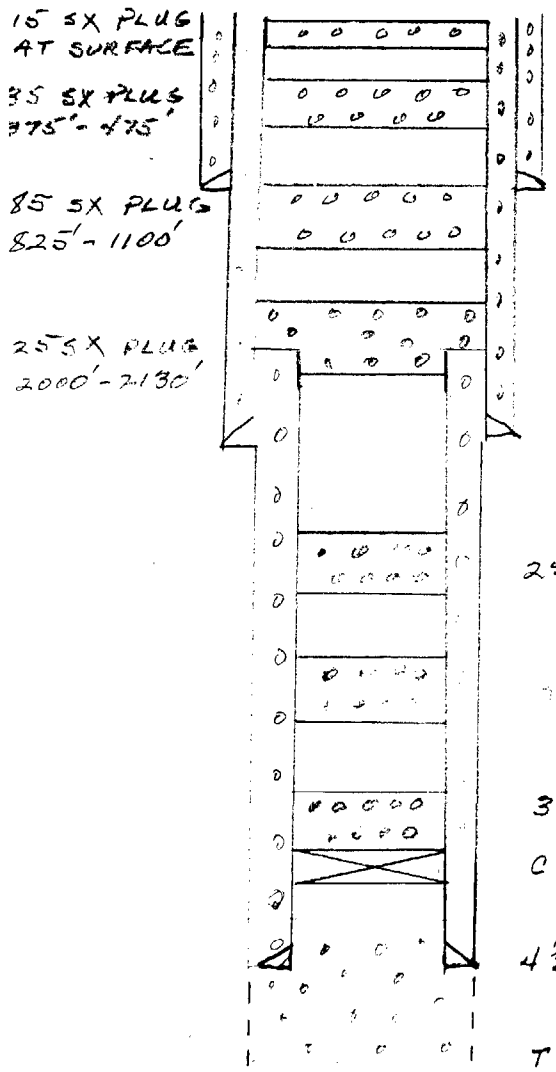
NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

ERATOR TEJAS OPERATORS, INC. LEASE ENFIELD - FEDERAL

ELL NO. WELL NO. 1, 660' FSL AND 810' FEL, SEC. 17, 24-S, 28E, EDDY Co., N.M.
FOOTAGE LOCATION SECTION TOWNSHIP RANGE

PRESENT CONDITION

Schematic



Well Construction Data

Surface Casing

Size 13 3/8" @ 422' Cemented with 425 sx.

TOC CIRCULATED feet determined by _____

Hole Size 15"

Intermediate Casing

Size 8 5/8" @ 2367' Cemented with 1000 sx.

TOC CIRCULATED feet determined by _____

Hole Size 11"

Long String

Size 4 1/2" @ 6478' Cemented with 1800 sx.

TOC _____ feet determined by _____

Hole Size 6 3/4"

Total Depth 6500'

Injection Interval

2550' feet to 6037' feet

(perforated ~~or open hole~~; indicate which)

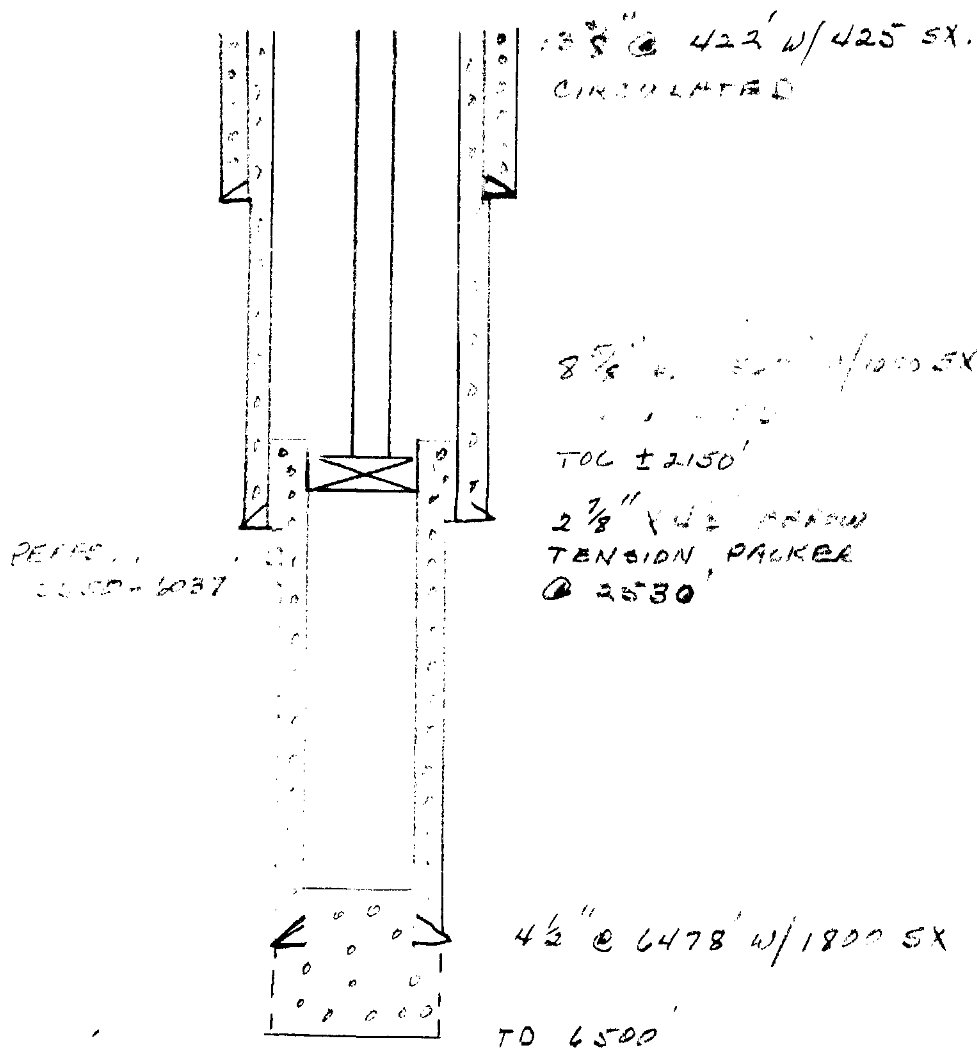
INJECTION WELL DATA SHEET

OPERATOR: TEJAS OPERATORS, INC. LEASE: ENFIELD - FEDERAL

WELL NO.: WELL NO. 1, [illegible] FSL & 510' FEL, SEC. 17, 24-S, 28E, EDDY Co., N.M.
FOOTAGE LOCATION / SECTION / TOWNSHIP / RANGE

WELL'S CONDITION
AFTER WORKOVER

Schematic



Well Construction Data

Surface Casing

Size 13 3/8" @ 422' " Cemented with 425 sx.

TOC Circ. feet determined by

Hole Size 17 1/2"

Intermediate Casing

Size 8 5/8" @ 2367' " Cemented with 1000 sx.

TOC Circ. feet determined by

Hole Size 11 1/2"

Long String

Size 4 1/2" @ 6478' " Cemented with 1800 sx.

TOC ± 2150' feet determined by [illegible]

Hole Size 7 7/8"

Total Depth 6500'

Injection Interval

2550' feet to 6037' feet
(perforated or open-hole; indicate which)
[illegible] PERFORATIONS,

INJECTION WELL DATA SHEET

Tubing Size 2 7/8 lined with RICE DUOLINE LINING set in a
(type of internal coating)
ARROW TENSION packer at ± 2500' feet

Other type of tubing / casing seal if applicable _____

Other Data

1. Is this a new well drilled for injection? ____ Yes ✓ No

   If no, for what purpose was the well originally drilled? PRODUCING OIL WELL.

2. Name of the injection formation DELAWARE

3. Name of Field or Pool (if applicable) WILLOW LAKE DELAWARE

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e., sacks of cement or plug(s) used. N/O

5. Give the names and depths of any over or underlying oil of gas zones (pools) in this area.

   ABOVE: NONE

   BELOW: BONE SPRING @ 8,200'

   ATOKA @ 12,000'

TABLE 4A.--WATER-QUALITY DATA FOR EDDY AND LEA COUNTIES, NEW MEXICO, ARRANGED BY BOTH FORMATION SOURCE AND GEOGRAPHIC LOCATION.

EDDY COUNTY

SQ NO	LOCATION SEC.	T.	R.	DATE OF COLLECTION	DEPTH FROM	TO	FORMATION	SAMPLING METHOD	SILICA (SIO2) (MG/L)	IRON (FE) (MG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM + POTASSIUM AS NA (MG/L)	BICARBONATE + CARBONATE (MG/L)	SULFATE (SO4) (MG/L)	HYDROGEN SULFIDE (H2S) (MG/L)	CHLORIDE (CL) (MG/L)	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DENSITY OF WATER AT 20C (GM/ML)	DISSOLVED SOLIDS (SUM) (MG/L)	(CA+MG)/(NA+K)	SPECIFIC CONDUCTANCE (UMHOS AT 25C)
1																							
2		22	27	10-17-70	3,417-	3,434	453DLSD	TB			9,400.	2,300.	48,000.	572.	1,400.		36,000.			1.106	160,000.	.314	171,000.
3		22	27	10-17-70	3,417-	3,434	453DLSD	ST			9,300.	2,400.	48,000.	574.	1,400.		35,000.			1.106	160,000.	.314	171,000.
4	12	23	27	03-25-60		2,387	453DLSD				3,100.	1,400.	45,000. *	101.	180.		80,000.			1.093	130,000. *	.139	-
5	15	24	27	03-00-59	2,480-		453DLSD			MD	5,300.	2,600.	100,000. *	192.	2,000.	0.0	190,000.			1.200	300,000. *	.109	-
6	15	24	27	03-19-59	-		453DLSD			TR	-	-	130,000. *	-	-	0.0	190,000.			1.124 *	-	-	-
7	4	25	30	06-21-60	3,838-	3,842	453DLSD	SB		MD	9,000.	1,500.	45,000. *	40.	400.	0.0	90,000.			1.090	150,000. *	.288	-
8																							
9	8	25	30	04-03-63	3,724-		453DLSD	SB		0.0	8,600.	2,100.	51,000. *	122.	130.	0.0	93,000.			1.105	160,000. *	.270	-
10	17	25	30	05-17-66	3,668-	3,675	453DLSD	WH			8,300.	1,000.	47,000. *	24.	350.		90,000.			1.105	150,000. *	.246	-
11	15	26	29	05-00-62	800-		453DLSD	BR			40.	1.0	570. *	771.	550.		75.			1.001	2,000. *	.084	-
12	20	26	30	03-18-59	3,450-		453DLSD	DT		TR	7,500.	2,600.	47,000. *	139.	1,300.	0.0	110,000.			1.110	180,000. *	.238	-
13	20	26	30	03-18-59	3,450-		453DLSD			TR	9,800.	2,500.	49,000. *	137.	1,100.	0.0	98,000.			1.100	160,000. *	.330	-
14	26	26	31	03-10-58	4,113-	4,128	453DLSD				24,000.	3,100.	52,000. *	195.	430.		130,000.			1.149	210,000. *	.639	-
15	27	18	31	01-22-59	4,972-		453DLWR				1,800.	820.	110,000. *	159.	340.		170,000.			1.187	280,000. *	.034	-
16	28	18	31	11-06-60	5,074-	5,079	453DLWR			50.	19,000.	3,600.	74,000. *	70.	800.	TR	160,000.			1.173	250,000. *	.379	-
17	7	20	29	02-00-67	-		453DLWR				-	-	58,000. *	-	-		89,000.			1.099	159,000.	-	162,000.
18	30	20	31	04-22-59	4,395-	4,460	453DLWR	DT		11.	2,600.	710.	44,000. *	236.	2,700.	TR	72,000.			1.074	120,000. *	.099	-
19	30	20	31	04-30-59	6,813-	6,965	453DLWR	DT			120.	51.	6,300. *	-	-		9,700.			1.015 *	-	.037	-
20																							
21	30	20	31	09-21-59	6,786-	6,836	453DLWR			TR	-	-	110,000. *	-	-	0.0	170,000.			1.108 *	-	-	-
22	24	21	26	02-15-67	-	2,670	453DLWR				-	-	72,000. *	-	-		110,000.			1.123	198,000.	-	188,000.
23	18	22	25	11-05-70	3,624-	3,636	453DLWR	ST			1,400.	730.	6,700.	1,530.	3,400.	1,500.	10,000.			1.015	25,000. *	.445	34,100.
24	18	22	25	11-05-70	3,624-	3,636	453DLWR	ST			-	-	5,900. *	-	-	-	9,100.			1.016	-	-	35,400
25		22	27		3,417-	3,434	453DLWR				-	-	63,000. *	579.	-	-	97,000.			1.106	-	-	170,000.
26	22	23	26	02-15-67	1,870-	1,881	453DLWR	ST			-	-	69,000. *	-	-	-	110,000.			1.114	179,000.	-	187,000.
27	11	24	26	01-00-58	-	1,900	453DLWR	TB		0.0	1,400.	770.	88,000. *	650.	3,100.	HV	140,000.			1.135	230,000. *	.034	-
28	13	24	26	02-00-67	-	1,969	453DLWR				-	-	73,000. *	-	-	-	110,000.			1.072 *	191,000.	-	197,000.
29	9	24	27	00-00-00	2,166-	2,171	453DLWR	SB			2,200.	1,800.	32,000. *	95.	190.	-	59,000.			1.071	95,000. *	.182	-
30	13	24	28	04-21-59	-	2,180	453DLWR				6,300	1,600	48,000 *	182	400	-	91,000			1.105	150,000 *	.226	-
31	24	24	31	03-24-59	4,573-	4,623	453DLWR	DT		TR	390	0.0	13,000. *	850.	10,000.	TR	13,000.			1.019 *	38,000. *	.034	-
32	4	25	30	05-14-60	3,850-		453DLWR	WH		HV	13,000.	2,600.	53,000. *	232.	1,200.	0.0	110,000.			1.110	180,000. *	.366	-
33	20	25	30	02-00-63	3,709-	3,761	453DLWR	DT			7,600.	1,800.	63,000. *	82.	1,400.	0.0	120,000.			1.130	190,000. *	.194	-
34	20	25	30	02-00-63	3,632-	3,699	453DLWR	FL		0.0	8,000.	2,900.	49,000. *	68.	510.	0.0	97,000.			1.109	160,000. *	.301	-
35	20	25	30	02-15-63	3,685-	3,711	453DLWR	DT			8,800.	1,800.	55,000. *	81.	1,000.	0.0	100,000.			1.115	170,000. *	.247	-
36	20	25	30	02-15-63	-		453DLWR	DT		0.0	3,000.	880.	120,000. *	86.	2,800.	0.0	190,000.			1.175	310,000. *	.043	-
37	20	25	30	02-21-63	3,692-	3,699	453DLWR			0.0	8,000.	2,900.	49,000. *	68.	510.	0.0	97,000.			1.109	160,000. *	.301	-
38	13	26	29	02-00-67	-	3,186	453DLWR				-	-	55,000. *	-	-	-	85,000.			1.094	146,000.	-	157,000.
39	20	26	30	03-18-59	3,450-		453DLWR	DT		TR	8,100.	2,400.	47,000. *	137.	620.	0.0	98,000.			1.100	160,000. *	.294	-
40	8	16	26	03-20-64	-		453GBSA	FL			-	-	13. *	-	-	-	20.			1.000 *	-	-	2,310.
41	14	16	26	03-20-64	-		453GBSA	FL			-	-	13. *	-	-	-	20.			1.000 *	-	-	1,590.
42	14	16	26	08-09-65	-		453GBSA	FL			-	-	23. *	-	-	-	36.			1.000 *	-	-	1,700.
43	20	16	26	08-09-65	-		453GBSA	FL			-	-	13. *	-	-	-	20.			1.000 *	-	-	1,160.
44	33	16	26	03-25-64	-		453GBSA	FL			-	-	6.0*	-	-	-	10.			1.000 *	-	-	1,190.
45	33	16	26	08-09-65	-		453GBSA	FL			-	-	15. *	-	-	-	23.			1.000 *	-	-	1,260.
46	35	16	26	08-09-65	-		453GBSA	FL			-	-	46. *	-	-	-	71.			1.000 *	-	-	2,590.
47	27	16	31	07-06-62	4,000-		453GBSA			0.0	1,700.	620.	34,000. *	40.	170.	0.0	57,000.			1.070	94,000. *	.090	-
48	14	17	25	05-07-60	-	1,140	453GBSA	BR			-	-	19. *	-	-	-	30.			1.000 *	-	-	2,970.
49	8	17	26	03-25-64	-		453GBSA	FL			-	-	6.0*	-	-	-	10.			1.000 *	-	-	1,120.
50	8	17	26	03-22-65	-		453GBSA	FL			-	-	10. *	-	-	-	15.			1.000 *	-	-	1,140.
51	8	17	26	03-25-64	-		453GBSA	FL			-	-	10. *	-	-	-	16.			1.000 *	-	-	1,170.
52	8	17	26	03-25-64	-		453GBSA	FL			-	-	13. *	-	-	-	20.			1.000 *	-	-	1,150.
53	8	17	26	08-10-65	-		453GBSA	FL			-	-	13. *	-	-	-	20.			1.000 *	-	-	1,170.

TABLE 4A.--WATER-QUALITY DATA FOR EDDY AND LEA COUNTIES, NEW MEXICO, ARRANGED BY BOTH FORMATION SOURCE AND GEOGRAPHIC LOCATION.

EDDY COUNTY

TABLE 9A.--WATER-QUALITY DATA FOR EDDY AND LEA COUNTIES, NEW MEXICO, ARRANGED BY BOTH FORMATION SOURCE AND GEOGRAPHIC LOCATION.

EDDY COUNTY

SQ NO	LOCATION SEC.	T.	R.	DATE OF COLLECTION	DEPTH FROM	TO	FORMATION	SAMPLING METHOD	SILICA (SIO2) (MG/L)	IRON (FE) (MG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM + POTASSIUM AS NA (MG/L)		BICARBONATE + CARBONATE (MG/L)	SULFATE (SO4) (MG/L)	HYDROGEN SULFIDE (H2S) (MG/L)	CHLORIDE (CL) (MG/L)	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DENSITY OF WATER AT 20C (GM/ML)	DISSOLVED SOLIDS (SUM) (MG/L)		(CA+MG)/ (NA+K)	SPECIFIC CONDUCTANCE (UMHOS AT 25C
1	10	18	27	07-07-59	6,005-		452ABD		-	-	4,800.	2,700.	23,000	*	1,700.	1,600.	-	51,000.			1.063	85,000.	*	.454	-
2	10	18	27	09-21-59	5,835-	5,837	452ABD	FG	-	-	4,000.	1,700.	12,000.	*	1,600.	1,300.	-	28,000.			1.038	48,000.	*	.676	-
3	10	18	27	03-01-60	5,935-	5,992	452ABD	DT	-	-	1,400.	580.	6,700.	*	1,150.	1,900.	-	12,000.			1.022	24,000.	*	.405	-
4	10	18	27	03-01-60	6,006-	6,035	452ABD	DT	-	-	1,300.	550.	6,500.	*	1,130.	1,900.	-	12,000.			1.020	23,000.	*	.394	-
5	10	18	27	03-02-60	5,935-	5,992	452ABD	DT	-	TR	1,400.	330.	7,000.	*	1,340.	2,300.	440.	11,000.			1.020	25,000.	*	.325	-
6	10	18	27	10-14-60	5,749-	5,769	452ABD	FG	-	-	1,600.	390.	10,000.	*	1,540.	780.	-	18,000.			1.024	33,000.	*	.247	-
7	11	18	27	10-22-57	5,980-	6,050	452ABD	DT	-	-	1,700.	540.	13,000.	*	1,640.	1,500.	-	23,000.			1.032	42,000.	*	.225	-
8	11	18	27	02-22-58	6,100-		452ABD		-	-	1,600.	810.	9,700.	*	2,200.	1,200.	MD	18,000.			1.027	33,000.	*	.349	-
9	11	18	27	01-16-59	6,104-	6,120	452ABD	ST	-	-	1,300.	340.	11,000.	*	1,250.	2,700.	-	18,000.			1.027	35,000.	*	.187	-
10	11	18	27	01-16-59	6,136-	6,158	452ABD	ST	-	-	1,300.	250.	9,500.	*	1,130.	2,400.	-	15,000.			1.022	30,000.	*	.205	-
11	11	18	27	01-17-59	6,136-	6,158	452ABD		-	-	1,000.	340.	8,700.	*	2,510.	2,000.	MD	15,000.			1.021	30,000.	*	.184	-
12	11	18	27	08-31-59	6,100-	6,166	452ABD		-	-	910.	180.	13,000.	*	1,140.	1,200.	-	21,000.			1.030	38,000.	*	.106	-
13	11	18	27	08-31-59	6,100-	6,166	452ABD		-	-	910.	180.	13,000.	*	1,820.	1,500.	-	21,000.			1.028	39,000.	*	.103	-
14	11	18	27	01-06-60	6,104-	6,120	452ABD	PD	-	-	1,200.	640.	12,000.	*	1,790.	2,000.	-	20,000.			1.027	37,000.	*	.217	-
15	12	18	27	07-21-59	6,127-		452ABD		-	-	21,000.	9,700.	20,000.	*	176.	400.	-	95,000.			1.114	150,000.	*	2.120	-
16	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-			-	-		-	-
17	16	18	27	04-16-60	5,526-	5,681	452ABD	DT	-	-	1,100.	390.	4,700.	*	-	7,500.	510.	7,200.			1.007	* -		.422	-
18	16	18	27	10-20-60	-		452ABD	WH	-	-	4,200.	2,200.	70,000	*	368.	4,300.	-	120,000.			1.134	200,000.	*	.127	-
19	16	18	27	06-30-61	5,555-	5,579	452ABD	ST	-	3.0	3,500.	1,500.	75,000.	*	151.	2,800.	0.0	120,000.			1.130	190,000.	*	.100	-
20	16	18	27	06-30-61	5,350-	5,502	452ABD	ST	-	2.0	3,700.	2,000.	82,000.	*	151.	2,600.	0.0	140,000.			1.151	230,000.	*	.098	-
21	17	18	27	05-09-59	5,[illegible]50-	5,427	452ABD	DT	-	610.	1,100.	166.	20,000.	*	197.	6,800.	0.0	28,000.			1.035	* 57,000.	*	.077	-
22	17	18	27	06-30-61	5,[illegible]03-	5,454	452ABD	PG	-	1.0	5,400.	2,900.	69,000.	*	343.	2,700.	0.0	120,000.			1.138	200,000.	*	.170	-
23	19	18	27	10-06-60	5,860-	5,932	452ABD	DT	-	74.	610.	170.	3,600.	*	664.	1,500.	180.	4,200.			1.010	13,000.	*	.279	-
24	4	18	28	12-28-59	-	6,123	452ABD	DT	-	-	1,900.	150.	9,700.	*	1,990.	2,200.	-	16,000.			1.025	32,000.	*	.250	-
25	4	18	28	12-30-59	-	6,303	452ABD	DT	-	-	1,600.	180.	9,500.	*	1,885.	2,100.	-	15,000.			1.023	31,000.	*	.235	-
26	4	18	28	03-25-60	6,313-	6,334	452ABD	DT	-	-	2,600.	2,300.	5,900.	*	2,010.	2,100.	-	17,000.			1.024	32,000.	*	1.259	-
27	1	19	25	03-09-59	5,770-		452ABD	DT	-	-	750.	370.	1,500.	*	1,190.	540.	MD	3,400.			1.010	7,800.	*	.962	-
28	1	19	25	03-13-59	5,770-		452ABD	DT	-	-	860.	210.	8,400.		390.	790.	-	14,000.			1.026	25,000.	*	.165	-
29	8	19	25	10-29-60	4,569-	4,588	452ABD	SB	-	TR	10,000.	3,900.	2,200.	*	354.	1,700.	MD	31,000.			1.035	49,000.	*	8.783	-
30	21	20	24	06-08-60	4,647-	5,003	452ABD	DT	-	0.0	3,300.	1,000.	26,000.	*	965.	2,800.	460.	46,000.			1.060	80,000.	*	.221	-
31	32	22	21	10-23-60	3,510-	3,585	452ABD	DT	-	0.0	250.	55.	4,000.	*	-	7,300.	0.0	1,000.			1.006	* -		.098	-
32	6	23	22	03-22-61	3,100-	3,650	452ABD	DT	-	0.0	550.	150.	170.	*	-	2,000.	0.0	8.0			1.001	-		5.402	-
33	14	24	22	10-21-60	3,480-	3,506	452ABD	DT	-	66.	510.	140.	170.	*	781.	1,500.	2.0	12.			1.003	3,100.	*	4.967	-
34	25	24	22	07-20-61	3,587-	3,620	452ABD	DT	-	0.0	580.	150.	48.	*	260.	1,200.	-	530.			1.001	880.	*	20.	-
35	35	17	27	12-19-60	-		452ABRF	ST	-	-	1,300.	380.	8,400.	*	747.	3,400.	-	13,000.			1.020	27,500.		.265	-
36	35	17	27	12-19-60	-		452ABRF	ST	-	-	2,800.	920.	81,000.	*	365.	4,800.	-	130,000.			1.130	219,000.		.062	-
37	35	17	27	12-19-60	-		452ABRF	ST	-	-	1,200.	380.	11,000.	*	1,630.	2,700.	-	16,000.			1.024	32,000.		.200	-
38	19	17	31	05-11-62	6,950-	7,100	452BARF	DT	-	-	1,500.	600.	15,000.	*	913.	3,100.	HV	26,000.			1.026	51,000.	*	.157	-
39	20	17	31	04-13-65	7,122-	7,123	452ABRF		-	-	1,600.	380.	14,000.	*	2,170.	4,500.	-	21,000.			1.025	42,000.	*	.184	-
40	33	18	26	01-13-59	5,095-	5,240	452ARRF	DT	-	0.0	430.	130.	4,300.	*	1,720.	2,200.	430.	4,900.			1.010	14,000.	*	.170	-
41	10	18	27	11-18-58	5,700-	5,800	452ABRF	WH	-	-	3,400.	1,300.	22,000.	*	315.	2,300.	TR	42,000.			1.047	72,000.	*	.290	-
42	10	18	27	07-08-59	-	6,005	452ABRF		-	-	7,500.	3,700.	23,000.	*	809.	1,800.	-	57,000.			1.071	94,000.	*	.687	-
43	11	18	27	01-17-59	6,104-	6,120	452ARRF	TB	-	-	1,000.	360.	12,000.	*	2,230.	2,200.	MV	18,000.			1.024	35,000.	*	.163	-
44	16	18	27	03-03-61	5,338-	5,456	452ARRF	ST	-	800.	11,000.	5,000.	40,000.	*	0.	1,300.	0.0	95,000.			1.105	150,000.	*	.570	-
45	16	18	27	04-03-61	-		452ARRF	TB	-	28.	6,100.	9,200.	62,000.	*	122.	1,900.	0.0	110,000.			1.126	200,000.	*	.388	-
46	4	18	28	12-28-59	-	6,303	452ABRF		-	-	1,600.	180.	9,500.	*	1,870.	2,100.	-	15,000.			1.018	* 31,000.	*	.235	-
47	6	18	28	11-26-63	6,174-	6,192	452ABRF	WH	-	-	2,700.	610.	19,000.	*	2,190.	2,900.	MV	31,000.			1.039	58,000.	*	.195	-
48	32	19	29	11-16-59	5,070-	5,160	452BSPG	DT	-	-	1,600.	290.	10,000.	*	296.	5,500.	MV	16,000.			1.020	* 34,000.	*	.227	-
49	28	20	36	02-10-65	6,780-	6,909	452CSPG	DT	-	-	1,300.	180.	2,000.	*	508.	2,000.	MD	4,100.			1.009	10,000.	*	.918	-
50	7	22	26	02-21-63	6,001-	6,081	452L PG	DT	-	-	-	-	48,000.	*	-	1,800.	-	74,000.			1.082	-		-	-
51	24	23	29	06-24-60	6,837-	6,981	452ASPG	DT	-	50.	27,000.	4,000.	71,000.	*	130.	100.	-	170,000.			1.187	270,000.	*	.599	-
52	33	18	26	12-15-59	3,620-	3,761	452YESO	DT	-	50.	1,800.	410.	23,000.	*	1,240.	1,500.	28.	38,000.			1.046	66,000.	*	.124	-
53	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-			-	-		-	-

TABLE 9A.--WATER-QUALITY DATA FOR EDDY AND LEA COUNTIES, NEW MEX
FORMATION SOURCE AND GEOGRAPHIC LOCATION.

EDDY COUNTY

TABLE 9A.--WATER-QUALITY DATA FOR EDDY AND LEA COUNTIES, NEW MEXICO, ARRANGED BY BOTH FORMATION SOURCE AND GEOGRAPHIC LOCATION.

EDDY COUNTY

SQ NO	LOCATION SEC.	T.	R.	DATE OF COLLECTION	DEPTH FROM	TO	FORMATION	SAMPLING METHOD	SILICA (SIO2) (MG/L)	IRON (FE) (MG/L)	CALCIUM (CA) (MG/L)	MAGNESIUM (MG) (MG/L)	SODIUM + POTASSIUM AS NA (MG/L)	BICARBONATE + CARBONATE (MG/L)	SULFATE (SO4) (MG/L)	HYDROGEN SULFIDE (H2S) (MG/L)	CHLORIDE (CL) (MG/L)	FLUORIDE (F) (MG/L)	NITRATE (NO3) (MG/L)	DENSITY OF WATER AT 20C (GM/ML)	DISSOLVED SOLIDS (SUM) (MG/L)	(CA+MG)/(NA+K)	SPECIFIC CONDUCTANCE (UMHOS AT 25C)
1	10	18	27	07-07-59	6,005-		452ABD			-	-	4,800.	2,700.	23,000. *	1,700.	1,600.	-	51,000.			1.063	85,000. *	.454	-
2	10	18	27	09-21-59	5,815-	5,837	452ABD	FG		-	-	4,000.	1,700.	12,000. *	1,600.	1,300.	-	28,000.			1.038	48,000. *	.676	-
3	10	18	27	03-01-60	5,935-	5,992	452ABD	DT		-	-	1,400.	580.	6,700. *	1,150.	1,900.	-	13,000.			1.022	24,000. *	.405	-
4	10	18	27	03-01-60	6,006-	6,035	452ABD	DT		-	-	1,300.	550.	6,500. *	1,130.	1,500.	-	12,000.			1.020	23,000. *	.394	-
5	10	18	27	03-02-60	5,935-	5,992	452ABD	DT		-	TR	1,400.	330.	7,000. *	1,340.	3,300.	-	11,000.			1.020	25,000. *	.325	-
6	10	18	27	10-14-60	5,749-	5,769	452ABD	FG		-	-	1,600.	390.	10,000. *	1,540.		440.	18,000.			1.024	33,000. *	.247	-
7	11	18	27	10-22-51	5,980-	6,050	452ABD	DT		-	-	1,700.	540.	13,000. *	1,640.	1,300.	-	23,000.			1.032	42,000. *	.225	-
8	11	18	27	02-22-58	6,100-		452ABD			-	-	1,600.	810.	9,700. *	2,200.	1,200.	MD	18,000.			1.027	33,000. *	.349	-
9	11	18	27	01-16-59	6,104-	6,120	452ABD	ST		-	-	1,300.	340.	11,000. *	1,250.	2,700.	-	18,000.			1.027	35,000. *	.187	-
10	11	18	27	01-16-59	6,138-	6,158	452ABD	ST		-	-	1,300.	250.	9,500. *	1,130.	2,400.	-	15,000.			1.022	30,000. *	.205	-
11	11	18	27	01-17-59	6,138-	6,158	452ABD			-	-	1,000.	340.	8,700. *	2,510.	2,000.	MV	15,000.			1.021	30,000. *	.184	-
12	11	18	27	08-31-59	6,100-	6,166	452ABD			-	-	910.	180.	13,000. *	1,140.	1,200.	-	21,000.			1.030	38,000. *	.106	-
13	11	18	27	08-31-59	6,100-	6,166	452ABD			-	-	910.	180.	13,000. *	1,825.	1,500.	-	21,000.			1.028	39,000. *	.103	-
14	11	18	27	01-06-60	6,104-	6,120	452ABD	PD		-	-	1,200.	640.	12,000. *	1,790.	2,000.	-	20,000.			1.027	37,000. *	.217	-
15	12	18	27	07-21-59	6,127-		452ABD			-	-	21,000.	9,700.	90,000. *	176.	400.	-	95,000.			1.114	150,000. *	2.120	-
16										-	-	-	-	-	-	-	-	-			-	-	-	-
17	16	18	27	04-16-60	5,526-	5,681	452ABD	DT		-	-	1,100.	390.	4,700. *	-	7,500.	510.	7,200.			1.007 *	-	.422	-
18	16	18	27	10-20-60	-		452ABD	WH		-	-	4,200.	2,200.	70,000 *	365.	4,000.	-	120,000.			1.134	200,000 *	.127	-
19	16	18	27	06-30-61	5,555-	5,579	452ABD	ST		-	3.0	3,500.	1,500.	70,000 *	151.	2,900.	0.0	120,000.			1.130	190,000. *	.100	-
20	16	18	27	06-30-61	5,350-	5,502	452ABD	ST		-	2.0	3,700.	2,000.	82,000. *	151.	2,600.	0.0	140,000.			1.151	230,000. *	.098	-
21	17	18	27	05-09-59	5,[illegible]-	5,427	452ABD	DT		-	610.	1,100.	160.	20,000. *	197.	6,800.	0.0	28,000.			1.035 *	57,000. *	.077	-
22	17	18	27	06-30-61	5,[illegible]-	5,454	452ABD	PG		-	1.0	5,400.	2,900.	69,000. *	343.	2,700.	0.0	120,000.			1.138	200,000. *	.179	-
23	19	18	27	10-06-60	5,860-	5,932	452ABD	DT		-	74.	610.	170.	3,600. *	664.	3,500.	180.	9,200.			1.010	17,000. *	.274	-
24	4	18	28	12-28-59	-	6,123	452ABD	DT		-	-	1,900.	150.	4,700. *	1,990.	2,200.	-	16,000.			1.025	32,000. *	.250	-
25	4	18	28	12-30-59	-	6,303	452ABD	DT		-	-	1,600.	180.	4,500. *	1,880.	2,100.	-	15,000.			1.023	31,000. *	.235	-
26	4	18	28	03-25-60	6,313-	6,334	452ABD	DT		-	-	2,600.	2,300.	5,900. *	2,010.	1,100.	-	17,000.			1.024	32,000. *	1.259	-
27	1	19	25	03-09-59	5,770-		452ABD	DT		-	-	750.	370.	1,500. *	1,190.	540.	MV	3,400.			1.010	7,800. *	.962	-
28	1	19	25	03-13-59	5,770-		452ABD	DT		-	-	860.	210.	8,400. *	390.	930.	-	14,000.			1.026	25,000. *	.166	-
29	8	19	25	10-29-60	4,569-	4,588	452ABD	SB		-	TR	10,000.	2,900.	2,200. *	354.	1,700.	MD	31,000.			1.035	49,000. *	8.783	-
30	21	20	24	06-08-60	4,647-	5,003	452ABD	DT		0.0	0.0	3,000.	1,000.	26,000. *	985.	2,800.	460.	46,000.			1.060	80,000. *	.221	-
31	32	22	21	10-23-60	3,510-	3,585	452ABD	DT		0.0		250.	55.	4,000. *	-	7,300.	0.0	1,000.			1.005 *	-	.095	-
32	6	23	22	03-22-61	3,100-	3,650	452ABD	DT		0.0		550.	150.	170. *	-	2,000.	0.0	8.0			1.001	-	5.402	-
33	14	24	22	10-21-60	3,480-	3,566	452ABD	DT		-	66.	510.	140.	170. *	781.	1,500.	2.0	12.			1.003	3,100 *	4.967	-
34	25	24	22	07-20-61	3,587-	3,620	452ABD	DT		0.0	-	580.	150.	48. *	260.	1,200.	-	530.			1.001	885 *	20.	-
35	35	17	27	12-19-60	-		452ABRF	ST		-	-	1,300.	380.	8,400. *	747.	3,400.	-	13,000.			1.020	27,500.	.265	-
36	35	17	27	12-19-60	-		452ABRF	ST		-	-	2,800.	920.	81,000. *	365.	4,800.	-	130,000.			1.130	219,000.	.062	-
37	35	17	27	12-19-60	-		452ABRF	ST		-	-	1,200.	380.	11,000. *	1,630.	2,700.	-	18,000.			1.024	32,000.	.295	-
38	19	17	31	05-11-62	6,950-	7,100	452ARRF	DT		-	-	1,500.	600.	15,000. *	913.	3,100.	MV	26,000.			1.026	51,000. *	.157	-
39	20	17	31	04-13-65	7,122-	7,123	452ABRF			-	-	1,600.	380.	14,000. *	2,170.	4,500.	-	21,000.			1.025	42,000. *	.184	-
40	33	18	26	01-13-59	5,095-	5,240	452ARRF	DT		0.0	-	1,400.	130.	4,300. *	1,720.	2,200.	430.	4,900.			1.010	14,000. *	.170	-
41	10	18	27	11-18-58	5,700-	5,800	452ABRF	WH		-	-	3,400.	1,300.	22,000. *	316.	2,300.	TR	42,000.			1.047	72,000. *	.290	-
42	10	18	27	07-08-59	-	6,005	452ABRF			-	-	7,800.	3,700.	23,000. *	809.	1,800.	-	57,000.			1.071	94,000. *	.687	-
43	11	18	27	01-17-59	6,104-	6,120	452ARRF	TB		-	-	1,000.	360.	12,000. *	2,230.	2,200.	MV	18,000.			1.024	35,000. *	.163	-
44	16	18	27	03-03-61	5,338-	5,456	452ARRF	ST		-	800.	11,000.	5,000.	40,000. *	0.	1,300.	0.0	95,000.			1.105	150,000. *	.570	-
45	16	18	27	09-03-61	-		452ARRF	TB		-	26.	6,000.	9,200.	62,000. *	122.	1,900.	0.0	110,000.			1.126	200,000. *	.388	-
46	4	18	28	12-28-59	-	6,303	452ABRF			-	-	1,500.	180.	9,500. *	1,870.	2,100.	-	15,000.			1.019 *	31,000. *	.235	-
47	6	18	28	11-26-63	6,174-	6,192	452ABRF	WH		-	-	2,300.	610.	19,000. *	2,190.	2,900.	MV	31,000.			1.034 *	58,000. *	.195	-
48	32	19	29	11-16-59	5,070-	5,160	4529SPG	DT		-	-	1,600.	290.	10,000. *	298.	5,500.	MV	16,000.			1.020 *	34,000. *	.227	-
49	28	20	30	02-10-65	6,780-	6,909	4529SPG	DT		-	-	1,300.	180.	2,000. *	508.	2,200.	MD	4,100.			1.009	10,000. *	.916	-
50	7	22	26	02-21-63	6,001-	6,081	452L PG	DT		-	-	-	-	48,000. *	-	1,800.	-	14,000.			1.082	-	-	-
51	24	23	29	06-20-60	6,937-	6,981	4523SPG	DT		-	56.	27,000.	9,000.	71,000. *	130.	1,100.	-	170,000.			1.187	270,000 *	.599	-
52	33	18	26	12-15-59	3,620-	3,761	452YESO	DT		-	50.	1,800.	410.	23,000. *	1,240.	1,500.	28.	38,000.			1.046	66,000. *	.124	-
53										-	-	-	-	-	-	-	-	-			-	-	-	-

TABLE 9A.--WATER-QUALITY DATA FOR EDDY AND LEA COUNTIES, NEW MEXICO, ARRANGED BY BOTH FORMATION SOURCE AND GEOGRAPHIC LOCATION.

EDDY COUNTY

Tejas Operators, Inc. seeks approval to reenter the plugged and abandoned Parker & Parsley Enfield Federal #1 located 660' FSL and 810'FEL, Section 17, T-24-S, R-28-E, Eddy County, New Mexico. The subject well is located 2 miles west and 1 mile south of Malaga, New Mexico.

Tejas will convert the well into a commercial salt water disposal well and inject a maximum of 3000 barrels of produced salt water per day from wells producing from the Delaware, Bone Springs, Atoka and Morrow in the area. Injection interval will be through selected perforations from 2550' to 6037' in the Delaware. Initial injection rates are anticipated to average 1500 barrels per day at an average injection pressure of 350 psi with a maximum requested injection pressure of 510 psi.

The system will be open and analysis of the injection fluid and analysis of the fluid in the injection zone from nearby wells is attached. Compatibility tests will be conducted when actual samples are collected.

The well was drilled in 1984 by Ned Maddox as an oil and gas test in the Delaware and was completed as a producer. The well tested for 20 barrels 41.1 gravity oil, 146 barrels of water and gas TSTM from perforations at 5991'-6001'. The well was plugged in 1987 by Parker and Parsley. Schematics of the well as it presently exists and how it will be equipped as a disposal well are attached.

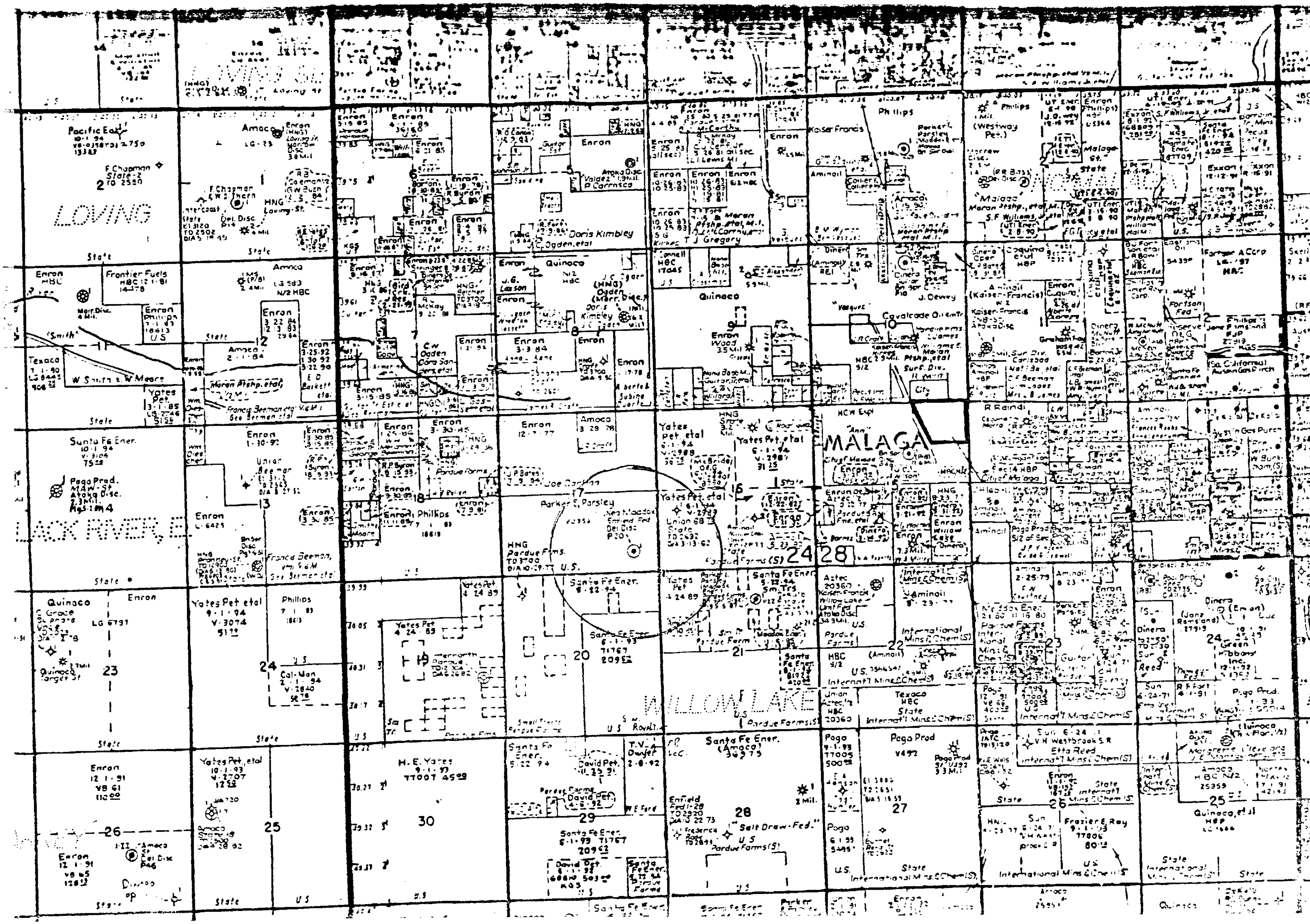
Injection will be through 2 7/8" fiberglass lined tubing set in an Arrow tension packer to be set at

approximately 2530'. The tubing-casing annulus will be filled with an inert packer fluid.

The Delaware in the well is topped at 2512' and is 3500' thick. It is composed mostly of sands and shales with some thin interbedded limestones. Existing perforations were fractured, however, additional perforations to be made will require acidizing.

There are no fresh water wells within one mile of the injection well so no fresh water analysis is included. The base of any fresh water in the area will be 350' in the Rustler Anhydrite. Fresh water in the area is used primarily for watering livestock. The available geologic and engineering data has been examined and there is no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

The land upon which the well is located is federal land and is not presently leased for oil and gas exploration.


LOVING
MALAGA
WILLOW LAKE