CASE NO.

7622

APPLICATION,

TRANSCRIPTS,

SMALL EXHIBITS,

ETC.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
21 July 1982

EXAMINER HEARING

IN THE MATTER OF:

Application of El Ran, Inc., for a waterflood project, Chaves County, New Mexico. CASE 7622

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation Division: W. Perry Pearce, Esq.
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant: Owen Lopez, Esq.
HINKLE LAW FIRM
500 Don Gaspar
Santa Fe, New Mexico 87501

I N D E X

E X H I B I T S

MR. NUTTER: We'll call now Case Number 7622.

MR. PEARCE: It is the application of El Ran, Inc., for a waterflood project, Chaves County, New Mexico.

MR. LOPEZ: Mr. Examiner, my name is Owen Lopez, with the law firm of Hinkle, Cox, Eaton, Coffield, and Hensley, Santa Fe, New Mexico, and I have one witness to be sworn.

(Witness sworn.)

WILLIAM W. RANK

being called as a witness and being duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. LOPEZ:

Q. Would you please state your name and by whom you're employed and in what capacity?

A. William W. Rank, Junior, employed by El Ran, Inc. I'm a Vice President.

Q. Have you previously testified before the Commission and had your qualifications accepted as a matter of record?

A. No, I haven't.

Q. Would you therefor then briefly describe your educational and employment background?

A. I've been self-employed for twenty years; in the oil business for the last ten years. I have a degree in finance from Texas Tech University and also a Masters in business from Texas Tech.

Q. Are you familiar with the application in Case Number 7622?

A. Yes, I am.

Q. Does the subject matter of the hearing today fall under your job duties as a vice president of El Ran, Inc.?

A. Yes.

Q. And what is El Ran, Inc.?

A. El Ran, Inc., is an operating company incorporated in Texas.

Q. And what is the area of interest with respect to your oil and gas operations?

A. We operate approximately 95 wells in Texas and New Mexico.

MR. LOPEZ: Are the witness' qualifications acceptable?

MR. NUTTER: Yes, they are.

Q. What is it that El Ran, Inc., seeks in this

case?

A. To convert the U.S. No. 1 to an injection well in order to possibly have a pressure maintenance program for this field.

Q. And where is the well located?

A. The well is located in Section 34, Township 7 South, Range 32 East, Roosevelt County, New Mexico; 660 from the south line; 1980 from the west line.

Q. I now refer you to what has been marked as Applicant's Exhibit Number One and ask you to identify it.

A. Yes, this is Exhibit One.

Q. And what is it?

A. Okay. A map of the area showing the township and range and also the area of interest, area of review, the small circle that has a one-half mile radius, a large circle, two mile radius, scale of one inch equals 4000 feet.

Q. Now I refer you to what has been marked as Exhibit Number Two and ask you to identify that.

A. That is the injection well data sheet. It has all the necessary data about the well, how it was completed, and the type surface and tubing in it.

Q. And this is the well that will be the proposed injection well, is that correct?

A. Yes, sir, it is.

Q. Now I would refer you to what has been marked Exhibit Number Three and I ask you to identify it.

A. Okay. These are the wells within the area of review, one-half mile radius. They comprise the leases within that half mile radius, all of which belong to El Ran, which we operate, El Ran.

Q. I would now refer you to what has been marked Exhibit Number Four and ask you to describe what's contained therein with respect to your operations and geological data.

A. We propose to utilize this injection well to dispose of water produced from the following leases operated by El Ran, Inc.: The Byron, U.S., the Dachner, the Federal, Carroll, Sarah, Roberts, Barton, and Yeager.

Present water production from the above leases is approximately 400 barrels per day and this is what we propose to inject. Maximum anticipated volume would be 500 barrels per day. Average injection rate will be one barrel per minute at 400 pounds.

Maximum anticipated rate is 1-1/2 barrel per minute at 700 pounds.

This proposal is to re-inject water from the -- produced from the San Andres formation back into the

San Andres formation. It will be a closed system.

The injection zone in this proposed well is the San Andres formation, which is composed of dolomite. The gross thickness of the injection zone is 107 feet with perforations from 4169 to 4276. Top of the San Andres formation in the proposed injection well is 3450, and the well was still in the San Andres at 4311, total depth.

The depth to the bottom of the underground source of drinking water would be 380 feet, which is the base of the Tertiary formations in this well.

The San Andres zone is 4169 to 4276 in the U. S. No. 1, and has been stimulated with 6000 gallons of acid. We do not plan any other stimulation except for occasional small acid jobs to clear any scaling that might occur.

Well logs have been filed with the Division and Commission.

There are two fresh water wells within one mile radius of this proposed injection well. The location of the wells is shown below, one being to the southwest approximately 3900 feet, and this is referred to as the Carroll fresh water Well No. 2; another one being approximately 2300 feet to the northeast, the Carroll Fresh Water Well No. 1.

The water wells are pumped by electric pumps and the water is used for livestock consumption. The water analysis of the two wells are enclosed.

El Ran, Inc., geological and engineering personnel have examined available geologic and engineering data and find no evidence of open faults or other hydrologic connection between the disposal zone and any underground source of drinking water.

Q. Okay, and as I understand it, the water analysis reports of these two drinking water wells are attached to this exhibit?

A. Yes.

Q. Now I would ask you to refer to what's been marked as Exhibit Number Five and identify it.

A. It is the analysis of the produced water from the U. S. No. 1 Well. There is 42,820 parts sodium; 39,600, calcium; 10,980 parts magnesium; chlorides 168.185; sulfates 200. Total dissolved solids, 261,785; iron 16.5.

Q. In your opinion would the granting of the application in this case be in the interest of the prevention of waste and the protection of correlative rights?

A. Yes, sir, because it would possibly enable us to recover more oil.

Q. Were Exhibits One through Five prepared

by you or under your supervision?

A. Yes, sir.

MR. LOPEZ: At this time I'd like to introduce Exhibits One through Five.

MR. NUTTER: What were the exhibit numbers?

MR. LOPEZ: One through Five.

MR. NUTTER: Exhibits One through Five will be admitted in evidence.

I seem to be short that water analysis on the -- on the bad water here, unless you've got another one of those.

A. Yeah.

MR. NUTTER: Okay. Is this a separate exhibit, or is this --

MR. LOPEZ: Yeah, that was Exhibit Five to this hearing.

MR. NUTTER: Okay, fine. You can have that back.

CROSS EXAMINATION

BY MR. NUTTER:

Q. Now, Mr. Ranck, referring to Exhibit Number Three, the El Ran Federal No. 1, which is about five or six pages back in there, we don't have a top of cement on either

of those casing strings. Do you know what that is?

A. Be approximately the same. They were all about 175 sacks of cement; approximately the same as the U.S.

Q. How about the surface casing string? You cemented it with 550 sacks, apparently?

A. Yes, sir.

Q. I wonder if -- would you check your records when you get home and advise me as to whether you circulated cement on that long -- on the short string, and what the calculated top would be on the long string, if you don't have it?

A. Certainly will.

Q. I mean if you didn't measure it.

A. Yeah, I set the well, so I'll be --

Q. Yeah. And then on the next page, your Roberts No. 1, you don't show the depth of the 4-1/2 inch, nor the top of the cement. Oh, yeah, the top of the cement is given on both of those, but we don't have the casing setting depth on the 4-1/2.

A. Okay, sir, well, it's 4330 -- 4327 is what we set it at.

Q. Is it on here somewhere?

A. It shows plugback depth and what we do is run our casing with a one-foot shoe and I pull one foot up

off the bottom.

Q. I see.

A. So the depth of the casing is 4327.

Q. Okay, but you will get that --

A. Yes, sir.

Q. -- cement top of the other one.

A. Yes, sir.

Q. Okay, now originally you had filed for this as a salt water disposal well, I think.

A. Yes, sir.

Q. And then someone suggested you just change it to a -- to a waterflood because you will be going into the producing interval.

A. Right.

Q. Do you actually expect any enhanced production from disposal into the San Andres here?

A. Well, in the neighboring field Champlin has a disposal -- not a disposal but an injection. It seems -- they say it's helped them, but it's only been on for about three years, four years.

Q. Uh-huh. Now, is this interval that you're going into a former producing interval in this well?

A. Yes, sir.

Q. So you'll be going into the same zone that

is productive in the other wells.

A. Yes, sir.

Q. Now do you have producing wells in all directions from this disposal well or injection well?

A. Yes, sir.

Q. And how does it compare structurally with the other wells?

A. They're all approximately flat.

Q. Are they?

A. I don't think it varies ten feet.

Q. From one well to the other.

A. From one, one end of it to the other, and the only thing, the only difference is natural fracturing --

Q. Uh-huh.

A. -- what produces and what doesn't.

Q. And you don't expect to inject anything other than produced water.

A. Right, just produced water.

MR. NUTTER: Are there any further questions of the witness? He may be excused.

Do you have anything further, Mr. Lopez?

MR. LOPEZ: No.

MR. NUTTER: Does anyone have anything they wish to offer in Case Number 7622?

We'll take the case under advisement.

C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Sally W. Boyd CSR

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 7622, heard by me on 7/21 1982.

, Examiner
Oil Conservation Division

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

LARRY KEHOE
SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

July 30, 1982

Mr. Owen Lopez
Montgomery & Andrews
Attorneys at Law
Post Office Box 2307
Santa Fe, New Mexico

Re: CASE NO. 7622
ORDER NO. R-7044

Applicant:

El Ran, Inc.

Dear Sir:

Enclosed herewith are two copies of the above-referenced Division order recently entered in the subject case.

Yours very truly,

JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCD x
Artesia OCD x
Aztec OCD

Other

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 7622
Order No. R-7044

APPLICATION OF EL RAN, INC. FOR A
WATERFLOOD PROJECT, CHAVES COUNTY,
NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on July 21, 1982, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 28th day of July, 1982, the Division Director, 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 Division has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, El Ran, Inc., seeks authority to institute a waterflood project in the Chaveroo-San Andres Pool by the injection of water into the perforated interval from 4169 feet to 4276 feet in its U. S. Well No. 1 located in Unit N of Section 34, Township 7 South, Range 32 East, NMPM, Chaves County, New Mexico, said injection to be through plastic-lined tubing set in a packer located at approximately 4100 feet.

(3) That the wells in the proposed project are not in an advanced state of depletion and may not properly be classified as "stripper" wells.

(4) That although the proposed project does not fit the definition of a waterflood project contained in Rule 701 F.1 of the Division Rules and Regulations, it does fit the definition of a pressure maintenance project contained in Rule 701 E.1 of the Division Rules and Regulations.

(5) That the proposed project should be classified as a pressure maintenance project and, in accordance with Rule 701 E., project rules, including the allowable formula, promulgated therefor.

(6) That the proposed pressure maintenance project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste, and will not impair correlative rights.

(7) That the initial project area should comprise the following described lands in Chaves County, New Mexico:

TOWNSHIP 7 SOUTH, RANGE 32 EAST, NMPM
Section 34: S/2

TOWNSHIP 8 SOUTH, RANGE 32 EAST, NMPM
Section 3: N/2

(8) That the project area should be expanded upon completion of additional injection wells or producing wells in the San Andres formation which may be shown to be affected by the injection program.

(9) That the project allowable should be equal to top unit allowable for the Chaveroo-San Andres Pool times the number of developed (production or injection) proration units within the project area.

(10) That the transfer of allowable between wells on any given lease within the project area should be permitted.

(11) 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.

(12) That the injection well or injection pressurization system should be so equipped as to limit injection pressure at the wellhead to no more than 835 psi, but the Division Director should have authority to increase said pressure limitation, should circumstances warrant.

(13) That the subject application should be approved and the project should be governed by the provisions of Rules 702 through 708 of the Division Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That the applicant, El Ran, Inc., is hereby authorized to institute a pressure maintenance project in the Chaveroo-San Andres Pool by the injection of water into selected perforated intervals between the depths of 4169 feet and 4276 feet in its USA Well No. 1, located in Unit N of Section 34, Township 7 South, Range 32 East, NMPM, Chaves County, New Mexico.

(2) That injection into said well shall be through internally coated tubing, set in a packer which shall be located at approximately 4100 feet; that the casing-tubing annulus of said injection well shall be loaded with an inert fluid and equipped with an approved pressure gauge or attention-attracting leak detection device.

(3) That the operator shall immediately notify the supervisor of the Division's Hobbs district office of the failure of the tubing or packer in any injection well, the leakage of water or oil from or around any producing well, or the leakage of water or oil from or around 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.

(4) That the injection well herein authorized and/or the injection pressurization system shall be so equipped as to limit injection pressure at the wellhead to no more than 835 psi, provided however, the Division Director may authorize a higher surface injection pressure upon satisfactory showing that such pressure will not result in fracturing of the confining strata.

(5) That the subject pressure maintenance project is hereby designated the El Ran Chaveroo Pressure Maintenance Project and shall be governed by Special Rules and by the provisions of Rules 701 through 708 of the Division Rules and Regulations.

(6) That Special Rules and Regulations governing the operation of the El Ran Chaveroo Pressure Maintenance Project are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS
FOR THE
EL RAN CHAVEROO PRESSURE MAINTENANCE PROJECT

Rule 1. That the initial project area shall comprise the following described lands in Chaves County, New Mexico:

TOWNSHIP 7 SOUTH, RANGE 32 EAST, NMPM
Section 34: S/2

TOWNSHIP 8 SOUTH, RANGE 32 EAST, NMPM
Section 3: N/2

Rule 2. That the project area may be expanded administratively by the Division Director upon completion of additional injection wells or production wells, provided it can be shown that such production wells are affected by the injection of water into the San Andres formation.

Rule 3. The allowable for each lease within the project area shall be any amount up to and including a volume equal to the top unit allowable for the Chaveroo-San Andres Pool times the number of proration units in the project area on that lease.

Rule 4. The allowable assigned to any given lease within the project area may be produced from any well or wells on that lease within the project area in any proportion.

Rule 5. The Division Director is hereby authorized to approve such additional producing wells and injection wells at orthodox and unorthodox locations within the boundaries of the project area as may be necessary to complete an efficient production and injection pattern, provided said wells are drilled no closer than 330 feet to the outer boundary of the lease on which they are located nor closer than 10 feet to any quarter-quarter section or subdivision inner boundary. To obtain such approval, the project operator shall file proper application with the Division, which application, if it seeks authorization to convert additional wells to injection or to drill additional production or injection wells shall include the following:

(a) A plat identifying the project area and the individual wells contained therein and showing the location of the proposed well, all wells within the unit area, and offset operators.

(b) A schematic drawing of any proposed injection well which fully describes the casing, tubing, packer, monitoring equipment, perforated interval, and depth.

(c) A letter stating that all offset operators to the proposed well have been furnished a complete copy of the application and the date of notification.

(d) Such other applicable requirements as may be contained in Rule 701 of the Division Rules and Regulations.

The Division Director may approve the proposed well if, within 20 days after receiving the application, no objection to the proposal is received. The Director may grant immediate approval, provided waivers of objection are received from all offset operators.

(7) That the pressure maintenance project herein authorized shall be governed by the provisions of Rules 702 through 708 of the Division Rules and Regulations.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

JOE D. RAMEY,
Director

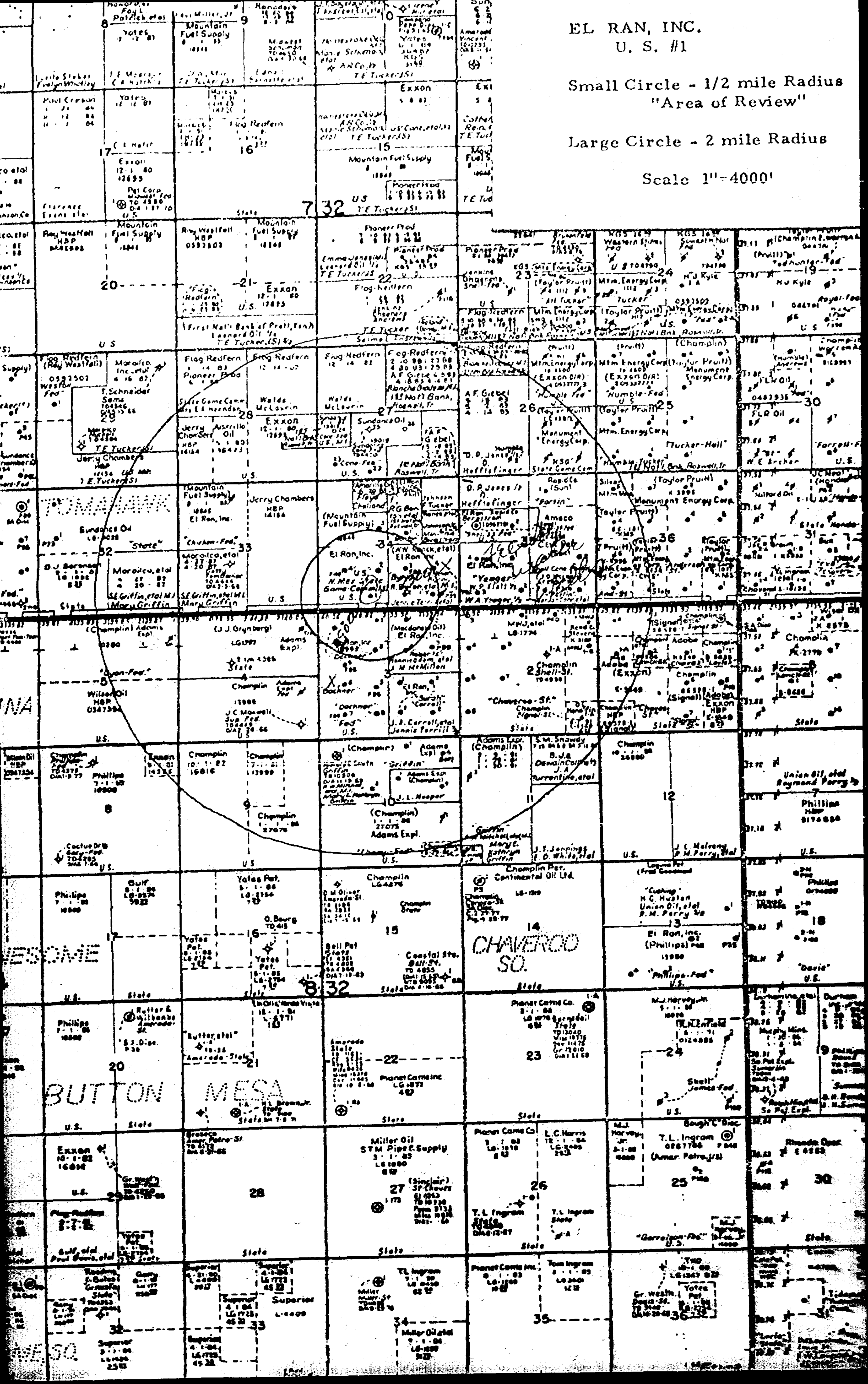
S E

EL RAN, INC.
U. S. #1

Small Circle - 1/2 mile Radius
"Area of Review"

Large Circle - 2 mile Radius

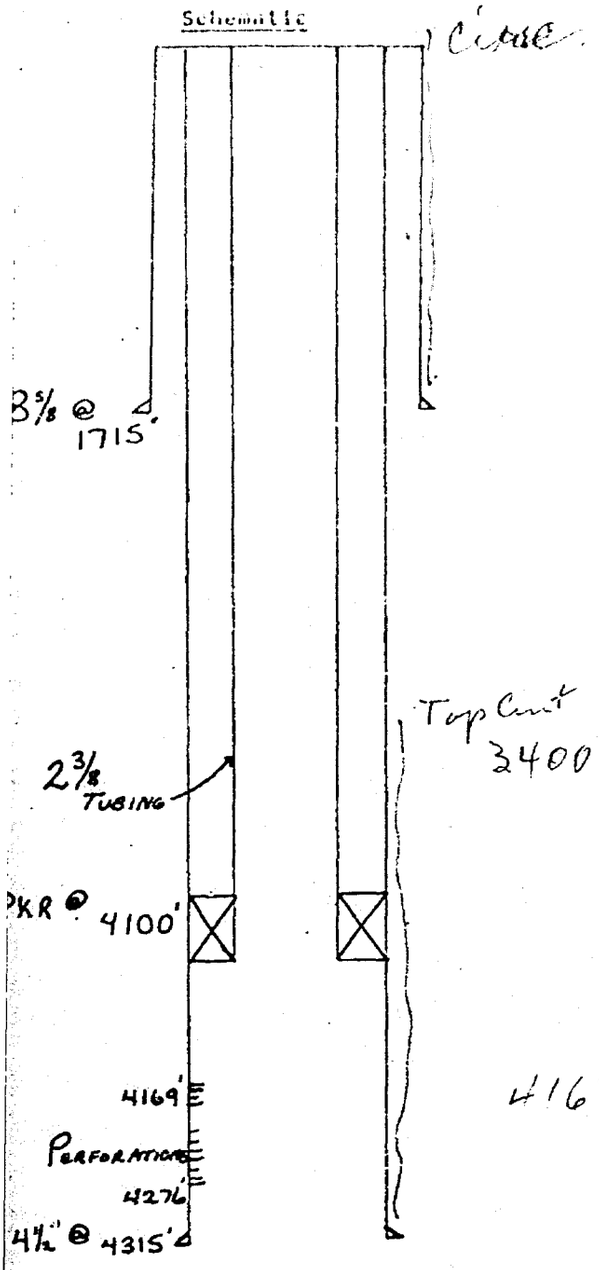
Scale 1"=4000'



INJECTION WELL DATA SHEET

OPERATOR	LEASE			
EL RAN INC.	U.S.			
WELL NO.	**FOOTAGE LOCATION**	**SECTION**	**TOWNSHIP**	**RANGE**
1	660 FSL & 1980 FWL	34	7-S	32-E

Schematic



Tabular Data

Surface Casing

Size 8⅝ 24# " Cemented with 600 sx.

TOC SURFACE feet determined by CIRCULATED 60 SX.

Hole size 12¼

Intermediate Casing

Size _____ " Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Long string

Size 4½ 10# " Cemented with 175 sx.

TOC 3400 feet determined by CALCULATION

Hole size 7⅞

Total depth 4315

Injection interval

4169 feet to 4276 feet

(perforated or open-hole, indicate which)

PERFORATED

4169
.2
833.8

4169 - 4276

Tubing size 2⅜ lined with PLASTIC COATED (material) set in a

GUIBERSON TENSION PACKER (brand and model) packer at 4100' feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation SAN ANDRES
2. Name of Field or Pool (if applicable) CHAVEROO
3. Is this a new well drilled for injection? ☐ Yes ☑ No

   If no, for what purpose was the well originally drilled? OIL: GAS
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks 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 OVERLYING

   SQUERS PENN 8380' ABO U PENN 9210

   FLYING M ABO 8603 TOBAC PENN 9061

VI.

WELLS WITHIN AREA OF REVIEW (½ MILE RADIUS)

OPERATOR: El Ran, Inc.

LEASE NAME: Byron WELL NO.: 1-Y

FIELD NAME: Chaveroo

LOCATION OF WELL: Unit Letter P, 660' FSL & 990' FEL

Sec. 34, T7S, R32E, Roosevelt County, New Mexico

TYPE OF LEASE: Fee

WELL STATUS: Pumping oil well

PRODUCING FORMATION: San Andres

SPUD DATE: 11/27/78 COMPLETION DATE: 12/28/78

TOTAL DEPTH: 4325' PLUG BACK DEPTH: 4323'

CASING RECORD:

SIZE	WEIGHT	DEPTH	CEMENTING RECORD	TOP OF CEMENT
8 5/8"	24#	1728'	600 sx	Surface
4 1/2"	10.5	4324'	170 sx	3324

TUBING RECORD:

SIZE	DEPTH	PACKER DEPTH
2 3/8"	4172'	

PERFORATIONS AND TREATMENT:

INTERVAL	TREATMENT
4176' - 4294'	Acidize w/ 600 gals. 20% HCl

POTENTIAL TEST:

DATE	PRODUCTION
2-28-78	Pumped 83 bbls oil + 0 bbls water in 24 hours. 30 mcf

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
El Ran EXHIBIT NO. 3
CASE NO. 9622

VI.

WELLS WITHIN AREA OF REVIEW (½ MILE RADIUS)

OPERATOR: El Ran, Inc.

LEASE NAME: Byron WELL NO.: 2

FIELD NAME: Chaveroo

LOCATION OF WELL: Unit Letter O, 660' FSL & 1980' FEL
Sec. 34, T7S, R32E, Roosevelt County, New Mexico

TYPE OF LEASE: Fee

WELL STATUS: Pumping oil well

PRODUCING FORMATION: San Andres

SPUD DATE: 6-1-78 COMPLETION DATE: 6-26-78

TOTAL DEPTH: 4312' PLUG BACK DEPTH: 4306'

CASING RECORD:

SIZE	WEIGHT	DEPTH	CEMENTING RECORD & TOP OF CEMENT
8 5/8"	24#	310'	225 sx Surface
4 1/2"	9.5	4312'	1250 sx Surface

TUBING RECORD:

SIZE	DEPTH	PACKER DEPTH
2 3/8"	4260'	

PERFORATIONS AND TREATMENT:

INTERVAL	TREATMENT
4160' - 4258'	Acidize w/ 6000 gals. 20% HCl

POTENTIAL TEST:

DATE	PRODUCTION
6-27-78	Pumped 45 bbls oil + 85 bbls [illegible] in 24 hours. MCF-26

VI.

WELLS WITHIN AREA OF REVIEW (½ MILE RADIUS)

OPERATOR: El Ran, Inc.

LEASE NAME: Byron WELL NO.: 3

FIELD NAME: Chaveroo

LOCATION OF WELL: Unit Letter J, 1980' FEL & 1650' FSL
Sec. 34, T7S, R32E, Roosevelt County, New Mexico

TYPE OF LEASE: Fee

WELL STATUS: Pumping oil well

PRODUCING FORMATION: San Andres

SPUD DATE: 12-7-78 COMPLETION DATE: 1-4-79

TOTAL DEPTH: 4343' PLUG BACK DEPTH: 4332'

CASING RECORD:

SIZE	WEIGHT	DEPTH	CEMENTING RECORD & TOP OF CEMENT
8 5/8"	24#	1755' ✓	600 sx — Surface
4 1/2"	10.5	4342' ✓	175 sx — 3342

TUBING RECORD:

SIZE	DEPTH	PACKER DEPTH
2 3/8"	4222	

PERFORATIONS AND TREATMENT:

INTERVAL	TREATMENT
4164' - 4297'	Acidize w/ 6000 gals. 20% HCl

POTENTIAL TEST:

DATE	PRODUCTION
1-4-79	Pumped 83 BBLS OIL + 0 BBLS WATER in 24 hours. 45 MCF

VI.

WELLS WITHIN AREA OF REVIEW (½ MILE RADIUS)

OPERATOR: El Ran, Inc.

LEASE NAME: Byron WELL NO.: 4

FIELD NAME: Chaveroo

LOCATION OF WELL: Unit Letter I, 990' FEL & 1650' FSL
Sec. 34, T7S, R32E, Roosevelt County, New Mexico

TYPE OF LEASE: Fee

WELL STATUS: Pumping oil well

PRODUCING FORMATION: San Andres

SPUD DATE: 5-4-79 COMPLETION DATE: 5-15-79

TOTAL DEPTH: 4325' PLUG BACK DEPTH: 4323'

CASING RECORD:

SIZE	WEIGHT	DEPTH	CEMENTING RECORD & TOP OF CEMENT	
8 5/8"	24#	1702' ✓	550 SX	SURFACE
4 1/2"	10.5	4324' ✓	175 SX	3324

TUBING RECORD:

SIZE	DEPTH	PACKER DEPTH
2 3/8"	4190'	

PERFORATIONS AND TREATMENT:

INTERVAL	TREATMENT
4213' - 4293'	Acidize w/ 6000 gals. 20% HCl

POTENTIAL TEST:

DATE	PRODUCTION
5-15-79	Pumped 91 BBLS OIL + 0 BBLS [illegible] IN 24 HOURS. 610 MCF

VI.

WELLS WITHIN AREA OF REVIEW (½ MILE RADIUS)

OPERATOR: El Ran, Inc.

LEASE NAME: Dachner WELL NO.: 2

FIELD NAME: Chaveroo

LOCATION OF WELL: Unit Letter F, 1650' FNL & 2200' FWL
Sec. 3, T8S, R32E, Chaves County, New Mexico

TYPE OF LEASE: Federal

WELL STATUS: Pumping oil well

PRODUCING FORMATION: San Andres

SPUD DATE: 10/4/79 COMPLETION DATE: 10/22/79

TOTAL DEPTH: 4309' PLUG BACK DEPTH: 4307'

CASING RECORD:

SIZE	WEIGHT	DEPTH	CEMENTING RECORD & TOP OF CEMENT	
8 5/8"	24#	1692'	550 SX	SURFACE
4 1/2"	10.5	4308'	175 SX	3308

TUBING RECORD:

SIZE	DEPTH	PACKER DEPTH
2 3/8"	4270'	

PERFORATIONS AND TREATMENT:

INTERVAL	TREATMENT
4187' to 4272'	Acidize w/ 6000 gals. 20% HCl

POTENTIAL TEST:

DATE	PRODUCTION
10/22/79	Pumped 125 BBLS of OIL + 0 BBLS [illegible] in 24 hours.

VI.

WELLS WITHIN AREA OF REVIEW (½ MILE RADIUS)

OPERATOR: El Ran, Inc.

LEASE NAME: DAGNER WELL NO.: 1

FIELD NAME: Chaveroo

LOCATION OF WELL: Unit Letter D, 660' FWL & 660' FNL
Sec. 3, T8S, R32E, Choves County, New Mexico

TYPE OF LEASE: FEDERAL

WELL STATUS: Pumping oil well

PRODUCING FORMATION: San Andres

SPUD DATE: 3/17/80 COMPLETION DATE: 4/8/80

TOTAL DEPTH: 4396' PLUG BACK DEPTH: 4395'

CASING RECORD:

SIZE	WEIGHT	DEPTH	CEMENTING RECORD	TOP OF CEMENT
8 5/8"	24#	1683' ✓	600 sx	Surface ✓
4 1/2"	10.5	4395' ✓	175 sx	3395

TUBING RECORD:

SIZE	DEPTH	PACKER DEPTH
2 3/8"	4320'	

PERFORATIONS AND TREATMENT:

INTERVAL	TREATMENT
4212' - 4390'	Acidize w/ 6000 gals. 20% HCl

POTENTIAL TEST:

DATE	PRODUCTION
4/8/80	Pumped 79 BBLS OIL + 10 BBLS [illegible] IN 24 hours.

VI.

WELLS WITHIN AREA OF REVIEW (½ MILE RADIUS)

OPERATOR: El Ran, Inc.

LEASE NAME: FEDERAL WELL NO.: 1

FIELD NAME: Chaveroo

LOCATION OF WELL: Unit Letter J, 440 ft from N & E & 2200 ft from E

Sec. 3, T8S, R32E, Chaves County, New Mexico

TYPE OF LEASE: FEDERAL

WELL STATUS: Pumping oil well

PRODUCING FORMATION: San Andres

SPUD DATE: 8-15-79 COMPLETION DATE: 8-28-79

TOTAL DEPTH: 4298' PLUG BACK DEPTH: 4296'

CASING RECORD:

SIZE	WEIGHT	DEPTH	CEMENTING RECORD & TOP OF CEMENT
8 5/8"	24#	1110'	550 sx ~~529~~ circ ?
4 1/2"	10.5	4310'	175 sx 3295' ?

called in 7/21

TUBING RECORD:

SIZE	DEPTH	PACKER DEPTH
2 3/8"	4276'	

PERFORATIONS AND TREATMENT:

INTERVAL	TREATMENT
4242' - 4276'	Acidize w/ 6000 gals. 20% HCl

POTENTIAL TEST:

DATE	PRODUCTION
8-29-79	Pumped 101 BBLS OIL + 0 BBLS WATER in 24 HOURS.

VI.

WELLS WITHIN AREA OF REVIEW (½ MILE RADIUS)

OPERATOR: El Ron, Inc.

LEASE NAME: ROBERTS WELL NO.: 1

FIELD NAME: Chaveroo

LOCATION OF WELL: Unit Letter B, 1980' FEL & 440' FNL
Sec. 3, T8S, R32E, Chaves County, New Mexico

TYPE OF LEASE: Fee

WELL STATUS: Pumping oil well

PRODUCING FORMATION: San Andres

SPUD DATE: 10/17/78 COMPLETION DATE: 11/1/78

TOTAL DEPTH: 4330' PLUG BACK DEPTH: 4327'

CASING RECORD:

SIZE	WEIGHT	DEPTH	CEMENTING RECORD & TOP OF CEMENT
8 5/8"	24#	1817'	600 sx - Surface
4 1/2"	10.5	4327	175 sx 3320

TUBING RECORD:

SIZE	DEPTH	PACKER DEPTH
2 3/8"	4146'	

PERFORATIONS AND TREATMENT:

INTERVAL	TREATMENT
4177' - 4269'	Acidize w/ 6000 gals. 20% HCl

POTENTIAL TEST:

DATE	PRODUCTION
11-2-78	Pumped 91 BBLS OIL & 9 BBLS WATER in 24 hours.

VI.

WELLS WITHIN AREA OF REVIEW (½ MILE RADIUS)

OPERATOR: El Ran, Inc.

LEASE NAME: Roberts WELL NO.: 2

FIELD NAME: Chaveroo

LOCATION OF WELL: Unit Letter A, 440' FNL & 990' FEL
Sec. 3, T8S, R32E, Choves County, New Mexico

TYPE OF LEASE: Fee

WELL STATUS: Pumping oil well

PRODUCING FORMATION: San Andres

SPUD DATE: 2-2-79 COMPLETION DATE: 2-10-79.

TOTAL DEPTH: 4333' PLUG BACK DEPTH: 4332'

CASING RECORD:

SIZE	WEIGHT	DEPTH	CEMENTING RECORD & TOP OF CEMENT
8 5/8"	24	1725'	600 sx — Surface
4 1/2"	9.5	4332'	200 sx — 3300

TUBING RECORD:

SIZE	DEPTH	PACKER DEPTH
2 3/8"	4180'	

PERFORATIONS AND TREATMENT:

INTERVAL	TREATMENT
4192' - 4302'	Acidize w/ 6000 gals. 20% HCl

POTENTIAL TEST:

DATE	PRODUCTION
2-10-79	Pumped 88 bbls oil + 0 bbls water in 24 hours. mct 70

VI.

WELLS WITHIN AREA OF REVIEW (½ MILE RADIUS)

OPERATOR: El Ran, Inc.

LEASE NAME: ROBERTS WELL NO.: 4

FIELD NAME: Chaveroo

LOCATION OF WELL: Unit Letter G, 1980' FEL & 1650' FNL
Sec. 3, T8S, R32E, Chaves County, New Mexico

TYPE OF LEASE: Fee

WELL STATUS: Pumping oil well

PRODUCING FORMATION: San Andres

SPUD DATE: 8-23-79 COMPLETION DATE: 9-5-79

TOTAL DEPTH: 4312' PLUG BACK DEPTH: 4283'

CASING RECORD:

SIZE	WEIGHT	DEPTH	CEMENTING RECORD + TOP OF CEMENT
8 5/8"	24	1667'	550 sx Surface
4 1/2"	10.5	4311'	175 sx – 3450

TUBING RECORD:

SIZE	DEPTH	PACKER DEPTH
2 3/8"	4225'	

PERFORATIONS AND TREATMENT:

INTERVAL	TREATMENT
4180' - 4274'	Acidize w/ 6000 gals. 20% HCl

POTENTIAL TEST:

DATE	PRODUCTION
9-4-79	Pumped 97 BBLS OIL + 0 BBLS WATER

VI.

WELLS WITHIN AREA OF REVIEW (½ MILE RADIUS)

OPERATOR: El Ran, Inc.

LEASE NAME: U. S. WELL NO.: 2

FIELD NAME: Chaveroo

LOCATION OF WELL: Unit Letter K, 1650' FSL & 2310' FWL

Sec. 34, T7S, R32E, Roosevelt County, New Mexico

TYPE OF LEASE: Federal

WELL STATUS: Pumping oil well

PRODUCING FORMATION: San Andres

SPUD DATE: 5-10-79 COMPLETION DATE: 6-1-79

TOTAL DEPTH: 4327' PLUG BACK DEPTH: 4322'

CASING RECORD:

SIZE	WEIGHT	DEPTH	CEMENTING RECORD & TOP OF CEMENT	
8 5/8"	23#	1702'	550 SX	SURFACE
4 1/2"	10.5#	4322'	175 SX	3322

TUBING RECORD:

SIZE	DEPTH	PACKER DEPTH
2 3/8"	4254'	

PERFORATIONS AND TREATMENT:

INTERVAL	TREATMENT
4174' - 4302'	Acidize w/ 6000 gals. 20% HCl

POTENTIAL TEST:

DATE	PRODUCTION
6-1-79	Pumped 94 BBLS OIL + 0 BBLS WATER IN 24 HOURS. 788 MCF

VI.

WELLS WITHIN AREA OF REVIEW (½ MILE RADIUS)

OPERATOR: El Ran, Inc.

LEASE NAME: U. S. WELL NO.: 4

FIELD NAME: Chaveroo

LOCATION OF WELL: Unit Letter L, 1650' FSL & 990' FWL

Sec. 34, T7S, R32E, Roosevelt County, New Mexico

TYPE OF LEASE: FEDERAL

WELL STATUS: Pumping oil well

PRODUCING FORMATION: San Andres

SPUD DATE: 9/15/80 COMPLETION DATE: 10/7/80

TOTAL DEPTH: 4262' PLUG BACK DEPTH: 4360'

CASING RECORD:

SIZE	WEIGHT	DEPTH	CEMENTING RECORD + TOP OF CEMENT	
8 5/8"	23#	1712'	575 SX	SURFACE
4 1/2"	10.5#	4362'	175 SX	3362

TUBING RECORD:

SIZE	DEPTH	PACKER DEPTH
2 3/8"	4292'	

PERFORATIONS AND TREATMENT:

INTERVAL	TREATMENT
4209' - 4288'	Acidize w/ 6000 gals. 20% HCl

POTENTIAL TEST:

DATE	PRODUCTION
10/1/80	Pumped 45 BBLS OIL + 22 BBLS WATER in 24 hours.

VII

Proposed Operation

El Ran, Inc. proposes to utilize this injection well to dispose of water produced from the following leases operated by El Ran, Inc.: Byron, U. S., Dachner, Federal, Carroll, Sarah, Roberts, Barton and Yeager.

Present water production from the above leases is approximately 400 BBL which is the porposed average volume to be injected. Maximum anticipated volume would be 500 BBL per day. Average injection rate will be one barrel per minute at 400#. Maximum anticipated rate is one and one-half barrel per minute at 700#. This proposal is to re-inject water produced from the San Andres formation back into the San Andres formation. This will be a closed system.

VIII

Geological Data

The injection zone in this proposed well is the San Andres formation which is composed of dolomite. The gross thickness of the injection zone is 107 feet with perforations from 4169' to 4276'. The top of the San Andres formation in the proposed injection well is 3450' and the well was still in the San Andres at 4311' total depth.

The depth to the bottom of the underground source of drinking water would be 380', which is the base of the Tertiary formations in this well.

IX

Proposed Stimulation

The San Andres zone (4169'-4276') in the U. S. #1 has been stimulated with 6000 gals. of acid. We do not plan on any other stimulation except for occasional small acid jobs to clear any scaling that might occur.

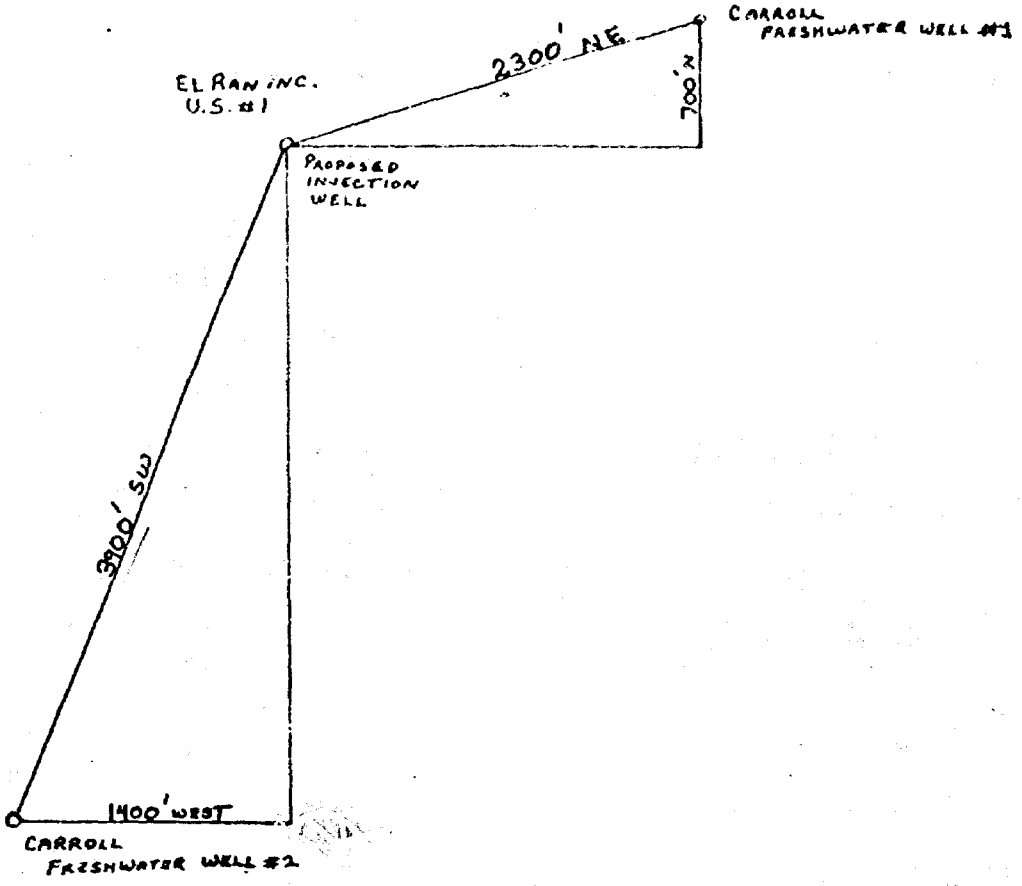
X

Well logs have been filed with the Division.

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
El Ran EXHIBIT NO. 4
CASE NO. 7622

XI

There are two fresh water wells within a one mile radius of this proposed injection well. The location of the wells is shown below. The water wells are pumped by electric pumps and the water is used for livestock consumption. Water analysis of the two wells are enclosed.



XII

El Ran, Inc. geological and engineering personnel 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.

William W. Ranck
Geological Engineer

PETROLITE CORPORATION
TRETOLITE DIVISION
369 Marshall Avenue / Saint Louis, Missouri 63119
(314) WO 1-3500/TWX 910-760-1660/Telex 44-2417

WATER ANALYSIS REPORT

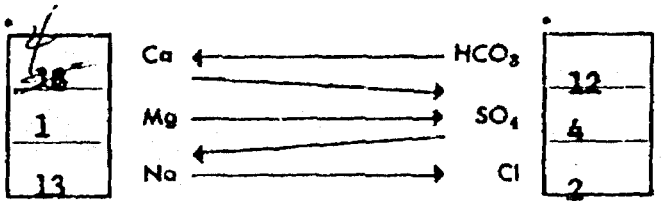
COMPANY Attn: Bobby Baxter El Paso, Inc. ADDRESS Tatum, NM DATE: 5/26/82

SOURCE Carrol #2 F.W.W. DATE SAMPLED 5/24/82 ANALYSIS NO.

Analysis		Mg/L		*Meq/L	
1. pH	7.1				
2. H_2S (Qualitative)	Neg.				
3. Specific Gravity	1.000				
4. Dissolved Solids		1386			
5. Suspended Solids		-			
6. Phenolphtholein Alkalinity ($CaCO_3$)		-			
7. Methyl Orange Alkalinity ($CaCO_3$)		580			
8. Bicarbonate (HCO_3)	HCO_3	707	÷61	12	HCO_3
9. Chlorides (Cl)	Cl	67	÷35.5	2	Cl
10. Sulfates (SO_4)	SO_4	175	÷48	4	SO_4
11. Calcium (Ca)	Ca	80	÷20	4	Ca
12. Magnesium (Mg)	Mg	12	÷12.2	1	Mg
13. Total Hardness ($CaCO_3$)		250			
14. Total Iron (Fe)					
15. Barium (Qualitative)					
16. Strontium					

*Milli equivalents per liter

PROBABLE MINERAL COMPOSITION



Compound	Equiv. Wt.	X	Meq/L	=	Mg/L
$Ca(HCO_3)_2$	81.04		4		324
$CaSO_4$	68.07		-0-		-0-
$CaCl_2$	55.50		-0-		-0-
$Mg(HCO_3)_2$	73.17		1		73
$MgSO_4$	60.19		-0-		-0-
$MgCl_2$	47.62		-0-		-0-
$NaHCO_3$	84.00		7		588
Na_2SO_4	71.03		4		284
NaCl	58.46		2		117

Saturation Values Distilled Water 20°C

$CaCO_3$	13 Mg/L
$CaSO_4 \cdot 2H_2O$	2,090 Mg/L
$MgCO_3$	103 Mg/L

REMARKS cc: file

Respectfully submitted
TRETOLITE COMPANY

Gale Blackwell

PETROLITE CORPORATION

TRETOLITE DIVISION
369 Marshall Avenue / Saint Louis, Missouri 63119
(314) WO 1-3500/TWX 910-760-1660/Telex 44-2417

WATER ANALYSIS REPORT

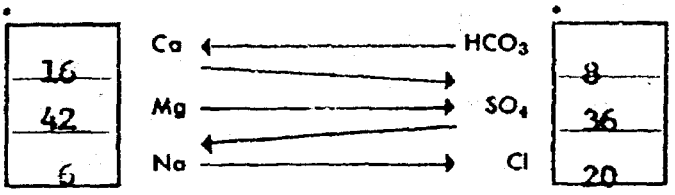
COMPANY Attn: Danny Cooter El Paso, Inc. ADDRESS Tatum NM DATE: 5/26/82

SOURCE Carrol #1 F.W.h. DATE SAMPLED 5/24/82 ANALYSIS NO.

Analysis		Mg/L		*Meq/L	
1.	pH	7.0			
2.	H_2S (Qualitative)	Neg.			
3.	Specific Gravity	1.000			
4.	Dissolved Solids	3,396			
5.	Suspended Solids				
6.	Phenolphthalein Alkalinity ($CaCO_3$)				
7.	Methyl Orange Alkalinity ($CaCO_3$)	410			
8.	Bicarbonate (HCO_3)	HCO_3 500	÷61	8	HCO_3
9.	Chlorides (Cl)	Cl 711	÷35.5	20	Cl
10.	Sulfates (SO_4)	SO_4 1750	÷48	36	SO_4
11.	Calcium (Ca)	Ca 528	÷20	16	Ca
12.	Magnesium (Mg)	Mg 514	÷12.2	42	Mg
13.	Total Hardness ($CaCO_3$)	3700			
14.	Total Iron (Fe)				
15.	Barium (Qualitative)				
16.	Strontium				

*Milli equivalents per liter

PROBABLE MINERAL COMPOSITION



Compound	Equiv. Wt.	X Meq/L	= Mg/L
$Ca(HCO_3)_2$	81.04	8	648
$CaSO_4$	68.07	8	545
$CaCl_2$	55.50	0	0
$Mg(HCO_3)_2$	73.17	0	0
$MgSO_4$	60.19	28	1685
$MgCl_2$	47.62	14	667
$NaHCO_3$	84.00	0	0
Na_2SO_4	71.03	0	0
NaCl	58.46	6	351

Saturation Values Distilled Water 20°C

$CaCO_3$	13 Mg/L
$CaSO_4 \cdot 2H_2O$	2,090 Mg/L
$MgCO_3$	103 Mg/L

REMARKS cc: file

Respectfully submitted
TRETOLITE COMPANY

Cale Blackwell

PETRO-CHEM
1703 Garden City Highway
P. O. Box 1861
Midland, Texas 79701
(915) 682 6786 · 694 4396

RRR

RECEIVED JUL 6 1981

API WATER ANALYSIS REPORT FORM

Company EL RAN, INC.		Sample No		Date Sampled
Field	Legal Description		County or Parish	State
Lease or Unit U. S.	Well # 1	Depth	Formation	Water, B/D
Type of Water (Produced, Supply, etc.)	Sampling Point			Sampled By D. Cox

DISSOLVED SOLIDS

CATIONS	mg/l	me/l
Sodium, Na (calc.)	42,820	1,862
Calcium, Ca	39,600	1,980
Magnesium, Mg	10,980	900
Barium, Ba	ND	

ANIONS	mg/l	me/l
Chloride, Cl	168,185	4,738
Sulfate, SO_4	200	4
Carbonate, CO_3	0	0
Bicarbonate, HCO_3	0	0

Total Dissolved Solids (calc.) 261,785

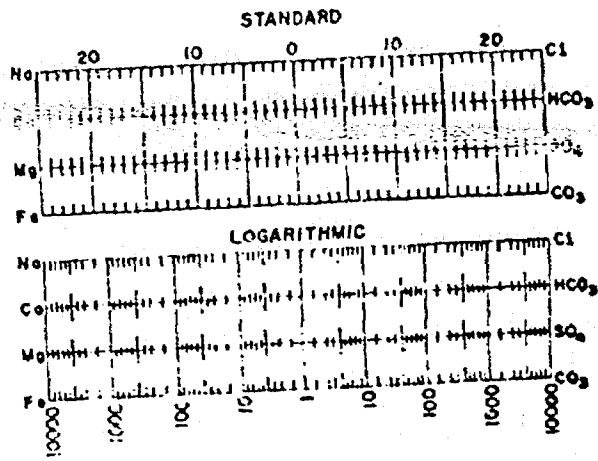
Iron, Fe (total) 16.50

Sulfide, as H_2S Present

OTHER PROPERTIES

pH	7.060
Specific Gravity, 60/60 F.	1.195
Resistivity (ohm-meters) 77° F.	0.033
Total Hardness, $CaCO_3$	144,000
Total Alkalinity, $CaCO_3$	
Supersaturation, $CaCO_3$	

WATER PATTERNS -- me/l



REMARKS & RECOMMENDATIONS:

Calcium Sulfate Scaling Potential - Nil
Calcium Carbonate Stability Index:

Severe Scaling indicated at all temperatures.

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
El Ran EXHIBIT NO. 5
CASE NO. 7622

Received 5-18-81
Approved 5-19-81

Copies

Dockets Nos. 25-82 and 26-82 are tentatively set for August 4 and August 18, 1982. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - JULY 21, 1982

9 A.M. - MORGAN HALL, OIL CONSERVATION DIVISION, STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO.

The following cases will be heard before Daniel S. Nutter, Examiner, or Richard L. Stamets, Alternate Examiner.

ALLOWABLE: (1) Consideration of the allowable production of gas for August, 1982, from fifteen prorated pools in Lea, Eddy, and Chaves Counties, New Mexico.

(2) Consideration of the allowable production of gas for August, 1982, from four prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.

CASE 7560: (Continued from July 7, 1982, Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Division on its own motion to permit Charles H. Heisen, Fidelity and Deposit Company of Maryland, Surety, and all other interested parties to appear and show cause why the Crownpoint Well No. 1, located in Unit F, Section 18, Township 18 North, Range 13 West, McKinley County, should not be plugged and abandoned in accordance with a Division-approved plugging program.

CASE 7599: (Continued from June 9, 1982, Examiner Hearing)

Application of Barber Oil Inc. for an Exception to Rule 705-A Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to the provisions of Rule 705-A of the Division Rules and Regulations to permit 37 temporarily abandoned injection wells in its Russell Pool waterflood project to remain inactive for a period of up to three years without the required cement or bridge plugs being installed therein to isolate the injection zone.

CASE 7622: Application of El Ran, Inc. for a waterflood project, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the Chaveroo-San Andres Pool by the injection of water into the perforated interval from 4169 feet to 4276 feet in its U. S. Well No. 1, located in Unit N of Section 34, Township 7 South, Range 32 East.

CASE 7516: (Continued from May 12, 1982, Examiner Hearing)

Application of Benson-Montin-Greer for a unit agreement, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the North Canada Ojitos Unit Area, comprising 12,361 acres, more or less, of Jicarilla Apache Indian lands in Township 27 North, Range 1 West.

CASE 7623: Application of C & K Petroleum, Inc. for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Abo formation underlying the SE/4 SE/4 of Section 28, Township 16 South, Range 37 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of the applicant as operator of the well, and a charge for risk involved in drilling said well.

CASE 7620: (Continued from July 7, 1982, Examiner Hearing)

Application of Mesa Petroleum Company for compulsory pooling, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in all formations from the surface through the base of the Abo formation underlying the SW/4 of Section 8, Township 5 South, Range 25 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 7624: Application of John Yuronka for an unorthodox gas well location and compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Jalmat Gas Pool underlying the SW/4 of Section 31, Township 22 South, Range 37 East, to form a non-standard gas proration unit to be dedicated to a well to be drilled at an unorthodox location 990 feet from the South line and 330 feet from the West line of said Section 31. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.

CASE 7618: (Readvertised)

Application of Doyle Hartman for an unorthodox gas well location and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a gas well to be drilled 1450 feet from the South line and 1980 feet from the East line of Section 20, Township 20 South, Range 37 East, Eumont Gas Pool, the SE/4 of said Section 20 to be simultaneously dedicated to said well and to the State A-20 Well No. 1 located in Unit I of said Section 20.

CASE 7625: Application of GMW Corp. for designation of a tight formation, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the designation of the Pawnee Strawn Reservoir underlying Sections 9 and 10, 14 thru 16, 21 thru 24, and 26 and 27, Township 26 South, Range 36 East, containing 7,040 acres, more or less, as a tight formation pursuant to Section 107 of the Natural Gas Policy Act and 18 CFR Section 271. 701-705.

CASE 7626: In the matter of the hearing called by the Oil Conservation Division on its own motion for an order creating, contracting, and extending certain pools in Rio Arriba, San Juan, McKinley, and Sandoval Counties, New Mexico.

(a) That the Otero-Gallup Oil Pool in Rio Arriba County, New Mexico, as heretofore classified, defined and described, is hereby contracted by excluding:

TOWNSHIP 25 NORTH, RANGE 5 WEST, NMPM
Section 35: W/2 SW/4

(b) That a new pool in Rio Arriba County, New Mexico, classified as a Chacra Pool for gas production, is hereby created and designated the Adobe-Chacra Pool, comprising the following described area:

TOWNSHIP 24 NORTH, RANGE 4 WEST, NMPM
Section 13: S/2
24: E/2

(c) That a new pool in San Juan County, New Mexico, classified as a Gallup Pool for oil production, is hereby created and designated the Armenta-Gallup Oil Pool, comprising the following described area:

TOWNSHIP 29 NORTH, RANGE 10 WEST, NMPM
Sections 26: SW/4
27: S/2
28: E/2 SW/4 and SE/4
33: E/2 NW/4 and NE/4
34: N/2
35: N/2 and N/2 SE/4

(d) That a new pool in San Juan County, New Mexico, classified as a gas pool for Fruitland production, is hereby created and designated the Glades-Fruitland Pool, comprising the following described area:

TOWNSHIP 32 NORTH, RANGE 11 WEST, NMPM
Section 31: NW/4

TOWNSHIP 32 NORTH, RANGE 12 WEST, NMPM
Sections 35: N/2 and SE/4
36: N/2 and SW/4

(e) That a new pool in Sandoval County, New Mexico, classified as a Mancos pool for oil production, is hereby created and designated the San Ysidro-Mancos Oil Pool, comprising the following described area:

TOWNSHIP 21 NORTH, RANGE 3 WEST, NMPM
Section 29: S/2 SW/4
30: E/2 E/2 and SW/4 SE/4

(f) That the Albino-Pictured Cliffs Pool in San Juan County, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 32 NORTH, RANGE 8 WEST, NMPM
Sections 11: S/2
13: W/2 and NE/4
14: E/2 and SW/4
26: NE/4

TOWNSHIP 32 NORTH, RANGE 7 WEST, NMPM
Section 18: NW/4

(g) That the Angel Peak-Gallup Associated Pool in San Juan County, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 27 NORTH, RANGE 10 WEST, NMPM
Sections 22: All
27: N/2

(h) That the Aztec-Fruitland Pool in San Juan County, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 28 NORTH, RANGE 10 WEST, NMPM
Section 9: SE/4

TOWNSHIP 29 NORTH, RANGE 11 WEST, NMPM
Sections 29: SE/4
33: N/2

(i) That the Aztec-Pictured Cliffs Pool in San Juan County, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 31 NORTH, RANGE 12 WEST, NMPM
Sections 14: SE/4
35: NE/4

(j) That the B S Mesa Gallup Pool in Rio Arriba County, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 26 NORTH, RANGE 4 WEST, NMPM
Section 9: W/2 and SE/4

(k) That the Ballard-Pictured Cliffs Pool in Rio Arriba, Sandoval, and San Juan Counties, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 23 NORTH, RANGE 3 WEST, NMPM
Sections 25: All
36: N/2

TOWNSHIP 24 NORTH, RANGE 5 WEST, NMPM
Sections 6: NW/4
16: SE/4

TOWNSHIP 25 NORTH, RANGE 6 WEST, NMPM
Sections 27: SW/4
34: N/2
35: NW/4

TOWNSHIP 26 NORTH, RANGE 7 WEST, NMPM
Section 19: N/2 and SE/4

TOWNSHIP 26 NORTH, RANGE 8 WEST, NMPM
Sections 9: SE/4
10: All
15: NE/4

(l) That the Bisti-Farmington Pool in San Juan County, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 25 NORTH, RANGE 12 WEST, NMPM
Section 3: SW/4

TOWNSHIP 26 NORTH, RANGE 12 WEST, NMPM
Sections 31: E/2
32: All

(m) That the Bisti-Lower Gallup Oil Pool in San Juan County, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 24 NORTH, RANGE 10 WEST, NMPM
Section 9: N/2 NW/4

(n) That the Blanco Mesaverde Pool in Rio Arriba and San Juan Counties, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 25 NORTH, RANGE 3 WEST, NMPM
Sections 8: E/2
16: All
17: All
20: N/2
21: W/2

TOWNSHIP 25 NORTH, RANGE 5 WEST, NMPM
Sections 1: All
2: All

TOWNSHIP 26 NORTH, RANGE 5 WEST, NMPM
Sections 17: W/2
18: E/2
20: W/2
27: S/2

TOWNSHIP 26 NORTH, RANGE 6 WEST, NMPM
Sections 23: All
24: W/2

TOWNSHIP 27 NORTH, RANGE 9 WEST, NMPM
Section 6: E/2

TOWNSHIP 29 NORTH, RANGE 10 WEST, NMPM
Sections 7: All
15: N/2
18: All
19: All
30: All

TOWNSHIP 29 NORTH, RANGE 11 WEST, NMPM
Sections 1, 12, 13, 24, 25: All

TOWNSHIP 30 NORTH, RANGE 11 WEST, NMPM
Sections 8: All
9: All

TOWNSHIP 31 NORTH, RANGE 5 WEST, NMPM
Sections 7: All
8: W/2

TOWNSHIP 31 NORTH, RANGE 12 WEST, NMPM
Section 31: All

(o) That the Blanco-Pictured Cliffs Pool in Rio Arriba, San Juan, and Sandoval Counties, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 28 NORTH, RANGE 7 WEST, NMPM
Section 8: All

TOWNSHIP 29 NORTH, RANGE 7 WEST, NMPM
Section 31: SE/4

TOWNSHIP 30 NORTH, RANGE 8 WEST, NMPM
Section 20: S/2

TOWNSHIP 31 NORTH, RANGE 10 WEST, NMPM
Section 25: NW/4

TOWNSHIP 32 NORTH, RANGE 10 WEST, NMPM
Section 29: NE/4

TOWNSHIP 32 NORTH, RANGE 11 WEST, NMPM
Section 10: W/2

TOWNSHIP 32 NORTH, RANGE 12 WEST, NMPM
Sections 15: S/2
35: NW/4

(p) That the East Blanco-Pictured Cliffs Pool in Rio Arriba County, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 30 NORTH, RANGE 4 WEST, NMPM
Sections 11: SE/4
14: E/2
26: W/2
35: NW/4

(q) That the South Blanco-Pictured Cliffs Pool in Rio Arriba, Sandoval, and San Juan Counties, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 24 NORTH, RANGE 1 WEST, NMPM
Sections 17: SW/4
18: W/2

TOWNSHIP 26 NORTH, RANGE 7 WEST, NMPM
Section 17: SE/4

TOWNSHIP 26 NORTH, RANGE 8 WEST, NMPM
Sections 3: S/2 and NW/4
4: SE/4

TOWNSHIP 28 NORTH, RANGE 7 WEST, NMPM
Sections 10: All
11: All
15: NW/4

(r) That the Bloomfield-Chacra Pool in San Juan County, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 29 NORTH, RANGE 10 WEST, NMPM
Section 30: N/2

TOWNSHIP 29 NORTH, RANGE 11 WEST, NMPM
Sections 20: W/2
25: SE/4
28: S/2
29: All
30: NE/4
31: N/2
32: N/2
33: N/2 and SE/4

(s) That the Bloomfield-Farmington Oil Pool in San Juan County, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 29 NORTH, RANGE 11 WEST, NMPM
Sections 25: SW/4
26: SE/4 SE/4

(t) That the Cha Cha-Gallup Oil Pool in San Juan County, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 28 NORTH, RANGE 13 WEST, NMPM
Section 22: W/2 SW/4

TOWNSHIP 29 NORTH, RANGE 14 WEST, NMPM
Sections 7: S/2 SW/4
18: N/2

TOWNSHIP 29 NORTH, RANGE 15 WEST, NMPM
Sections 1: S/2 SW/4
13: NW/4

(u) That the Chacon-Dakota Associated Pool in Rio Arriba and Sandoval Counties, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 22 NORTH, RANGE 2 WEST, NMPM
Section 7: SW/4

TOWNSHIP 22 NORTH, RANGE 3 WEST, NMPM
Sections 1: E/2
3: NW/4
10: E/2
11: All
12: All

TOWNSHIP 23 NORTH, RANGE 3 WEST, NMPM
Sections 2: W/2
11: NE/4
36: SW/4

TOWNSHIP 24 NORTH, RANGE 3 WEST, NMPM
Sections 15: SW/4
16: E/2 and NW/4
22: NW/4
26: NW/4
27: NE/4

(v) That the Choza Mesa-Pictured Cliffs Pool in Rio Arriba County, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 29 NORTH, RANGE 3 WEST, NMPM
Section 29: SW/4

(w) That the Crouch Mesa-Mesaverde Pool in San Juan County, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 29 NORTH, RANGE 11 WEST, NMPM
Section 6: SE/4

(x) That the Cuervo-Gallup Oil Pool in San Juan County, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 24 NORTH, RANGE 8 WEST, NMPM
Section 20: SW/4 SW/4

(y) That the Dufers Point Gallup-Dakota Oil Pool in San Juan County, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 24 NORTH, RANGE 8 WEST, NMPM
Sections 3: S/2 SW/4
4: S/2 SE/4

(z) That the Farmer-Fruitland Pool in San Juan County, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 30 NORTH, RANGE 11 WEST, NMPM
Sections 8: All
9: W/2

(aa) That the Flora Vista-Fruitland Pool in San Juan County, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 31 NORTH, RANGE 12 WEST, NMPM
Section 34: SE/4

TOWNSHIP 30 NORTH, RANGE 12 WEST, NMPM
Section 15: NW/4

(bb) That the Flora Vista-Gallup Pool in San Juan County, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 30 NORTH, RANGE 12 WEST, NMPM
Sections 5: N/2
6: NE/4
11: NW/4

(cc) That the Fulcher Kutz-Pictured Cliffs Pool in San Juan County, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 27 NORTH, RANGE 11 WEST, NMPM
Sections 1: W/2
12: W/2

TOWNSHIP 28 NORTH, RANGE 11 WEST, NMPM
Section 36: W/2

(dd) That the South Gallegos Fruitland-Pictured Cliffs Pool in San Juan County, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 26 NORTH, RANGE 11 WEST, NMPM
Section 18: NE/4

(ee) That the Gallegos-Gallup Oil Pool in San Juan County, New Mexico, as heretofore classified. defined and described, is hereby extended to include:

TOWNSHIP 26 NORTH, RANGE 11 WEST, NMPM
Section 12: SW/4

(ff) That the Gobernador-Pictured Cliffs Pool in Rio Arriba County, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 29 NORTH, RANGE 5 WEST, NMPM
Sections 4: SW/4
9: NE/4
15: NE/4
25: NE/4
26: NE/4

TOWNSHIP 30 NORTH, RANGE 5 WEST, NMPM
Section 34: SW/4

(gg) That the Gonzales-Mesaverde Pool in Rio Arriba County, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 25 NORTH, RANGE 5 WEST, NMPM
Sections 4: E/2 and NW/4
9: NE/4
10: All

TOWNSHIP 26 NORTH, RANGE 5 WEST, NMPM
Sections 31: NW/4
32: SE/4
33: W/2

(hh) That the Harris Mesa-Chacra Pool in San Juan County, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 27 NORTH, RANGE 9 WEST, NMPM
Sections 5: NW/4
6: NE/4

TOWNSHIP 28 NORTH, RANGE 9 WEST, NMPM
Sections 19: SE/4
29: NW/4
30: NE/4

(ii) That the Horseshoe-Gallup Oil Pool in San Juan County, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 30 NORTH, RANGE 15 WEST, NMPM
Section 19: N/2 SW/4

(jj) That the Hospah-Dakota Oil Pool in McKinley County, New Mexico, as heretofore, classified, defined and described, is hereby extended to include:

TOWNSHIP 17 NORTH, RANGE 8 WEST, NMPM
Section 6: SW/4 SE/4

(kk) That the West Kutz-Pictured Cliffs Pool in San Juan County, New Mexico, as heretofore classified,defined and described, is hereby extended to include:

TOWNSHIP 26 NORTH, RANGE 11 WEST, NMPM
Section 3: NW/4

TOWNSHIP 27 NORTH, RANGE 11 WEST, NMPM
Sections 11: W/2
29: W/2
30: All
31: All
32: NW/4
33: All
34: W/2

TOWNSHIP 28 NORTH, RANGE 11 WEST, NMPM
Sections 34: NE/4
35: All

(ll) That the Largo-Chacra Pool in Rio Arriba and San Juan Counties, New Mexico, as heretofore classified,defined and described, is hereby extended to include:

TOWNSHIP 27 NORTH, RANGE 7 WEST, NMPM
Section 22: NE/4

TOWNSHIP 27 NORTH,RANGE 8 WEST, NMPM
Sections 2: SW/4
9: NW/4

(mm) That the South Lindrith Gallup-Dakota Oil Pool in Rio Arriba County, New Mexico, as heretofore classified, defined, and described, is hereby extended to include:

TOWNSHIP 23 NORTH,RANGE 4 WEST, NMPM
Section 3: NW/4 NE/4

TOWNSHIP 24 NORTH, RANGE 4 WEST, NMPM
Sections 27: S/2 S/2
28: SE/4
33: E/2
34: All

(nn) That the West Lindrith Gallup-Dakota Oil Pool in Rio Arriba County, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 24 NORTH, RANGE 3 WEST, NMPM
Section 6: N/2

TOWNSHIP 24 NORTH,RANGE 4 WEST, NMPM
Sections 10: SW/4
14: SE/4
36: NE/4

TOWNSHIP 25 NORTH, RANGE 4 WEST, NMPM
Sections 14: SE/4
15: NE/4
35: E/2

TOWNSHIP 25 NORTH,RANGE 5 WEST, NMPM
Section 35: SW/4

(oo) That the North Los Pinos-Fruitland Pool in San Juan County, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 32 NORTH, RANGE 8 WEST, NMPM
Section 23: N/2

(pp) That the South Los Pinos Fruitland-Pictured Cliffs Pool in San Juan County, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 31 NORTH, RANGE 7 WEST, NMPM
Sections 7: SE/4
10: SW/4
12: W/2

TOWNSHIP 32 NORTH, RANGE 7 WEST, NMPM
Sections 26: SW/4
27: SE/4
34: NE/4
36: NW/4

(qq) That the Lybrook-Gallup Oil Pool in Ric Arriba and Sandoval Counties, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 23 NORTH, RANGE 6 WEST, NMPM
Section 29: E/2 NW/4

TOWNSHIP 23 NORTH, RANGE 7 WEST, NMPM
Sections 2: W/2 NW/4
6: NE/4 SE/4
9: N/2 SW/4

TOWNSHIP 24 NORTH, RANGE 8 WEST, NMPM
Sections 22: SE/4 SE/4
25: SE/4 NW/4, SW/4 NE/4, and NW/4 SE/4
26: NW/4, W/2 NE/4, and NE/4 SE/4
27: N/2, N/2 SW/4, and NW/4 SE/4

(rr) That the Marcelina-Dakota Oil Pool in McKinley County, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 16 NORTH, RANGE 10 WEST, NMPM
Section 14: S/2 SE/4

(ss) That the Meadows-Gallup Oil Pool in San Juan County, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 29 NORTH, RANGE 15 WEST, NMPM
Sections 2: SW/4 SW/4
3: NW/4,NE/4 SW/4, N/2 SE/4 and SE/4 SE/4
4: NE/4 and NW/4 SE/4
10: NE/4 NE/4

TOWNSHIP 30 NORTH, RANGE 15 WEST, NMPM
Sections 28: SW/4 SW/4
29: SE/4 SE/4
33: N/2 NW/4 and SE/4 NW/4

(tt) That the Miguel Creek-Gallup Oil Pool in McKinley County, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 16 NORTH, RANGE 6 WEST, NMPM
Sections 20: S/2 NE/4
21: W/2 SW/4 and NE/4 SW/4
28: SW/4 NW/4

(uu) That the Mt. Nebo-Fruitland Pool in San Juan County, New Mexico, as heretofore classified, defined, and described, is hereby extended to include:

TOWNSHIP 32 NORTH, RANGE 10 WEST, NMPM
Sections: 28: NW/4
29: E/2
32: NE/4

(vv) That the Ojito Gallup-Dakota Oil Pool in Rio Arriba County, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 25 NORTH, RANGE 3 WEST NMPM
Sections 7: W/2
18: W/2 and NE/4
20: N/2
21: W/2 NW/4

(ww) That the Otero-Chacra Pool in Rio Arriba County,New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 25 NORTH, RANGE 5 WEST NMPM
Sections 13: SW/4
14: SE/4
23: NE/4
34: S/2
35: SW/4
36: SE/4

TOWNSHIP 25 NORTH, RANGE 6 WEST, NMPM
Sections 23: SW/4
26: NW/4

TOWNSHIP 26 NORTH, RANGE 6 WEST, NMPM
Sections 24: SW/4
25: NW/4

TOWNSHIP 26 NORTH, RANGE 7 WEST, NMPM
Sections 2: W/2
16: NE/4

TOWNSHIP 27 NORTH, RANGE 7 WEST, NMPM
Sections 34: S/2
35: W/2

(xx) That the Otero-Gallup Oil Pool in Rio Arriba County, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 24 NORTH, RANGE 5 WEST, NMPM
Section 3: N/2 NE/4

(yy) That the North Pinon-Fruitland Pool in San Juan County, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 28 NORTH, RANGE 12 WEST, NMPM
Sections 9: All
16: NE/4

(zz) That the Pinon-Gallup Oil Pool in San Juan County, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 28 NORTH, RANGE 12 WEST, NMPM
Section 13: W/2 NW/4

(aaa) That the Potwin-Pictured Cliffs Pool in San Juan County,New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 24 NORTH, RANGE 8 WEST, NMPM
Section 8: NE/4

(bbb) That the Ute Dome-Dakota Pool in San Juan County, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 32 NORTH, RANGE 13 WEST, NMPM
Section 31: N/2

(ccc) That the Ute Dome-Paradox Pool in San Juan County, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 32 NORTH, RANGE 13 WEST, NMPM
Section 19: All

(ddd) That the WAW Fruitland-Pictured Cliffs Pool in San Juan County, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 25 NORTH, RANGE 12 WEST, NMPM
Section 5: NE/4

TOWNSHIP 26 NORTH, RANGE 12 WEST, NMPM
Section 9: S/2

TOWNSHIP 26 NORTH, RANGE 13 WEST, NMPM
Section 25: NE/4

(eee) That the Whitewash Mancos-Dakota Oil Pool in San Juan County, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 24 NORTH, RANGE 9 WEST, NMPM
Sections 10: SE/4 SE/4
11: W/2 SW/4

(fff) That the Wildhorse-Gallup Pool in Rio Arriba County, New Mexico, as heretofore classified, defined and described, is hereby extended to include:

TOWNSHIP 26 NORTH, RANGE 3 WEST, NMPM
Section 18: NE/4

To,
This applic. has to be set for hearing - will you please call & inform El Rancho

Thx
R.J.

Applic. - Denied

Form 9-331
Dec. 1973

OPERATOR'S COPY

Form Approved
Budget Bureau No. 42-R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil well [x] gas well [ ] other

2. NAME OF OPERATOR
El Ran, Inc.

3. ADDRESS OF OPERATOR
P. O. Box 911 (?) Lubbock TX 79408

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 660' FSL & 1980' FWL
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH: Same

5. LEASE
NM 18846

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

9. WELL NO.
U. S.

10. FIELD OR WILDCAT NAME

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 34, T7S, R32E

12. COUNTY OR PARISH
Roosevelt

13. STATE
New Mexico

14. API NO.

15. ELEVATIONS (SHOW DF, KDB, AND WD)
4493.5 GL

RECEIVED
JUN 10 1982

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF	[ ]		[ ]
FRACTURE TREAT	[ ]		[ ]
SHOOT OR ACIDIZE	[ ]		[ ]
REPAIR WELL	[ ]		[ ]
PULL OR ALTER CASING	[ ]		[ ]
MULTIPLE COMPLETE	[ ]		[ ]
CHANGE ZONES	[ ]		[ ]
ABANDON*	[ ]		[ ]
(other) Convert Well to Salt Water Disposal			

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

RECEIVED
JUN 2 1982
OIL & GAS
U.S. GEOLOGICAL SURVEY
ROSWELL, NEW MEXICO

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Well is currently producing approximately 1 BOPD and 12 water which is uneconomical. Therefore, we request permission to convert the well to a Salt Water Disposal. Attached you will find a copy of the application to the state.

Production within ½ mile - ask dist about hearing
6-14-82 - All S.A. prod. w/ El Ran Operator

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED _____ TITLE Vice-President DATE June 1, 1982

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

APPROVED
Peter W. Chester
JUN 3 1982
FOR
JAMES A. GILLHAM
DISTRICT SUPERVISOR

SUBJECT TO LIKE APPROVAL BY STATE

*See Instructions on Reverse Side

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

JUN 10 1982

FORM C-108
Revised 7-1-81

Case 7692

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: [X] Secondary Recovery [ ] Pressure Maintenance [X] Disposal [ ] Storage
Application qualifies for administrative approval? [X] yes [ ] no

II. Operator: El Ran, Inc.

Address: P. O. Box 911, Lubbock, Texas 79408

Contact party: Robert R. Ranck Phone: 806/763-4091

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 [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 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: Robert R. Ranck Title Vice-President

Signature: Robert R Ranck Date: June 1, 1982

* 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. _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division 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, 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.

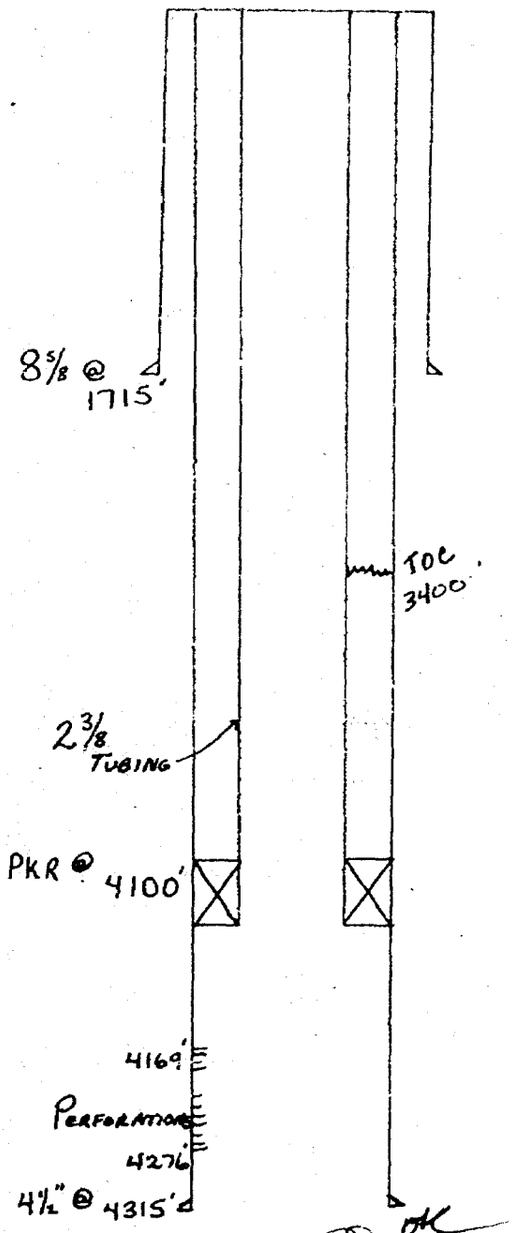
NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

INJECTION WELL DATA SHEET

EL RAN INC. — OPERATOR
U.S. — LEASE

1 — WELL NO.
660 FSL & 1980 FWL — FOOTAGE LOCATION
34 — SECTION
7-S — TOWNSHIP
32-E — RANGE

Schematic



Tubular Data

Surface Casing

Size 8⅝ 24# " Cemented with 600 sx.

TOC SURFACE feet determined by CIRCULATED 60 SX.

Hole size 12¼

Intermediate Casing

Size _____ " Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Long string

Size 4½ 10.5# " Cemented with 175 sx.

TOC 3400 feet determined by Calculation

Hole size 7⅞

Total depth 4315

Injection interval

4169 ✓ feet to 4276 ✓ feet
(perforated or open-hole, indicate which)

PERFORATED

Tubing size 2⅜ OK lined with PLASTIC COATED (material) OK set in a

GUIBERSON TENSION PACKER OK (brand and model)

packer at 4100' OK feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation SAN ANDRES OK

2. Name of Field or Pool (if applicable) CHAVEROO

3. Is this a new well drilled for injection? ☐ Yes ☑ No

If no, for what purpose was the well originally drilled? OIL & GAS

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks 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 OVERLYING

SQUERS PENN 8380' — BAR U PENN 9210

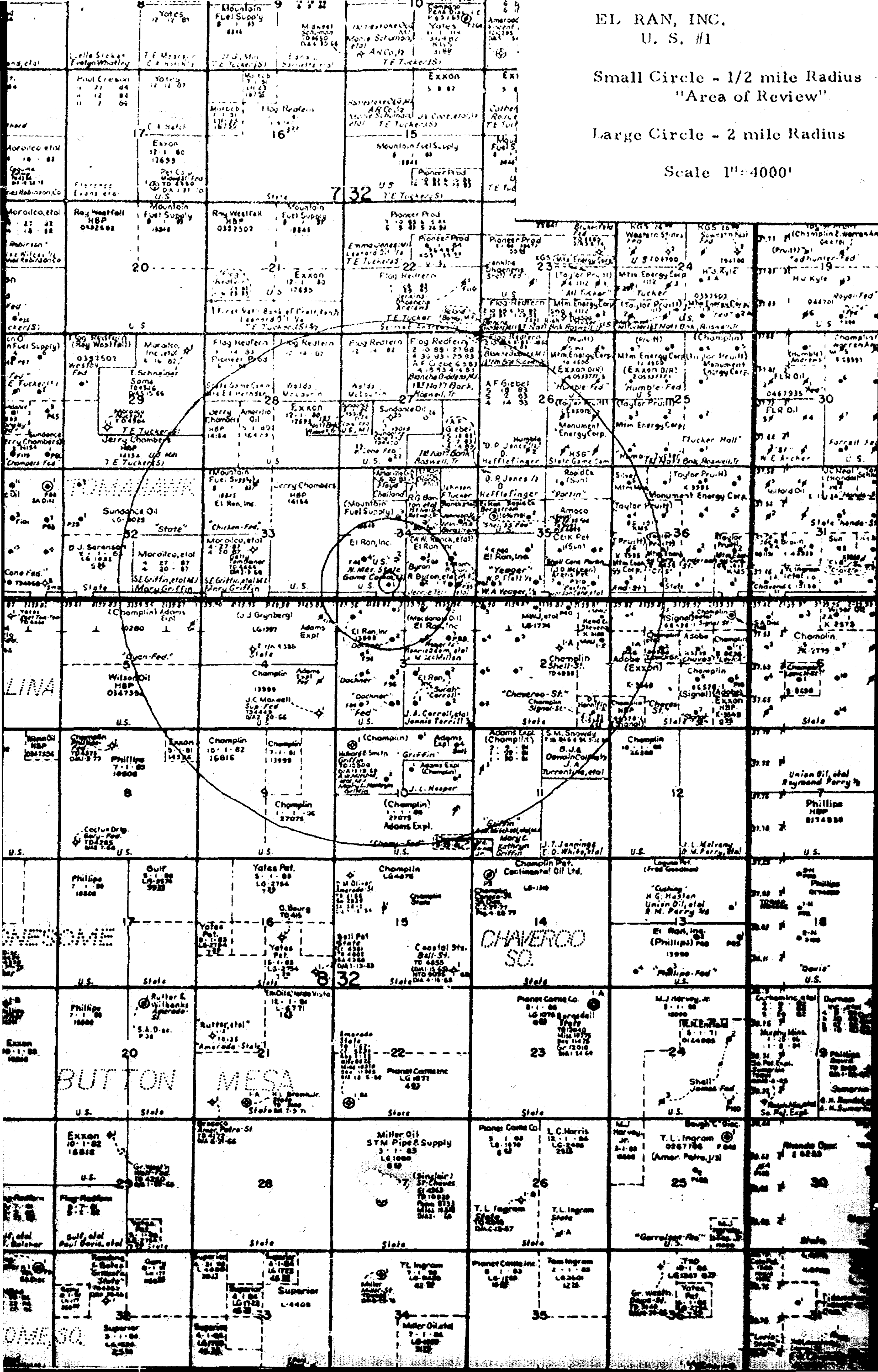
FLYING M ABO 8603 — TEXAC PENN 9061

EL RAN, INC.
U. S. #1

Small Circle - 1/2 mile Radius
"Area of Review"

Large Circle - 2 mile Radius

Scale 1"=4000'



VI.

WELLS WITHIN AREA OF REVIEW (½ MILE RADIUS)

OPERATOR: El Ran, Inc.

LEASE NAME: Byron WELL NO.: 2

FIELD NAME: Chaveroo

LOCATION OF WELL: Unit Letter O, 660' FSL & 1980' FEL
Sec. 34, T7S, R32E, Roosevelt County, New Mexico

TYPE OF LEASE: Fee

WELL STATUS: Pumping oil well

PRODUCING FORMATION: San Andres

SPUD DATE: 6-1-78 COMPLETION DATE: 6-26-78

TOTAL DEPTH: 4312' PLUG BACK DEPTH: 4306'

CASING RECORD:

SIZE	WEIGHT	DEPTH	CEMENTING RECORD & TOP OF CEMENT
8 5/8"	24#	310'	~~225~~ sx Surface
4 1/2"	9.5	4312'	1250 sx Surface

TUBING RECORD:

SIZE	DEPTH	PACKER DEPTH
2 3/8"	4260'	

PERFORATIONS AND TREATMENT:

INTERVAL	TREATMENT
4160' - 4258'	Acidize w/ 6000 gals. 20% HCl

POTENTIAL TEST:

DATE	PRODUCTION
6-27-78	Pumped 45 BBLS oil + 85 BBLS water in 24 hours. MCF-26

VI.

WELLS WITHIN AREA OF REVIEW (½ MILE RADIUS)

OPERATOR: El Ran, Inc.

LEASE NAME: Byron WELL NO.: 3

FIELD NAME: Chaveroo

LOCATION OF WELL: Unit Letter J, 1980' FEL & 1650' FSL
Sec. 34, T7S, R32E, Roosevelt County, New Mexico

TYPE OF LEASE: Fee

WELL STATUS: Pumping oil well

PRODUCING FORMATION: San Andres

SPUD DATE: 12-7-78 COMPLETION DATE: 1-4-79

TOTAL DEPTH: 4343' PLUG BACK DEPTH: 4332'

CASING RECORD:

SIZE	WEIGHT	DEPTH	CEMENTING RECORD & TOP OF CEMENT
8 5/8"	24#	1755'	600 sx — Surface
4 1/2"	10.5	4342'	175 sx — 3342

TUBING RECORD:

SIZE	DEPTH	PACKER DEPTH
2 3/8"	4222	

PERFORATIONS AND TREATMENT:

INTERVAL	TREATMENT
4164' – 4297'	Acidize w/ 6000 gals. 20% HCl

POTENTIAL TEST:

DATE	PRODUCTION
1-4-79	Pumped 83 BBLS OIL + 0 BBLS WATER in 24 hours. 45 MCF

VI.

WELLS WITHIN AREA OF REVIEW (½ MILE RADIUS)

OPERATOR: El Ran, Inc.

LEASE NAME: Byron WELL NO.: 4

FIELD NAME: Chaveroo

LOCATION OF WELL: Unit Letter I, 990' FEL & 1650' FSL
Sec. 34, T7S, R32E, Roosevelt County, New Mexico

TYPE OF LEASE: Fee

WELL STATUS: Pumping oil well

PRODUCING FORMATION: San Andres

SPUD DATE: 5-4-79 COMPLETION DATE: 5-15-79

TOTAL DEPTH: 4325' PLUG BACK DEPTH: 4323'

CASING RECORD:

SIZE	WEIGHT	DEPTH	CEMENTING RECORD	TOP OF CEMENT
8 5/8"	24#	1702'	550 SX	Surface
4 1/2"	10.5	4324'	175 SX	3324

TUBING RECORD:

SIZE	DEPTH	PACKER DEPTH
2 3/8"	4190'	

PERFORATIONS AND TREATMENT:

INTERVAL	TREATMENT
4213' - 4293'	Acidize w/ 6000 gals. 20% HCl

POTENTIAL TEST:

DATE	PRODUCTION
5-15-79	Pumped 91 BBLS OIL + 0 BBLS WATER in 24 hours. 610 MCF

VI.

WELLS WITHIN AREA OF REVIEW (½ MILE RADIUS)

OPERATOR: El Ran, Inc.

LEASE NAME: Dachner WELL NO.: 2

FIELD NAME: Chaveroo

LOCATION OF WELL: Unit Letter F, 1650' FNL & 2200' FWL
Sec. 3, T8S, R32E, Chaves County, New Mexico

TYPE OF LEASE: Federal

WELL STATUS: Pumping oil well

PRODUCING FORMATION: San Andres

SPUD DATE: 10/4/79 COMPLETION DATE: 10/22/79

TOTAL DEPTH: 4309' PLUG BACK DEPTH: 4307'

CASING RECORD:

SIZE	WEIGHT	DEPTH	CEMENTING RECORD & TOP OF CEMENT	
8 5/8"	24#	1692'	550 SX	SURFACE
4 1/2"	10.5	4308'	175 SX	3308

TUBING RECORD:

SIZE	DEPTH	PACKER DEPTH
2 3/8"	4270'	

PERFORATIONS AND TREATMENT:

INTERVAL	TREATMENT
4187' to 4272'	Acidize w/ 6000 gals. 20% HCl

POTENTIAL TEST:

DATE	PRODUCTION
10/22/79	Pumped 125 BBLS of OIL + 0 BBLS WATER in 24 hours.

VI.

WELLS WITHIN AREA OF REVIEW (½ MILE RADIUS)

OPERATOR: El Ran, Inc.

LEASE NAME: Dacinez WELL NO.: 4

FIELD NAME: Chaveroo

LOCATION OF WELL: Unit Letter D, 660' FWL & 660' FNL
Sec. 3, T8S, R32E, Chaves County, New Mexico

TYPE OF LEASE: Federal

WELL STATUS: Pumping oil well

PRODUCING FORMATION: San Andres

SPUD DATE: 3/17/80 COMPLETION DATE: 4/8/80

TOTAL DEPTH: 4396' PLUG BACK DEPTH: 4395'

CASING RECORD:

SIZE	WEIGHT	DEPTH	CEMENTING RECORD & TOP OF CEMENT	
8 5/8"	24#	1683'	600 sx	Surface
4 1/2"	10.5	4395'	175 sx	3395

TUBING RECORD:

SIZE	DEPTH	PACKER DEPTH
2 3/8"	4320'	

PERFORATIONS AND TREATMENT:

INTERVAL	TREATMENT
4212' - 4390'	Acidize w/ 6000 gals. 20% HCl

POTENTIAL TEST:

DATE	PRODUCTION
4/8/80	Pumped 79 BBLS OIL + 10 BBLS WATER IN 24 HOURS.

VI.

WELLS WITHIN AREA OF REVIEW (½ MILE RADIUS)

OPERATOR: El Ran, Inc.

LEASE NAME: FEDERAL WELL NO.: 1

FIELD NAME: Chaveroo

LOCATION OF WELL: Unit Letter J, 440 Ft from N Line + 2200 Ft from W

Sec. 3, T8S, R32E, Chaves County, New Mexico

TYPE OF LEASE: FEDERAL

WELL STATUS: Pumping oil well

PRODUCING FORMATION: San Andres

SPUD DATE: 8-15-79 COMPLETION DATE: 8-28-79

TOTAL DEPTH: 4298' PLUG BACK DEPTH: 4296'

CASING RECORD:

SIZE	WEIGHT	DEPTH	CEMENTING RECORD + TOP OF CEMENT
8 5/8"	24#	1710'	550 SX
4 1/2"	10.5	4310'	175 SX

TUBING RECORD:

SIZE	DEPTH	PACKER DEPTH
2 3/8"	4276'	

PERFORATIONS AND TREATMENT:

INTERVAL	TREATMENT
4242' - 4276'	Acidize w/ 6000 gals. 20% HCl

POTENTIAL TEST:

DATE	PRODUCTION
8-29-79	Pumped 101 BBLS OIL + 0 BBLS WATER in 24 HOURS.

VI.

WELLS WITHIN AREA OF REVIEW (½ MILE RADIUS)

OPERATOR: El Ran, Inc.

LEASE NAME: Roberts WELL NO.: 1

FIELD NAME: Chaveroo

LOCATION OF WELL: Unit Letter B, 1980' FEL & 440' FNL
Sec. 3, T8S, R32E, Chaves County, New Mexico

TYPE OF LEASE: Fee

WELL STATUS: Pumping oil well

PRODUCING FORMATION: San Andres

SPUD DATE: 10/17/78 COMPLETION DATE: 11/1/78

TOTAL DEPTH: 4330' PLUG BACK DEPTH: 4327'

CASING RECORD:

SIZE	WEIGHT	DEPTH	CEMENTING RECORD & TOP OF CEMENT
8 5/8"	24#	1817'	600 SX - SURFACE
4½"	10.5		175 SX 3320

TUBING RECORD:

SIZE	DEPTH	PACKER DEPTH
2 3/8"	4146'	

PERFORATIONS AND TREATMENT:

INTERVAL	TREATMENT
4177' - 4269'	Acidize w/ 6000 gals. 20% HCl

POTENTIAL TEST:

DATE	PRODUCTION
11-2-78	Pumped 91 BBLS OIL & 9 BBLS WATER in 24 hours.

VI.

WELLS WITHIN AREA OF REVIEW (½ MILE RADIUS)

OPERATOR: El Ran, Inc.

LEASE NAME: Roberts WELL NO.: 2

FIELD NAME: Chaveroo

LOCATION OF WELL: Unit Letter A, 440' FNL & 990' FEL
Sec. 3, T8S, R32E, Choves County, New Mexico

TYPE OF LEASE: Fee

WELL STATUS: Pumping oil well

PRODUCING FORMATION: San Andres

SPUD DATE: 2-2-79 COMPLETION DATE: 2-10-79

TOTAL DEPTH: 4333' PLUG BACK DEPTH: 4332'

CASING RECORD:

SIZE	WEIGHT	DEPTH	CEMENTING RECORD & TOP OF CEMENT
8 5/8"	24	1725'	600 sx — Surface
4 1/2"	9.5	4332'	200 sx — 3300

TUBING RECORD:

SIZE	DEPTH	PACKER DEPTH
2 3/8"	4180'	

PERFORATIONS AND TREATMENT:

INTERVAL	TREATMENT
4192' - 4302'	Acidize w/ 6000 gals. 20% HCl

POTENTIAL TEST:

DATE	PRODUCTION
2-10-79	Pumped 88 bbls oil + 0.3 bls water in 24 hours. mcf TD

VI.

WELLS WITHIN AREA OF REVIEW (½ MILE RADIUS)

OPERATOR: El Ran, Inc.

LEASE NAME: ROBERTS WELL NO.: 4

FIELD NAME: Chaveroo

LOCATION OF WELL: Unit Letter G, 1980' FEL & 1650' FNL
Sec. 3, T8S, R32E, Chaves County, New Mexico

TYPE OF LEASE: Fee

WELL STATUS: Pumping oil well

PRODUCING FORMATION: San Andres

SPUD DATE: 8-23-79 COMPLETION DATE: 9-5-79

TOTAL DEPTH: 4312' PLUG BACK DEPTH: 4283'

CASING RECORD:

SIZE	WEIGHT	DEPTH	CEMENTING RECORD & TOP OF CEMENT
8 5/8"	24	1667'	550 sx Surface
4 1/2"	10.5	4311'	175 sx – 3450

TUBING RECORD:

SIZE	DEPTH	PACKER DEPTH
2 3/8"	4225'	

PERFORATIONS AND TREATMENT:

INTERVAL	TREATMENT
4180' - 4274'	Acidize w/ 6000 gals. 20% HCl

POTENTIAL TEST:

DATE	PRODUCTION
9-4-79	Pumped 97 BBLS OIL + 0 BBLS WATER

VI.

WELLS WITHIN AREA OF REVIEW (½ MILE RADIUS)

OPERATOR: El Ran, Inc.

LEASE NAME: U S WELL NO.: 2

FIELD NAME: Chaveroo

LOCATION OF WELL: Unit Letter K, 1650' FSL & 2310' FWL
Sec. 34, T7S, R32E, Roosevelt County, New Mexico

TYPE OF LEASE: Federal

WELL STATUS: Pumping oil well

PRODUCING FORMATION: San Andres

SPUD DATE: 5-10-79 COMPLETION DATE: 6-1-79

TOTAL DEPTH: 4327' PLUG BACK DEPTH: 4322'

CASING RECORD:

SIZE	WEIGHT	DEPTH	CEMENTING RECORD & TOP OF CEMENT	
8 5/8"	23#	1702'	550 SX	SURFACE
4 1/2"	10.5#	4322'	175 SX	3322

TUBING RECORD:

SIZE	DEPTH	PACKER DEPTH
2 3/8"	4254'	

PERFORATIONS AND TREATMENT:

INTERVAL	TREATMENT
4174' - 4302'	Acidize w/ 6000 gals. 20% HCl

POTENTIAL TEST:

DATE	PRODUCTION
6-1-79	Pumped 94 BBLS OIL + 0 BBLS WATER in 24 HOURS. 788 MCF

VI.

WELLS WITHIN AREA OF REVIEW (½ MILE RADIUS)

OPERATOR: El Ran, Inc.

LEASE NAME: U. S. WELL NO.: 4

FIELD NAME: Chaveroo

LOCATION OF WELL: Unit Letter L, 1650' FSL & 990' FWL.
Sec. 34, T7S, R32E, Roosevelt County, New Mexico

TYPE OF LEASE: FEDERAL

WELL STATUS: Pumping oil well

PRODUCING FORMATION: San Andres

SPUD DATE: 9/15/80 COMPLETION DATE: 10/7/80

TOTAL DEPTH: 4262' PLUG BACK DEPTH: 4360'

CASING RECORD:

SIZE	WEIGHT	DEPTH	CEMENTING RECORD & TOP OF CEMENT	
8 5/8"	23#	1712'	575 SX	SURFACE
4 1/2"	10.5#	4362'	175 SX	3362

TUBING RECORD:

SIZE	DEPTH	PACKER DEPTH
2 3/8"	4292'	

PERFORATIONS AND TREATMENT:

INTERVAL	TREATMENT
4209' - 4288'	Acidize w/ 6000 gals. 20% HCl

POTENTIAL TEST:

DATE	PRODUCTION
10/8/80	Pumped 45 BBLS OIL + 22 BBLS WATER in 24 hours.

VII

Proposed Operation

El Ran, Inc. proposes to utilize this injection well to dispose of water produced from the following leases operated by El Ran, Inc.: Byron, U. S., Dachmer, Federal, Carroll, Sarah, Roberts, Barton and Yeager.

Present water production from the above leases is approximately 400 BBL which is the porposed average volume to be injected. Maximum anticipated volume would be 500 BBL per day. Average injection rate will be one barrel per minute at 400#. Maximum anticipated rate is one and one-half barrel per minute at 700#. This proposal is to re-inject water produced from the San Andres formation back into the San Andres formation. This will be a closed system.

VIII

Geological Data

The injection zone in this proposed well is the San Andres formation which is composed of dolomite. The gross thickness of the injection zone is 107 feet with perforations from 4169' to 4276'. The top of the San Andres formation in the proposed injection well is 3450' and the well was still in the San Andres at 4311' total depth.

The depth to the bottom of the underground source of drinking water would be 380', which is the base of the Tertiary formations in this well.

IX

Proposed Stimulation

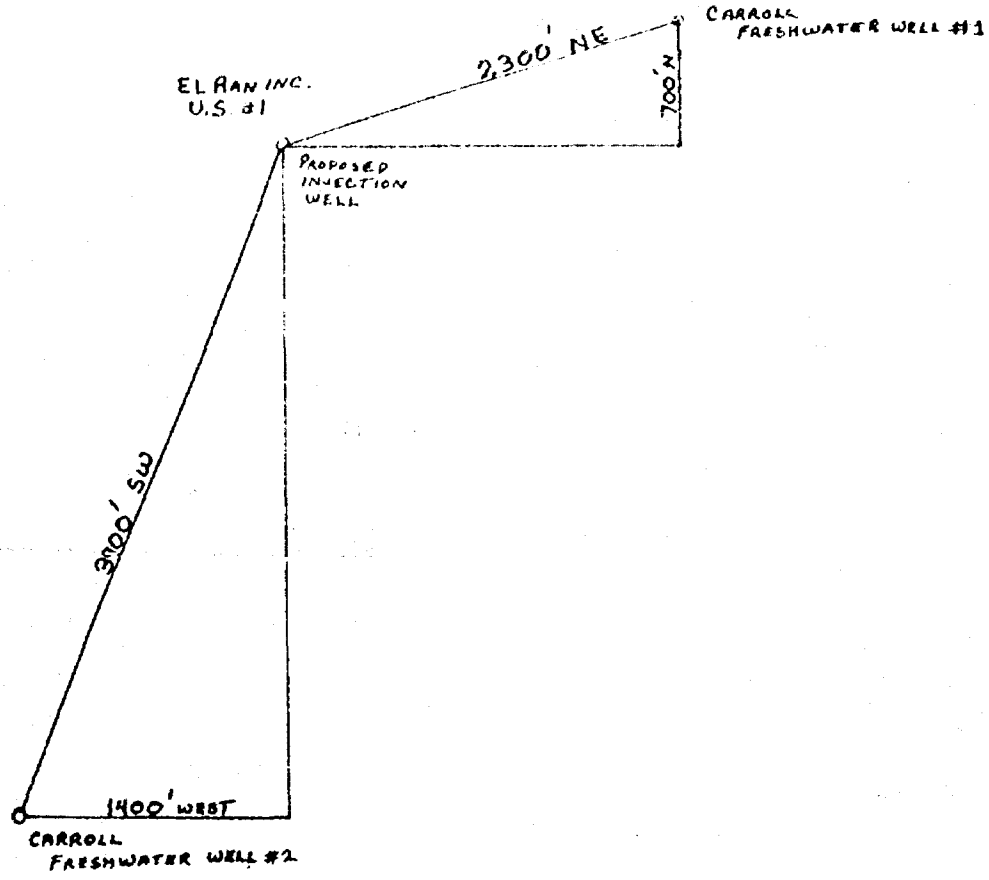
The San Andres zone (4169'-4276') in the U. S. #1 has been stimulated with 6000 gals. of acid. We do not plan on any other stimulation except for occasional small acid jobs to clear any scaling that might occur.

X

Well logs have been filed with the Division.

XI

There are two fresh water wells within a one mile radius of this proposed injection well. The location of the wells is shown below. The water wells are pumped by electric pumps and the water is used for livestock consumption. Water analysis of the two wells are enclosed.



XII

El Ran, Inc. geological and engineering personnel 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.

William W. Ranck
Geological Engineer

PETROLITE

TRETOLITE DIVISION
369 Marshall Avenue / Saint Louis, Missouri 63119
(314) WO 1-3500/TWX 910-760-1660/Telex 44-2417

WATER ANALYSIS REPORT

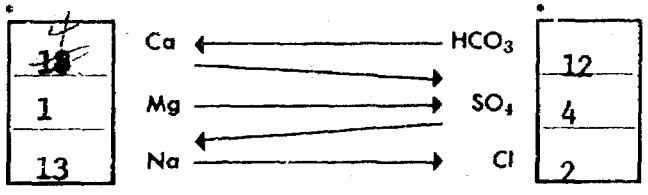
COMPANY Attn: Doony Booter El Ran, Inc. ADDRESS Tatum, NM DATE: 5/26/82

SOURCE Carrol #2 F.W.W. DATE SAMPLED 5/24/82 ANALYSIS NO.

Analysis		Mg/l		*Meq/l	
1.	pH	7.1			
2.	H_2S (Qualitative)	Neg.			
3.	Specific Gravity	1.000			
4.	Dissolved Solids	1386			
5.	Suspended Solids	-			
6.	Phenolphthalein Alkalinity ($CaCO_3$)	-			
7.	Methyl Orange Alkalinity ($CaCO_3$)	580			
8.	Bicarbonate (HCO_3)	HCO_3 707	÷ 61	12	HCO_3
9.	Chlorides (Cl)	Cl 67	÷ 35.5	2	Cl
10.	Sulfates (SO_4)	SO_4 175	÷ 48	4	SO_4
11.	Calcium (Ca)	Ca 80	÷ 20	4	Ca
12.	Magnesium (Mg)	Mg 12	÷ 12.2	1	Mg
13.	Total Hardness ($CaCO_3$)	250			
14.	Total Iron (Fe)				
15.	Barium (Qualitative)				
16.	Strontium				

*Milli equivalents per liter

PROBABLE MINERAL COMPOSITION



Saturation Values	Distilled Water 20°C
$CaCO_3$	13 Mg/l
$CaSO_4 \cdot 2H_2O$	2,090 Mg/l
$MgCO_3$	103 Mg/l

Compound	Equiv. Wt.	X Meq/l =	Mg/l
$Ca(HCO_3)_2$	81.04	4	324
$CaSO_4$	68.07	-0-	-0-
$CaCl_2$	55.50	-0-	-0-
$Mg(HCO_3)_2$	73.17	1	73
$MgSO_4$	60.19	-0-	-0-
$MgCl_2$	47.62	-0-	-0-
$NaHCO_3$	84.00	7	588
Na_2SO_4	71.03	4	284
NaCl	58.46	2	117

REMARKS cc: file

Respectfully submitted
TRETOLITE COMPANY

Gale Blackwell

PETROLITE

TRETOLITE DIVISION
369 Marshall Avenue / Saint Louis, Missouri 63119
(314) WO 1-3500 / TWX 910-760-1660 / Telex 44-2417

WATER ANALYSIS REPORT

COMPANY Attn: Donny Sooter El Ran, Inc. ADDRESS Tatum, NM DATE: 5/26/82

SOURCE Carrol #1 F.W.W. DATE SAMPLED 5/24/82 ANALYSIS NO.

Analysis		Mg/L		*Meq/L	
1. pH	7.0				
2. H_2S (Qualitative)	Neg.				
3. Specific Gravity	1.000				
4. Dissolved Solids		3,896			
5. Suspended Solids					
6. Phenolphthalein Alkalinity ($CaCO_3$)					
7. Methyl Orange Alkalinity ($CaCO_3$)		410			
8. Bicarbonate (HCO_3)		HCO_3 500	÷ 61	8	HCO_3
9. Chlorides (Cl)		Cl 711	÷ 35.5	20	Cl
10. Sulfates (SO_4)		SO_4 1750	÷ 48	36	SO_4
11. Calcium (Ca)		Ca 528	÷ 20	16	Ca
12. Magnesium (Mg)		Mg 514	÷ 12.2	42	Mg
13. Total Hardness ($CaCO_3$)		3700			
14. Total Iron (Fe)					
15. Barium (Qualitative)					
16. Strontium					

*Milli equivalents per liter

PROBABLE MINERAL COMPOSITION

16	Ca ←	→ HCO_3
42	Mg →	→ SO_4
6	Na ←	→ Cl

8	
36	
20	

Saturation Values	Distilled Water 20°C
$CaCO_3$	13 Mg/L
$CaSO_4 \cdot 2H_2O$	2,090 Mg/L
$MgCO_3$	103 Mg/L

Compound	Equiv. Wt.	X Meq/L	= Mg/L
$Ca(HCO_3)_2$	81.04	8	648
$CaSO_4$	68.07	8	545
$CaCl_2$	55.50	-0-	-0-
$Mg(HCO_3)_2$	73.17	-0-	-0-
$MgSO_4$	60.19	28	1685
$MgCl_2$	47.62	14	667
$NaHCO_3$	34.00	-0-	-0-
Na_2SO_4	71.03	-0-	-0-
NaCl	58.46	6	351

REMARKS cc: file

Respectfully submitted
TRETOLITE COMPANY

Gale Blackwell

PETRO-CHEM
1200 Garden City Highway
P. O. Box 1863
Midland, Texas 79701
(915) 682-6286 - 694-4396

RRR

RECEIVED JUL 6 1981

API WATER ANALYSIS REPORT FORM

Company		Sample No	Date Sampled
EL RAN, INC.			
Field	**Legal Description**	**County or Parish**	**State**
Lease or Unit	**Well**	**Depth**	**Formation**	**Water, B/D**
U. S.	# 1			
Type of Water (Produced, Supply, etc.)	**Sampling Point**		**Sampled By**
			D. Cox

DISSOLVED SOLIDS

CATIONS	*mg/l*	*me/l*
Sodium, Na (calc.)	42,820	1,862
Calcium, Ca	39,600	1,980
Magnesium, Mg	10,980	900
Barium, Ba	80	

ANIONS		
Chloride, Cl	168,185	4,738
Sulfate, SO_4	200	4
Carbonate, CO_3	0	0
Bicarbonate, HCO_3	0	0

Total Dissolved Solids (calc.) 261,785

Iron, Fe (total) 16.50

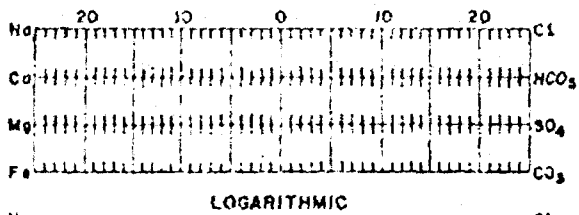
Sulfide, as H_2S Present

OTHER PROPERTIES

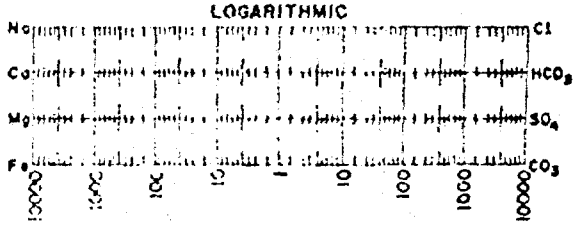
pH	7.060
Specific Gravity, 60/60 F	1.195
Resistivity (ohm-meters) 77° F.	0.053
Total Hardness, $CaCO_3$	144,000
Total Alkalinity, $CaCO_3$	
Supersaturation, $CaCO_3$	

WATER PATTERNS -- *me/l*

STANDARD



LOGARITHMIC



REMARKS & RECOMMENDATIONS:

Calcium Sulfate Scaling Potential - Nil
Calcium Carbonate Stability Index:

Severe Scaling indicated at all temperatures.

Sampled 5-18-81
Reported 5-19-81

Copies

Affidavit of Publication

LEGAL NOTICE

El Ran, Inc., P.O. Box 911, Lubbock, Texas 79408, 806-763-4091 proposes to convert its U.S. No. 1 oil well to a Salt Water disposal well. Subject well is located 467' FSL & 1980' FWL, in Section 34, 7-South, Range 32E, Roosevelt County, New Mexico. The proposed injection formation is the San Andres and a maximum rate of 2 BPM at 700 PSI is expected. Any interested parties must file objections or request for hearings with the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico 87501 within fifteen (15) days of today, June 1, 1982.

Published in the Portales News-Tribune June 1, 1982. Legal No. 7548.

I, Marshall Stinnett

Business Manager of

THE PORTALES NEWS-TRIBUNE

a newspaper of general paid circulation and entered under second class postal privilege in Roosevelt County, published daily, (except Saturday) at Portales, New Mexico, for the fifty-two (52) consecutive weeks preceding this date, do solemnly swear that a copy of the above notice, as per clipping attached, was published weekly in the regular and entire issue of said newspaper, and not in any supplement thereof for 1 consecutive weeks commencing with the issue dated June 1 19 82 and ending with the issue dated June 1 19 82

All publication costs having been paid.

Marshall Stinnett

Subscribed and sworn to before me this 1st day of June 19 82

Le Marie Barnett

NOTARY PUBLIC

My commission expires 3/7/83 19

PS Form 3811, Dec. 1980

RETURN RECEIPT, REGISTERED, INSURED AND CERTIFIED MAIL

● SENDER: Complete items 1, 2, 3, and 4.
Add your address in the "RETURN TO" space on reverse.

(CONSULT POSTMASTER FOR FEES)

1. The following service is requested (check one).
- ☐ Show to whom and date delivered ..... 60 ¢
- ☐ Show to whom, date, and address of delivery.. ___ ¢
2. ☐ RESTRICTED DELIVERY ___ ¢
(The restricted delivery fee is charged in addition to the return receipt fee.)

TOTAL $0.60

3. ARTICLE ADDRESSED TO:
Department of Game & Fish
State Capitol
Santa Fe, New Mexico 87503

4. TYPE OF SERVICE:
☐ REGISTERED ☐ INSURED
☒ CERTIFIED ☐ COD
☐ EXPRESS MAIL

ARTICLE NUMBER
P202-762-564

(Always obtain signature of addressee or agent)

I have received the article described above.
SIGNATURE ☐ Addressee ☐ Authorized agent

5. DATE OF DELIVERY
6-9-82

POSTMARK

6. ADDRESSEE'S ADDRESS (Only if requested)

7. UNABLE TO DELIVER BECAUSE:

7a. EMPLOYEE'S INITIALS

PS Form 3811, Dec. 1980

RETURN RECEIPT, REGISTERED, INSURED AND CERTIFIED MAIL

● SENDER: Complete items 1, 2, 3 and 4.
Add your address in the "RETURN TO" space on reverse.

(CONSULT POSTMASTER FOR FEES)

1. The following service is requested (check one).
- ☒ Show to whom and date delivered ..... 60 ¢
- ☐ Show to whom, date, and address of delivery.. ___ ¢
2. ☐ RESTRICTED DELIVERY ___ ¢
(The restricted delivery fee is charged in addition to the return receipt fee.)

TOTAL $0.60

3. ARTICLE ADDRESSED TO:
U.S.G.S.
P. O. Box 1857
Roswell, New Mexico 88201

4. TYPE OF SERVICE:
☐ REGISTERED ☐ INSURED
☒ CERTIFIED ☐ COD
☐ EXPRESS MAIL

ARTICLE NUMBER
P202-762-565

(Always obtain signature of addressee or agent)

I have received the article described above.
SIGNATURE ☐ Addressee ☐ Authorized agent

5. DATE OF DELIVERY
6 2 82

POSTMARK
ROSWELL
JUN 2
1982

6. ADDRESSEE'S ADDRESS (Only if requested)

7. UNABLE TO DELIVER BECAUSE:

7a. EMPLOYEE'S INITIALS

UNITED STATES POSTAL SERVICE
OFFICIAL BUSINESS

SENDER INSTRUCTIONS
Print your name, address, and ZIP Code in the space below.
- Complete items 1, 2, 3, and 4 on the reverse.
- Attach to front of article if space permits, otherwise affix to back of article.
- Endorse article "Return Receipt Requested" adjacent to number.

PENALTY FOR PRIVATE USE TO AVOID PAYMENT OF POSTAGE, $300

U.S.MAIL

RETURN TO

El Ran Inc
P.O. Box 911
Lubbock, Texas 79408
(Name of Sender)

(Street or P.O. Box)

(City, State, and ZIP Code)

UNITED STATES POSTAL SERVICE
OFFICIAL BUSINESS

SENDER INSTRUCTIONS
Print your name, address, and ZIP Code in the space below.
- Complete items 1, 2, 3, and 4 on the reverse.
- Attach to front of article if space permits, otherwise affix to back of article.
- Endorse article "Return Receipt Requested" adjacent to number.

PENALTY FOR PRIVATE USE TO AVOID PAYMENT OF POSTAGE, $300

U.S.MAIL

RETURN TO

El Ran Inc.
P.O. Box 911
Lubbock, Texas 79408
(Name of Sender)

(Street or P.O. Box)

(City, State, and ZIP Code)

STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 7622

Order No. R-7044

APPLICATION OF EL RAN, INC. FOR A WATERFLOOD PROJECT, CHAVES COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on July 21, 1982, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this _____ day of July, 1982, the Division Director, 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 Division has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, El Ran, Inc., seeks authority to institute a waterflood project in the Chaveroo-San Andres Pool by the injection of water into the perforated interval from 4169 feet to 4276 feet in its U. S. Well No. 1 located in Unit N of Section 34, Township 7 South, Range 32 East, NMPM, Chaves County, New Mexico, said injection to be through plastic-lined tubing set in a packer located at approximately 4160 feet

Findings (1) thru (13) (5) and Orders from Ca 7595 (Base)

OK (3) That the wells in the proposed project are not in an advanced state of depletion and may not properly be classified as "stripper" wells.

OK (4) That although the proposed project does not fit the definition of a waterflood project contained in Rule 701 F.1 of the Division Rules and Regulations, it does fit the definition of a pressure maintenance project contained in Rule 701 E.1 of the Division Rules and Regulations.

~~(5)~~ That the proposed project should be classified as a pressure maintenance project and, in accordance with Rule 701 E., project rules, including the allowable formula, promulgated therefor.

~~(6)~~ That the proposed pressure maintenance project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste, and will not impair correlative rights.

~~(7)~~ That the initial project area should comprise the following described lands: ~~within applicant's proposed Young Deep (Bone Spring) Unit Area,~~ Chaves County, New Mexico:

TOWNSHIP 7 SOUTH, RANGE 32 EAST, NMPM
Sec 34: S/2 ← 3/2

TOWNSHIP 8 SOUTH, RANGE 32 EAST, NMPM
Sec. 3: N/2

~~TOWNSHIP 18 SOUTH, RANGE 32 EAST, NMPM~~
~~Section 3: S/2 SW/4 and W/2 SE/4~~
~~Section 4: SE/4 SE/4~~
~~Section 9: NE/4 NE/4~~
~~Section 10: N/2 NW/4 and NW/4 NE/4~~

~~(8)~~ That the project area should be expanded upon completion of additional injection wells or producing wells in the ~~Bone Spring~~ San Andres formation ~~in the proposed Young Deep (Bone Spring) Unit Area~~ which may be shown to be affected by the injection program.

~~(9)~~ That the project allowable should be equal to top unit allowable for the ~~North Young Bone Spring~~ Chaveroo-San Andres Pool times the number of developed (production or injection) proration units within the project area.

~~(10)~~ That the transfer of allowable between wells on any given lease within the project area should be permitted.

~~(11)~~ 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. ~~including the recementing of the 4 1/2 inch casing string back to at least 7900 feet when the Young Deep "4" Federal Well No. 1 in Unit M of Section 3, Township 18 South, Range 32 East, NMPM, is plugged back.~~

~~(12)~~ That the injection well or injection pressurization system should be so equipped as to limit injection pressure at the wellhead to no more than ~~1690~~ 835 psi, but the Division Director should have authority to increase said pressure limitation, should circumstances warrant.

(13) That the subject application should be approved and the project should be governed by the provisions of Rules 702 through 708 of the Division Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That the applicant, El Rau, Inc., , is hereby authorized to institute a pressure maintenance project in the Chaveroo-San Andres Pool by the injection of water into selected perforated intervals between the depths of 4169 feet and 4276 feet in its USA Well No. 1, located in Unit N of Section 34, Township 7 South, Range 32 East, NMPM, Chaves County, New Mexico.

(2) That injection into said well shall be through internally coated tubing, set in a packer which shall be located ~~approximately 4100 feet as near as practicable to the uppermost perforation~~; that the casing-tubing annulus of said injection well shall be loaded with an inert fluid and equipped with an approved pressure gauge or attention-attracting leak detection device.

(3) That the operator shall immediately notify the supervisor of the Division's Hobbs district office of the failure of the tubing or packer in any injection well, the leakage of water or oil from or around any producing well, or the leakage of water or oil from or around 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.

(4) That the injection well herein authorized and/or the injection pressurization system shall be so equipped as to limit injection pressure at the wellhead to no more than 835 psi, provided however, the Division Director may authorize a higher surface injection pressure upon satisfactory showing that such pressure will not result in fracturing of the confining strata.

(5) That the subject pressure maintenance project is hereby designated the El Rau Chaveroo Pressure Maintenance Project and shall be governed by Special Rules and by the provisions of Rules 701 through 708 of the Division Rules and Regulations.

(6) That Special Rules and Regulations governing the operation of the El Rau Chaveroo Pressure Maintenance Project are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS
FOR THE
EL RAN CHAVEROO PRESSURE MAINTENANCE PROJECT

Rule 1. That the initial project area shall comprise the following described lands in Chaves County, New Mexico:

TOWNSHIP 7 SOUTH, RANGE 32 EAST, NMPM
Section 34: S/2

TOWNSHIP 8 SOUTH, RANGE 32 EAST, NMPM
Section 3: N/2

Rule 2. That the project area may be expanded administratively ~~within the applicant's proposed ... Deep~~ by the Division Director upon completion of additional injection wells or production wells, provided it can be shown that such production wells are affected by the injection of water into the San Andres formation.

Rule 3. The allowable for each lease within the project area shall be any amount up to and including a volume equal to the top unit allowable for the Chaveroo-San Andres Pool times the number of proration units in the project area on that lease.

Rule 4. The allowable assigned to the project area may be produced from any well or wells within the project area in any proportion.

Rule 5. The Division Director is hereby authorized to approve such additional producing wells and injection wells at orthodox and unorthodox locations within the boundaries of the ~~proposed~~ project area as may be necessary to complete an efficient production and injection pattern, provided said ~~producing~~ wells are drilled no closer than 330 feet to the outer boundary of the lease on which they are located nor closer than 10 feet to any quarter-quarter section or subdivision inner boundary. To obtain such approval, the project operator shall file proper application with the Division, which application, if it seeks authorization to convert additional wells to injection or to drill additional production or injection wells shall include the following:

(a) A plat identifying the project area and the individual ~~lands committed to the unit agreement and those lands not committed to said agreement,~~ and showing the location of the proposed well, all wells within the unit area, and offset operators.

(b) A schematic drawing of any proposed injection well which fully describes the casing, tubing, packer, monitoring equipment, perforated interval, and depth.

(c) A letter stating that all offset operators to the proposed well have been furnished a complete copy of the application and the date of notification.

(d) Such other applicable requirements as may be contained in Rule 701 of the Division Rules and Regulations.

The Division Director may approve the proposed well if, within 20 days after receiving the application, no objection to the proposal is received. The Director may grant immediate approval, provided waivers of objection are received from all offset operators.

(7) That the pressure maintenance project herein authorized shall be governed by the provisions of Rules 702 through 708 of the Division Rules and Regulations.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

JOE D. RAMEY,
Director

S E A L

VI.

WELLS WITHIN AREA OF REVIEW (½ MILE RADIUS)

OPERATOR: El Ran, Inc.

LEASE NAME: Byron WELL NO.: 1-Y

FIELD NAME: Chaveroo

LOCATION OF WELL: Unit Letter P, 660' FSL & 990' FEL

Sec. 34, T7S, R32E, Roosevelt County, New Mexico

TYPE OF LEASE: Fee

WELL STATUS: Pumping oil well

PRODUCING FORMATION: San Andres

SPUD DATE: 11/27/78 COMPLETION DATE: 12/28/78

TOTAL DEPTH: 4325' PLUG BACK DEPTH: 4323'

CASING RECORD:

SIZE	WEIGHT	DEPTH	CEMENTING RECORD	TOP OF CEMENT
8 5/8"	24#	1728'	600 sx	Surface
4 1/2"	10.5	4324'	170 sx	3324

TUBING RECORD:

SIZE	DEPTH	PACKER DEPTH
2 3/8"	4172'	

PERFORATIONS AND TREATMENT:

INTERVAL	TREATMENT
4176' - 4294'	Acidize w/ 600 gals. 20% HCl

POTENTIAL TEST:

DATE	PRODUCTION
12-28-78	Pumped 83 Bbls oil + 0 Bbls water in 24 hours. 30 MCF