CASE 5921: EASTLAND OIL COMPANY FOR SALT WATER DISPOSAL, EDDY COUNTY, NEW MEXICO

Lase Number 5921

Application
Trascripts

Small Exhibits

ETC.



STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

BRUCE KING LARRY KEHOE SECRETARY

POST OFFICE BOX 2008 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO B7501 (505) 827-2434

July 17, 1980

Eastland Oil Company P. O. Drawer 3488 560 One Marienfeld Place Midland, Texas 79702

Attention: George D. Neal

Re: Kenwood Federal (SWD) No. 4 SE/4 SW/4 Section 6, Township 18 South, Range 31 East, Eddy County,

New Mexico

Gentlemen:

I have reviewed your request to increase injection pressure in your Kenwood Federal No. 4.

We do not allow operators to inject at fracture pressures. Therefore, based on your fracture pressure of 1100 psi, you are hereby authorized to inject at a pressure not to exceed 1000 psi surface pressure.

JOE D. RAMEY Division Director

JDR/MH/og



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

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Eastland Oil Company P. O. Drawer 3488 560 One Marienfeld Place Midland, Texas 79702

Attention: George D. Neal

Re: Kenwood Federal (SWD) No. 4

SE/4 SW/4 Section 6, Township 18 South, Range 31 East, Eddy County,

New Mexico

Gentlemen:

I have reviewed your request to increase injection pressure in your Kenwood Federal No. 4.

We do not allow operators to inject at fracture pressures. Therefore, based on your fracture pressure of 1100 psi, you are hereby authorized to inject at a pressure not to exceed 1000 psi surface pressure.

-Kery truly yours,

JOE D. RAMEY Division Director

JDR/MH/og

THE EASTLAND OIL COMPANY THON DIVISION

P.O. DRAWER 3468
560 ONE MARIENFELD PLACE
MIDLAND, TEXAS 79702 MIDLAND, TEXAS TELEPHONE: (915) 683-6293

June 25, 1980

A CO

State of New Mexico Energy and Minerals Department Oil Conservation Division Post Office Box 2088 Santa Fe, New Mexico 87501

Attention: Mr. Joe D. Ramey

Case

Re: Kenwood Federal (SWD) #4 SE/4 SW/4 Section 6 T-18-S, R-31-E,

Eddy County, New Mexico

Gentlemen:

Permission was granted by Order No. R-5455 dated June 8, 1977 to use the above designated well as a water disposal well in the Eastland's Power Grayburg - San Andres Pool. On an inspection June 17, 1980 by the Artesia District Office, we were notified that this well will have to be shut-in because the surface injection pressure exceeds 700 psi which was allowed by Order No. R-5455.

On our application, Form C-108, we requested an injection pressure of 875 psi at the surface. A copy of this application is enclosed. In an attempt to meet the lower pressure we have treated the perforated interval in the Grayburg sand with 5000 gallons of 15% HCL and ball sealers. When it was apparent that this treatment did not lower the surface pressure, we used a water-frac of 30,000 gallons and 33,000 pounds of sand.

The immediate shut-down pressure on the frac job was 1200 psi. Correcting this for the difference in hydrastatic pressure of the produced water and frac water would indicate a fracture pressure of 1100 psi. At a sustained injection rate, the surface pressure would be near this figure.

OIL CONS PVATION DIVISION June 25, 1980

State of New Mexico Kenwood Federal (SWD) #4

Currently, the leases produce only 35 barrels of water per day, but this will increase as water encroaches from offset waterfloods. Hauling water will result in premature abandonment because of the additional costs.

We respectfully request that the allowed surface injection pressure be raised to the fracture pressure of 1100 psi on our Kenwood Federal (SWD) Well #4.

Yours truly,

THE EASTLAND OIL COMPANY

George D. Neal Superintendent

GDN/mb

Enclosure

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APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION 7 1990

THE EASTLAND OIL	COMPANY				rn United	Life B	uilding
LEASE HAME		WELL NO.	FIELD		Texas	/9/0	ATION IL SICH
Power Deep Unit		1	Power	(Graybur	g San And	ires)	Eddy
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INTERMEDIATE	8-5/8"	1 43001 1	0 sx Howco	.	1300'	Tem	perature Survey
LONG STRING							
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Allied-Chemical Corp	. (Union Te	exas Petroleum)					
1300 Wilco Bldg., Mi	dland, Texa	as 79701	·		¥		
(Lease owner onl)	- no produ	ction)	. 1		6		
The Eastland Oil Com	pany (only	y producer with	in 1/2 mi	le)	4.	1	
;							
HAVE COPIES OF THIS APPLICATION BE SENT TO EACH OF THE POLLOWINS?	EN SURFACE OWN:	No No	EACH OPERATO	NO NO	HALF MILE	THE NEW MEX	ICO STATS ENGINEER
ARE THE FOLLOWING ITEMS ATTACHED THIS APPLICATION (SEE RULE 701-8)	TO PLAT OF AREA	Yes	ELECTRICAL L	°4 Yes		DIAGRAMMATI	Yes
I hereby ce	rtify that the info	ermation above is true	and complete	to the best	of my knowle	dge and bel	ief.
11. 7	7. 12						5/77
(Signature)	rear	Sup	erintende (Title)	at		4/	(Date)

NOTE: Should waivers from the State Engineer, the surface owher, and all operators within one-half mile of the proposed injection well.

not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Sauta Fe office. If at the end of the 15-day waiting period no protest has been received by the Sauta Fe office, the application will be processed. If a protest is received, the application will be set for hearing, if the applicant so requests. REE RULE 701.

EXHIBIT "B"

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NEW MEXICO OIL CON Santa Fe,	RE THE SERVATION COMMISS New Mexico 1, 1977	ION
EXAMINE	R HEARING	
IN THE MATTER OF: Application of Eastland salt water disposal, Edd New Mexico.		CASE 5921
BEFORE: Daniel S. Nutter, Exa	miner	
TRANSCRIP	T OF HEARING	
APPEA	RANCES	
For the New Mexico Oil Conservation Commission:	Lynn Teschendorf Legal Counsel fo State Land Offic Santa Fe, New Me	er the Commission Building

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5	Cross Examination Nutter	10

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Phone (505) 982-9212

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MR. NUTTER: We will call Case Number 5921.

2 MS. TESCHENDORF: Case 5921, application of Eastland 3 Oil Company for salt water disposal, Eddy County, New Mexico.

MR. KELEAHIN: Tom Kellahin of Kellahin and Fox,
Santa Fe, New Mexico, appearing on behalf of the applicant and
I have one witness to be sworn.

(THEREUPON, the witness was duly sworn.)

GEORGE NEAL

called as a witness, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

14 BY MR. KELLAHIN:

- Q Would you please state your name, by whom you are employed and in what capacity?
- A My name is George Neal, I'm employed by the Eastland Oil Company as Production Superintendent.
- 0. Mr. Neal, have you previously testified before the Oil Conservation Commission and had your qualifications as an expert accepted and made a matter of record?
 - A. I have.
- Q Have you made a study of and are you familiar with the facts surrounding this particular application?
 - A. I am, yes.

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MR. KELLAHIN: If the Examiner please, are the witness' qualifications acceptable?

MR. NUTTER: Yes, they are.

- Q (Mr. Kellahin continuing.) Mr. Neal, would you please refer to what has been marked as Exhibit Number One, identify it and tell us what you are seeking to accomplish?
- A. Exhibit Number One is a plat of Eastland's acreage outlined in yellow, the Power Grayburg-San Andres pool in Eddy County and we are asking permission to inject produced water into the Kenwood Federal No. 1, located in Section 6.
 - Q Where in Section 6 is that proposed disposal well?
- 12 A The actual location is nineteen eighty from the west 13 and north lines of Section 6, Township 18 South, Range 31 East.
 - Q In Unit F of that section, I think.

MR. NUTTER: That is the well that is indicated by the dry hole symbol on that map?

- A That is correct, yes, sir.
- Q (Mr. Kellahin continuing.) All right, sir, what do you intend to use this well for?
- A We intend to dispose of produced water from the leases operated by the Eastland Oil Compny in the Power Grayburg-San Andres Pool.
- Q How many wells will be producing water that will be disposed of in the well?
 - A. A total of eight producing wells on four leases.

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Q.	Do	all	of	those	wells	produce	from	the	Grayburg
				,					
formation	?			•					

A. That is correct, they all produce from the Grayburg and injection will be into the Grayburg formation.

MR. NUTTER: Before we go any further, this was advertised for the Power Deep Unit Well No. 1 and we are referring to it now as the Kenwood Federal Well No. 1, is that the same well?

9 A. The well is drilled by American Quasar as the Power 10 Deep Unit Well No. 1 and its name has not been changed but it was drilled as a Morrow test.

MR. NUTTER: I see, it was originally a Deep test then?

A Yes, sir, drilled in 1976.

MR. NUTTER: And it is on the Kenwood Federal lease?

A We have the shallow rights to four thousand feet.

MR. NUTTER: And what will you call the well?

A We would like to redesignate it as the Kenwood Federal No. 4.

MR. NUTTER: I see.

Q (Mr. Kellahin continuing.) All right, sir, please refer to Exhibit Number Two and identify it?

A Exhibit Number wo is Form C-108, which is Application to Dispose of Salt Water by Injection into a Porous Formation, which was submitted to the Commission prior to this hearing.

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Ω). What	do	you	antio	cipate	to	be	the	minimum	and	maximum
daily	disposal	vo	lumes	for	this	wel:	1?				

- A. We are currently producing eighty barrels a day from the four leases and we anticipate a maximum production of possibly two hundred barrels a day.
- Q Will the injection into this disposal well be under pressure or will it be by gravity?
- A. We anticipate that initially it will be under gravity but it eventually will be under pressure.
- Q What do you believe to be the maximum pressure that you anticipate?
- A. Basing it on the maximum injection pressure in the Grayburg to the immediate north in the Jackson Grayburg, eight hundred and seventy-five pounds is their maximum injection pressure.
- Q All right, sir, would you refer to Exhibit Number
 Three and identify it?
- A. Exhibit Number Three is a typical water analysis taken from the Allied Federal No. 2 Well, showing the quality of waters being produced and, of course, it will be the same water that will be reinjected into the disposal well.
 - Q Please refer to Exhibit Number Four and identify it?
- A Exhibit Number Four is a schematic diagram of the well that was drilled by American Quasar to a depth of eleven thousand eight hundred and ten feet and they set eight and five

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eighths casing at forty-two hundred feet, the top of the cement at thirteen hundred feet behind the eight and five-eighths casing and we own the rights to four thousand feet in this lease.

- Please refer to Exhibit Number Five and identify it?
- Exhibit Number Five is the plugging record of American Quasar of New Mexico, also the casing settings that they submitted to the USGS and Form 9331 was the final.
- Excuse me, I think we've got those exhibits reversed. Pull out the USGS approvals. Let's make that Exhibit Five.
- Okay. Exhibit Five is Form 9331 of the USGS asking 12 their permission as these are Federal leases, to use this as a disposal well and we have their approval subject to the approval of the Conservation Commission.
 - Would you refer to the attachments to the approval and indicate to the Examiner the method of recompletion of this well for disposal purposes?
 - As stated, the eight and five-eighths casing is set to forty-two hundred feet with the top of the cement at thirtees hundred feet behind that casing and we propose to perforate the Grayburg in the same sand intervals as are being produced in the pool which are indicated as thirty-five oh six to seventeen, thirty-five thirty-four to forty-one, and thirty-five eighty to ninety-eight and set a packer capable of holding pressure in either direction in the eight and five-eighths casing with two-

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inch plastic coated tubing to the surface.

- What will you use to fill the annular space?
- A. We will use corrosive inhibited water circulated down the two-inch tubing annular space, on the tubing in the eight and five-eighths casing.
 - Q. How will you monitor the pressure at the surface?
- A. We will maintain a pressure on the tubing casing annulus, a pressure gauge which will be observed daily to be sure there are no packer leaks or tubing leaks and we intend to set a tank at the injection well which will have a high-low pressure switch on it to regulate the injection into the disposal well.
 - Q All right, sir, please refer to Exhibit Number Six.
- A. Six is the plugging report of American Quasar to the USGS, Form 9331, in which they indicated at the bottom of this form that they turned over this well to Eastland Oil Company for completion as a water disposal well. We purchased the recoverable casing in the well from American Quasar.
 - Q When was that done, Mr. Neal?
 - A. That was done in March of 1976.
 - All right, sir, please identify Exhibit Number Seven?
- A Exhibit Number Seven is a log that we ran on the

 American Quasar well. We ran it to four thousand feet to

 determine first if possibly it could be productive since

 it was on our lease and since it was so low we saw it could not

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1 be productive as an oil well and we marked the zones that are 2 productive in the Power Grayburg-San Andres. That log may 3 mot be marked.

> (THEREUPON, a discussion was held off the record.)

- This well is approximately a hundred and two feet 7 low to the closest producing well on the Kenwood Federal lease and well below our oil-water contact in the pool.
- (Mr. Kellahin continuing.) Refer to Exhibit Number 10 Eight and identify it?
- Exhibit Number Eight is a cementing record of all of 12 the wells within a half-mile radius of this Quasar Power Deep 13 Unit Well No. 1. They were all drilled by Eastland, all are 14 producing except Allied Federal "A" No. 1 which was a dry hole 15 when it was drilled and plugged and the plugging information is indicated.
 - When were these wells completed?
 - All in 1970 and '71.
 - All right, would you identify Exhibit Number Nine and explain what information it contains?
 - Exhibit Number Nine is a contour map of the Power > Grayburg pool which Eastland is the only operator and it indicates the low position of the Power Deep Cnit Well. We drilled a well on the Arco Federal lease to the east which had approximately the same position and was water productive only

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but the sands are continuous but they carry water at that low structural position.

- Mr. Neal, in your opinion will the approval of this
 application be in the best interests of conservation,
 prevention of waste and the protection of correlative rights?
 - A. It will.
- Q Were Exhibits One through Nine either prepared by you directly or compiled under your direction and supervision?
 - A. They were.

MR. KELLAHIN: If the Examiner please, we move the introduction of Exhibits One through Nine.

MR. NUTTER: Applicant's Exhibits One through Nine will be admitted into evidence.

(THEREUPON, Applicant's Exhibits One through Nine were admitted into evidence.)

MR. KELLAHIN: That concludes our direct examination.

CROSS EXAMINATION

19 BY MR. NUTTER:

- Q Mr. Neal, I note from Exhibit Number Eight that all of the wells in this immediate vicinity appear to have from six to seven hundred feet of surface pipe, is that correct?
 - A. That is correct, yes, sir.
 - And is that well below any fresh waters in this area?
 - A Yes, in fact there are no fresh waters in the area.

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	We have an exemption for disposal of water in surface pits from
2	the State on these leases, primarily because there is no surfac
3	water.
,	Q. When did you get that exception, do you recall?
5	A. Immediately after drilling in '71, '70 and '71, I

- Q Did you have a hearing on that?
- A Yes, sir.

think both years.

- Q You don't happen to remember the order number?
- A I'm sorry, I don't have it.
- Q Now, on your structure map here, on Exhibit Number
 Nine, I see considerable dip to the south on the flank of this
 little structure?
 - A Yes, sir.
- Q Where approximately would be the oil-water contact on this structure?
- A On this interval that is -- this is a marker which is approximately the top producing sand, it's a plus two twenty.
 - Q What's the interval on these lines?
 - A Ten feet.
- Q And about two twenty is your water-oil contact on the marker?
- A. Yes, sir. This Allied State Well produced only a small amount of water and -- well, only a small amount of oil and mostly water in Section 32 and it was finally plugged. It

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right on the oil-water contact.

- So you will be disposing in the interval from thirtyfive oh six to thirty-five ninety-eight, is that correct?
 - That is correct, yes, sir.
- And the well immediately north of this disposal well Q. is producing, that's the Kenwood Federal No. 1 and it's producing from thirty-three thirty-four to thirty-four sixtytwo, correct?
 - Yes, sir.
- And then the well to the west of that, what is the producing interval on that one?
- That's Kenwood Federal No. 2, it's thirty-three 13 sixteen to thirty-four twenty-seven.
 - So again you will be from two to four hundred feet deeper than the producing interval of that?
 - Structurally, yes, sir.
 - Okay. Now, Mr. Neal, you mentioned that the pressure you expected to have to acquire, I think, would be in the neighborhood of eight hundred pounds?
 - I said that was based on -- yes, sir, on the pressure Atlantic Richfield was using in their waterflood in the Jackson Grayburg. Of course, they are injecting considerably larger quantities of water than we will be here and we may never require that much pressure.
 - That waterflood was authorized sometime back wasn't

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- A. Yes, sir, in approximately '70 or '71, yes, sir.
- Q You may not be aware, Mr. Neal, but the Commission in the last number of months has been setting maximum pressure for most injection projects and by the rule of thumb that we would apply to your injection well here, approximately seven hundred pounds would be the limit.
 - A I think that would be well within --
- 0. Now, on one of your exhibits I noticed that you added up the -- well, it's on the attachment to Form 9331?
 - A. Yes, sir.
- Q You added up the water that is presently produced and it comes out to about seventy-nine barrels a day, is that right?
 - A That is correct, yes, sir.
 - Q Is that water going up in volume?
 - A It is, very slowly.
- Q So you will be disposing of more than that in the future then?
 - A. Yes, sir.
- MR. NUTTER: Are there any further questions of Mr. Neal?
- MR. KELLAHIN: Mr. Nutter, for your information that order number on the approval to utilize surface pits is R-4148.
 - MR. NUTTER: R --

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Phone (505) 982-9212

MR. KELLAHIN: 4148. It was entered May 24th, 1971.

MR. NUTTER: Thank you. Do you have anything further,

Mr. Kellahin?

MR. KELLAHIN: No, sir.

MR. NUTTER: Does anyone have anything they wish to offer in Case Number 5921? We will take the case under advisement and a fifteen minute recess.

(THEREUPON, the hearing was in recess.)

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REPORTER'S CERTIFICATE

I, SIDNEY F. MORRISH, a Certified Shorthand Reporter, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and the same is a true and correct record of the said proceedings to the best of my knowledge, skill and ability.

Sidney F. Morrish, C.S.R.

I do nereby certify that the foregoing im complete record of the proceedings in the Examiner hearing of Case No. /// 1977

Tun, Examiner New Mexico Oil Conservation Commission



OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO P. O. BOX 2088 - SANTA FE 87501

Re:

LAND COMMISSIONER PHIL R. LUCERO



STATE GEOLOGIST EMERY C. ARNOLD

DIRECTOR JOE D. RAMEY June 9, 1977

Mr. Tom Kellahin Kellahin & Fox	ORDER NO. R-5455
Attorneys at Law Post Office Box 1769 Santa Pe, New Mexico	Applicant:
	Eastland Oil Company
Dear Sir:	
	copies of the above-referenced entered in the subject case.
Yours very truly, JOE D. RAMEY Director	
	•
JDR/fd	
Copy of order also sent t	o:
Hobbs OCC x	· .
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Other	

CASE NO.

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

> CASE NO. 5921 Order No. R-5455

APPLICATION OF EASTLAND OIL COMPANY FOR SALT WATER DISPOSAL, EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on May 11, 1977, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 8th day of June, 1977, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Eastland Oil Company, is the owner and operator of the Power Deep Unit Well No. 1, located in Unit F of Section 6, Township 18 South, Range 31 East, NMPM, Power Grayburg-San Andres Pool, Eddy County, New Mexico.
- (3) That the applicant proposes to redesignate said well as the Kenwood Federal (SWD) Well No. 4 and to utilize said well to dispose of produced salt water into the Grayburg formation, with injection into the perforated interval from approximate ly 3,506 feet to 3,598 feet.
- (4) That the injection should be accomplished through 2 3/8-inch plastic lined tubing installed in a packer set at approximately 3475 feet; that the casing-tubing annulus should be filled with an inert fluid; and that a pressure gauge or approved leak detection device should be attached to the annulus in order to determine leakage in the casing, tubing, or packer.
- (5) That the injection well or system should be equipped with a pop-off valve or acceptable substitute which will limit the wellhead pressure on the injection well to no more than 700 psi.

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- (6) That the operator should notify the supervisor of the Artesia district office of the Commission of the date and time of the installation of disposal equipment so that the same may be inspected.
- (7) 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.
- (8) That approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Eastland Oil Company, is hereby authorized to utilize its Power Deep Unit Well No. 1, redesignated as the Kenwood Federal (SWD) Well No. 4, and located in Unit F of Section 6, Township 18 South, Range 31 East, NMPM, Power Grayburg-San Andres Pool, Eddy County, New Mexico, to dispose of produced salt water into the Grayburg formation, injection to be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 3475 feet, with injection into the perforated interval from approximately 3,506 feet to 3,598 feet;

PROVIDED HOWEVER, that the tubing shall be plastic-lined; that the casing-tubing annulus shall be filled with an inert fluid; and that a pressure gauge shall be attached to the annulus or the annulus shall be equipped with an approved leak detection device in order to determine leakage in the casing, tubing, or packer.

- (2) That the injection well or system shall be equipped with a pop-off valve or acceptable substitute which will limit the wellhead pressure on the injection well to no more than 700 psi.
- (3) That the operator shall notify the supervisor of the Artesia district office of the Commission of the date and time of the installation of disposal equipment so that the same may be inspected.
- (4) That the operator shall immediately notify the supervisor of the Commission's Artesia district office of the failure of the tubing, casing, or packer, in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.
- (5) That the applicant shall submit monthly reports of its disposal operations in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

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

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

SEAL

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

PHIL R. LUCERO, Chairman

EMERY C. ARNOLD, Member

JOE D. RAMEY, Member & Secretary

- CASE 5919: Application of Tenneco Oil Company for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Strawn formation through the perforated interval from 11,174 feet to 11,236 feet in its Jones Federal Well No. 1, located in Unit K of Section 23, Township 19 South, Range 31 East, Lusk-Strawn Pool, Eddy County, New Mexico.
- Application of New Mexico Salt Water Disposal Co., Inc. for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Devonian formation through the perforated interval from approximately 13,000 feet to 13,500 feet in its Sinclair State Lea Well No. 1, located in Unit M of Section 1, Township 11 South, Range 34 East, Sand Springs-Devonian Pool, Lea County, New Mexico.
- CASE 5921: Application of Fastland Oil Company for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Grayburg formation through perforated intervals from 3506 feet to 3598 feet in its Power Deep Unit Well No. 1, located in Unit F of Section 6, Township 18 South, Range 31 East, Power Grayburg-San Andres Pool, Eddy County, New Mexico.
- CASE 5922: Application of A. L. Daugherty for an exception to Order No. R-3221, Chaves County, New Mexico.

 Applicant, in the above-styled cause, seeks, as an exception to the provisions of Commission Order No. R-3221, permission to dispose of produced salt water into an intermittent saline lake located in Section 24, Township 8 South, Range 29 East, and Section 19, Township 8 South, Range 30 East, both in Chaves County, New Mexico.
- In the matter of Case 5653 being reopened pursuant to the provisions of Order No. R-5191 which order established temporary special pool rules for the Daisey-Wolfcamp Fool, Lea County, New Mexico. All interested parties may appear and show cause why said pool should not be developed on 40-acre spacing units.
- CASE 5923: Application of El Paso Natural Gas Company for underground gas storage, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute its Barker Dome Gas Storage Project by utilizing certain wells for the injection into and withdrawal of gas from the Upper Dakota formation underlying all of Sections 8, 9, 10, 11, 14, 15, 16, 17, 20, 21, 22, 23, 28, and 29, and portions of Sections 7, 18, 19, 27, 30, and 32, all in Township 32 North, Range 14 West, Barker Creek-Dakota Pool, San Juan County, New Mexico.
- CASE 5904: (Continued from April 20, 1977, Examiner Hearing)

 Application of Palmer Oil & Gas Company for compulsory pooling, San Juan County, New Mexico.

 Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the

 Fruitland and Pictured Cliffs formations underlying the NE/4 and/or SE/4 of Section 20, Township
 32 North, Range 6 West, San Juan County, New Mexico, and in the Mesaverde and Dakota formations
 underlying the E/2 of said Section 20, the above-described lands 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 5653: (Reopened) (Continued from April 6, 1977, Examiner Hearing)

- Application of Palmer Oil & Gas Company for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Mesaverde and Dakota formations underlying the W/2 SE/4 and the E/2 SW/4 of Section 3, and the NW/4 of Section 10, and all mineral interests in the Pictured Cliffs and Fruitland formations underlying the NN/4 of Section 10, all in Township 31 North, Range 7 West, San Juan County, New Mexico, to be dedicated to a well to be drilled 1800 feet from the North line and 350 feet from the West line of said Section 10. 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 operting costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.
- CASE 5906: (Continued from April 20, 1977, Examiner Hearing)

CASE 5905: (Continued from April 20, 1977, Examiner Hearing)

Application of Palmer Oil & Gas Company for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Mesaverde and Dakota formations underlying the W/2 SW/4 of Section 2, the E/2 SE/4 of Section

(Case 5906 continued on Page 3)

APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

THE EASTLAND OIL COMPANY					ADDRESS 704 Western United Life Building Midland, Texas 79701					
Power Dec	p Unit		WELL NO.	Power	(Graybur	g San And	res)	Eddy		
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ARE THE FOLLOWING THE APPLICATION (S	ITEMS ATTACHED TO EE RULE 701-B)	PLAT'OF AREA	Yes	ELECTRICAL	Yes		DIAGRAMMAT	Yes	·L	
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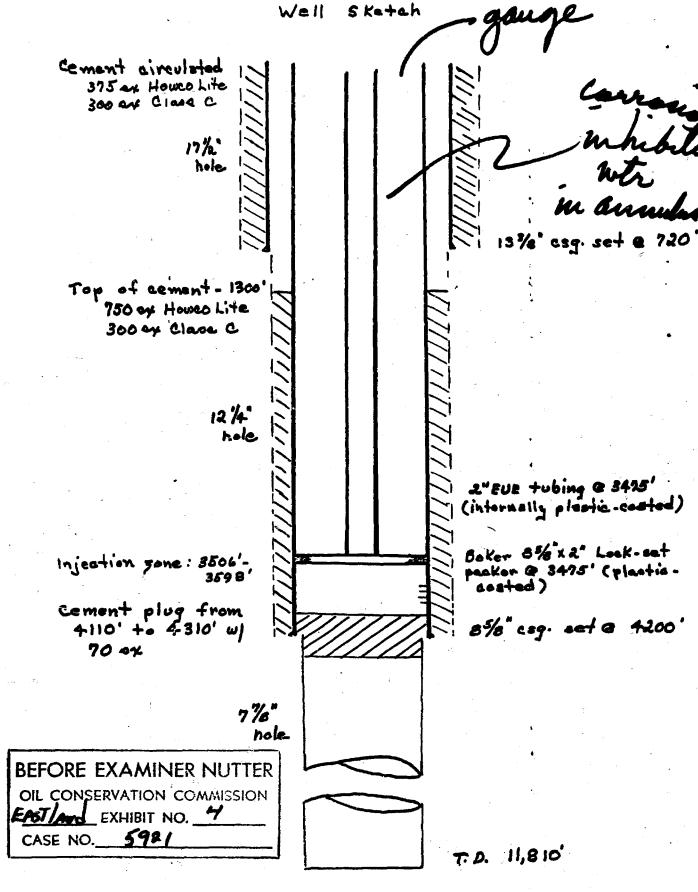
NOTE: Should waivers from the State Engineer, the surface owher, and all operators within one-half mile of the proposed injection well.

not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days
from the date of receipt by the Commission's Santa Fe office. If at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing,
if the applicant so requests. SEE RULE 701.

WATER ANALYSIS REPORT

OMPANY_	The Eastland	Oil Co.	ADDRESSLos	co Hills. NM	DATE:	6-5-75
OURCE	Allied Feder	al #2	DATE SAMPLED	5 - 20 -7 5	ANALYSIS — NO.———	9541
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5.	Suspended Solids		·	<u> </u>		
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7.	Methyl Orange Alkali	nity (CaCO ₃)		.880		
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9.	Chlorides (CI)		CI57	<u>,882 </u>	1,631	CI
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11.	Calcium (Ca)	•	Co3	,280÷20	164	Co
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		2,090 Mg/L	Mg Cl ₂	47.62	171	8,14
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				•		
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THE EASTLAND OIL COMPANY POWER DEEP UNIT #1



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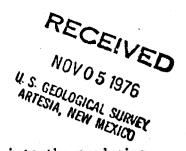
APPROVED TO REPROVAL, IF ANY:

FILL DEEKNING FRONKER

ACTING DISTRICT FNOINFER

ATTACHMENT TO FORM 9-331

DISPOSAL OF PRODUCED WATER
Power Grayburg San Andres Pool
Eddy County, New Mexico



Disposal in the Subsurface - NTL-2B

- 1. Authorization for disposal of produced water into the producing formation of the Power Grayburg San Andres Pool is requested using Power Deep Unit Well #1 located 1980 feet from the West and North lines of Section 6, T18S, R31E, Federal Lease Number LC 029389(e). Surface ownership is also Federal.
 - 2. Water to be disposed of is produced from Federal Leases in the Pool operated by The Eastland Oil Company as follows:

Kenwood Federal Lease - 40 B/D
Allied Federal Lease - 7 B/D
Sibyl Federal Lease - 12 B/D
Arco Federal Lease - 20 B/D
TOTAL 79 B/D

A representative analysis of this formation water shows total dissolved solids of 99,445 Mg/L, Chlorides - 57,882 Mg/L, sulfates - 3,300 Mg/L, and pH of 7.0.

- 3. It is proposed to inject water into the Grayburg sands that are productive up structure in the Pool. These intervals are 3,506'-17', 3,534'-41', 3,580'-98', and 3-470'-42'.
- 4. The injection well is approximately 150 feet down structure to the oil-water contact in the Power Grayburg San Andres Pool and the sands are water productive with the same quality water that is to be returned through the disposal well.
- 5. There is no usable water within a 2-1/2 mile radius of the lease.
- 6. The Power Deep Unit #1 was drilled by American Quasar Petroleum Company of New Mexico. In a 17-1/2" hole, 720 feet of 48#, 13-3/8" casing was set and cement circulated using 375 sacks of Howco Lite and 300 sacks Class C 2% CaCl₂. A 12-1/4" hole was drilled to 4,200 feet and 32#, K-55, 8-5/8" casing set from 4,200 feet to 1,822 feet followed by 24#, K-55, 8-5/8" casing to surface. Cement consisted of 750 sacks Howco Lite and 300 sacks Class C with 2% CaCl₂. Top of cement by temperature survey was 1,300 feet from surface outside the 8-5/8" casing.
- 7. This well was drilled to total depth of 11,810 feet and plugged back total depth is 4,110 feet (70 sack cement plug from 4,310 feet to 4,110 feet).

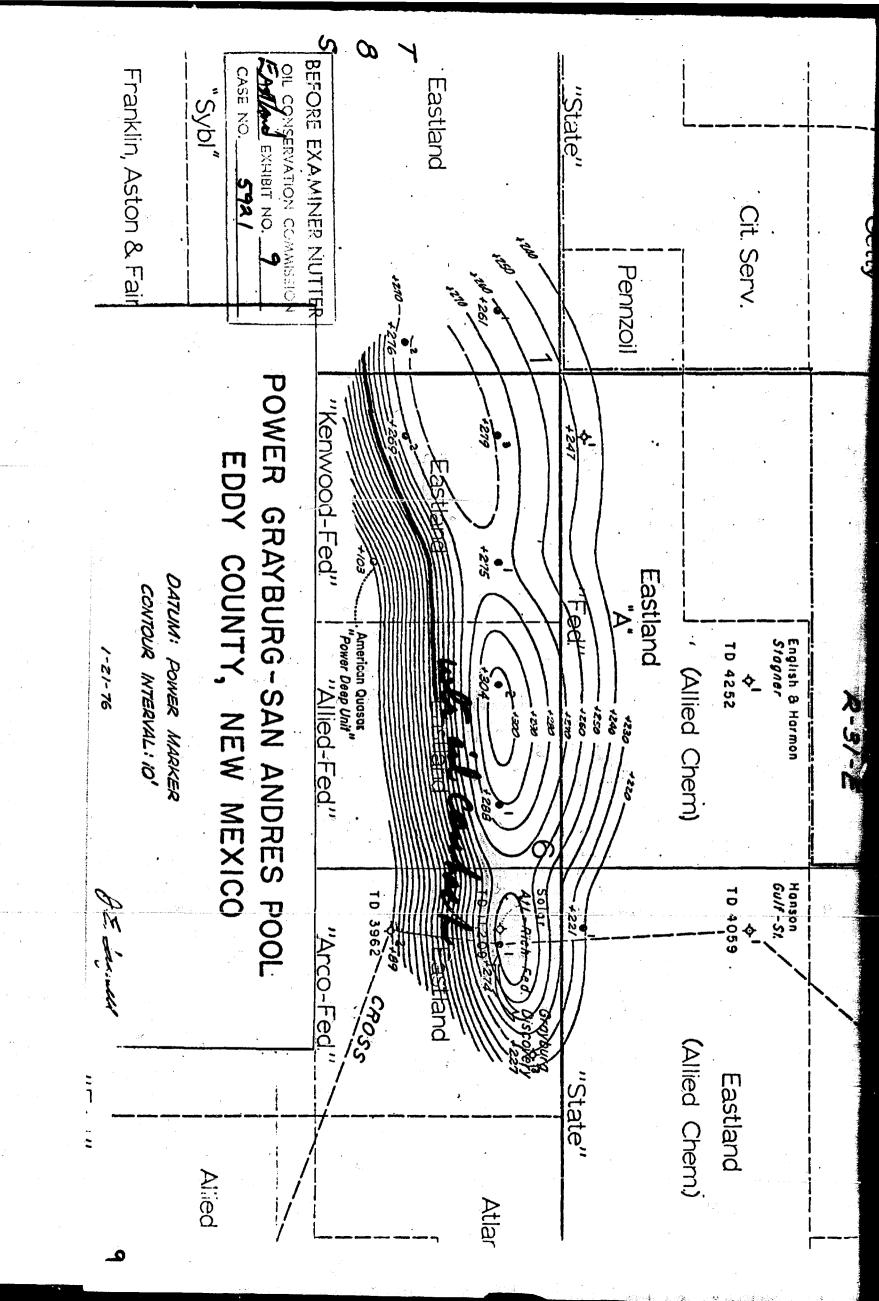
- 8. The well will be prepared for injection by perforating the intervals indicated and treating each zone with acid. An 8-5/8" x 2" Baker Lock-set packer will be set at 3,475 feet capable of holding pressure in either direction. The 2" EUE, J-55, tubing and packer will be internally plastic-coated and fresh water with corrosion inhibitor will be circulated to fill the annulus. A maximum surface injection pressure of 875 psi is anticipated.
- 9. A pressure gauge on the tubing-casing annulus will be observed daily to confirm that the packer is holding and no tubing leaks exist. Injection volumes and pressure will be recorded daily. Surface storage capacity at the injection well will protect against short term shut-down of the system. In the event of longer shut-in time, the produced water will be trucked to another facility or the producing wells will be shut-down. The injection pump will be controlled from the storage tank by automatic highlow fluid level switches.

all.	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 "APPLICATION FOR PERMIT—" for such proposals.)	9. IF ittered, Albutas on a
· 1.	Use "APPLICATION FOR PERMIT—" for such proposals.)	7. UNIT AGREEMENT NAME (F.S. H. A.
	MELL WELL XX OTHER DRY	Power Deep Unit
14.	American Quasar Petroleum Co. of New Mexico	8. FARM OR LEAST NAME
3.	ADDRESS OF OPERATOR	Power Deep Unit
	1000 Midland National Bank Tower, Midland, Tx 7970	
	See also space 17 below.) At surface	10. FIELD AND POOL, OR WILDCAT
Section 18	1980' FN&WL, Sec. 6, T18-S, R31-E	Wildcat 11. BRC., T., B., M., OR BLK. AND EN
18.2		Sec. 6, Tl8S, R31E
13 600 14	. PREMIT NO. 15. BLEVATIONS (Show whether DF, RT, GR, etc.)	12. COUNTY OR PARISM 13. STATE:
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16.	Check Appropriate Box To Indicate Nature of Notice, Report, or C	Other Data
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4.30	TEST WATER SHUT-OFF FULL OR ALTER CASING WATER SHUT-OFF	REPAIRING WELL
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	a Jou Sk Class C 2% CaCl - cement circulated. Work	24 houre = 3 Eas
in the second	pressure tested to 1000 # - held OK. PD 9PM 12-20-7	75. Land to the second of the
	8 5/8" casing	20 00 00 00 00 00 00 00 00 00 00 00 00 0
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	Cemented 24# & 32# K-55 8 5/8" casing at 4210' with & 300 sx Class C - TOC @ 1300' by temperature survey	750 sx HOWCO Lthewt
1	PD 12:15 AM 12-30-75.	. Woo est a multiple
	Plugged the lower portion of the hole with cement pl	
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	Job complete @ 4:45 PM 2-19-76. Removed WH, cleaned	pits, released .
	rig @ 12 noon 2-20-76. Well turned over to Eastland completion as WDW.	Oil Co. for E
18.	. I hereby certify that the foregoing is true and correct	
	SIGNED Will TITLE Div. Operations Mor	DATE = 3-8-76
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	CONDITIONS OF APPROVAL, IF ANY:	DATE TO THE POST OF THE POST O
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al Sec. 3	*See Instructions on Reverse Side	
	AKE HINIACIIOUD OU VEACISE SIGE	

CASING AND CEMENT RECORD OF WELLS DRILLED WITHIN 1/2 MILE RADIUS OF POWER DEEP UNIT #1

•	PRODUCING INTERVAL	LONG STRING Size Setting Depth Sacks Cement Top of Cement Determined By	SURFACE CASING Size Setting Depth Sacks Cement Top of Cement Determined By	OPERATOR LEASE and WELL LOCATION
	3334-3462	4-1/2 3845' 450 1420' Temp. Survey	8-5/8 687' 350 Surface Circulated	EASTLAND Kenwood Federal #1 C-6-18-31
	3316-3427	4-1/2 3520' 250 2173' Calculated	8-5/8 657' 350 Surface Circulated	EASTLAND Kenwood Federal #2 E-6-18-31
	3315-3441	4-1/2 3478' 250 2128' Calculated	8-5/8 696' 350 Surface Circulated	EASTLAND Kenwood Federal #3 D-6-18-31
35 sx @ 708* 10 sx @ 30*	. 170	NONE P&A 7/11/71	8-5/8 659' 350 Surface Circulated	EASTLAND Allied Fed "A" #1 M-31-17-31
	3194-3229	4-1/2 3512' 250 2162' Calculated	8-5/8 682' 350 Surface Circulated	EASTLAND Siby1 Federal #1 A-1-18-30
<u>@</u>	3302-3428	4-1/2 3472' 250 2122' Calculated	8-5/8 671' 350 Surface Circulated	EASTL/ND Sibyl Federal #2 H-1-18-30
EFORE EXAN	4-1/2 3870° 450 1440° Calculated		8-5/8 698' 350 Surface Circuluted	EASTLAND Allied Federal #1 A-6-18-31
BEFORE EXAMINER NUTTER	3333-3444	4-1/2 3550' 450 1120' Calculated	8-5/8 679' 350 Surface Circulated	EASTLAND Allied Federal #2 B-6-18-31

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. 2
CASE NO. 5721



KELLAHIN AND FOX ATTORNEYS AT LAW BOO DON GASPAR AVENUE POST OFFICE BOX 1769 SANTA FE, NEW MEXICO 87501

JASON W. KELLAHIN ROBERT E.FOX W.THOMAB KELLAHIN

April 18, 1977

TELEPHONE 982-4315 AREA CODE BOB

Mr. Dan Nutter Oil Conservation Commission P. O. Box 2088 Santa Fe, New Mexico 87501

Re: Eastland Oil Company Saltwater Disposal Case May 11, 1977

Dear Dan:

I would appreciate having the enclosed application set for hearing on May 11, 1977 on behalf of Eastland Oil Company.

W. Thomas Kellahin

CC: Mr. George D. Neal

WTK:kfm

Enclosure

BEFORE THE

OIL CONSERVATION COMMISSION OF NEW MEXICO

APR 19 1977

Sento Fo

IN THE MATTER OF THE APPLICATION OF THE EASTLAND OIL COMPANY FOR APPROVAL OF A SALTWATER DISPOSAL WELL, EDDY COUNTY, NEW MEXICO

APPLICATION

COMES NOW, THE EASTLAND OIL COMPANY, and applies to the Oil Conservation Commission of New Mexico for approval to inject produced saltwater into its Power Deep Unit Well No.

1, located in Unit F, Section 6, T18S, R31E, NMPM, Eddy County, New Mexico and in support thereof would show the Commission:

- 1. That the applicant is the operator of the above described well, as for specifically shown in the enclosed location plat marked Exhibit "A" and incorporated by reference.
- 2. That applicant proposes to dispose of produced shalwater in the manner set forth on Exhibits "B", "C" and "D" attached hereto and incorporated by reference.
- 3. Granting of this application will enable applicant to conform to the provisions of Order No. R-3221, will protect the environment and will not impair correlative rights.

WHEREFORE, Applicant respectfully requests that this matter be set for hearing before the Commission's duly appointed examiner and upon hearing an order be entered authorizing the disposal of water as described above.

THE EASTLAND OTL COMPONY

KELLAHIN & FOX P.O. Box 1769

Santa Fe, New Mexico

Attorneys for Applicant

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Tones fed At Istoneto		UNIT IS UN	God Ginsberg	Texeco 3-1-65 3-1-65 3-1-65 3-1-65 070194 323323 1 1 2 Water (Denoses)	LG-1101 + Cockburn	1
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27277 - 2765 	Warsin 1 2 SM G1833B Pfol 103655	DAYotes	нвт йвт #29367 919387 ¹⁴⁹ 07.7 ³	A///A/7 1-18 20"	Shenondooh]
* £3(1) *9.333g	d' l	t etol	Welch aros			•
- 22 - (0 m	Perer Texace Value	Yates Hanson Oil etal	Mouer I Shenandoah	Harrystate 100 Sherrandeath	INOSHUGAR	d
- 27277 - Duvol Corp	016829 HBP	Pet. 035503 05 47 Classe (Linute) Zal	10307 10307 029387 35,7 Gulf	Sijenom	JULIKAVIS TON UNITION	' '⊕'
10000	Votes, etc. 18798 Creek VA1578 U.S. Francia, Asten Henson Oil	TAL POD SAL TO JENG PTS	Shenandooh Gulf Shenandooh HKeshone 4703005 A2F54 4'S Keshone	429387 Janacoo la Guilla Constant	Morafro di Eguita	wis
Teraco C.H.	f. For to SEOF letal 14	GAL 3 ML SPefferon	75.5¢ / Shenandoah	Shengar Grace to see	Ansyle Street Control of the control	:
ande:	ren elafi	Yates Pet. Hanson	70 6:0 55 6:0	Anteres Shenon	Veroci 229390 Simondanha	A second
13111	, 27270	TOUR TOUR COURS ADECED TO				1 2 464
5 70	Pine	BAL COMP	6.65 A	dooh SAM	to 3650 TO 5200	A LIVE MAN
Creating and the second	913 913 60.00mg 587 60.00mg 587	Votes Pet Ildongon Oli olego Oli oli olego Oli o	5-15-15 30 5-2 - 5-5	doah Sangari B	J. Tresia INOSHUGAM J.J. Tresia INOSHUGAM J.J. TRAVIS (CON; UNIT) (OPER) J. S.	- 4. - 4.

Form C-108 Revised 1-1-65

NEW MEXICO OIL CONSERVATION COMMISSION

APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

THE EASTLAND OI	L COMPANY				stern United		e Building 9701
LEASE NAME		WELL NO.	FIELD	HIGIAIN	u, ICAAS		COUNTY
Power Deep Unit		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Power	(Gray	burg San And	dres)	Eddy
LOCATION							
UNIT LETTER	<u> </u>	ELL IS LOCATED	1980 FEET	FROM THE _	West	INE AND	1980 FEET FROM THE
North Line, SECTION	6 το	WASHIP 185	RANGE 31E		NMPM.		
	·	CASING	AND TUBING D	ATA			
NAME OF STRING	\$1ZE	SETTING DEPTH	SACKS CEM	ENT	TOP OF CEME	NT	TOP DETERMINED BY
SURFACE CASING	13-3/8"	720'	375 sx How 300 sx Cla	•	e Circulate	a l	-
INTERMEDIATE	8-5/8"	42001	750 sx How 300 sx Cla	co Lit	e 1300'	,	Temperature Survey
LONG STRING		 	300 SX CIA	35 C	1300		emperature burvey
			_	* .			
TUBING		 	NAME, MODEL AND	DEPTH OF	TUBING PACKER		
	2" EUE	3475'			er Lock-set		
HAME OF PROPOSED INJECTION FORM	ATION		TOP OF FO		3321'	BOTTOM	OF FORMATION
Grayburg	C 08 AMMIN 1157	DENTOCATION			NTERVAL(S) OF INJE		3651'
Tubing (Plastic-coa	ted)	Perforat	tions	3506 ' -	17'; 3534'-		5581'-98'.
IS THIS A NEW WELL DRILLED FOR DISPOSAL?	i ·	S NO, FOR WHAT PURPO			LLED?	HAS WEL	L EVER BEEN PERFORATED IN ANY HER THAN THE PROPOSED INJEC-
NO LIST ALL SUCH PERFORATED INTERVA	Morr	ow test to 11	,810' (Dry	Hole)		TION ZOS	No No
Plugged back total	-				lug from 41	10' to	4310'.
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA		DEPTH OF BOTTOM OF			DEPTH OF TOP		
No known fresh wate	r zone	Queen -					- 3651*
ANTICIPATED DAILY MINIMUM (OBLS.)	200		ed type system		TION TO BE BY GRATER TO THE STATE OF THE STA	VITY OR	APPROX. PRESSURE (PSI)
ANSWER YES OR NO WHETHER THE FO ERALIZED TO SUCH A DEGREE AS TO I STOCK, IRRIGATION, OR OTHER GENER		E MIN- WATER				ARE WAT	ER ANALYSES ATTACHED?
STOCK, IRRIGATION, OR OTHER GENER	AL USE -	, i	Yes	SAL ZDI	Yes		Yes
NAME AND ADDRESS OF SURFACE OWN						37 36	00201
Surface-Federal Lan	ds. Lessee	: John S. Wil	lliams, 803	Clayt	on, Artesia	, N.M.	. 88201
Allied-Chemical Cor		. •	_	ELL	_		
1300 Wilco Bldg., M	idland, Tex	as 7970]	l		•		
(Lease owner onl	y - no prod	uction)			-		
The Eastland Oil Co	mpany (onl	y producer wi	ithin 1/2 m	ile)	· .	-	
							· · · · · · · · · · · · · · · · · · ·
HAVE COPIES OF THIS APPLICATION 8	EEN, SURFACE OW	NER .	EACH OPER		N ONE-HALF MILE	THE NEW	MEXICO STATE ENGINEER
SENT TO EACH OF THE FOLLOWING?	!	No	OF THIS WE	N N	o	Ye	es
THIS APPLICATION (SEE RULE 701-B)	TO PLAT'OF ARE	A	ELECTRICAL	L 106	·	DIAGRAM	MATIC SKETCH OF WELL
701-07	į	Yes	i	Y	es		Yes
I hereby co	ertify that the inf	formation above is	true and comple	te to the l	nest of my knowl	edge and	belief.

Superintendent 4/5/77
(Signature) (Title) (Date)

NOTE: Should waivers from the State Engineer, the surface owner, and all operators within one-half mile of the proposed injection well not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Santa Fe office. If at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing, if the applicant so requests. SEE RULE 701.

EXHIBIT "B"

THE EASTLAND OIL COMPANY POWER DEEP UNIT #1 Well sketch

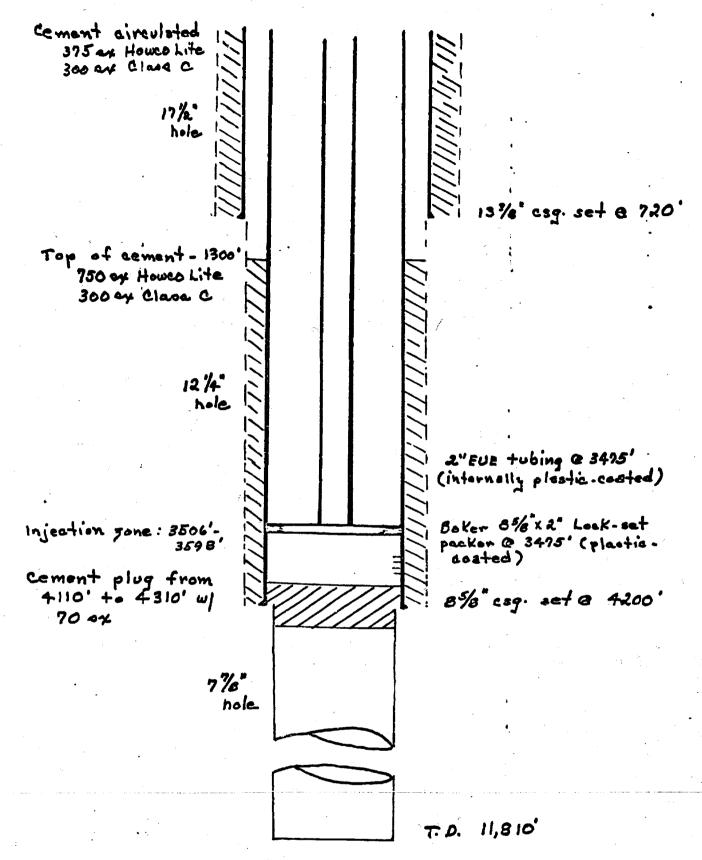


EXHIBIT "C"

Cane 5921

WATER ANALYSIS REPORT

COMPANY	The Eastland	d Oil Co.	<u>-</u>	ADDRESS_	Loco Hil	1s, 11H	DATE:	6-5-75
SOURCE	Allied Feder	ral #2	[DATE SAM	PLED	- 75	ANALYSIS — NO.———	9641
	Analysis		_		Mg/L		"Meq/L	
` 1.	PH	7.0				٠.	•	
2.	H ₂ S (Qualitative)	Pos.						
3.	Specific Gravity	1.070				,		•
4.	Dissolved Solids				99,445	_		
5.	Suspended Solids		•	· .				
6.	Phenolphthalein Alke	alinity (CaCO ₃)					•	
· 7.	Methyl Orange Alkali	inity (CoCO ₃)		,	033			
8.	Bicarbonate (HCO ₃	3)		HCO, _	1,074	÷61	17.6	HCO ₂ °
9.	Chlorides (CI):			Ċi _	57,882	÷35.5	1,631_	ci
10.	Sulfates (SO ₄)			SO ₄	3,300	÷48	69	so.
111.	Calcium (Ca)			Co	3,280	÷20	164	Ca
12.	Magnesium (Mg)			Mg _	2,000	÷12.2	171_	Mg
₄ 13.	Total Hardness (Co	oCO ₁)		-	16,800	<u>.</u>	•	•
14.	Total Iron (Fe)				4.0 ppm			. **
15.	Barium (Qualitative	e)						
16.	•	•			,		5	•
. *M	illi equivalents per lit	PROBABLE N	IINERA	T COW	POSITION			
•		•		Compound	l Equ	iv. Wt.	Meq∕L =	= Mg/Ļ
164	Co (HCO ₃	Ì	α (HCO ₃)	•	81.04	17.6_	1,426
171	Mg	so ₄ 69	1	a SQ ₄		68.07	69_	<u>/</u> 692_
1,303	No -	- G 1,631	C	o Cl ₂		55.50	77	4,270
السميستا	toutten William Bt			g (HCO ₃)	2	73.17		-
30	turation Values Dis Ca CO ₃	stilled Water 20°C 13 Mg/L	м	g SO ₄		60.19	: %	
· · · · · · · · · · · · · · · · · · ·	ୃCo SO₄ • 2H₂O	2,090 Mg/L	м	g Cl ₂		47.62	171	8,140
	Mg CO ₃	103 Mg/L		□ HCO3		84.00		
÷	•	•		o ₂ \$O ₄		71.03		
`				•				

EXHIBIT "D"

KELLAHIN AND FOX
ATTORNEYS AT LAW
BOO DON GABPAR AVENUE
POST OFFICE BOX 1789
SANTA FE, NEW MEXICO 87501

Mr. Dan Nutter 0il Conservation Commission P. O. Box 2088 Santa Fe, New Mexico 87501 dr/

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

CASE NO. 5921

Order No. R- 5455

APPLICATION OF EASTLAND OIL COMPANY FOR SALT WATER DISPOSAL, EDDY COUNTY, NEW MEXICO.

Non

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on May 11, 1977, at Santa Fe, New Mexico, before Examiner, Daniel S. Nutter

NOW, on this <u>day of May</u>, <u>1977</u>, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Eastland Oil Company
 is the owner and operator of the Power Deep Unit Well No. 1
 located in Unit F of Section 6 , Township 18 South
 Range 31 East , NMPM, Power Grayburg-San Andres Pool
 Eddy County, New Mexico.

to redisignate Said well as the Kennood Federal (SWD) well as the Kennood Federal (SWD) well as the the applicant proposes to utilize said well to dispose of produced salt water into the Grayburg formation, with injection into the perforated interval from approximately 3,506 feet to 3,598 feet.

7012

annulus in order to determine leakage in the casing, tubing, or packer.

- (4) That the injection well or system should be equipped with a pop-off valve or acceptable substitute which will limit the wellhead pressure on the injection well to no more than 700 psi.
- (5) That the operator should notify the supervisor of Artesia
 the xHouse district office of the Commission of the date and time of the installation of disposal equipment so that the same may be inspected.
- (6) 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.
- (7) That approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That	the applicant, _	Eastland Oil Comp	oany	
is hereby auth	orized to utilize nated as the Kenn t F of Section	its Power Deep wood Fakeral sw n 6 , Townsh	Unit Well No.	1.0
Range 31	East , NMPM,	Power Grayburg-	San Andres Poo	1
Eddy	County, New Mexic	o, to dispose of	produced salt	
	Grayburg		formation, in	ijec-
tion to be acc	omplished through	23		inch
tubing install	ed in a packer se	t at approximate	ly <u>3475</u> fee	it,
with injection	into the perfor	ated interval from	om approximate	L y
3,506 fee	t to 3,598 fe	et;		

PROVIDED HOWEVER, that the tubing shall be plastic-lined; that the casing-tubing annulus shall be filled with an inert fluid; and that a pressure gauge shall be attached to the annulus or the annulus shall be equipped with an approved leak detection device in order to determine leakage in the casing, tubing, or packer.

AK!

- (2) That the injection well or system shall be equipped with a pop-off valve or acceptable substitute which will limit the wellhead pressure on the injection well to no more than 700 psi.
- (3) That the operator shall notify the supervisor of the Artesia district office of the Commission of the date and time of the installation of disposal equipment so that the same may be inspected.
- (4) That the operator shall immediately notify the supervisor of the Commission's <u>Artesia</u> district office of the failure of the tubing, casing, or packer, in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.
- (5) That the applicant shall submit monthly reports of its disposal operations in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.
- (6) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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