CASE 3965: Application of TEXAS PACIFIC OIL COMPANY FOR SALT WATER DISPOSAL, LEA COUNTY.

Number ase Application Transcripts. Small Exhibits

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. 3965 Order No. R-3606

APPLICATION OF TEXAS PACIFIC OIL COMPANY FOR SALT WATER DISPOSAL, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 8:30 a.m. on November 20, 1968, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 27th day of November, 1968, 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, Texas Pacific Oil Company, is the owner and operator of the Harner Well No. 1, located in Unit O of Section 20, Township 25 South, Range 37 East, NMPM, Jalmat Pool, Lea County, New Mexico.
- (3) That the applicant proposes to utilize said well to dispose of produced salt water into the Yates-Seven Rivers formations, with injection into the perforated interval from approximately 2600 feet to 3158 feet.
- (4) That the injection should be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 2500 feet; that the casing-tubing annulus should be filled with a sweet oil; and that a pressure gauge should be attached to the annulus at the surface in order to determine leakage in the casing, tubing, or packer.
- (5) That approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

-2-CASE No. 3965 Order No. R-3606

IT IS THEREFORE ORDERED:

(1) That the applicant, Texas Pacific Oil Company, is hereby authorized to utilize its Harner Well No. 1, located in Unit O of Section 20, Township 25 South, Range 37 East, NMPM, Jalmat Pool, Lea County, New Mexico, to dispose of produced salt water into the Yates-Seven Rivers formations, injection to be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 2500 feet, with injection into the perforated interval from approximately 2600 feet to 3158 feet;

PROVIDED HOWEVER, that the tubing shall be plastic-lined or the produced salt water shall be continuously treated prior to injection to prevent casing and tubing corrosion and coupon corrosion tests conducted continuously on said well and the results thereof filed quarterly with the Commission until further notice from the Secretary-Director of the Commission; that the casing-tubing annulus shall be filled with a sweet oil; and that a pressure gauge shall be attached to the annulus at the surface in order to determine leakage in the casing, tubing, or packer;

PROVIDED FURTHER, that any injection of produced salt water after January 1, 1970, must be accomplished through plastic-lined tubing.

- (2) That the applicant shall submit monthly reports of its disposal operations in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.
- (3) 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.

OIL CONSERVATION COMMISSION

DAVID F. CARGO, Chairman

HATON B. HAVE, Member

. L. PORTER, Jr., Member & Secretary

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CASE 3963: Application of Texas Pacific Oil Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produce $\tilde{\alpha}$ salt water into the Queen formation in the perforated interval from 3240 feet to 3290 feet in its Gregory "C" Well No. 3 located in Unit H of Section 35, Township 25 South, Range 37 East, Langlie-Mattix Pool, Lea County, New Mexico.

CASE 3964: Application of Texas Pacific Oil Company for salt water disposal, Lea County, New Mexico. Applicant, in the abovestyled cause, seeks authority to dispose of produced salt water into the Seven Rivers-Queen formations in the perforated interval from 3080 feet to 3350 feet in its Legal Well No. 4 located in Unit J of Section 31, Township 25 South, Range 37 East, Jalmat Pool, Lea County, New Mexico.

CASE 3965: Application of Texas Pacific Oil Company for salt water disposal, Lea County, New Mexico. Applicant, in the abovestyled cause, seeks authority to dispose of produced salt water into the Yates-Seven Rivers formations in the perforated interval from 2600 feet to 3158 feet in its Harner Well No. 1 located in Unit O of Section 20, Township 25 South, Range 37 East, Jalmat Pool, Lea County, New Mexico.

<u>CASE 3966:</u> Application of Texas Pacific Oil Company for salt water disposal, Lea County, New Mexico. Applicant, in the abovestyled cause, seeks authority to dispose of produced salt water into the Drinkard formation in the open-hole interval from 6333 feet to 6419 feet in its Boyd Well No. 1 located in Unit G of Section 23, Township 22 South, Range 37 East, Drinkard Pool, Lea County, New Mexico.

BEFORE THE

NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

November 20, 1968

EXAMINER HEARING

IN THE MATTER OF:

Application of Texas Pacific) Oil Company for salt water disposal, Lea County, New Mexico.

Case Number 3965

BEFORE: Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING



MR. UTZ: Case 3965.

MR. HATCH: Case 3965, application of Texas Pacific Oil Company for salt water disposal, Lea County, New Mexico.

MR. RUSSELL: John F. Russell, appearing on behalf of the applicant. I have one witness, Mr. Ron Freels, who testified in the prior case.

(Whereupon, Applicant's Exhibits Numbers 1 through 4, inclusive, were marked for identification.)

RON FREELS

called as a witness, and having been previously sworn upon his oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. RUSSELL:

- Q Mr. Freels, are you familiar with the application of Texas Pacific Oil Company in Case Number 3965?
 - A Yes, I am.
 - Q What do you seek by that application?
- A Texas Pacific Oil Company seeks approval to dispose of produced salt water into the Yates-Seven Rivers Formations in the perforated interval from 2,600 feet to 3,158 feet in its Harner Well No. 1, located in Unit O of Section 20, Township 25 South, Range 37 East, Jalmat Pool, Lea County, New Mexico. Let me check that, that is Well No. 1, not 1-A.

Q Mr. Freels, have you prepared some exhibits in connection with this application?

A Yes, I have. Here are the ones marked for the Examiner, and here are two additional copies.

Q Referring to the exhibits which you have prepared, identify them and explain what they portray?

A Exhibit Number 1 is a plat of the area of the injection well, the proposed injection well, which shows the location and producing intervals of all the wells in that area. It also shows location of the proposed injection well. It has a yellow triangle around it. The location of the proposed injection well is 660 feet from the south line and 1,980 feet from the east line of Section 20, Township 25 South, Range 37 East, Lea County, New Mexico.

I would like to point out one thing on the map, that underneath the well where it shows the lease name, it appears that it says Harper. It is actually H-a-r-n-e-r, Harner Lease.

It is proposed that the well will serve the Harner
No. 1 well, and we have in addition been approached by Union
Texas to take water from two of their leases, and we are certainly
agreeable to do this, provided it doesn't create any additional
problems for us, and we don't anticipate that it will. The
well that Union proposes to contribute to the lease are their

Carlson Lease, they have their Well No. 2, which is located in the southwest quarter of the northwest quarter of Section 21; and also their Lonehart No. 1, which is located in the northwest quarter of the southwest quarter of Section 21. There are two wells there. The Carlson No. 1 well is currently producing only about 30 barrels of water a month, and the Lonehart Well is producing currently 2,700 barrels of water a month.

The Texas Pacific Harner No. 1, which is No. 2 which is going into this well, is currently producing about 400 barrels of water a month. So we anticipate a total maximum volume of 3,100 barrels of water into this well per month.

Exhibit Number 2 is a schematic of the proposed injection well. The schematic shows that the well has 10 and three-quarter inch casing, cemented at 232 feet with 300 sacks of cement, and the cement is to the surface; and that five and a half inch casing was cemented at 3,342 feet with 600 sacks of cement, and the cement was to the surface.

Also, the schematic shows the Tansill at 2,490 feet, the Yates at 2,580 feet, and the Seven Rivers at 2,813 feet. It shows a bridge plug at approximately 3,200 feet, and it shows the top of the Queen at 3,205 feet, and the Penrose at 3,333 feet, and it shows the perforations from 2,600 feet to 3,158 feet, which is within the Seven Rivers Formation. Actually,

it is within the Yates-Seven Rivers Formation.

Also, the schematic shows a string of tubing to be set into a packer at approximately 2,500 feet. This happens to be another one of our real marginal properties. Our No. 2 well is expected to last less than -- just slightly over a year, and a very, very limited future in net revenue. If it does not create a problem, we would like to ask permission to run only a string of tubing without a packer, and we would, of course, float oil on top in the annulus behind the tubing. This is a well in which we feel is amenable to this approach, in that the five and a half inch casing was submitted all the way to the surface, which should provide even additional protection for any possibility of breaking out of the water. We will inhibit the water at the surface and establish a coupon program, and will submit quarterly reports to the Commission.

- Q Now, you indicated that this well, producing well has an expected life of approximately one year?
- A Yes. I have a figure here exactly. I wanted to be sure of that, too. It shows approximately -- well, it would be 1.7 years from back in July, so it is approximately a year after the first of the year. So this is what, approximately an additional year of life.

- You indicated that you may work out an agreement with Union Oil Company of Texas to dispose of water from two of the wells?
 - A Yes.
- Q Will that agreement be limited to the one year or expected life of your well, or not?
- A This is a problem in that we do not want to be put into a position of being required to sit there and operate an injection well after our properties are no longer worth producing, and so this would be one of the things that Union would have to accept, that we are not going to operate this injection well beyond the term that our producing well is economic.

And as I say, we have not reached exact terms with Union, but if we can, we would be pleased to take their water. I do not have any handle on how long their wells are expected to live, or the life of their wells. I do not have this information.

- Q Now, going back to your Exhibit Number 3.
- A Exhibit 3 is a log of the proposed injection well, which shows the top of the Yates, and shows in red the producing interval, or the injection interval we propose to inject into, shows the top of the Queen and the top of the Penrose. It does not show be location of the bridge plug, which is above the

Queen.

Exhibit Number 4 is an analysis of the water from the Harner No. 2, and it shows that the chlorides from this well is approximately 36,000 parts per million.

- Q Would the granting of this application prevent waste or the premature abandonment of wells, and protect the relative rights in the area?
 - A Yes, it would.
- Q Were Exhibits 1 through 4 prepared by you or under your supervision and direction?
 - A Yes, they were.

MR. RUSSELL: Mr. Examiner, I offer in evidence Applicant's Exhibit 1 through 4, inclusive.

MR. UTZ: Without objection, Exhibits 1 through 4 will be entered into the record.

(Whereupon, Applicant's Exhibits Numbers 1 through 4, inclusive, were admitted in evidence.)

MR. RUSSELL: I have no further questions of this witness.

CROSS EXAMINATION

BY MR. UTZ:

Q Do you have any idea, Mr. Freels, when you might reach an agreement with Union?

A It is very difficult to predict. I would certainly predict it would be before the end of the year. I feel certain that if the approval of this hinged on whether or not we had a packer, I think Union would probably agree to buy the packer for us. But as far as their agreeing to us abandoning the well whenever our other well is no longer economic, I can't say what they would agree to on that. But we are hoping we can help them by taking the water, and probably in the interim they can determine a more permanent place for disposal of that, if they need it.

MR. UTZ: Any other questions?

MR. RUSSELL: No further questions.

MR. UTZ: It is heard and submitted.

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WITNESS	PAGE
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Cross Examination by Mr. Utz	7

EXHIBITS	MARKED	OFFERED AND ADMITTED
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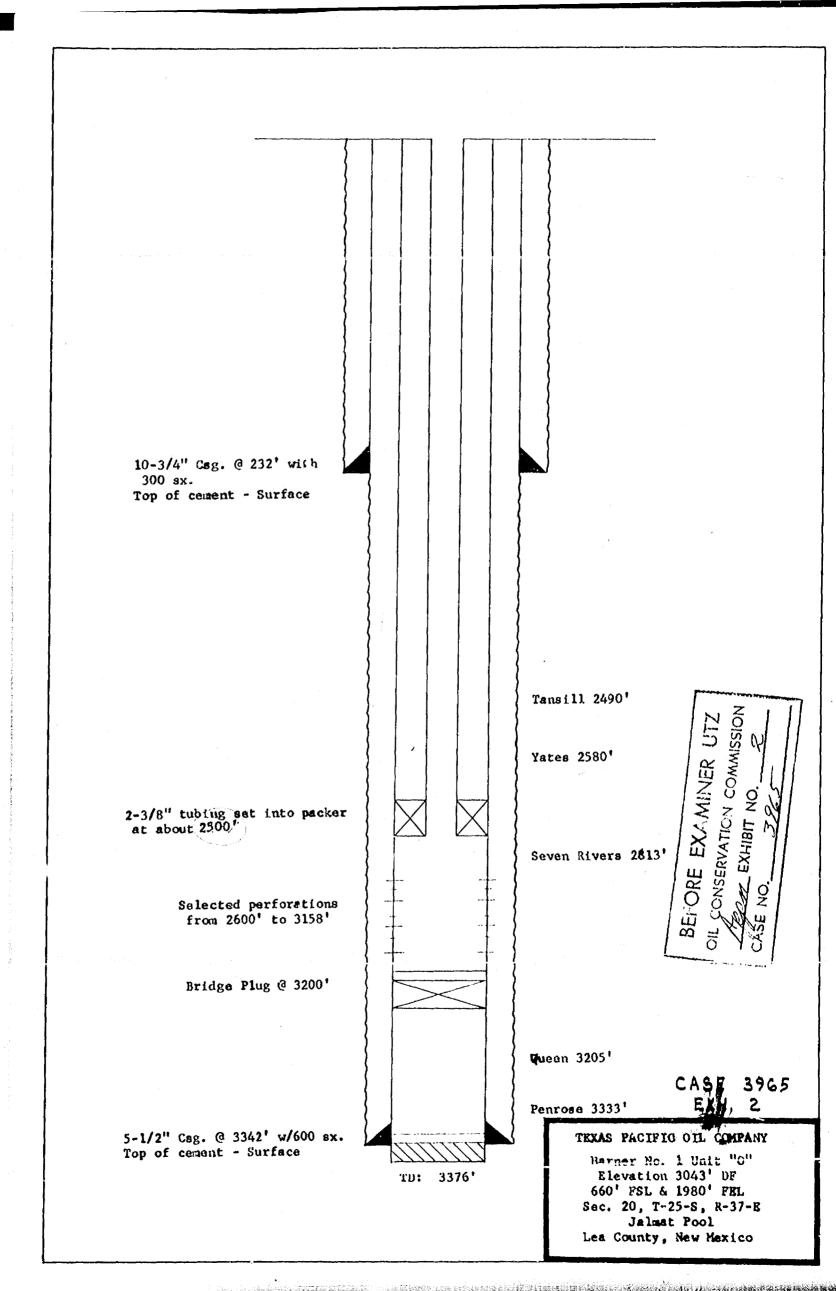
STATE	OF	NEW	MEXICO)	
)	SS
COUNTY	OF	BEI	RNALILLO)	

I, SAM MORTELETTE, Court Reporter in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me; and that the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

Sum Mortelette

i do hereby eartify that the foregoing is a complete record of the proceedings in the Emminer heaving of these No. 39.6.5.

Mew Mexico Oil Conservation Openiusion



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COMPANY
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CHEMICAL CORPORATION UNITED

601 NORTH LEECH

P. O. BOX 1499

HOBBS, NEW MEXICO 88240

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	CASE NO. 3965		
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calinity as CaCO,		30.24	1512
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EXH. 4 CASE 3965

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Calcium sulfate scaling index positive Hours super Set of Carson Sekram Ry London State Company Service Serv

^{*} me/l = milliequivalents per Liter

IN THE MATTER OF THE APPLICATION OF TEXAS PACIFIC OIL COMPANY FOR PER-MISSION TO DISPOSE OF PRODUCED WATER INTO THE YATES AND SEVEN RIVERS FORMATIONS THROUGH PERFORATED INTER-VALS OF 2600 FEET TO 3158 FEET IN ITS HARNER WELL NO. 1 LOCATED IN UNIT "O" OF SECTION 20, TOWNSHIP 25 SOUTH, RANGE 37 EAST, JALMAT POOL, LEA COUNTY, NEW MEXICO.

No. 3965

APPLICATION

COMES NOW Texas Pacific Oil Company, a division of Joseph E. Seagram & Sons, Inc., by its attorney, John F. Russell, and states:

- 1. Applicant proposes to commence the disposal of salt water produced from the Yates, Seven Rivers and Queen Formations by injection into the Yates and Seven Rivers Formations through perforated intervals of 2600 feet to 3158 feet in its Harner Well No. 1 located in Unit "O" of Section 20, Township 25 South, Range 37 East, Jalmat Pool, Lea County, New Mexico.
- 2. The water being disposed of is not suitable for domestic or agricultural purposes and the disposal of said water, as proposed, will not impair production of oil, gas or fresh water from the reservoir nor will it impair correlative rights.
- 3. Applicant attaches hereto as Exhibit "1" a plat showing the location of the proposed injection well and all wells within two miles of said proposed injection well and the names of the lessees.

- 4. Applicant attaches hereto as Exhibit "2" a diagramatic sketch showing the manner of completing the proposed injection well.
- 5. Applicant attaches hereto as Exhibit "3" a graph showing the production history of the aforesaid well.
- 6. Applicant will present at the time of the hearing the well log of the proposed injection well.

WHEREFORE, Applicant requests that the Commission set this matter down for hearing before its Examiner, publish notice as required by law and after hearing issue its order authorizing the disposal of salt water as aforesaid.

Respectfully submitted,

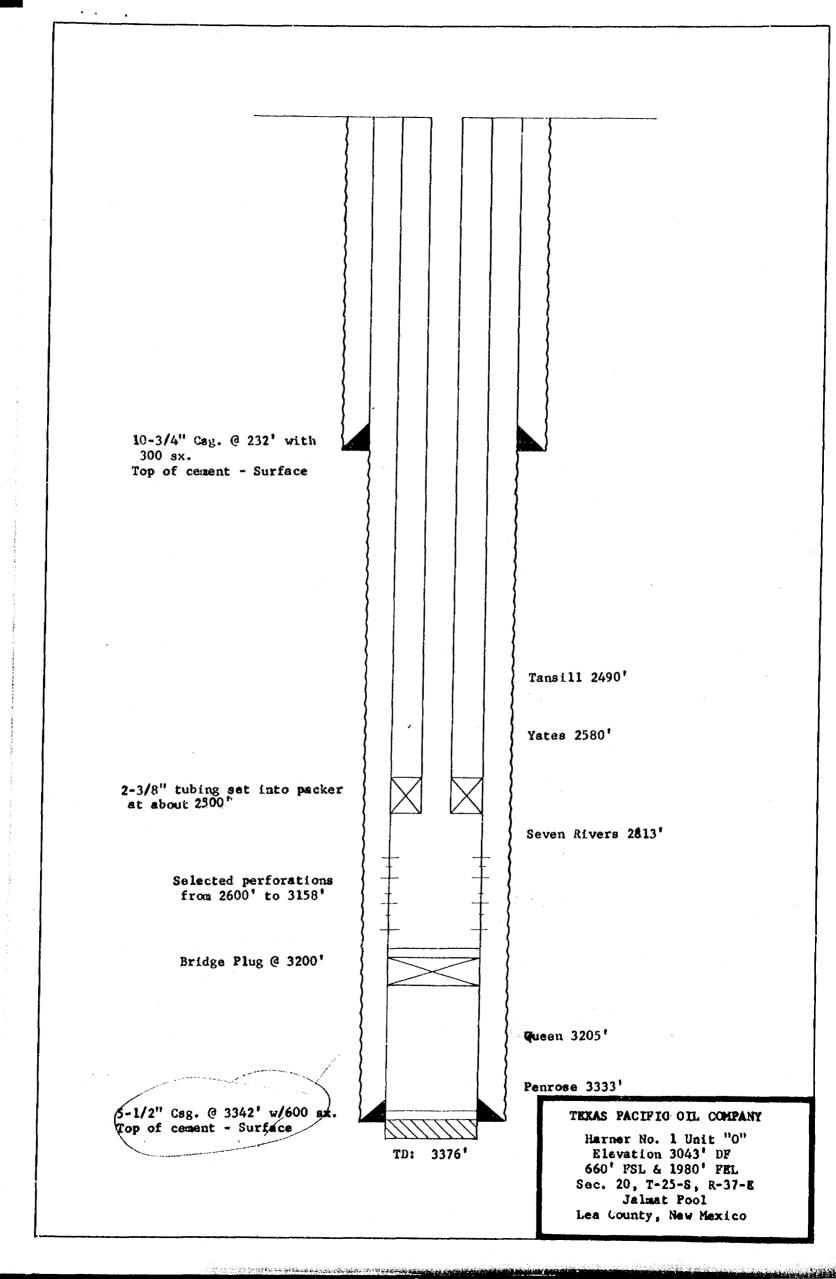
TEXAS PACIFIC OIL COMPANY, A division of Joseph E. Seagram & Sons, Inc.

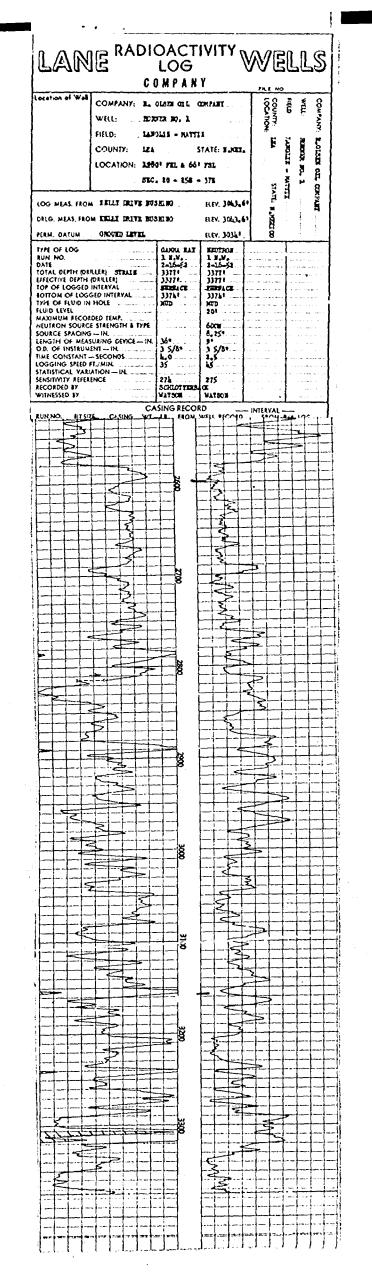
John F. Russell P.O.Drawer 640

Roswell, New Mexico 88201

Applicant's Attorney

DATED:







UNITED CHEMICAL CORPORATION

DE NEW MEXICO

601 NORTH LEECH

P. O. BOX 1499

HOB6S, NEW MEXICO 88240

Texas Pacific Company Jalmat - Yates - 7 Rivers Field.... _____Sampling Date 10/31/68 Harner #2 Type of Sample. WATER ANALYSIS IONIC FORM me/l * mg/l ' Calcium (Ca++) 341 17.02 8159 Magnesium (Mg4+) 670.99 Sodium (Na+) 22,722 988.36 30.24 1845 Bicarbonate (HCO,) Carbonate (CO = -) FOUND NOT Hydroxide (OH-) FOUND TOM Sulphate (SO]-) 1003.10 35,571 Chloride (CI-) 7.0 ph c 68 °F Dissolved Solids on Evop. at 103° - 105° C 34,401 688.01 Hardness as Ca CO, Carbonate Hardness as CaCO₃ (temporary) 30.24 1512 Non-Carbonate Hardness as CaCO₂ (permanent) 32,889 657.77 Alkalinity as CoCO3 1512 30.24 Specific Gravity c 68° F 1.065

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^{*} mg/l= milligrams per Liter

^{*} me/l = milliequivalents per Liter

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE DIL CONSERVATION CONSIDERING:

CASE No. 3965

Order No. R- 3666

APPLICATION OF TEXAS PACIFIC OIL COMPANY FOR SALT WATER DISPOSAL, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

RY	THE	COMMIT	SSION:
<u> </u>	T 1117	へんいがって	DE TON

8:30
This cause came on for hearing at 9 a.m. on November 20,1968, at Santa Fe, New Mexico, before Examiner Elvis A. Utz

NOW, on this <u>day of November</u>, 1968, 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, Texas Pacific Oil Company
 is the owner and operator of the Harner Well No. 1
 located in Unit O of Section 20, Township 25 South, Range
 37 East, NMPM, Jalmat Pool Lea
 County, New Mexico.
- (3) That the applicant proposes to utilize said well to dispose of produced salt water into the Yates-Seven Rivers formations with injection into the perforated interval from approximately 2600 feet to 3158 feet.
- (4) That the injection should be accomplished through 238 -inch plastic lines tubing installed in a packer set at

approximately 2500 feet; that the casing-tubing annulus should be filled with an inert fluid; and that a pressure gauge should be attached to the annulus or the annulus left open at the surface in order to determine leakage in the casing, tubing, or packer.

(5) 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, <u>Texas Pacific Oil Company</u> ,
is hereby authorized to utilize its <u>Harner Well No. 1</u> ,
located in Unit O of Section 20 , Township 25 South , Range
37 East, NMPM, Jalmat Pool Lea
County, New Mexico, to dispose of produced salt water into the
Yates-Seven Rivers formations injection to be accomplished through
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from approximately 2600 feet to 3158 feet;

PROVIDED HOWEVER, that the tubing shall be plastic-lined

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leakage in the casing, tuding, or packer.

Provided Further, that any inspection of produced selt water after January 1, 1970, much be accomplished through plantic lined tubing.

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