

CASE 3814: Application of HUMBLE  
OIL & RFG. CO. FOR SALT WATER  
DISPOSAL, LEA COUNTY, NEW MEXICO.

Case Number

3814

Application  
Transcripts.

Small Exhibits

ETC.

GOVERNOR  
DAVID F. CARGO  
CHAIRMAN

State of New Mexico  
**Oil Conservation Commission**



LAND COMMISSIONER  
GUYTON B. HAYS  
MEMBER

P. O. BOX 2088  
SANTA FE

STATE GEOLOGIST  
A. L. PORTER, JR.  
SECRETARY - DIRECTOR

August 1, 1968

Mr. Clarence Hinkle  
Hinkle, Bondurant & Christy  
Attorneys at Law  
Post Office Box 10  
Roswell, New Mexico 88201

Re: Case No. 3814  
Order No. 3815  
Applicant:  
HUMBLE OIL & RFG. CO.

Dear Sir:

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

Very truly yours,

*A. L. Porter, Jr.*  
A. L. PORTER, Jr.  
Secretary-Director

ALP/ir

Carbon copy of order also sent to:

Hobbs OCC x  
Artesia OCC x (R-3463)  
Aztec OCC \_\_\_\_\_  
Other STATE ENGINEER OFFICE

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. 3814  
Order No. R-3462

APPLICATION OF HUMBLE OIL & REFINING  
COMPANY FOR SALT WATER DISPOSAL, LEA  
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on July 24, 1968,  
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 1st day of August, 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, Humble Oil & Refining Company, is  
the owner and operator of the New Mexico "G" State Well No. 17,  
located 330 feet from the South line and 1850 feet from the West  
line of Section 23, Township 21 South, Range 36 East, NMPM,  
Sumont Gas Pool, Lea County, New Mexico.

(3) That the applicant proposes to utilize said well to  
dispose of produced salt water into the Penrose zone of the  
Queen formation in the perforated interval from approximately  
3818 feet to 3838 feet.

(4) That should injection into the Penrose zone of the  
Queen formation prove unsatisfactory, the applicant proposes

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CASE No. 3814

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to deepen said well to a total depth of 3990 feet and to also dispose of produced salt water into the Upper San Andres formation.

(5) That the applicant should be authorized to utilize the subject well to dispose of produced salt water into the Penrose zone of the Queen formation; that the injection should be accomplished through 2 3/8-inch plastic-lined tubing installed in a packer set at approximately 3750 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 tubing or packer.

(6) That should injection into said Penrose zone prove unsatisfactory, the applicant should be authorized to also dispose of produced salt water into the Upper San Andres formation utilizing the same facilities authorized for disposal into the Penrose zone of the Queen formation.

(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, Humble Oil & Refining Company, is hereby authorized to utilize its New Mexico "G" State Well No. 17, located 330 feet from the South line and 1850 feet from the West line of Section 23, Township 21 South, Range 36 East, NMPM, Eumont Gas Pool, Lea County, New Mexico, to dispose of produced salt water into the Penrose zone of the Queen formation, injection to be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 3750 feet, with injection into the perforated interval from approximately 3818 feet to 3838 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 left open at the surface in order to determine leakage in the tubing or packer.

(2) That if injection into said perforated interval proves unsatisfactory, the applicant is hereby authorized to deepen said well to a total depth of 3990 feet and to also dispose of produced

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CASE No. 3814  
Order No. R-3462

salt water into the Upper San Andres formation in the open-hole interval from 3890 feet to 3990 feet.

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

(4) 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.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

  
DAVID F. CARGO, Chairman

  
GUYTON B. HAYS, Member

  
A. L. PORTER, Jr., Member & Secretary



esr/

Docket No. 22-68

DOCKET: EXAMINER HEARING - WEDNESDAY - JULY 24, 1968

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM,  
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Daniel S. Nutter, Examiner, or  
A. L. Porter, Jr., Alternate Examiner:

- CASE 3809: Application of Solar Oil Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its Travis Well No. 2 located in Unit J of Section 21, Township 23 South, Range 37 East, Lea County, New Mexico, to produce oil from the Teague-Blinbry and undesignated Tubb-Drinkard pools through parallel strings of tubing.
- CASE 3810: Application of Bronco Oil Corporation for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its Saltmount Well No. 2 located in Unit O of Section 21, Township 23 South, Range 37 East, Lea County, New Mexico, to produce oil from the Teague-Blinbry and undesignated Tubb-Drinkard pools through parallel strings of tubing.
- CASE 3811: Application of Charles B. Read for an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill his Marathon State Well No. 1 at a location 1980 feet from the South line and 660 feet from the West line of Section 7, Township 19 South, Range 35 East, Scharb-Bone Springs Pool, Lea County, New Mexico, in exception to the pool rules which require the first well drilled on a unit to be located in the NE/4 or the SW/4 of the quarter section.
- CASE 3812: Application of Tenneco Oil Company for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Southwest Henshaw (Premier) Unit Area comprising 1720 acres, more or less, of Federal lands in Township 16 South, Range 30 East, West Henshaw-Grayburg Pool, Eddy County, New Mexico.
- CASE 3813: Application of Tenneco Oil Company for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in its Southwest Henshaw (Premier) Unit Area by the injection of water into the Premier sand through nine injection wells in Sections 7, 8, 17, 18 and 19, Township 16 South, Range 30 East, West Henshaw-Grayburg Pool, Eddy County, New Mexico.

- CASE 3814: Application of Humble Oil & Refining Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Penrose zone of the Queen formation in the perforated interval from 3818 feet to 3838 feet in its New Mexico "G" State Well No. 17 located 330 feet from the South line and 1850 feet from the West line of Section 23, Township 21 South, Range 36 East, Eumont Gas Pool, Lea County, New Mexico. If said Penrose zone does not prove satisfactory, then the applicant proposes to deepen said well and dispose into the San Andres formation.
- CASE 3815: Application of Humble Oil & Refining 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 Abo formation in the interval from 5670 feet to 6030 feet in its Chalk Bluff Draw Unit (A) Well No. 19 located 990 feet from the South line and 1650 feet from the West line of Section 16, Township 18 South, Range 27 East, Empire Abo Pool, Eddy County, New Mexico.
- CASE 3816: Application of Humble Oil & Refining Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Wolfcamp formation in the interval from 10,199 feet to 10,530 feet in its H. A. Townsend Well No. 6 located 1980 feet from the North and East lines of Section 9, Township 16 South, Range 35 East, Townsend Wolfcamp Pool, Lea County, New Mexico.
- CASE 3817: Application of Continental Oil Company for reinstatement of cancelled underproduction, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an exception to the general rules and regulations for prorated gas pools of Southeastern New Mexico promulgated by Order No. R-1670, as amended, to permit the reinstatement of underproduction accumulated by its Stevens A-35 Well No. 2 located in Unit J of Section 35, Township 23 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico, cancelled December 31, 1967. Applicant requests that its Stevens A-35 Well No. 1 located in Unit L and its Stevens A-35 Well No. 2 located in Unit J, both in the aforesaid Section 35 and dedicated to the same non-standard gas proration unit, be permitted to produce the aforesaid cancelled underproduction.



CASE 3818: Application of Continental Oil Company for an exception to Rule 506, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an exception to the statewide limiting gas-oil ratio of 2,000 feet of gas per barrel of oil as promulgated by Commission Rule 506 for its Warren Unit Well No. 11, located in Unit A of Section 35, Township 20 South, Range 38 East, Warren-Drinkard Pool, Lea County, New Mexico.

CASE 3819: Application of Cities Service Oil Company for the institution of gas prorationing in the Buffalo Valley-Pennsylvanian Gas Pool, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks the limitation of gas production from the Buffalo Valley-Pennsylvanian Gas Pool in Chaves County, New Mexico, to reasonable market demand and to the capacity of gas transportation facilities, and that the subject pool be governed by the general rules and regulations for the prorated gas pools of Southeastern New Mexico insofar as said general rules and regulations are not inconsistent with the special rules and regulations governing the subject pool. Further, the applicant proposes that the allowable production from the pool be allocated among the wells in the pool on a 100% surface acreage basis.

CASE 3820: Application of El Paso Natural Gas Company for an unorthodox gas well location, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Harvey "A" Well No. 3 at a point 890 feet from the South line and 1650 feet from the East line of Section 32, Township 27 North, Range 7 West, Blanco-Mesaverde Pool, Rio Arriba County, New Mexico, in exception to the pool rules which require locations to be in either the Northeast or Southwest quarter of the section.

CASE 3821: Application of Marathon Oil Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp formation underlying the SE/4 of Section 22, Township 20 South, Range 35 East, Lea County, New Mexico. Said acreage to be dedicated to a well to be drilled 660 feet from the South and East lines of said Section 22, and within one mile of the Southeast Lea-Wolfcamp Gas Pool.

Case 3822: Application of Aztec Oil & Gas Company for commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle San Andres production from its State "AJ" lease comprising the SW/4 and the W/2 NE/4 of Section 1 and its Amerada State lease comprising the N/2 NW/4 of Section 12, all in Township 18 South, Range 36 East, Arkansas Junction-San Andres Pool, Lea County, New Mexico, allocating production to each lease on the basis of periodic well tests.

CASE 3805: CONTINUED FROM THE JULY 10, 1968, EXAMINER HEARING

Application of Benson-Montin-Greer Drilling Corporation and Lloyd B. Taylor for Pressure Interference Tests and Back Allowable, San Juan County, New Mexico. Applicants, in the above-styled cause, seek authority to extend for an additional 60-day period from July 8, 1968, the shut-in test period authorized for one well in the La Plata Gallup Oil Pool, San Juan County, New Mexico, by Commission Order No. R-3399 and to also extend the back allowable make-up period for said well. Applicants further seek authority to drill three additional La Plata oil wells in Section 6 of Township 31 North, Range 13 West, and Sections 31 and 32, Township 32 North, Range 13 West, and to shut said wells in immediately after recovery of load oil and the establishment of initial potentials, for a period of up to 180 days for the purpose of conducting pressure interference tests, and to make-up the production lost during said test period at a later date. Applicants further seek a provision for administrative extension of the shut-in test period and the make-up period.

# HUMBLE OIL & REFINING COMPANY

MIDLAND, TEXAS 79701

PRODUCTION DEPARTMENT  
SOUTHWESTERN DIVISION

June 21, 1968

POST OFFICE BOX 1600

*Case 3814*

22-5: Eunice Area  
Proposed Salt Water Disposal Well

New Mexico Oil Conservation Commission  
P. O. Box 2088  
Santa Fe, New Mexico

ATTENTION: Mr. A. L. Porter, Jr., Secretary-Director

1968 JUN 25 AM 8 46

Dear Sir:

Humble Oil & Refining Company respectfully requests a Hearing before the Commission to consider its application to convert N. M. "G" State 17, Eumont Oil Pool to a salt water disposal well. It is located in Unit N, Section 23, T-21-S, R-36-E, Lea County, New Mexico.

N. M. "G" State 17 was originally completed November 27, 1958, in the Eumont Oil pay from 3818 to 3838 feet. This well experienced about the same normal decline in production as that of all other N. M. "G" State wells, except that water encroachment was more rapid. In February, 1966, it tested 100 percent water and was removed from the allowable schedule.

It is proposed to inject produced water from the N. M. "G" State lease into the present perforated interval in the Eumont Oil zone. If this zone does not take sufficient water on vacuum it is proposed to deepen to San Andres porosity where other disposal wells in this area are completed.

Humble requests that it be allowed to dispose of water into this well from all its leases, in the vicinity of Eunice, New Mexico, when these leases start producing water in excess of the minimum allowed and are not connected to a disposal system.

A pilot waterflood project is in operation in Section 34 to the west. When expansion takes place, N. M. "G" State 17 will fit into the flood pattern as an injection well.

Yours very truly,

HUMBLE OIL & REFINING COMPANY

  
L. H. BYRD

BKB:csd

DOCKET MAILED

Date 7-11-68

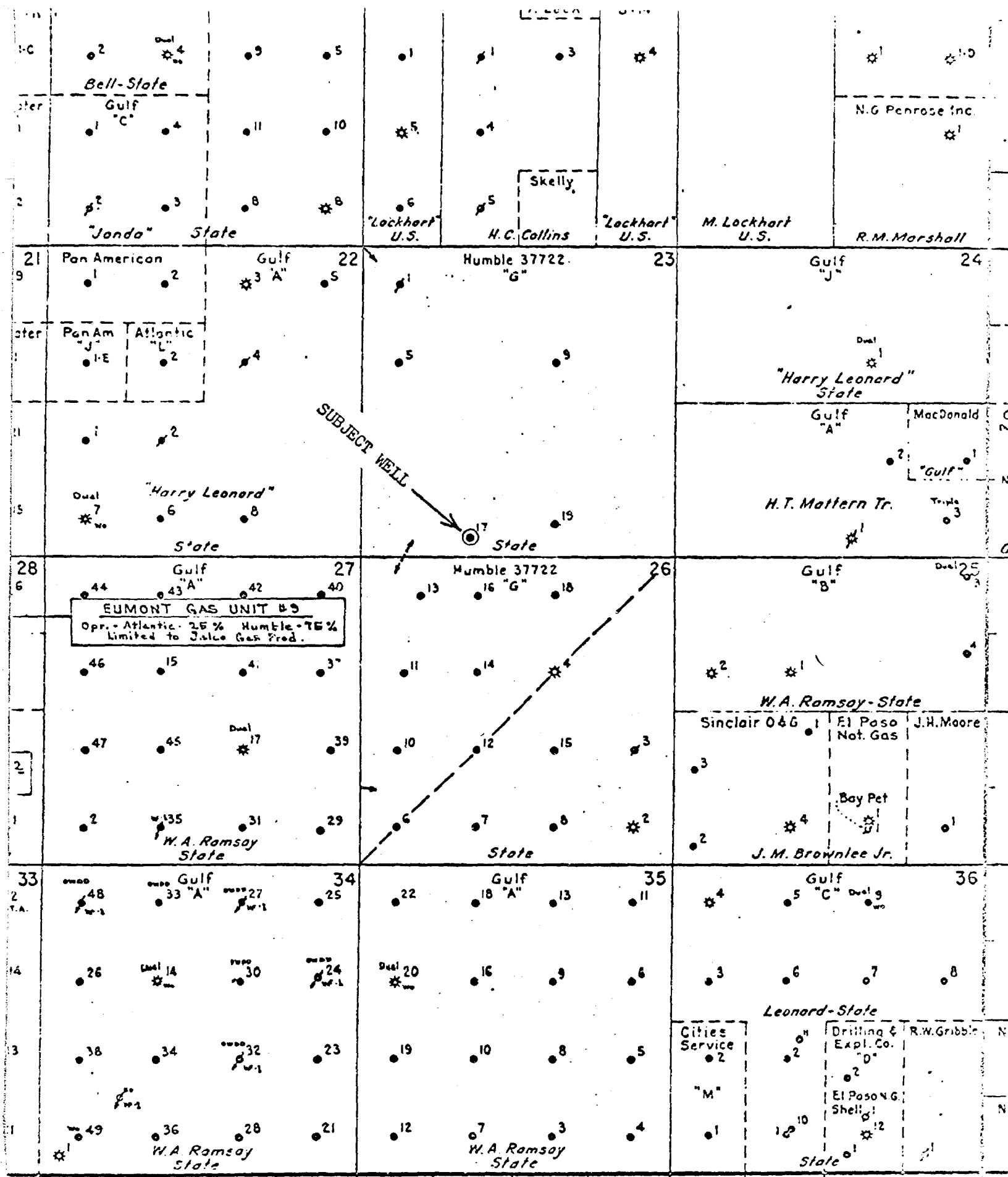
NEW MEXICO OIL CONSERVATION COMMISSION  
APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

OPERATOR Humble Oil and Refining Company		ADDRESS P. O. Box 2100, Hobbs, New Mexico 88240			
LEASE NAME N. M. "G" State	WELL NO. 17	FIELD Eumont Oil	COUNTY Lea		
LOCATION UNIT LETTER <u>N</u> WELL IS LOCATED <u>330</u> FEET FROM THE <u>South</u> LINE AND <u>1850</u> FEET FROM THE <u>West</u> LINE, SECTION <u>23</u> TOWNSHIP <u>21S</u> RANGE <u>36E</u> NMPM.					
CASING AND TUBING DATA					
NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING	8-5/8"	313	200	Surface	
INTERMEDIATE					
LONG STRING	5-1/2"	3890	300	2650	Temperature Survey
TUBING	2"	3750	NAME, MODEL AND DEPTH OF TUBING PACKER Retrievable hookwall packer at 3750 feet.		
NAME OF PROPOSED INJECTION FORMATION Penrose		TOP OF FORMATION 3727'		BOTTOM OF FORMATION 3838'	
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? Tubing		PERFORATIONS OR OPEN HOLE? Perforated		PROPOSED INTERVAL(S) OF INJECTION 3818-3838 feet	
IS THIS A NEW WELL DRILLED FOR DISPOSAL? No		IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? Oil		HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE? No	
LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH					
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA 216		DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA Queen Gas 3727'		DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA None	
ANTICIPATED DAILY INJECTION VOLUME (BBLs.) 32	MINIMUM 1000 Est.	MAXIMUM 1000 Est.	OPEN OR CLOSED TYPE SYSTEM Closed	IS INJECTION TO BE BY GRAVITY OR PRESSURE? Gravity	APPROX. PRESSURE (PSI) 100
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE -		WATER TO BE DISPOSED OF Yes		NATURAL WATER IN DISPOSAL ZONE Yes	ARE WATER ANALYSES ATTACHED? Yes
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) Clif Payne, 102 S. 1st Street, Lovington, New Mexico 88260					
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL Gulf Oil Corporation, P. O. Box 670, Hobbs, New Mexico 88240					
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING? Yes					
SURFACE OWNER Yes		EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL Yes		THE NEW MEXICO STATE ENGINEER -	
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B) Yes		ELECTRICAL LOG Yes		DIAGRAMMATIC SKETCH OF WELL Yes	

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

  
(Signature)District Superintendent  
(Title)6/21/68  
(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.



33 E

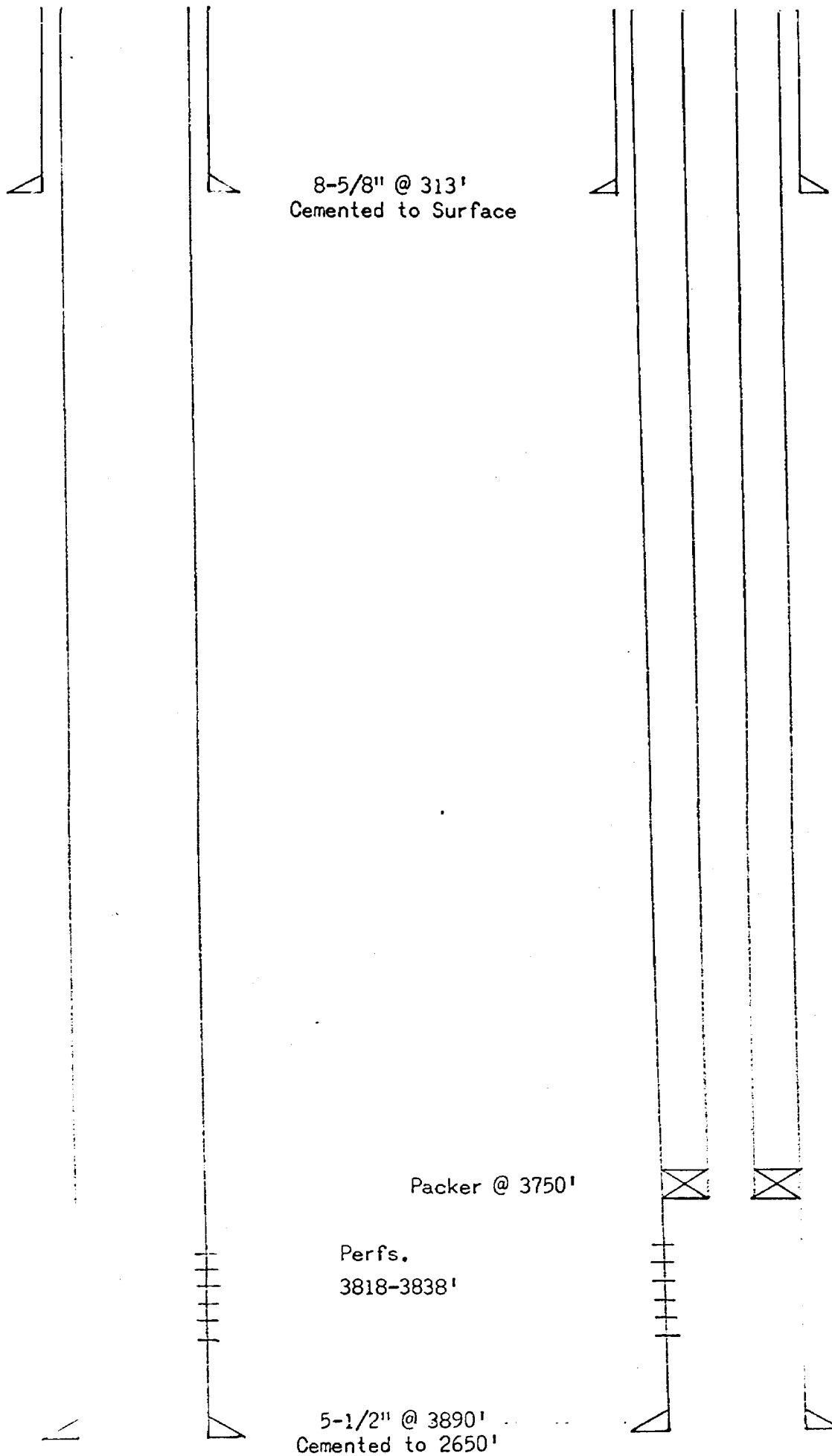
T-21-S R-36-E

Chas 381K

HUMBLE OIL AND REFINING COMPANY  
NEW MEXICO "G" STATE 17  
EUMONT OIL POOL  
LEA COUNTY, NEW MEXICO

PRESENT COMPLETION

PROPOSED COMPLETION



*Case 3814*

HUMBLE OIL & REFINING COMPANY

EUMONT OIL POOL

WATER ANALYSIS

Source: New Mexico "G" State Battery 1

	<u>Parts Per Million</u>
Sodium	7,080
Calcium	800
Magnesium	1,095
Chloride	12,425
Sulfate	380
Bicarbonate	1,098
Carbonate	None
Hydrogen Sulfide	None
Iron	None
Specific Gravity	1.052 @ 78° F
pH	7.5

Case 3814

dearnley-meier reporting service, inc.

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXHIBITS, TESTIMONY, DAILY COPY, CONVENTIONS

1120 SIMMS BLDG. • P. O. BOX 1092 • PHONE 243-6491 • ALBUQUERQUE, NEW MEXICO

BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
July 24, 1968

EXAMINER HEARING

IN THE MATTER OF:

Application of Humble Oil & Refining  
Company for salt water disposal,  
Lea County, New Mexico.

Case No. 3814

BEFORE: Daniel S. Nutter  
Examiner

TRANSCRIPT OF HEARING



MR. NUTTER: We'll call Case Number 3814.

MR. HATCH: Case 3814. Application of Humble Oil & Refining Company for salt water disposal, Lea County, New Mexico.

MR. HINKLE: Clarence Hinkle, Hinkle, Bondurant and Christy, Roswell, appearing on behalf of Humble. We have one witness, but the exhibits are different in these three cases so I guess we'd better take them --

MR. NUTTER: Just take them one at a time.

MR. HINKLE: Yes. We would like to have the witness sworn, please.

(Witness sworn.)

(Whereupon, Applicant's Exhibits 1, 2, 3 and 4 were marked for identification.)

B. K. BEVELL

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

DIRECT EXAMINATION

BY MR. HINKLE:

Q State your name, by whom you are employed and where you reside.

A B. K. Bevell, Humble Oil and Refining Company, Hobbs, New Mexico.

Q Are you a graduate Petroleum Engineer?

A Yes, sir.

Q Have you previously testified before the New Mexico Oil Conservation Commission?

A I have.

Q And your qualifications as a petroleum engineer are a matter of record with the Commission?

A Yes, sir.

Q Are you familiar with the application of Humble in Case 3814?

A Yes, sir.

Q What is Humble seeking to accomplish by this application?

A Humble is requesting permission to convert our New Mexico State G Number 17 to a salt water disposal well.

Q Have you prepared certain exhibits in connection with Case 3814?

A Yes, sir, I have.

Q Refer to Humble's Exhibit Number 1 and explain what this shows.

A Exhibit Number 1 is a plat of the area. Outlined in yellow is Humble's New Mexico State G Lease, and circled in red is the subject well which we're requesting that we be allowed to convert to a salt water disposal well.

Q Is that a producing well at the present time?

A No, sir. It's been -- The well has been shut in, off allowable schedule for about two years.

Q Does this plat also show all of the other wells that have been drilled in the area within a radius of two miles within the injection well?

A Yes, sir. All are Eumont oil wells.

Q Now, refer to Exhibit 2 and explain what this is and what it shows.

A Exhibit 2: on the left shows how the well is arranged at present. It was only temporarily abandoned and the tubing pulled out of it and the Eumont perforations and the original perforations are still open. On the right shows how we plan to arrange the well with tubing of packer, with the packer set at approximately 3750 feet; tubing size will be two and three-eighths inches.

Q And this will inject the water into what formation?

A The Eumont Oil Pay.

Q How much produced water do you anticipate will be injected into this well?

A Actually, at the present, the New Mexico State G Lease produces a total of 41 barrels a day. However, we are also requesting permission to dispose of water from all of our surrounding leases in the unit area into this well which would

be our New Mexico State S Lease, our State V Lease, our FF Hardison B Lease, our Federal Terry Lease, our WB Ferrell Lease, and our JO Greenwood Lease.

Q Are these leases you've mentioned located in the immediate vicinity of the proposed injection wells?

A They're all within approximately twelve miles of this proposed injection well.

Q How do you propose to transport the water from these, produced water from these wells for injection into the subject well?

A When these leases start making water over the allowable, produced water on leases, we propose to haul.

Q And what method would you use to inject the water into the well after it's hauled to the location?

A We hope to have gravity injection in case this interval does not take sufficient water on gravity. We also request permission to deepen this well into the San Andres porosity which we know will take water on vacuum.

Q And how much would you have to deepen the well to get into the San Andres?

A I don't know exactly, but I assume something like about 100 feet.

Q Now, refer to Exhibit 3 and explain what this is.

A Exhibit 3 is a log of the pay section, actual pay section in State G 17.

Q Is this the same log that was filed with the application in this case?

A Yes, sir.

Q In connection with the application, did you also file Form C-108 with the Commission?

A Yes, sir.

Q Now, refer to Exhibit 4 and explain what this shows.

A Exhibit 4 is a water analysis which is required by the State on such applications. You'll note that the chloride of this water is twelve, in excess of 12,000 parts per million which clearly shows that it is not potable water.

Q In your opinion, by the completion of the proposed injection well in the manner you've testified to, would it confine injected water to the Eumont oil zone?

A Yes, sir.

Q Is there any other water being injected at the present time into this particular zone?

A Yes, sir. In Section 34 to the southeast, there is a pilot --

Q You're referring now to Exhibit Number 1?

A Exhibit Number 1, yes, sir. There is a pilot water-flood in operation now and when it is expanded, Number 17 will

fit right into this flood pattern.

Q So you anticipate that you will not only dispose of produced water, but might, as a side benefit, get some stimulation to the wells on your G Lease?

A Yes, sir, we do.

Q In your opinion, will the disposal of water in the manner which you've testified to be in the interest of conservation and prevention of waste?

A Yes, sir.

MR. HINKLE: We would like to offer in evidence Exhibits 1 through 4.

MR. NUTTER: Humble's Exhibits 1 through 4 will be admitted in evidence.

MR. HINKLE: That's all of direct testimony.

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Bevell, how many barrels are produced on all of these leases that you are proposing to serve with this well? You mentioned G produces 41 barrels a day.

A The New Mexico State S Lease has nine wells and produces nine barrels of water.

Q Nine barrels. State V?

A The State V has fifteen wells and now produces four

barrels of water.

Q Hardison?

A Hardison B has eight wells and six barrels of water.

Q Federal Terry?

A One well and zero barrels of water.

Q Ferrell?

A The Ferrell has one well and one barrel of water.

Q Greenwood?

A JO Greenwood has nine wells and produces 67 barrels of water. Now, this lease is committed to a salt water disposal system that is in progress right now but we feel certain that it won't meet the deadline.

Q I see.

A So we would like permission to dispose of this water into this particular well until that system is ready.

Q And then you'll haul this water in with trucks and try to inject into the Penrose Zone on gravity?

A Yes, sir.

Q In the event it won't go in on gravity, deepen it to the San Andres?

A That is correct.

Q What about the annulus? Will it be loaded with some sort of --

A Inhibited water.

Q And that could be left open or equipped with a gauge, correct?

A Correct.

Q And will the tubing that's used here be plastic or cement lined?

A We favor a plastic lined tubing.

Q And what size tubing would this be?

A Two and three-eighths.

MR. NUTTER: Are there any other questions of the witness? He may be excused. Do you have anything further in this case, Mr. Hinkle?

MR. HINKLE: That's all in this case.

MR. NUTTER: Does anybody have anything in Case 3814? We'll take it under advisement.



I N D E X

<u>WITNESS</u>	<u>PAGE</u>
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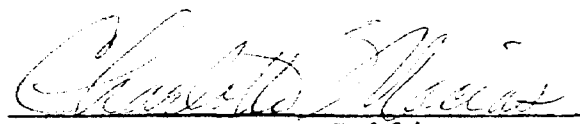
E X H I B I T S

<u>Number</u>	<u>Marked for Identification</u>	<u>Received in Evidence</u>
Applicant's Exhibits 1, 2, 3, 4	2	7

STATE OF NEW MEXICO )  
 ) ss.  
 COUNTY OF BERNALILLO )

I, CHARLOTTE MACIAS, Notary Public 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.

Witness my Hand and Seal this 16th day of September, 1968.

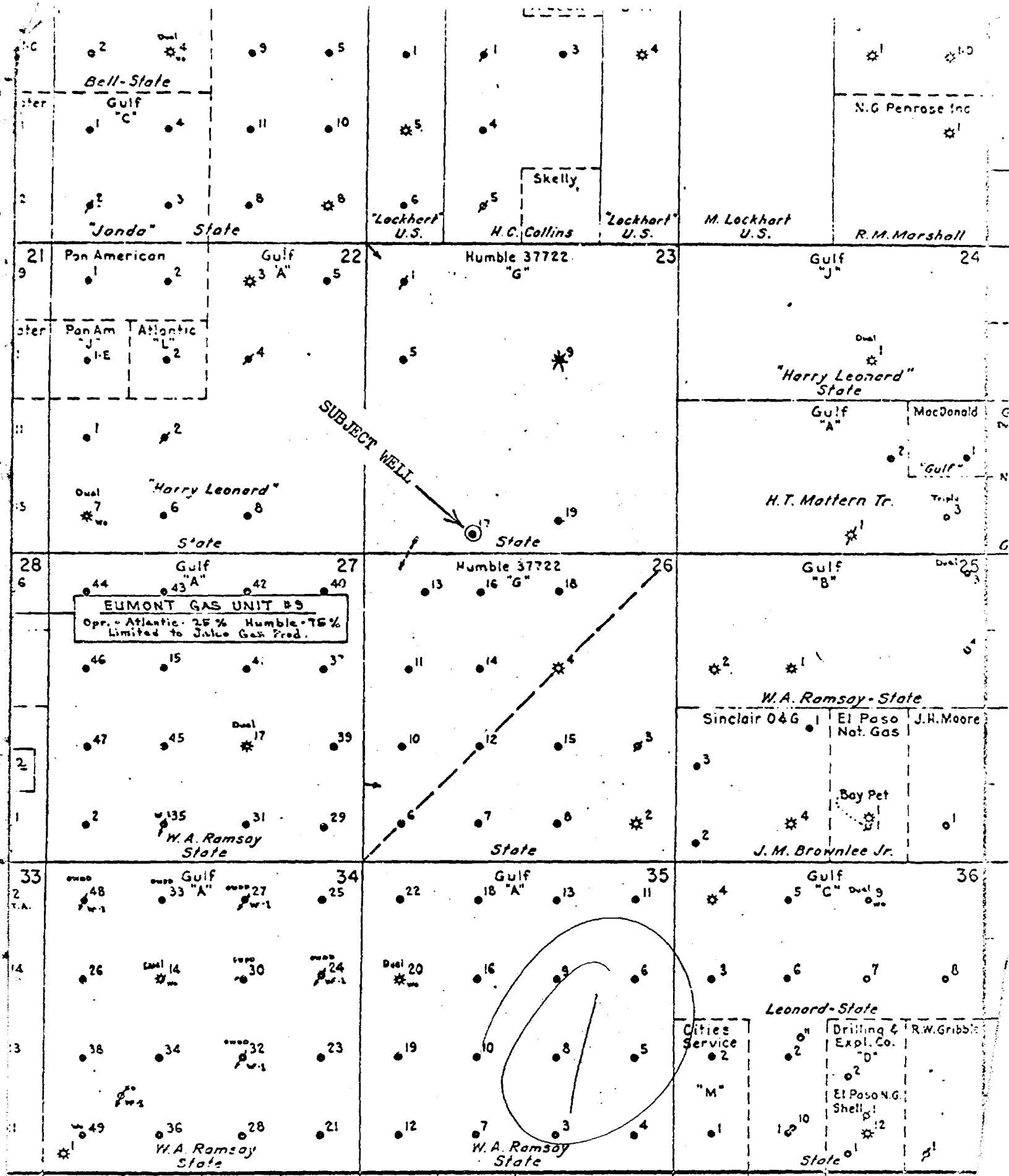
  
 Notary Public

My Commission Expires:

February 10, 1971.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 3814, heard by me on 7/24, 1968.

, Examiner  
 New Mexico Oil Conservation Commission



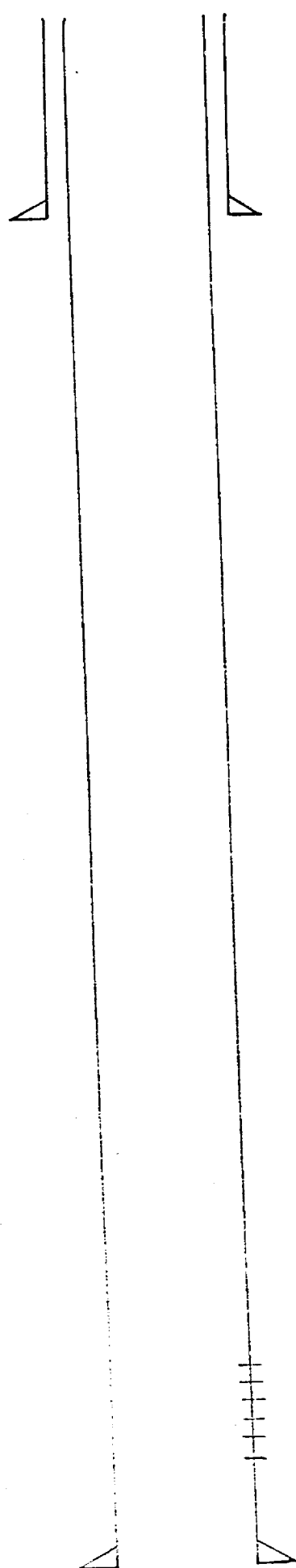
36 E

T-21-S R-36-E

HUMBLE OIL AND REFINING COMPANY  
NEW MEXICO "G" STATE 17  
EUMONT OIL POOL  
LEA COUNTY, NEW MEXICO

PRESENT COMPLETION

PROPOSED COMPLETION

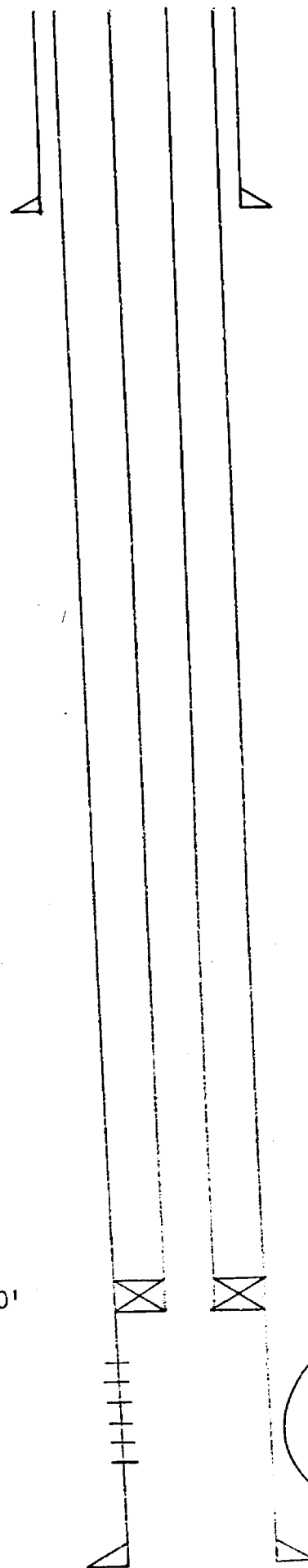


8-5/8" @ 313'  
Cemented to Surface

Packer @ 3750'

Perfs.  
3818-3838'

5-1/2" @ 3890'  
Cemented to 2650'



BEFORE EXAMINER NUTTER
CONSERVATION COMMISSION
Appl. NO. 2
CH. NO. 3814

2

HUMBLE OIL & REFINING COMPANY

EUMONT OIL POOL

WATER ANALYSIS

Source: New Mexico "G" State Battery 1

	<u>Parts Per Million</u>
Sodium	7,080
Calcium	800
Magnesium	1,095
Chloride	12,425
Sulfate	380
Bicarbonate	1,098
Carbonate	None
Hydrogen Sulfide	None
Iron	None
Specific Gravity	1.052 @ 78° F
pH	7.5

4

BEFORE EXAMINER NUTTER

OIL INDUSTRY ASSOCIATION OF AMERICA

Appl. EXHIBIT NO. 4

CASE NO. 3814