

Case No.

310

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Application, Transcript,  
Small Exhibits, Etc.

BEFORE THE  
OIL CONSERVATION COMMISSION  
STATE OF NEW MEXICO

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Transcript of Hearing  
October 23, 1951  
Case No. 310

E. E. GREESON  
ADA DEARNLEY  
COURT REPORTERS  
BOX 1208  
PHONES 5-9422 AND 5-9546  
ALBUQUERQUE, NEW MEXICO

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October 23, 1951

MR. SPURRIER: We will proceed to the next case which is Case 310.

(Mr. Kellahin reads the Notice of Publication.)

MR. CAMPBELL: If it please the Commission, I am Jack M. Campbell of Atwood, Malone and Campbell, of Roswell, for the Gulf Oil Corporation. I would like to call Rule Boss to be sworn.

RULE S. BOSS,

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

By MR. CAMPBELL:

Q State your name please.

A R. L. Boss.

Q By whom are you employed, Mr. Boss?

A Gulf Oil Corporation.

Q And where?

A At Roswell, New Mexico.

Q In what capacity?

A As Zone Geologist.

Q Have you testified previously as a geologist before this Commission?

A I have.

MR. CAMPBELL: Are the qualifications of the witness satisfactory to the Commission?

MR. SPURRIER: They are.

Q Mr. Boss, your company has made application in Case No. 310 for authority to use its Eunice King Well No. 2 in the northwest of the northwest quarter of Section 28, Township 21 south, Range 37 east, for salt water disposal. What is the reason for that application?

A The disposal of water produced from the deeper reservoirs on the Gulf Eunice King and Carson leases in the northwest of the northwest quarter of Section 28, Township 21 south, Range 37 east, Lea County New Mexico, is progressively becoming a more serious problem. And the construction of additional surface facilities will eventually prove inadequate. And it is therefore imperative that more adequate disposal system be utilized and the return of these waters to underground storage would be the most logical solution to the problem. And in the area in question, the San Andres formation, offers ideal conditions for such a project.

Q It has been the experience of your company in the San Andres zone in this area --

A The data supplied by the many wells drilled in your multiple pay fields, Penrose-Skelly, Blinbry, Drinkard-Hare, and the Brunson pools, have indicated a highly permeable zone some three to six hundred feet below the top of the San Andres formation, and most operators have experienced difficulties with circulation while attempting to penetrate

this. In our own operations in the Eunice King and Carson properties, four instances of complete loss of circulation between the depths of 4278 and 4528 and six instances of partial loss of circulation between the depths of 3970 and 4636 have occurred. And the well cuttings then added conviction as to the existence of porous dolomites in this section.

Q Is the San Andres productive of oil in this particular area?

A It isn't commercially productive of oil or gas in the field where our Eunice King lease is located. And this formation, particularly the upper portions thereof, has been adequately tested at widely scattered locations within this field. And with hardly an exception, sulphur water constituted the bulk of the fluids recovered.

Q I hand you what has been marked Exhibit A and ask you to state what that is.

A That is a plat of Township 21, Range 37 east, in which the proposed disposal well is located. And it shows the location of wells and the results of tests obtained in the San Andres formation in this township.

Q And what is the location shown for the proposed disposal unit?

A The location is in the center of the northwest of the northwest quarter of section 28, Township 21 south, Range

37 east.

MR. CAMPBELL: I offer that in evidence.

MR. SPURRIER: It will be accepted.

Q I now hand you what has been marked Exhibit B, and ask you to state to the Commission what that is.

A This is a copy of the log, the sample log, from the Eunice King No. 2. In addition, the log has been projected to the proposed depth to which this well will be drilled. The projected section is from the twin well, No. 6 well, located only 150 feet distance from the No. 2 well.

Q Was this log prepared originally by you or under your supervision?

A It was.

MR. CAMPBELL: We offer it in evidence as Exhibit B.

MR. SPURRIER: It will be accepted.

Q Mr. Boss, will you describe the manner in which you intend to complete this well, and the manner in which you intend to dispose of this salt water?

A This well, No. 2 Eunice King well, located in the center of the Northwest Northwest of Section 28, Township 21 south, Range 37 east, was completed originally at a total depth of 3800 feet in the Grayburg formation. From the Penrose-Skelly pay zone exposed in the open hole below seven inch casing, cemented at 3675 feet. The well has reached the economic limit of production from this pay and it is proposed

that the well be deepened to approximately 4600 feet in the San Andres formation and a 5½ inch liner be subsequently cemented in the San Andres formation at a depth of approximately 4200 feet.

Q By cementing that liner, is it your opinion you will therefore, adequately protect the upper pay zones in this area?

A That is true. That is the purpose of cementing the liner to protect the Penrose-Skelly pay zone.

Q And it is your opinion you can dispose of this salt water in this particular zone without any danger at all to any other pay zones in the area?

A That is true. The next underlying pay occurs in the Glorieta or Yeso formation at from 1,000 feet or more depth below the Penrose-Skelly pay.

MR. CAMPBELL: That's all the questions I have, if the Commission please.

MR. SPURRIER: Does anyone have a question of this witness?

MR. SELINGER: I would like to ask Mr. Boss one question. I represent Skelly Oil Company. Does the San Andres formation non-produce oil throughout the entire Penrose-Skelly area?

A That is correct.

MR. SELINGER: That's all.

MR. SPURRIER: Will you repeat the question please, George?



MR. SELINGER: I asked the witness whether or not the San Andres production was non-productive throughout the entire Penrose-Skelly area. Not only in that vicinity. And the witness answered, yes.

MR. SPURRIER: Anyone else?

MR. SCOTT: For Shell Oil Company. I would like to ask Mr. Boss is in cementing the liner you plan to bring cement back up the liner inside the casing?

A Yes.

MR. SPURRIER: Any other questions? If not, the witness may be excused. If there is no further comment the case will be taken under advisement and we will go on to Case 311.

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STATE OF NEW MEXICO     )  
                              :   SS  
COUNTY OF BERNALILLO   )

I HEREBY CERTIFY that the foregoing and attached transcript of hearing before the Oil Conservation Commission in Case 310, taken on October 23, 1951, at Santa Fe, is a true and correct record to the best of my knowledge, skill and ability.

DATED AT Albuquerque, New Mexico this 19 day of November, 1951.

E. G. Guernsey  
REPORTER

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. 310

ORDER NO. R-116

THE APPLICATION OF GULF OIL CORPORATION  
FOR AUTHORITY TO USE FOR SALT WATER DIS-  
POSAL PURPOSES BETWEEN 4200 AND 4600 FEET,  
AFTER DEEPENING, ITS EUNICE KING WELL NO. 2,  
NW/4 NW/4 SEC. 28, TWP. 21 S., RGE. 37 E., NMPM,  
PENROSE-SKELLY POOL, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 10 a. m. on October 23, 1951, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 19<sup>th</sup> day of November, 1951, the Commission, a quorum being present, having fully considered the testimony adduced and the exhibits received at said hearing, 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, the subject matter thereof, and the persons interested therein.

(2) That it would be in the interests of conservation and the protection of correlative rights, and would prevent injury to neighboring leases or properties to permit applicant to use for salt water disposal purposes its Eunice King Well No. 2, located in the NW/4 NW/4 Section 28, Township 21 South, Range 37 East, NMPM, in the Penrose-Skelly pool, Lea County, New Mexico.

IT IS THEREFORE ORDERED:

(1) That the Gulf Oil Corporation be, and said corporation hereby is given authority to use its Eunice King Well No. 2, NW/4 NW/4 Section 28, Township 21 South, Range 37 East, NMPM, for salt water disposal purposes, in the open-hole section between 4200 and 4600 feet in the San Andres formation.

(2) That the effectiveness of this order is conditioned upon the compliance of applicant with the following requirements:

(a) That said Eunice King Well No. 2 be deepened to an approximate depth of 4600 feet.

(b) That a 5-1/2" liner be set at approximately 4200 feet, leaving an open-hole section only in the San Andres formation.

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Otherwise this order to be of no force or effect whatever.

Nothing in this order shall be deemed to relieve Gulf Oil Corporation from liability to any person, firm or corporation due to damage occasioned by its salt water disposal operations.

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

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

  
EDWIN L. MECHEM, Chairman

  
GUY SHEPARD, Member

  
R. R. SPURRIER, Secretary

SEAL



PETROLEUM AND ITS PRODUCTS

# GULF OIL CORPORATION

P. O. DRAWER 1290 · FORT WORTH 1, TEXAS

F. J. ADAMS  
VICE-PRESIDENT

FORT WORTH  
PRODUCTION DIVISION

September 17, 1951

Eunice King Lease No. 14085  
Penrose Skelly Field  
Lea County, New Mexico

New Mexico Oil Conservation Commission  
P. O. Box 871  
Santa Fe, New Mexico

Gentlemen:

Attention: Mr. R. R. Spurrier

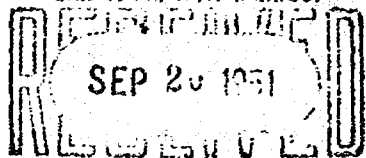
Reference is made to your letter of September 14, 1951, regarding the request of Gulf Oil Corporation that a hearing be scheduled to consider our application to use for salt water disposal purposes Gulf's Eunice King Well No. 2, located in the NW/4 NW/4 Section 28-21S-37E, Penrose Skelly Pool, Lea County, New Mexico. In accordance with your suggestion, please find attached two additional copies of our letter dated September 6, 1951. It is respectfully requested that this case be set down for the regular October 23rd hearing.

Thanking you for your cooperation, we are

Yours very truly,

F. J. ADAMS

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO



OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 14, 1951

C  
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P  
Y

Mr. F. J. Adams  
Gulf Oil Corporation  
Drawer 1290  
Ft. Worth, Texas

Dear Mr. Adams:

This will acknowledge your letter of September 6, 1951, in which you mention Gulf Oil Corporation's salt-water disposal well known as Eunice King No. 2, Penrose Skelly pool, Lea County, N. M., located in the NW NW Section 28, Twp. 21 South, Rge. 37 East. According to our rules and regulations, an application filed with the Commission for an open hearing shall be made in three copies and a detailed account of what the applicant wishes to do will be made in the application.

If you intend your letter of September 6 to be an application, I suggest that you forward two more copies to us and so advise. In the event your application in due form reaches our office before or on September 23, 1951, your case will be set down for the regular October 23 hearing.

Very truly yours,

R. R. Spurrier  
Secretary - Director

RRS:mr

Copy to:

Mr. Jack Campbell  
Roswell, N. M.



PETROLEUM AND ITS PRODUCTS

# GULF OIL CORPORATION

P. O. DRAWER 1290 · FORT WORTH 1, TEXAS

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

RECEIVED  
SEP 10 1951

F. J. ADAMS  
VICE-PRESIDENT

September 6, 1951

FORT WORTH  
PRODUCTION DIVISION

Eunice King Lease No. 14085  
Penrose Skelly Field  
Lea County, New Mexico

New Mexico Oil Conservation Commission  
P. O. Box 871  
Santa Fe, New Mexico

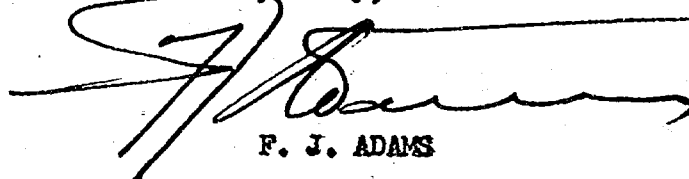
Gentlemen:

It is respectfully requested that the Oil Conservation Commission schedule a hearing at the earliest practicable date to consider the application of Gulf Oil Corporation to use for salt water disposal purposes its Eunice King Well No. 2 in the Penrose Skelly Pool, Lea County, New Mexico.

The above well is located in the NW NW Section 28-21S-37E, and is carried on the current proration schedule with an allowable of 5 barrels per day. Total depth of this well is 3,800 feet; 7-inch casing is set at 3,675 feet. Since the well is approaching its economic limit, we propose that it be deepened to an approximate depth of 4,600 feet and that a 5-1/2 inch liner be set at approximately 4,200 feet. In this manner, salt water produced from other wells on the lease could be disposed of in the open hole section occurring between 4,200 and 4,600 feet which is the San Andres formation and not productive of oil or gas in this area.

Thanking you for your cooperation, we are

Yours very truly,



F. J. ADAMS

Case 310

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Township 21 S. Range 37 E. County LEA

PLEASE TAPER PLAYS 1-16 INCH TO 10 MM AT THE

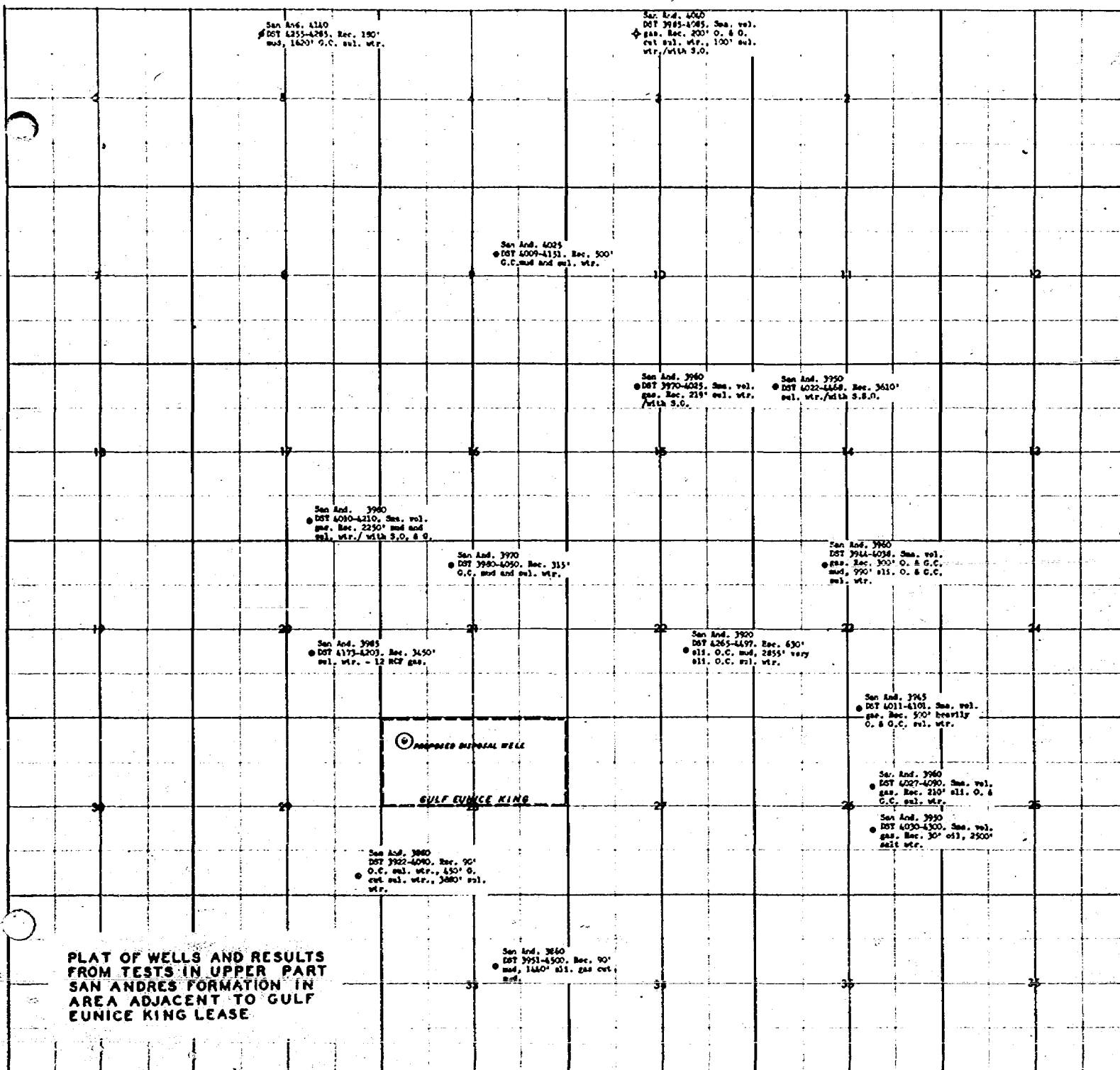
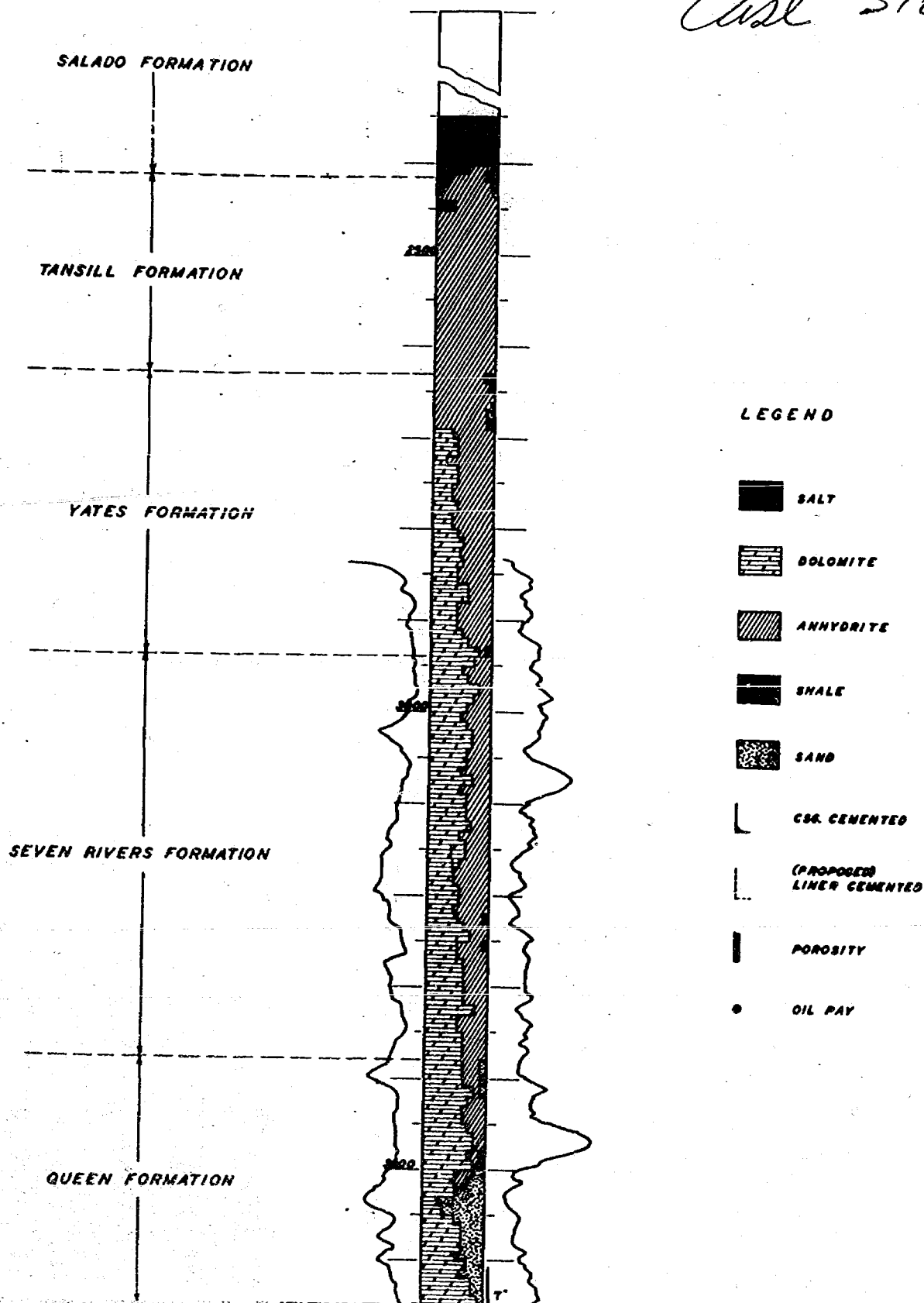


EXHIBIT "B"

PROPOSED WATER DISPOSAL WELL  
GULF OIL CORP. NO.2 EUNICE KING  
C NW NW SEC. 28, TWP. 21 S., RGE. 37 E.

Case 310





GRAYBURG FORMATION

PENROSE-SHELLEY  
PAY ZONE

3800 PRESENT TOTAL DEPTH

SAN ANDRES FORMATION

ZONE OF INJECTION

4600 PROJECTED TOTAL DEPTH

LITHOLOGY OF PROJECTED SECTION AND  
ELECTRIC LOG FROM TWIN WELL NO. 6

1000'

ROSWELL, NEW MEXICO  
OCTOBER 18, 1951

NKC