

CASE 6527: TENNECO OIL COMPANY FOR TWO  
NON-STANDARD OIL PRORATION UNITS, LEA  
COUNTY, NEW MEXICO

CASE NO.

6527

---

APPLICATION,  
TRANSCRIPTS,  
SMALL EXHIBITS,  
ETC.



STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

JERRY APODACA  
GOVERNOR

NICK FRANKLIN  
SECRETARY

May 2, 1979

POST OFFICE BOX 2008  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO 87501  
(505) 827-2434

Mr. Conrad E. Coffield  
Hinkle, Cox, Eaton,  
Coffield & Hensley  
Attorneys at Law  
P. O. Box 3580  
Midland, Texas 79702

Re: CASE NO. 6527  
ORDER NO. R-6000

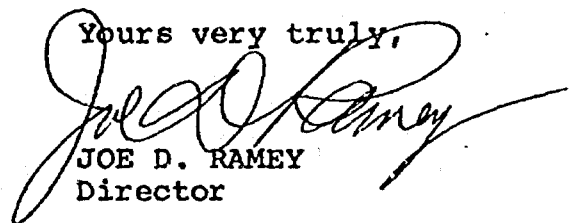
Applicant:

Tenneco Oil Company

Dear Sir:

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

Yours very truly,

  
JOE D. RAMEY  
Director

JDR/fd

Copy of order also sent to:

Hobbs OCC x  
Artesia OCC x  
Aztec OCC         
Other Greg Simmons

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

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

CASE NO. 6527  
Order No. R-6000

APPLICATION OF TENNECO OIL  
COMPANY FOR TWO NON-STANDARD OIL  
PRORATION UNITS, LEA COUNTY,  
NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on April 25, 1979, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 2nd day of May, 1979, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Tenneco Oil Company, seeks approval of two 80-acre non-standard oil proration units, the first comprising the N/2 NW/4, the other the N/2 NE/4, of Section 12, Township 9 South, Range 34 East, Vada-Pennsylvanian Pool, Lea County, New Mexico, said units to be dedicated to applicant's Ward Insall Wells Nos. 1 and 2, respectively, located in Units D and A of said Section 12.

(3) That at the time of the hearing applicant requested that the application for an 80-acre non-standard oil proration unit comprising the N/2 NE/4 of said Section 12 to be dedicated to the Ward Insall Well No. 2 in Unit A be dismissed.

(4) That the entire non-standard proration unit consisting of the N/2 NW/4 of said Section 12 may reasonably be presumed



-2-

Case No. 6527  
Order No. R-6000

productive of oil from the Vada-Pennsylvanian Pool and that the entire non-standard oil proration unit can be efficiently and economically drained and developed by the aforesaid well.

(5) That approval of the subject application will afford the applicant the opportunity to produce his just and equitable share of the oil in the Vada-Pennsylvanian Pool, will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and will otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That an 80-acre non-standard oil proration unit in the Vada-Pennsylvanian Pool comprising the N/2 NW/4 of Section 12, Township 9 South, Range 34 East, NMPM, Lea County, New Mexico, is hereby established and dedicated to the Tenneco Oil Company Ward Insall Well No. 1 located in Unit D of said Section 12.

(2) That the application for an 80-acre non-standard oil proration unit in the Vada-Pennsylvanian Pool comprising the N/2 NE/4 of said Section 12 is hereby dismissed.

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

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

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

  
JOE D. RAMEY,  
Director

  
S E A L

dr/

W. C. OSBORNE  
CERTIFIED PETROLEUM GEOLOGIST

OFFICE: 915-682-5354  
RESIDENCE: 915-684-4858

358 MID-AMERICA BUILDING  
MIDLAND, TEXAS 79701

April 23, 1979

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

File  
✓  
Re: Case No. 6527  
Vada-Pennsylvanian Pool  
Non-Standard Proration Unit

Dear Mr. Nutter:

I am the Lessee of record of the South-half of the Northwest-quarter (S/2 NW/4) of Section 12, T-9-S, R-34-E in Lea County, New Mexico.

I believe that 80-acre spacing in this field at this time is more equitable, prevents waste, and protects the correlative rights of the royalty owners of the respective tracts.

Therefore, as Lessee of the S/2 NW/4 of Section 12, T-9-S, R-34-E, I join Tenneco Oil Company in their application for an exception to the spacing rules of the Vada-Pennsylvanian Field.

Your consideration would be appreciated.

Yours truly,

*W. C. Osborne*  
W. C. Osborne

WCO/jy

# TENNECO OIL COMPANY

WARD INSALL #1

Vada (Penn.)

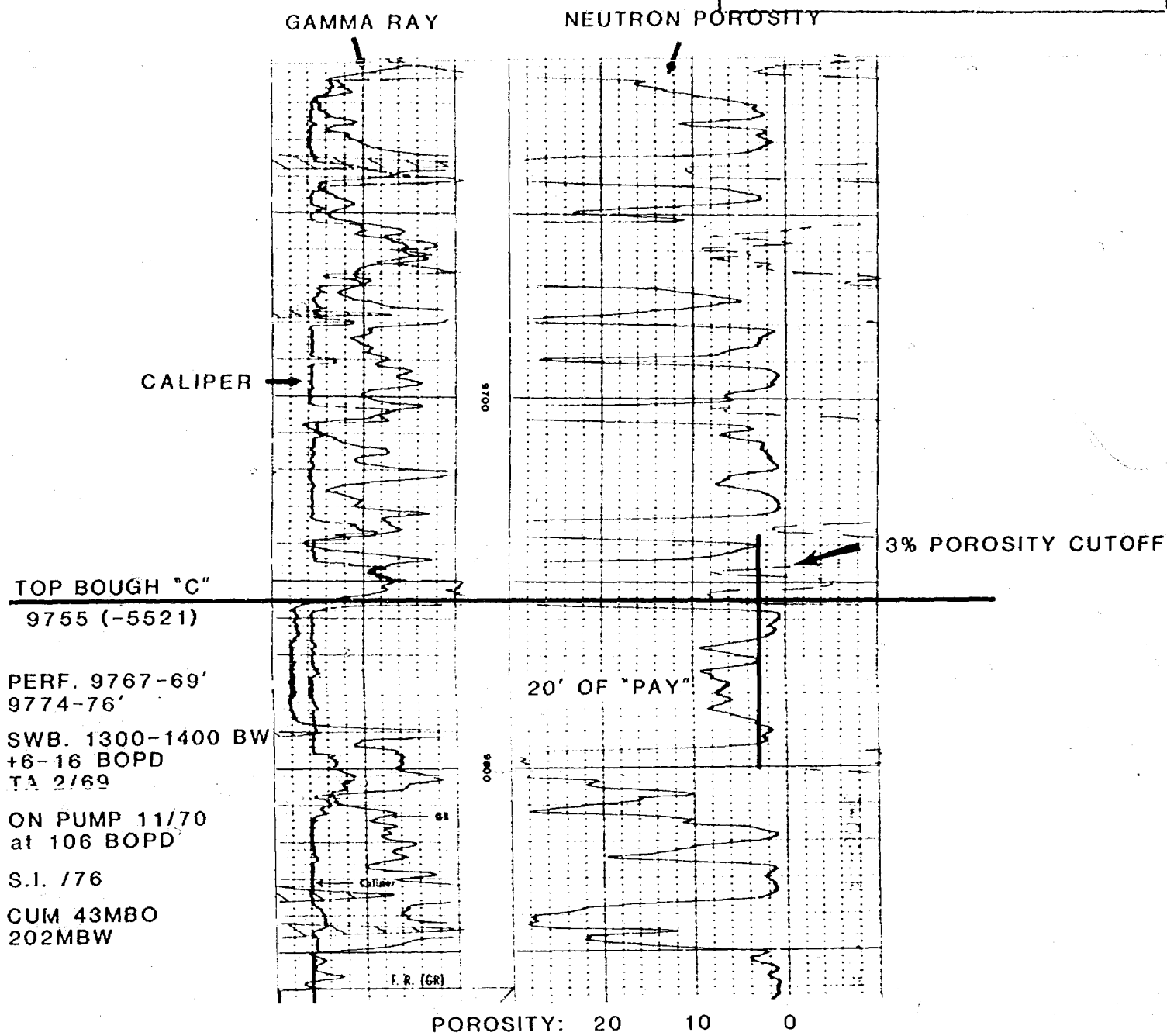
LEA COUNTY, NEW MEXICO CASE NO. 6527

BEFORE EXAMINER STAMETS  
OIL CONSERVATION DIVISION

EXHIBIT NO. 1

Submitted by TENNECO

Hearing Date 4-25-79



MAJ

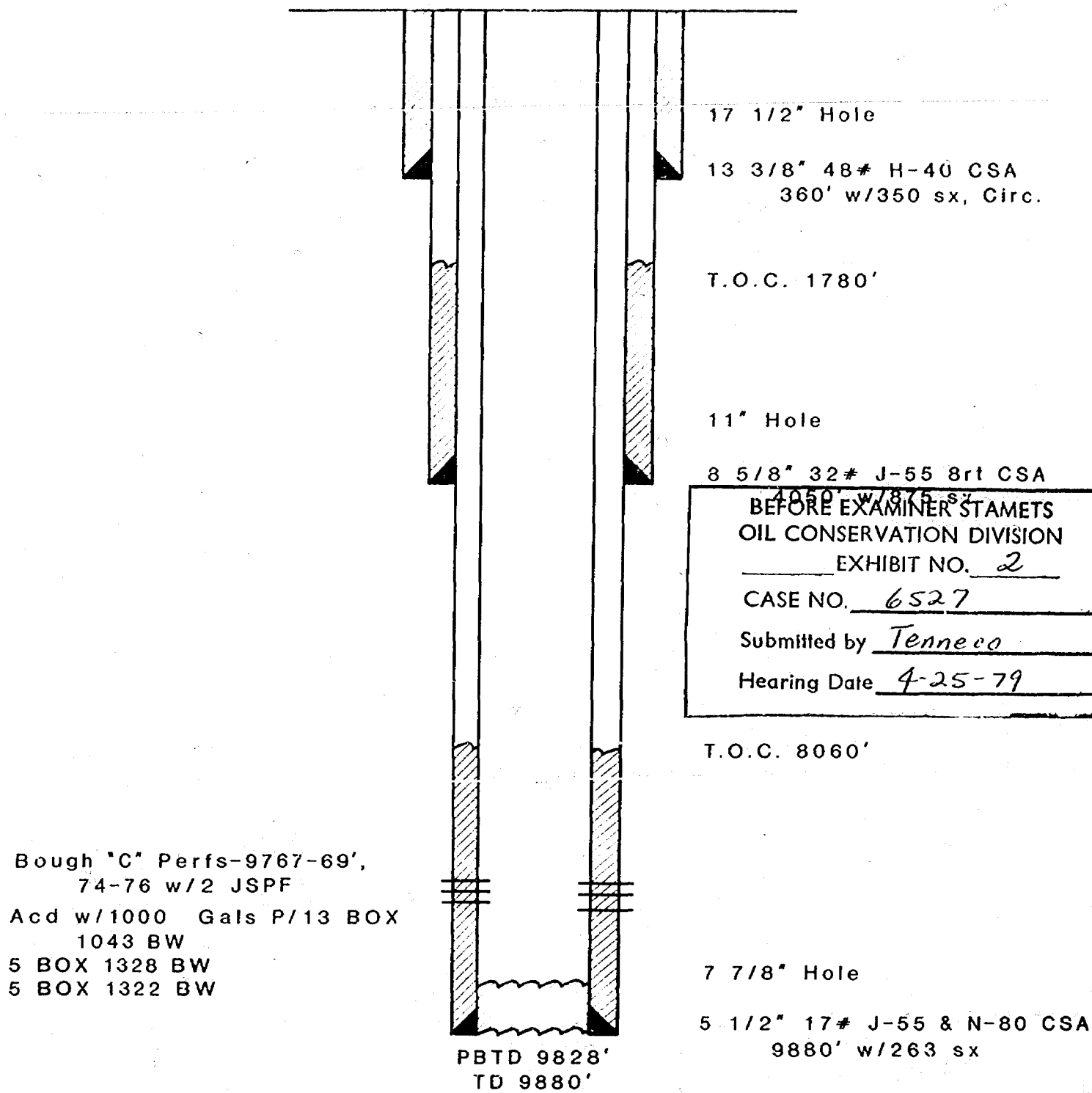
4-'79

EXHIBIT 1

WARD INSALL #1 - WELLBORE SKETCH  
660' FNL and 660' FWL, SECTION 12, T9S, R34E  
Lea County, New Mexico

ELEV. 4221' GL, 4233' DF

DATE COMPL. 2/28/69  
SPUD 7/19/68



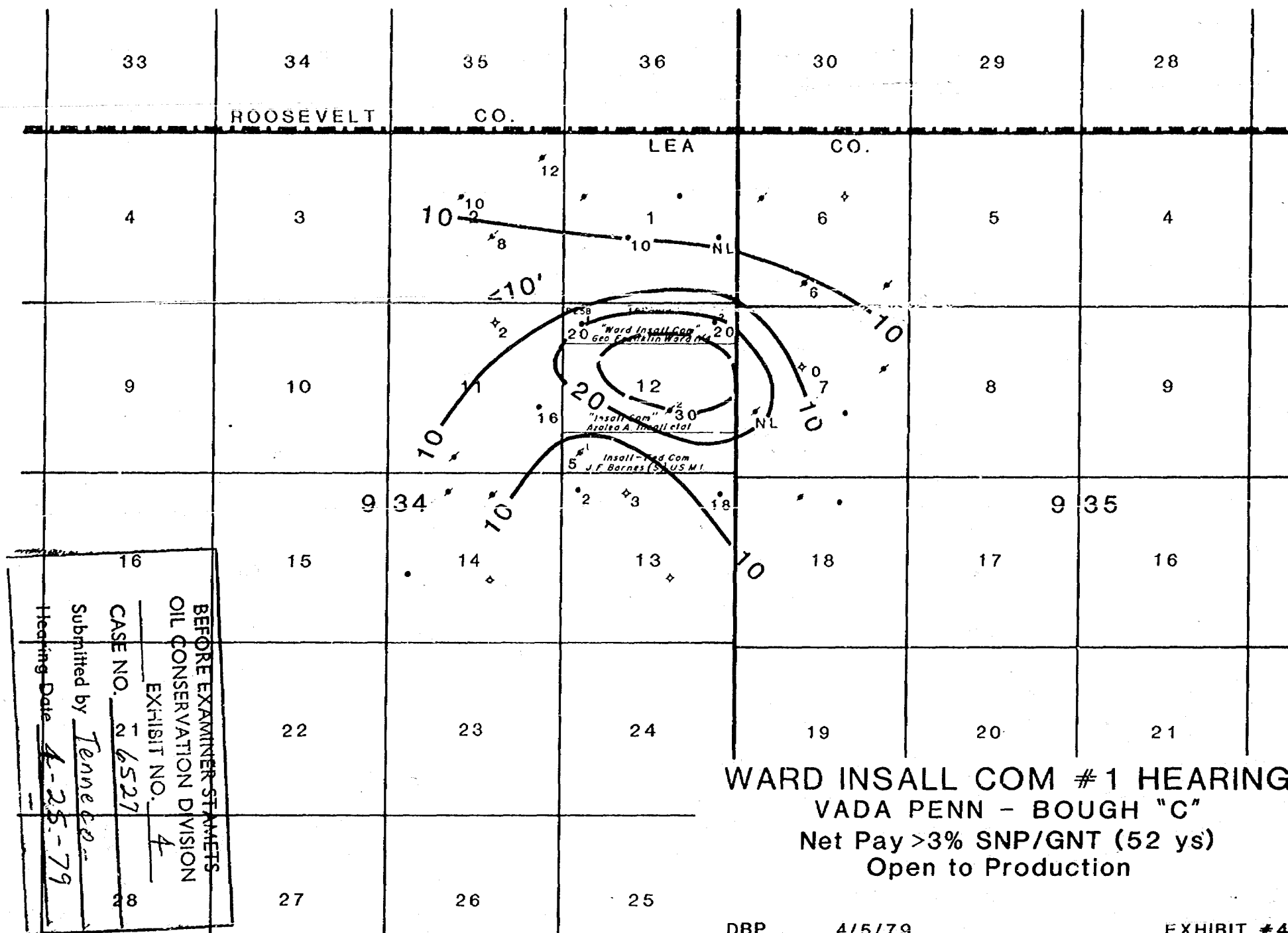
Bough "C" Perfs-9767-69',  
74-76 w/2 JSPF  
Acid w/1000 Gals P/13 BOX  
1043 BW  
5 BOX 1328 BW  
5 BOX 1322 BW

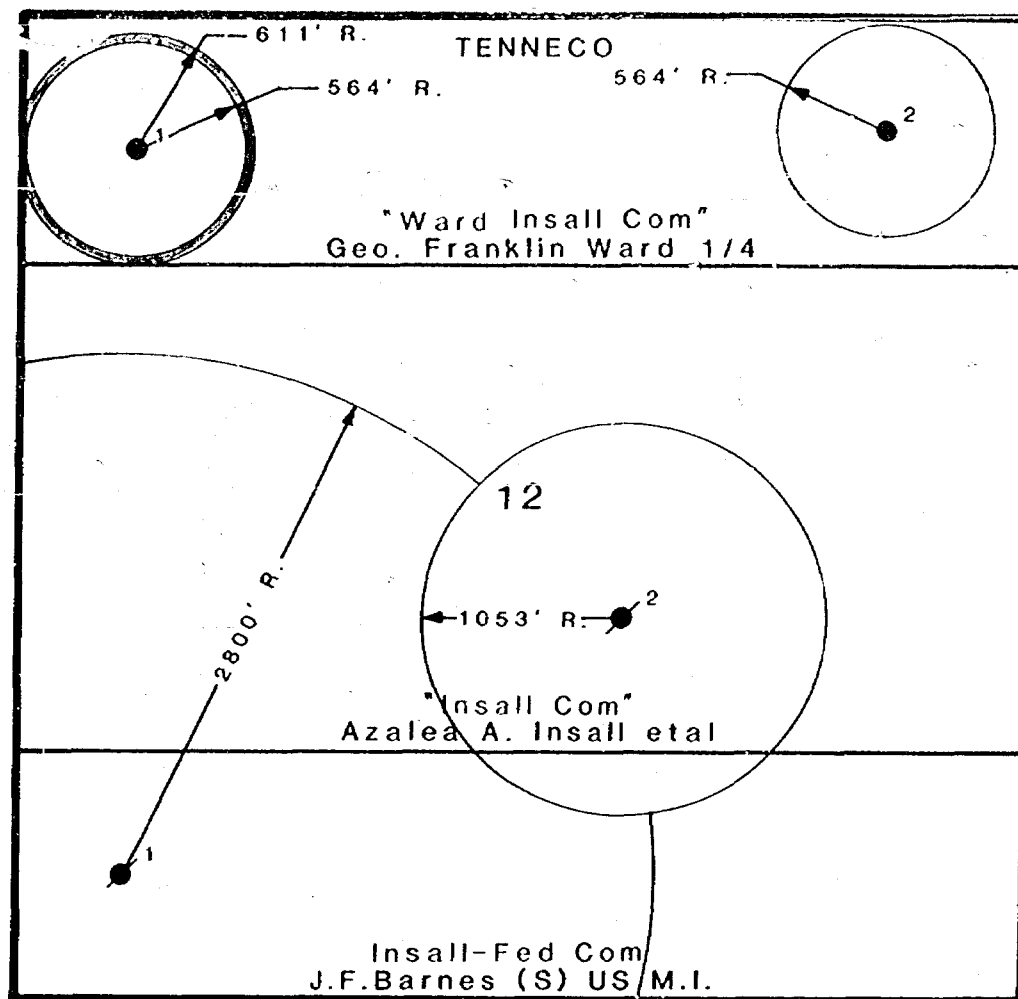
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EXHIBIT #2







WARD INSALL COM #1  
VADA PENN - BOUGH "C"  
DRAINAGE RADIUS

1" = 1000'

BEFORE EXAMINER STAMETS  
OIL CONSERVATION DIVISION

EXHIBIT NO. 5

CASE NO. 6527

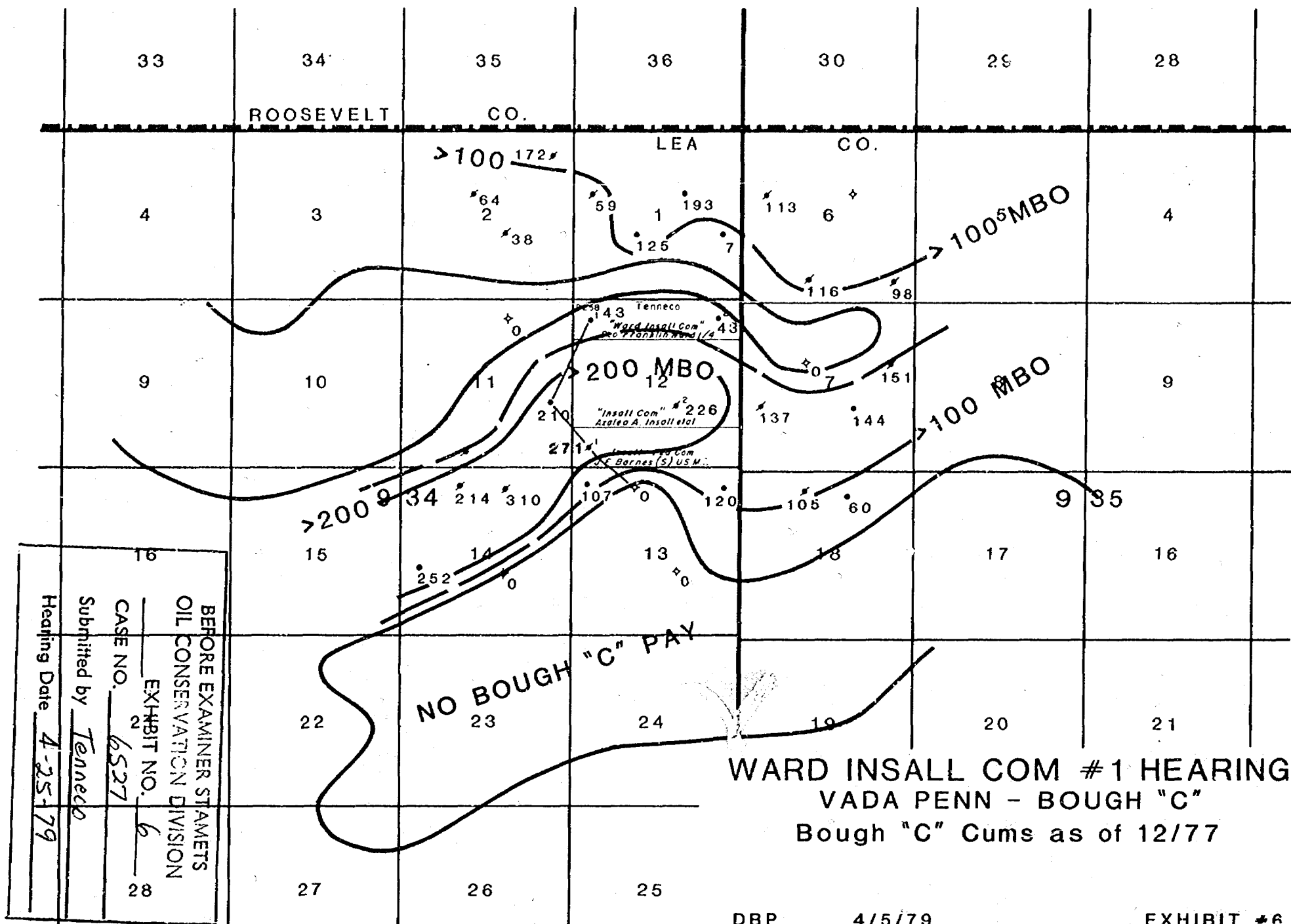
Submitted by Tenneco

Hearing Date 4-25-79

EXHIBIT #5

MAJ

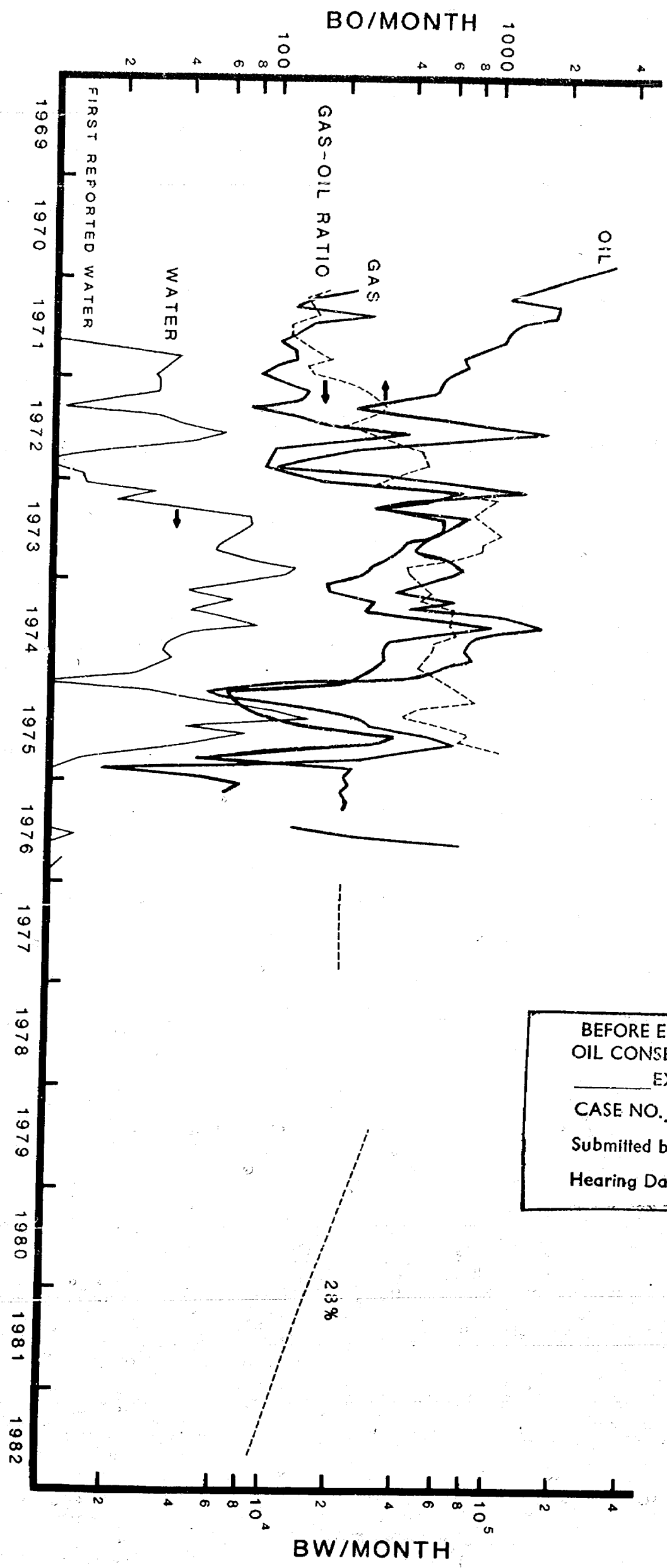
4/5/79





# PRODUCTION HISTORY WARD INSALL NO. 1 VADA PENN FIELD

BEFORE EXAMINER STAMETS  
OIL CONSERVATION DIVISION  
EXHIBIT NO. 7  
CASE NO. 6527  
Submitted by Tenneco  
Hearing Date 4-25-79



M.A.I. 4-79

BIT 7

# RISK-ADJUSTED ECONOMICS

Ward Insall #1

Lea County, New Mexico

	Drill New Well	Return #1 to Prod.
Investment M\$	661	20
,Cum Oil, MBO	80	7
Profit, M\$	8.9	6.0
% Profit	1.6	39
Sucess Prob,%	60	70
Payout, Yr.	5.5	1.3

M.A.J. 4-'79

BEFORE EXAMINER STAMETS  
OIL CONSERVATION DIVISION

EXHIBIT NO. 8

CASE NO. 6527

Submitted by Tenneco

Hearing Date 4-25-79

EXHIBIT 8

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION  
State Land Office Building  
Santa Fe, New Mexico  
25 April 1979

EXAMINER HEARING

IN THE MATTER OF:

Application of Tenneco Oil Company  
for two non-standard oil proration  
units, Lea County, New Mexico.

CASE  
6527

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation  
Division:

Lynn Teschendorf, Esq.  
Legal Counsel for the Division  
State Land Office Bldg.  
Santa Fe, New Mexico 87503

For Tenneco Oil Company:  
For the Applicant:

Gregory E. Simmons, Esq.  
Tenneco Oil  
6800 Park Ten Blvd.  
Suite 200 North  
San Antonio, Texas 78213

and

Conrad Coffield, Esq.  
HINKLE LAW FIRM  
Midland, Texas

SALLY WALTON BOYD  
CERTIFIED SHORTHAND REPORTER  
3020 Plaza Blanca (605) 471-2462  
Santa Fe, New Mexico 87501

## I N D E X

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## MARK JACOBY

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## GREGORY E. SIMMONS

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1 MR. STAMETS: We will call next Case 6527.

2 MR. PADILLA: Case 6527. Application of  
3 Tenneco Oil Company for two nonstandard oil proration units,  
4 Lea County, New Mexico.

5 MR. STAMETS: Call for appearances in this  
6 case.

7 MR. COFFIELD: I'm Conrad Coffield with the  
8 Hinkle Law Firm in Midland, Texas, appearing on behalf of  
9 the applicant, Tenneco Oil Company, and I would like to Mr.  
10 Greg Simmons, Division Attorney, for Tenneco from San  
11 Antonio, who will present this case.

12 MR. SIMMONS: Mr. Examiner, we have three  
13 witnesses to be sworn here.

14 MR. STAMETS: Okay, are there any other ap-  
15 pearances in this case?

16 I'd like to have all three witnesses stand  
17 and be sworn at this time, please.

18 (Witnesses sworn.)

19 MR. SIMMONS: Mr. Examiner, if I may, we have  
20 prepared a booklet, if you will, containing eight exhibits,  
21 and due to the nature of our application and the way the  
22 evidence will be presented, I would like to make an opening  
23 statement, if you will. I feel like it will better allow  
24 the Commission to understand what we're trying to say, and  
25 allow for a more clear hearing.

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1 MR. STAMETS: Please go ahead.

2 MR. SIMMONS: First, by reference in this  
3 opening statement I'd like to call the Commission's attention  
4 to what has been marked as Exhibit Three, just for your  
5 reference so you can see basically what I'm talking about.

6 This application was filed on our behalf by  
7 Mr. Coffield, a New Mexico attorney, and initially the ap-  
8 plication applied for an exception to the Vada-Pennsylvanian  
9 Pool rules, which is now spaced at 160 acres.

10 The area that this application involves is  
11 the northwest quarter of Section 12, Township 9 South,  
12 Range 34 East, Lea County, New Mexico.

13 By letter dated April 19th, 1979, written by  
14 Mr. Coffield on behalf of Tenneco Oil Company, Tenneco  
15 asked that the application now before the Commission be  
16 amended and that only its application for an exception to  
17 the field rule spacing be considered as to the north half  
18 of the northwest quarter. Initially the application applied  
19 to the north half of the northwest quarter and the north  
20 half of the northeast quarter of Section 12.

21 So with the Commission's approval we would  
22 like for the application to only be for the north half of  
23 the northeast quarter.

24 MR. STAMETS: We will dismiss that part of  
25 the application dealing with the north half northeast quarter

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1 of Section 12.

2 MR. SIMMONS: Yes, sir, thank you.

3 Now, Mr. Examiner, I call your attention to  
4 the Exhibit Three, and it's a basic plat of Exhibit 12, and  
5 if you would look at the northwest quarter of Section 12,  
6 I will call to your attention that the royalty ownership  
7 as to the north half of the northwest quarter and the north  
8 half -- and the south half of the northwest quarter is  
9 diverse. It is not the same.

10 In addition, I call your attention to the  
11 fact that the working interest ownership, or leasehold rights  
12 as to the north half of the northwest quarter and the south  
13 half of the northwest quarter, are diverse.

14 I also call your attention to the letter that  
15 was handed to you along with our booklet of exhibits, ad-  
16 dressed to Mr. Dan Nutter, Oil and Gas Conservation Division,  
17 New Mexico Oil Conservation Commission, date April 23rd,  
18 1979, in reference to this case, wherein the lessee of re-  
19 cord of the south half of the northwest quarter, a Mr. W. C.  
20 Osborne, joins Tenneco in its application for an exception  
21 to the 160-acre spacing now controlling the Vada-Pennsylvanian  
22 Pool.

23 Mr. Examiner, at this time I would like to  
24 call Dave Pearcy as a witness.  
25

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DAVID B. PEARCY

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

DIRECT EXAMINATION

BY MR. SIMMONS:

Q Sir, would you state your name?

A My name is David B. Pearcy.

Q And where do you reside?

A In San Antonio, Texas.

Q And, sir, what is your profession?

A I'm a Project Geological Engineer for Tenn-  
eco Oil Company.

Q And how long have you been employed for  
Tenneco Oil Company?

A For six years.

Q Mr. Pearcy, I ask you if you're familiar  
with the area relating to the application now before the  
Commission?

A Yes, I am.

Q And you're familiar with the properties in-  
volved, is that correct?

A That's correct.

Q And have you previously testified before the



1 Oil Conservation Division?

2 A. No, I have not.

3 Q. Okay. Mr. Percy, would you tell the Examiner,  
4 please, what degrees you now hold?

5 A. I have a degree in geological engineering from  
6 the Colorado School of Mines, 1966, and a Master Divinity  
7 degree from Baptist Seminary in Denver, 1969.

8 Q. Mr. Percy, would you tell the Examiner, please,  
9 what organizations and professional groups you belong to?

10 A. I belong to the Society of Petroleum Engineers,  
11 of AIME, the American Association of Petroleum Geologists,  
12 and the Society of Professional Well Log Analysts.

13 Q. Now, Mr. Percy, you are now employed for  
14 Tenneco in its southwestern division office, located in  
15 San Antonio, Texas, is that correct?

16 A. That's correct.

17 Q. And since you have been assigned to the  
18 southwestern division what area, as a geological engineer  
19 have you been responsible for?

20 A. I've been looking after the Tenneco operated  
21 properties in New Mexico and Texas.

22 Q. Have you -- all right, and for how long have  
23 you been doing that?

24 A. I've been doing that for approximately eight  
25 months.

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1 MR. SIMMONS: Mr. Examiner, at this time I  
2 would submit Dave Percy as an expert witness and ask that  
3 he be --

4 MR. STAMETS: The witness is considered  
5 qualified.

6 MR. SIMMONS: If I may, Mr. Examiner, we  
7 have already stamped and numbered all of our exhibits. The  
8 exhibits will be presented out of order, but I will refer  
9 to the number as indicated on the exhibit.

10 Q (Mr. Simmons continuing.) Mr. Percy, I'll  
11 now call your attention to what has been marked as Exhibit  
12 One, and ask if this exhibit was prepared under your super-  
13 vision and control?

14 A Yes, it was.

15 Q Would you state briefly, please, what this  
16 exhibit represents to the Examiner?

17 A This is a neutron porosity log for the Ward  
18 Insall No. 1, which shows the neutron porosity in the right  
19 track and the gamma ray on the left track of the log.

20 Q Okay, I'll call your attention to the words  
21 that appear on Exhibit One, 3 percent porosity cutoff.  
22 Would you explain the meaning of that language, please?

23 A This is a porosity value corresponding to  
24 a 3 percent, as indicated on the scale at the bottom of the  
25 log, which we believe represents adequately the pay cutoff.

1 That means anything greater than 3 percent  
2 we'll consider to be pay in this area; anything less than  
3 that we'll consider to be nonproductive.

4 Q And I also call your attention to the wording  
5 that states 20 feet of pay. Would you explain the meaning,  
6 please?

7 A This is the total footage in the Bough "C"  
8 horizon, lying from 9755 to approximately 9795, which ex-  
9 ceeds or -- or meets this 3 percent porosity cutoff. That  
10 means there's 20 feet of rock there which appears to have  
11 3 percent or greater porosity.

12 Q All right, and Mr. Percy, I call your atten-  
13 tion to what appears to be a depiction of a gamma ray log.  
14 Would you explain its significance, please?

15 A The gamma ray indicates, since it's over on  
16 the left side of this track, that this zone, which is lime-  
17 stone, is apparently clean. It is not a shale at this  
18 horizon and it is -- in conjunction with the neutron porosity  
19 indicates we have some kind of a reservoir here which may  
20 be productive.

21 MR. SIMMONS: Mr. Examiner, at this point in  
22 time I would submit Exhibit One into evidence.

23 MR. STAMETS: Exhibit One will be admitted.

24 MR. SIMMONS: Thank you, sir.

25 Q (Mr. Simmons continuing.) Mr. Percy, I now

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1 call your attention to what has been marked as Exhibit Three  
2 and ask if this exhibit was prepared under your supervision  
3 and control?

4 A. Yes, it was.

5 Q. Would you explain, please, what this exhibit  
6 represents?

7 A. This is a structure map on the top of the  
8 Bough "C" horizon in a portion of the Vada-Penn Pool, and  
9 it indicates the wells in Section 12 and the surrounding  
10 sections with the subsea horizon for the Bough "C" zone.

11 Notice that the Ward Insall No. 1 is indicated  
12 with a subsea 5521, which corresponds to the value indicated  
13 on Exhibit Number One.

14 Q. Okay, Mr. Percy, I call your attention to  
15 the fact that you show depths, if I may use that language,  
16 of -5400 at the top of the diagram and as we progress to  
17 the southeast, you show numbers -5500 and -5600. What is  
18 the significance of the -- the changes in depth, as you  
19 progress in a southeasterly direction?

20 A. This shows as we head in a southeasterly  
21 direction across Section 12 that the Bough "C" horizon gets  
22 deeper to the rate of about 80 feet per mile.

23 It also indicates that the Ward Insall No. 1  
24 is the highest well in the Section 12.

25 MR. SIMMONS: Mr. Examiner, at this time I

1 would submit Exhibit Three into evidence.

2 MR. STAMETS: Exhibit Three will be admitted.

3 Q Mr. Percy, I now call your attention to  
4 what has been marked as Exhibit Number Four and ask if this  
5 was prepared under your supervision and control?

6 A Yes, it was.

7 Q And would you state to the Examiner, please,  
8 what it represents?

9 A This is a net pay map indicating from the  
10 logs in Section 12 and surrounding wells the feet of pay  
11 that we see in each of these wells from the neutron logs,  
12 or when a neutron log isn't available, from the sonic log.

13 You can see that, again, it shows 20 feet  
14 of pay for the Ward Insall No. 1.

15 Q Mr. Percy, what does the area colored in  
16 blue represent?

17 A The area colored in blue in the center of  
18 Section 12 shows the thickest part of the net pay develop-  
19 ment in the Bough "C" horizon up to 30 feet, or possibly  
20 greater.

21 Q Based upon your examination of the data that  
22 allowed you to prepare this exhibit, is there any indication  
23 of any fairway trend, or anything like that?

24 A Yes, there is. There's an apparent fairway  
25 of the better porosity development which goes generally in

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an east/west direction across Section 12.

And to the north of Section 12 and also to the south, our porosity development is restricted. It's less than 10 feet.

Q Okay.

MR. SIMMONS: Mr. Examiner, I submit Exhibit Four into evidence.

MR. STAMETS: Exhibit Four will be admitted.

MR. SIMMONS: Thank you, sir.

Q Mr. Percy, I now call your attention to what has been marked as Exhibit Five and ask you if this exhibit was prepared under your supervision and control?

A Yes, it was.

Q And would you explain to the Examiner, please, what this exhibit represents?

A This is a blow-up of Section 12 at a scale of one inch to 1000 feet. It indicates the four wells which have been drilled in Section 12, each of which is allocated to a 160-acre proration unit as now indicated under the laws of the State.

Q Okay, and is it your understanding that the present 160-acre spacing or proration unit is controlled by the field rules as set out in the Vada-Pennsylvania Pool?

A That's correct.

Q Okay. Now, Mr. Percy, I call your attention

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1 to the location of the well in the northwest quarter of  
2 Section 12, which is surrounded by two circles. Would you  
3 explain the inner circle, please?

4 A. Yes. The inner circle shows a radius of  
5 564 feet, which represents the 23-acre drainage area which  
6 apparently has -- has been drained by the No. 1 Ward Insall  
7 Well.

8 Q. And how did you determine the circumference  
9 of that circle?

10 A. That was determined by using reservoir volu-  
11 metrics. We took the appropriate porosity value, an oil  
12 saturation value of 60 percent, used a recovery fraction of  
13 50 percent, and then calculated out that the drained area  
14 to date for the production of the well is somewhere around  
15 20 acres.

16 Q. Okay. Mr. Percy, I call your attention to  
17 the outer circle which surrounds the location of the Ward  
18 Insall Well No. 1 in the northwest quarter, and the area  
19 that is marked in red. Would you state what that represents,  
20 please?

21 A. The area marked in red shows here the addi-  
22 tional area that we could expect to recover when we put the  
23 Ward Insall No. 1 back on production.

24 Q. And I call your attention to the fact that  
25 all that area appears to lay within the northwest northwest

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1 quarter of Section 12, is that correct?

2 A. That's correct.

3 Q. And this is drawn to scale, is that correct?

4 A. That's correct.

5 Q. Based upon the studies you've made in order  
6 to determine the circumference of drainage around the Ward  
7 Insall No. 1, located in the northwest northwest of Section  
8 12, do you have an opinion as to what area that well is  
9 draining?

10 A. Yes, I do.

11 Q. And, sir, what is your opinion?

12 A. My opinion is that the Ward Insall No. 1 has  
13 not effectively drained anywhere near the 160 acres that is  
14 assigned to it, but instead it has drained an acre of --  
15 an area of only around 20 acres.

16 Q. And, sir, based upon your studies of this  
17 area, what do you feel the maximum area of drainage will be  
18 for the Ward Insall No. 1, located in the northwest quarter  
19 northwest quarter of Section 12?

20 A. Using the outer circle we estimate that the  
21 Ward Insall No. 1 will be able to drain an area of approxi-  
22 mately 26 acres.

23 Q. Okay. Now, Mr. Percy, I call your attention  
24 and the attention of the Examiner a similar circle that sur-  
25 rounds the wellbore, or well, that's indicated by the number



1 two, which is in the northeast quarter of the northwest  
2 quarter, would you state what that is, please?

3 A Yes. This circle with the same radius again  
4 represents the area that has been drained by the Ward Insall  
5 No. 2. This well has recovered the same cumulative oil,  
6 43,000 barrels of oil to date.

7 Q And, sir, I call your attention to the circle  
8 which - which according to the exhibit has a radius of  
9 1,053 feet, and has the number 12 located within it. Would  
10 you explain the significance of that circle, please?

11 A Yes. This is the drained area by the Insall  
12 Com No. 2 Well, located in the southeast corner of Section  
13 12, which we have calculated has drained an 80-acre area,  
14 represented, then, by this radius of 1,053 feet.

15 Q Okay. And, sir, I call your attention to  
16 the well that is numbered numeral 1 in the southwest quarter  
17 of the southwest quarter of Section 12, that appears to have  
18 a radius of 2,800 feet. Would you explain that radius and  
19 circle, please?

20 A Yes. This well appears to have drained an  
21 area of somewhere around 200 acres, and we have represented  
22 that, then, by showing this segment of a circle there in  
23 Section 12 with a 2800 feet radius to represent that 200  
24 acre drained area for the well.

25 Q Okay.

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1 MR. SIMMONS: Mr. Examiner, at this time I  
2 would submit Exhibit Five into evidence.

3 MR. STAMETS: Is Mr. Percy going to be dis-  
4 cussing some other exhibits?

5 MR. SIMMONS: Yes, sir, he will.

6 MR. STAMETS: Okay, let's just wait and we'll  
7 take care of all of them at the same time.

8 MR. SIMMONS: All right.

9 Q (Mr. Simmons continuing.) Okay, Mr. Percy,  
10 I call your attention to what has been marked as Exhibit  
11 Six, and ask if this exhibit was prepared under your super-  
12 vision and control?

13 A. Yes, it was.

14 Q And would you explain, please, what this  
15 exhibit represents?

16 A. This exhibit shows the cumulative oil pro-  
17 duction in thousands of barrels from the wells in Section  
18 12 and immediately surrounding it, and all of this production  
19 has been from the Bough "C" horizon.

20 Q Okay. What does the area that's colored in  
21 green represent?

22 A. The area colored in green represents the  
23 wells which have produced in excess of 200,000 barrels.  
24 There are two wells in Section 12 which have recovered more  
25 than 200,000 barrels, as you see on that.

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1 Q And do those -- is the location of those  
2 wells south of the northwest quarter northwest quarter of  
3 Section 12?

4 A Yes, both of them are.

5 Q And I call your attention to the area colored  
6 in red, appearing just north of the north line of Section 12.  
7 Would you tell us what that represents, please?

8 A Yes. This area colored in red indicates a  
9 band of wells which did not find enough Bough "C" to be  
10 put on production.

11 There are two wells which we show in there  
12 which have essentially no porosity development, inadequate  
13 to make a completion, so there's been no Bough "C" completions  
14 in those red zones.

15 Q Now, Mr. Percy, based upon the production  
16 of the -- the well production volumes of the wells, as shown  
17 on Exhibit Six, do you have again an opinion as to the area  
18 being drained by the Ward Insall No. 1, located in the  
19 northwest quarter of the northwest quarter of Section 12?

20 A Yes, I do.

21 Q And what is your opinion?

22 A My opinion is that the well in the northwest  
23 quarter of Section 12 has been substandard. It has not  
24 drained anything as much oil as the other two wells in --  
25 in Section 12, and that it's at the edge of this fairway, as

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1 we see from the net pay amount, and its drained area cannot  
2 be expected to be as large as the other two wells in Section  
3 12.

4 Q Let me, for my clarification, is it your  
5 testimony that the Ward Insall Well No. 1 has not, in fact,  
6 even drained 80 acres?

7 A That's correct.

8 Q Okay, and would you restate again what the  
9 calculations indicate the net acre drainage to be?

10 A The drained area that we calculate for the  
11 Ward Insall No. 1 is around 20 acres, 20 to 23 acres.

12 MR. SIMMONS: Okay. Mr. Examiner, Mr. Percy  
13 has no further testimony at this time. I would submit Ex-  
14 hibits Five and Six into evidence.

15 MR. STAMETS: Exhibits Five and Six will be  
16 admitted.

17 MR. SIMMONS: And may Mr. Percy be excused?

18 MR. STAMETS: Just one question, Mr. Percy.

19

20

# CROSS EXAMINATION

21

BY MR. STAMETS:

22

23 Q You indicated that the Ward Insall Well No. 1  
24 has recovered about 43,000 barrels?

25

A Of oil, that's correct, sir.

25

Q And how much more do you expect to be recovered?

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1 A We're expecting approximately 7200 more bar-  
2 rels of oil could be recovered from the well.

3 Q And is this additional recovery based on re-  
4 vised economics due to the higher priced oil?

5 A Not necessarily. It's because we -- the last  
6 test that we had on the well indicated it may be able of  
7 producing ten barrels of oil per day and as Mr. Jacoby will  
8 testify later on, we've used a decline factor, which we  
9 believe appropriate for the well, to come up with these 7200  
10 barrels of additional recovery.

11 MR. STAMETS: Any other questions of the  
12 witness?

13 MR. SIMMONS: I've thought of one other, if  
14 I may, Mr. Examiner.

15 MR. STAMETS: Yes.

16  
17 REDIRECT EXAMINATION

18 BY MR. SIMMONS:

19 Q Mr. Percy, based upon your study of the pro-  
20 duction of the wells in the area, I now call your attention  
21 to the area that is represented by the south half of the  
22 northwest quarter. Based upon your calculations, how many  
23 barrels of hydrocarbons should be in place under that area?

24 A We believe that there may still be around  
25 80,000 barrels of oil that could possibly be recovered from

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1 this area, although we believe that this estimate would be  
2 optimistic, but because of the excellent drainage of the  
3 two wells in the south half of Section 12, that there's a  
4 good chance that another well drilled in the northwest  
5 quarter of Section 12 would come up as a substandard oil  
6 well or as a dry hole.

7 Q Okay.

8 MR. SIMMONS: Mr. Examiner, may Mr. Percy  
9 be excused?

10 MR. STAMETS: This witness may be excused,  
11 and I think it's an appropriate time for about a fifteen  
12 minute recess.

13 (Thereupon a recess was  
14 taken.)

15 MR. STAMETS: The hearing will please come  
16 to order.

17 Mr. Simmons, you may continue.

18 MR. SIMMONS: Okay, this is a continuation  
19 of Case 6527. Mr. Examiner, I call -- now call as a witness  
20 Mr. Mark Jacoby.

21  
22 MARK JACOBY

23 being called as a witness and having been duly sworn upon  
24 his oath, testified as follows, to-wit:  
25

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DIRECT EXAMINATION

BY MR. SIMMONS:

Q Mr. Jacoby, would you state your complete name, please?

A Mark Allen Jacoby.

Q And, sir, where do you reside?

A I live in San Antonio, Texas.

Q And, sir, what is your profession?

A I'm a production engineer for Tenneco Oil Company.

Q And, Mr. Jacoby, are you familiar with the application before the Commission?

A Yes, I am.

Q And have you -- how long have you been associated with Tenneco Oil Company?

A Since August of 1978, about nine months.

Q And during that period of association what duties have you had with Tenneco Oil Company?

A I began to work for Tenneco as a drilling engineer and now work as a production engineer.

Q And what geographic area are you responsible for as a production engineer?

A I take care of the south portion of southeast New Mexico.

1 Q Okay, and is the area now being -- now before  
2 the Commission an area that's within your jurisdiction?

3 A Yes, it is.

4 Q Would you tell us, please, what degrees you  
5 hold?

6 A I have a Bachelor of Science in industrial  
7 engineering, Texas Tech, in May of -- or December of 1973;  
8 Master of Science in industrial engineering from Texas Tech  
9 in May of 1975.

10 Q And right after -- have you ever worked for  
11 any other oil company besides Tenneco?

12 A Yes, I have.

13 Q And what company was that?

14 A Immediately upon graduation from Tech I began  
15 to work with Amoco Production Company in Andrews, Texas.

16 Q And what were your duties in Andrews, Texas,  
17 with Amoco?

18 A I worked there three years, and the first  
19 eighteen months I worked as a production engineer, taking  
20 care of primary recovery operations projects and part of the  
21 time taking care of secondary recovery projects, and then  
22 the following eighteen months I worked as a supervisor on  
23 drilling and workover operations.

24 Q Okay, now, Mr. Jacoby, I don't know if I  
25 asked you before, I'll ask it again real fast, during your

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1 association with Tenneco, how long have you worked the area  
2 now before the Commission?

3 A. About five months.

4 Q. Have you ever testified before the Oil Con-  
5 servation Division before?

6 A. No, I have not.

7 Q. And would you state, please, the organizations  
8 that you now belong to?

9 A. I belong to the Society of Petroleum Engineers  
10 with AIME.

11 MR. SIMMONS: Mr. Examiner, I submit Mr.  
12 Jacoby as an expert witness.

13 MR. STAMETS: The witness is considered  
14 qualified.

15 Q. (Mr. Simmons continuing.) Mr. Jacoby, I now  
16 call your attention to what has been marked as Exhibit Two  
17 and ask if this Exhibit was prepared pursuant to your in-  
18 structions and under your control and supervision?

19 A. Yes, it was.

20 Q. And would you explain, please, what this  
21 exhibit represents?

22 A. Yes, Exhibit Number Two is a wellbore diagram  
23 of the Ward Insall No. 1. It shows here the casing program  
24 where we set 13-3/8ths inch surface casing, 8-5/8ths inter-  
25 mediate casing, and 5-1/2 inch production casing.

Q Okay. Mr. Jacoby, I now call your attention to what has been marked as Exhibit Seven and ask if this exhibit was prepared under your control and supervision.

Q And would you say, please, what it represents?

I might add there that the oil is indicated with red; the gas in green, and the water in blue. And the scale for the oil is on the lefthand side. The scale for the water is on the righthand side.

Would you explain, please, what the significance of that parallel pattern is?

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1 A Yes, I will. There is a definite correlation  
2 between the oil production and the water production, and  
3 that means that the reservoir is producing or has produced  
4 fluids that are in place. In other words, if this curve in  
5 the water -- if the water production was increasing, we  
6 would know that there's migration of fluids and we had a ---  
7 had an active water drive reservoir.

8 But in this case we do not because of the  
9 oil and water depleting at the same rate and producing with  
10 correlative curves.

11 Q Okay, Mr. Jacoby, I call your attention to  
12 the number of 28 percent. Would you explain what that  
13 means, please?

14 A 28 percent is the decline rate that I've de-  
15 termined from the oil curve. That means that's the rate  
16 per annum that the oil production has declined over the  
17 history of the well.

18 Q Okay, and based upon that 28 percent decline,  
19 have you determined what the life of the Ward Insall No. 1  
20 Well will be?

21 A Yes, I have. I've determined from the last  
22 production test that we have on the well when it was active  
23 that we could put it back on for an approximate rate of 10  
24 barrels of oil per day, or 300 barrels of oil per month,  
25 and declining at a rate of 28 percent it would produce for

1 three and a half years, at which time it would reach 3 bar-  
2 rels of oil per day, which is the economic limit.

3 Q Okay. Now, Mr. Jacoby, a moment ago you  
4 mentioned the presence of the gas/oil ratio line appearing  
5 on the chart, colored in -- well, it's the dashed line, is  
6 that correct?

7 A Yes, that's right.

8 Q Would you explain the significance of the  
9 movement of the gas/oil ratio line from low left to up  
10 right?

11 A Yes. The GOR line indicates by increasing  
12 to the right that gas over the time of production is breaking  
13 out of solution, and at the present time the reservoir is  
14 in latter stages of depletion.

15 Also, that indicates, along with the corre-  
16 lation of the water and oil curves, that we were producing  
17 fluids in place.

18 Q Okay. Mr. Jacoby, I now call your attention  
19 to what has been marked as Exhibit Eight, and ask if this  
20 exhibit has been prepared pursuant to your control, super-  
21 vision, and instruction?

22 A Yes, it has.

23 Q And would you explain, please, what this ex-  
24 hibit represents?

25 A Yes. We have shown the economics of two

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1 cases. One case, returning the No. 1 Well to production;  
2 another case, if a new well was drilled in this area.

3 Our drilling engineers in the southwestern  
4 division at San Antonio determined that at present day prices  
5 it would cost \$661,000 to drill a new well in this area, and  
6 this assumes the same casing program that I showed you on  
7 the previous exhibit, and this also includes the cost of  
8 completion and artificial lift.

9 Now, the other numbers that I have shown here,  
10 Mr. Pearcy discussed there the reserves we estimated that  
11 will be recovered by drilling a new well, which was deter-  
12 mined from the performance of the Insall Federal Com No. 2,  
13 and then, also, the 7000 barrels of reserves which we would  
14 recover by returning the No. 1 to production, that we deter-  
15 mined from the decline curve, the performance curve I just  
16 discussed.

17 Okay, we made use, or we make use, and we  
18 did in this case, also, of a computer in determining our  
19 economics. And in explanation of the numbers and indices  
20 we have shown here, we found that drilling a new well would  
21 result in an ultimate profit of \$8900.

22 Q That's what it costs?

23 A At the \$661,000 initial investment.

24 Okay, returning the No. 1 Well to production  
25 would result in an ultimate profit of \$6000 at the cost of

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1 \$20,000.

2 You'll note the next line there shows the  
3 percent profit. This particular number is an index, an  
4 indicator that we use to determine the acceptability of an  
5 economic project, and economic acceptability of a project,  
6 and the higher the number the more acceptable the project  
7 would be, and this is based upon the ultimate profit versus  
8 the initial investment.

9 The next term there is success probability,  
10 and this is determined from our experience on other wells  
11 that have been drilled in the area. The 60 percent we used  
12 as a success probability to drill a new well. It would be  
13 more risky, we feel like, to drill a new well because of  
14 many potential problems you can have. As you know, you have  
15 a lot of things that could occur in drilling a new well  
16 here.

17 Okay, it would be -- we would have a greater  
18 chance of success of re-entering the No. 1 Well and putting  
19 it on production and recovering the remaining reserves in  
20 that reservoir.

21 The last term there is the payout. This term  
22 indicates the amount of time it would take to pay out the  
23 initial investment for the project.

24 Q Okay, Mr. Jacoby, I call your attention back  
25 to the column marked a percent of profit, and first I ask

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1 you, has it been represented to you that a party wishes to  
2 drill a new well in the south half of the northwest quarter?

3 A Yes, it has.

4 Q And is that the reason you came up with the  
5 economics relating to the cost of drilling a new well?

6 A Yes, it is.

7 Q Okay. And then has it been represented to  
8 you by Tenneco management, that management desires to not  
9 participate in the drilling of a new well in the south half  
10 of the northwest quarter, and they would rather recomplete  
11 the Insall Ward No. 1 Well, located in the northwest quarter  
12 northwest quarter?

13 A That's correct.

14 Q Or the north half northwest quarter. Would  
15 you -- the numbers you show as percent of profit, you show  
16 a 1.6 percent of profit relating to the drilling of a new  
17 well. You show a 39, code number 39 relating to the return  
18 of No. 1 Well to production.

19 Now would you go into more detail very briefly  
20 and tell me what is really the significance of those numbers?

21 A Yes. This is a primary index that we use to  
22 determine the economic acceptability of a project. In this  
23 case, returning the No. 1 Well to production would be approx-  
24 imately 37 times better than drilling a new well, because  
25 we did come up with the 39 as a percent profit, as I stated

1 awhile ago; that is from the ultimate profit versus the  
2 initial investment that we would make.

3 MR. SIMMONS: Okay. Mr. Examiner, at this  
4 time I would offer Exhibit Number Two, Exhibit Number Seven,  
5 and Exhibit Number Eight into evidence.

6 MR. STAMETS: These exhibits will be admitted.

7 MR. SIMMONS: Okay, Mr. Examiner, do you have  
8 any other questions, or any questions of Mr. Jacoby?

9 MR. STAMETS: Are there any questions of the  
10 witness? He may be excused.

11  
12 GREGORY E. SIMMONS

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

15  
16 DIRECT EXAMINATION

17 BY MR. COFFIELD:

18 Q Mr. Simmons, would you please state for the  
19 record your name?

20 A Yes. My name is Gregory Ernest Simmons.

21 Q And where do you reside?

22 A San Antonio, Texas.

23 Q And what is your occupation?

24 A I'm an attorney at law with Tenneco Oil Com-  
25 pany.

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1 Q And have you familiarized yourself with this  
2 application?

3 A Yes, sir, I sure have.

4 Q And are you familiar with the property, the  
5 land involved in the northwest quarter of Section 12, which  
6 is the subject of this particular application?

7 A Yes, sir, I have.

8 Q Have you previously testified before the Oil  
9 Conservation Division as respects matters legal and land?

10 A No, sir, I have not.

11 Q Would you give the Examiner a brief resume  
12 of your educational background first?

13 A Okay. I obtained a juris doctor's degree from  
14 Oklahoma City University School of Law in Oklahoma City,  
15 Oklahoma. During my last -- do you want the employment?

16 Q Yes, please.

17 A During my last year of law school I was a  
18 law clerk in the United States District Court for the western  
19 district of Oklahoma.

20 Subsequent to that, I associated with the  
21 firm of George Canaan and Robert Lindsey, which is probably  
22 the second oil and gas law firm in Oklahoma. Their main  
23 activity was Commission work for the Oil and Gas Commission  
24 of Oklahoma.

25 Subsequent to that, I entered into private

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1 practice and then served as Assistant District Attorney for  
2 awhile, and then associated with Tenneco Oil Company in  
3 Oklahoma City, as a second attorney.

4 In August of 1978 I was transferred to San  
5 Antonio as a Division Attorney.

6 MR. COFFIELD: Mr. Examiner, are Mr. Simmons  
7 qualifications acceptable?

8 MR. STAMETS: The witness is considered  
9 qualified.

10 Q (Mr. Coffield continuing.) Mr. Simmons, have  
11 you satisfied yourself with respect to the ownership of the  
12 leasehold estate in the south half of the northwest quarter  
13 of Section 12?

14 A Yes, sir, I have.

15 Q Who is the owner of that particular tract?

16 A Sir, the owner of the leasehold owner -- the  
17 owner of the working interest or leasehold rights in the  
18 north half of the northwest quarter of Section 12 is Tenneco  
19 Oil Company.

20 The owner of the south half of the northwest  
21 quarter of Section 12 is an individual by the name of W. C.  
22 Osborne.

23 Q Mr. Simmons, have you had conversations and  
24 contact with Mr. Osborne?

25 A Yes, sir, I have.

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1 Q Would you please explain to the Examiner the  
2 gist of your contact with Mr. Osborne?

3 A Yes, sir. On Monday of this week I called  
4 Mr. Osborne to advise him of the hearing to be had this date  
5 at this time before this Commission.

6 We felt that Mr. Osborne should be here. He  
7 advised me at that time that he had not monitored the  
8 papers in Santa Fe or in Lea County, and that he was not  
9 aware of the hearing.

10 I explained to Mr. Osborne basically what  
11 our economics were relating to the application and stated  
12 to Mr. Osborne that we felt that for Tenneco to participate  
13 in the drilling of a well in the -- a new well anywhere in  
14 the northwest quarter of Section 12 would result in economic  
15 waste because the return is just not there.

16 I explained to Mr. Osborne the state of art  
17 that we used in order to determine and basically what  
18 management decision was based upon.

19 I also explained to Mr. Osborne what our in-  
20 tentions were, and that is to rework the Ward Insall No. 1  
21 Well, located in the northwest quarter northwest quarter of  
22 Section 12, or in the north half of Section 12, and that  
23 our intent was to ask the Oil Conservation Division of  
24 New Mexico to grant an exception to the spacing in order that  
25 we may go in and rework the Ward Insall Well No. 1 and in

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1 order that he could go ahead and if he really believes in  
2 his well to be drilled in the south half of the northwest  
3 quarter, then he could do so without any participation by  
4 Tenneco.

5 We felt that since the spacing covering of  
6 the northwest quarter of Section 12 at present is 160 acres,  
7 that if the spacing was not changed, that we would either  
8 be in the position of a nonconsenting party or subject to  
9 being force pooled and have to bear risk up to 200 percent  
10 of our proportional share of the cost of drilling the well.

11 Again, Mr. Osborne and I discussed the alter-  
12 natives available, and after much discussion, he wrote a  
13 letter to Mr. Dan Nutter, which I delivered to Mr. Nutter  
14 this morning, dated April 23rd, 1979, of which I would like  
15 to read, if I may.

16 It says, Dear Mr. Nutter, I'm the lessee of  
17 record of the south half of the northwest quarter of Section  
18 12, Township 9 South, Range 34 East, in Lea County, New  
19 Mexico.

20 I believe that 80-acre spacing in this field  
21 at this time is more equitable, prevents waste, and protects  
22 the correlative rights of the royalty owners of the respec-  
23 tive tracts. Therefore, as lessee of the south half of the  
24 northwest quarter of Section 12, Township 9 South, Range 34  
25 East, I join Tenneco Oil Company in their application for

1 an exception to the spacing rules of the Vada-Pennsylvanian  
2 Field.

3 Your consideration would be appreciated.

4 Your truly, W. C. Osborne.

5 We would ask that the -- further in my dis-  
6 cussion with Mr. Osborne, we got into a discussion about  
7 how economic waste would be prevented and how the correla-  
8 tive rights of the diverse royalty owners under the respec-  
9 tive tracts would be protected. Mr. Osborne assured me that  
10 he was most sincere in drilling his well in the south half  
11 of the northwest quarter.

12 In response to that I told Mr. Osborne that  
13 if he's going to drill a well in the southwest of the north-  
14 west quarter, and based upon our determinations that there  
15 are 80,000 barrels of hydrocarbon that may be recoverable  
16 from that area, that certainly his royalty owners would  
17 certainly benefit by receiving 100 percent of the 1/8th  
18 royalty attributable to that production.

19 I also pointed out to Mr. Osborne that based  
20 upon our studies, that it was very apparent, and as certain  
21 as engineering data can be, that the Ward Insall Well No. 1,  
22 located in the north half of the northwest quarter, was not  
23 draining 80 acres, and that under the present spacing, the  
24 royalty owners of the south half of the north half should  
25 not participate in any production from the Ward Insall Well

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1 No. 1.

2 In turn, the royalty owners of the Ward Insall  
3 No. 1 really should not participate in any production from  
4 a well to be drilled in the south half of the north half  
5 of Section 12.

6 Mr. Osborne, I assume seeing the reasoning  
7 involved, and based upon the data that would be presented  
8 to the Commission, then joined us in our application.

9 Q Mr. Simmons, is it then your unqualified  
10 opinion that the approval of Tenneco's application in this  
11 case would be in the interest of conservation, the protection  
12 of correlative rights, and the prevention of waste?

13 A Yes, sir, it is.

14 Q Mr. Simmons, do you have any further state-  
15 ment that you'd like to make to the Commission?

16 A No, sir, I do not.

17 MR. STAMETS: Any questions of the witness?  
18 He may be excused.

19 MR. SIMMONS: Thank you, sir.

20 MR. STAMETS: Do you have anything further  
21 in this case?

22 The case will be taken under advisement.

23 (Hearing concluded.)  
24  
25

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## REPORTER'S CERTIFICATE

I, SALLY WALTON BOYD, a Court Reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of Hearing before the Oil Conservation Division was reported by me; that said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability, knowledge, and skill, from my notes taken at the time of the hearing.

Sally W. Boyd, C.S.R.

I do hereby certify that the foregoing is a complete report of the proceedings in the Examiner hearing of Case No. \_\_\_\_\_, heard by me on \_\_\_\_\_ 19\_\_\_\_.

\_\_\_\_\_, Examiner  
Oil Conservation Division

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STATE OF NEW MEXICO  
 ENERGY AND MINERALS DEPARTMENT  
 OIL CONSERVATION DIVISION  
 State Land Office Building  
 Santa Fe, New Mexico  
 25 April 1979

## EXAMINER HEARING

IN THE MATTER OF:

Application of Tenneco Oil Company  
 for two non-standard oil proration  
 units, Lea County, New Mexico.

CASE  
 6527

BEFORE: Richard L. Stamets

## TRANSCRIPT OF HEARING

## A P P E A R A N C E S

For the Oil Conservation  
 Division:

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 Legal Counsel for the Division  
 State Land Office Bldg.  
 Santa Fe, New Mexico 87503

For Tenneco Oil Company:  
 For the Applicant:

Gregory E. Simmons, Esq.  
 Tenneco Oil  
 6800 Park Ten Blvd.  
 Suite 200 North  
 San Antonio, Texas 78213

and

Conrad Coffield, Esq.  
 HINKLE LAW FIRM  
 Midland, Texas

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## MARK JACOBY

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1 MR. STAMETS: We will call next Case 6527.

2 MR. PADILLA: Case 6527. Application of  
3 Tenneco Oil Company for two nonstandard oil proration units,  
4 Lea County, New Mexico.

5 MR. STAMETS: Call for appearances in this  
6 case.

7 MR. COFFIELD: I'm Conrad Coffield with the  
8 Hinkle Law Firm in Midland, Texas, appearing on behalf of  
9 the applicant, Tenneco Oil Company, and I would like to Mr.  
10 Greg Simmons, Division Attorney, for Tenneco from San  
11 Antonio, who will present this case.

12 MR. SIMMONS: Mr. Examiner, we have three  
13 witnesses to be sworn here.

14 MR. STAMETS: Okay, are there any other ap-  
15 pearances in this case?

16 I'd like to have all three witnesses stand  
17 and be sworn at this time, please.

18 (Witnesses sworn.)

19 MR. SIMMONS: Mr. Examiner, if I may, we have  
20 prepared a booklet, if you will, containing eight exhibits,  
21 and due to the nature of our application and the way the  
22 evidence will be presented, I would like to make an opening  
23 statement, if you will. I feel like it will better allow  
24 the Commission to understand what we're trying to say, and  
25 allow for a more clear hearing.

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1 MR. STAMETS: Please go ahead.

2 MR. SIMMONS: First, by reference in this  
3 opening statement I'd like to call the Commission's attention  
4 to what has been marked as Exhibit Three, just for your  
5 reference so you can see basically what I'm talking about.

6 This application was filed on our behalf by  
7 Mr. Coffield, a New Mexico attorney, and initially the ap-  
8 plication applied for an exception to the Vada-Pennsylvanian  
9 Pool rules, which is now spaced at 160 acres.

10 The area that this application involves is  
11 the northwest quarter of Section 12, Township 9 South,  
12 Range 34 East, Lea County, New Mexico.

13 By letter dated April 19th, 1979, written by  
14 Mr. Coffield on behalf of Tenneco Oil Company, Tenneco  
15 asked that the application now before the Commission be  
16 amended and that only its application for an exception to  
17 the field rule spacing be considered as to the north half  
18 of the northwest quarter. Initially the application applied  
19 to the north half of the northwest quarter and the north  
20 half of the northeast quarter of Section 12.

21 So with the Commission's approval we would  
22 like for the application to only be for the north half of  
23 the northeast quarter.

24 MR. STAMETS: We will dismiss that part of  
25 the application dealing with the north half northeast quarter

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1 of Section 12.

2 MR. SIMMONS: Yes, sir, thank you.

3 Now, Mr. Examiner, I call your attention to  
4 the Exhibit Three, and it's a basic plat of Exhibit 12, and  
5 if you would look at the northwest quarter of Section 12,  
6 I will call to your attention that the royalty ownership  
7 as to the north half of the northwest quarter and the north  
8 half -- and the south half of the northwest quarter is  
9 diverse. It is not the same.

10 In addition, I call your attention to the  
11 fact that the working interest ownership, or leasehold rights  
12 as to the north half of the northwest quarter and the south  
13 half of the northwest quarter, are diverse.

14 I also call your attention to the letter that  
15 was handed to you along with our booklet of exhibits, ad-  
16 dressed to Mr. Dan Nutter, Oil and Gas Conservation Division,  
17 New Mexico Oil Conservation Commission, date April 23rd,  
18 1979, in reference to this case, wherein the lessee of re-  
19 cord of the south half of the northwest quarter, a Mr. W. C.  
20 Osborne, joins Tenneco in its application for an exception  
21 to the 160-acre spacing now controlling the Vada-Pennsylvanian  
22 Pool.

23 Mr. Examiner, at this time I would like to  
24 call Dave Percy as a witness.  
25

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DAVID B. PEARCY

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

DIRECT EXAMINATION

BY MR. SIMMONS:

Q Sir, would you state your name?

A My name is David B. Pearcy.

Q And where do you reside?

A In San Antonio, Texas.

Q And, sir, what is your profession?

A I'm a Project Geological Engineer for Tenneco Oil Company.

Q And how long have you been employed for Tenneco Oil Company?

A For six years.

Q Mr. Pearcy, I ask you if you're familiar with the area relating to the application now before the Commission?

A Yes, I am.

Q And you're familiar with the properties involved, is that correct?

A That's correct.

Q And have you previously testified before the

1 Oil Conservation Division?

2 A. No, I have not.

3 Q. Okay. Mr. Percy, would you tell the Examiner,  
4 please, what degrees you now hold?

5 A. I have a degree in geological engineering from  
6 the Colorado School of Mines, 1966, and a Master Divinity  
7 degree from Baptist Seminary in Denver, 1969.

8 Q. Mr. Percy, would you tell the Examiner, please,  
9 what organizations and professional groups you belong to?

10 A. I belong to the Society of Petroleum Engineers,  
11 of AIME, the American Association of Petroleum Geologists,  
12 and the Society of Professional Well Log Analysts.

13 Q. Now, Mr. Percy, you are now employed for  
14 Tenneco in its southwestern division office, located in  
15 San Antonio, Texas, is that correct?

16 A. That's correct.

17 Q. And since you have been assigned to the  
18 southwestern division what area, as a geological engineer  
19 have you been responsible for?

20 A. I've been looking after the Tenneco operated  
21 properties in New Mexico and Texas.

22 Q. Have you -- all right, and for how long have  
23 you been doing that?

24 A. I've been doing that for approximately eight  
25 months.

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1 MR. SIMMONS: Mr. Examiner, at this time I  
2 would submit Dave Percy as an expert witness and ask that  
3 he be --

4 MR. STAMETS: The witness is considered  
5 qualified.

6 MR. SIMMONS: If I may, Mr. Examiner, we  
7 have already stamped and numbered all of our exhibits. The  
8 exhibits will be presented out of order, but I will refer  
9 to the number as indicated on the exhibit.

10 Q (Mr. Simmons continuing.) Mr. Percy, I'll  
11 now call your attention to what has been marked as Exhibit  
12 One, and ask if this exhibit was prepared under your super-  
13 vision and control?

14 A Yes, it was.

15 Q Would you state briefly, please, what this  
16 exhibit represents to the Examiner?

17 A This is a neutron porosity log for the Ward  
18 Insall No. 1, which shows the neutron porosity in the right  
19 track and the gamma ray on the left track of the log.

20 Q Okay, I'll call your attention to the words  
21 that appear on Exhibit One, 3 percent porosity cutoff.  
22 Would you explain the meaning of that language, please?

23 A This is a porosity value corresponding to  
24 a 3 percent, as indicated on the scale at the bottom of the  
25 log, which we believe represents adequately the pay cutoff.

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1 That means anything greater than 3 percent  
2 we'll consider to be pay in this area; anything less than  
3 that we'll consider to be nonproductive.

4 Q And I also call your attention to the wording  
5 that states 20 feet of pay. Would you explain the meaning,  
6 please?

7 A This is the total footage in the Bough "C"  
8 horizon, lying from 9755 to approximately 9795, which ex-  
9 ceeds or -- or meets this 3 percent porosity cutoff. That  
10 means there's 20 feet of rock there which appears to have  
11 3 percent or greater porosity.

12 Q All right, and Mr. Percy, I call your atten-  
13 tion to what appears to be a depiction of a gamma ray log.  
14 Would you explain its significance, please?

15 A The gamma ray indicates, since it's over on  
16 the left side of this track, that this zone, which is lime-  
17 stone, is apparently clean. It is not a shale at this  
18 horizon and it is -- in conjunction with the neutron porosity  
19 indicates we have some kind of a reservoir here which may  
20 be productive.

21 MR. SIMMONS: Mr. Examiner, at this point in  
22 time I would submit Exhibit One into evidence.

23 MR. STAMETS: Exhibit One will be admitted.

24 MR. SIMMONS: Thank you, sir.

25 Q (Mr. Simmons continuing.) Mr. Percy, I now



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1 call your attention to what has been marked as Exhibit Three  
2 and ask if this exhibit was prepared under your supervision  
3 and control?

4 A. Yes, it was.

5 Q. Would you explain, please, what this exhibit  
6 represents?

7 A. This is a structure map on the top of the  
8 Bough "C" horizon in a portion of the Vada-Penn Pool, and  
9 it indicates the wells in Section 12 and the surrounding  
10 sections with the subsea horizon for the Bough "C" zone.

11 Notice that the Ward Insall No. 1 is indicated  
12 with a subsea 5521, which corresponds to the value indicated  
13 on Exhibit Number One.

14 Q. Okay, Mr. Percy, I call your attention to  
15 the fact that you show depths, if I may use that language,  
16 of -5400 at the top of the diagram and as we progress to  
17 the southeast, you show numbers -5500 and -5600. What is  
18 the significance of the -- the changes in depth, as you  
19 progress in a southeasterly direction?

20 A. This shows as we head in a southeasterly  
21 direction across Section 12 that the Bough "C" horizon gets  
22 deeper to the rate of about 80 feet per mile.

23 It also indicates that the Ward Insall No. 1  
24 is the highest well in the Section 12.

25 MR. SIMMONS: Mr. Examiner, at this time I

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1 would submit Exhibit Three into evidence.

2 MR. STAMETS: Exhibit Three will be admitted.

3 Q. Mr. Percy, I now call your attention to  
4 what has been marked as Exhibit Number Four and ask if this  
5 was prepared under your supervision and control?

6 A. Yes, it was.

7 Q. And would you state to the Examiner, please,  
8 what it represents?

9 A. This is a net pay map indicating from the  
10 logs in Section 12 and surrounding wells the feet of pay  
11 that we see in each of these wells from the neutron logs,  
12 or when a neutron log isn't available, from the sonic log.

13 You can see that, again, it shows 20 feet  
14 of pay for the Ward Insall No. 1.

15 Q. Mr. Percy, what does the area colored in  
16 blue represent?

17 A. The area colored in blue in the center of  
18 Section 12 shows the thickest part of the net pay develop-  
19 ment in the Bough "C" horizon up to 30 feet, or possibly  
20 greater.

21 Q. Based upon your examination of the data that  
22 allowed you to prepare this exhibit, is there any indication  
23 of any fairway trend, or anything like that?

24 A. Yes, there is. There's an apparent fairway  
25 of the better porosity development which goes generally in

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an east/west direction across Section 12.

And to the north of Section 12 and also to the south, our porosity development is restricted. It's less than 10 feet.

Q Okay.

MR. SIMMONS: Mr. Examiner, I submit Exhibit Four into evidence.

MR. STAMETS: Exhibit Four will be admitted.

MR. SIMMONS: Thank you, sir.

Q Mr. Percy, I now call your attention to what has been marked as Exhibit Five and ask you if this exhibit was prepared under your supervision and control?

A Yes, it was.

Q And would you explain to the Examiner, please, what this exhibit represents?

A This is a blow-up of Section 12 at a scale of one inch to 1000 feet. It indicates the four wells which have been drilled in Section 12, each of which is allocated to a 160-acre proration unit as now indicated under the laws of the State.

Q Okay, and is it your understanding that the present 160-acre spacing or proration unit is controlled by the field rules as set out in the Vada-Pennsylvania Pool?

A That's correct.

Q Okay. Now, Mr. Percy, I call your attention

1 to the location of the well in the northwest quarter of  
2 Section 12, which is surrounded by two circles. Would you  
3 explain the inner circle, please?

4 A. Yes. The inner circle shows a radius of  
5 564 feet, which represents the 23-acre drainage area which  
6 apparently has -- has been drained by the No. 1 Ward Insall  
7 Well.

8 Q. And how did you determine the circumference  
9 of that circle?

10 A. That was determined by using reservoir volu-  
11 metrics. We took the appropriate porosity value, an oil  
12 saturation value of 60 percent, used a recovery fraction of  
13 50 percent, and then calculated out that the drained area  
14 to date for the production of the well is somewhere around  
15 20 acres.

16 Q. Okay. Mr. Pearcy, I call your attention to  
17 the outer circle which surrounds the location of the Ward  
18 Insall Well No. 1 in the northwest quarter, and the area  
19 that is marked in red. Would you state what that represents,  
20 please?

21 A. The area marked in red shows here the addi-  
22 tional area that we could expect to recover when we put the  
23 Ward Insall No. 1 back on production.

24 Q. And I call your attention to the fact that  
25 all that area appears to lay within the northwest northwest

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1 quarter of Section 12, is that correct?

2 A. That's correct.

3 Q. And this is drawn to scale, is that correct?

4 A. That's correct.

5 Q. Based upon the studies you've made in order  
6 to determine the circumference of drainage around the Ward  
7 Insall No. 1, located in the northwest northwest of Section  
8 12, do you have an opinion as to what area that well is  
9 draining?

10 A. Yes, I do.

11 Q. And, sir, what is your opinion?

12 A. My opinion is that the Ward Insall No. 1 has  
13 not effectively drained anywhere near the 160 acres that is  
14 assigned to it, but instead it has drained an acre of --  
15 an area of only around 20 acres.

16 Q. And, sir, based upon your studies of this  
17 area, what do you feel the maximum area of drainage will be  
18 for the Ward Insall No. 1, located in the northwest quarter  
19 northwest quarter of Section 12?

20 A. Using the outer circle we estimate that the  
21 Ward Insall No. 1 will be able to drain an area of approxi-  
22 mately 26 acres.

23 Q. Okay. Now, Mr. Percy, I call your attention  
24 and the attention of the Examiner a similar circle that sur-  
25 rounds the wellbore, or well, that's indicated by the number

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1 two, which is in the northeast quarter of the northwest  
2 quarter, would you state what that is, please?

3 A. Yes. This circle with the same radius again  
4 represents the area that has been drained by the Ward Insall  
5 No. 2. This well has recovered the same cumulative oil,  
6 43,000 barrels of oil to date.

7 Q. And, sir, I call your attention to the circle  
8 which - which according to the exhibit has a radius of  
9 1,053 feet, and has the number 12 located within it. Would  
10 you explain the significance of that circle, please?

11 A. Yes. This is the drained area by the Insall  
12 Com No. 2 Well, located in the southeast corner of Section  
13 12, which we have calculated has drained an 80-acre area,  
14 represented, then, by this radius of 1,053 feet.

15 Q. Okay. And, sir, I call your attention to  
16 the well that is numbered numeral 1 in the southwest quarter  
17 of the southwest quarter of Section 12, that appears to have  
18 a radius of 2,800 feet. Would you explain that radius and  
19 circle, please?

20 A. Yes. This well appears to have drained an  
21 area of somewhere around 200 acres, and we have represented  
22 that, then, by showing this segment of a circle there in  
23 Section 12 with a 2800 feet radius to represent that 200  
24 acre drained area for the well.

25 Q. Okay.

1 MR. SIMMONS: Mr. Examiner, at this time I  
2 would submit Exhibit Five into evidence.

3 MR. STAMETS: Is Mr. Pearcy going to be dis-  
4 cussing some other exhibits?

5 MR. SIMMONS: Yes, sir, he will.

6 MR. STAMETS: Okay, let's just wait and we'll  
7 take care of all of them at the same time.

8 MR. SIMMONS: All right.

9 Q. (Mr. Simmons continuing.) Okay, Mr. Pearcy,  
10 I call your attention to what has been marked as Exhibit  
11 Six, and ask if this exhibit was prepared under your super-  
12 vision and control?

13 A. Yes, it was.

14 Q. And would you explain, please, what this  
15 exhibit represents?

16 A. This exhibit shows the cumulative oil pro-  
17 duction in thousands of barrels from the wells in Section  
18 12 and immediately surrounding it, and all of this production  
19 has been from the Bough "C" horizon.

20 Q. Okay. What does the area that's colored in  
21 green represent?

22 A. The area colored in green represents the  
23 wells which have produced in excess of 200,000 barrels.  
24 There are two wells in Section 12 which have recovered more  
25 than 200,000 barrels, as you see on that.

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1 Q And do those is the location of those  
2 wells south of the northwest quarter northwest quarter of  
3 Section 12?

4 A Yes, both of them are.

5 Q And I call your attention to the area colored  
6 in red, appearing just north of the north line of Section 12.  
7 Would you tell us what that represents, please?

8 A Yes. This area colored in red indicates a  
9 band of wells which did not find enough Bough "C" to be  
10 put on production.

11 There are two wells which we show in there  
12 which have essentially no porosity development, inadequate  
13 to make a completion, so there's been no Bough "C" completions  
14 in those red zones.

15 Q Now, Mr. Percy, based upon the production  
16 of the -- the well production volumes of the wells, as shown  
17 on Exhibit Six, do you have again an opinion as to the area  
18 being drained by the Ward Insall No. 1, located in the  
19 northwest quarter of the northwest quarter of Section 12?

20 A Yes, I do.

21 Q And what is your opinion?

22 A My opinion is that the well in the northwest  
23 quarter of Section 12 has been substandard. It has not  
24 drained anything as much oil as the other two wells in --  
25 in Section 12, and that it's at the edge of this fairway, as

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1 we see from the net pay amount, and its drained area cannot  
2 be expected to be as large as the other two wells in Section  
3 12.

4 Q Let me, for my clarification, is it your  
5 testimony that the Ward Insall Well No. 1 has not, in fact,  
6 even drained 80 acres?

7 A That's correct.

8 Q Okay, and would you restate again what the  
9 calculations indicate the net acre drainage to be?

10 A The drained area that we calculate for the  
11 Ward Insall No. 1 is around 20 acres, 20 to 23 acres.

12 MR. SIMMONS: Okay. Mr. Examiner, Mr. Percy  
13 has no further testimony at this time. I would submit Ex-  
14 hibits Five and Six into evidence.

15 MR. STAMETS: Exhibits Five and Six will be  
16 admitted.

17 MR. SIMMONS: And may Mr. Percy be excused?

18 MR. STAMETS: Just one question, Mr. Percy.

19  
20 CROSS EXAMINATION

21 BY MR. STAMETS:

22 Q You indicated that the Ward Insall Well No. 1  
23 has recovered about 43,000 barrels?

24 A Of oil, that's correct, sir.

25 Q And how much more do you expect to be recovered?

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1 A. We're expecting approximately 7200 more bar-  
2 rels of oil could be recovered from the well.

3 Q. And is this additional recovery based on re-  
4 vised economics due to the higher priced oil?

5 A. Not necessarily. It's because we -- the last  
6 test that we had on the well indicated it may be able of  
7 producing ten barrels of oil per day and as Mr. Jacoby will  
8 testify later on, we've used a decline factor, which we  
9 believe appropriate for the well, to come up with these 7200  
10 barrels of additional recovery.

11 MR. STAMETS: Any other questions of the  
12 witness?

13 MR. SIMMONS: I've thought of one other, if  
14 I may, Mr. Examiner.

15 MR. STAMETS: Yes.

16  
17 REDIRECT EXAMINATION

18 BY MR. SIMMONS:

19 Q. Mr. Percy, based upon your study of the pro-  
20 duction of the wells in the area, I now call your attention  
21 to the area that is represented by the south half of the  
22 northwest quarter. Based upon your calculations, how many  
23 barrels of hydrocarbons should be in place under that area?

24 A. We believe that there may still be around  
25 80,000 barrels of oil that could possibly be recovered from

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1 this area, although we believe that this estimate would be  
2 optimistic, but because of the excellent drainage of the  
3 two wells in the south half of Section 12, that there's a  
4 good chance that another well drilled in the northwest  
5 quarter of Section 12 would come up as a substandard oil  
6 well or as a dry hole.

7 Q Okay.

8 MR. SIMMONS: Mr. Examiner, may Mr. Percy  
9 be excused?

10 MR. STAMETS: This witness may be excused,  
11 and I think it's an appropriate time for about a fifteen  
12 minute recess.

13 (Thereupon a recess was  
14 taken.)

15 MR. STAMETS: The hearing will please come  
16 to order.

17 Mr. Simmons, you may continue.

18 MR. SIMMONS: Okay, this is a continuation  
19 of Case 6527. Mr. Examiner, I call -- now call as a witness  
20 Mr. Mark Jacoby.

21  
22 MARK JACOBY

23 being called as a witness and having been duly sworn upon  
24 his oath, testified as follows, to-wit:  
25

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DIRECT EXAMINATION

BY MR. SIMMONS:

Q Mr. Jacoby, would you state your complete name, please?

A Mark Allen Jacoby.

Q And, sir, where do you reside?

A I live in San Antonio, Texas.

Q And, sir, what is your profession?

A I'm a production engineer for Tenneco Oil Company.

Q And, Mr. Jacoby, are you familiar with the application before the Commission?

A Yes, I am.

Q And have you -- how long have you been associated with Tenneco Oil Company?

A Since August of 1978, about nine months.

Q And during that period of association what duties have you had with Tenneco Oil Company?

A I began to work for Tenneco as a drilling engineer and now work as a production engineer.

Q And what geographic area are you responsible for as a production engineer?

A I take care of the south portion of southeast New Mexico.

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1 Q Okay, and is the area now being -- now before  
2 the Commission an area that's within your jurisdiction?

3 A Yes, it is.

4 Q Would you tell us, please, what degrees you  
5 hold?

6 A I have a Bachelor of Science in industrial  
7 engineering, Texas Tech, in May of -- or December of 1973;  
8 Master of Science in industrial engineering from Texas Tech  
9 in May of 1975.

10 Q And right after -- have you ever worked for  
11 any other oil company besides Tenneco?

12 A Yes, I have.

13 Q And what company was that?

14 A Immediately upon graduation from Tech I began  
15 to work with Amoco Production Company in Andrews, Texas.

16 Q And what were your duties in Andrews, Texas,  
17 with Amoco?

18 A I worked there three years, and the first  
19 eighteen months I worked as a production engineer, taking  
20 care of primary recovery operations projects and part of the  
21 time taking care of secondary recovery projects, and then  
22 the following eighteen months I worked as a supervisor on  
23 drilling and workover operations.

24 Q Okay, now, Mr. Jacoby, I don't know if I  
25 asked you before, I'll ask it again real fast, during your

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1 association with Tenneco, how long have you worked the area  
2 now before the Commission?

3 A. About five months.

4 Q. Have you ever testified before the Oil Con-  
5 servation Division before?

6 A. No, I have not.

7 Q. And would you state, please, the organizations  
8 that you now belong to?

9 A. I belong to the Society of Petroleum Engineers  
10 with AIME.

11 MR. SIMMONS: Mr. Examiner, I submit Mr.  
12 Jacoby as an expert witness.

13 MR. STAMETS: The witness is considered  
14 qualified.

15 Q. (Mr. Simmons continuing.) Mr. Jacoby, I now  
16 call your attention to what has been marked as Exhibit Two  
17 and ask if this Exhibit was prepared pursuant to your in-  
18 structions and under your control and supervision?

19 A. Yes, it was.

20 Q. And would you explain, please, what this  
21 exhibit represents?

22 A. Yes, Exhibit Number Two is a wellbore diagram  
23 of the Ward Insall No. 1. It shows here the casing program  
24 where we set 13-3/8ths inch surface casing, 8-5/8ths inter-  
25 mediate casing, and 5-1/2 inch production casing.

1 You'll note there that the Bough "C" perfor-  
2 ations are pointed out and primarily, I'd like to point out  
3 that the 5-1/2 inch production casing is clean and in good  
4 condition.

5 Q Okay. Mr. Jacoby, I now call your attention  
6 to what has been marked as Exhibit Seven and ask if this  
7 exhibit was prepared under your control and supervision.

8 A Yes, it was.

9 Q And would you say, please, what it represents?

10 A This exhibit is a diagram showing the pro-  
11 duction history of the Ward Insall No. 1. You'll note that  
12 we have sketched or have colors of the oil performance, the  
13 gas performance, and the water, and also the hatched line  
14 indicates the GOR.

15 I might add there that the oil is indicated  
16 with red; the gas in green, and the water in blue. And the  
17 scale for the oil is on the lefthand side. The scale for  
18 the water is on the righthand side.

19 Q Okay, Mr. Jacoby, I call your attention to  
20 the fact that when -- that the line colored in red repre-  
21 senting oil, and the line colored in blue, representing  
22 water, seems to have a consistent, and if you will, parallel  
23 pattern.

24 Would you explain, please, what the signifi-  
25 cance of that parallel pattern is?

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1           A.       Yes, I will. There is a definite correlation  
2 between the oil production and the water production, and  
3 that means that the reservoir is producing or has produced  
4 fluids that are in place. In other words, if this curve in  
5 the water -- if the water production was increasing, we  
6 would know that there's migration of fluids and we had a --  
7 had an active water drive reservoir.

8                   But in this case we do not because of the  
9 oil and water depleting at the same rate and producing with  
10 correlative curves.

11           Q.       Okay, Mr. Jacoby, I call your attention to  
12 the number of 28 percent. Would you explain what that  
13 means, please?

14           A.       28 percent is the decline rate that I've de-  
15 termined from the oil curve. That means that's the rate  
16 per annum that the oil production has declined over the  
17 history of the well.

18           Q.       Okay, and based upon that 28 percent decline,  
19 have you determined what the life of the Ward Insall No. 1  
20 Well will be?

21           A.       Yes, I have. I've determined from the last  
22 production test that we have on the well when it was active  
23 that we could put it back on for an approximate rate of 10  
24 barrels of oil per day, or 300 barrels of oil per month,  
25 and declining at a rate of 28 percent it would produce for



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1 three and a half years, at which time it would reach 3 bar-  
2 rels of oil per day, which is the economic limit.

3 Q Okay. Now, Mr. Jacoby, a moment ago you  
4 mentioned the presence of the gas/oil ratio line appearing  
5 on the chart, colored in -- well, it's the dashed line, is  
6 that correct?

7 A Yes, that's right.

8 Q Would you explain the significance of the  
9 movement of the gas/oil ratio line from low left to up  
10 right?

11 A Yes. The GOR line indicates by increasing  
12 to the right that gas over the time of production is breaking  
13 out of solution, and at the present time the reservoir is  
14 in latter stages of depletion.

15 Also, that indicates, along with the corre-  
16 lation of the water and oil curves, that we were producing  
17 fluids in place.

18 Q Okay. Mr. Jacoby, I now call your attention  
19 to what has been marked as Exhibit Eight, and ask if this  
20 exhibit has been prepared pursuant to your control, super-  
21 vision, and instruction?

22 A Yes, it has.

23 Q And would you explain, please, what this ex-  
24 hibit represents?

25 A Yes. We have shown the economics of two

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1 cases. One case, returning the No. 1 Well to production;  
2 another case, if a new well was drilled in this area.

3 Our drilling engineers in the southwestern  
4 division at San Antonio determined that at present day prices  
5 it would cost \$661,000 to drill a new well in this area, and  
6 this assumes the same casing program that I showed you on  
7 the previous exhibit, and this also includes the cost of  
8 completion and artificial lift.

9 Now, the other numbers that I have shown here,  
10 Mr. Pearcy discussed there the reserves we estimated that  
11 will be recovered by drilling a new well, which was deter-  
12 mined from the performance of the Insall Federal Com No. 2,  
13 and then, also, the 7000 barrels of reserves which we would  
14 recover by returning the No. 1 to production, that we deter-  
15 mined from the decline curve, the performance curve I just  
16 discussed.

17 Okay, we made use, or we make use, and we  
18 did in this case, also, of a computer in determining our  
19 economics. And in explanation of the numbers and indices  
20 we have shown here, we found that drilling a new well would  
21 result in an ultimate profit of \$8900.

22 Q That's what it costs?

23 A At the \$661,000 initial investment.

24 Okay, returning the No. 1 Well to production  
25 would result in an ultimate profit of \$6000 at the cost of

1 \$20,000.

2 You'll note the next line there shows the  
3 percent profit. This particular number is an index, an  
4 indicator that we use to determine the acceptability of an  
5 economic project, and economic acceptability of a project,  
6 and the higher the number the more acceptable the project  
7 would be, and this is based upon the ultimate profit versus  
8 the initial investment.

9 The next term there is success probability,  
10 and this is determined from our experience on other wells  
11 that have been drilled in the area. The 60 percent we used  
12 as a success probability to drill a new well. It would be  
13 more risky, we feel like, to drill a new well because of  
14 many potential problems you can have. As you know, you have  
15 a lot of things that could occur in drilling a new well  
16 here.

17 Okay, it would be -- we would have a greater  
18 chance of success of re-entering the No. 1 Well and putting  
19 it on production and recovering the remaining reserves in  
20 that reservoir.

21 The last term there is the payout. This term  
22 indicates the amount of time it would take to pay out the  
23 initial investment for the project.

24 Q Okay, Mr. Jacoby, I call your attention back  
25 to the column marked a percent of profit, and first I ask

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1 you, has it been represented to you that a party wishes to  
2 drill a new well in the south half of the northwest quarter?

3 A. Yes, it has.

4 Q. And is that the reason you came up with the  
5 economics relating to the cost of drilling a new well?

6 A. Yes, it is.

7 Q. Okay. And then has it been represented to  
8 you by Tenneco management, that management desires to not  
9 participate in the drilling of a new well in the south half  
10 of the northwest quarter, and they would rather recomplete  
11 the Insall Ward No. 1 Well, located in the northwest quarter  
12 northwest quarter?

13 A. That's correct.

14 Q. Or the north half northwest quarter. Would  
15 you -- the numbers you show as percent of profit, you show  
16 a 1.6 percent of profit relating to the drilling of a new  
17 well. You show a 39, code number 39 relating to the return  
18 of No. 1 Well to production.

19 Now would you go into more detail very briefly  
20 and tell me what is really the significance of those numbers?

21 A. Yes. This is a primary index that we use to  
22 determine the economic acceptability of a project. In this  
23 case, returning the No. 1 Well to production would be approx-  
24 imately 37 times better than drilling a new well, because  
25 we did come up with the 39 as a percent profit, as I stated

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1 awhile ago; that is from the ultimate profit versus the  
2 initial investment that we would make.

3 MR. SIMMONS: Okay. Mr. Examiner, at this  
4 time I would offer Exhibit Number Two, Exhibit Number Seven,  
5 and Exhibit Number Eight into evidence.

6 MR. STAMETS: These exhibits will be admitted.

7 MR. SIMMONS: Okay, Mr. Examiner, do you have  
8 any other questions, or any questions of Mr. Jacoby?

9 MR. STAMETS: Are there any questions of the  
10 witness? He may be excused.

11  
12 GREGORY E. SIMMONS  
13 being called as a witness and having been duly sworn upon  
14 his oath, testified as follows, to-wit:

15  
16 DIRECT EXAMINATION

17 BY MR. COFFIELD:

18 Q Mr. Simmons, would you please state for the  
19 record your name?

20 A Yes. My name is Gregory Ernest Simmons.

21 Q And where do you reside?

22 A San Antonio, Texas.

23 Q And what is your occupation?

24 A I'm an attorney at law with Tenneco Oil Com-  
25 pany.

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1 Q And have you familiarized yourself with this  
2 application?

3 A Yes, sir, I sure have.

4 Q And are you familiar with the property, the  
5 land involved in the northwest quarter of Section 12, which  
6 is the subject of this particular application?

7 A Yes, sir, I have.

8 Q Have you previously testified before the Oil  
9 Conservation Division as respects matters legal and land?

10 A No, sir, I have not.

11 Q Would you give the Examiner a brief resume  
12 of your educational background first?

13 A Okay. I obtained a juris doctor's degree from  
14 Oklahoma City University School of Law in Oklahome City,  
15 Oklahoma. During my last -- do you want the employment?

16 Q Yes, please.

17 A During my last year of law school I was a  
18 law clerk in the United States District Court for the western  
19 district of Oklahoma.

20 Subsequent to that, I associated with the  
21 firm of George Canaan and Robert Lindsey, which is probably  
22 the second oil and gas law firm in Oklahoma. Their main  
23 activity was Commission work for the Oil and Gas Commission  
24 of Oklahoma.

25 Subsequent to that, I entered into private

1 practice and then served as Assistant District Attorney for  
2 awhile, and then associated with Tenneco Oil Company in  
3 Oklahoma City, as a second attorney.

4 In August of 1978 I was transferred to San  
5 Antonio as a Division Attorney.

6 MR. COFFIELD: Mr. Examiner, are Mr. Simmons  
7 qualifications acceptable?

8 MR. STAMETS: The witness is considered  
9 qualified.

10 Q (Mr. Coffield continuing.) Mr. Simmons, have  
11 you satisfied yourself with respect to the ownership of the  
12 leasehold estate in the south half of the northwest quarter  
13 of Section 12?

14 A Yes, sir, I have.

15 Q Who is the owner of that particular tract?

16 A Sir, the owner of the leasehold owner -- the  
17 owner of the working interest or leasehold rights in the  
18 north half of the northwest quarter of Section 12 is Tenneco  
19 Oil Company.

20 The owner of the south half of the northwest  
21 quarter of Section 12 is an individual by the name of W. C.  
22 Osborne.

23 Q Mr. Simmons, have you had conversations and  
24 contact with Mr. Osborne?

25 A Yes, sir, I have.

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1 Q Would you please explain to the Examiner the  
2 gist of your contact with Mr. Osborne?

3 A Yes, sir. On Monday of this week I called  
4 Mr. Osborne to advise him of the hearing to be had this date  
5 at this time before this Commission.

6 We felt that Mr. Osborne should be here. He  
7 advised me at that time that he had not monitored the  
8 papers in Santa Fe or in Lea County, and that he was not  
9 aware of the hearing.

10 I explained to Mr. Osborne basically what  
11 our economics were relating to the application and stated  
12 to Mr. Osborne that we felt that for Tenneco to participate  
13 in the drilling of a well in the -- a new well anywhere in  
14 the northwest quarter of Section 12 would result in economic  
15 waste because the return is just not there.

16 I explained to Mr. Osborne the state of art  
17 that we used in order to determine and basically what  
18 management decision was based upon.

19 I also explained to Mr. Osborne what our in-  
20 tentions were, and that is to rework the Ward Insall No. 1  
21 Well, located in the northwest quarter northwest quarter of  
22 Section 12, or in the north half of Section 12, and that  
23 our intent was to ask the Oil Conservation Division of  
24 New Mexico to grant an exception to the spacing in order that  
25 we may go in and rework the Ward Insall Well No. 1 and in

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1 order that he could go ahead and if he really believes in  
2 his well to be drilled in the south half of the northwest  
3 quarter, then he could do so without any participation by  
4 Tenneco.

5 We felt that since the spacing covering of  
6 the northwest quarter of Section 12 at present is 160 acres,  
7 that if the spacing was not changed, that we would either  
8 be in the position of a nonconsenting party or subject to  
9 being force pooled and have to bear risk up to 200 percent  
10 of our proportional share of the cost of drilling the well.

11 Again, Mr. Osborne and I discussed the alter-  
12 native's available, and after much discussion, he wrote a  
13 letter to Mr. Dan Nutter, which I delivered to Mr. Nutter  
14 this morning, dated April 23rd, 1979, of which I would like  
15 to read, if I may.

16 It says, Dear Mr. Nutter, I'm the lessee of  
17 record of the south half of the northwest quarter of Section  
18 12, Township 9 South, Range 34 East, in Lea County, New  
19 Mexico.

20 I believe that 80-acre spacing in this field  
21 at this time is more equitable, prevents waste, and protects  
22 the correlative rights of the royalty owners of the respec-  
23 tive tracts. Therefore, as lessee of the south half of the  
24 northwest quarter of Section 12, Township 9 South, Range 34  
25 East, I join Tenneco Oil Company in their application for

1 an exception to the spacing rules of the Vada-Pennsylvanian  
2 Field.

3 Your consideration would be appreciated.

4 Your truly, W. C. Osborne.

5 We would ask that the -- further in my dis-  
6 cussion with Mr. Osborne, we got into a discussion about  
7 how economic waste would be prevented and how the correla-  
8 tive rights of the diverse royalty owners under the respec-  
9 tive tracts would be protected. Mr. Osborne assured me that  
10 he was most sincere in drilling his well in the south half  
11 of the northwest quarter.

12 In response to that I told Mr. Osborne that  
13 if he's going to drill a well in the southwest of the north-  
14 west quarter, and based upon our determinations that there  
15 are 80,000 barrels of hydrocarbon that may be recoverable  
16 from that area, that certainly his royalty owners would  
17 certainly benefit by receiving 100 percent of the 1/8th  
18 royalty attributable to that production.

19 I also pointed out to Mr. Osborne that based  
20 upon our studies, that it was very apparent, and as certain  
21 as engineering data can be, that the Ward Insall Well No. 1,  
22 located in the north half of the northwest quarter, was not  
23 draining 80 acres, and that under the present spacing, the  
24 royalty owners of the south half of the north half should  
25 not participate in any production from the Ward Insall Well

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1 No. 1.

2 In turn, the royalty owners of the Ward Insall  
3 No. 1 really should not participate in any production from  
4 a well to be drilled in the south half of the north half  
5 of Section 12.

6 Mr. Osborne, I assume seeing the reasoning  
7 involved, and based upon the data that would be presented  
8 to the Commission, then joined us in our application.

9 Q Mr. Simmons, is it then your unqualified  
10 opinion that the approval of Tenneco's application in this  
11 case would be in the interest of conservation, the protection  
12 of correlative rights, and the prevention of waste?

13 A Yes, sir, it is.

14 Q Mr. Simmons, do you have any further state-  
15 ment that you'd like to make to the Commission?

16 A No, sir, I do not.

17 MR. STAMETS: Any questions of the witness?  
18 He may be excused.

19 MR. SIMMONS: Thank you, sir.

20 MR. STAMETS: Do you have anything further  
21 in this case?

22 The case will be taken under advisement.

23 (Hearing concluded.)  
24  
25

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## REPORTER'S CERTIFICATE

I, SALLY WALTON BOYD, a Court Reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of Hearing before the Oil Conservation Division was reported by me; that said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability, knowledge, and skill, from my notes taken at the time of the hearing.

*Sally W. Boyd CSR*  
Sally W. Boyd, C.S.R.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 6527 heard by me on 4-25-1979.  
*Richard D. Plann*, Examiner  
Oil Conservation Division

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# TENNECO OIL COMPANY

WARD INSALL #1

Vada (Penn.)

LEA COUNTY, NEW MEXICO

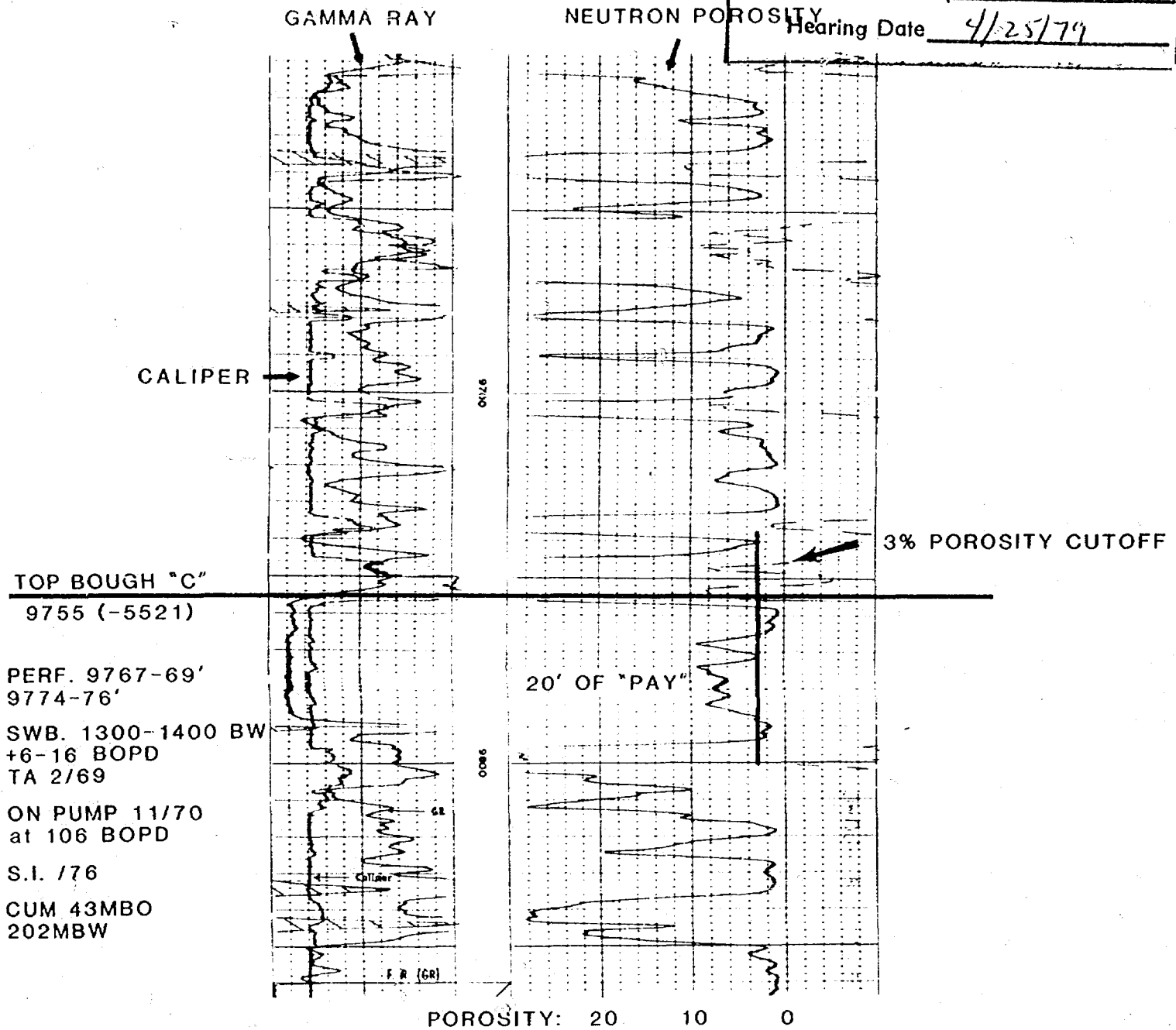
BEFORE EXAMINER STAMETS  
OIL CONSERVATION DIVISION

EXHIBIT NO. 1

CASE NO. 6527

Submitted by Tenneco

Hearing Date 4/25/79



MAJ

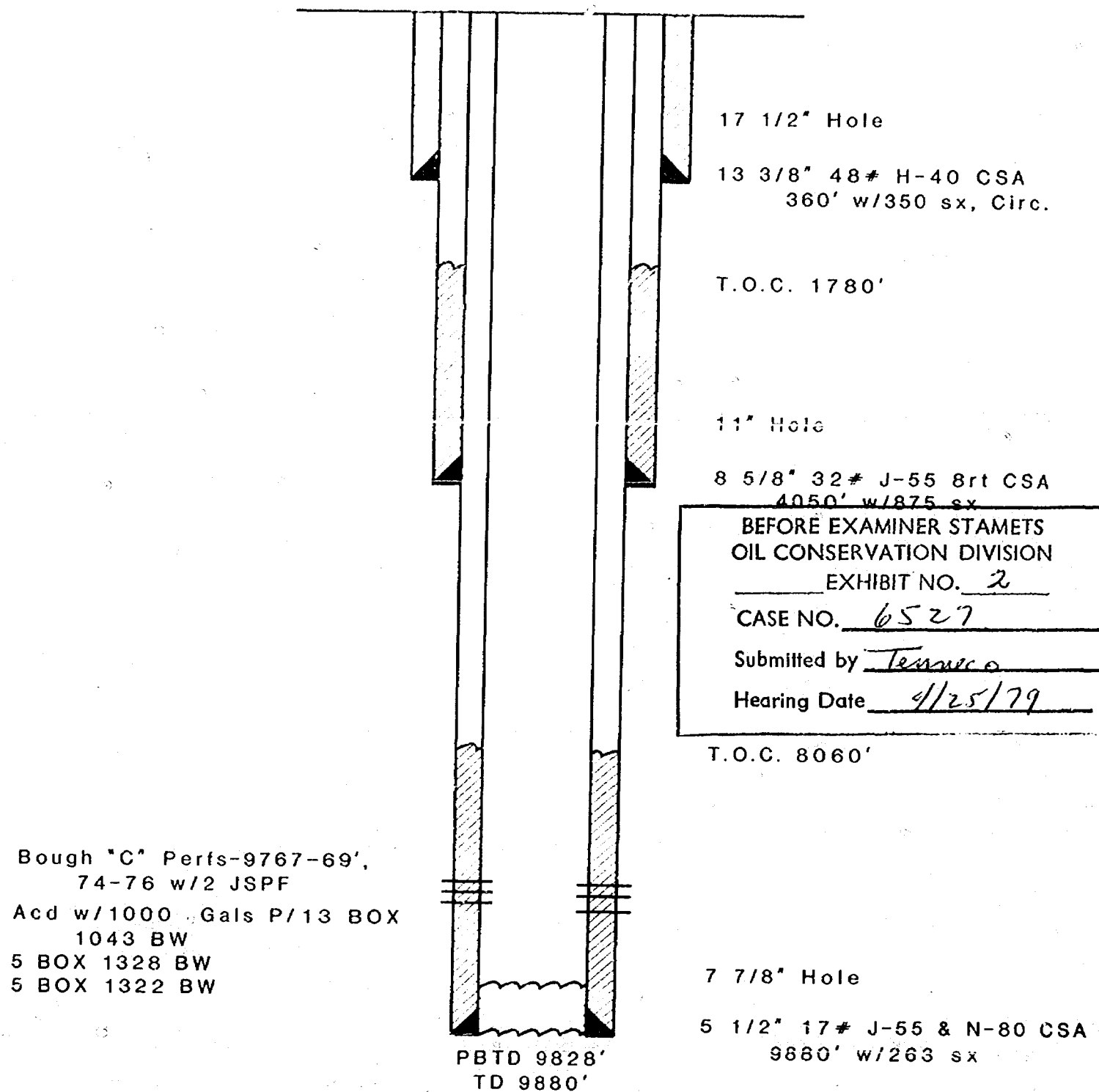
4-'79

EXHIBIT 1

WARD INSALL #1 - WELLBORE SKETCH  
660' FNL and 660' FWL, SECTION 12, T9S, R34E  
Lea County, New Mexico

ELEV. 4221' GL, 4233' DF

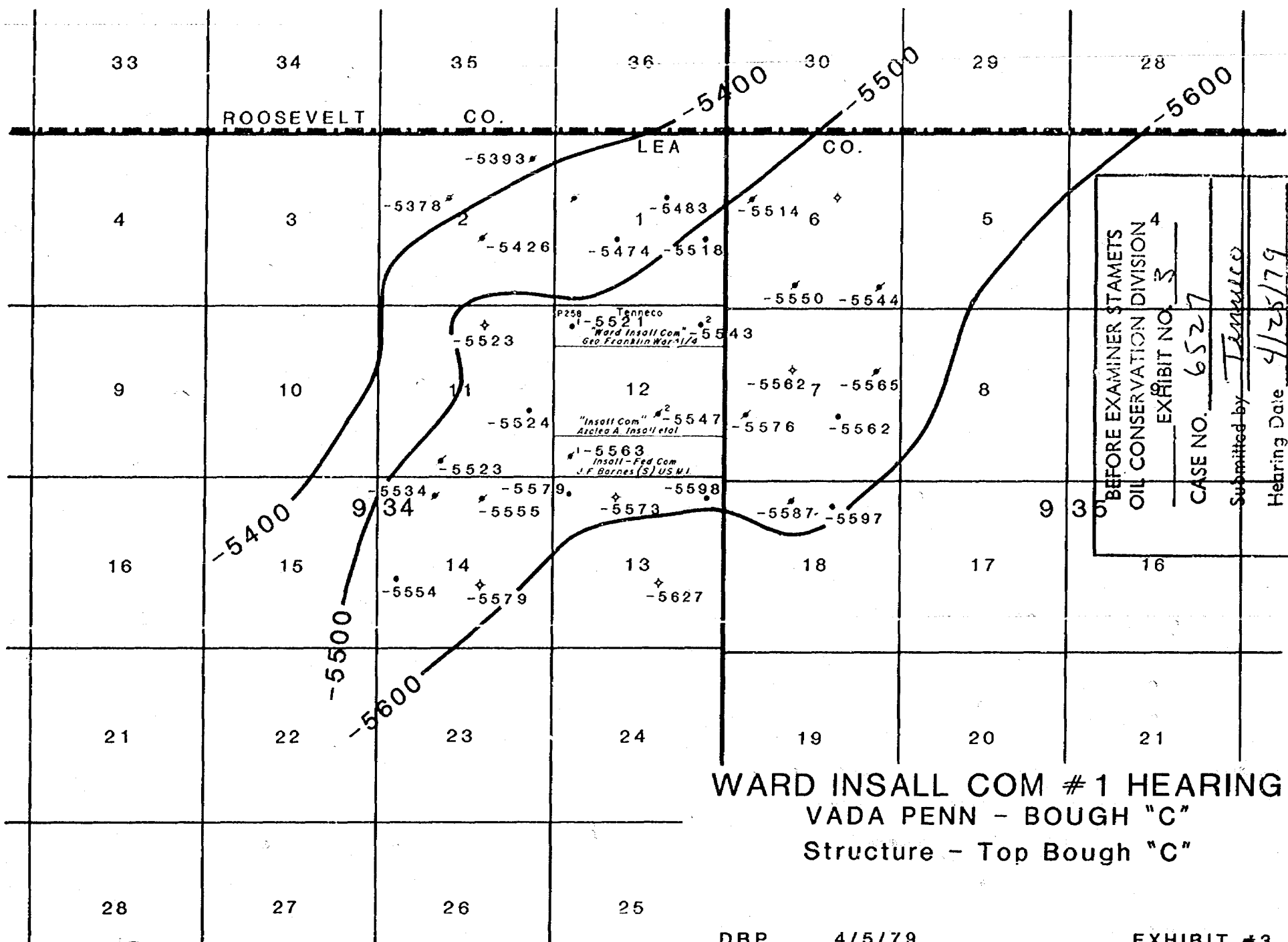
DATE COMPL. 2/28/69  
SPUD 7/19/68



MAJ

4/5/79

EXHIBIT #2

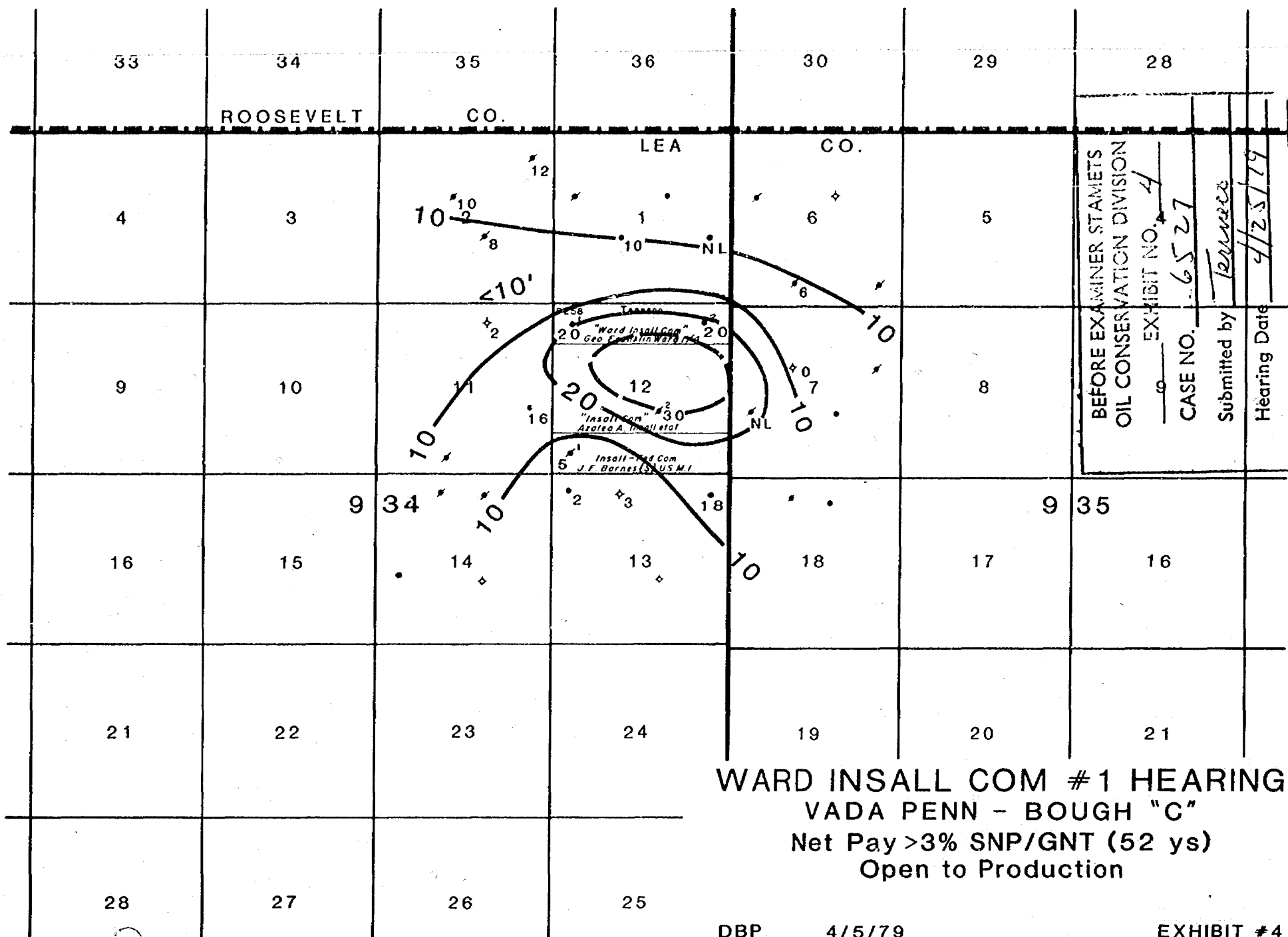


BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
EXHIBIT NO. <u>3</u>
CASE NO. <u>6527</u>
Submitted by <u>Tenneco</u>
Hearing Date <u>4/25/79</u>

WARD INSALL COM #1 HEARING  
VADA PENN - BOUGH "C"  
Structure - Top Bough "C"

DBP 4/5/79

EXHIBIT #3

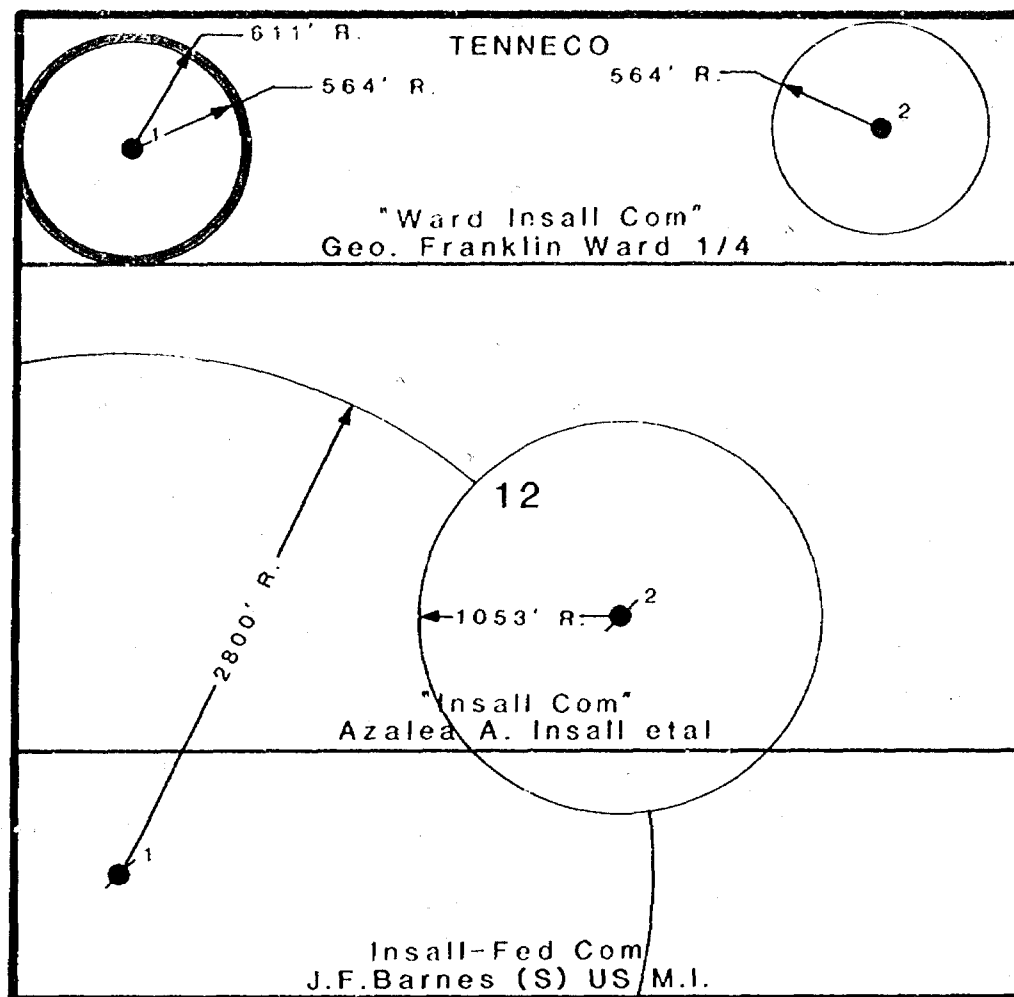


WARD INSALL COM #1 HEARING  
VADA PENN - BOUGH "C"  
Net Pay >3% SNP/GNT (52 ys)  
Open to Production

DBP 4/5/79

EXHIBIT #4





WARD INSALL COM #1  
VADA PENN - BOUGH "C"  
DRAINAGE RADIUS

1" = 1000'

BEFORE EXAMINER STAMETS  
OIL CONSERVATION DIVISION

EXHIBIT NO. 5

CASE NO. 6527

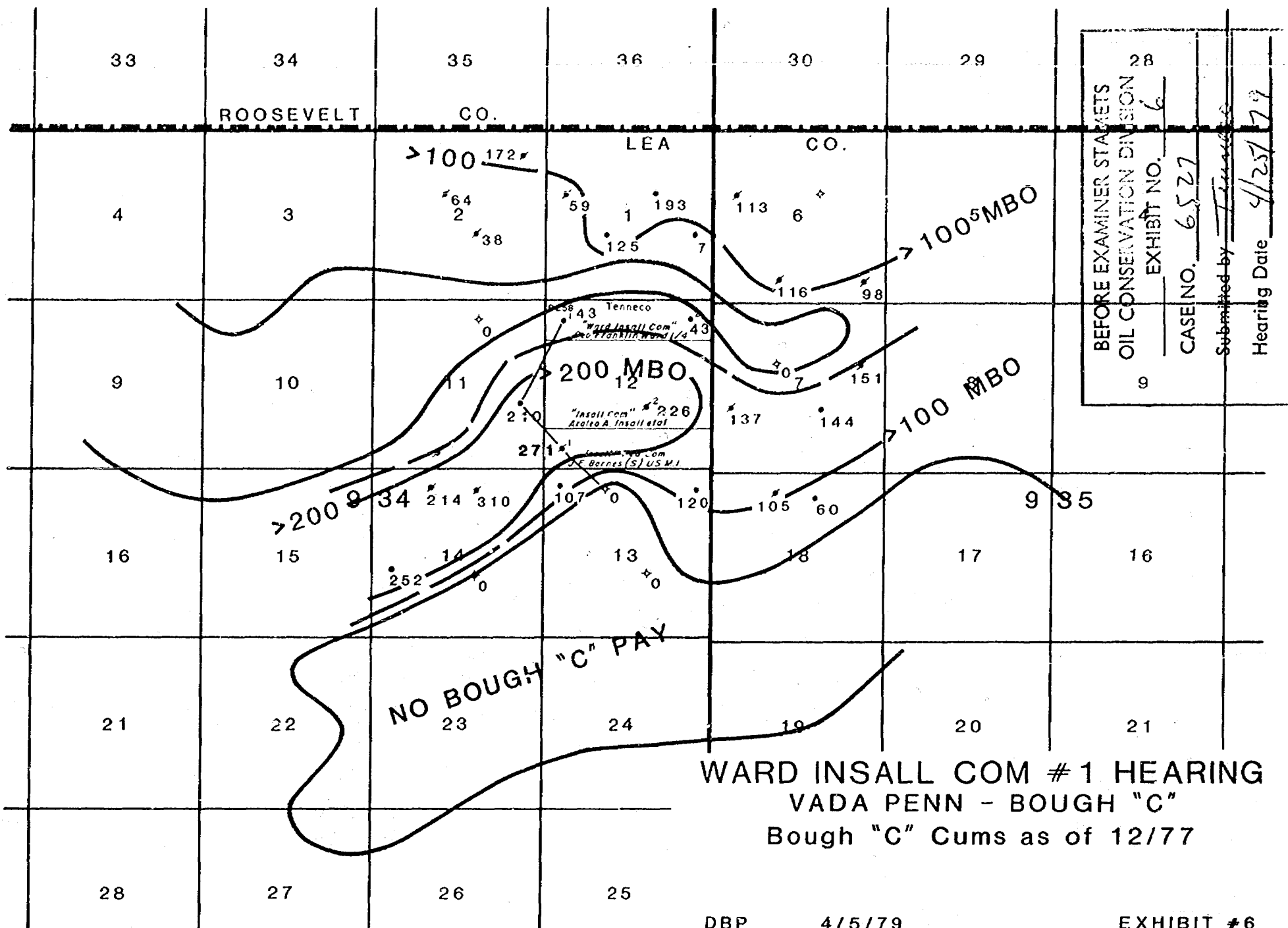
Submitted by Tenneco

Hearing Date 4/25/79

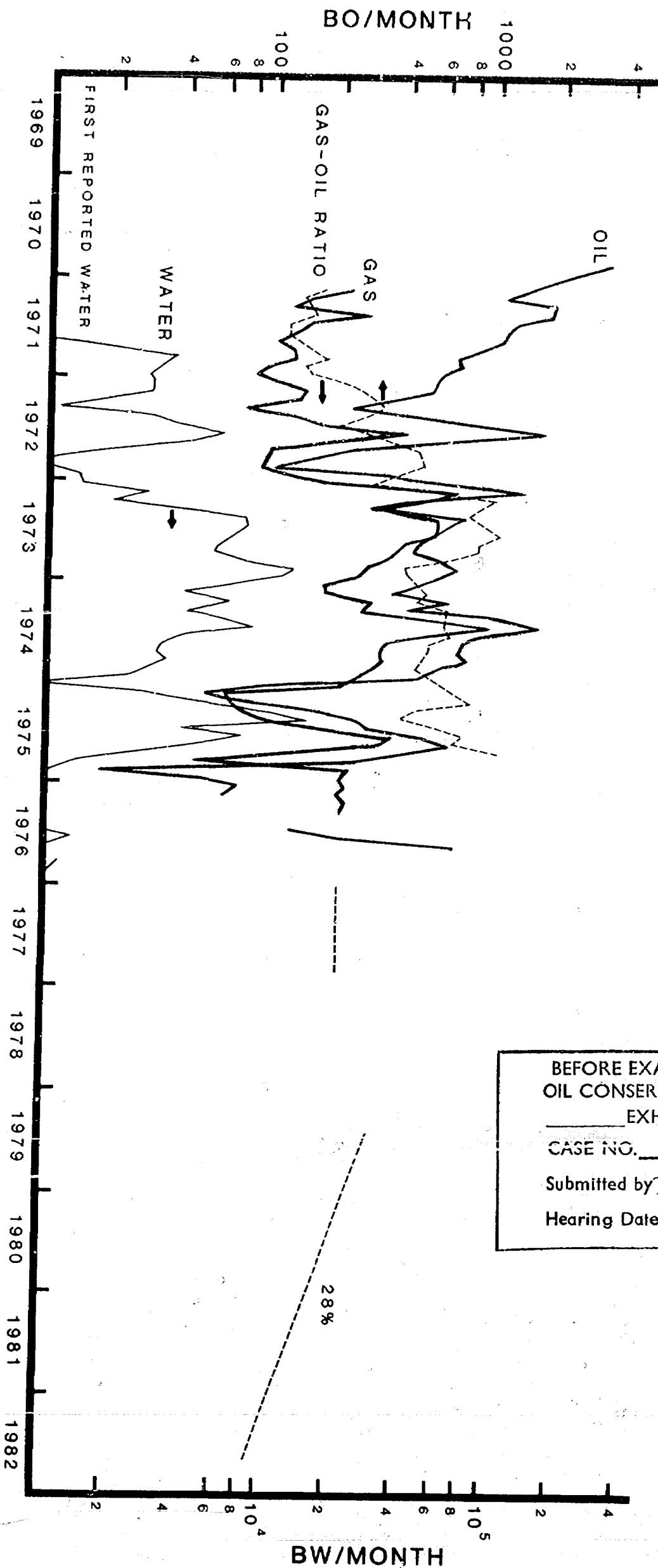
EXHIBIT #5

MAJ

4/5/79



# PRODUCTION HISTORY WARD INSALL NO. 1 VADA PENN FIELD



M.A.J. 4-'79

BEFORE EXAMINER STAMETS  
OIL CONSERVATION DIVISION

EXHIBIT NO. 7

CASE NO. 6527

Submitted by Tenneco

Hearing Date 4/25/79

# RISK-ADJUSTED ECONOMICS

Ward Insall # 1

Lea County, New Mexico

Drill New Well

Return # 1 to Prod.

Investment M\$	661	20
Cum Oil, MBO	80	7
Profit, M\$	8.9	6.0
% Profit	1.6	39
Sucess Prob, %	60	70
Payout, Yr.	5.5	1.3

M.A.J. 4-'79

BEFORE EXAMINER STAMETS  
OIL CONSERVATION DIVISION

EXHIBIT NO. 8

CASE NO. 6527

Submitted by Tenneco

Hearing Date 4/25/79

EXHIBIT

W. C. OSBORNE  
CERTIFIED PETROLEUM GEOLOGIST

OFFICE: 915-682-5354  
RESIDENCE: 915-684-4858

358 MID-AMERICA BUILDING  
MIDLAND, TEXAS 79701

April 23, 1979

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

Re: Case No. 6527  
Vada-Pennsylvanian Pool  
Non-Standard Proration Unit

Dear Mr. Nutter:

I am the Lessee of record of the South-half of the Northwest-quarter (S/2 NW/4) of Section 12, T-9-S, R-34-E in Lea County, New Mexico.

I believe that 80-acre spacing in this field at this time is more equitable, prevents waste, and protects the correlative rights of the royalty owners of the respective tracts.

Therefore, as Lessee of the S/2 NW/4 of Section 12, T-9-S, R-34-E, I join Tenneco Oil Company in their application for an exception to the spacing rules of the Vada-Pennsylvanian Field.

Your consideration would be appreciated.

Yours truly,

  
W. C. Osborne

WCO/jy

W. C. OSBORNE  
CERTIFIED PETROLEUM GEOLOGIST

OFFICE: 915-682-5354  
RESIDENCE: 915-684-4058

358 MID-AMERICA BUILDING  
MIDLAND, TEXAS 79701

April 23, 1979

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

Re: Case No. 6527  
Vada-Pennsylvanian Pool  
Non-Standard Proration Unit

Dear Mr. Nutter:

I am the Lessee of record of the South-half of the Northwest-quarter (S/2 NW/4) of Section 12, T-9-S, R-34-E in Lea County, New Mexico.

I believe that 80-acre spacing in this field at this time is more equitable, prevents waste, and protects the correlative rights of the royalty owners of the respective tracts.

Therefore, as Lessee of the S/2 NW/4 of Section 12, T-9-S, R-34-E, I join Tenneco Oil Company in their application for an exception to the spacing rules of the Vada-Pennsylvanian Field.

Your consideration would be appreciated.

Yours truly,

  
W. C. Osborne

WCO/jy

W. C. OSBORNE  
CERTIFIED PETROLEUM GEOLOGIST

OFFICE: 915-682-5354  
RESIDENCE: 915-684-4858

358 MID-AMERICA BUILDING  
MIDLAND, TEXAS 79701

April 23, 1979

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

Re: Case No. 6527  
Vada-Pennsylvanian Pool  
Non-Standard Proration Unit

Dear Mr. Nutter:

I am the Lessee of record of the South-half of the Northwest-quarter (S/2 NW/4) of Section 12, T-9-S, R-34-E in Lea County, New Mexico.

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Your consideration would be appreciated.

Yours truly,

  
W. C. Osborne

WCO/jy

# TENNECO OIL COMPANY

WARD INSALL #1

Vada (Penn.)

LEA COUNTY, NEW MEXICO

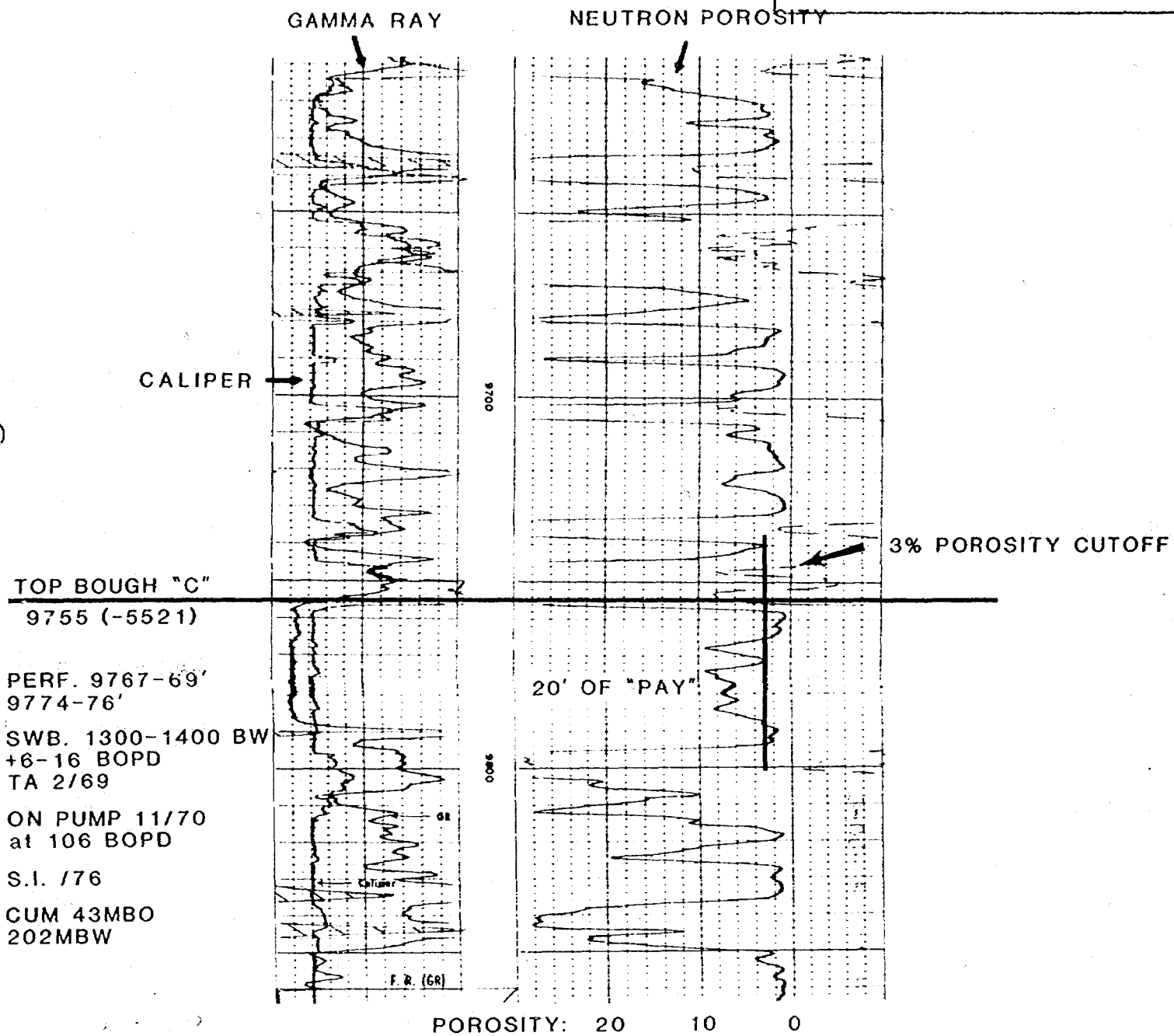
BEFORE EXAMINER STAMETS  
OIL CONSERVATION DIVISION

EXHIBIT NO. 1

CASE NO. 6527

Submitted by Tenneco

Hearing Date 4-25-79



MAJ

4-'79

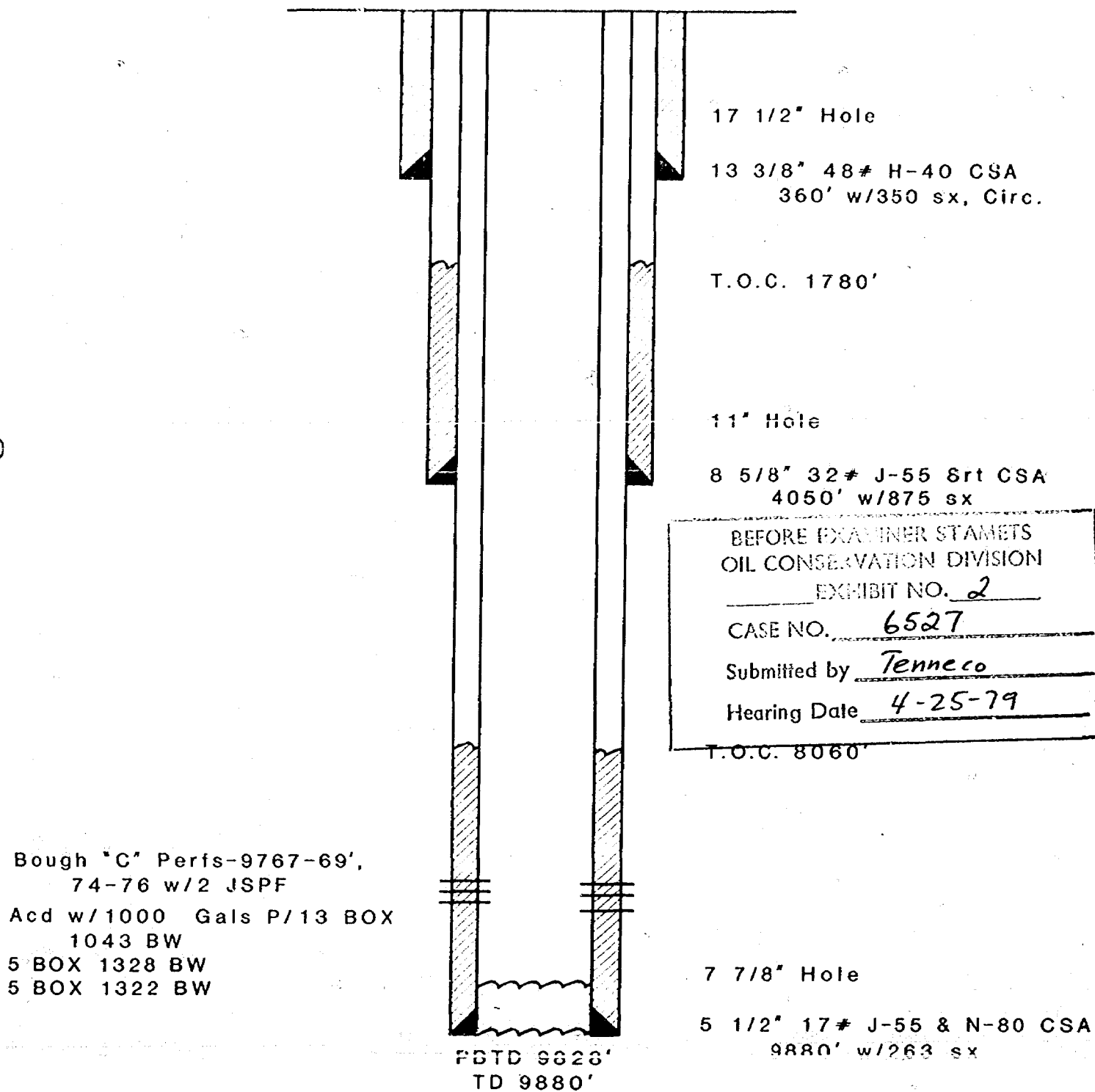
EXHIBIT 1



WARD INSALL #1 - WELLBORE SKETCH  
660' FNL and 660' FWL, SECTION 12, T9S, R34E  
Lea County, New Mexico

ELEV. 4221' GL, 4233' DF

DATE COMPL. 2/28/69  
SPUD 7/19/68

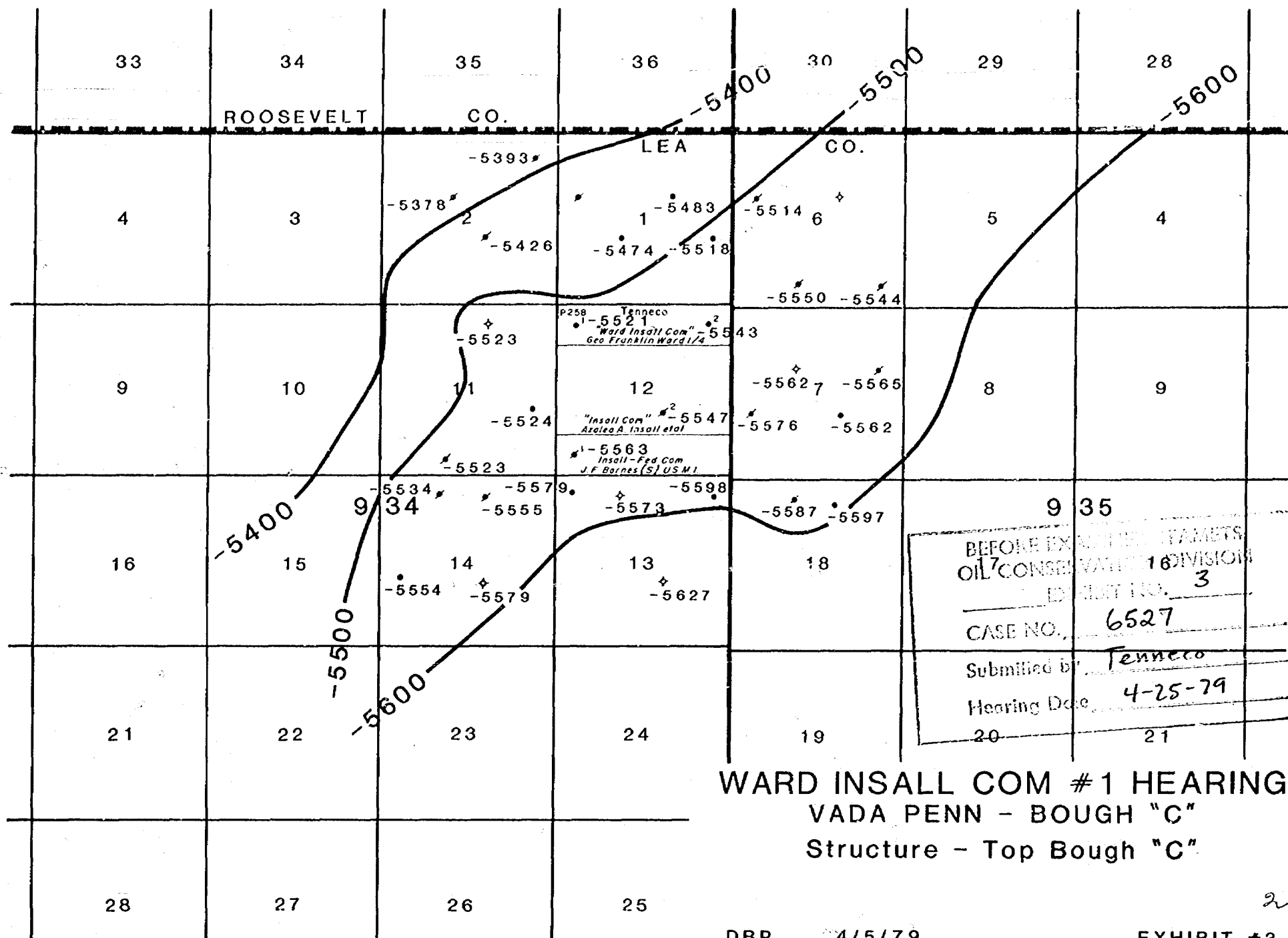


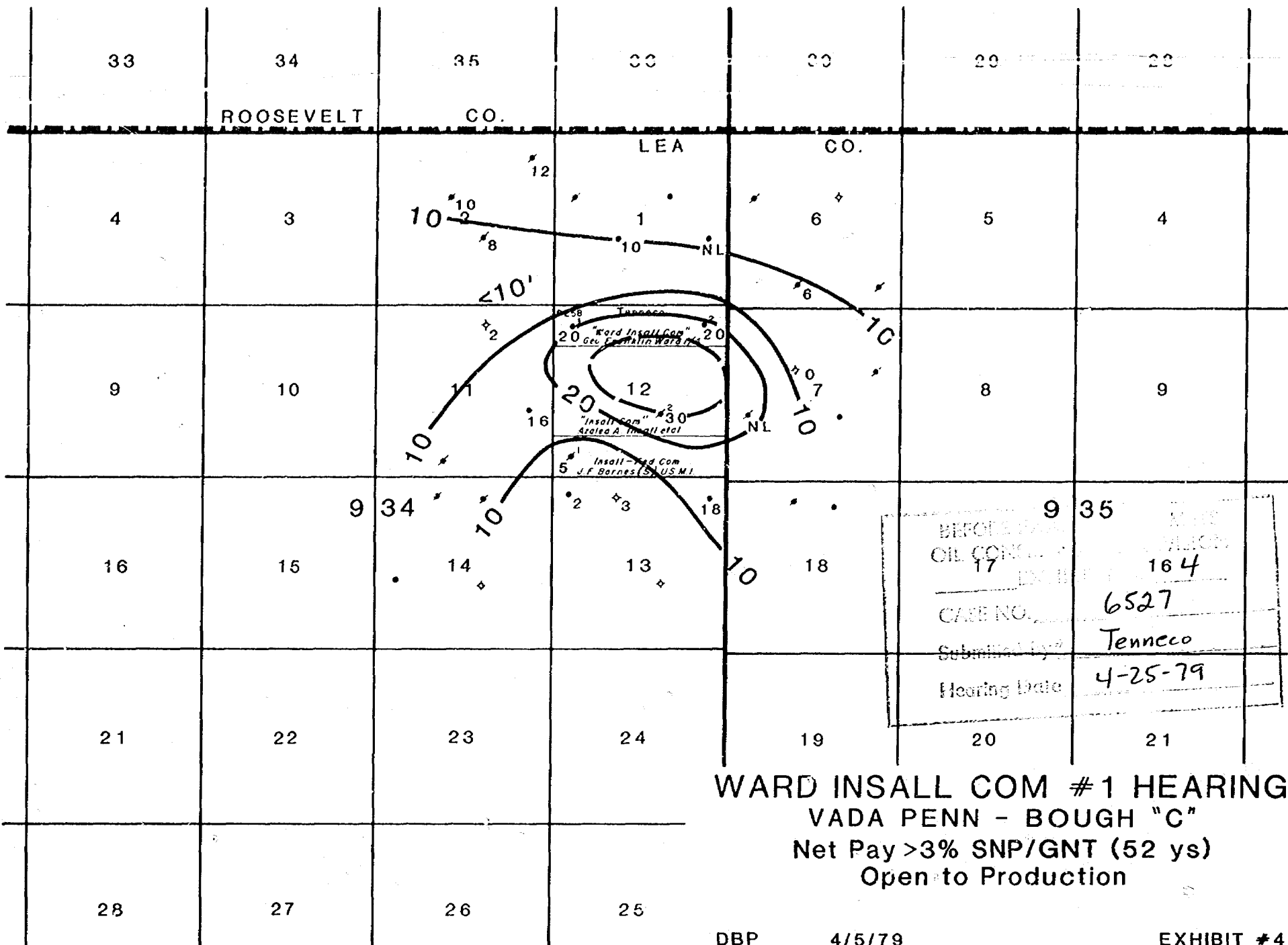
Bough "C" Perfs-9767-69',  
74-76 w/2 JSPF  
Acid w/1000 Gals P/13 BOX  
1043 BW  
5 BOX 1328 BW  
5 BOX 1322 BW

MAJ

4/5/79

EXHIBIT #2



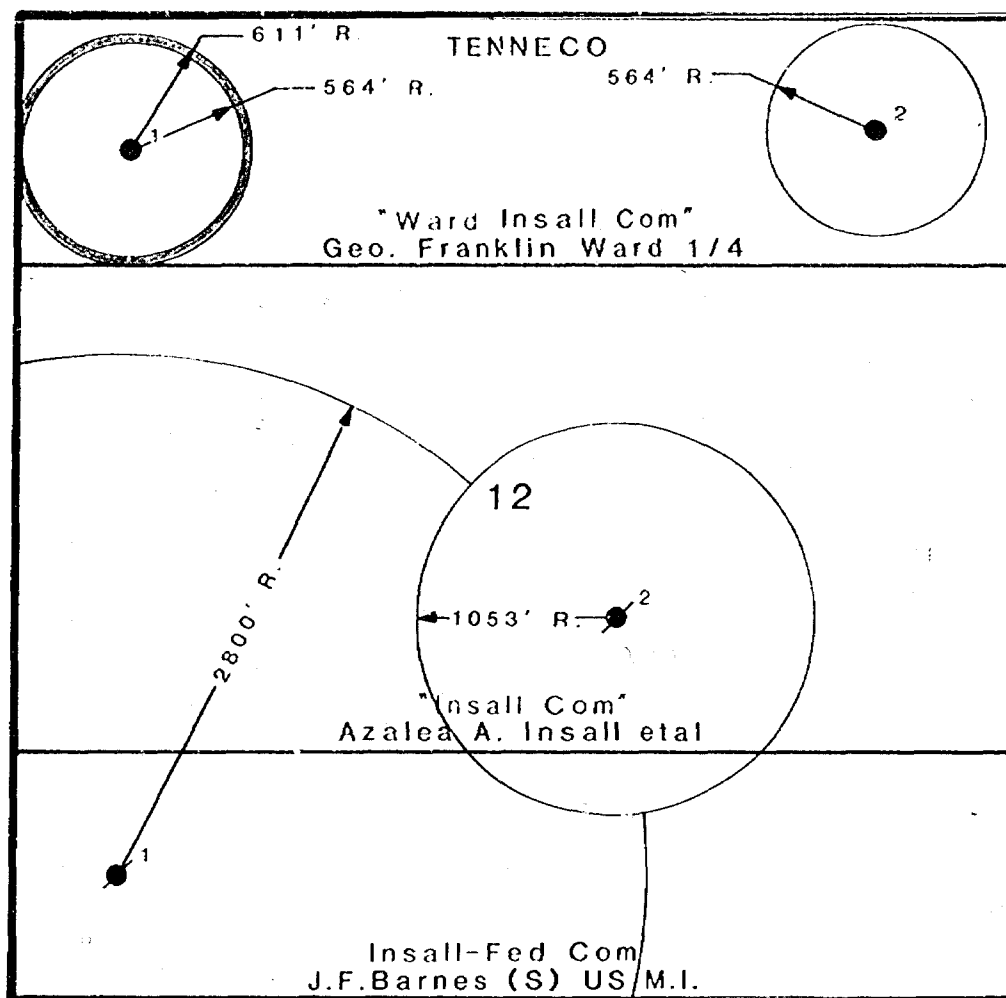


WARD INSALL COM #1 HEARING  
 VADA PENN - BOUGH "C"  
 Net Pay >3% SNP/GNT (52 ys)  
 Open to Production

DBP

4/5/79

EXHIBIT #4



WARD INSALL COM #1  
VADA PENN - BOUGH "C"  
DRAINAGE RADIUS

1" = 1000'

BEFORE EXAMINER STAMETS  
OIL CONSERVATION DIVISION  
EXHIBIT NO. 5

CASE NO. 6527

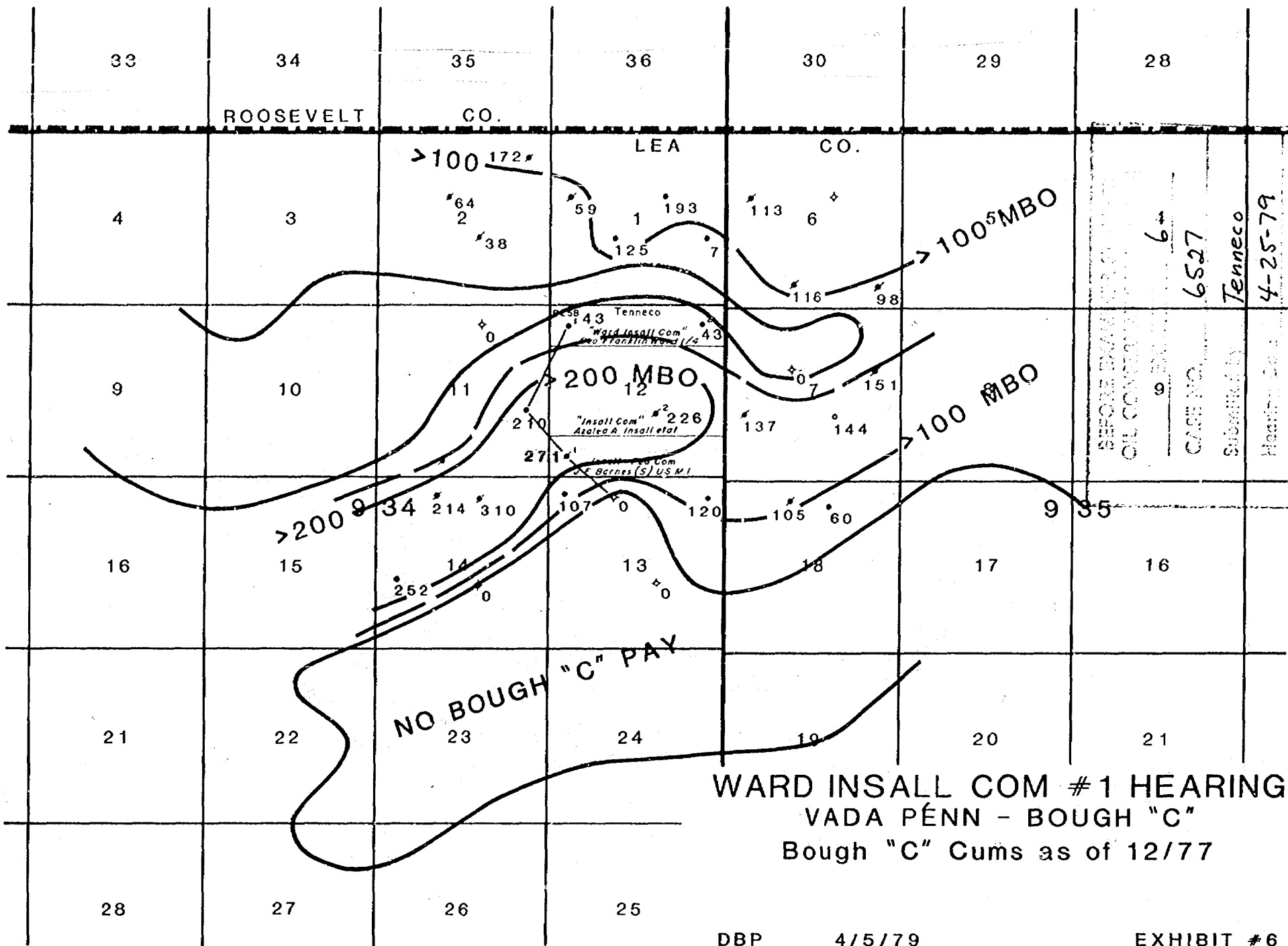
Submitted by Tenneco

Hearing Date 4-25-79

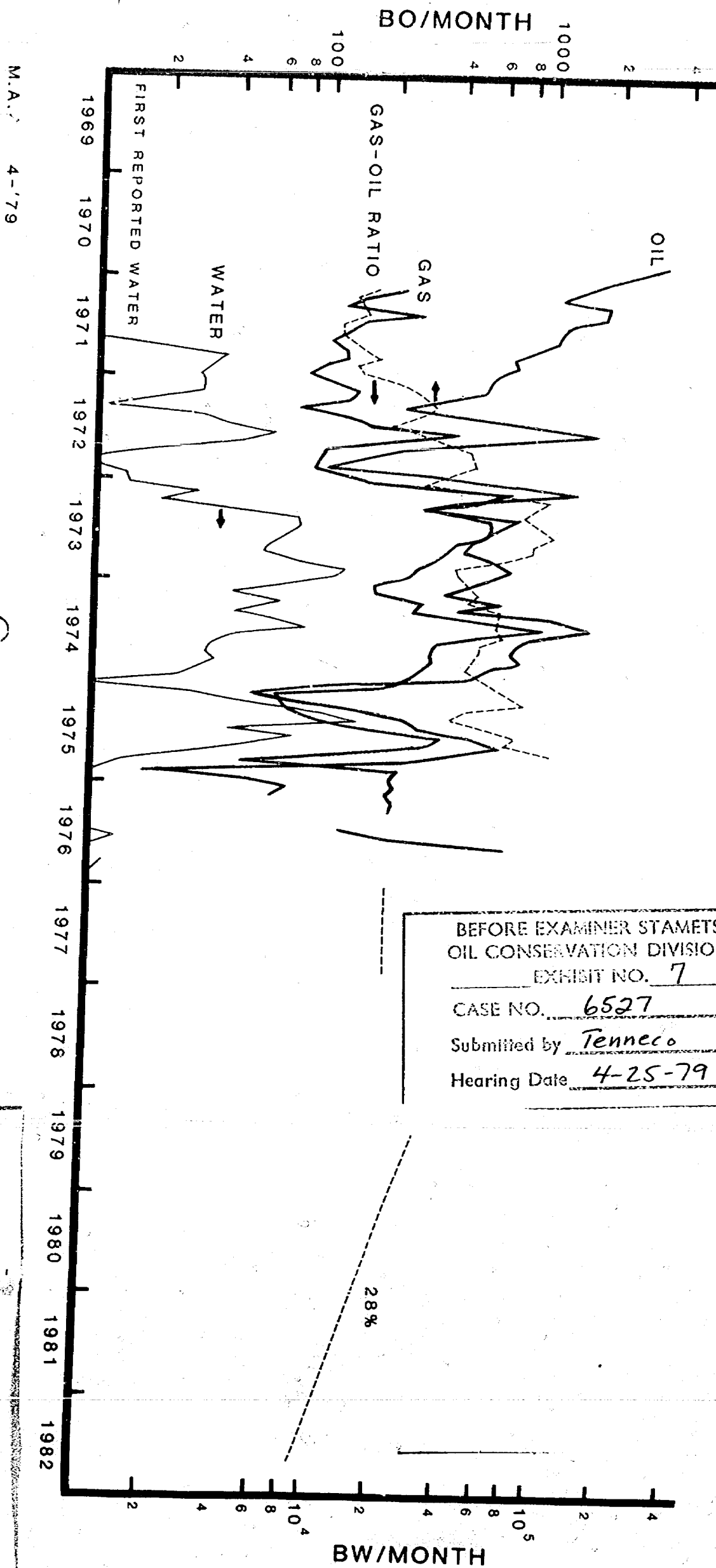
EXHIBIT #5

MAJ

4/5/79



# PRODUCTION HISTORY WARD INSALL NO. 1 VADA PENN FIELD



# RISK-ADJUSTED ECONOMICS

Ward Insall #1

Lea County, New Mexico

	Drill New Well	Return #1 to Prod.
Investment M\$	661	20
,Cum Oil, MBO	80	7
Profit, M\$	8.9	6.0
% Profit	1.6	39
Sucess Prob,%	60	70
Payout, Yr.	5.5	1.3

M.A.J. 4-79

BEFORE EXAMINER STAMETS  
OIL CONSERVATION DIVISION

EXHIBIT NO. 8

CASE NO. 6527

Submitted by Tenneco

Hearing Date 4-25-79

EXHIBIT 8

LAW OFFICES

HINKLE, COX, EATON, COFFIELD & HENSLEY

1000 FIRST NATIONAL BANK TOWER

POST OFFICE BOX 3580

MIDLAND, TEXAS 79702

(915) 683-4691

OF COUNSEL  
CLARENCE E. HINKLE

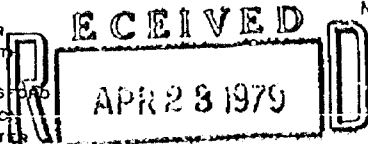
W. E. BONDURANT, JR. (1914-1973)

ROSWELL, NEW MEXICO OFFICE  
600 HINKLE BUILDING  
(505) 622-6510

ONLY ATTYS. COFFIELD, MARTIN, BOZARTH,  
BOHANNON, FOSTER, ALLEN, ALLEN & BURFORD  
LICENSED IN TEXAS

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T. CALDER EZZELL, JR.  
WILLIAM B. BURFORD  
JOHN S. NELSON  
RICHARD E. OLSON



OIL CONSERVATION DIVISION  
SANTA FE

April 19, 1979

Mr. Dan Nutter  
Chief Engineer  
Oil Conservation Division  
Post Office Box 2088  
Santa Fe, New Mexico 87501

Re: Tenneco Oil Company  
Case No. 6527-Vada-  
Pennsylvanian Pool,  
Non-Standard Proration  
Unit

*Hear one unit,  
Dismiss the  
other  
B Lh*

Dear Dan:

Tenneco Oil Company has, upon further consideration of matters involved in the above referenced case, concluded that Tenneco wishes to withdraw from the Division's consideration the portion of the application which deals with Tenneco's Ward Insall No. 2 Well located 660 feet from the North and East lines of Section 12, Township 9 South, Range 34 East, N.M.P.M., Lea County, New Mexico. We submit this letter as an amendment to the application filed in the above referenced case, deleting from that application the matters set out therein relating to the Ward Insall No. 2 Well. Thus, at the hearing on Wednesday, April 25, 1979, we will be pursuing only matters relating to the Ward Insall No. 1 Well and seeking the Division's approval of the non-standard unit for that well as more particularly set out in the application filed in this case.

I trust that the submission of this letter is all that is necessary for the completion of your files on the amendment of the application relative to the matters set out above. However, if anything further is needed, please call me.

Thank you.

Very truly yours,

HINKLE, COX, EATON,  
COFFIELD & HENSLEY

*Conrad E. Coffield*  
Conrad E. Coffield

CEC:cm



xc: Mr. Greg Simmons  
Legal Department  
Tenneco Oil Company  
6800 Park 10 Boulevard  
Suite 200 North  
San Antonio, Texas 78213

Dockets Nos. 18-79 and 29-79 are tentatively set for hearing on May 9 and 23, 1979. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - APRIL 25, 1979

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

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

CASE 6525: In the matter of the hearing called by the Oil Conservation Division on its own motion to amend the Special Rules for the Tubb Gas Pool in Lea County, New Mexico, to provide for the classification of wells as oil wells and gas wells on the basis of gas-oil ratios rather than on the basis of liquid gravity as at present.

CASE 6526: In the matter of the hearing called by the Oil Conservation Division on its own motion to consider a procedure for the adoption of findings, when applicable and pursuant to the Federal Natural Gas Policy Act, that another well is necessary to effectively and efficiently drain that portion of its proration unit which cannot be so drained by any existing well, and that existing well spacing requirements are waived. The proposed procedure would provide a system whereby such findings could be issued administratively without the necessity for public hearing.

CASE 6527: Application of Tenneco Oil Company for two non-standard oil proration units, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of two 80-acre non-standard oil proration units, the first comprising the N/2 NW/4, the other the N/2 NE/4, of Section 12, Township 9 South, Range 34 East, Vada-Pennsylvanian Pool, Lea County, New Mexico, said units to be dedicated to applicant's Ward Insall Wells Nos. 1 and 2, respectively, located in Units D and A of said Section 12.

CASE 6528: Application of Bass Enterprises Production Co. for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for an unorthodox Morrow test well location to be drilled 660 feet from the North and West lines of Section 10, Township 21 South, Range 32 East, Lea County, New Mexico, the W/2 of said Section 10 to be dedicated to the well.

CASE 6529: Application of Amoco Production Company for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the S/2 of Section 22, Township 23 South, Range 28 East, Eddy County, New Mexico, to be dedicated to its Brantley Gas Com. Well No. 1 located in Unit K of said Section 22. 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 6530: Application of Amoco Production Company for unorthodox gas well locations, temporary injection of produced gas, and to vent gas, Union and Harding Counties, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox locations in the Tubb formation of its State FI Well No. 3, located 1315 feet from the South line and 1980 feet from the East line of Section 36, Township 20 North, Range 34 East, Union County, and its Heimann Well No. 5, located 660 feet from the South line and 1315 feet from the West line of Section 3, Township 19 North, Range 33 East, Harding County. Applicant further seeks authority to conduct pressure interference tests, including authority to vent gas produced from the State FI Well No. 1 for a period not to exceed 45 days and to inject produced gas into its Heimann Well No. 4 located in Unit K of Section 34, Township 20 North, Range 33 East, for a period not to exceed six months.

CASE 6531: Application of Getty Oil Company for an unorthodox gas well location and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to simultaneously dedicate its Baker B Well No. 6 at an unorthodox location 510 feet from the South and West lines of Section 10, Township 22 South, Range 37 East, Lea County, New Mexico, and its Baker B Well No. 15 located in Unit L of said Section 10, the current unit well, to the existing proration unit.

CASE 6532: Application of Northwest Production Corporation for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Tapacito-Pictured Cliffs and Blanco Mesaverde production in the wellbore of its Jicarilla 117E Well No. 5 located in Unit M of Section 28, Township 26 North, Range 3 West, Rio Arriba County, New Mexico.

CASE 6072: (Continued from March 28, 1979, Examiner Hearing)

In the matter of Case 6072 being reopened pursuant to the provisions of Order No. R-5643 which order created the Travis-Upper Pennsylvanian Pool, Eddy County, New Mexico, with provisions for 80-acre spacing. All interested parties may appear and show cause why the Travis-Upper Pennsylvanian Pool should not be developed on 40-acre spacing units.

LAW OFFICES

HINKLE, COX, EATON, COFFIELD & HENSLEY

1000 FIRST NATIONAL BANK TOWER

POST OFFICE BOX 3580

MIDLAND, TEXAS 79702

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OF COUNSEL

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T. CALDER EZZELL, JR.  
WILLIAM B. BURFORD  
JOHN S. NELSON  
RICHARD E. OLSON

April 6, 1979

Case 6527

Mr. Dan Nutter  
Chief Engineer  
Oil Conservation Division  
Post Office Box 2088  
Santa Fe, New Mexico 87501

Dear Dan:

Transmitted herewith you will find triplicate executed copies of an Application for Tenneco Oil Company for an exception to the field rules for the Vada-Pennsylvanian Pool in connection with two wells in Section 12, Township 9 South, Range 34 East, N.M.P.M., Lea County, New Mexico.

It is my understanding that the docket setting for April 25 is still available for this matter, and accordingly, we request that it be heard on that date.

I trust that the enclosed copies of the Application are all that is needed in order for this to be set for the April 25 hearing. However, if anything is needed in addition, please let me know.

Very truly yours,

HINKLE, COX, EATON,  
COFFIELD & HENSLEY

  
Conrad E. Coffield

CEC:rf

xc: Mr. Greg Simmons  
Legal Department  
Tenneco Oil Company  
6800 Park 10 Boulevard  
Suite 200 North  
San Antonio, Texas 78213

BEFORE THE OIL CONSERVATION DIVISION OF  
THE DEPARTMENT OF ENERGY AND MINERALS  
STATE OF NEW MEXICO

APPLICATION OF TENNECO OIL )  
COMPANY FOR AN EXCEPTION TO )  
FIELD RULES FOR VADA-PENNSYLVANIAN )  
POOL, LEA COUNTY, NEW MEXICO )

Case 6527

APPLICATION

Tenneco Oil Company hereby makes application for an exception to the field rules in connection with the Vada-Pennsylvanian Pool in Lea County, New Mexico and states:

1. Applicant seeks approval of a non-standard unit consisting of 80 acres for its Ward Insall No. 1 Well located 660 feet from the North and West lines of Section 12, Township 9 South, Range 34 East, N.M.P.M., Lea County, New Mexico, said location is in the Vada-Pennsylvanian Pool.

2. That the N $\frac{1}{2}$ NW $\frac{1}{4}$  of Section 12 is to be dedicated to the Ward Insall No. 1 Well.

3. Applicant further seeks approval of non-standard unit consisting of 80 acres for its Ward Insall No. 2 Well located 660 feet from the North and East lines of Section 12, Township 9 South, Range 34 East, N.M.P.M., Lea County, New Mexico, said location is also in the Vada-Pennsylvanian Pool.

4. That the N $\frac{1}{2}$ NE $\frac{1}{4}$  of Section 12 is to be dedicated to the Ward Insall No. 2 Well.

5. Producing intervals for both wells are to be in the Bough C formation.

6. Approval of the requested non-standard 80 acre units will be in the interest of conservation, prevention of waste and protection of correlative rights.

7. Applicant requests that this matter be heard at the  
April 25, 1979 Examiner's hearing.

HINKLE, COX, EATON,  
COFFIELD & HENSLEY

By: 

Conrad E. Coffield  
Post Office Box 3580  
Midland, Texas 79702  
Attorneys for Tenneco Oil Company

BEFORE THE OIL CONSERVATION DIVISION OF  
THE DEPARTMENT OF ENERGY AND MINERALS  
STATE OF NEW MEXICO

APPLICATION OF TENNECO OIL )  
COMPANY FOR AN EXCEPTION TO )  
FIELD RULES FOR VADA-PENNSYLVANIAN )  
POOL, LEA COUNTY, NEW MEXICO )

Case 6527

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1. Applicant seeks approval of a non-standard unit consisting of 80 acres for its Ward Insall No. 1 Well located 660 feet from the North and West lines of Section 12, Township 9 South, Range 34 East, N.M.P.M., Lea County, New Mexico, said location is in the Vada-Pennsylvanian Pool.
2. That the N $\frac{1}{2}$ NW $\frac{1}{4}$  of Section 12 is to be dedicated to the Ward Insall No. 1 Well.
3. Applicant further seeks approval of non-standard unit consisting of 80 acres for its Ward Insall No. 2 Well located 660 feet from the North and East line of Section 12, Township 9 South, Range 34 East, N.M.P.M., Lea County, New Mexico, said location is also in the Vada-Pennsylvanian Pool.
4. That the N $\frac{1}{2}$ NE $\frac{1}{4}$  of Section 12 is to be dedicated to the Ward Insall No. 2 Well.
5. Producing intervals for both wells are to be in the Bough C formation.
6. Approval of the requested non-standard 80 acre units will be in the interest of conservation, prevention of waste and protection of correlative rights.

7. Applicant requests that this matter be heard at the  
April 25, 1979 Examiner's hearing.

HINKLE, COX, EATON,  
COFFIELD & HENSLEY

By:

  
Conrad E. Coffield  
Post Office Box 3580  
Midland, Texas 79702

Attorneys for Tenneco Oil Company

BEFORE THE OIL CONSERVATION DIVISION OF  
THE DEPARTMENT OF ENERGY AND MINERALS  
STATE OF NEW MEXICO

APPLICATION OF TENNECO OIL )  
COMPANY FOR AN EXCEPTION TO )  
FIELD RULES FOR VADA-PENNSYLVANIAN )  
POOL, LEA COUNTY, NEW MEXICO )

*Case 6527*

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2. That the N $\frac{1}{2}$ NW $\frac{1}{4}$  of Section 12 is to be dedicated to the Ward Insall No. 1 Well.

3. Applicant further seeks approval of non-standard unit consisting of 80 acres for its Ward Insall No. 2 Well located 660 feet from the North and East lines of Section 12, Township 9 South, Range 34 East, N.M.P.M., Lea County, New Mexico, said location is also in the Vada-Pennsylvanian Pool.

4. That the N $\frac{1}{2}$ NE $\frac{1}{4}$  of Section 12 is to be dedicated to the Ward Insall No. 2 Well.

5. Producing intervals for both wells are to be in the Bough C formation.


6. Approval of the requested non-standard 80 acre units will be in the interest of conservation, prevention of waste and protection of correlative rights.



7. Applicant requests that this matter be heard at the  
April 25, 1979 Examiner's hearing.

HINKLE, COX, EATON,  
COFFIELD & HENSLEY

By:

  
Conrad E. Coffield  
Post Office Box 3580  
Midland, Texas 79702  
Attorneys for Tenneco Oil Company

for Apr 25

2000  
500  
1000  
1000  
1000  
1000  
1000  
1000  
1000  
1000

Application of Tenneco Oil Co.  
for two non standard oil  
proration units, Lea County  
New Mexico.

Applicant, in the above styled Cause, seeks  
approval of two ~~80-acre~~ 80-acre non-  
standard oil proration units, the first  
comprising the N/2 NW/4, the other the N/2 NE/4,  
of Section 12, Township 9 South, Range 34 East,  
Gorda-Pennsylvanian Pool, Lea County,  
New Mexico, said units to be dedicated  
to applicant's Ward Small Wells Nos 1  
and 2, respectively, located in Units D and  
A of said Section 12.

Called in by Conrad Caffield 10:15 am 4/5/79

written appl to follow

ROUGH

dr/

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

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

CASE NO. 6527

Order No. R-6000

APPLICATION OF TENNECO OIL  
COMPANY FOR TWO NON-STANDARD OIL  
PRORATION UNITS, LEA COUNTY,  
NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on April 25  
19 79, at Santa Fe, New Mexico, before Examiner Richard L. Stamets

NOW, on this May day of 19 79, the  
Division Director, having considered the testimony, the record,  
and the recommendations of the Examiner, and being fully advised  
in the premises,

FINDS:

(1) That due public notice having been given as required  
by law, the Division has jurisdiction of this cause and the  
subject matter thereof.

(2) That the applicant, Tenneco Oil Company, seeks approval  
of an 80-acre non-standard oil proration unit comprising the

the first comprising the N/2 NW/4, the other the N/2 NE/4, of Section 12, Township 9 South, Range 34  
East, Vada-Pennsylvanian Pool, Lea County, New Mexico, said units to be dedicated to applicant's  
Ward Insall Wells Nos. 1 and 2, respectively, located in Units D and A of said Section 12.

N/2 NW/4 of Section 12 Township 9 South, Range 34 East, NMPM, to be dedicated to its Ward Insall Well No. 1 located in Unit D of said Section 12.

(3) That <sup>at time of the hearing</sup> the applicant requested <sup>application for an</sup> that the 80-acre non-standard oil proration unit comprising the N/2 NE/4 of said Section 12 <sup>to be</sup> and dedicated to the Ward Insall Well No. 2 in Unit A be dismissed.

(4) That the entire non-standard proration unit <sup>consisting of the N/2 NW/4 of said Section 12</sup> may reasonably be presumed productive of oil from the Vada-Pennsylvanian Pool and that the entire non-standard oil proration unit can be efficiently and economically drained and developed by the aforesaid well.

(5) That approval of the subject application will afford the applicant the opportunity to produce his just and equitable share of the oil in the Vada-Pennsylvanian Pool, will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and will otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That an 80-acre non-standard oil proration unit in the Vada-Pennsylvanian Pool comprising the N/2 NW/4 of Section 12, Township 9 South, Range 34 East, NMPM, Lea County, New Mexico, is hereby established and dedicated to <sup>The Tensico Oil Company</sup> its Ward Insall Well No. 1 located in Unit D of said Section 12.

(2) That <sup>the application for an</sup> at the request of applicant, the 80-acre non-standard oil proration unit in the Vada-Pennsylvanian Pool comprising the N/2 NE/4 of said Section 12 is hereby dismissed.

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

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

Mark Jacoby

Tenneco Oil Co.

512 - 734 - 8161

6800 Park Ten Blvd.

Suite 200 North

San Antonio 78213

Memo

April 25th

From

D. S. NUTTER  
CHIEF ENGINEER

To

Tenneco Oil Co

160-acre  
non std oil prod unit

N/2 N/2 Sec 12, Twp

9 S, 34 E Uada -

Pennsylvanian

Hard Duvall No 1

Unit D of Sec 12