

CASE 6821: SHELL OIL COMPANY FOR DOWN-
HOLE COMMINGLING, LEA COUNTY, NEW MEXICO

Case NO.

6821

Application

Transcripts

Small Exhibits

ETC.

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. 6821
Order No. R-6290

APPLICATION OF SHELL OIL COMPANY
FOR DOWNHOLE COMMINGLING, LEA
COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on February 27, 1980, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 19th day of March, 1980, 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, Shell Oil Company, is the owner and operator of the Andrews Well No. 1, located in Unit F of Section 14, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico.
- (3) That the applicant seeks authority to commingle Blinebry and Drinkard production within the wellbore of the above-described well.
- (4) That from the Blinebry zone, the subject well is capable of low marginal production only.
- (5) That from the Drinkard zone, the subject well is capable of low marginal production only.

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Case No. 6321
Order No. R-6290

(6) That the proposed commingling may result in the recovery of additional hydrocarbons from each of the subject pools, thereby preventing waste, and will not violate correlative rights.

(7) That the reservoir characteristics of each of the subject zones are such that underground waste would not be caused by the proposed commingling provided that the well is not shut-in for an extended period.

(8) That to afford the Division the opportunity to assess the potential for waste and to expeditiously order appropriate remedial action, the operator should notify the Hobbs district office of the Division any time the subject well is shut-in for 7 consecutive days.

(9) That in order to allocate the commingled production to each of the commingled zones in the well, applicant should consult with the supervisor of the Hobbs district office of the Division and determine an allocation formula for each of the production zones.

IT IS THEREFORE ORDERED:

(1) That the applicant, Shell Oil Company, is hereby authorized to commingle Blinbry and Drinkard production within the wellbore of the Andrews Well No. 1, located in Unit F of Section 14, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico.

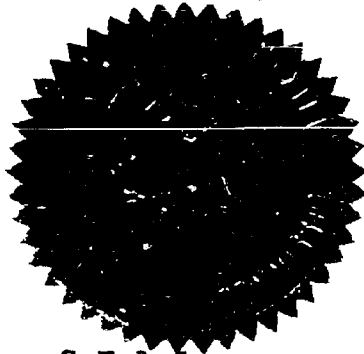
(2) That the applicant shall consult with the Supervisor of the Hobbs district office of the Division and determine an allocation formula for the allocation of production to each zone in the subject well.

(3) That the operator of the subject well shall immediately notify the Division's Hobbs district office any time the well has been shut-in for 7 consecutive days and shall concurrently present, to the Division, a plan for remedial action.

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

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Case No. 6821
Order No. R-6290

DONE at Santa Fe, New Mexico, on the day and year herein-
above designated.



S E A L

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

Joe D. Ramey
JOE D. RAMEY
Director

fd/



POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

March 24, 1980

Mr. Owen Lopez
Montgomery, Andrews & Hannahs
Attorneys at Law
Post Office Box 2307
Santa Fe, New Mexico

Re: CASE NO. 6821
ORDER NO. R-6290

Applicant:

Shell 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 OCD	<u>x</u>
Artesia OCD	<u>x</u>
Aztec OCD	

Other

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
27 February 1980

EXAMINER HEARING

IN THE MATTER OF:

Application of Shell Oil Company for) CASE
downhole commingling, Lea County,) 6821
New Mexico.)

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation Division: Ernest L. Padilla, Esq.
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant: Owen Lopez, Esq.
MONTGOMERY, ANDREWS, &
HANNAHS
P. O. Box 2307
Santa Fe, New Mexico 87501

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I N D E X

ROD R. FORS

Direct Examination by Mr. Lopez 3

Cross Examination by Mr. Stamets 11

E X H I B I T S

Applicant Exhibit One, Plat 4

Applicant Exhibit Two, Schematic 6

Applicant Exhibit Three, Schematic 6

Applicant Exhibit Four, Production Curve 7

Applicant Exhibit Five, Production Curve 7

Applicant Exhibit Six, Production Graph 7

Applicant Exhibit Seven, Estimated Loss 8

Applicant Exhibit Eight, Curve 9

Applicant Exhibit Nine, Information 10

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MR. STAMETS: We'll call next Case 6821.

MR. PADILLA: Application of Shell Oil Company for downhole commingling, Lea County, New Mexico.

MR. LOPEZ: Mr. Examiner, my name is Owen Lopez, of the law firm of Montgomery, Andrews, and Hannahs, Santa Fe, New Mexico, appearing on behalf of the Applicant, and I have one witness to be sworn.

MR. STAMETS: Any other appearances in this case?

I'd like to have the witness stand and be sworn, please.

(Witness sworn.)

ROD R. FORS

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

DIRECT EXAMINATION

BY MR. LOPEZ:

Q. Would you please state your name, by whom you're employed, and in what capacity?

A. My name is Rod R. Fors. I'm employed by Shell Oil Company as an engineer.

Q. Have you previously testified before the

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1 Commission and had your qualifications made a matter of re-
2 cord?

3 A. No, sir.

4 Q. Would you briefly describe your educa-
5 tional and employment background?

6 A. Yes, sir. I received a Bachelor of
7 Science in geochemical oceanography from the University of
8 Washington in Seattle.

9 A Bachelor of Science in Chemistry, and
10 a Master of Science in Chemical Engineering received in
11 1979 from the University of Washington.

12 Q. And after you received your Master's in
13 1979 what did you do?

14 A. I went to work for Shell Oil and I've
15 been working for them for one year in production for the
16 Mid-Continent Division, and am now headquartered in Houston.

17 Q. Are you familiar with the application in
18 Case Number 6821?

19 A. Yes, I am.

20 MR. LOPEZ: Are the witness' qualifications
21 acceptable?

22 MR. STAMETS: Yes, they are.

23 Q. Would you please turn to what's been
24 marked for identification as Exhibit Number One and identify
25 it?

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1 A Yes, sir. Exhibit Number One is a partial
2 plat of the Drinkard Field in Lea County, New Mexico. It's
3 contoured on the Drinkard formation. The center on the map
4 is an arrow pointing out the Andrews No. 1, the subject
5 well. At this time I'd also like to draw attention to the
6 neighboring lease to the east, the Smith lease. The No. 2
7 Well is an offset. I'll be making reference to this well
8 in later testimony.

9 Q Okay, now I direct your attention to
10 Exhibit Number Two and ask you to describe it.

11 A Okay. Before we get to Exhibit Number
12 Two, if I may, I'd like to give some historical background
13 on the Andrews No. 1.

14 It was drilled in 1952 and completed as
15 a single producer in the Drinkard. In 1962 the well was
16 dualled with the Blinebry. In 1969, due to falling pressure
17 in the Blinebry, a plunger lift was installed in the Blinebry
18 side to aid in the production.

19 By 1977 the Blinebry pressure had dropped
20 to the extent that the plunger lift system was no longer
21 reliable. Also, it would not flow in an intermitter without
22 logging off.

23 At this time the plunger life would be
24 around three months and by the last quarter of 1978 the
25 plunger life had deteriorated to about one month.

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1 Finally, at the end of 1978, in December,
2 the plunger again broke and a piece of it hanging in the
3 tubing just below the tubing valve, and we shut the well
4 in due to our bad luck with plungers.

5 After nine months we elected to attempt
6 to restore production in the Blinebry, and it was swabbed
7 off and another plunger installed, but again, due to the
8 low pressure, the plunger was difficult to keep running,
9 and on January of this year, January 2nd, the plunger again
10 broke and hung below the tubing valve, and that's the
11 status of the Blinebry zone.

12 The Drinkard zone has continued to flow
13 though it is now on an intermitter.

14 And Exhibit Two is a schematic of the
15 dual completion in the Andrews No. 1 as it now is. The
16 Drinkard zone is producing on an intermitter from below the
17 packer, which is set at 5871, and the Blinebry, as I said,
18 is shut in, however, it is still installed.

19 Q Now if you'll turn to Exhibit Number
20 Three and describe that.

21 A Yes. Exhibit Number Three is the proposed
22 schematic, what we plan to do with it. You'll note that we
23 ran in -- took the -- removed the packer and ran in a
24 single string to below the Drinkard perms and we plan on
25 producing it on a beam pump.

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1 Q Now I refer you to Exhibit Number Four
2 and ask you to describe it.

3 A Okay. Exhibit Number Four is the pro-
4 duction history from 1976 of the Drinkard zone. It can be
5 seen that the Drinkard zone has produced on the average of
6 about 3 barrels a day.

7 Q Now referring to Exhibit Number Five --
8 MR. STAMETS: While -- while we're on
9 that exhibit.

10 A Yes, sir.
11 MR. STAMETS: Okay, I see the figures
12 on the far righthand side are indicative of barrels per
13 day, is that right?

14 A Yes, sir.

15 MR. STAMETS: Okay.

16 A Number Five is a production curve of the
17 Andrews No. 1 Blinebry zone. You can see that just prior
18 to shut in, when we had the problem in 1978, December, and
19 just after we put the well back on production in 1979, that
20 the average production was around 5 barrels a day.

21 Q Now I would refer you to Exhibit Number
22 Six.

23 A Okay. Exhibit Number Six is a graphical
24 representation of the production of the Blinebry zone in
25 the Andrews as a percent of producing time of the month.

1 Simply stated, the number of days that
2 the well produced as opposed to the number of days in the
3 month, and it can be seen that from January, 1978, through
4 well, pretty much the present, if you take out the anoma-
5 lous months and the shut in period, that it has declined
6 from about 90 percent to about 75 percent of the month that
7 it produces. This is due to the low pressure and the
8 mechanical problems with the plunger lift.

9 Q Now, referring to Exhibit Number Seven,
10 will you describe it?

11 A Okay. This is a, going back to the
12 prior exhibit, Exhibit Number Six, just spelled out, it's
13 the estimated production loss in the Andrews No. 1. If we
14 take the actual production for that fifteen months of the
15 Exhibit Number Six, and exclude the nine months the well
16 was shut in, of course, and take the number of barrels which
17 it produced, which was 1953, this is for the Blinebry zone,
18 and multiply -- or rather divide that by the number of days
19 that it produced, we see that it produced about 5.8 barrels
20 per day.

21 Now, if we discount that to 5 barrels,
22 allowing for normal maintenance and shut in periods of the
23 well, and multiply the 5 barrels by the number of days it
24 was shut in, which was 137 days, you see that we lost an
25 estimated 685 barrels of oil for that period.

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1 It's our contention that commingling
2 should prevent this from occurring by permitting sustained
3 production as it would be on beam pump, and you wouldn't
4 have to have the maintenance of replacing plungers and
5 things.

6 Q Now referring to Exhibit Number Eight,
7 would you describe that?

8 A Yes, sir. This is an estimated production
9 increase due to additional drawdown affected by beam pumping
10 that we would put on during the commingling. This is for
11 the Drinkard zone, as this is where we got our best data
12 from. This is an IPR curve, which is an in-flow performance
13 relation. It's a standard tool used in the industry to
14 predict what affects additional drawdown would have on
15 production.

16 It can be seen that by lowering the
17 bottom hole pressure in the Drinkard zone to 200 pounds, we
18 would increase production by 4 barrels of oil per day. In
19 other words, we'd get 7 barrels of oil per day out of it.

20 If we drew it down to 100 psi, which we
21 are very confident we can do, we would increase production
22 by 5 barrels of oil per day.

23 I might point out that the same affect
24 would happen in the Blinebry zone by pulling down the pres-
25 sure on it, also, with the addition of the beam pump.

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1 Q Now referring to Exhibit Number Nine,
2 would you describe that?

3 A Exhibit Number Nine is what I made re-
4 ference to on the Smith well, we would be speaking about it
5 as we have direct data from the Smith. We just recently
6 commingled it in the Blinebry and Drinkard zones.

7 You can see that we started out with a
8 Drinkard zone pressure of 870 psi, a Blinebry pressure of
9 525 psi, which is greater than what we had in the Andrews
10 well. By commingling and putting on artificial pump, we
11 were able to pull the bottom hole pressure down to 50 psi.
12 Now, this is actual data that we have on this well.

13 That's why we're very confident that in the
14 Andrews case we can pull the well down to 100 psi.

15 I might point out that actually to be
16 able to successfully commingle the Andrews, we would only
17 have to pull it down to 290 pounds, or below 290 pounds
18 as the Blinebry pressure there is 292 and to preclude any
19 cross flow, you'd only have to get below that.

20 And we are very confident, as I said,
21 that we will be able to get it down to at least 100 psi.

22 Q Is it common in the field under discussion
23 here today to commingle the Blinebry and Drinkard formations?

24 A Yes, it is. We have commingled several
25 and offset operators also have.

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1 Q. And have these efforts been successful?

2 A. Yes, they have been very successful.

3 Q. Is it your opinion that the granting of

4 this application would be in the interest of the prevention

5 of waste and the protection of correlative rights?

6 A. Yes, it is. If I may, I would like to

7 add that we have looked at putting both zones on pump, but

8 because of the mechanical difficulty involved in the small

9 liner, it's just not mechanically feasible to do it, or

10 economically.

11 Q. Were Exhibits One through Nine prepared

12 by you or under your supervision?

13 A. Yes, they were.

14 MR. LOPEZ: I would offer Exhibits One

15 through Nine on behalf of Shell.

16 MR. STAMETS: These exhibits will be

17 admitted.

18

19 CROSS EXAMINATION

20 BY MR. STAMETS:

21 Q. Mr. Fors, do you have an explanation for

22 the difference in pressure between the Smith No. 2 Well

23 and the Andrews No. 1 Well?

24 A. Yes, sir, they're tight formation.

25 Q. The Andrews is the tighter of the two

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or the Smith is the tighter?

A. I would have to say it would probably be the Andrews Well.

Q. How long has the Smith Well No. 2 been on downhole commingling on pump?

A. We just completed that, it was last reported, that is, getting back all the equipment and everything set up, it was last reported here in January.

And we just -- the bottom hole data we just received last week. It is now on test and we haven't got the test data back yet.

Q. Would you have any difficulty if this application were approved in working with the District Office to establish a formula for the allocation of production between the two zones?

A. No, sir, we've already worked on that.

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

Anything further in this case?

The case will be taken under advisement.

(Hearing concluded.)

REPORTER'S CERTIFICATE

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Sally W. Boyd C.S.R.

SALLY W. BOYD, C.S.R.
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I do hereby certify that the foregoing is
a complete record of the hearing held in
the Examiner's Office on 6821
heard by me on 2-27 1980
Richard L. Stamm, Examiner
Oil Conservation Division

THE STATE OF NEW MEXICO

STATE LAND OFFICE

27 February 1967

EXAMINER HEARING

IN THE MATTER OF:

Application of Shell Oil Company for) CASE
 leasehold oil and gas rights,) 6821
 New Mexico.)

BEFORE: Richard L. Stamets

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(Witness sworn.)

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BY MR. LOPEZ:

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7 Well is an offset. I'll be making reference to this well
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9 Q Okay, now I direct your attention to
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17 in the Blinebry, a plunger lift was installed in the Blinebry
18 side to aid in the production.

19 By 1977 the Blinebry pressure had dropped
20 to the extent that the plunger lift system was no longer
21 reliable. Also, it would not flow in an intermitter without
22 logging off.

23 At this time the plunger life would be
24 around three months and by the last quarter of 1978 the
25 plunger life had deteriorated to about one month.

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3 tubing just below the tubing valve, and we shut the well
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6 to restore production in the Blinebry, and it was swabbed
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19 Q Now if you'll turn to Exhibit Number
20 Three and describe that.

21 A Yes. Exhibit Number Three is the proposed
22 schematic, what we plan to do with it. You'll note that we
23 ran in -- took the -- removed the packer and ran in a
24 single string to below the Drinkard perfs and we plan on
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1 Q Now I refer you to Exhibit Number Four
2 and ask you to describe it.

3 A Okay. Exhibit Number four is the pro-
4 duction history from 1976 of the Drinkard zone. It can be
5 seen that the Drinkard zone has produced on the average of
6 about 3 barrels a day.

7 Q Now referring to Exhibit Number Five --
8 MR. STAMETS: While -- while we're on
9 that exhibit.

10 A Yes, sir.
11 MR. STAMETS: Okay, I see the figures
12 on the far righthand side are indicative of barrels per
13 day, is that right?

14 A Yes, sir.
15 MR. STAMETS: Okay.

16 A Number Five is a production curve of the
17 Andrews No. 1 Blinebry zone. You can see that just prior
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19 just after we put the well back on production in 1979, that
20 the average production was around 5 barrels a day.

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7 it produces. This is due to the low pressure and the
8 mechanical problems with the plunger lift.

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13 the estimated production loss in the Andrews No. 1. If we
14 take the actual production for that fifteen months of the
15 Exhibit Number Six, and exclude the nine months the well
16 was shut in, of course, and take the number of barrels which
17 it produced, which was 1953, this is for the Blinebry zone,
18 and multiply -- or rather divide that by the number of days
19 that it produced, we see that it produced about 3.8 barrels
20 per day.

21 Now, if we discount that to 5 barrels,
22 allowing for normal maintenance and shut in periods of the
23 well, and multiply the 5 barrels by the number of days it
24 was shut in, which was 137 days, you see that we lost an
25 estimated 685 barrels of oil for that period.

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

1 In our contention that commingling
2 should prevent this from occurring by permitting sustained
3 production as it would be on beam pump, and you wouldn't
4 have to have the maintenance of sealing plungers and
5 things.

6 Q Now referring to Exhibit Number Eight,
7 would you describe that?

8 A Yes, sir. This is an estimated production
9 increase due to additional drawdown affected by beam pumping
10 that we would put on during the commingling. This is for
11 the Drinkard zone, as this is where we got our best data
12 from. This is an IPR curve, which is an in-flow performance
13 relation. It's a standard tool used in the industry to
14 predict what affects additional drawdown would have on
15 production.

16 It can be seen that by lowering the
17 bottom hole pressure in the Drinkard zone to 200 pounds, we
18 would increase production by 4 barrels of oil per day. In
19 other words, we'd get 7 barrels of oil per day out of it.

20 If we drew it down to 100 psi, which we
21 are very confident we can do, we would increase production
22 by 5 barrels of oil per day.

23 I might point out that the same affect
24 would happen in the Blinebry zone by pulling down the pres-
25 sure on it, also, with the addition of the beam pump.

SALLY W. BOYD, C.S.R.

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Phone (505) 455-7409

1 Q Now referring to Exhibit Number Nine,
2 would you describe that?

3 A Exhibit Number Nine is what I made refer-
4 ence to on the Smith well, we would be speaking about it
5 as we have direct data from the Smith. We just recently
6 commingled it in the Blinbry and Drinkard zones.

7 You can see that we started out with a
8 Drinkard zone pressure of 870 psi, a Blinbry pressure of
9 525 psi, which is greater than what we had in the Andrews
10 well. By commingling and putting on artificial pump, we
11 were able to pull the bottom hole pressure down to 50 psi.
12 Now, this is actual data that we have on this well.

13 That's why we're very confident that in the
14 Andrews case we can pull the well down to 100 psi.

15 I might point out that actually to be
16 able to successfully commingle the Andrews, we would only
17 have to pull it down to 290 pounds, or below 290 pounds
18 as the Blinbry pressure there is 292 and to preclude any
19 cross flow, you'd only have to get below that.

20 And we are very confident, as I said,
21 that we will be able to get it down to at least 100 psi.

22 Q Is it common in the field under discussion
23 here today to commingle the Blinbry and Drinkard formations?

24 A Yes, it is. We have commingled several
25 and offset operators also have.

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Santa Fe, New Mexico 87501
Phone (505) 455-7409

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

1 Q And have those efforts been successful?

2 A Yes, they have been very successful.

3 Q Is it your opinion that the granting of

4 this application would be in the interest of the prevention

5 of waste and the protection of correlative rights?

6 A Yes, it is. If I may, I would like to

7 add that we have looked at putting both zones on pump, but

8 because of the mechanical difficulty involved in the small

9 liner, it's just not mechanically feasible to do it, or

10 economically.

11 Q Were Exhibits One through Nine prepared

12 by you or under your supervision?

13 A Yes, they were.

14 MR. LOPEZ: I would offer Exhibits One

15 through Nine on behalf of Shell.

16 MR. STAMETS: These exhibits will be

17 admitted.

18

19 CROSS EXAMINATION

20 BY MR. STAMETS:

21 Q Mr. Fors, do you have an explanation for

22 the difference in pressure between the Smith No. 2 Well

23 and the Andrews No. 1 Well?

24 A Yes, sir, they're tight formation.

25 Q The Andrews is the tighter of the two

1 or the Smith is the tighter?

2 A I would have to say it would probably
3 be the Andrews Well.

4 Q How long has the Smith Well No. 2 been
5 on downhole corringling on pump?

6 A We just completed that, it was last
7 reported, that is, getting back all the equipment and every-
8 thing set up, it was last reported here in January.

9 And we just -- the bottom hole data we
10 just received last week. It is now on test and we haven't
11 got the test data back yet.

12 Q Would you have any difficulty if this
13 application were approved in working with the District
14 Office to establish a formula for the allocation of prod-
15 uction between the two zones?

16 A No, sir, we've already worked on that.

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

19 Anything further in this case?

20 The case will be taken under advisement.

21

22 (Hearing concluded.)

23

24

25

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

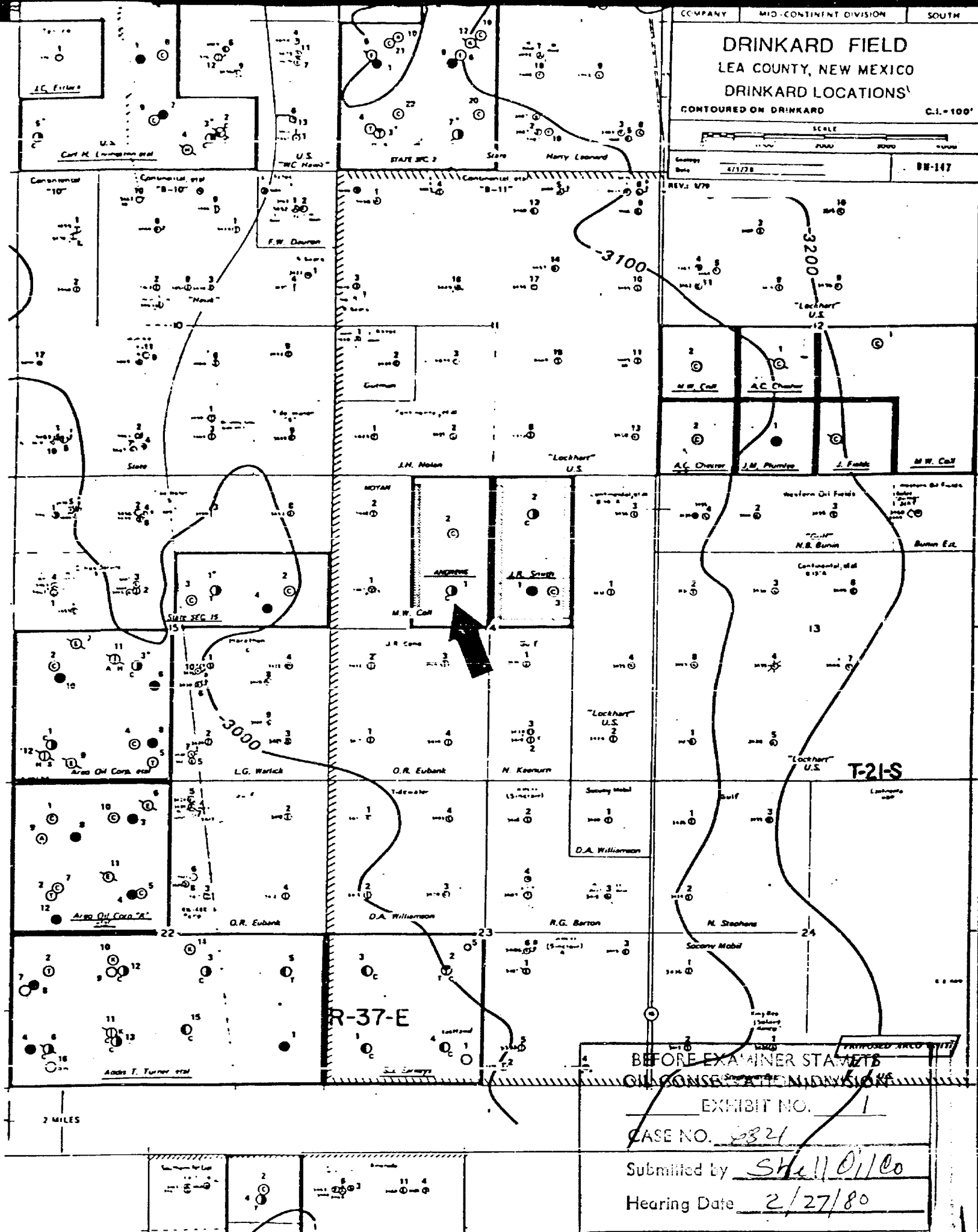
STATEMENT OF EXHIBIT

I, CHAS. V. ROSE, C.E.P., do hereby certify that the foregoing transcript of hearing before the Oil Conservation Division was prepared by me. This said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

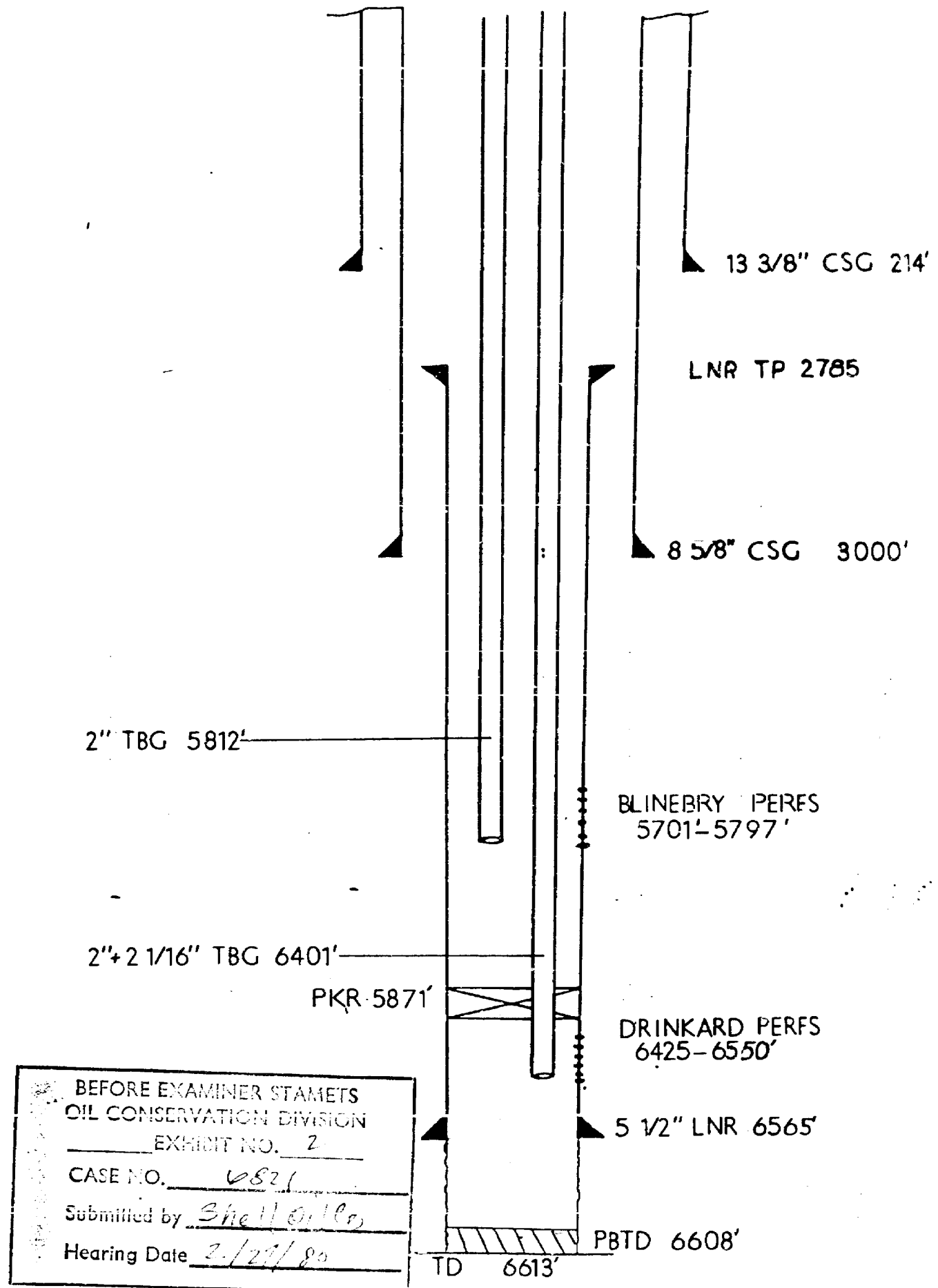
I do hereby certify that the foregoing is a complete record of the proceedings in the examiner hearing of Case No. _____ heard by me on _____ 19____.

_____, Examiner
Oil Conservation Division

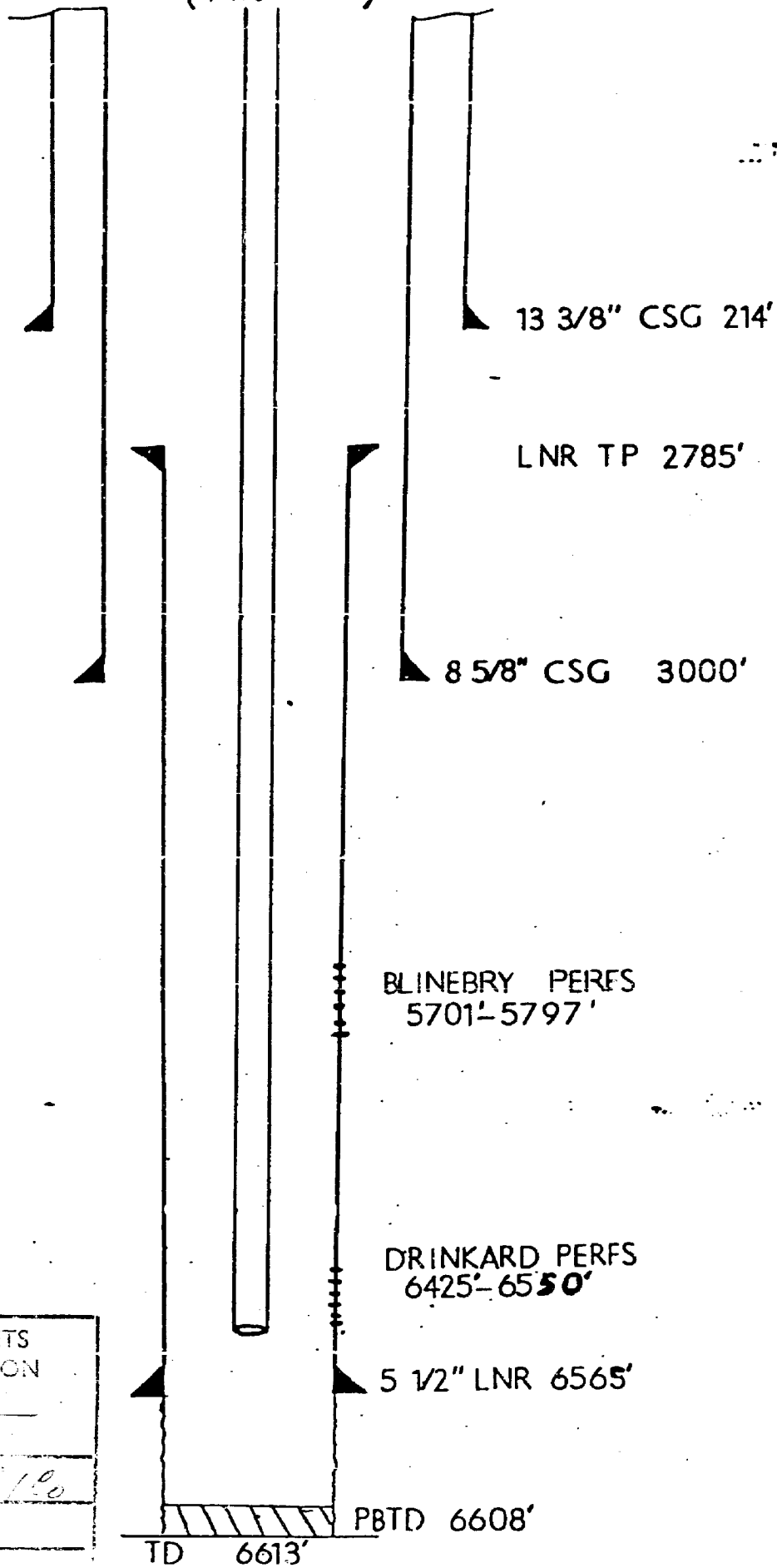
SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409



ANDREWS NO 1
DRINKARD FIELD
LEA COUNTY



ANDREWS NO 1
DRINKARD FIELD
LEA COUNTY
(PROPOSED)



BEFORE EXAMINER STAMETS	
OIL CONSERVATION DIVISION	
PROJECT NO. <u>3</u>	
CASE NO.	<u>6821</u>
Submitted by	<u>Shelley, R.</u>
Received	<u>2/27/80</u>

ANDREWS NO.1 DRINKARD

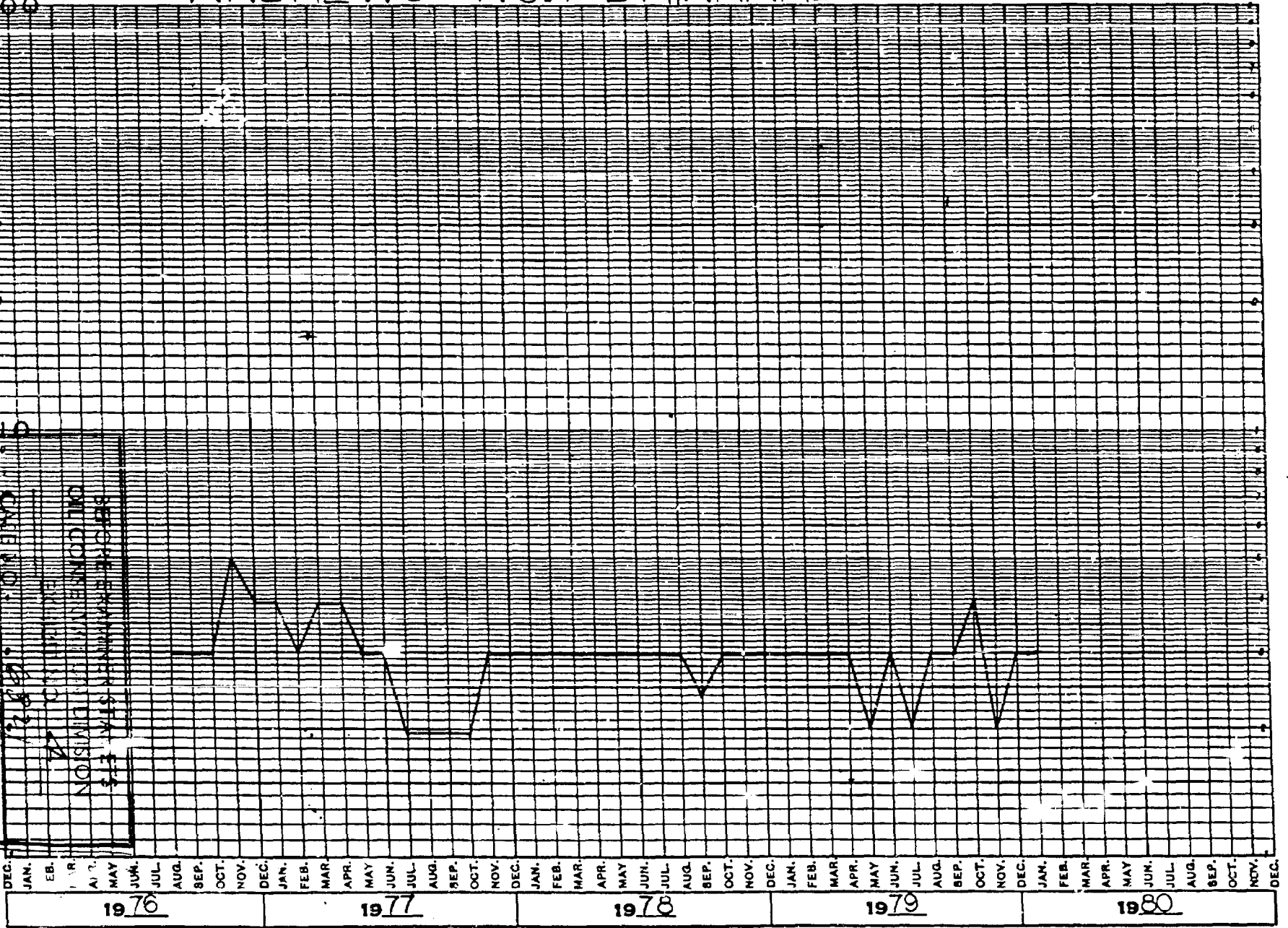
BOPD

Hearing Date

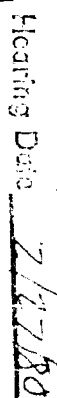
2/27/80

Submitted by *Shelley*

BEFORE EXAMINER STAN ETT
OIL CONSERVATION DIVISION
EDMUNDSON
10000



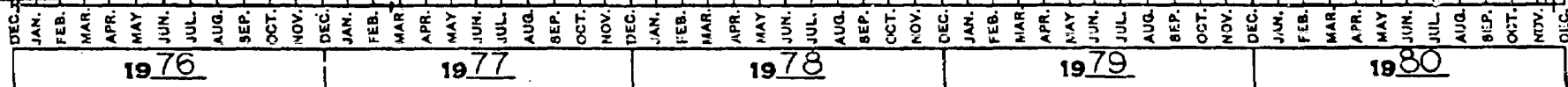
ANDREWS NO. 1 BLINEBRY



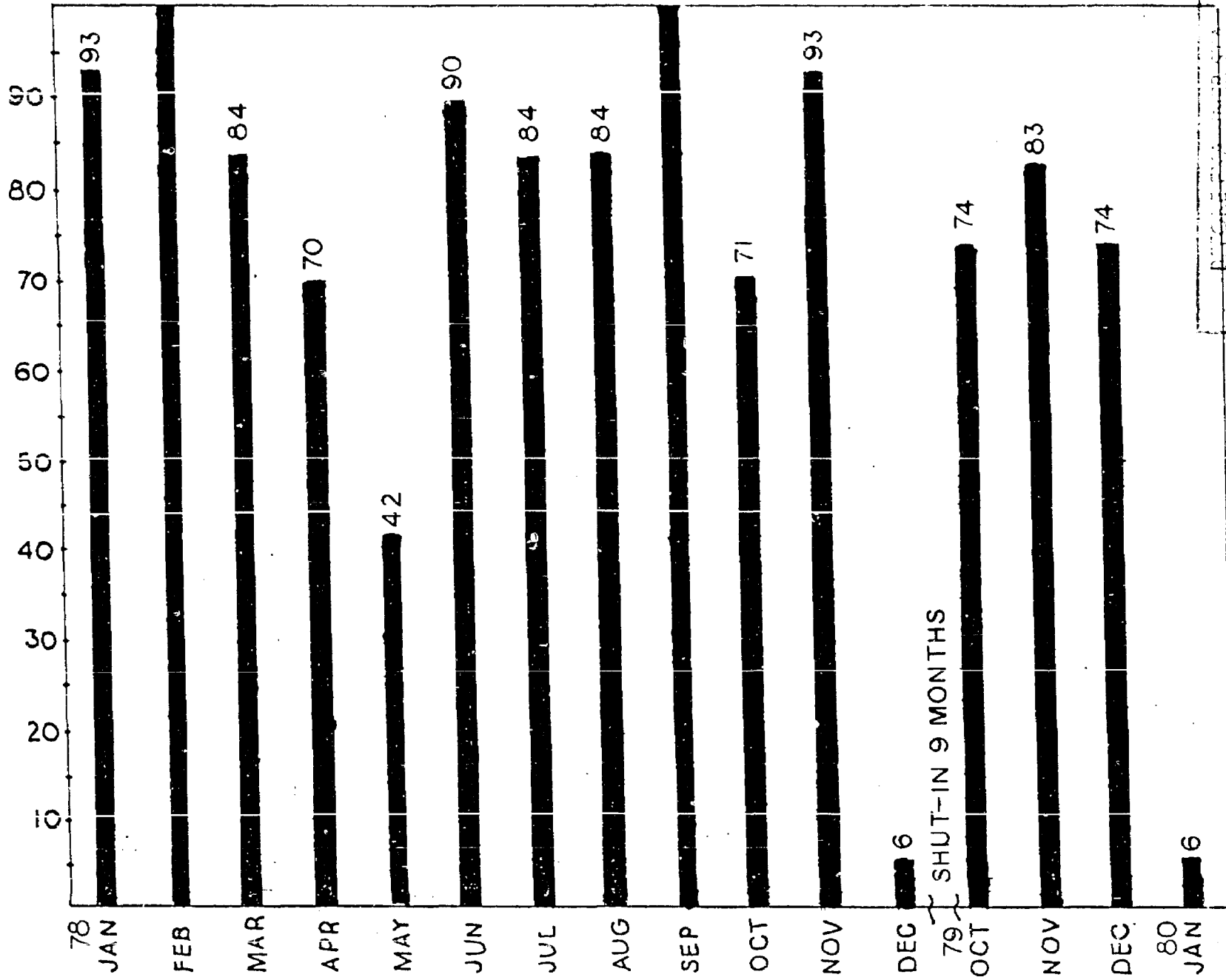
Submitted by Sheldahl Co

REPORT OF THE SPECIAL COMMITTEE ON THE CONSTITUTIONAL CONSENT OF THE PEOPLE

SHUT IN



ANDREWS NO 1
BLINEBRY
PRODUCING TIME AS PERCENT



Producing Time as Percent of Available Time
Oil Company: *Phillips*
Operator: *Phillips*
Shut-in Date: *2/77/80*

ESTIMATED PRODUCTION LOSS
ANDREWS NO. 1 BLINEBRY

ACTUAL PRODUCTION 16 MONTHS
EXCLUDES 9 MONTHS SHUT-IN PERIOD

1953 BO

NO. DAYS SHUT DOWN
DUE TO LOW PRESSURE AND
MALFUNCTIONING PLUNGER LIFT

137

ESTIMATED LOSS
137 DAYS X 5 BOPD

685 BO

BEFORE EXAMINER SIAMETS
OIL CONSERVATION DIVISION
EXHIBIT NO. 7
CASE NO. 6821
Submitted by Shelbillo
Hearing Date 2/27/80

ESTIMATED PRODUCTION INCREASE
DUE TO ADDITIONAL DRAWDOWN EFFECTED BY BEAM PUMPING

WELL: ANDREWS NO. 1

ZONE: DRINKARD

SIBHP = 580 PSI [DATUM 5701']

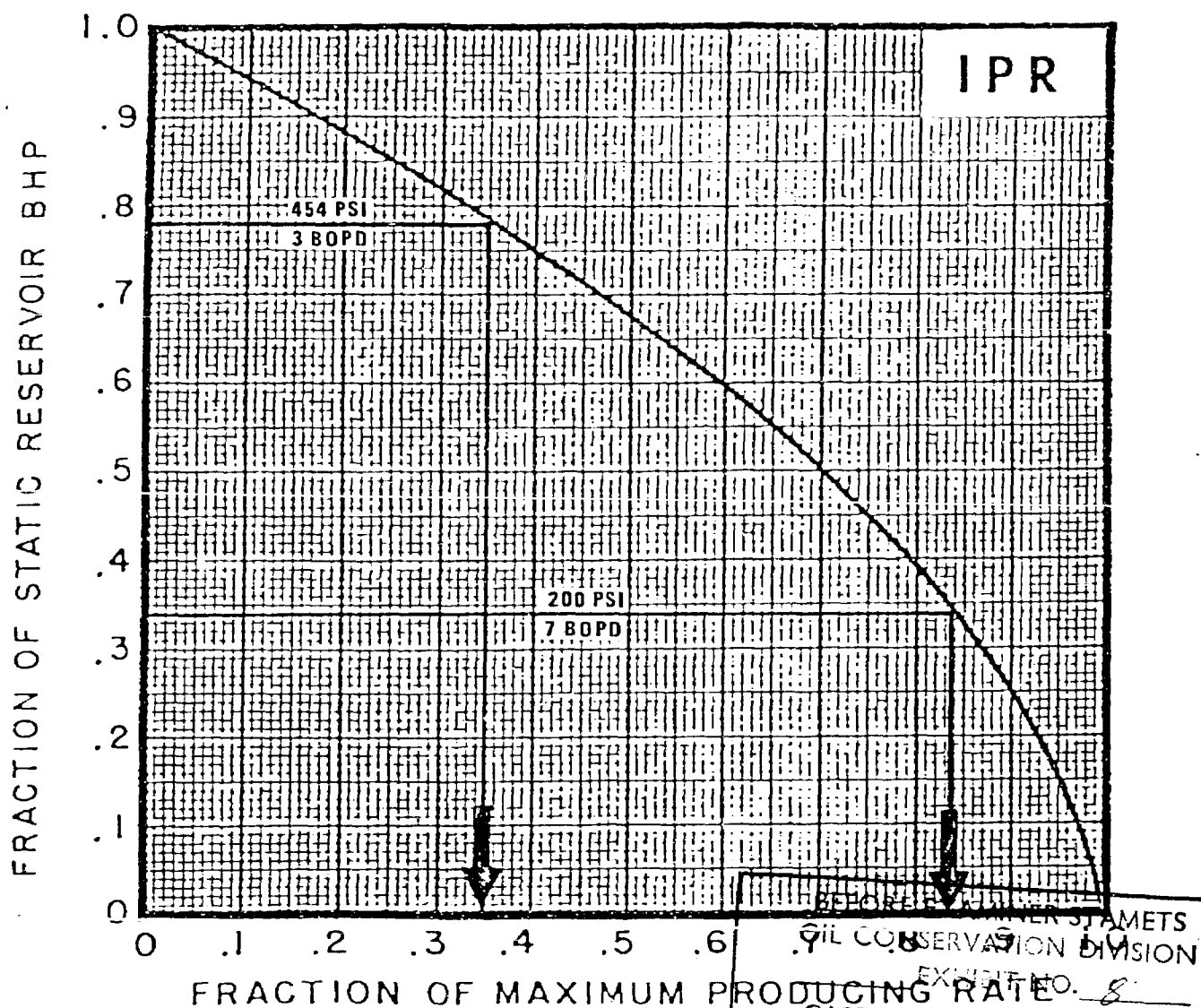
FBHP = 454 PSI

TEST = 3 BOPD + 62 MCFPD [1/80]

VOGEL EQUATION: $q = 1 - 0.20 \frac{P_{wf}}{P} - 0.80 \left(\frac{P_{wf}}{P} \right)^2$
 q_{max}

EST. FBHP WITH BEAM PUMP = 200 PSI 100 PSI

EST. PRODUCTION INCREASE = 4 BOPD 5 BOPD



STAMETS
OIL CONSERVATION DIVISION
EXHIBIT NO. 8

CASE NO. 6821

Submitted by *Shell Oil Co*

Hearing Date 2/27/80

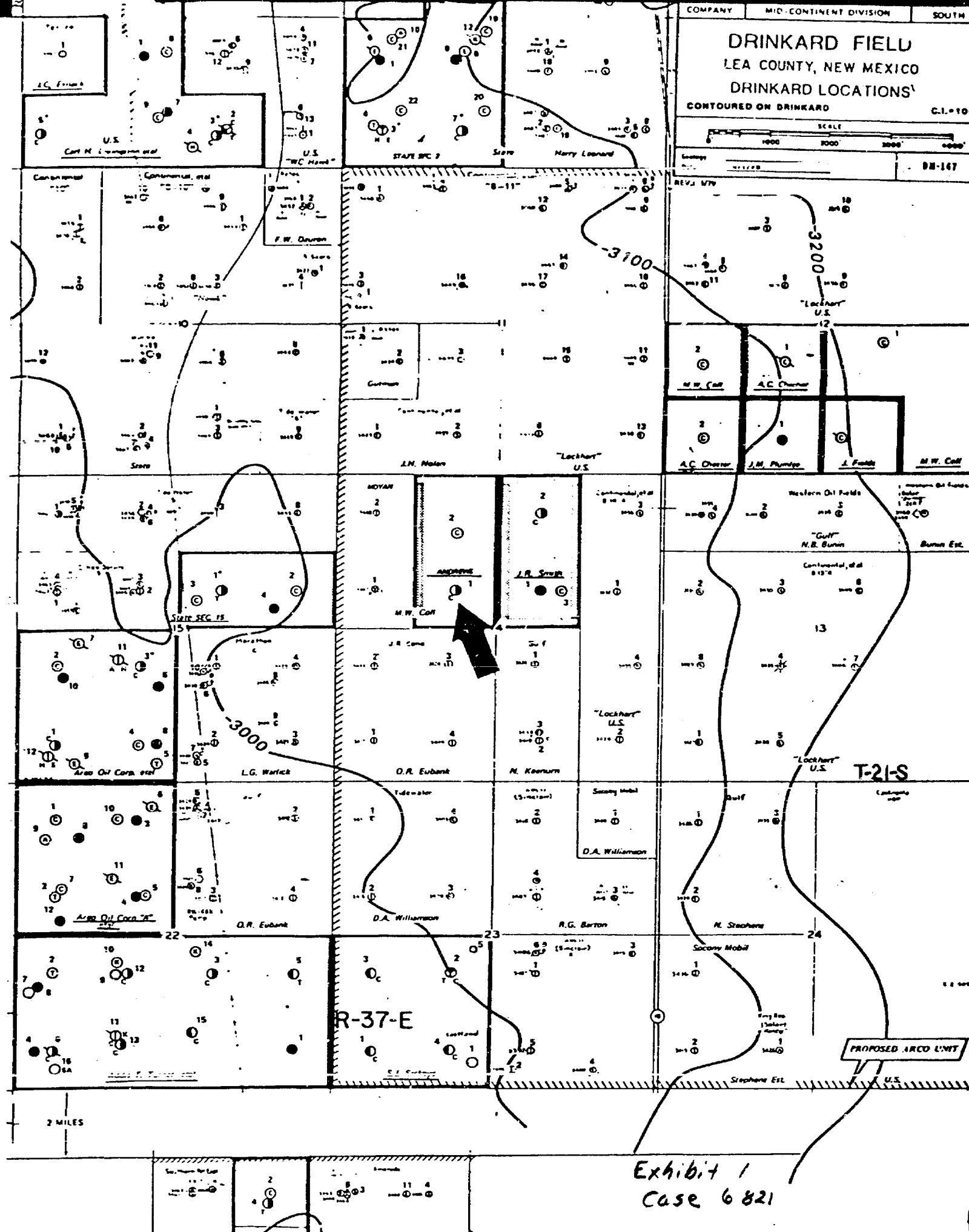
EFFECT OF ARTIFICIAL LIFT ON BHFP

WELL: SMITH NO. 2	BLINEBRY	ZONE	DRINKARD
SBHP	525 PSI		870 PSI
PBHP	————	50 PSI	————
WELL: ANDREWS NO. 1			
SBHP	292 PSI		580 PSI
EST. PBHP	————	100 PSI	————

∴ BOTH ZONES WILL PRODUCE

NOTE: ZONE PRESSURE DATUM TOP BLINEBRY PERFORATION

BEFORE EXAMINER STAMETS	
OIL CONSERVATION DIVISION	
EXHIBIT NO. <u>9</u>	CASE NO. <u>6821</u>
Submitted by <u>844001100</u>	Hearing Date <u>2/27/80</u>



ANDREWS NO 1
DRINKARD FIELD
LEA COUNTY

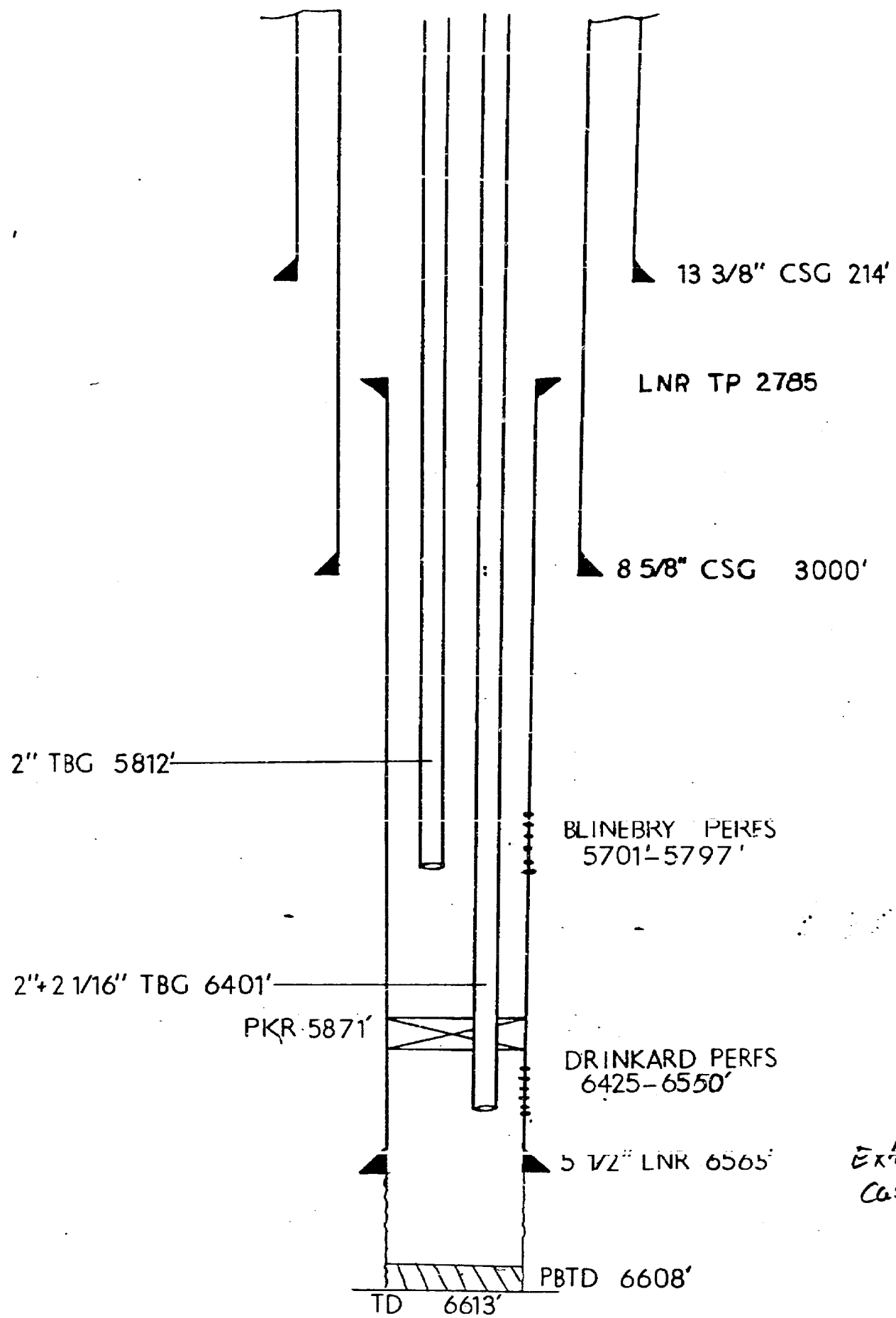
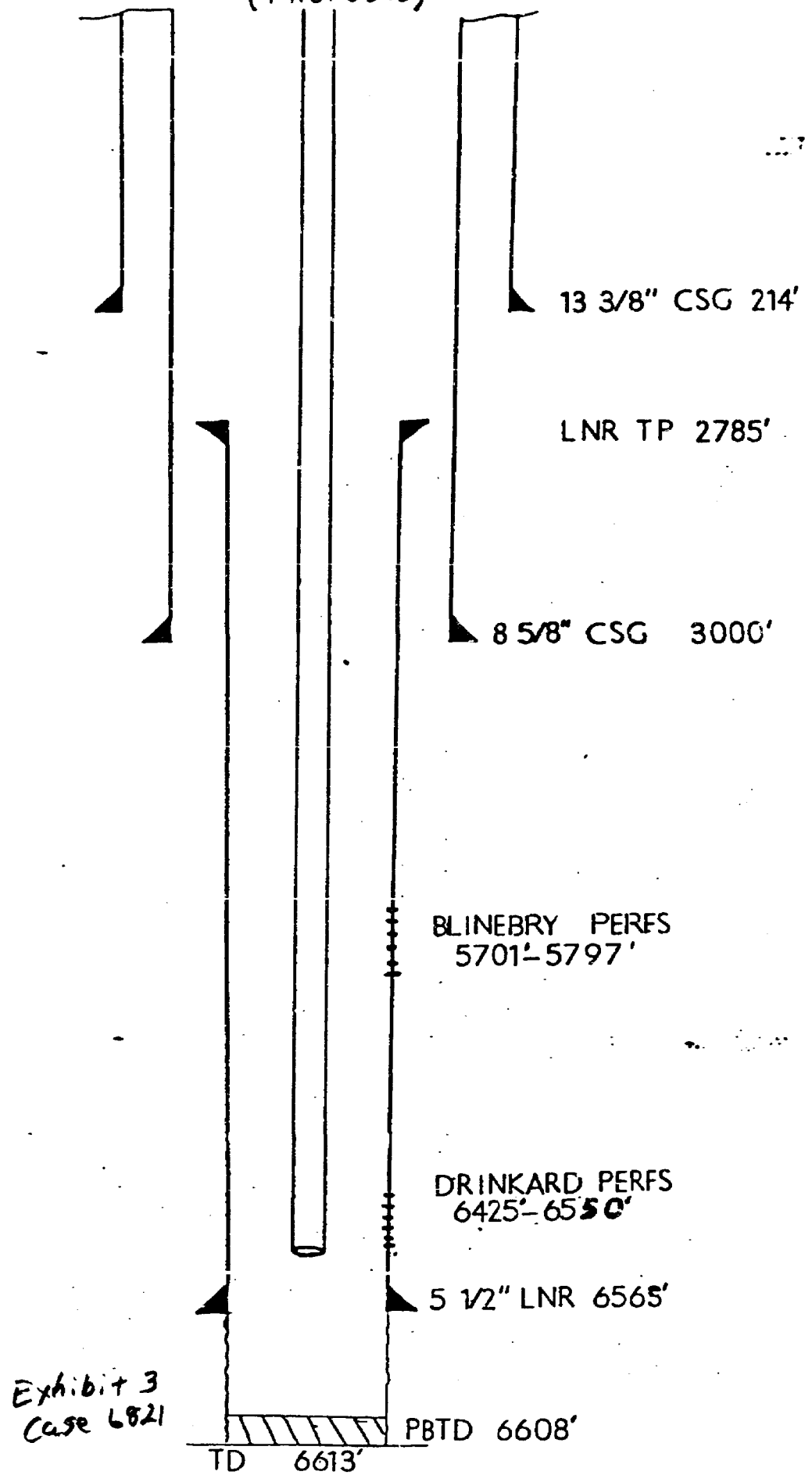


Exhibit 2
Case 6821

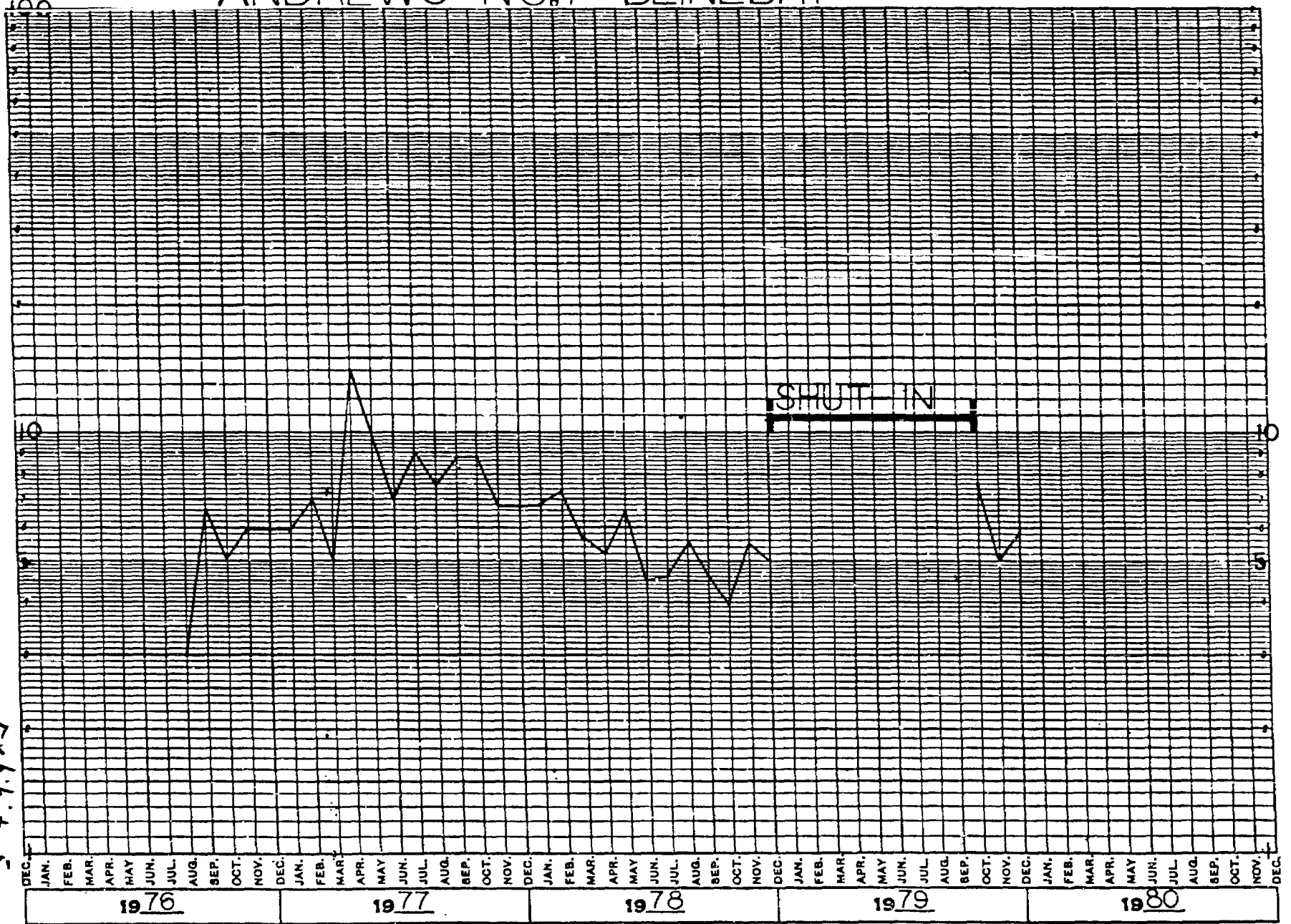
ANDREWS NO 1
DRINKARD FIELD
LEA COUNTY
(PROPOSED)



ANDREWS NO.1 BLINEBRY

BOPD

Exhibit 5
Case 6621



ANDREWS NO 1
BLINEBRY
PRODUCING TIME AS PERCENT

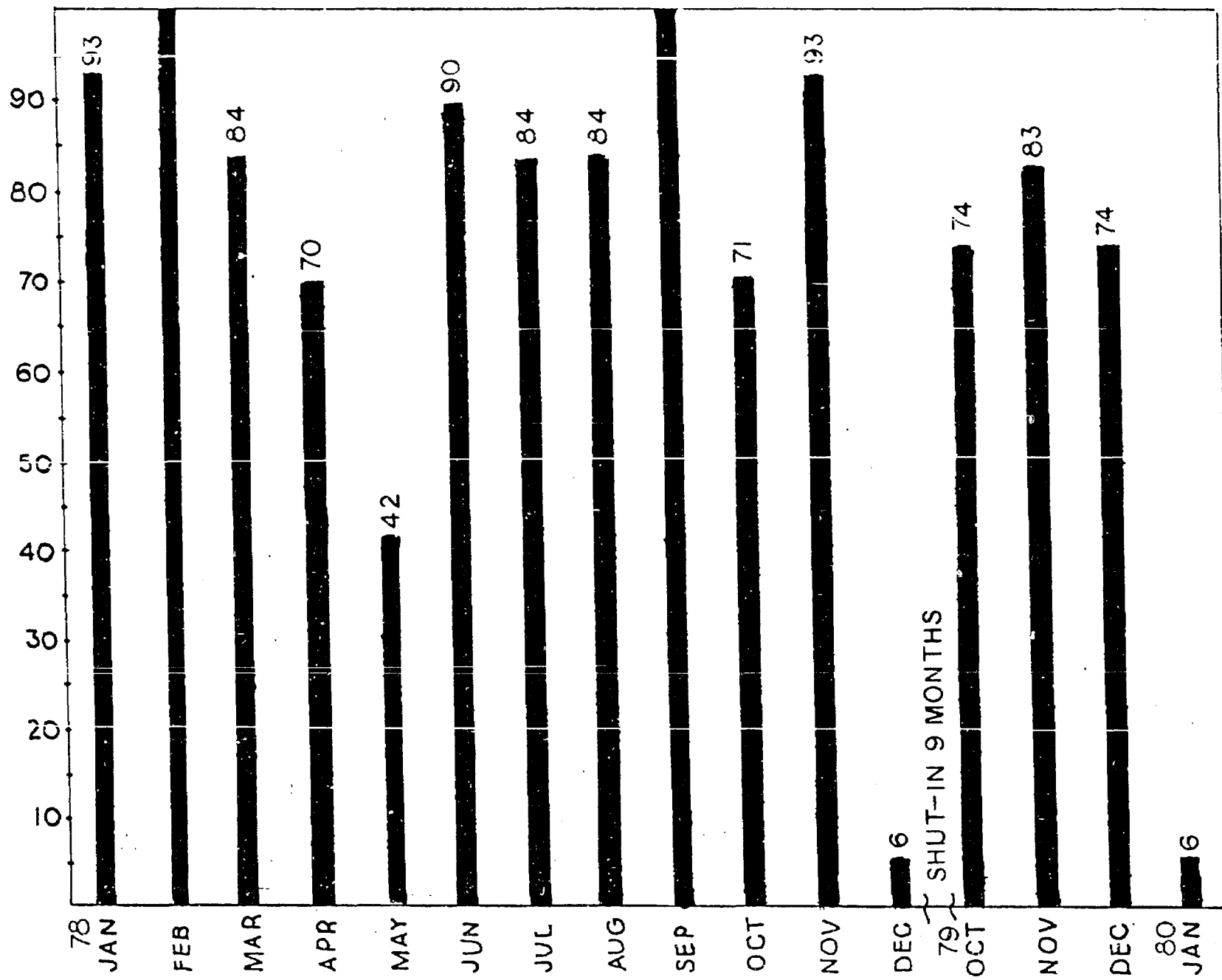


Exhibit 6
Case 6821

ESTIMATED PRODUCTION LOSS
ANDREWS NO.1 BLINEBRY

ACTUAL PRODUCTION 16 MONTHS
EXCLUDES 9 MONTHS SHUT-IN PERIOD

1953 BO

NO. DAYS SHUT DOWN
DUE TO LOW PRESSURE AND
MALFUNCTIONING PLUNGER LIFT

137

ESTIMATED LOSS
137 DAYS X 5 BOPD

685 BO

Exhibit 7
Case 6821

ESTIMATED PRODUCTION INCREASE
DUE TO ADDITIONAL DRAWDOWN EFFECTED BY BEAM PUMPING

WELL: ANDREWS NO. 1

ZONE: DRINKARD

SIBHP = 580 PSI [DATUM 5701']

FBHP = 454 PSI

TEST = 3 BOPD + 62 MCFPD [1/80]

VOGEL EQUATION: $\frac{q}{q_{max}} = 1 - 0.20 \frac{P_{wf}}{P} - 0.80 \left(\frac{P_{wf}}{P} \right)^2$

EST. FBHP WITH BEAM PUMP = 200 PSI 100 PSI

EST. PRODUCTION INCREASE = 4 BOPD 5 BOPD

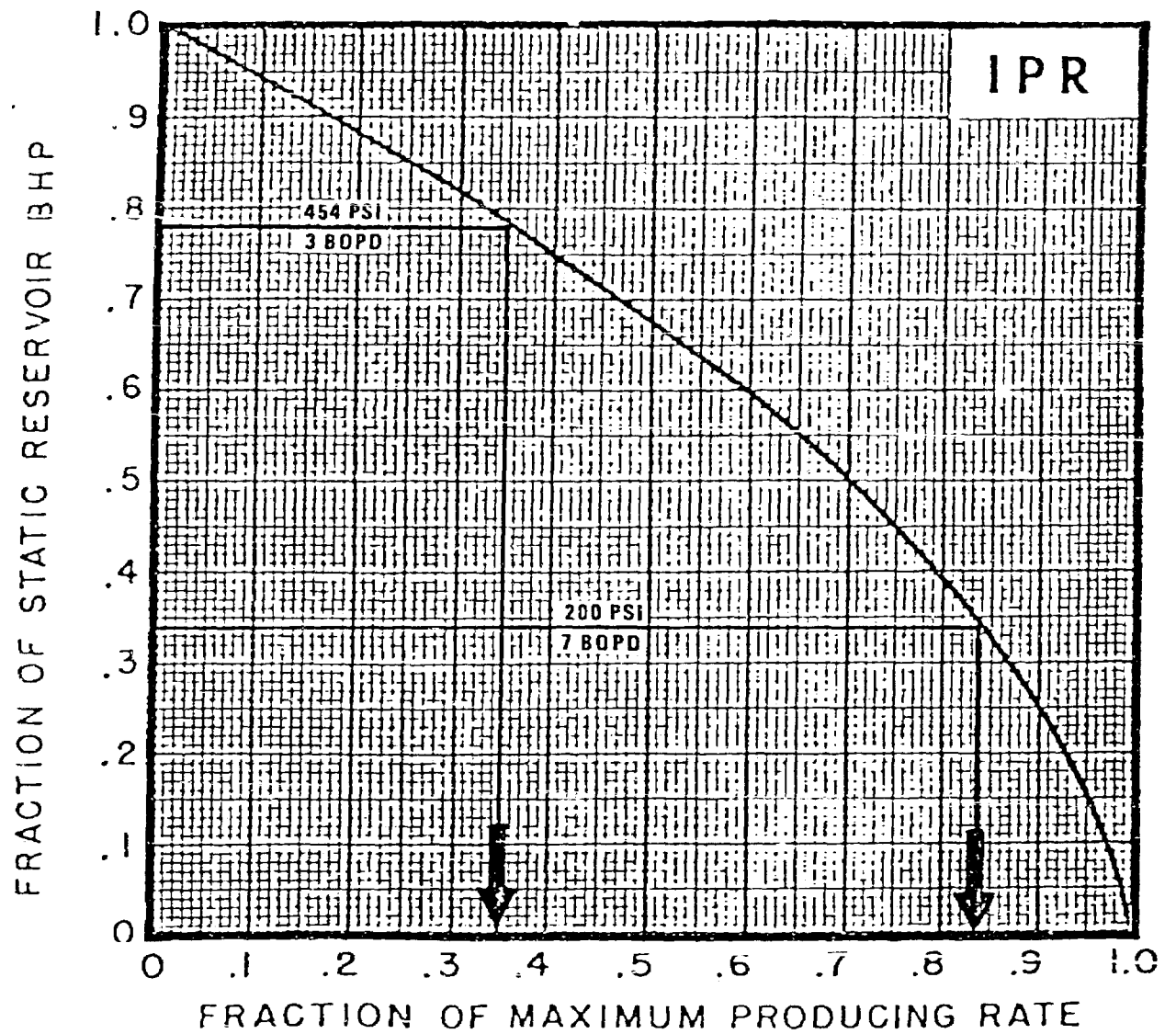


Exhibit 8
Case 6821

EFFECT OF ARTIFICIAL LIFT ON BHFP

WELL: SMITH NO. 2

	BLINEBRY	ZONE	DRINKARD
SBHP	525 PSI		870 PSI
PBHP	————	50 PSI	————

WELL: ANDREWS NO. 1

SBHP	292 PSI		580 PSI
EST. PBHP	————	100 PSI	————

• BOTH ZONES WILL PRODUCE

NOTE: ZONE PRESSURE DATUM TOP BLINEBRY PERFORATION

Exhibit 9
Case 6821

ANDREWS NO 1
DRINKARD FIELD
LEA COUNTY

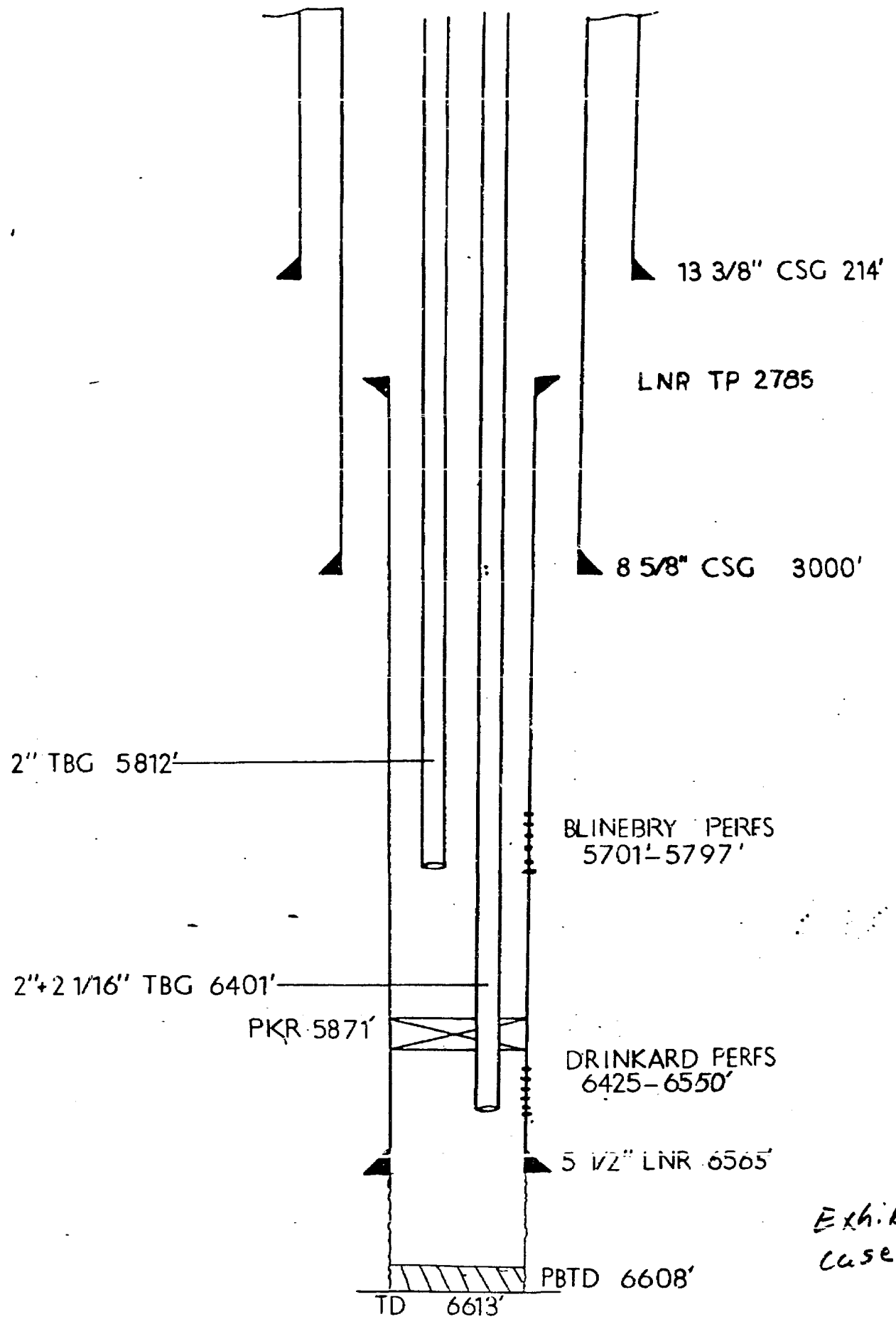
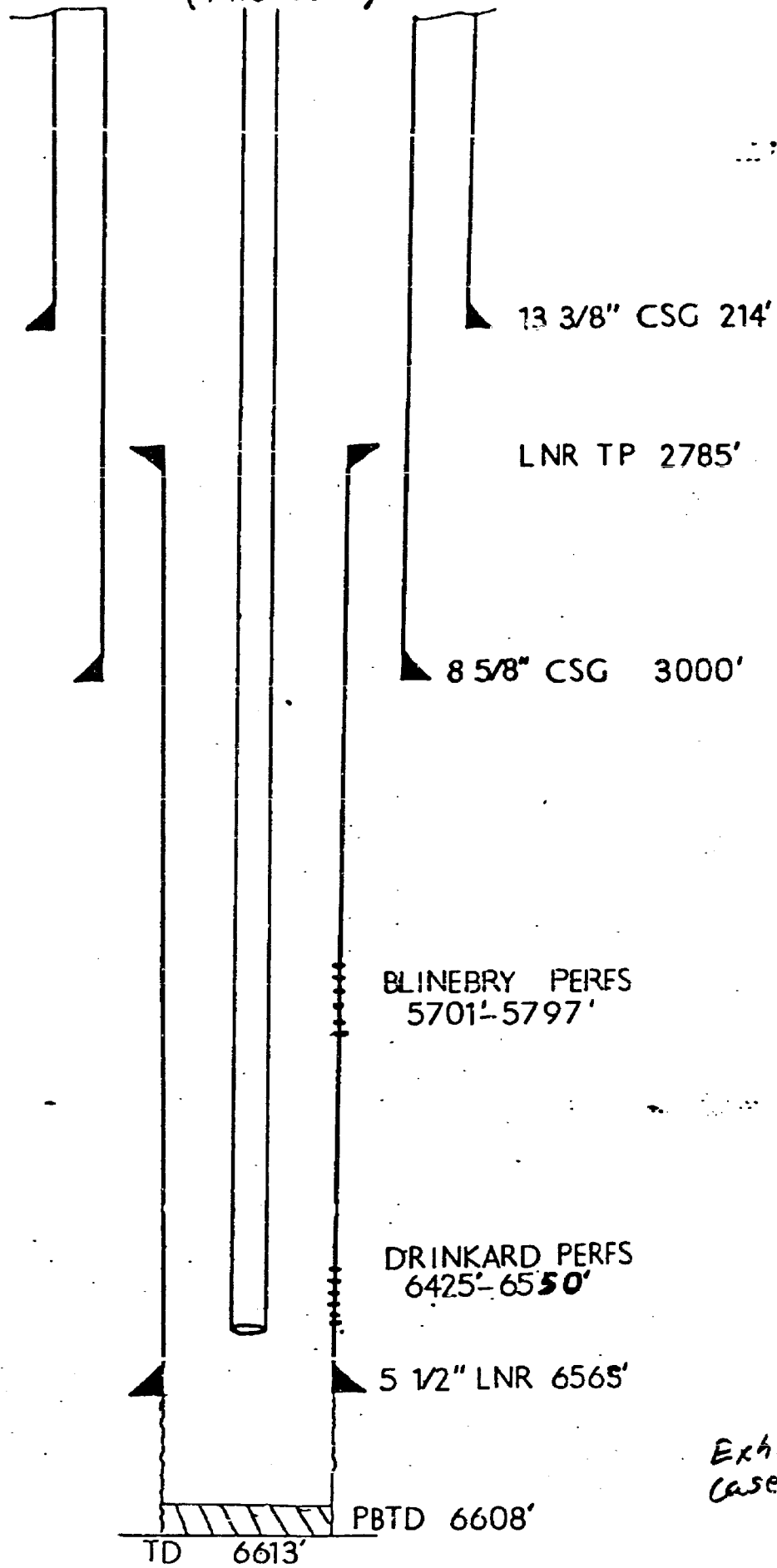


Exhibit 2
Case 6821

ANDREWS NO 1
DRINKARD FIELD
LEA COUNTY
(PROPOSED)

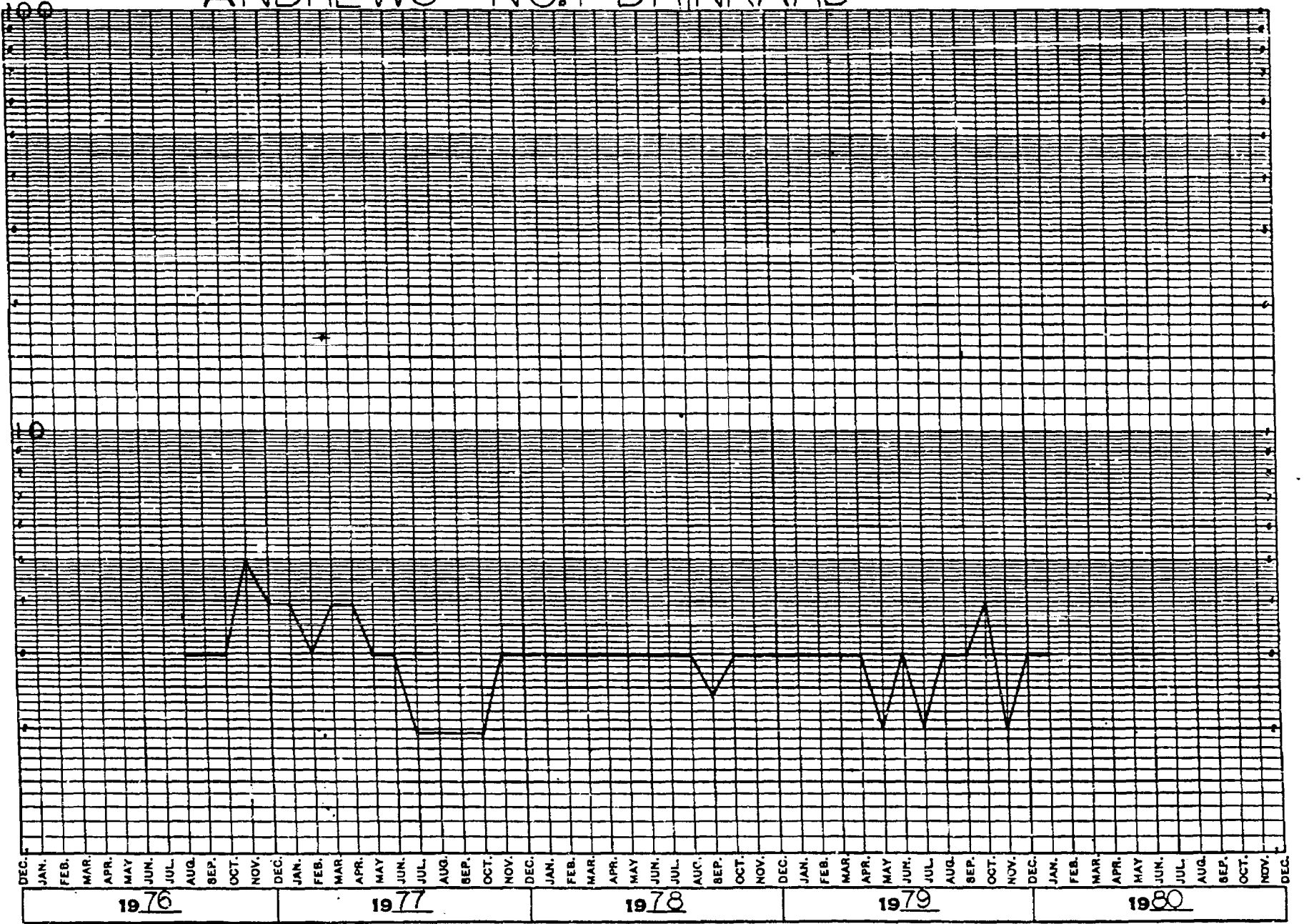


Exhib. 73
Case 6821

ANDREWS NO.1 DRINKARD

BOPD

Exhib. B. & Y
Case 6821



ANDREWS NO 1
BLINEBRY
PRODUCING TIME AS PERCENT

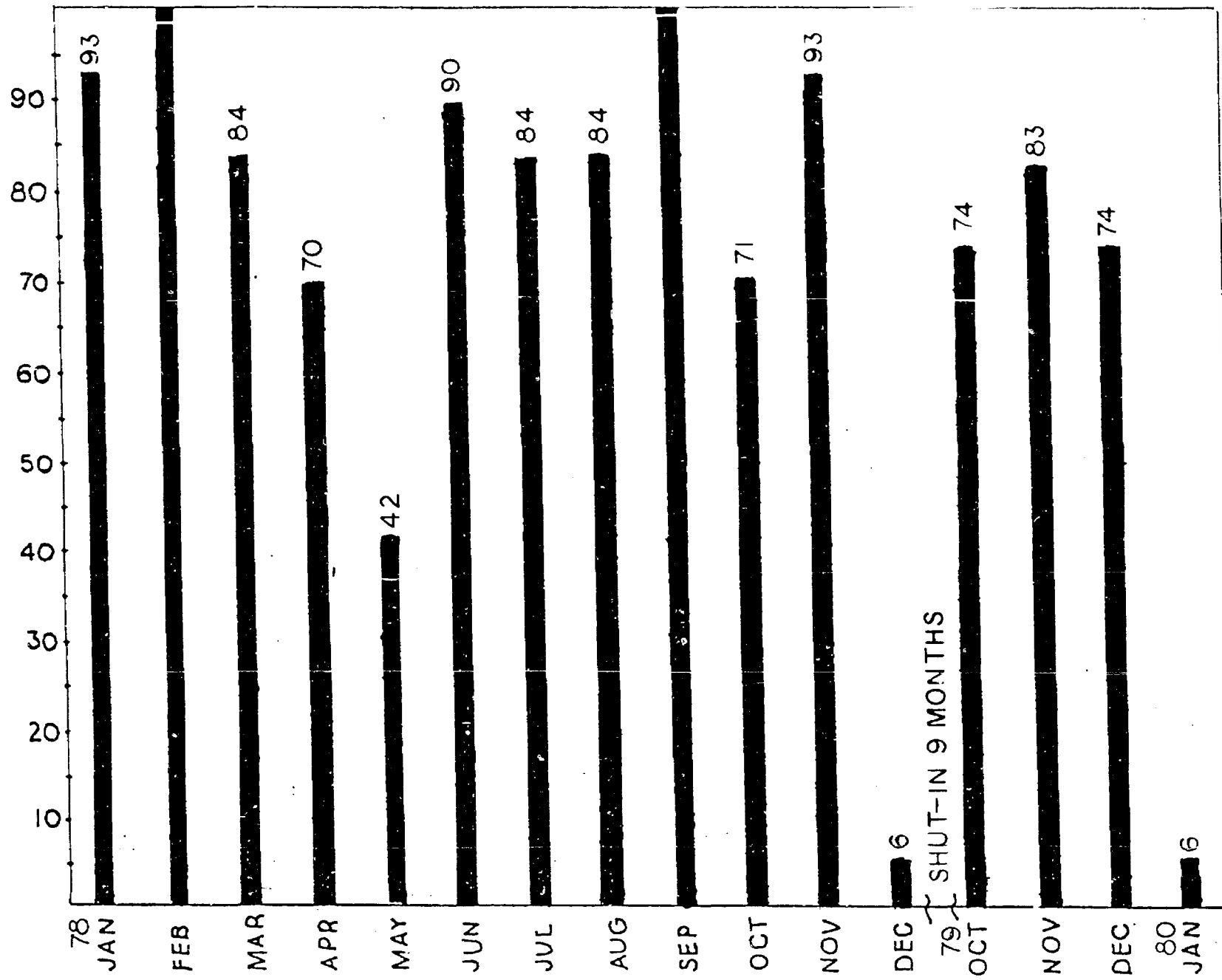


Exhibit 6
Case 6:821

ESTIMATED PRODUCTION LOSS
ANDREWS NO.1 BLINEBRY

ACTUAL PRODUCTION 16 MONTHS
EXCLUDES 9 MONTHS SHUT-IN PERIOD

1953 BO

NO. DAYS SHUT DOWN
DUE TO LOW PRESSURE AND
MALFUNCTIONING PLUNGER LIFT

137

ESTIMATED LOSS
137 DAYS X 5 BOPD

685 BO

Exhibit 7
Case 6821

ESTIMATED PRODUCTION INCREASE
DUE TO ADDITIONAL DRAWDOWN EFFECTED BY BEAM PUMPING

WELL: ANDREWS NO. 1

ZONE: DRINKARD

SIBHP = 580 PSI [DATUM 5701']

FBHP = 454 PSI

TEST = 3 BOPD + 62 MCFPD [1/80]

VOGEL EQUATION: $\frac{q}{q_{max}} = 1 - 0.20 \frac{P_{wf}}{P} - 0.80 \left(\frac{P_{wf}}{P} \right)^2$

EST. FBHP WITH BEAM PUMP = 200 PSI 100 PSI

EST. PRODUCTION INCREASE = 4 BOPD 5 BOPD

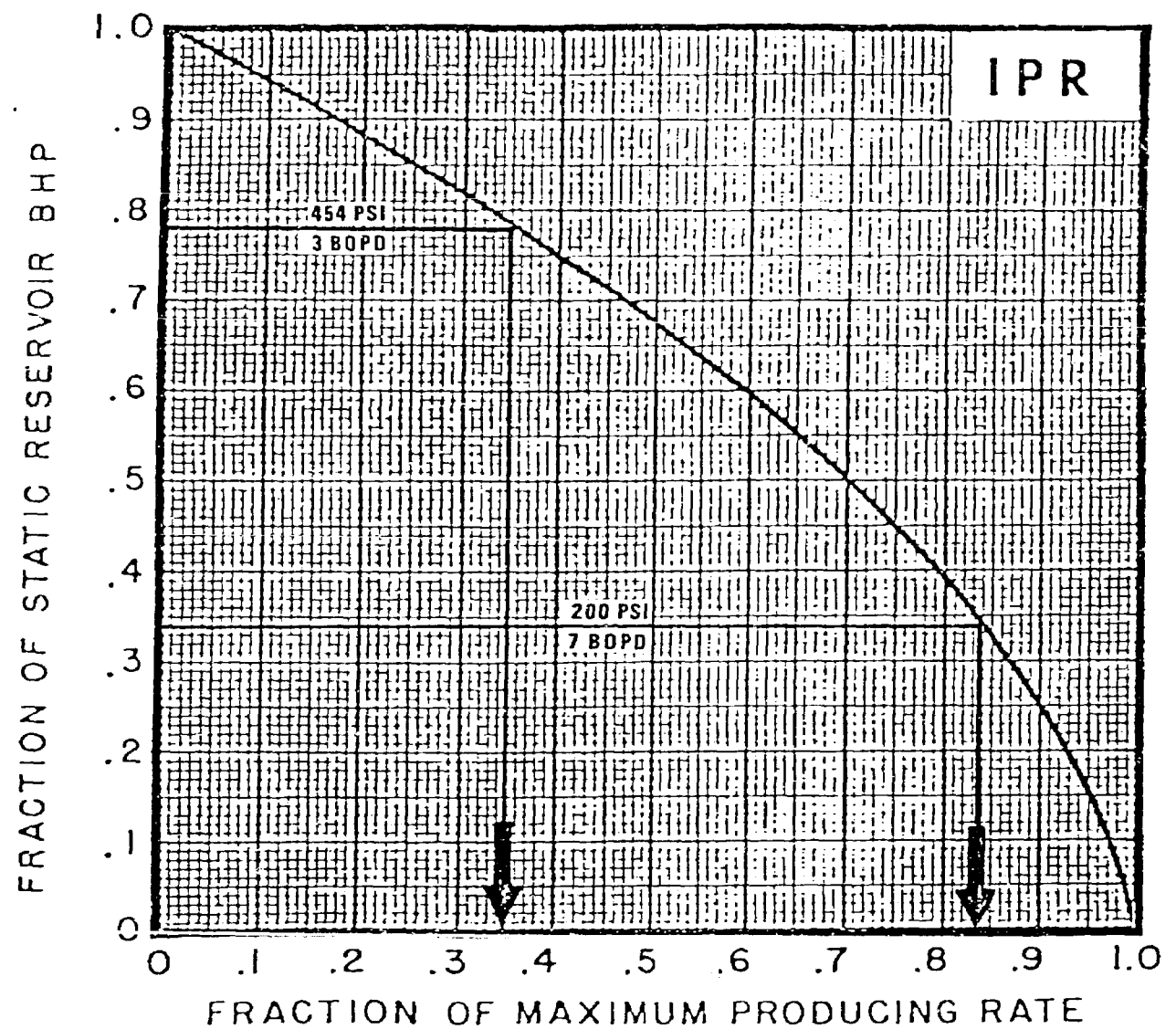


Exhibit B
Case 6821

EFFECT OF ARTIFICIAL LIFT ON BHFP

WELL: SMITH NO. 2

	BLINEBRY	ZONE	DRINKARD
SBHP	525 PSI		870 PSI
PBHP	————	50 PSI	————

WELL: ANDREWS NO. 1

SBHP	292 PSI		580 PSI
EST. PBHP	————	100 PSI	————

∴ BOTH ZONES WILL PRODUCE

NOTE: ZONE PRESSURE DATUM TOP BLINEBRY PERFORATION

Ex 4.6.7.9
Case 6521

CASE 6819: Application of V-F Petroleum, Inc. for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the McKee or Devonian formations, or both, underlying four 40-acre units, being the SE/4 SE/4, NE/4 SE/4, NW/4 SE/4, and SW/4 SE/4 of Section 21, Township 23 South, Range 37 East, North League Field, each to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said wells 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 wells and a charge for risk involved in drilling said wells.

CASE 6373: (Reopened and Readvertised) (Continued from January 30, 1980, Examiner Hearing)

In the matter of Case 6373 being reopened pursuant to the provisions of Order No. R-5875 which order created the East High Hope-Abo Gas Pool with temporary special rules therefor providing for 320-acre spacing. All interested parties may appear and show cause why the East High Hope-Abo Gas Pool should not be developed on 160-acre spacing units.

CASE 6820: Application of Boyd Operating Co. for a dual completion and unorthodox well location, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its Blakemore Federal Well No. 1 at an unorthodox Wolfcamp location in the center of Unit A of Section 20, Township 9 South, Range 26 East, to produce gas from the Wolfcamp and Abo formations.

CASE 6821: Application of Shell Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Blinebry and Drinkard production in the wellbore of its Andrews Well No. 1 located in Unit F of Section 14, Township 21 South, Range 37 East.

CASE 6822: Application of Mesa Petroleum Co. for a gas well classification and unorthodox location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the classification of its Jog State Well No. 1 as a retrograde gas condensate well with 320-acre spacing; applicant further seeks approval for the unorthodox location of said well in the center of Unit L of Section 2, Township 24 South, Range 32 East, the S/2 of said Section 2 to be dedicated to the well.

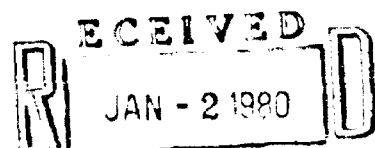
CASE 6767: (Continued from February 13, 1980, Examiner Hearing)

Application of Alpha Twenty-One Production Company for two non-standard gas proration units, unorthodox well location, and approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 40-acre non-standard proration unit comprising the NW/4 NW/4 of Section 27, Township 25 South, Range 37 East, Jalmat Gas Pool, to be dedicated to El Paso Natural Gas Company's Harrison Well No. 2, and also a 200-acre unit comprising the S/2 N/2 and NE/4 NW/4 of said Section 27 to be dedicated to a well to be drilled at an unorthodox location 1980 feet from the North line and 560 feet from the West line of Section 27. Applicant further seeks a finding that the drilling of the latter well is necessary to effectively and efficiently drain that portion of an existing proration unit which cannot be so drained by the existing well.

Dan
Oval 1975
Rec. Schedule
Shel DNC
Application
Feb 27th Hearing

DAN NUTTER

Act for Reg-
chk w/ Owen
Gaping for
date
(~~2/13~~ 2/13 or 2/27)

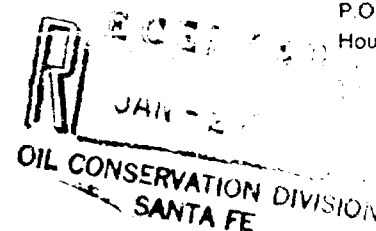


OIL CONSERVATION DIVISION
SANTA FE
December 28, 1979

Shell Oil Company



P.O. Box 991
Houston, Texas 77001



Energy and Minerals Department
ATTN Mr. Dan Nutter
Oil Conservation Division
Santa Fe, NM 87501

Gentlemen:

SUBJECT: APPLICATION FOR DOWNHOLE COMMINGLE
SHELL ANDREWS NO. 1,
UNIT LETTER F, SECTION 14, 21S, 37E,
LEA COUNTY, NM

Case 6871

By letter dated December 3, 1979, we requested administrative approval for permission to commingle production from the Drinkard and Blinebry pools in Shell's Andrews No. 1, located 1980' FN and WL, Unit letter F, Section 14, 21S, 37E, Lea County, New Mexico.

On December 18th we were advised that our request could not be approved because the extrapolated pressure differential was excessive. This decision was based on a "rule of thumb" where one zone's pressure can not exceed the other by more than 200 percent. Based on pressure data submitted with our commingling application, our calculations indicate the following:

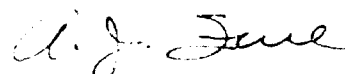
Zone	Bomb Depth(ft)	Meas. Press.	Top Blinebry Perfs.	Press.Gradient psi/ft	Δ ft.	ΔP	Pressure Corrected to top Blinebry Perfs
Blinebry	5750	300	5701	0.17	49	8	292
Drinkard	6293	588	5701	0.014	592	8	580

$$580/292 \times 100 = 199 \text{ percent}$$

This analysis shows the shut in pressures fall within the acceptable limits. The Blinebry zone no longer flows steadily; it is becoming increasingly difficult to keep it on stream, and as a result production is being lost continuously. Our experience with artificial lift in commingled wells has been very good. We feel that with artificial lift we can 1) maintain both zones in a pumped off condition, 2) draw the pressure down below 300 psig, thereby reducing the chances for cross-flow. Installation of artificial lift without commingling would necessitate abandonment at one of the zones.

Based on the foregoing we request that you reconsider your decision and grant administrative approval to downhole commingle the Blinbry and Drinkard zones in Shell Andrews No. 1. If administrative approval cannot be granted, please schedule an examiner hearing for this application.

Yours very truly,



For: R. L. Easterwood
Manager Production Administration
Mid-Continent Division

AJF:LN

Don: I called (12-17-79) for A.J. Fore or
R.L. Easternwood. Neither was "available" so
I left message with a secretary. On 12-18-79
a different female called back (presumably a clerk
or secretary in Prod. Dept) and I gave same
message again; This in effect was "We can't
approve Administratively because of pressure
differential. Earliest hearing date available is 1/16/80,
do you want it then?" She was supposed to find
out and call back. So far, no call.

Shell Oil Company



P.O. Box 991
Houston, Texas 77001

December 3, 1979

Energy and Minerals Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Gentlemen:

SUBJECT: APPLICATION FOR DOWNHOLE COMMINGLE,
SHELL ANDREWS NO. 1
LOCATED 1980'FNL and 1980'FWL,
UNIT LETTER F, SECTION 14, T21S, R37E,
LEA COUNTY, NEW MEXICO

Shell Oil Company respectfully requests administrative approval under the provisions of Rule 303-C to commingle within the wellbore production from the Drinkard and Blinebry pools in Shell Andrews No. 1, located 1980'FNL and 1980'FWL, Unit Letter F, Section 14, T21S, R37E, Lea County, New Mexico.

The subject well is currently being produced dually with both the Blinebry and Drinkard flowing up strings of 2" and 2 1/16" tubing. The two zones are presently being commingled at the battery by New Mexico Oil Conservation Commission Order No. PC-325.

Both the Blinebry and Drinkard are in a steady state of decline. When downhole commingling is approved, we propose to install artificial lift to more economically and efficiently produce both zones.

A copy of this letter has been sent to all offset operators by certified mail to serve as proper notification.

Yours very truly,

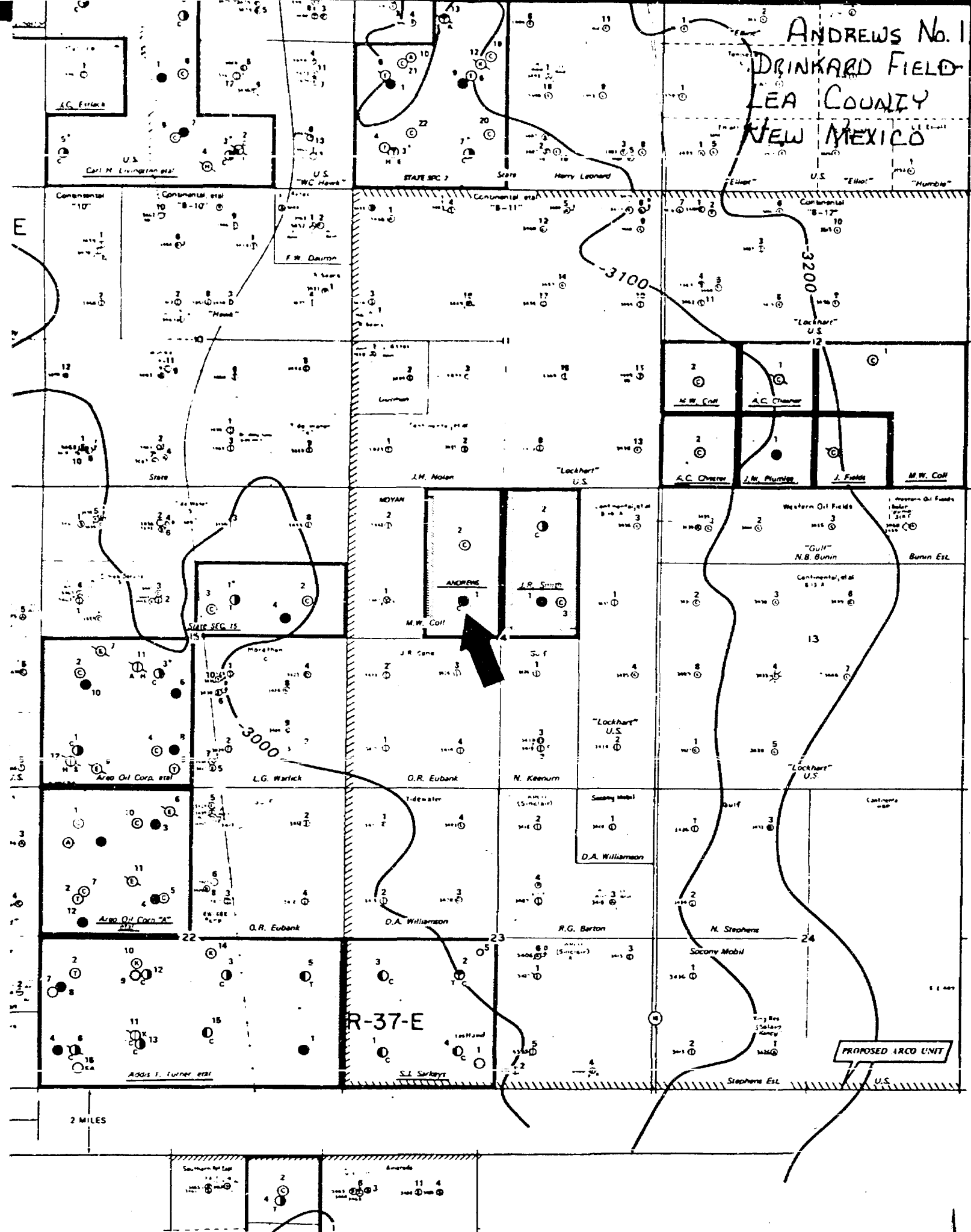
A. J. Fure

For: R. L. Easterwood
Manager Production Administration
Mid-Continent Division

SJH:BL

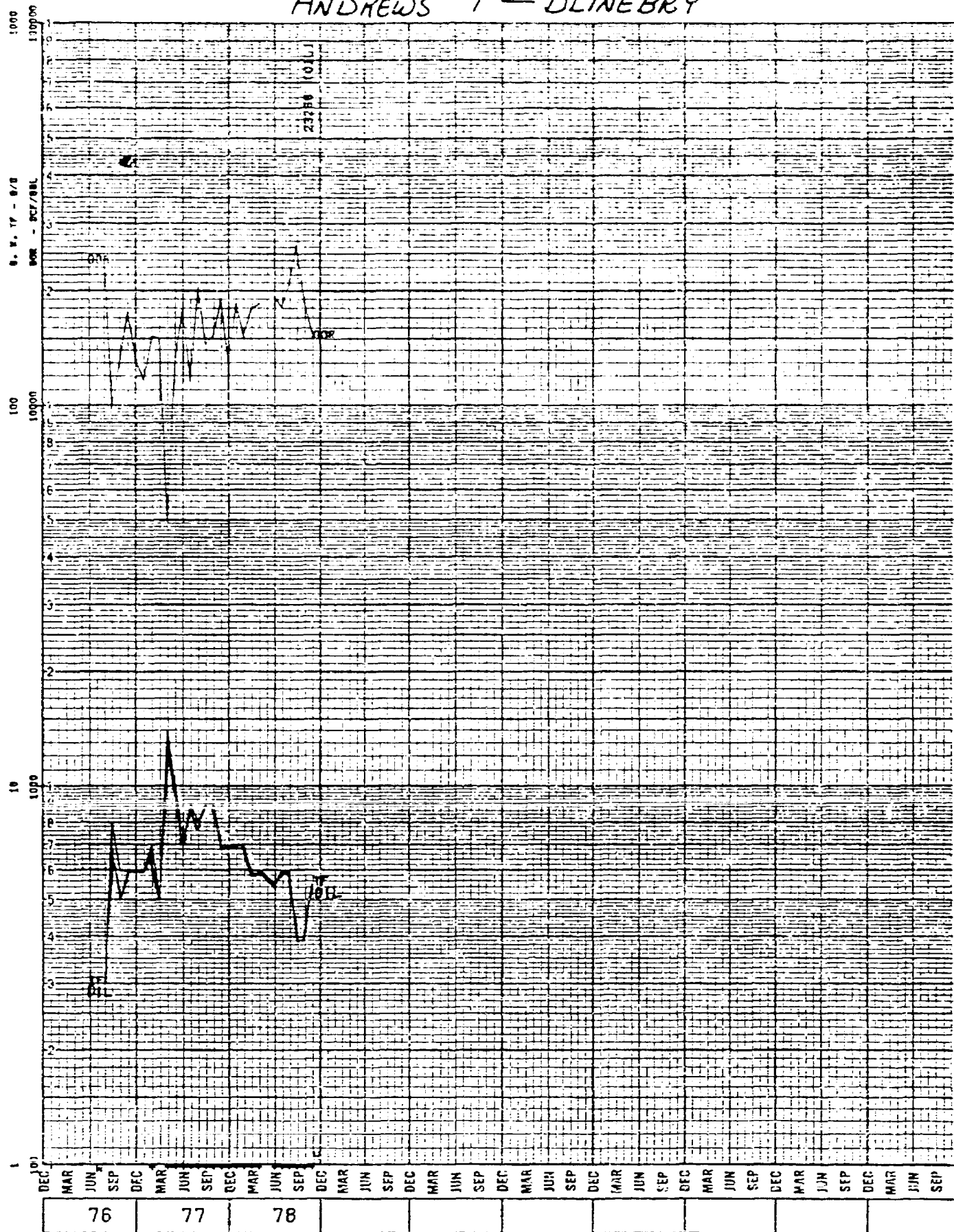
*Shell w/ Shell
in Houston called
12/20/79
he said they will re-test
and let us know
whether they want
to go for log
Don*

ANDREWS No. 1
DRINKARD FIELD
LEA COUNTY
NEW MEXICO

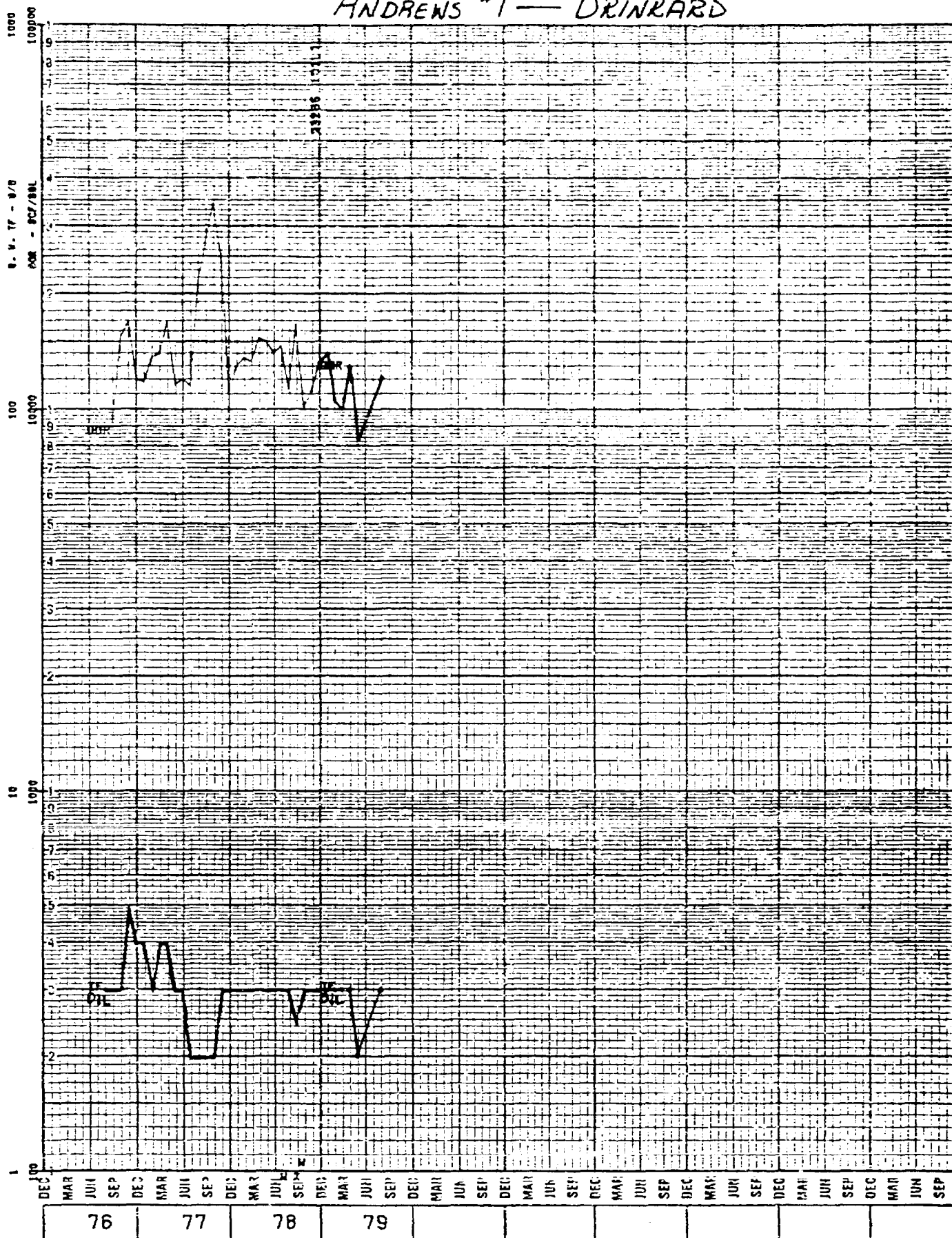


PROPOSED ARCO UNIT

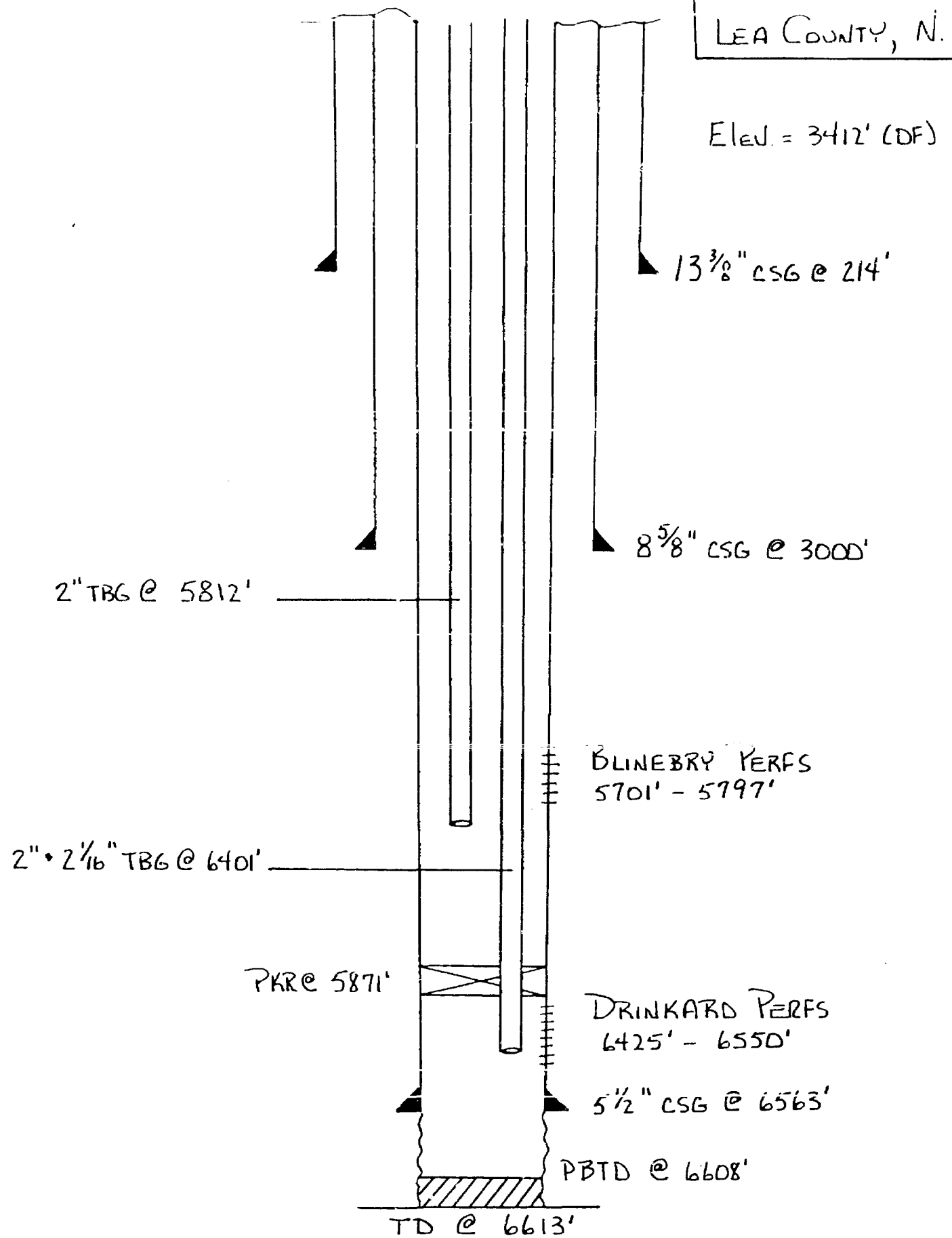
ANDREWS #1 - BLINEBRY



ANDREWS #1 — DRINKARD

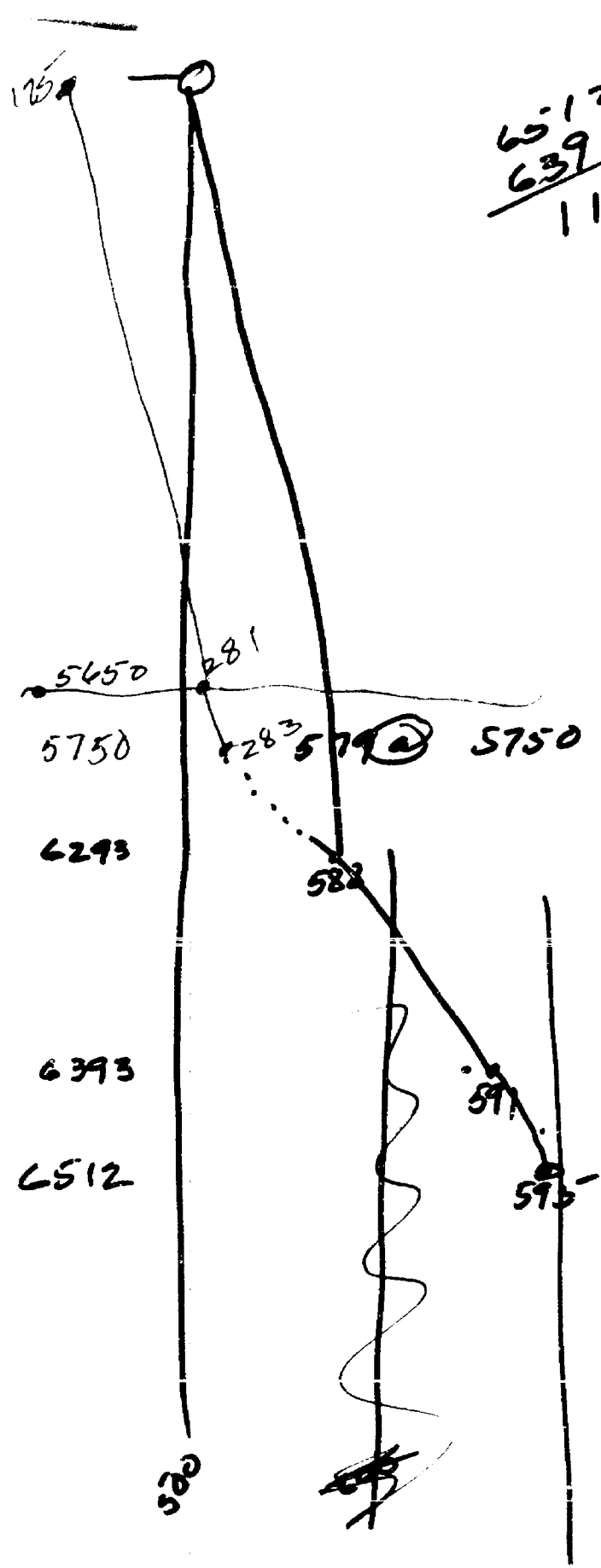


ANDREWS NO. 1
DRINKARD FIELD
LEA COUNTY, N. MEX.



175
106
281

6512
6393
119



204.6%
48.9%

6293
588

6293
5650
643

588
9
579

Depth D	Time	Press., P, psig	ΔP	Static Test		
				ΔD	Gradient	
0	5/hrs	500				
6293	P	588	88	6293'	.014	
6393		591	3	100'	.030	
* BHP Projected To Datum Using .030 Psi/ft						
Time	Press. @ _____ ft	Build-up test		Tubing Press.	Casing Press.	Height of Fluid
		Δt hrs	$\frac{t}{\Delta t} + 1$			
		No Build up Taken				

1- RR Fols - 14C
1- Cy Jones - Hobbs
1- R G Stutenville
1- File

Company Shell Oil Company
 Lease Andrews Well No. 1
 Field Blindhorn State New Mexico
 Test Date 11-14-29

Producing Formation Blind berry
Elevation (CHF, DF, KB, etc.) ()
Datum () subsea, or ()
Tubing Obstruction at 5782' SN.
Production Packer at _____
Perforations _____

Instrument Data

Company Running Survey Sheil Oil
 Element-Range & No. 2300 PSI / 8383-m
 Clock - Range & No. 3 hr / 1388
 Calibration Date 11-1-79

Static Pressure Data

Test Depth	5750	64	ft
Pressure at Datum ()			psig
Shut-in Time	51		hrs
P _i at Datum			psig
Shut-in Tubing Pressure	125		psig
Shut-in Casing Pressure			psig
Top of Oil			
Top of Water			
Temperature at _____ feet			°F
Date of Last Test			
Pressure @ Datum, Last Test			psig
Shut-in Time, Last Test			

Flow Test Data

Test Date	_____
Choke Size	_____ in
Period of Stabilized Flow	_____ hrs
Stabilized Production (q)	
Oil	<u>5.88</u> bbls/day
Gas	<u>140</u> MCF/day
Water	<u>.12</u> bbls/day
Flowing Tubing Pressure	_____ psig
Flowing Casing Pressure	_____ psig
Cumulative Production (Q)	
Oil	_____ bbls
Gas	_____ MCF
Water	_____ bbls
Effect. Prod' Life, $t=24 Q/q$	_____ hrs

Remarks:

SURVEYOR

[illegible]

NEW MEXICO OIL CONSERVATION COMMISSION

GAS-OIL RATIO TESTS Down Hole Commingle Permission

C-116
Revised 1-1-65

Operator Shell Oil Company		Pool Blinebry - Drinkard				County Lea									
Address P. O. Box 576, Houston, TX 77001						TYPE OF TEST - (X) <input checked="" type="checkbox"/>		Scheduled <input type="checkbox"/>		Completion <input type="checkbox"/>		Fractured <input checked="" type="checkbox"/>			
LEASE NAME	WELL NO.	LOCATION				DATE OF TEST	SIZE	TUB. PRESS.	DAILY ALLOW. ABLE	LENGTH OF TEST HOURS	PROD. DURING TEST				GAS - OIL RATIO CU FT/BBL
		U	S	T	R						WATER BBL.	GRAV. OIL	OIL BBL.	GAS H.C.F.	
Andrews (Blinebry)	1	F	14	21	37	11-04-79	48	50		24	0	38.0	6	140	23,333
Andrews (Drinkard)	1	F	14	21	37	11-03-79	32	40		24	0	35.5	3	53	17,667

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.

Gas volume must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 301 and appropriate pool rules.

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

A. Ramirez A. Ramirez
(Signature)
Supervisor Oil Accounting
(Title)

11-20-79

OFFSET OPERATORS

J. R. CONE
P. O. BOX 871
LUBBOCK, TX 79408

GETTY OIL COMPANY
P. O. BOX 1404
HOUSTON, TX 77001

GULF OIL CORPORATION
P. O. BOX 1150
MIDLAND, TX 79702

MOBIL OIL CORPORATION
P. O. BOX 1800
HOBBS, NM 88240

Shell Oil Company



P.O. Box 991
Houston, Texas 77001

December 3, 1979

Energy and Minerals Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Gentlemen:

SUBJECT: APPLICATION FOR DOWNHOLE COMMINGLE,
SHELL ANDREWS NO. 1
LOCATED 1980'FNL and 1980'FWL,
UNIT LETTER F, SECTION 14, T21S, R37E,
LEA COUNTY, NEW MEXICO

Shell Oil Company respectfully requests administrative approval under the provisions of Rule 303-C to commingle within the wellbore production from the Drinkard and Blinebry pools in Shell Andrews No. 1, located 1980'FNL and 1980'FWL, Unit Letter F, Section 14, T21S, R37E, Lea County, New Mexico.

The subject well is currently being produced dually with both the Blinebry and Drinkard flowing up strings of 2" and 2 1/16" tubing. The two zones are presently being commingled at the battery by New Mexico Oil Conservation Commission Order No. PC-325.

Both the Blinebry and Drinkard are in a steady state of decline. When downhole commingling is approved, we propose to install artificial lift to more economically and efficiently produce both zones.

A copy of this letter has been sent to all offset operators by certified mail to serve as proper notification.

Yours very truly,

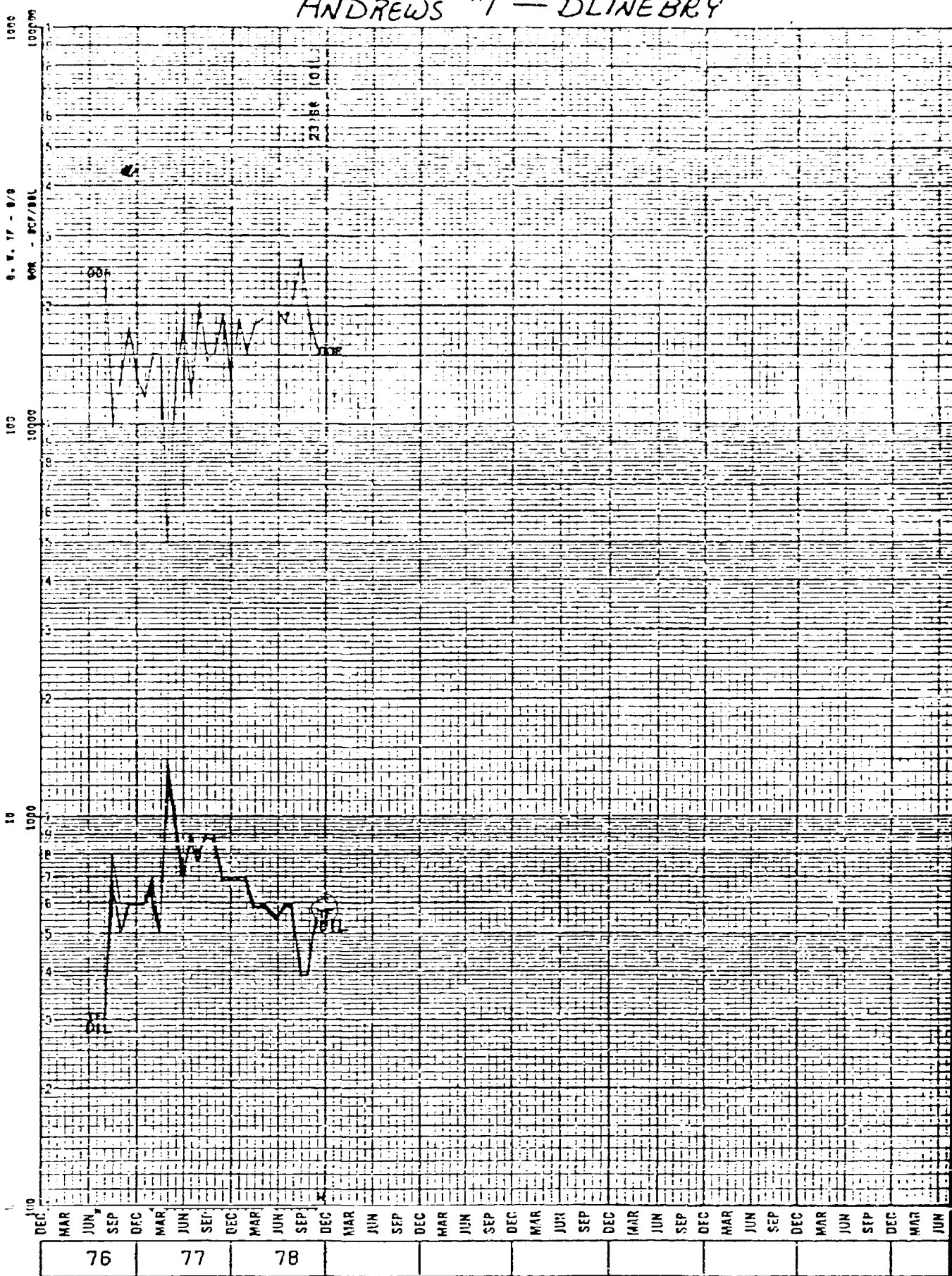
A handwritten signature in cursive script, appearing to read "R. L. Easterwood".

For: R. L. Easterwood
Manager Production Administration
Mid-Continent Division

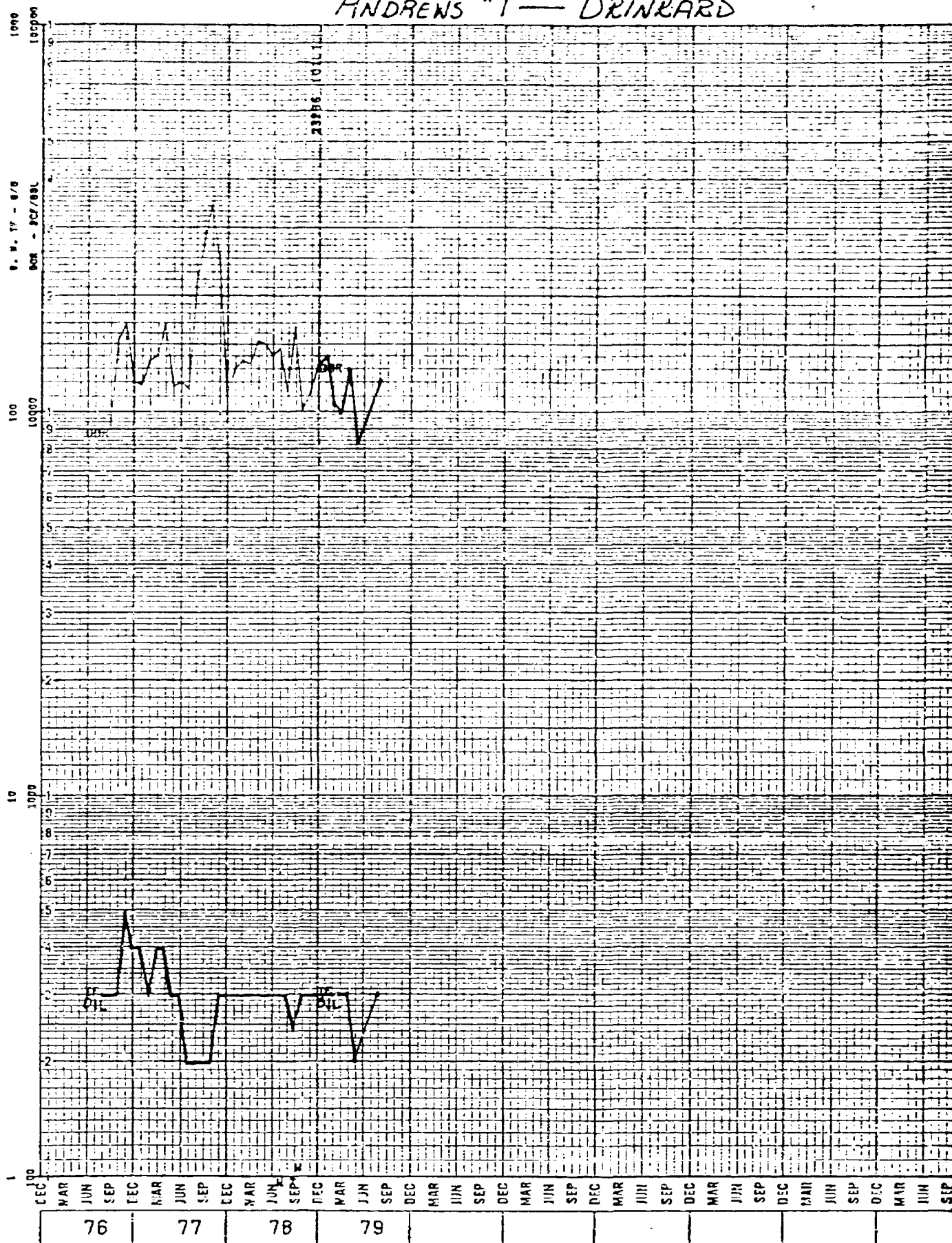
SJH:BL

ANDREWS #1 - BLINEBRY

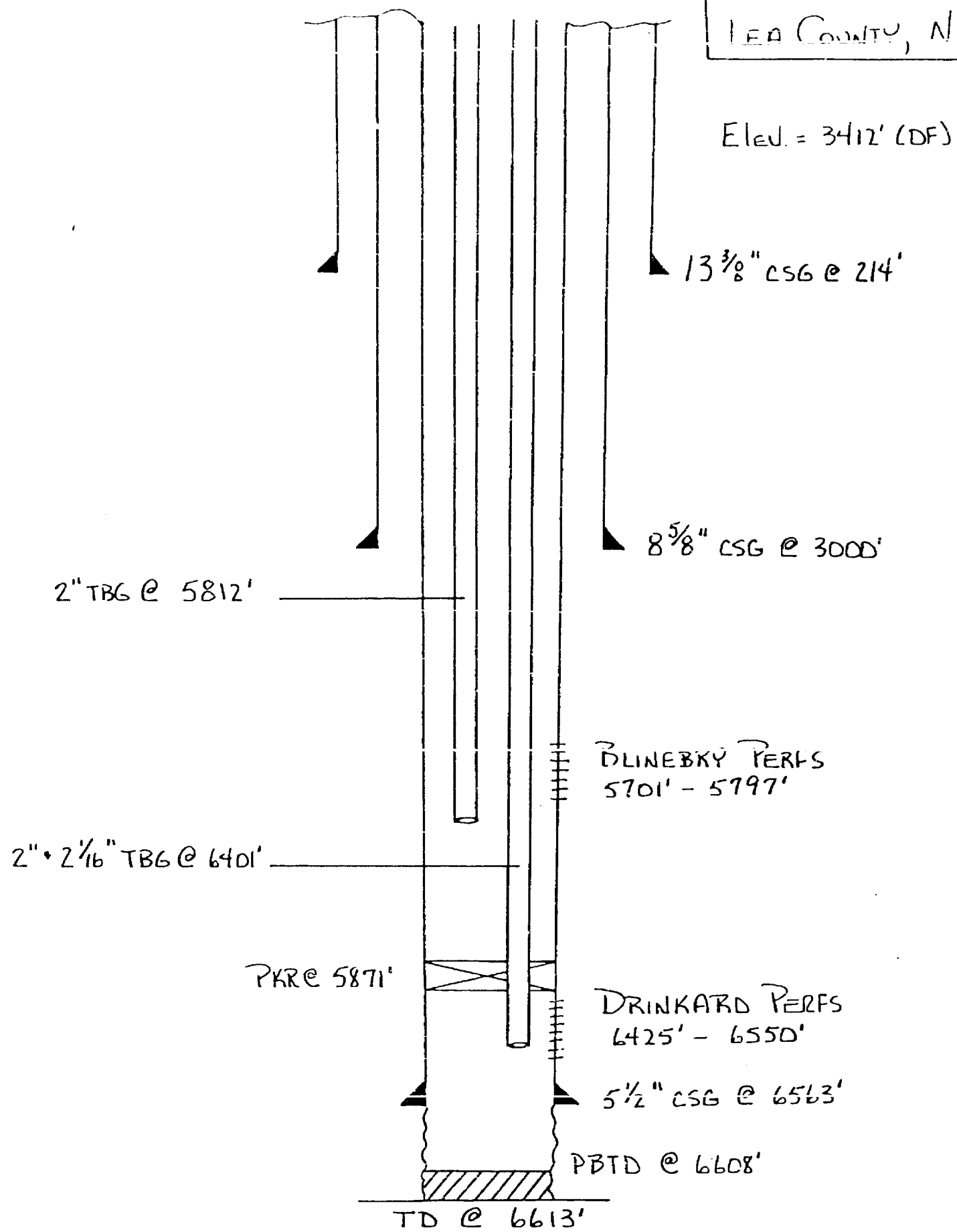
16000



ANDREWS #1 — DRINKARD



ANDREWS NO. 1
DRINKARD FIELD
LEA COUNTY, N. MEX.



SURVEYOR

Depth D	Time	Press., P, psig	ΔP	Static Test		
				ΔD	Gradient	
0	5/hrs	500				
6293	7	588	88	6293'	.014	
6393		591	3	100'	.030	
* BHP Projected To Datum Using .030 psi/ft						
Time	Press. (@) ft	Build-up test		Tubing Press.	Casing Press.	Height of Fluid
		Δt hrs	$\frac{t}{\Delta t} + 1$			
		MC Build Up Taken				

1- Cy. Jones - Hobbs
1- R. G. Staterville
1- File

Company Shell Oil Company
 Lease Andrews Well No. 1
 Field Blindhorn State New Mexico
 Test Date 11-14-29

Producing Formation Blind berry
Elevation (CHF, DF, KB, etc.) 1
Datum _____ subsea, or 1
Tubing Obstruction at 5282' - SN.
Production Packer at _____
Perforations _____

Instrument Data

Company Running Survey 5hr 11 0.1
Element—Range & No. 2300 PSI / 18383~
Clock — Range & No. 3 hr / 1388
Calibration Date 11-1-79

Static Pressure Data

Test Depth	5750	61. ft
Pressure at Datum ()		psig
Shut-in Time	51	hrs
P _i at Datum		psig
Shut-in Tubing Pressure	175	psig
Shut-in Casing Pressure		psig
Top of Oil		
Top of Water		
Temperature at _____ feet		°F
Date of Last Test		
Pressure @ Datum, Last Test		psig
Shut-in Time, Last Test		

Flow Test Data

Test Date	
Choke Size	in
Period of Stabilized Flow	hrs
Stabilized Production (q)	
Oil	5.88 bbls/day
Gas	140 MCF/day
Water	.12 bbls/day
Flowing Tubing Pressure	psig
Flowing Casing Pressure	psig
Cumulative Production (Q)	
Oil	bbls
Gas	MCF
Water	bbls
Effect. Prod' Life, $t=24 Q/q$	hrs

Remarks:

SURVEYOR

[illegible]

Operator Shell Oil Company		Pool Blinebry - Drinkard				County Lea									
Address P. O. Box 576, Houston, TX 77001						TYPE OF TEST - (X) <input checked="" type="checkbox"/>		Scheduled <input type="checkbox"/>		Consolidation <input type="checkbox"/>		Fracture <input checked="" type="checkbox"/>			
LEASE NAME	WELL NO.	LOCATION				DATE OF TEST	SIZE	T.B.G. PRESS	DAILY ALLOW. ABLE	TEST HOURS	PROD. DURING TEST				GAS - OIL RATIO CU. FT./100
		U	S	T	N						WATER BBL'S.	GRAV. OIL	OIL BBL'S.	GAS H.C.F.	
Andrews (Blinebry)	1	F	14	21	37	11-04-79	48	50		24	0	38.0	6	140	23,333
Andrews (Drinkard)	1	F	14	21	37	11-03-79	32	40		24	0	35.5	3	53	17,667

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Report casing pressure in lieu of tubing pressure for any well producing through casing.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 301 and appropriate pool rules.

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

A. Ramirez A. Ramirez
(Signature)
Supervisor Oil Accounting

(Title)

11-20-79

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MIDLAND, TX 79702

MOBIL OIL CORPORATION
P. O. BOX 1800
HOBBS, NM 88240

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. 6821

Order No. R-6170

APPLICATION OF SHELL OIL COMPANY

FOR DOWNHOLE COMMINGLING, LEA

COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on February 27
19 80, at Santa Fe, New Mexico, before Examiner Richard L.
Stamets.

NOW, on this _____ day of _____, 19 80, 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, Shell Oil Company, is
the owner and operator of the Andrews Well No. 1,
located in Unit F of Section 14, Township 21 South,
Range 37 East, NMPM, Lea County, New Mexico.

(3) That the applicant seeks authority to commingle
Blinebry and Drinkard production
within the wellbore of the above-described well.

(4) That from the Blinebry zone, the subject well is capable of low marginal production only.

(5) That from the Drinkard zone, the subject well is capable of low marginal production only.

(6) That the proposed commingling may result in the recovery of additional hydrocarbons from each of the subject pools, thereby preventing waste, and will not violate correlative rights.

(7) That the reservoir characteristics of each of the subject zones are such that underground waste would not be caused by the proposed commingling provided that the well is not shut-in for an extended period.

(8) That to afford the Division the opportunity to assess the potential for waste and to expeditiously order appropriate remedial action, the operator should notify the Hobbs district office of the Division any time the subject well is shut-in for 7 consecutive days.

(9) That in order to allocate the commingled production to each of the commingled zones in the subject well, _____ percent of the commingled _____ production should be allocated to the Blinebry zone, and _____ percent of the commingled _____ production to the Drinkard zone.

~~(ALTERNATE)~~

(9) That in order to allocate the commingled production to each of the commingled zones in the wells, applicant should consult with the supervisor of the Hobbs district office of the Division and determine an allocation formula for each of the production zones.

IT IS THEREFORE ORDERED:

(1) That the applicant, Shell Oil Company, is hereby authorized to commingle Blinebry and Drinkard production within the wellbore of the Andrews Well No. 1, located in Unit F of Section 14, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico.

(2) That the applicant shall consult with the Supervisor of the Hobbs district office of the Division and determine an allocation formula for the allocation of production to each zone in each of the subject wells.

(ALTERNATE)

(2) That _____ percent of the commingled production shall be allocated to the Blinebry zone and _____ percent of the commingled production shall be allocated to the Drinkard zone.

(3) That the operator of the subject well shall immediately notify the Division's Hobbs district office any time the well has been shut-in for 7 consecutive days and shall concurrently present, to the Division, a plan for remedial action.

(4) 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.