CASE NO.

635/

APPlication,
Transcripts,
Small Exhibits,

ETC.

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION STATE LAND OFFICE BLDG. SANTA FE, NEW MEXICO 3 January 1980

EXAMINER HEARING

IN THE MATTER OF:

Case 6357 being reopened pursuant to) the provisions of Order No. R-5853,) which order established temporary special rules and regulations for the South Peterson-Pennsylvanian Pool, with provisions for 80-acre spacing.

CASE 6357

BEFORE: Richard L. Stamets

APPEARANCES

TRANSCRIPT OF HEARING

For the Oil Conservation Division:

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

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SALLY W. BOYD, C.S.R. Rt. 1 Box 193-B Santa Fe, New Mexico 87501 Phone (305) 455-7409 3

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Case 6357?

MR. STAMETS: At this time we'll recall Case 6357, which was heard on November 28th, 1979.

At that time the Division heard testimony in Case 6357 but the case had failed to appear in the Portales newspaper.

It is being recalled at this time. It has been advertised in the Portales newspaper.

Is there any additional testimony in

There is none and the case will be taken under advisement.

(Hearing concluded.)

REPORTER'S CERTIFICATE

I, SALLY W. BOYD, a Certified Shorthand Reporter, DO HEREBY CERTIFY that the foregoing and attached 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 from my notes taken at the time of the hearing.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 6

Oil Conservation Division

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

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STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION STATE LAND OFFICE BLDG. SANTA FE, NEW MEXICO 28 November 1979

EXAMINER HEARING

IN THE MATTER OF:

Application of Tenneco Oil Company for the rescission of special pool rules, Eddy County, New Mexico.

CASE 6357

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

APPEARANCES

For the Oil Conservation Division:

Ernest L. Padilla, Esq. Legal Counsel for the Division State Land Office Bldg. Santa Fe, New Mexico 87501

MR. STAMETS: Call next Case 6751.

MR. STAMETS: The applicant in this case

MR. PADILLA: Application of Tenneco Oil

Company for the rescission of special pool rules, Eddy County

has requested that it be continued until the December 12th

New Mexico.

Examiner Hearing, and the case will be so continued.

(Hearing concluded.)

REPORTER'S CERTIFICATE

•

I, SALLY W. BOYD, a certified shorthand reporter,

DO HEREBY CERTIFY that the foregoing and attached 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

from my notes taken at the time of the hearing.

Sally W. Boyd, C.S.R.

I do he

the Date heard by his

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Oil Conservation Division

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STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
28 November 1979

EXAMINER HEARING

IN THE MATTER OF:

Case 6357 being reopened pursuant to CASE the provisions of Order No. R-5853, 6357 which order established temporary special rules and regulations for the South Peterson-Pennsylvanian Pool with provisions for 80-acre spacing.

BEFORE: Richard L Stamets

TRANSCRIPT OF HEARING

APPEARANCES

For the Oil Conservation Division:

Ernest L. Padilla, Esq.
Legal Counsel for the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant:

William F. Carr, Esq. CAMPBELL & BLACK P. A. Jefferson Place Santa Fe, New Mexico 87501

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I'N DEX

THOMAS E. BROWN

Direct Examination by Mr. Carr

RON SUMNER

Direct Examination by Mr. Carr Cross Examination by Mr. Stamets

THOMAS E. BROWN RECALLED

Direct Examination by Mr. Carr

EXHIBITS

Applicant Exhibit One, Cross Section

Applicant Exhibit Two, Packet

MR. STAMETS: Call now Case 6357.

MR. PADILIA: Case 6357 being reopened pursuant to the provisions of Order No. R-5853, which order established temporary special rules and regulations for the South Peterson-Pennsylvanian Pool with provisions for 80-acre spacing.

MR. STAMETS: We'll now call for appearances in Case 6357.

MR. CARR: May it please the Examiner, I am William F. Carr, Campbell and Black, P. A., appearing on behalf of the applicant. I have two witnesses who need to be sworn.

MR. STAMETS: Any other appearances in this case? Mr. Benaschek, do you intend to have any testimony or say anything today?

MR. BENASCHEK: Mr. Examiner, I don't know yet.

MR. STAMETS: Okay, well, we won't swear you yet, then. I'd like to have the witnesses stand and be sworn, please.

(Witnesses sworn.)

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acceptable?

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THOMAS E. BROWN

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

DIRECT EXAMINATION

BY MR. CARR:

Will you state your name and place of residence?

Thomas E. Brown, Midland, Texas.

Mr. Brown, by whom are you employed and Q. in what capacity?

I'm employed as a Senior Staff Geologist A. by Enserch Exploration, Incorporated.

Have you previously testified before this Commission and had your credentials accepted and made a matter of record?

Yes, I have.

Are you familiar with the application of Enserch in this case?

Yes.

MR. CARR: Are the witness' credentials

MR. STAMETS: They are.

Mr. Brown, will you briefly state what Enserch seeks with this application?

A. We're seeking to make the special pool rules permanent for 80-acre spacing.

Q. Have you prepared certain exhibits for introduction in this case?

A. Yes, I have.

Q. Will you please refer to what has been marked for identification as Enserch Exhibit Number One and explain to the Examiner what it is and what it shows?

A All right, then, this is Exhibit One.

This is a structural cross section that was made using your compensated neutron formation density logs, or porosity logs, that goes from the north side of the field in Section 30, down to Section 1 in the adjoining township and range to the south.

This cross section zigzags back and forth on the Enserch part of the acreage so that it covers every Enserch well in the field, so actually, every -- every well will be either on the east or west side of the field as it is at present, so this is all the logs that Enserch has drilled in the area.

We're talking about the Penn or Cisco pay in here, that we're talking about essentially the same unit. This line you see right across the top of here, is the top of the pay in the Penn in the field. It's above, some 110 foot above the Fusselman pay in the field.

At present only two wells are completed in this unit at this point. That's the Enserch No. 4 Lambirth, which is right here, and the Enserch No. 3 Lambirth, producing right here.

MR. STAMETS: Those are the wells marked in green on your map?

A. That's correct.

There was an additional producer in there, the Phillips Golston Well, off to the west, but it's been plugged.

Q Now, Mr. Brown, your structure map is contoured on top of what formation?

- A. On this pay, top of this pay.
- Q Pennsylvanian?
- A. That's correct.
- Q And the map also shows all of the Enserch leases and the Enserch wells in the area?
 - A. That's correct.
- Q. And there's a barrier between the Pennsylvanian and the Fusselman in this area, is that correct?
- A. That's correct. Right at the Penn detrital, which is the lower part of the Penn.
- Q. Is there anything further you'd like to add to your testimony, Mr. Brown?

A. No

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MR. CARR: I have nothing further of Mr. Brown on direct.

MR. STAMETS: Well, any questions of the

witness?

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MR. CARR: At this time I would like to call Mr. Ron Sumner.

RON SUMNER

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

DIRECT EXAMINATION

BY MR. CARR:

Will you state your full name and place of residence?

My name is Ronald R. Sumner and I live in Midland, Texas.

Mr. Sumner, by whom are you employed and in what capacity?

Enserch Exploration as a Senior Reservoir Engineer.

Have you previously testified before this Commission, had your credentials accepted and made a matter of record?

No, I have not.

Q. Would you briefly summarize your educational background and work experience for the Examiner?

A. I graduated from Texas Tech with a BS degree in electrical engineering in 1969 and spent five years as an electrical engineer with TexElectric Service Company, and then went to work for Union Oil Company of California for two years, where I spent a year as a production engineer and a year as a reservoir engineer, and then --

MR. STAMETS: Mr. Sumner, would you speak

up?

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A. Okay.

Q. Louder.

A. Okay, and then I went to work for Enserch Exploration for three years as a senior reservoir engineer, where I'm presently employed.

Q. Are you familiar with the area that's the subject of this application?

A. Yes I am.

Q. And you are familiar with the application?

A. Yes.

MR. CARR: Are the witness' qualifications acceptable?

MR. STAMETS: They are.

Q. Mr. Sumner, have you prepared certain exhibits for introduction in this case?

A. Yes, I have.

Q. And these are what have been marked Enserch Exhibit Number Two, which is a number of documents stapled together.

Mr. Sumner, will you refer to what has been marked Exhibit Number Two and, first, I direct your attention to the well data sheet and ask if you would review the data contained thereon?

A. The data that's on the well data sheet are the -- consist of the seven wells that we've drilled in the Penn Field there, and the Lambirth 3-A, and taken off of log calculations and consist of net feet of pay, average porosity, and average water saturation.

The Golston A-2 Well, which was the discovery well, is not listed on this sheet. The Lambirth No. 5 Well is a well that we have plugged and abandoned because we tested the Penn zone and it was not productive.

Q. How many of these wells are actually commercial Penn producers?

A. We have only two that are currently producing from the Pennsylvanian formation; they being the Lambirth No. 3 and the Lambirth No. 4.

Q But all of the wells do show Pennsylvanian pay section, is that correct?

A. Yes, sir. There's some question on the

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No. 6 because of its low porosity, but of course, we haven't tested it yet, so we don't know.

Mr. Sumner, I now refer you to what is included as your data sheet and accompanying production history for the Lambirth Well No. 4 and ask that you review this for the Examiner.

A. This is a production data sheet on the Lambirth No. 4, which shows the date of completion being the 9-6 of '78 through a perforated interval of 7696 to 7705. We initially potentialed the well for 204 barrels of oil plus 349 Mcf of gas and 58 barrels of water. The original bottom hole pressure was 2640 pounds; current production test of 71 barrels of oil plus 127 Mcf of gas and 64 barrels of water a day. Cumulative production, which is 37,376 barrels of oil and 44,550 Mcf of gas, that's effective through or to November 1, 1979.

The second page of that is just a graphic display of the production history of that well.

MR. STAMETS: Is that well flowing or pumping?

The No. 4 is currently pumping.

Will you now refer to the data sheet on your Lambirth Well No. 3 and the accompanying production history?

> A. The date of completion for the Lambirth

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Santa Fe, New Mexico 8750

No. 3 was 10-26 of '78 through the perforated interval 7702 to 7715. The absolute open flow test was 16,000 Mcf of gas per day with no condensate. Current production test is 22.4 barrels of oil per day plus 480 Mcf of gas per day, with a cumulative production of 4,190 barrels of oil and 171,293 Mcf of gas. That's also effective through November the 1st of 1979.

And the page following that is just a graphic display of that production history.

Q Now, is this classified as a gas or an oil well?

A. It is an oil well.

Q. Would you now refer to the bottom hole pressure survey for the Lambirth No. 4?

A This is a bottom hole pressure survey that was ran six days after we completed, or initially potentialed the No. 4. We found that the initial bottom hole pressure would be 2640 with an average effective permeability to oil of 14 -- or 13.4 Milledarcies.

Q. Will you now summarize the data on the bottom hole pressure survey for the Lambirth No. 3?

The Lambirth No. 3 shows an average effective permeability to gas of 11.5 Milledarcies, and this test was taken some three months after we completed this well.

Q. Will you summarize the information contained

reporting service Sente Sente

on your reservoir summary sheet?

A. The average porosity for the wells that we completed and evaluated in the Penn Field is an average porosity of 7 percent. We have an average interstitial water saturation of 21.3 percent; an average net pay thickness of 9.6; an average effective permeability to oil of 13.4 Milledarcies and an average effective permeability to gas of 11.5 Milledarcies; the average gravity of the oil is 42 degrees API at 60 degrees Fahrenheit, and the reservoir drive mechanism is solution gas drive.

Q Will you now refer to your minimum permeability table.

A. What we did on this was we took the average after determining the effective permeabilities in both the Lambirth 3 and 4 Wells, and we decided that our next objective would be to determine what the minimum permeability was required to drain 80 acres. So we decided that it essentially would take less for oil than it would for gas; or more for oil than gas, excuse me. We decided to use the Lambirth No. 4 productivity index coupled with the average net pay thickness of the Penn to determine this minimum value, and that minimum value came out to be 15.9 Milledarcies would be required to drain 80 acres.

We next knew that we had 13.4 Milledarcies of permeability in the Lambirth No. 4 and working that in

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algebraically, we found that that would effectively drain 67 acres, and since this is a difference of only -- well, it's 27 acres over 40-acre spacing and 13 acres under 80-acre spacing, we would like to recommend that the South Peterson-Penn Pool be developed on 80-acre spacing, with the wells being located within 150 feet of the guarter quarter section in order to effectively and efficiently drain the pool.

Now, Mr. Sumner, in your opinion has the acreage which is included within the South Peterson-Penn Pool been reasonably proven to be productive of hydrocarbons?

- A Yes, it has.
- 0. In the Pennsylvanian formation?
- A Yes, sir.
- Q Will granting the application avoid the drilling of unnecessary wells?
 - A. Yes, sir,
- Q In your opinion will granting the application reduce the risk which would result from the drilling of an excessive number of wells?
 - A Yes, sir.
- Now how are the wells under the temporary rules being spaced?
 - A. On 80 acres.
 - Q. And where are they located on the 80 acres?
 - A. Within the center of -- 150 feet of the

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center of the quarter quarter section.

Are all wells in the area spaced so as to conform with the present temporary rules?

A. Yes, sir.

Q. And you're proposing the same rules be made permanent?

A Yes, sir.

As to spacing. In your opinion will granting this application be in the interest of conservation, the prevention of waste, and the protection of correlative rights?

A. Yes, sir.

Q Was Exhibit Number Two prepared by you or under your direction and supervision?

A. Yes, sir.

MR. CARR: At this time, Mr. Examiner, we would offer into evidence Enserch Exhibit Number Two.

MR. STAMETS: Exhibit Number Two will be

MR. CARR: And I have nothing further on direct.

CROSS EXAMINATION

BY MR. STAMETS:

admitted.

Mr. Sumner, you've indicated Pennsylvanian

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zone on essentially all of these wells, and yet you're only producing two wells and you indicated one of them was dry in the Pennsylvanian. What's the status of the rest of those wells?

A They're all presently producers with the exception of the No. 5. It was dry in the Fusselman, also, so it's -- we're currently exploring possibilities of a water injection well in the Glorieta on it.

- Q What about the No. 1 and No. 6 and No. 7?
- A. They are all Fusselman wells.
- Q. Is there any reason that they cannot be produced from the Pennsylvanian?

A Well, not at a future date, no. Casing is too small right now to dual complete them.

- Q. But they could be produced, however?
- A Yes, sir, I believe they could.
- Now, is this field fully developed, in your opinion, or is there opportunity for additional development outside the area that's been drilled up?
- A. Well, it's not defined yet, I'd say that.

 I don't know for sure how much farther you're going to be able to go with it. You've got two dry holes to the north of you. I don't know whether they're shown on that map or not.
 - Q. They are.

	A.		1	And we've		got a	a	dry	hole	to	the	south	and	
one t	to the	west		eas	st.									

Q. How about the royalty interests under Section 31, are those different royalties? They all have the same name.

A. Now, Phillips Petroleum has some royalty and interest in there.

Q What about the well costs? You've got 13 acres in there not being drained. Would the oil under that acreage justify drilling another well?

- A. No, sir, I don't think so at this time.
- Q. How much oil is there?
- A. I'm not sure. I didn't go ahead and calculate it all the way for 13 acres.

Q. I believe that I would like to have the figure on how much oil remains on each of those tracts, what it's worth, what well costs are, in order to properly make a decision on whether they could be efficiently and economically developed.

MR. CARR: We'll submit that to you.

- Q Does Enserch have any drilling plans in this area?
- A. Yes, sir, we plan to drill one other well that I know of in Section 25.
 - Q. What would the location of that well be?

BY MR. CARR:

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I'm not sure. The geological department might could answer that. MR. CARR: I will call Mr. Brown for that. MR. STAMETS: Any other questions of this 3 4 witness? He may be excused. MR. CARR: I'd like to recall Mr. Tom 5 6 Brown. 7 8 THOMAS E. BROWN being recalled as a witness and having been previously sworn, 9 10 testified as follows, to-wit: 11 12 DIRECT EXAMINATION 13

of the royalty interest in Section 31?

drilled on a Sun farmout. It's ail --

Yes, I am.

MR. STAMETS: Okay.

developing this acreage? The acreage in the pool and the

Mr. Brown, are you familiar with the status

Are they common throughout that section?

That's correct. The Enserch wells are

MR. STAMETS: The royalties are common --

The royalties are common to all of them.

What future plans does Enserch have for

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surrounding acreage?

A. At present we plan to drill a well in the southeast of the southeast of Section 25 in 5 South, 33 East, and the present location, I don't know that we've made application, but we do plan to drill. The area will be 660 out of the south and east corner of that Section 25.

Q. And do you know approximately when Enserch plans to drill this well?

A. I think we plan to spud it before January 1st of '80.

MR. STAMETS: Any other questions of this witness?

Q. Was Exhibit Number One prepared by you?

A. Yes, it was.

MR. CARR: At this time we'd like to offer Enserch Exhibit Number One.

MR. STAMETS: The exhibit will be admitted.

MR. CARR: I have nothing further.

MR. STAMETS: The witness may be excused.

If there is nothing further in this case, the case will be taken under advisement.

(Hearing concluded.)

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REPORTER'S CERTIFICATE

I, SALLY W. BOYD, a Certified Shorthand Reporter,

DO HEREBY CERTIFY that the foregoing and attached 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 from my notes taken at the time of the hearing.

Silly W. Boyd C.S.R.

I do hereby coefficient the foregoing is a complete processing in the Eugenback Learning of Case 19.72. heard by me on 19.72.

Oll Conservation Division

General Court Reporting Service
General Court Reporting Service
Santa Fe, New Mexico 875

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION State Land Office Building Santa Fe, New Mexico 25 October 1978

EXAMINER HEARING

IN THE MATTER OF:

Application of Enserch Exploration, Inc.,) for pool creation and special pool rules,) Roosevelt County, New Mexico.

CASE 6357

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

APPEARANCES

For the Oil Conservation Division:

Lynn Teschendorf, Esq. Legal Counsel for the Division State Land Office Bldg. Santa Fe, New Mexico 87501

For the Applicant:

William F. Carr, Esq. CATRON, CATRON, AND SAWTELL 50 Old Santa Fe Trail Santa Fe, New Mexico 87501

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FREDERICK WILCOX Direct Examination by Mr. Carr Cross Examination by Mr. Nutter

EXHIBITS

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MR. NUTTER: Call Case Number 6357.

MS. TESCHENDORF: Case 6357. Application of Enserch Exploration, Inc., for pool creation and special pool rules, Roosevelt County, New Mexico.

MR. CARR: May it please the Examiner, I'm William F. Carr, Catron, Catron, and Sawtell, Santa Fe, appearing on behalf of the Applicant, Enserch Exploration, Inc., and I have one witness and four exhibits.

(Witness sworn.)

FREDERICK WILCOX

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

DIRECT EXAMINATION

BY MR. CARR:

Q. Will you state your name and place of residence?

- A. Frederick G. Wilcox, Midland, Texas.
- Q. By whom are you employed and in what position?
- A. I am employed by Enserch Exploration, Incorporated, as District Petroleum Engineer.
- Mr. Wilcox, have you previously testified before the Oil Conservation Division, had your credentials as a petroleum engineer accepted and made a matter of record?

Ä.	Yes,	I	have.

- Are you familiar with the area which is the subject of this application?
 - A. Yes, I am.
 - Q Are you familiar with the application?
 - A Yes, sir.
- Q. Will you state briefly what Enserch Exploration, Inc. is seeking by its application?
- A. We are seeking pool creation and special pool rules consisting of 80-acre spacing.

MR. CARR: Mr. Examiner, are the witness' qualifications acceptable?

MR. NUTTER: Yes, they are.

- Q (Mr. Carr continuing.) Will you please refer to what has been marked for identification as Exhibit Number One, and explain to the Examiner what it is and what it shows?
- A. This is a structure map in the area, the structure being mapped on top of the Pennsylvanian Formation; both subsea logs and also seismic has been used to structure this map.

To the north we have the Peterson Field and down in Section 31 is our -- in the southeast quarter is our No. 4 Well, for which this hearing was called, and then down to the southwest of this is the Tannehill Field, which

is a gas field. The Peterson Field in this area is an associated field.

This map also shows to the north of our No. 4 a Penn completion, which is 30 feet lower than our No. 4 Well, which has just been completed as a gas well.

- Q Mr. Wilcox, how close is the subject well, the Lamberth No. 4, to the Phillips-Goldston Well located in Section 36?
- A. It's approximately three-quarters of a mile east of the Phillips-Goldston Well.
- Q. And what field is the Phillips-Goldston Well. completed in?
 - A. The South Peterson Penn Field.
- Q. Were special rules ever promulgated for the South Peterson Pennsylvanian Field?
 - A. No, sir.
- Q. What is the current status of the Phillips-Goldston Well?
- A. The Phillips-Goldston Well has been -- was plugged and abandoned after recovering 1964 barrels.

MR. CARR: Mr. Examiner, we've requested in our application a new pool. Since filing the application we've discovered that we are within a mile of an existing pool and therefor it would be necessary to treat this application as an application for special pool rules for the

South Peterson Penn Field and also extending the South Peterson Penn.

MR. NUTTER: Okay. Now, the Goldston Well was plugged and abandoned what year or date?

A. I am not sure of that date. I believe it was the early '70s.

MR. NUTTER: And how many barrels did it produce?

A. I believe the records show 1964 barrels.

MR. NUTTER: Okay. And that's the only well

completed in that pool as of now until this well came along?

A. Yes sir yes sir until we completed the

A. Yes, sir. Yes, sir, until we completed the No. 4.

Q (Mr. Carr continuing.) Mr. Wilcox, where does the Lamberth No. 4 lie in respect to Enserch's Lamberth No. 3?

A. We are approximately a half a mile south of the Lamberth No. 3 with our No. 4 Well.

Q And is it correct that the Lamberth No. 3 is the well you were referring to as having been recompleted as a gas well?

A. Yes, sir.

Q. Now, the subject well is classified as an oil or gas well?

A. The subject well is classified as a gas well.

We had a --

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Q. Would that be Lamberth No. 4?

A. Yes, sir. The Lamberth No. 4 is classified as a gas well. It has approximately a 1350 gas/oil ratio with 45 degree API, gravity oil.

MR. NUTTER: Why is it classified as a gas well, then?

Q. The No. 4.

A. The number -- I'm sorry, it's classified as an oil well. I'm -- I misunderstood the question.

Q. Okay. The No. 4 is an oil well; the No. 3 is a gas well?

A. Yes.

0. Is that correct?

A. That's correct.

Q. And where is the No. 3 completed in regard to the No. 4?

A. It is completed in the same zone; however, 30 feet lower subsea.

Q. And how do you explain this?

A. The only way I can explain it is there is possibly a permeability barrier between the two wells.

Q. I think at this time, Mr. Wilcox, we'd better I'd like you to direct your attention to the subject well, the Lamberth No. 4, and state for the Examiner the exact

location.

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The location of the Lamberth No. 4 is 1980 from the east line, 660 from the south line, of Section 31, Township 5 South, Range 33 East.

And what acreage are you proposing be dedicated to this well?

We are proposing the 80 acres in the south half of the southeast quarter of Section 31.

Now, Mr. Wilcox, what is the gas/oil ratio in the Lamberth No. 4?

In the No. 4 it is approximately 1350 cubic feet per barrel.

And what is the gravity of the oil which is being produced from the Lamberth No. 4?

45 degrees API.

Is Enserch Exploration drilling additional wells in this area?

Yes, sir, we are drilling a well down in Section 8 of Township 6 South, Range 34 East.

Mr. Wilcox, will you refer to what has been marked for identification as Exhibit Number Two and explain to the Examiner what it is and what it shows?

Exhibit Number Two is a map, general map, of the area with the Pennsylvanian fields that have been assigned 80-acre spacing. Except for the Peterson Field, which

is shown at the north of the map, which has been assigned 160-acre spacing.

This shows the Pennsylvanian fields in the area that have been assigned 80-acre spacing. We believe that our discovery in this area, or our well in this area, is similar to these other fields.

- Q And is it your opinion that you can analogize from the other Pennsylvanian pools that now operate under rules that provide for 80-acre spacing?
 - A. Yes, sir.
- Q. Will you refer to what has been marked for identification as Exhibit Number Three and explain to the Examiner what it is and what it shows?
- A. Exhibit Number Three is a cross section through the Peterson Field, the South Peterson Field, and the Tannehill Field.

This shows the Amoco Peterson "B" 1 -
MR. NUTTER: Now, before you go any further -
Yes, sir.

MR. NUTTER: -- is that line of this cross section shown on an exhibit?

A. Yes, sir, it is shown on the cross section under --

MR. NUTTER: Okay, I found it.

A. Under the Ted Weiner (sic) Well, there, sir.

It's a little hard to see, it goes down --

MR. NUTTER: Okay, I just didn't have it unfolded right.

But we have taken a cross section through the general area from the Peterson Field to the north to the Tannehill Field to the south.

The Amoco Peterson "B" 1 shows a permeability barrier and a little lower structurally from the Peterson Field between our No. 3 and 4 Well, and seismic data indicates a low between the -- our Lamberth No. 4 and the Tannehill Field to the south.

Also on this map it shows the difference in elevation between our No. 3 gas well and our No. 4 oil well with the No. 3 being approximately 30 feet lower.

Mr. Wilcox, how many feet of pay have you encountered in the Lamberth No. 4?

We had 9 feet of pay in this well.

I'd ask you to refer to what has been marked as Exhibit Number Four and explain to the Examiner what it is and what it shows.

This was data from the drill stem test on the Lamberth No. 4. From this a permeability of 34 milledarses has been calculated.

Mr. Wilcox, in your opinion will one well drill 30 acres?

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A Drain?

Q Drain 80 acres.

A. Yes, sir, one well with this permeability should drain 80 acres.

Q Why are you not attempting to develop this pool on 40 acres?

A. Because of the thin section the economics of drilling on 40 acres are very questionable.

Q And what acreage are you requesting the Commission to include within the extension of this pool?

A. I'm requesting the south half of the southeast quarter of Section 31.

Q If special pool rules were adopted which provide for 80 acre spacing, will this, in your opinion, avoid the drilling of unnecessary wells?

A Yes, sir.

Q. In your opinion would it reduce the risk resulting from the drilling of an excessive number of wells?

A. Yes, sir.

Q Are all wells in this area drilled in such a way as to conform with the proposed 80-acre spacing pattern?

A. Yes, sir.

Q. Now, Mr. Wilcox, if further development in the pool and production history from the wells establish

SALLY WALTON BOYD CERNIFIED SHORTHAND REPORTER 1010Plaza Blanca (605) 471-2462 Santa Fe, New Mexico 87501

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that these wells cannot effectively drain 80 acres, could the pool subsequently be developed on 40-acre spacing pattern?

- A. Yes, sir, it can.
- Q Do you have any recommendation to make to the Division as to the spacing or location of any wells on the 30-acre spacing units which you propose, assuming, of course, that the application is approved?
- A. Yes, sir, we would request a regular location be 150 feet within the center of a quarter quarter section.

 Of either quarter quarter section.
- Q. What would be the top allowable for a standard proration unit in your 80-acre pool?
 - A. It would be 267 barrels a day.
 - Q. And how was this figure derived?
- A. This is from the New Mexico Commission depth bracket allowable on 80-acre spacing.
- Q. In your opinion will granting this application be in the best interest of conservation, the prevention of waste, and the protection of correlative rights?
 - A. Yes, sir, it will.
- Q Were Exhibits One through Four prepared either by you or under your direction and supervision?
 - A. Yes, sir.

MR. CARR: Mr. Examiner, at this time I would

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offer Exhibits One through Four.

MR. NUTTER: Applicant's Exhibits One through Four will be admitted in evidence.

MR. CARR: I have no further questions on direct.

CROSS EXAMINATION

BY MR. NUTTER:

- 0 I didn't get your name, sir?
- A Wilcox, Fred Wilcox.
- Q Mr. Wilcox, referring to your cross section here, apparently the Pennsylvanian well, which is a half mile or so to the north, has two sets of perforations in it, is that correct?

You have two different potentials shown here for different intervals.

- A. Yes, sir, it was completed in the Fusselman, also.
- Q. Then this lower set of perforations is the Fusselman?
 - A. Yes, sir.
- Q. So this BP at 7800 means base of Pennsylvanian or what?
 - A. No, that's bridge plug.
- o oh. So it's --

A. Oh, excuse me. Yes, sir, that is -- you're talking about our well there, I'm sorry.

Yes, sir, that well was initially completed in the Fusselman. The Fusselman was very tight. After we completed the No. 4 we expected oil in this well and decided to plug it back to the Pennsylvanian Formation, at which time we found a gas well.

- Q So you have this bridge plug here at 7900 feet?
- A. Yes, sir. Yes, sir, a bridge plug with 10 feet of cement on top of it, sir.
- Q. Well, now the initial potential here of 25 barrels of oil and 12 barrels of water was in the Fusselman.
 - A. Yes, sir, it was in the Fusselman.
 - Q And the pays in this well, then, at 7700 feet
 - A. Yes, sir.
- Q -- and at 7700 feet in the No. 4 Well are the identical pays but yet one is gas and one is oil?
- A. Yes, sir, they appear to correlate across there.
- Q They look quite similar, I agree. Do you have anything on the fluids that the No. 3 makes?
- A. The No. 3 had a gravity of approximately 64 degrees API.
 - Q. 64 degrees.

Yes, sir. There was very little fluids that

	I	1	
	2	we have recove	ered at this time.
t	3	Q	Does it look like an oil or does it what
	4	A.	No, sir, it is a very light color, straw
<u>.</u>	5	color.	
i.	6	Q.	It is a condensate, then.
•	7	. А.	It appears to be, yes, sir.
·	ş 8	Ω.	And this oil that you're producing out of
ř	9	the No. 4, th	is 45 degree, what's its appearance?
YD ITER	10	А.	It is more of a, oh, a yellowish green color.
SALLY WALTON BOYD SERVICED SHORTHAND REPORTER 1020 Plaza Blanca (605) 471-2467 Santa Fe, New Mexico 67601	11	I think would	be the best description of it.
SALLY WALTON E CERTIFIED SHORTHAND RE 1010 Plaza Blanca (808) 4 Santa Fe, New Mexico	12	Q.	It's not a black oil?
LY WAL	13	A.	No, it is not a black oil but it is a it
SALLY CERTIFIED. 1010Plaza Santa F	14	is a very mucl	n darker oil.
• -	15	Q.	Has there been any change in the producing
i 1	16	characteristic	es of the No. 4 since you put it on production?
\$ -	17	А.	Yes, sir, the production has declined on the
: .	18	well. At the	present time we're producing approximately
€ - *	19	150 barrels a	day.
F 43	20		It potentialed for 204.
Ye w	21	ρ.	How about the GOR?
;	22	A.	The GOR has remained relatively constant,
;	23	which I'm a l	ittle surprised at, but it has.
1	24	Ö	What's your cumulative production to date?
:	25	Α.	We have it's approximately 5000 barrels.
ţ			

SALLY WALTON BOYD CERTIFIED SHORTHAND REPORTER 3020 Plaza Blanca (\$05) 471-2462 Santa Fo. New Mexico 57501

1	Q. You've done better than the Goldston alleady,
2	then.
3	A. Yes, sir. Yes, sir.
4	Q Well, do you think that Goldston well was
5	completed in the same pay that this one is in?
6	A. It again appears to be; however, it was very
7	tight on that well.
8	Q Have you looked at the logs of that well?
9	A Yes, sir, I have looked at them.
10	Q And is it the same interval?
1	A. It appears to be the same interval, yes, sir
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1	A. Yes, sir. Yes, sir, as I say, it was very,
1	very thight.
	It also made some water.
	6 Q How about structure-wise?
	A. It is now I'm coming from memory ap-
	proximately 150 feet lower than the No. 4 would be.
	That may be on that structure map.
	20 Q. Yeah, your structure map that you indicate
	that the top of the Penn in the No. 4 is at a minus 3262
	and the top of the Penn in the Goldston is minus 3355.
	A. Yes, sir, that's approximately 90 feet.
	Q. So you've got a little less than 100 feet.
	A. Yes, sir.

Q Now, how about the Fusselman well which you've got there in the northeast of the southwest of Section 31, did it have any Pennsylvanian pay in it?

A. Yes, sir. Yes, sir, it did have a Pennsylvanian pay and as you can see there, it is only about 12 feet lower than No. 1.

Did you test this in the Fusselman?

A. Yes, sir, we ran a drill stem test on it and now we didn't recover any fluids. We flared everything and the fluids were not recovered, but we estimated approximately 2-1/2 million flow rate.

Q. That looked like a gas well in the Pennsylvanian, also, then.

A. Yes, sir, it sure did.

Q Mr. Wilcox, do you have any suggestion as to how the existing pool should be extended? Do you know the horizontal limits of the existing South Peterson Penn as defined by the Oil Conservation Division?

A I believe it only took in the southeast quarter of Section 36, I believe is all it took in.

0 And

A. Or southeast southeast, I believe it was only 40 acres.

Q And then you would suggest an eastward extension to include this No. 4 Lamberth, and then --

_		
A.	Yes,	sir
* **	300,	

- Q -- the adoption of pool rules for that new pool.
 - A. Yes, sir.
 - Q. Or for the extension.
- A. For the -- I believe that would be the best way to handle it, I think.
- Q Do you think we'll end up here with an associated Pennsylvanian pool, such as we have up north?

Or do you think that the permeability barrier is going to manifest itself even further and show a definite separation between this well and the gas wells?

A. I think this -- we will have a definite separation between the 1 and 3 Well and the No. 4; however, the 4 could manifest itself into an associated gas field.

With the Phillips-Goldston there I am not sure which reservoir it's in. It could possibly be in with the 1 and 3, which would indicate an associated gas field.

I just don't have enough data, sir.

- Q In the absence of any other information gained by the drilling, it would appear that your well that's currently drilling, the El Paso State, is on the same structure, but when will it be completed?
- A. We ought to be down in two to three weeks, sir.

1	MR. NUTTER: Are there any further questions
2	of Mr. Wilcox? He Mr. Benischek?
3	MR. BENISCHEK: Mr. Wilcox, I arrived a little
4	late. Did you give any information on reserves per acre
5	foot or reserves per well on that No. 4 Well?
6	A. No, sir, I did not.
7	MR. BENISCHEK: Do you have any?
8	A. Is that pertinent?
9	MR. CARR: If Mr. Benischek is requesting
10	that, I would object on the grounds that it really isn't
11	MR. NUTTER: He hasn't requested it. He just
12	asked if he had given it.
13	MR. CARR: And the answer to that is no.
14	A. No, we haven't.
15	MR. BENISCHEK: Thank you.
16	MR. NUTTER: Are there any further questions
17	of the witness? He may be excused.
18	Do you have anything further, Mr. Carr?
19	MR. CARR: Nothing further.
20	MR. NUTTER: Does anyone have anything they
21	wish to offer in Case Number 6357?

We'll take the case under advisement.

(Hearing concluded.)

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; and 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 WALTON B CERTIFIED SHORTHAND MED 1018 PIECE SERVEN (666) 47 SARKE PC, NOW MEDICON (the Examiner Division

To heard by your conservation Division

BRUCE KING GOVERNOR LARRY KEHOE SECRETARY

Other

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

January 10, 1980

POST OFFICE BOX 2088 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 87501 15051 B27-2434

n n					
Mr. William F. Carr Campbell and Black	Re:	CASE NO. 6357 ORDER NO. R-5853-A			
Attorneys at Law Post Office Box 2208 Santa Fe, New Mexico		Applicant:			
	ŕ	OCD	(Enserc	h Exploration,	Inc.)
Dear Sir:					
Enclosed herewith are two cop Division order recently enter					
Pours very truly, JOE D. RAMEY Director					
JDR/fd					
Copy of order also sent to:					•
Hobbs OCD x Artesia OCD x Aztec OCD					

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. 6357 Order No. R-5853-A

IN THE MATTER OF CASE 6357 BEING REOPENED PURSUANT TO THE PROVISIONS OF ORDER NO. R-5853, WHICH ORDER ESTABLISHED SPECIAL RULES AND REGULATIONS FOR THE SOUTH PETERSON-PENNSYLVANIAN POOL, ROOSEVELT COUNTY, NEW MEXICO, INCLUDING A PROVISION FOR 80-ACRE PRORATION UNITS.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on November 28, 1979, and January 3, 1980, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 9th day of January, 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 by Order No. R-5853, dated November 14, 1978, temporary special rules and regulations were promulgated for the South Peterson-Pennsylvanian Pool, Roosevelt County, New Mexico, establishing temporary 80-acre spacing units.
- (3) That pursuant to the provisions of Order No. R-5853, this case was reopened to allow the operators in the subject pool to appear and show cause why the South Peterson-Pennsylvanian Pool should not be developed on 40-acre spacing units.
- (4) That the evidence establishes that one well in the South Peterson-Pennsylvanian Pool will not efficiently and economically drain and develop 80 acres.

-2-Case No. 6357 Order No. R-5853-A

(5) That in order to prevent waste and protect correlative rights, the Special Rules and Regulations promulgated by Order No. R-5853 should be rescinded effective March 1, 1980.

IT IS THEREFORE ORDERED:

- (1) That effective March 1, 1980, the Special Rules and Regulations governing the South Peterson-Pennsylvanian Pool, Roosevelt County, New Mexico, promulgated by Order No. R-5853, are hereby rescinded.
- (2) 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



STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

NICK FRANKLIN BECRETARY

November 15, 1978

POST OFFICE 80X 2088 8TATE LAND OFFICE BUILDING BANTA FE, NEW MEXICO 87501 (505) 827-2434

Re: Mr. William F. Carr Catron, Catron & Sawtell	CASE NO. 6357 ORDER NO. R-5353
Attorneys at Law Post Office Box 788 Santa Fe, New Mexico	Applicant:
	Enserch Exploration, Inc.
Dear Sir:	· · · · · · · · · · · · · · · · · · ·
Enclosed herewith are two conditions order recently ent	opies of the above-referenced ered in the subject case.
Yours very truly,	
JOE D. RAMEY	·
Director	
•	•
•	
JDR/fd	
Copy of order also sent to:	
Robbs OCC x Artesia OCC x Aztec OCC	•
Other H. W. Benischek	

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. 6357 Order No. R-5853 NOMENCLATURE

APPLICATION OF ENSERCH EXPLORATION, INC. FOR POOL CREATION AND SPECIAL POOL RULES, ROOSEVELT COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on October 25, 1978, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 14th day of November, 1978, 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, Enserch Exploration, Inc., has recently completed its Lambirth Well No. 4, located in Unit O of Section 31, Township 5 South, Range 33 East, NMPM, Roosevelt County, New Mexico, as an oil well producing from the Pennsylvanian formation, and seeks the creation of a new oil pool for Pennsylvanian production therefor and the promulgation of special rules for said pool including a provision for 80-acre spacing and proration units.
- (3) That said Lambirth Well No. 4 is located approximately B/4 mile east of the Phillips Petroleum Company Goldston A Well No. 2, which is situate in Unit P of Section 36, Township 5 South, Range 32 East, NMPM, and which is the discovery well for the already created and defined South Peterson-Pennsylvanian Pool.
- (4) That the evidence presently available indicates that applicant's Lambirth Well No. 4 is producing from the same

-2-Case No. 6357 Order No. R-5853

common source of supply that the aforesaid Goldston A Well No. 2 produced from prior to its abandonment, and that the South Peterson-Pennsylvanian Pool should be extended to include said Lambirth Well No. 4 rather than create a new pool therefor.

- (5) That the evidence presently available indicates that said South Peterson-Pennsylvanian Pool should be placed on 80-acre spacing, at least temporarily.
- (6) That in order to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, temporary special rules and regulations providing for 80-acre spacing units should be promulgated for the South Peterson-Pennsylvanian Pool.
- (7) That the temporary special rules and regulations should provide for limited well locations in order to assure orderly development of the pool and protect correlative rights.
- (8) That the temporary special rules and regulations should be established for a one-year period in order to allow the operators in the subject pool to gather reservoir information to establish the area that can be efficiently and economically drained and developed by one well.
- (9) That this case should be reopened at an examiner hearing in November, 1979, at which time the operators in the subject pool should be prepared to appear and show cause why the South Peterson-Pennsylvanian Pool should not be developed on 40-acre spacing units.
- (10) That the horizontal limits of the South Peterson-Pennsylvanian Pool should be extended to include the S/2 SW/4 and the SW/4 SE/4 of Section 31, Township 5 South, Range 33 East, NMPM, Roosevelt County, New Mexico.

IT IS THEREFORE ORDERED:

(1) That the South Peterson-Pennsylvanian Pool in Roosevelt County, New Mexico, as heretofore classified, defined, and described, is hereby extended to include therein:

TOWNSHIP 5 SOUTH, RANGE 33 EAST, NMPM Section 31: S/2 SW/4 and SW/4 SE/4

-3-Case No. 6357 Order No. R-5853

(2) That temporary Special Rules and Regulations for the South Peterson-Pennsylvanian Pool, Roosevelt County, New Mexico, are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS FOR THE SOUTH PETERSON-PENNSYLVANIAN POOL

- RULE 1. Each well completed or recompleted in the South Peterson-Pennsylvanian Pool or in the Pennsylvanian formation within one mile thereof, and not nearer to or within the limits of another designated Pennsylvanian oil pool, shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.
- RULE 2. Each well shall be located on a standard unit containing 80 acres, more or less, consisting of the N/2, S/2, E/2, or W/2 of a governmental quarter section; provided however, that nothing contained herein shall be construed as prohibiting the drilling of a well on each of the quarter-quarter sections in the unit.
- RULE 3. The Director of the Division may grant an exception to the requirements of Rule 2 without notice and hearing when an application has been filed for a non-standard unit comprising a governmental quarter-quarter section or lot, or the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States Public Land Surveys. All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the formation of the non-standard unit within 30 days after the Director has received the application.
- RULE 4. Each well shall be located within 150 feet of the center of a governmental quarter-quarter section or lot.
- RULE 5. The Director may grant an exception to the requirements of Rule 4 without notice and hearing when an application has been filed for an unorthodox location necessitated by topographical conditions or the recompletion of a well previously drilled to another horizon. All operators offsetting the proposed location shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Director may approve the application upon receipt of written waivers from all operators offsetting the proposed location or if no objection to the unorthodox location has been entered within 20 days after the Director has received the application.

-4-Case No. 6357 Order No. R-5853

RULE 6. A standard proration unit (79 through 81 acres) shall be assigned an 80-acre depth bracket allowable up to 267 barrels of oil per day, subject to the market demand percentage factor, and in the event there is more than one well on an 80-acre proration unit, the operator may produce the allowable assigned to the unit from the wells on the unit in any proportion.

The allowable assigned to a non-standard proration unit shall bear the same ratio to a standard allowable as the acreage in such non-standard unit bears to 80 acres.

IT IS FURTHER ORDERED:

- (3) That the locations of all wells presently drilling to or completed in the South Peterson-Pennsylvanian Pool or in the Pennsylvanian formation within one mile thereof are hereby approved; that the operator of any well having an unorthodox location shall notify the Hobbs District Office of the Division in writing of the name and location of the well on or before December 1, 1978.
- (4) That, pursuant to Paragraph A. of Section 65-3-14.5, NMSA 1953, existing wells in the South Peterson-Pennsylvanian Pool shall have dedicated thereto 80 acres in accordance with the foregoing pool rules; or, pursuant to Paragraph C. of said Section 65-3-14.5, existing wells may have non-standard spacing or proration units established by the Division and dedicated thereto.

Failure to file new Forms C-102 with the Division dedicating 80 acres to a well or to obtain a non-standard unit approved by the Division within 60 days from the date of this order shall subject the well to cancellation of allowable. Until said Form C-102 has been filed or until a non-standard unit has been approved, and subject to said 60-day limitation, each well presently drilling to or completed in the South Peterson-Pennsylvanian Pool or in the Pennsylvanian formation within one mile thereof shall receive no more than one-half of a standard allowable for the pool.

(5) That this case shall be reopened at an examiner hearing in November, 1979, at which time the operators in the subject pool may appear and show cause why the South Peterson-Pennsylvanian Pool should not be developed on 40-acre spacing units.

Case No. 6357 Order No. R-5853

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

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

SEAL

STATE OF NEW MEXICO OIL CONSERVATION DIVISION

JOE D. RAMEY Director Dockets Nos. 45-79 and 1-80 are tentatively set for December 12, 1979 and January 3, 1980. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: COMMISSION HEARING - TUESDAY - NOVEMBER 27, 1979

OIL CONSERVATION COMMISSION - 9 A.M. - ROOM 205 STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

CASE 6609: (DE NOVO)

Application of Napeco Inc. for pool creation and special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Strawn oil pool for its Benson Deep Unit Well No. 1 located in Unit 0 of Section 33, Township 18 South, Range 30 East, and special rules therefor, including 160-acre spacing and standard well locations.

Upon application of Yates Petroleum Corporation and Napeco Inc., this case will be heard De Novo pursuant to the provisions of Rule 1220.

Docket No. 44-79

DOCKET: EXAMINER HEARING - WEDNESDAY - NOVEMBER 28, 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. Stamets, Examiner, or Daniel S. Nutter, Alternate Examiner:

Notice is hereby given by the Oil Conservation Division that Giant Industries, Inc., has filed an application for a determination of eligibility to purchase state royalty oil pursuant to Secs. 19-10-64 thru 19-10-70 NMSA 1978 Comp. for its Farmington, New Mexico, refinery, which will be considered by the Commission after December 1, 1979. In the event objection, and evidence to support such objection, is received by the Commission on or before December 1, 1979, to such a determination, notice will be given and the application set for public hearing at a later date.

CASE 6702: (Continued from October 17, 1979, Examiner Hearing)

Application of El Paso Natural Gas Company for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of South Blanco-Pictured Cliffs and Blanco Mesaverde production in the wellbore of its San Juan 27-5 Unit Well No. 67 located in Unit B of Section 31, Township 27 North, Range 5 West.

- CASE 6732: Application of Dorchester Exploration, Inc. for an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Morton Solid State Unit Well No. 1 located 2156 feet from the North line and 990 feet from the West line of Section 4, Township 15 South, Range 34 East, Tree Papalotes-Pennsylvanian Pool.
- CASE 6733: Application of Kelloil Inc. for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the Lea Penn South Unit Area, comprising 1,440 acres, more or less, of State lands in Township 20 South, Range 35 East.
- CASE 6734: Application of Southland Royalty 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 27, Township 18 South, Range 29 East, 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 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 6735: Application of Mesa Petroleum Co. 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 26, Township 18 South, Range 24 East, 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 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. (This case will be dismissed.)

- CASE 6736: Application of Doyle Hartman for compulsory pooling and a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Jalmat Gas Pool to form a 360-acre non-standard gas proration unit comprising the S/2 SE/4 of Section 36, Township 24 South, Range 36 East; SW/4 of Section 31, Township 24 South, Range 37 East; and the N/2 NW/4 and NW/4 NE/4 of Section 6, Township 25 South, Range 37 East, to be dedicated to a well to be drilled 660 feet from the South line and 990 feet from the West line of said Section 31. 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 6707: (Continued from November 14, 1979, Examiner Hearing)

Application of Gulf Oil Corporation for a unit agreement, San Juan County, New Mexico.

Applicant, in the above-styled cause, seeks approval for the Southeast Bisti Unit Area, comprising 7,048 acres, more or less, of State and Federal lands in Townships 24 and 25 North, Range 10 West.

- CASE 6737: Application of Gulf Oil Corporation for compulsory pooling, Lea County, New Mexico.

 Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the W/2 of Section 4, Township 19 South, Range 32 East, North Lusk-Morrow Gas Pool, 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 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 6739: Application of Mobil 0il Corporation for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Gavilan-Pictured Cliffs and Blanco Nesaverde production in the wellbore of its Jicarilla D Well No. 1 located in Unit N of Section 24, Township 26 North, Range 3 West. Applicant further seeks the establishment of an administrative procedure for approval of downhole commingling of the aforesaid pools in others of its wells in Sections 7, 8, 17, 18, and 19, Township 26 North, Range 2 West, Sections 1, 2, 11 thru 14, 23, and 24, Township 26 North, Range 3 West, and Sections 11 thru 15, 22 thru 27, 35, and 36, Township 27 North, Range 3 West.
- CASE 6740: Application of Hondo 0il and Gas Company for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a Pennsylvanian test well to be drilled 1550 feet from the North line and 660 feet from the West line of Section 10, Township 18 South, Range 28 East, the N/2 of said Section 10 to be dedicated to the well.
- Application of ARCO 011 and Gas Company for an amendment to Order No. R-6054, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-6054 to amend the findings in said order to make said findings more specific as to the necessity for the drilling of infill wells in the Empire Abo Unit in order to recover additional gas pursuant to the Natural Gas Policy Act of 1978; further to amend said order to make such findings applicable to present and future drilling operations including the drilling of horizontal drainholes.
- CASE 6720: (Continued from November 14, 1979, Examiner Hearing)

Application of ARCO 011 and Gas Company to drill a horizontal drainhole, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval to drill and complete its Empire Abo Unit Well No. J-213, located in Unit E of Section 6, Township 18 South, Range 28 East, Empire-Abo Pool, with a single horizontal drainhole of about 200 feet in length in the Abo formation.

- CASE 6742: Application of ARCO Oil and Gas Company for an administrative procedure, Eddy County, New Mexico.

 Applicant, in the above-styled cause, seeks the establishment of an administrative procedure for approval of the drilling of horizontal drainholes in the Empire Abo Unit, Empire-Abo Pool.
- CASE 6743: (This case will be dismissed.)

Application of Exxon Corporation for an exception to Order No. R-3221, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Order No. R-3221 to permit disposal of produced brine in several unlined surface pits located on its Laguna Grande Unit Area in Sections 16, 21, 28, 29, 32, and 33, Township 23 Scuth, Range 29 East.

CASE 6744: Application of Texas Oil & Gas Corporation for special pool rules, Eddy County, New Mexico.

Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the Riverside
Merrow Gas Pool to provide for 320-acre spacing rather than 160 acres. In the absence of objection, this pool will be placed on the standard 320-acre spacing for Pennsylvanian gas pools rather than the present 160-acre spacing.

- CASE 6745: Application of Harvey E. Yates Company for compulsory pooling, Eddy County, New Mexico.

 Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the WolfcampPennsylvanian formations underlying the W/2 of Section 28, Township 23 South, Range 24 East, to be
 dedicated to a well to be drilled at a standard location thereon. Also to be considered will be
 the cest 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 6746: Application of Yates Petroleum Corporation for compulsory pooling and an unorthodox location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp-Pennsylvanian formations underlying the S/2 of Section 31, Township 18 South, Range 26 East, to be dedicated to a well to be drilled at an unorthodox location 660 feet from the South line and 1100 feet from the West line of said Section 31. 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 6747: Application of Yates Petroleum Corporation for compulsory pooling and an unorthodox location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp-Pennsylvanian formations underlying the S/2 of Section 23, Township 18 South, Range 25 East, to be dedicated to a well to be drilled at an unorthodox location in the center of Unit P of said Section 23. 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 6748: Application of Yates Petroleum Corporation for an unorthodox gas well location, Eddy County, New Nexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Rio Pecos "NW" Fed. Well No. 1, a Norrow test to be drilled 1980 feet from the South line and 1100 feet from the East line of Section 29, Township 18 South, Range 27 East, the S/2 of said Section 29 to be dedicated to the well.
- CASE 6749: Application of Petro-Lewis Corporation for downhole commingling, Lea County, New Mexico.

 Applicant, in the above-styled cause, seeks approval for the downhole commingling of Penrose Skelly,
 Blinebry, and Drinkard production in the wellbore of its Warlick Well No. 3 located in Unit P of
 Section 18, Township 21 South, Range 37 East.
- CASE 6750: Application of CO2-In-Action, Inc. for creation of a new carbon dioxide gas pool and special pool rules, Harding County, New Mexico. Applicant, in the above-styled cause, seeks the creation of the North Bueyeros-Santa Rosa CO2 Gas Pool comprising all or parts of Sections 1, 2, 3, 10, 11, and 12, Township 20 North, Range 20 East and Sections 20 thru 23 and 26 thru 35, Township 21 North, Range 30 East, and the promulgation of special rules therefor including a provision for 160-acre spacing units with the option to drill on 40 acres, and with well locations as close as 330 feet to the unit boundary.
- CASE 6725: (Continued from November 14, 1979, Examiner Hearing)

Application of Tenneco Oil Company for three non-standard gas proration units, San Juan County, New Nexico. Applicant, in the above-styled cause, seeks approval of a 291.23-acre non-standard gas proration unit comprising the W/2 of Section 6 and the NW/4 of Section 7, a 347.58-acre unit comprising the W/2 of Section 19 and the NW/4 of Section 30, and a 375.17-acre unit comprising the SW/4 of Section 30 and the W/2 of Section 31, all in Township 29 North, Range 8 West, Basin-Dakota Pool, each unit to be dedicated to a well to be drilled at a standard location thereon.

CASE 6751: Application of Tenneco Oil Company for the rescission of special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the rescission of the special pool rules for the Catelaw Draw-Morrow Gas Pool to provide for 320-acre spacing rather than 640 acres. In the absence of objection, the pool rules will be rescinded and the pool placed on standard 320-acre spacing for Pennsylvanian gas pools rather than the present 640-acre spacing.

CASE 6357: (Reopened and Readvertised)

In the matter of Case 6357 being reopened pursuant to the provisions of Order No. R-5853 which order established temporary special rules and regulations for the South Peterson-Pennsylvanian Pool, with provisions for 80-acre spacing. All interested parties may appear and show cause why the South Peterson-Pennsylvanian Pool should not be developed on 40-acre spacing units.

CASE 6714: (Continued and Readvertised)

Application of Jake L. Hamon for an unorthodox gas well location and approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause; seeks approval for the unorthodox location of a Morrow test well to be drilled 660 feet from the South and West lines of Section 20, Township 20 South, Range 36 East, North Osudo-Morrow Cas Pool; applicant further seeks a finding that the drilling of said well is necessary to effectively and efficiently drain that portion of the proration unit which cannot be so drained by the existing well.

CASE 6738:

Application of Harlan Drilling Company for drilling drainholes, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill and case a vertical hole to an approximate depth of 1500 at the top of the Gallup formation from a surface location 990 feet from the North line and 990 feet from the West line of Section 1, Township 30 North, Range 16 West, Verde-Gallup Oil Pool, San Juan County, and to then drill four deviated drainholes therefrom, bettoming each of said holes in the Gallup at a vertical depth of 1700 feet and approximately 200 lateral distance from the vertical hole.

November 30, 1979

To: Mr. Richard L. Stamets, Examiner

Permanent Field Rules Hearing South Peterson Pennsylvanian Pool Roosevelt County, New Mexico Case No. 6357

Answer to Economics of 13 Acres

In answer to your question concerning the economics and reserves assigned to thirteen (13) acres in Case No. 6357, the following information is summarized:

Using the parameters outlined in Exhibit 2 and Exhibit 4, volumetric calculations will yield 34,635 barrels of oil in place for 13 acres. Enserch has been using a 20% recovery factor of the original in place reserves for recoverable reserves; therefore, only 6,927 barrels of oil are recoverable from 13 acres of Pennsylvanian pay. Drilling and completion cost will average \$550,000 per well. Enserch has drilled and completed six (6) wells in the subject field and three (3) are on rod pump with two (2) more anticipated to be on rod pump within the next six months. Using the total well cost and dividing it by the number of recoverable barrels of oil, yields an undiscounted net cost of \$79.39 per barrel that Enserch would need to pay the cost of drilling and completing a well with only thirteen allowable acres.

Ronald R. Sumner

Senior Petroleum Engineer ENSERCH EXPLORATION, INC.

RRS/fc

6357
Enserch
11/28/79

SOUTH PETERSON (PENNSYLVANIAN) POOL ENGINEERING EXHIBITS

WELL DATA SHEET

SOUTH PETERSON PENNSYLVANIAN FIELD ROOSEVELT COUNTY, NEW MEXICO

Well Name	*Net Pay _(ft)	*Average Porosity %	*Average Water Saturation
Enserch Expl.			
Lambirth #1	14	6.25	19.3
Lambirth #3	. 13	8.0	23
Lambirth #4	9	6.8	20.5
Lambirth #5	11	5.1	23.5
Lambirth #6	5	4.3	19
Lambirth #7	10	9.2	19
Phillips Co.			
Lambirth #3-A	5	11.8	25
Average Data	9.6'	7.0%	21.3%

*Log Calculations

ENSERCH EXPLORATION, INC.

LAMBIRTH NO. 4

Date of Completion:

9-6-78

Elevation (Gr.):

44131

Perforated Interval:

7696-77051

Initial Potential:

204 BO + 349 MCF + 58 BW FTP=350 psi, GOR=1711

Original Bottom Hole Pressure:

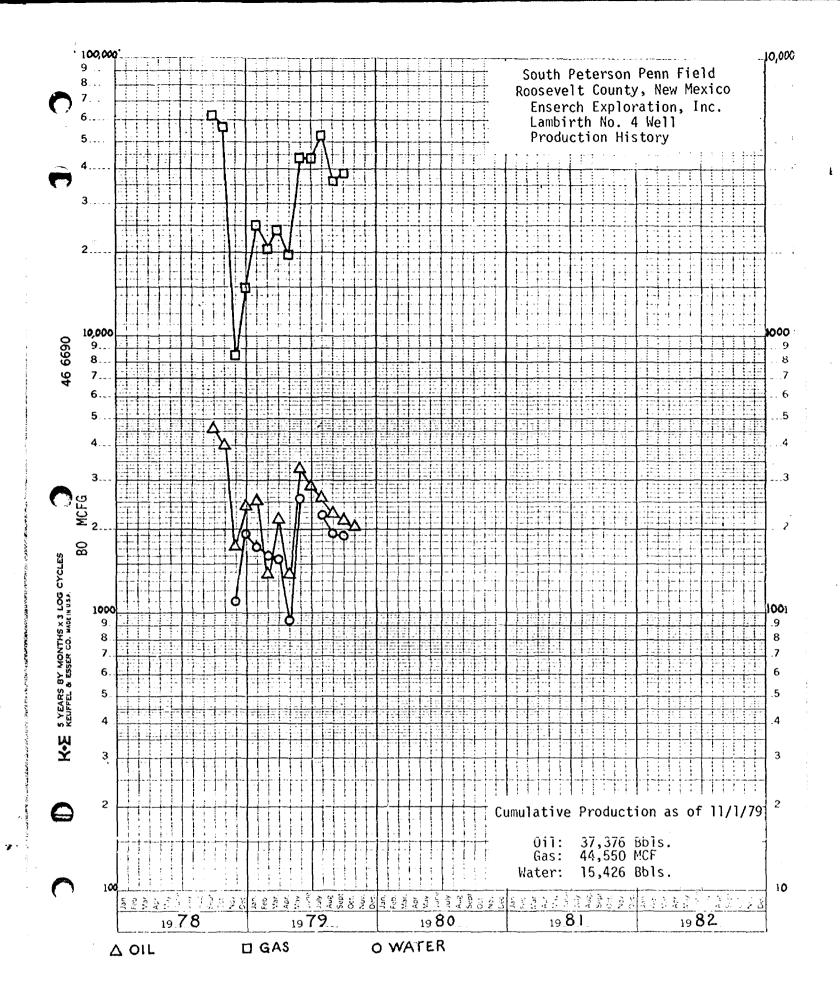
2640 psi (9/12-16/78)

Current Production Test:

71 BOPD + 127 MCFPD + 64 BWPD

Cumulative Production:

37,376 BO + 44,550 MCFG (11/1/79)



ENSERCH EXPLORATION, INC.

LAMBIRTH NO. 3

Date of Completion:

10-26-78

Elevation (Gr.):

43931

Perforated Interval:

7702'-7715'

Absolute Open Flow:

16,000 MCFPD - No Condensate

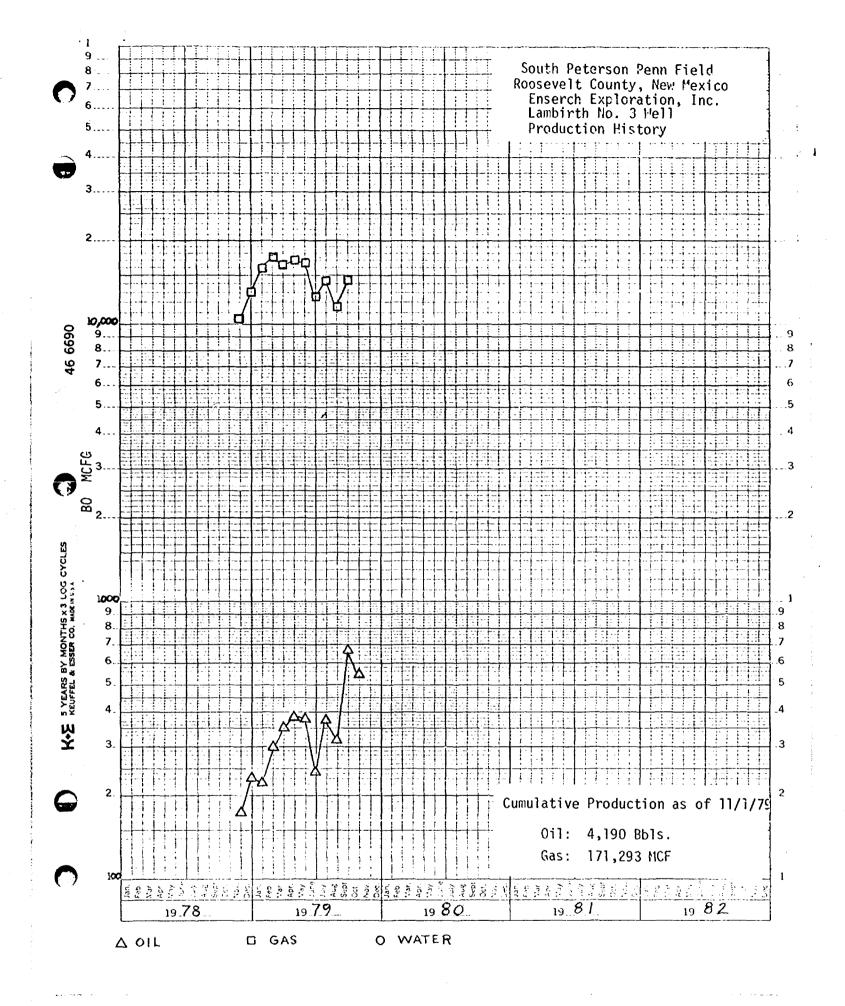
Original Bottom Hole Pressure: N/A

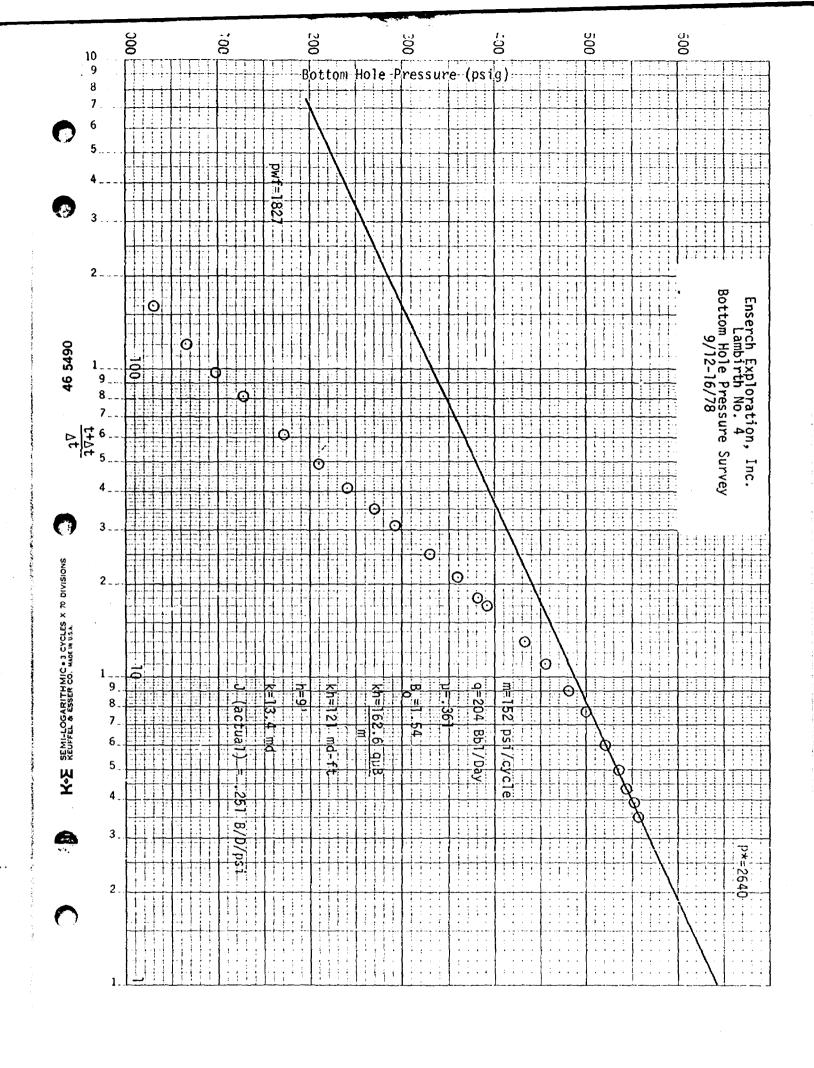
Current Production Test:

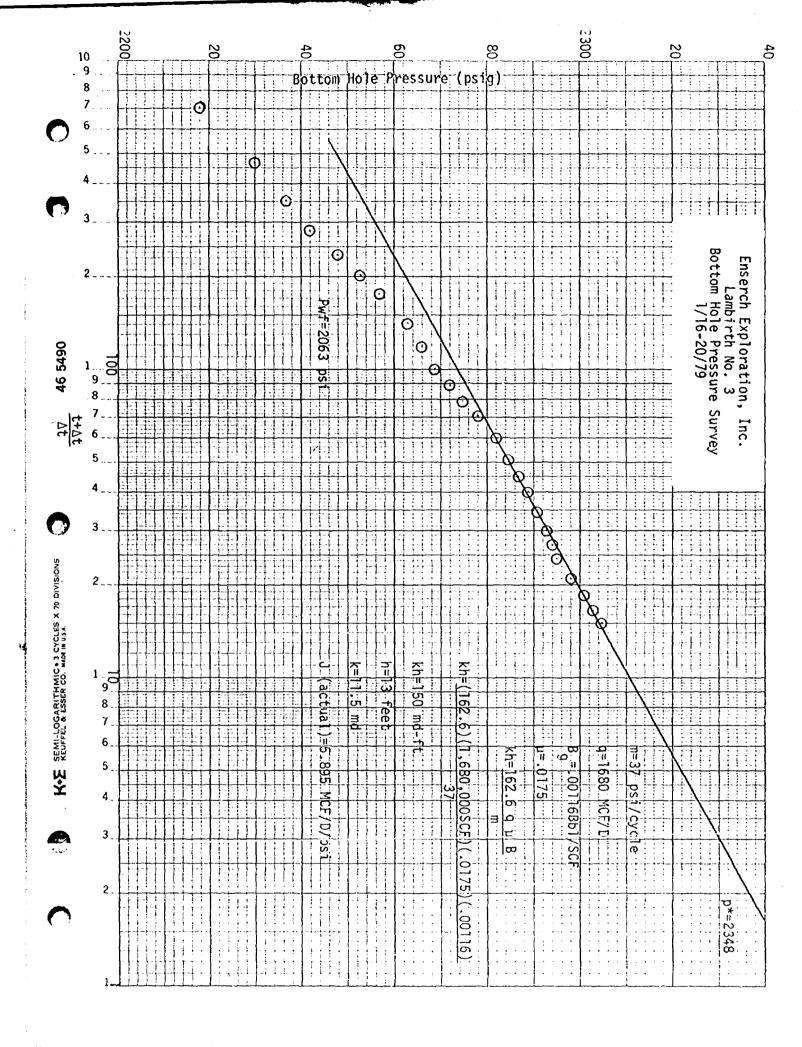
22.4 BOPD + 480 MCFGP/D

Cumulative Production:

4190 BO + 171,293 MCFG (11/1/79)







G:

7

SOUTH PETERSON-PENNSYLVANIAN FIELD ROOSEVELT COUNTY, NEW MEXICO RESERVOIR SUMMARY SHEET

Average Porosity = 7.0%

Average Interstitial Water Saturation = 21.3

Average Net Pay Thickness = 9.6

Average Effective Permeability to 0il = 13.4 Lambirth #4

Average Effective Permeability to Gas = 11.5 Lambirth #3

Average Gravity of 0il = 42 API @ 60° F (Separator Sample)

Reservoir Drive Mechanism: Solution Gas Drive

MINIMUM PERMEABILITY REQUIRED

TO DRAIN 80 ACRES

After determining the effective permeabilities in both the Lambirth 3 and 4 wells, our next objective was to determine the minicalculations for both gas and oil, we decided to use the oil data since the minimum requirements for oil would be greater than that of gas simply due to the mobility difference between effluents. Therewith the average net pay thickness for the Penn. to determine this minimum value.

Keywords:

$$\phi$$
 = porosity (decimal)

$$B_0$$
 = Formation Volume Factor (Res Bb1/STB)

$$r_e$$
 = effective drainage radius (feet)

$$r_{\rm W}$$
 = wellbore radius (feet)

$$J = \frac{7.08 \text{ kh}}{\mu B_0 \ln (r_e/r_w)}$$

$$J = .251 Bb1/Day/psi$$

$$\mu$$
 = .361 cp

$$B_0 = 1.54$$
 Res Bb1/STB

$$h = 9.6'$$
, $r_e = 80$ acres = 1053', $r_w = 5.5'' = .458'$

$$k = \frac{J \mu B_0 \ln (r_e/r_w)}{7.08 h}$$

$$k = \frac{(.251)(.361)(1.54) \ln (1053'/.458')}{(7.08)(9.6')}$$

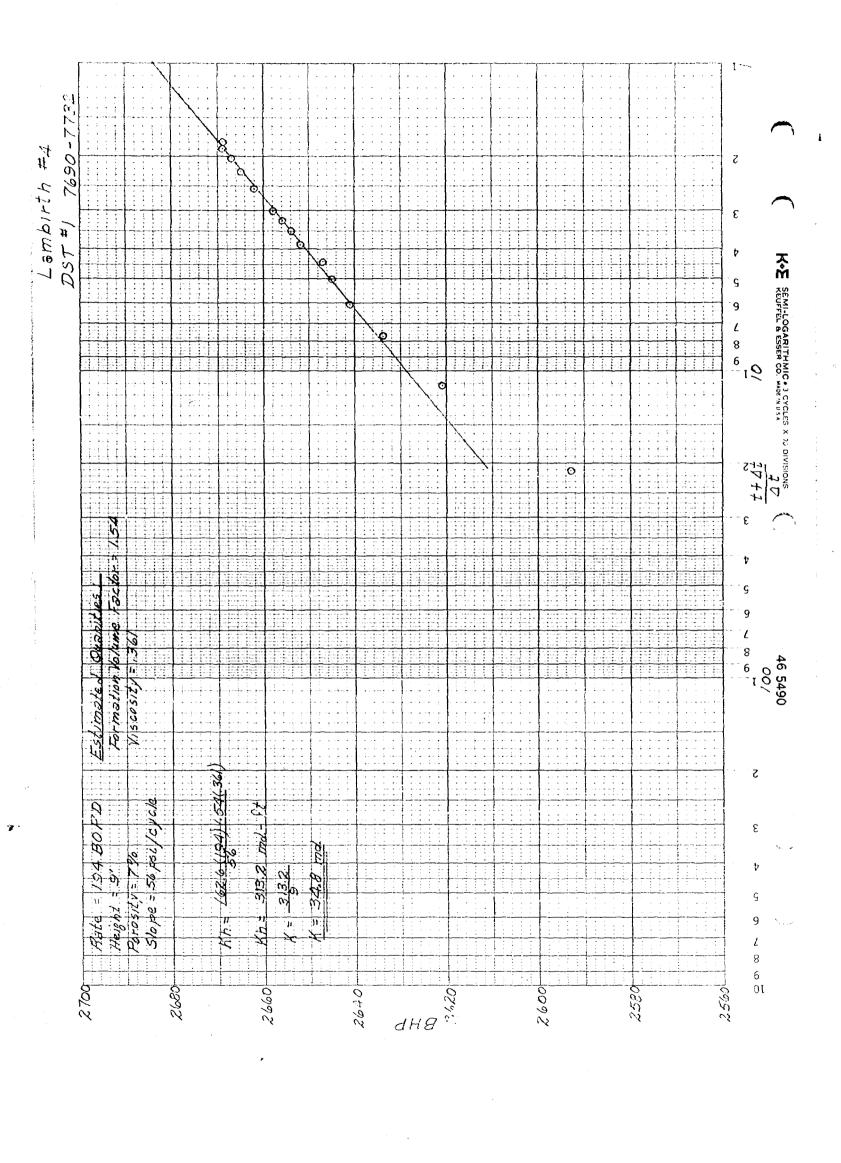
k = .0159 darcies or 15.9 md

Therefore 15.9 md are required to drain 80 acres.

However as you may recall the Lambirth No. 4 had 13.4 md. and 15.9 is required. In assuming that perm and drainage areas are directly proportioned, we calculated that the Lambirth No. 4 is draining approximately 67 acres.

$$\frac{13.4 \text{ md}}{x} = \frac{15.9 \text{ md}}{80 \text{ acres}}$$
$$x = 67 \text{ acres}$$

Since this difference is only 13 acres for 80-acre spacing vs. 27 acres for 40-acre spacing, we recommend that the South Peterson Penn Pool be developed on 80-acre spacing, with the well being located within 150 feet of a quarter-quarter section, in order to effectively and efficiently drain said Pool and thereby protect the co-equal and correlative right of all interested parties.



Dockets Nos. 35-78 and 36-78 are tentatively set for hearing on November 8 and 21, 1978. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - NEDNESDAY - OCTOBER 25, 1978

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

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

CASE 6290: (Continued from September 13, 1978, Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Division on its own motion to permit R. A. Crane, Jr., Great American Insurance Co., and all other interested parties to appear and show cause why the Donella Well No. 1 located in Unit P of Section 3, Township 29 North, Range 15 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Division-approved plugging program.

CASE 6339: (Continued from October 11, 1978, Examiner Hearing)

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 a well to be drilled at a standard location thereon. 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.

Application of Amoco Production Company for two unorthodox well locations, Lea County, New Mexico.

Applicant, in the above-styled cause, seeks approval of the unorthodox locations of its South Mattix

Unit Well No. 32 located 1535 feet from the North line and 330 feet from the East line and its

South Mattix Unit Well No. 34 located 1650 feet from the North line and 2310 feet from the West line,
both in Section 22, Township 24 South, Range 37 East, Fowler-Upper Yeso Pool, Lea County, New Mexico,
the S/2 NE/4 and the E/2 NW/4 of Section 22 to be dedicated, respectively, to the wells.

CASE 6356: Application of Amoco Production Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Abo formation through the perforated interval from 8391 feet to 9100 feet in its State "E" Tract 18 Well No. 21 located in Unit B of Section 2, Township 17 South, Range 36 East, Lovington-Abo Pool, Lea County, New Mexico.

CASE 6357: Application of Enserch Exploration, Inc., for pool creation and special pool rules, Roosevelt County,

New Mexico. Applicant, in the above-styled cause, seeks an order creating a new oil pool in the

Pennsylvanian formation for its Lambirth Well No. 4 located in Unit 0 of Section 31, Township 5 South,

Range 33 East, Roosevelt County, New Mexico, and for promulgation of special pool rules, including

provision for 80-acre spacing and special well location requirements.

CASE 6358: Application of Jake L. Hamon for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Devonian formation through the perforated interval from 12,997 feet to 13,036 feet in his State K-33 Well No. 2 located in Unit N of Section 30, Township 16 South, Range 36 East, East Shoe Bar-Devonian Pool, Lea County, New Mexico.

CASE 6359: Application of Getty 0:1 Company for downhole commingling, Rio Arriba County, New Mexico. Aprlicant, in the above-styled cause, seeks approval for the downhole commingling of Gallup and Dakota production in the wellbore of its Jicarilla "C" Well No. 27 located in Unit E of Section 33, Township 25 North, Range 5 West. Applicant further seeks provision for administrative approval for downhole commingling of the Gallup and Dakota formations in others of its wells on its Jicarilla "B" and Jicarilla "C" leases in Sections 5 and 6, Township 24 North, Range 5 West, and Sections 21, 22, 27, 28 and 31 thru 34, Township 25 North, Range 5 West, all in Rio Arriba County, New Mexico.

Application of Getty Oil Company for the amendment of Order No. R-5388, Rio Arriba County, New Mexico.

Applicant, in the above-styled cause, seeks the amendment of Order No. R-5388 to provide an administrative procedure to permit the downhole commingling of Pictured Cliffs and Chacra production in wells on its Jicarilla "B" and "C" Leases in Sections 21, 22, 27, 28, and 31 thru 34, Township 25 North, Range 5 West, and Sections 5 and 6, Township 24 North, Range 5 West, all in Rio Arriba County, New Mexico

CASE 6360: Application of Continental Oil Company for a non-standard gas proration unit and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 228-acre non-standard gas proration unit comprising the SW/4 and S/2 SE/4 of Section 18, Township 21 South, Range 36 East, Eumont Cas Pool, Lea County, New Mexico, to be simultaneously dedicated to applicant's Lockhart A-18 Wells Nos. 3 and 4, located in Units K and M, respectively, of said Section 18.

- CASE 6361: Application of Continental Oil Company for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the Buffalo-Pennsylvanian Gas Pool, Lea County, New Mexico, to provide for 320-acre spacing rather than 160 acres. In the absence of objection, this pool will be placed on the standard 320-acre spacing for Wolfcamp and Pennsylvanian gas pools rather than the present 160-acre spacing.
- CASE 6362: Application of Continental Oil Company for an unorthodox gas well location and a non-standard proration unit, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 294.9-acre non-standard gas proration unit comprising the S/2 of partial Section 19, Township 17 South, Range 29 East, Eddy County, New Mexico, to be dedicated to a well to be drilled 660 feet from the South line and 3300 feet from the East line of said Section 19 to test the Morrow formation.
- CASE 6363: Application of Phoenix Resources Company for an unorthodox gas well location, Eddy County, New Mexico.

 Applicant, in the above-styled cause, seeks approval for the unorthodox location of a well to be drilled 660 feet from the North and West lines of Section 16, Township 19 South, Range 21 East, Eddy County, New Mexico, to be drilled to the Mississippian formation, the W/2 of said Section 16 to be dedicated to the well.
- CASE 6364: Application of Adobe Oil Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests from the surface to the base of the Ellenburger formation underlying the NW/4 SE/4 of Section 23, Township 20 South, Range 38 East, Lea County, New Mexico, to be dedicated to a proposed oil well to be drilled at a standard location thereon. Applicant seeks the pooling of the SE/4 of said Section 23 in the event said drilling results in a gas well. 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 6365: Application of Michael P. Grace II for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp and Pennsylvanian formations underlying the W/2 of Section 25, Township 21 South, Rauge 26 East, Burton Flat Field, Eddy County, New Mexico, 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 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.
- Application of Phillips Petroleum Company for statutory unitization, Lea County, New Mexico.

 Applicant, in the above-styled cause, seeks an order unitizing, for the purpose of a pressure maintenance project, all mineral interests in the East Vacuum Grayburg-San Andres Unit encompassing 7,025 acres, more or less, underlying all or portions of the following lands in Lea County, New Mexico:

 Section 24, Township 17 South, Range 34 East; Sections 18 thru 29 and 31 thru 35, Township 17 South, Range 35 East; and Sections 4 and 5, Township 18 South, Range 35 East.

The unitized interval would be the Grayburg-San Andres Formation between the depths of 4,050 feet and 5,050 feet in Exxon's NM State "K" Well No. 19, located in Unit P of Section 28, Township 17 South, Range 35 East.

Among the matters to be considered at the hearing will be the necessity of unit operations; the designation of a unit operator; the determination of the horizontal and vertical limits of the unit area; the determination of a fair, reasonable, and equitable allocation of production and costs of production, including capital investment, to each of the various tracts in the unit area; the determination of credits and charges to be made among the various owners in the unit area for their investment in wells and equipment; and such other matters as may be necessary and appropriate for carrying on efficient unit operations, including, but not necessarily limited to, unit voting procedures, selection, removal, or substitution of unit operator, and time of commencement and termination of unit operations.

CASE 6367: Application of Phillips Petroleum Corporation for a pressure maintenance project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pressure maintenance project on its East Vacuum Grayburg-San Andres Unit, Lea County, New Mexico, by the injection of water into the Grayburg-San Andres formation; and the establishment of an administrative procedure for approval of injection and producing wells at unorthodox locations.

CATRON, CATRON & SAWTELL

THOMAS B. CATRON, 1840-1921 FLETCHER A. CATRON, 1890-196-1 THOMAS B. CATRON, III JOHN S. GATRON WILLIAM A. SAWTELL, JR. FLETCHER R. CATRON WILLIAM F. OARR W. ANTHONY SAWTELL

Attorneys and Counselors at Law
The Plaza
Santa Fe, New Mexico 87501

POST OFFICE BOX 788
TELEPHONE 982-1947
AREA CODE 505

September 28, 1978

Mr. Joe D. Ramey Division Director Oil Conservation Division New Mexico Department of Energy and Minerals P.O. Box 2088 Santa Fe, New Mexico 87501

Dear Mr. Ramey:

Enclosed in triplicate is the application of Enserch Exploration, Inc. for pool creation and special pool rules, Roosevelt County, New Mexico.

I would appreciate this case being included on the docket for the October 25, 1978 examiner hearing.

Sincerely,

William F. Carr

WFC:tpk Enclosures

cc: Mr. Peter R. Thompson

Mr. J.J. Weisman

Mr. Fred Wilcox

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

IN THE MATTER OF THE APPLICATION OF ENSERCH EXPLORATION, INC. FOR POOL CREATION AND SPECIAL POOL RULES, ROOSEVELT COUNTY, NEW MEXICO

APPLICATION

Comes now ENSERCH EXPLORATION, INC., by their undersigned attorneys, and hereby makes application for an order designating a new pool as a result of the discovery of hydrocarbons in the Pennsylvanian formation in its Lambirth No. 4 Well located in Unit O of Section 31, Township 5 South, Range 33 East, Roosevelt County, New Mexico and for promulgation of special pool rules, including (1) 80-acre spacing or proration units on a permanent basis or, in the alternative, on a temporary basis, (2) the dedication of all of the south half of the southeast quarter of said Section 31 to the Lambirth No. 4 Well, (3) a top allowable for a standard proration unit of 267 barrels per day and (4) special well location requirements, and in support of this application would show the Commission:

- 1. That applicant has recently completed its Lambirth No. 4 Well in the Pennsylvanian formation capable of producing oil and gas in paying quantities located 660 feet from the south line and 1980 feet from the east line of Section 31, Township 5 South, Range 33 East, Roosevelt County, New Mexico. Said well is producing through perforations from 7697 feet to 7706 feet and was potentialed as capable of producing 204 barrels of oil per day and 349 mcf of gas per day with 58 barrels of produced water.
- 2. Applicant believes that the following described lands are reasonably proven to be productive of oil and gas in paying quantities from the Pennsylvanian formation and should be included in the original definition of the new pool to be created because of said discovery:

Township 5 South, Range 33 East, N.M.P.M.

Section 31:SE/4

- 3. In order to prevent economic loss caused by the drilling of unnecessary wells, to avoid augmentation of risk arising from the drilling of an excessive number of wells and to otherwise prevent waste and protect correlative rights, special pool rules and regulations providing for 80-acre spacing units should be promulgated for the new pool.
- 4. Applicant respectfully requests that the special pool rules provide that each well should be located on a standard unit containing 80 acres more or less, consisting of two contiguous governmental quarter quarter sections and that the well may be located in either component of the 80-acre spacing unit. Applicant further requests that each well shall be located within 150 feet of the center of a governmental quarter quarter section or lot.
- 5. Applicant requests that a top allowable be set for a standard 80-acre spacing or proration unit of 267 barrels per day.

WHEREFORE, ENSERCH EXPLORATION, INC. requests that this application be set for hearing before a duly appointed examiner of the Oil Conservation Division on October 25, 1978, that notice be given as required by law and the rules of the Division, and that the application be approved.

Respectfully Submitted,

CATRON, CATRON & SAWTELL

William F. Carr

Attorney for Applicant P.O. Box 788

Santa Fe, New Mexico 87501

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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:

ONCE	NO	6357
CASE	NO.	0331

Order No.

NO 14 ENCL ATTIPE

APPLICATION OF ENSERCH EXPLORATION, INC. FOR POOL CREATION AND SPECIAL POOL RULES, ROOSEVELT COUNTY, NEW MEXICO.

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ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on October 25

19 78 , at Santa Fe, New Mexico, before Examiner Daniel S. Nutter

NOW, on this day of November , 19 78 , 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.

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-2-Case No. 6357 Order No. R-

- (2) That the applicant Enserch Exploration, Inc., has recently completed its Lambirth Well No. 4, located in Unit O of Section 31, Township 5 South, Range 33 East, NMPM, Roosevelt County, New Mexico, as an oil well producing from the Pennsylvanian formation, and seeks the creation of a new oil pool for Pennsylvanian production therefor and the promulgation of special rules for said pool including a provision for 80-acre spacing and proration units.
- (3) That said Lambirth Well No. 4 is located approximately 3/4 mile east of the Phillips Petroleum Company Goldston A Well No. 2, which is situated in Unit P of Section 36, Township 5 South, Range 32 East, NMPM, and which is the discovery well for the already created and defined South Peterson-Pennsylvanian Pool.
- (4) That the evidence presently available indicates that applicant's Lambirth Well No. 4 is producing from the same common source of supply that the aforesaid Goldston A Well No. 2 produced from prior to its abandonment, and that the South Peterson-Pennsylvanian Pool should be extended to include said Lambirth Well No. 4 rather than create a new pool therefor.
- (5) That the evidence presently available indicates that said South Peterson-Pennsylvanian Pool should be placed on 80-acre spacing, at least temporarily.

-3-Case No. 6357 Order No. R-

- (6) That in order to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, temporary special rules and regulations providing for 80-acre spacing units should be promulgated for the South Peterson-Pennsylvanian Pool.
- (7) That the temporary special rules and regulations should provide for limited well locations in order to assure orderly development of the pool and protect correlative rights.
- (8) That the temporary special rules and regulations should be established for a one-year period in order to allow the operators in the subject pool to gather reservoir information to establish the area that can be efficiently and economically drained and developed by one well.
- (9) That this case should be reopened at an examiner hearing in November, 1979, at which time the operators in the subject pool should be prepared to appear and show cause why the South Peterson-Pennsylvanian Pool should not be developed on other than 40-acre spacing units.
- (10) That the horizontal limits of the South Peterson-Pennsylvanian Pool should be extended to include the S/2 SW/4 and the SW/4 SE/4 of Section 31, Township 5 South, Range 33 East, NMPM, Roosevelt County, New Mexico.

IT IS THEREFORE ORDERED:

(1) That the South Peterson-Pennsylvanian Pool in Roosevelt

County, New Mexico, as heretofore classified, defined, and described, is hereby extended to include therein:

TOWNSHIP 5 SOUTH, RANGE 33 EAST, NMPM Section 31: S/2 SW/4 and SW/4 SE/4

(2) That temporary Special Rules and Regulations for the South Peterson-Pennsylvanian Pool, Roosevelt County, New Mexico, are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS FOR THE SOUTH PETERSON-PENNSYLVANIAN POOL

- RULE 1. Each well completed or recompleted in the South Peterson-Pennsylvanian Pool or in the Pennsylvanian formation within one mile thereof, and not nearer to or within the limits of another designated Pennsylvanian oil pool, shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.
- RULE 2. Each well shall be located on a standard unit containing 80 acres, more or less, consisting of the N/2, S/2, E/2, or W/2 of a governmental quarter section; provided however, that nothing contained herein shall be construed as prohibiting the drilling of a well on each of the quarter-quarter sections in the unit.
- RULE 3. The Director of the Division may grant an exception to the requirements of Rule 2 without notice and hearing when an application has been filed for a non-standard unit comprising a governmental quarter-quarter section or lot, or the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States Public Land Surveys. All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has

has entered an objection to the formation of the non-standard unit within 30 days after the Director has received the application.

- RULE 4. Each well shall be located within 150 feet of the center of a governmental quarter-quarter section or lot.
- MULE 5. The Director may grant an exception to the requirements of Rule 4 without notice and hearing when an application has been filed for an unorthodox location necessitated by topographical conditions or the recompletion of a well previously drilled to another horizon. All operators offsetting the proposed location shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Director may approve the application upon receipt of written waivers from all operators offsetting the proposed location or if no objection to the unorthodox location has been entered within 20 days after the Director has received the application.

RULE 6. A standard proration unit (79 through 81 acres)

depth bracket allowable stups

shall be assigned an 80-acre proportional towable stups

267 barrels of all perday, subject to the market formula proportion

allowable purposes, and in the event there is more than one well

on an 80-acre proration unit, the operator may produce the allowable assigned to the unit from the wells on the unit in any

proportion.

The allowable assigned to a non-standard proration unit shall bear the same ratio to a standard allowable as the acreage in such non-standard unit bears to 80 acres.

IT IS FURTHER ORDERED:

(5) That the locations of all wells presently drilling to or completed in the South Peterson-Pennsylvanian Pool or in the

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Pennsylvanian formation within one mile thereof are hereby approved; that the operator of any well having an unorthodox location shall notify the Hobbs District Office of the Division in writing of the name and location of the well on or before

December 1,1978

(*) That, pursuant to Paragraph A. of Section 65-3-14.5,

NMSA 1953, contained in Chapter 271, Laws of 1969, existing wells

in the South Peterson-Pennsylvanian Pool shall have dedicated

thereto 80 acres in accordance with the foregoing pool rules; or,

pursuant to Paragraph C. of said Section 65-3-14.5, existing

wells may have non-standard spacing or proration units established

by the Division and dedicated thereto.

Failure to file new Forms C-102 with the Division dedicating 80 acres to a well or to obtain a non-standard unit approved by the Division within 60 days from the date of this order shall subject the well to cancellation of allowable. Until said Form C-102 has been filed or until a non-standard unit has been approved, and subject to said 60-day limitation, each well presently drilling to or completed in the South Peterson-Pennsylvanian Pool or in the Pennsylvanian formation within one mile thereof shall receive no more than one-half of a standard allowable for the pool.

- (5) That this case shall be reopened at an examiner hearing in November, 1979, at which time the operators in the subject pool may appear and show cause why the South Peterson-Pennsylvanian Pool should not be developed on ether-than 40-acre spacing units.
- (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.

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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. 6357

Order No. R-6235 5853-

IN THE MATTER OF CASE 6357 BEING REOPENED PURSUANT TO THE PROVISIONS OF ORDER NO. R-5853, WHICH ORDER ESTABLISHED SPECIAL RULES AND REGULATIONS FOR THE SOUTH PETERSON-PENNSYLVANIAN POOL, ROOSEVELT COUNTY, NEW MEXICO, INCLUDING A PROVISION FOR 80-ACRE PRORATION UNITS.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on November 28 and January 3, 1980,

1979, at Santa Fe, New Mexico, before Examiner Richard L. Stamets

NOW, on this ______ day of ______, 19 ______, 19 _______, 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 by Order No. R-5853, dated November 14, 1978, temporary special rules and regulations were promulgated for the South Peterson-Pennsylvanian Pool, Roosevelt County, New Mexico, establishing temporary 80-acre spacing units.

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Case No. 6357 Order No. R-

- That pursuant to the provisions of Order No. R-5853, this case was reopened to allow the operators in the subject pool to appear and show cause why the South Peterson-Pennsylvanian Pool should not be developed on 40-acre spacing units.
- (4) That the evidence establishes that one well in the will not South Peterson-Pennsylvanian Pool can efficiently and economically drain and develop 30 acres.
- That the Special Rules and Regulations promulgated by orded and will afford to the owner of Order No. R-5853 have each property in the pool the opportunity to produce his just and equitable share of the oil and gas in the pool.
- (b) That in order to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling, of too few wells, and to otherwise prevent waste and protect correlative rights, the Special Rules and Regulations promulgated by Order No. R-5853 should be continued in full force and effect until further order of the Division.

IT IS THEREFORE ORDERED:

- That/Ithe Special Rules and Regulations governing the South Peterson-Pennsylvanian Pool, Roosevelt County, New Mexico, promulgated by Order No. R-5853, are hereby continued in full force and effect until further order of the Division.
- (2) 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.