CARD 5152 Petro-Lowis Corp. For a Sphotal Back Bracket Allowable, Balle-Setrada 011 Pool, Sandoval County, N.M.

CASE 170. 5152

Application,

Transcripts,

Small Ekhibts

		Page						
1		RE THE						
,		SERVATION COMMISSION New Mexico						
- 2	August 13, 1975							
i								
3	DURWIN	D WDADING						
4	EXAMINER HEARING							
`]								
5)						
6	IN THE MATTER OF:)						
	Case No. 5152 being reop	ened pursuant to)						
7	the provisions of Order	No. R-4713, as)						
	amended by Order No. R-4							
8	established a special de allowable for the Media-							
9	Sandoval County, New Mex	·						
)						
10								
11								
	BEFORE: Daniel S. Nutter, Examiner.							
12								
13	TPANSCET D	T OF HEARING						
.0	TRANSCRII	1 OF HEARING						
14								
15								
15	APPEA	RANCES						
16	For the New Mexico Oil	Thomas Derryberry, Esq.						
	Conservation Commission:	Legal Counsel for the Commission						
17		State Land Office Building						
18		Santa Fe, New Mexico						
.5	For the Applicant:	Thomas W. Kellahin, Esq.						
19		KELLAHIN & FOX						
20		Attorneys at Law 500 Don Gaspar						
20		Santa Fe, New Mexico						
21								
	For the Protestant:	George H. Hunker, Jr., Esq.						
22		HUNKER, FEDRIC & HIGGINBOTHAM, P. Attorneys at Law						
23		P. O. Box 1837						
		Roswell, New Mexico						
24								
25								
	The second secon	Contraction of the second of t						

JOHN SOMERS

Direct Examination by Mr. Kellahin

Cross Examination by Mr. Nutter

JOHN REIMER

Direct Examination by Mr. Hunker 12

Cross Examination by Mr. Kellahin 21

INDEX

Page

EXHIBIT INDEX

Exhibit Number One, tabulation 8 8

Exhibit Number Two, graph 8 8

R and M Exhibit Number One, study 21 22

R and M Exhibit Number Two, tabulation 21 22

R and M Exhibit Number Three, worksheet 21 22

sid morrish reporting service General Court Reporting Service 825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501 Phone (505) 982-9212

24

and in what capacity?

MR. NUTTER: We will call the next Case, Number 1 5152. 2 MR. DERRYBERRY: Case 5152 in the matter of Case 3 Number 5152 being reopened pursuant to the provisions of the order No. R-4713, as amended by Order No. R-4713-A, which order established a special depth bracket allowable for the 6 Media-Entrada Oil Pool, Sandoval County, New Mexico. MR. KELLAHIN: Tom Kellahin of Kellahin and Fox, appearing on behalf of Petro-Lewis Corporation and I have one 8 witness to be sworn. (THEREUPON, the witness was duly sworn.) 11 MR. KELLAHIN: If the Examiner please, we would 12 13 propose to incorporate the records of and exhibits of the previous hearings in this case and simply provide for you today testimony to update the information already submitted. 15 MR. NUTTER: The record in Case 5152 made on prior 16 occasion will be incorporated in the record of this Case today. 18 JOHN SOMERS 19 called as a witness, having been first duly sworn, was 20 examined and testified as follows: 21 DIRECT EXAMINATION 22 BY MR. KELLAHIN:

Would you please state your name, by whom employed

sid morrish reporting service

General Court Reporting Service

General No. 122, Santa Fe, New Mexico 87501
825 Calle Mejia, No. 122, Santa Fe, New Mexico

hearing.

Q.

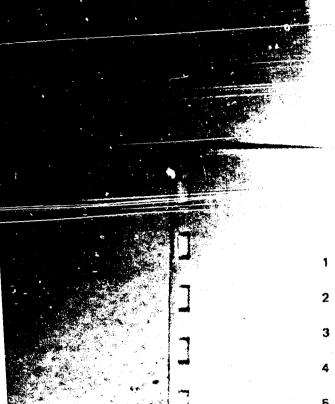
24

25

Page4	?
acceptable?	
MR. NUTTER: Yes, they are. 15 Q (Mr. Kellahin continuing.) Mr. Somers, would you 16 17 please refer to what has been marked as Exhibit Number One 18 identify it and state for the Examiner what information it	
contains?	nction
20 A. Exhibit Number one 2 21 from the four wells which comprise the Media-Entrada fiel 21 showing the oil and water production from June 1974 throw 22 showing the oil and water production from June 1974 throw 23 June 1975, which is basically the period since our last	

Would you please refer to Exhibit Number Two and

Page Exhibit Number Two is an update of an exhibit which was presented at a previous hearing on this matter, showing identify it? the oil percent versus cumulative production performance of Fluid Power Pump Number One, and this has been updated to 2 current production or cumulative production point, showing 3 that we are continuing to perform on a better trend with high-volume submersible pumping equipment than what we were 5 actually performing under low-volume beam pumping. 6 In your opinion, Mr. Somers, is it still necessary to maintain the special depth bracket allowable at seven sid morrish reporting service sid morrish reporting Service General Court Reporting Service General Court Reporting Service 37501 General Court Reporting Service Service Service General Court Reporting Service Serv 9 hundred and fifty barrels per day? 10 11 Because this field has just been unitized for a yes, it is. 12 The unit will be effective And why? 13 September 1st. We are now in a position to inject the Q. 14 pressure-maintenance project. produced water back into the Entrada and this will enable us 15 to go ahead and further go ahead and increase the production 16 rate from the wells in the field so that we can produce close 17 18 Why have you not produced the allowable as of this 19 to the allowable. 20 Because of limited disposal capacity and the fact 21 that the property has not been unitized so that we could put 22 date? 23 24



9

10

11

13

14

15

16 17

18

19

20

21

22

23

25

Q.	Do	you	anti	icipate	e an	y a	dverse	efi	fect	on	the	
reservoir	or	are	you	aware	of	any	evide	nce	of	rese	ervoi	ľ
damage?												

None at all, as a matter of fact to the contrary, this plot which was shown as Exhibit Number Two indicates that as the withdrawal rate increases that our oil cut increases, therefore, we would expect higher ultimate recovery from the reservoir by being able to produce it at the higher rates.

Would producing the wells in the Media-Entrada pool add a lower rate, a rate lower than the special depth bracket allowable, result in the loss of oil that would not otherwise be recovered?

Yes, it would.

Is it necessary to have the higher rates of withdrawals in order to reduce the amount of water in relation to the amount of oil recovered?

Yes, sir.

The conclusions you made in the previous testimony before this Commission, are you in a position to re-affirm those opinions?

A. Yes.

Nothing between the last hearing and the present hearing causes you to believe that this special depth bracket allowable should not be continued?

sid morrish reporting service	General Court Reporting Service Calle Mejia, No. 122, Santa Fe, New Mexico 87501 Phone (505) 982-9212

3

5

6

9

10

11

12

13

14

15

16

18

19

20

21

22

23

Page	8	

- No, not at all.
- Were Exhibits One and Two prepared by you or under your direct supervision?
 - Yes, they were.
- In your opinion will continuation of the special depth bracket allowable be in the best interests of conservation, the prevention of waste and the protection of correlative rights?
 - Yes, it will.

MR. KELLAHIN: If the Examiner please, we move the introduction of Exhibits One and Two.

MR. NUTTER: Petro-Lewis Exhibits One and Two will be admitted into evidence.

MR. KELLAHIN: That concludes our direct examination.

CROSS EXAMINATION

17 BY MR. NUTTER:

- Mr. Somers, you say that the wells have a capability of meeting this special allowable in the pool? Now, examination of Exhibit One reveals that the well which is producing the most fluid would be the Fluid Power Pump Number One?
 - A. Yes.
- 24 And it is making something like three thousand 25 barrels of water and two hundred and fifty barrels of oil

Я

9

11

15

16

17

18

21

22

23

24

A. Number Three we can, we have a problem with	
Federal Media Number One and Two in that they are equipper	ed
with four-and-a-half inch casing and we are going to be	
limited there to a lower withdrawal rate.	

- Q I see. So you may not be able to get them up to anywhere near the seven hundred and fifty?
 - A. Right.
 - Q. What is the standard allowable, three seventy-five?
- A. It was three hundred and forty-seven the last time that we actually checked.
- Q Now, Exhibit Number Two is simply a copy of Exhibit Number Two at the last Hearing, but you have added on a red line over to the right hand side. What is your cumulative production there?
- A. It is three hundred and twenty-six thousand barrels at that point.
 - Q. And when was that?
- A That was in the end of January 1975. Fortunately we were producing at the point that when I went back to use this exhibit we would have been off of our chart when we came up with the June point, so we didn't put the June point on.
 - Q. You just went ahead and used the old one?
- A. Yes, we used the old exhibit and updated it to the extent that we could within the limits of this actual

graph.

2

3

6

8

10

MR. NUTTER: Any further questions of Mr. Somers? He may be excused.

Do you have anything further, Mr. Kellahin?

MR. KELLAHIN: No, sir. 5

MR. NUTTER: Does anyone have anything they wish

to offer in Case 5152? MR. DERRYBERRY: Mr. Examiner, the Commission has received a letter from Mr. George H. Hunker, attorney for John K. Reimer and Robert E. Mckenzie who are royalty interest owners under the tracts involved, protesting the continuance of the special depth bracket allowable and requesting us to treat his copy of the letter that was sent to us, as a 12 protest to the continuance of the special depth bracket 13 allowable, and states that he believes the special depth 14 15 bracket allowable is no longer justified. 16

MR. NUTTER: Is there anything further in Case

We will take the Case under advisement. 5152?

20

19

17

18

21

22

23

24

25

```
MR. NUTTER: We will reopen Case 5152.
            MR. HUNKER: I would like to reserve the right also
  to call Mr. Somers in connection with this Case. Having
   not heard his testimony I am a little at a loss to present
               I would like to call Mr. John Reimer and have
2
                 I may call Mr. McKenzie. Bob, do you want to
3
 4
                 (THEREUPON, the Witnesses were duly sworn.)
    him sworn.
                 MR. NUTTER: I believe at this time we will take
   6
      stand up?
   7
    8
                   (THEREUPON, a fifteen minute recess was
        a fifteen minute recess.
     9
                     MR. NUTTER: The Hearing will come to order, please.
     10
                    taken.)
      11
                     We Will now reopen Case 5152.
       12
        13
              called as a witness, having been first duly sworn, was
         14
         15
              examined and testified as follows:
          16
           17
                                      DIRECT EXAMINATION
            18
                            Mr. Reimer, will you identify yourself, please?
             19
                 BY MR. HUNKER:
             20
                             I am John Reimer, R-e-i-m-e-I.
              21
                             Where do You live, Mr. Reimer?
                       Q.
               22
                        A.
                              Albuquerque, New Mexico.
                23
                         Q.
                24
                         A.
                 25
```

Page_

13

Do you have an interest in the Media-Entrada

9001? 2

3

4

I have.

What is that interest? 0.

My personal interest is a five percent overriding A.

interest in Federal Media Wells One and Two. 5

Is that interest communitized at the present time?

Have you made a study, Mr. Reimer, of the produc-

Where did you get the information for making this

The information for this was based on the operator's reports that are submitted monthly. It is a standard form,

And what does that operator's report show, Mr.

Reimer? 18

25

It shows the oil on hand at the beginning of the month; the barrels of oil produced; the barrels of water 19 produced; the barrels transferred to the transporter or

22 which are sold barrels; the barrels of oil on hand at the

23 end of the month.

How far back did you go in making this study? 24

In 1969, the inception of Federal Media Number One. A.

13

14

15

16

17

18

19

20

21

22

23

24

25

3

6

sid morrish reporting service

General Court Reporting Service
825 Calle Mejia, No. 122. Santa Fe, New Mexico 87501
Phone (505) 982-9212

Page_

- How many wells are there in the Pool? Q.
- Four.
- What are those wells?
- Federal Media Number One, Federal Media Number Two, A. Fluid Power Pump Number One and Fluid Fower Pump Number Three.
- Have you made a quarterly summary of the production Q. from the Fluid Power Number One Well? That's the sheet you have in front of you.

Yes. Well, I made several summaries. The data involved in this was so great that instead of scheduling it by months I scheduled it and worked it out to quarters, quarters of a year, and from these data that came from the reports, production reports, I prepared three schedules. One of them was the comparison of the barrels of oil that were produced by each of the four wells from the period of 1969 through the quarters ending June 30th, 1975.

The second one was the water-oil ratio for the same period of time, for the same wells.

And the third, which is the little worksheet here, established the average barrels of oil per day for Fluid Power Pump Number One and Number Three from the start up of Fluid Power Pump Number One in the fourth quarter of 1971.

In connection with the first study that you Q. prepared with regard to the oil produced, the barrels in thousands, from inception through June of 1975 by quarters,

TISH FEPOFULLY SEFVICE

ral Court Reporting Service

No. 122, Santa Fe, New Mexico 87501

Phone (505) 982-9212

I show you your study paper and ask you to explain that chart that you have prepared to the Examiner.

A. Shall I come up there?

MR. HUNKER: We only have one of these.

MR. NUTTER: You can put it on the wall if you wish and use the pointer.

Q (Mr. Hunker continuing.) Explain, if you will, this graph, Mr. Reimer?

A. First off when I finished this I knew I had done it wrong, I should have used cross checks instead of colors.

I had a hell of a time getting the colors reproduced, finding someone to do that.

This chart is for the oil produced with barrels in thousands, this axis, from the inception in 1969 to June 30th, 1974 with the data expressed by quarters. The quarters are so identified across the bottom of the chart. The turquoise or blue data are Federal Media Number One; the red is Federal Media Number Two; the black is Fluid Power Pump Number One; the green is Fluid Power Pump Number Three, barrels of oil produced.

You can see from this more or less what the trends have been. If you want to talk about Federal Media Number One, this is 1969, the second quarter when it started, you can see what's happened to this.

Q. When did the Fluid Power Pump Number One go on

sid morrish reporting service

production, what quarter?

A. It went on production in the fourth quarter of 1971. This is black. See what the production has been on this.

Q. When did the production from the Fluid Power Pump Number One Well peak, Mr. Reimer, according to your chart?

A. Fluid Power Pump Number One peaked at the second quarter of 1974.

Q. What has happened to that well since that time?

A. It has shown a decline.

Q. In connection with the water-oil ratio study that you made, you prepared another chart. Would you explain to the Examiner what this chart shows?

A. This chart is based on the same data, operator's reports, accumulative data from that and back again into the quarters. Thave used the same color code, that is blue is Federal Media Number One; red is Federal Media Number Two, black is Fluid Power Pump Number One; and green is Fluid Power Pump Number Three.

The axis here is, well in thousands of barrels of water for the time period across the bottom. This starts in 1969 at the inception of Federal Media Number One and goes by well, by quarters, to the period in time of June 30th, 1975.

Q. This represents the ratio of water to oil, is that

MR. NUTTER: Mr. Reimer, if it represents ratio, right? That's right. how come it is in thousands of barrels of water? 2 THE WITNESS: It's not in thousands of barrels. 3 Ą Is it in percents? Yes, it is in percents and not MR. NUTTER: 5 THE WITNESS: 6 thousands of barrels. 7 (Mr. Hunker continuing.) You have some fine lines MR. NUTTER: 8 drawn on that chart there, six of them, will you explain to sid morrish reporting service General Court Reporting Service 87501 General Court Reporting Service 87501 825 Calle Mejia. Phone (505) 982-9212 9 the Examiner what those fine lines represent on the chart? 10 In the quarter, April 1st to June 30th, 1973, Fluid 11 Power Pump Well Number Three had an oil-water ratio of one 12 hundred and forty point six six, and my chart goes up to 13 thirty to one. This one for Fluid Power Pump Number Three 14 and this one for Federal Media Number Two had ratios that 15 16 In other words, if you had shown those you would were higher than the chart. 17 have had to extend the chart considerable distance above 18 19 This line right across here is thirty to one. where you did, is that right? 20 will give you an idea how far that would have to be extended 21 to get to one hundred and forty point six, it would be in 22 23 24 here someplace. 25

 Ω I think that is all we want with regard to those two charts.

You've also prepared another summary concerning production of oil from the Fluid Power Pump Number One and the Fluid Power Pump Number Three. Will you tell the Examiner about this study that you made, Mr. Reimer, what does it show?

- A. This shows the total barrels of oil produced by Fluid Power Pump Number One and Fluid Power Pump Number Three, being the same values that were established for these other studies, in quarterly values divided by the number of calendar days in that quarter. For example, on the first quarter of October first through December the 31st of 1971, there were ninety-two working days. Fluid Power Pump Number One produced thirteen thousand, four hundred and fifty-nine barrels of oil or one hundred and forty-six point three barrels per day, an average of one hundred and forty-six point three barrels per day.
- Q. You showed that in the fourth quarter of 1973, on the other charts, a considerable increase in the production. Explain that quarter, if you will, to the Commission.
 - A. The fourth quarter of 1973?
 - Q. Yes, sir, with regard to Fluid Power Pump Number One.
- A. Fluid Power Pump Number One produced thirty-two thousand six hundred and forty-seven barrels of oil and

sid morrish reporting service

General Court Reporting Service

Calle Mejia, No. 122, Santa Fe, New Mexico 8750:
Phone (505) 982-9212

ninety-two calendar days in that period, which gave them an average of barrels of oil per day of three hundred and fifty-four point nine.

- Q Did the high point in the Fluid Power production,

 Pump Number One production occur after that in the second

 quarter of 1974?
- A. The second quarter of 1974 was the maximum average barrels of oil per day that were produced, four hundred and thirty-five barrels.
- Q. Since the first of the year what has happened with respect to that particular well?
- A. That particular well's average in the first quarter of 1975 was two hundred and twenty-seven point seven barrels per day for the first quarter and two hundred and thirty point nine barrels for the second quarter.
- Q. With regard to the other wells in the field, do any of them come up to the level of that Fluid Power Number One Well?
 - A. No. sir.
 - Q. And your studies will reveal this, is that correct?
- A. Well, it is obvious here from the barrels of oil produced by Fluid Power Pump Well Number Three that it is nowhere near comparable. I did not do a similar thing for Fluid Power Pump Number One and Two because there is no production in this neighborhood.

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

	. 2
barrels pe	r day.
Q.	What is the p
pool, for	the wells in
hundred an	d fifty barro
A.	Seven hundre
Q.	Based on the
wells at t	he present t

	Q.	What	is	the	all	Lowab	le	for	a	one	hundred	and	si	exty
acre	unit	at t	he p	prese	ent	time	wi	ithou	ıt	any	special	dept	:h	bracket
figu	re cra	anked	in	to it	:?									

- A. I thought it was three hundred and forty-seven barrels per day.
- Q. What is the present allowable for this particular pool, for the wells in this particular pool, is it seven hundred and fifty barrels?
 - A. Seven hundred and fifty barrels.
- Q. Based on the studies that you have made, are the wells at the present time capable of making the three hundred and forty-seven barrels?

MR. KELLAHIN: If the Examiner please, I would object to any conclusions reached by this witness. He has not been qualified as an expert witness and he cannot make a conclusion to that kind of a question.

MR. NUTTER: What was your question again, Mr. Hunker?

MR. HUNKER: I asked him if he would express an opinion, and I guess I better withdraw my question as to whether or not the wells were capable of making three hundred and forty-seven barrels.

MR. NUTTER: I think that would require an engineering conclusion.

MR. HUNKER: I have no other questions to ask of

this witness. I would like to offer the three exhibits that he has prepared and I will volunteer to try to get prepared copies of these exhibits for counsel.

I have a copy of Exhibit Number Three, if you will mark it Exhibit Three, please, Mr. Reporter, for me?

MR. NUTTER: How shall we identify these, R and M?

MR. HUNKER: R and M, Exhibits Numbers One, Two and

Three.

(THEREUPON, Exhibits R and M, One, Two and Three were marked for identification by the Reporter.)

MR. KELLAHIN: If the Examiner please, may I ask
the witness a question as to the foundation for the exhibits?

MR. NUTTER: I think he layed the foundation.

MR. KELLAHIN: I'm not exactly sure of what he said.

CROSS EXAMINATION

MR. NUTTER: Okay, go ahead.

BY MR. KELLAHIN:

- Q. Mr. Reimer, this is a compilation by you of information you derived from looking at Oil Commission records, is that right?
- A. The reports that have been submitted to the Oil Commission.
 - Q And all of the data used to compile these exhibits

altered somewhat there as it would be ninety-one days rather

MR. RIEMER: Thank you for calling that to my

is as a matter of fact on record with the Commission?

Right.

Q.

21

22

23

24

25

than ninety days.

You didn't use any outside information?

22

2

3

2

3

4

5

6

7

8

10

11

12

13

14

15

16

17

18

19

20

21

attention. Which quarter was that?

MR. NUTTER: That would be the first quarter of 1972, it would have ninety-one days.

MR. REIMER: I'll make a correction of some kind In other words, this would be eighty-nine days instead here. of ninety?

It would be ninety-one days. MR. NUTTER:

MR. HUNKER: It was leap year, see, it would be

ninety-one. 9

MR. REIMER: All right, I will change the ninety to

MR. HUNKER: Will you please make a calculation to ninety-one. correct it?

(THEREUPON, a discussion was held off

the record.)

MR. REIMER: That is two eighty-two point four Thank you for calling that to my attention. rounded off.

MR. NUTTER: Yes, sir.

MR. HUNKER: If the Examiner please, I would like for you to take administrative notice of the testimony adduced by Mr. Ralph Gray, a professional engineer, in Case Number 5152, heard on January 16th, 1974 wherein the original depth bracket allowable was considered together with his 22 testimony at the de novo hearing before the full Commission 23 24

in Case Number 5167.

MR. NUTTER: The record in Case Number 5152 made on previous occasions has already been incorporated in the record of this Case today and we will also then incorporate in the record Case Number --

MR. HUNKER: I think it is 5167, wherein Mr. Gray testified with regard to the reservoir that involved the Media-Entrada Pool and what was occurring with respect to the reservoir.

MR. NUTTER: The record of Case Number 5167 will also be incorporated.

MR. KELLAHIN: We have incorporated them. Mr. Nutter has those transcripts, I gave them back to him.

MR. HUNKER: Could I have about two minutes, please?

MR. NUTTER: Sure.

(THEREUPON, a short recess was taken.)

MR. HUNKER: I'm not going to call Mr. McKenzie as a witness, but I would like to make a statement, if I may.

Mr. McKenzie and Mr. Reimer together are the owners of a six percent overriding royalty interest under the Federal Media One and the Federal Media Two Wells. It is their contention and has been for a considerable period of time, that damage to this reservoir is occurring by reason of the excessive production from the Fluid Power Pump Number

į

One Well.

exhibits produced today and at previous hearings show this reservoir damage, a severe draw down in the water, a watering out of the Federal Media Number One Wells detrimental to their interests, to their correlative rights, and they would like to point out to the Examiner that under the Commission's regulations that to permit a greater depth well bracket allowable that there has to be sufficient reservoir information available. First of all to assure that the allowable can be produced, and further that it can be produced without damage to the reservoir.

out here. A number of things have happened over the last three and a half years, there have been five or six hearings, and at each of these hearings the minority interest owners have either appeared or decided that they shouldn't appear because the matter that was being considered by the Commission was not necessarily relevant to their particular position. At any rate, they have gone to a considerable expense in trying to establish their position with engineering testimony and by the preparation of other studies.

They feel that certainly their correlative rights are being damaged. They feel that oil is being drawn from the tract under which they have an overriding royalty up to

sid morrish reporting service

General Court Reporting Service

Calle Mejia, No. 122, Santa Fe, New Mexico 87501

Phone (505) 982-9212

the Fluid Power Pump Number One Well, that a considerable amount of their oil is being produced from that well. I think that it was established early on that one well would drain a hundred and sixty acres and the four wells in this pool could all be located on a forty-acre tract. So drainage is to be presumed. The owner's own testimony reflects that drainage is occurring, that oil is crossing lease lines.

We strongly feel that the depth bracket allowable should not be continued because it is rather clearly shown that the wells at the present time will not make the one hundred and sixty acre allowable presently established for the pool, which is three hundred and forty-seven barrels per well per day.

unitization pressure maintenance. Pressure maintenance was recommended by Fluid Power Pump Company back in nineteen hundred and seventy-two. Nothing has ever transpired that would actually help Reimer and McKenzie insofar as correlative rights are concerned. They have been led down the primrose path with a number of representations, and my thought would be with regard to this particular matter, once there is a need for a special depth bracket allowable and that Petro-Lewis can establish that they have actually performed the work that they have contended that they would perform, and they are actually in a position to produce in excess of

13 14

16

18

17

19

21

20

23

22

24

25

three hundred and forty-seven barrels per well per day, that they come back into the Commission and ask for a special depth bracket allowable.

My feeling is at this time that they cannot show that the wells are capable of producing this amount, hence, it is unneccessary for the Examiner, the Commission, to take any action in connection with this show-cause order.

We feel that the special depth bracket allowable should not be continued. We think the reservoir is being damaged, we think that the correlative rights of these two small-interest owners are being damaged.

Thank you very much, Mr. Examiner.

MR. NUTTER: Thank you. Mr. Kellahin?

MR. KELLAHIN: With all due respect to Mr. Hunker, the only expert testimony of record today on the specific point of whether to continue the special depth bracket allowable has been Mr. John Somers of the operator. His testimony indicates that for the reason that the area had not been unitized with the approval of the Commission and the USGS was the substantial factor in the delay in implementing the program for developing this acreage to allow it to produce up to seven hundred and fifty barrels per day. That hurdle has been overcome. The first of September is the effective date for the unitization. The operator has expended money, time and effort in putting

Page_

We apologize for the delay, those delays have largely been out of our control. It had to do with the mechanics of setting up this pool so that it could be operated effectively. We are now at the point where we can assure the Commission that we are going to make every reasonable effort to get this done as soon as possible, and, therefore, we ought to continue this special depth bracket allowable at least one more year and give Petro-Lewis an opportunity to show what they can do with regards to that.

There is no evidence in the record to indicate that the reservoir will be damaged. Quite the contrary, Mr. Somers' evidence indicates that there will be no adverse effect upon the reservoir and with that assurance then we would request that the order be approved.

MR. NUTTER: Thank you. Does anyone else have

Page 29	
---------	--

anything they wish to offer in Case Number 5152? We will take the Case under advisement.

sid morrish reporting service
General Court Reporting Service
825 Calle Mejir, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

Page	30	

 State of New Mexico)
) ss.
County of Santa Fe)

I, SIDNEY F. MORRISH, a court reporter, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and the same is a true and correct record of the said proceedings to the best of my knowledge, skill and ability.

Sidney F. Morrish, Court Reporte

sid morrish reporting service

General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

	COMMISSION HEARING	
	SANTA FE , NE	W MEXICO
Hearing Date	AUGUST 19, 1974	TIME: 9 A.M.
NAME	REPRESENTING	LOCATION
John Lemien Fason W. Kille	Lella Keila Kin 2 300 Petro Lewis Corp.	alley Saida 40.
John Prison	Petro Lewis Corp.	Donver
		\.
		}
	· · · · · · · · · · · · · · · · · · ·	

Page 1

_	1
Page	J.

)(Consolidated))Case 5262

and.

) Case 5152

BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico August 19, 1974

COMMISSION HEARING

IN THE MATTER OF:

Application of Petro-Lewis Corporation for pool contraction, creation and special pool rules, Sandoval County, New Mexico.

Case 5152 being reopened pursuant to the provisions of Order No. R-4713, which order established a special depth bracket allowable for the Media-Entrada Oil Pool, Sandoval County, New Mexico.

BEFORE: A. L. Porter, Secretary-Director

I. R. Trujillo, Chairman

TRANSCRIPT OF HEARING

APPEARANCES

For the New Mexico Oil

Tom Derryberry, Esq.

Conservation Commission: Legal

Legal Counsel for the Commission

State Land Office Building

Santa Fe, New Mexico

For the Applicants:

Jason Kellahin, Esq.

KELLAHIN & FOX 500 Don Gaspar

Santa Fe, New Mexico

THE NYE REPORTING SERVICE
STATE-WIDE DEPOSITION NOTARIES
225 JOHNSON STREET
SANTA FE, NEW MEXICO 87501
TEL. (505) 982-0386

CASE 5152 5262

Page 2

INDEX

	PAGE
JOHN B. SOMERS	
Direct Examination by Mr. Kellahin	5
Cross Examination by Mr. Porter	22
Cross Examination by Mr. Derryberry	23
Cross Examination by Mr. Porter	25
Cross Examination by Mr. Nutter	27
Cross Examination by Mr. Porter	36
Cross Examination by Mr. Trujiilo	37
Redirect Examination by Mr. Kellahin	38
Recross Examination by Mr. Trujillo	39
Recross Examination by Mr. Nutter	41
Recross Examination by Mr. Porter	43

EXHIBITS

Applicant's Exhibit No. 1 from Case No. 5262 22
Applicant's Exhibits Nos. 1 & 2 from Case No. 5152 22

THE NYE REPORTING SERVICE STATE-WIDE DEPOSITION NOTARIES 225 JOHNSON STREET SANTA FE, NEW MEXICO 87501 TEL. (505) 982-0386 MR. PORTER: The Hearing will come to order, please.

Let the record show that present for the Hearing are Commissioners Trujillo and Porter, and that this is a special Commission Hearing.

The first case is 5262 which is De Novo.

MR. CARR: Case 5262. Application of Petro-Lewis Corporation for pool contraction, creation and special pool rules, Sandoval County, New Mexico.

MR. KELLAHIN: If the Commission please, Jason Kellahin of Kellahin and Fox, Santa Fe, appearing for the Applicant. Since the two cases involve the same area and some of the testimony relates to the assignment of the allowables to what we propose to be two separate pools, we would suggest that the two cases be consolidated for the purpose of making a record with separate orders to be entered.

MR. PORTER: Are there any other appearances in the case?

MR. DERRYBERRY: Tom Derryberry for the Commission.

MR. PORTER: Is there any objection to the consolidation of the two cases for the purpose of making a record?

THE NYE REPORTING SERVICE
STATE-WIDE DEPOSITION NOTARIES
225 JOHNSON STREET
SANTA FE, NEW MEXICO 87501
TEL. (505) \$82-0386

MR. DERRYBERRY: No.

MR. PORTER: Then the cases will be consolidated for hearing.

Mr. Kellahin, how many witnesses do you have?

MR. KELLAHIN: We will have one witness. Prior to offering any testimony, however, I would like to move that the record in Case No. 5262 which was heard before the Examiner and the record in Case No. 5152 which was originally heard before an examiner six months ago be incorporated in the records of this case together with all the exhibits that were offered at that time. We propose only to update the information that has already been submitted.

MR. PORTER: Now, Case 5152 has to do with continuing a special depth bracket allowable that was put into effect some time ago?

MR. KELLAHIN: That is correct. In connection with that case, we will have some information derived from additional drilling in the area, and primarily, we will have projections on production subsequent to the Hearing.

MR. PORTER: I see. All right, if you have no objection, we will consolidate them.

The Commission will consolidate the two cases, and also, we will make the records that were made in the previous hearings a part of this record.

THE NYE REPORTING SERVICE

STATE-WIDE DEPOSITION NOTARIES
225 JOHNSON STREET
SANTA FE, NEW MEXICO 87501
TEL. (505) 982-0386

Somers.

MR. KELLAHIN: We have one witness, Mr. John

(Witness sworn.)

JOHN B. SOMERS

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

DIRECT ECAMINATION

BY MR. KELLAHIN:

- Q Will you state your name, please?
- A John B. Somers.
- Q By whom are you employed and in what position, Mr. Somers?
- A Petro-Lewis Corporation, Division of Production, Superintendent.
- Q Mr. Somers, have you testified before the Oil Conservation Commission or one if its examiners and made your qualifications a matter of record?
 - A Yes, I have.
 - Q You are a Petroleum Engineer?
 - A Yes, I am.
- Q Have you made a study of the Media-Entrada Pool in Sandoval County?
 - A Yes, I have.

Q Are you actively in charge of the operation of this pool?

A Yes, sir, I am.

MR. KELLAHIN: Are the witness' qualifications acceptable?

MR. PORTER: Yes, sir, they are.

BY MR. KELLAHIN:

Q Mr. Somers, referring to what has been marked as Petro-Lewis Exhibit No. 1 in Case 5262, the plat on the board, would you identify that exhibit, please?

A This is a map which shows both what we call Media proper, Media Dome field and southwest Media as it was defined as of June 1st, 1974. This shows in green outline, the oil-water contact of the two separate sources of supply of the reservoir. It shows the producing wells in each of the pools, and it shows a cross section across both of these reservoirs showing the tilted oil-water contact which is caused by the hydrodynamic gradient in the Entrada formation which is the producing formation in the field.

Q Was that cross section offered in the previous hearing in this case?

A Yes, it was. This is the exact same exhibit as it was presented previously in the same application. The

cross section is shown below, and below each cross section is shown the cumulative production from each of these pools showing that the southwest Media Pool has had very limited production, whereas, the Media Pool proper has been on production since, well, 1971. We have had about three years production of over a half million barrels that has been produced to date from that pool.

What we have attempted to show with this exhibit is both the original configuration of the reservoir on the overlay and as it is shown with dashed lines and then a solid line here, and then on the base map, what the reservoir actually looks like or the two reservoirs look like today. So, that you can see the oil-water contact has moved in and the size of the reservoir has dropped by virtue of water influx. This was calculated, first of all, on a reservoir basis and then confirmed by the testing of Fluid Power No. 4 Well and Federal Media No. 4 Well.

Q Where are those wells located?

A The Fluid Power No. 4 Well is in the southwest of the southeast of Section 15, 19 North, 3 West, and Federal Media No. 4 is in the southeast of the southwest of Section 14 of the same township and range. This also shows the structure on the top of the Entrada formation,

Page 8

showing the saddle which exists between the two fields. This saddle was caused by the overlying Todilto having thickened in the area.

- Q Todilto?
- A Todilto formation. It is a limestone and anhydrite formation which lies over the Entrada producing formation and forms caprock which has trapped the oil in the Entrada. The Todilto is less than 50 feet thick in the area of these producing wells and is something less than 70 feet thick where here in Federal Media No. 3 and here in Federal Media No. 5 it has thickened up to over 90 feet in this well and over 100 feet in this well. So, what you have is an erosion which was then later filled with Todilto in this saddle in between these two reservoirs.
- Q You said that was established by tests of the two wells that you referred to in what we call the Media-Entrada. What did these tests show?
- A The Fluid Power No. 4 Well tested 100 percent water.
 - Q It had been a producer?
- A It had been a producer. It was completed by

 Fluid Power Pump Company prior to our acquiring an interest
 in the property. It was initially potentialed to 24 barrels

Page. 9

SOMERS-DIRECT

of oil a day and 72 barrels of water a day. So, it was very close to the oil-water contact originally, but from all appearances, it is now below the oil-water contact. The Federal Media No. 4 was more recently tested, actually after our first hearing, and it tested 99½ percent water at the rate of 1500 barrels of water a day, where it had originally tested 18 barrels of oil and 96 barrels of water a day. So, both of these wells are essentially

Now, there has been development subsequent to this which confirms the interpretation here. At the time of the preparation of this exhibit, southwest Media was only defined by these two dry holes, being Federal Media No. 3 and Federal Media No. 5 and the producing well, Fluid Power No. 5. We have since drilled a producing well which is called Bowling Federal 6-22 to the south of Fluid Power No. 5.

watered out and you can tell that the reservoir has moved

water drive because this is a very thick Entrada section

in somewhere between 7 and 10 feet. This is a bottom

in this area. The maximum oil column is here in the

Fluid Power No. 1 which has 41 feet of pay.

Q Could you mark on the exhibit the approximate location of that well, please?

Page 10

SOMERS-DIRECT

now.

A Bowling 6-22 is located approximately in the southeast of the northwest of Section 22, Township 19

North, Range 3 West. This well encountered 42 feet of cil saturated Entrada pay. It is the thickest oil section that we have encountered in either of the fields. We are presently in the process of completing this well, and swab-testing and getting pressure information on it right

Q Does it make any water?

A It makes no water at all. We have changed the drilling practices in here that had been used previously in drilling the other wells in an attempt to make a completion which would be as low water productive as possible and so far, we appear to have succeeded. We set intermediate pipe in the Todilto. We drilled in with oil so that we would not flush water out into the sand, and we completed the very top six feet of the Entrada to try to stay away from the oil stater contact. The sand has very good characteristics of average permeability like 300 millidarcies and porosities that average better than 23 percent. The porosities in this well in the upper section where we perforated it were over 28 percent with permeabilities of 800 millidarcies.

Q How do the porosities and permeabilities compare to the Media-Entrada Pool that is already developed?

Α They are almost exactly the same, within a tenth of a percent as far as porosity is concerned and very close as far as the permeability value is concerned. The average, I believe, is 286 and I believe it is 276 or 280 in here. The oils, however, are different in some of their characteristics. As far as distillation analysis or composition. they are very much the same. There are two degrees of difference here. The Media proper field is 33 gravity. The southwest Media, the sample that we analyzed is 31. The viscosity of the oil in the southwest Media is twice as viscous as the oil in the Media Todilto. At 80 degrees Fahrenheit you have 500 centipoises per Sayboldt seconds. In the southwest Media, you have over 1100 Sayboldt seconds viscosity. So, this appears to be a more viscous oil.

Q Did you find any difference in the pressures between the two areas?

A Yes, we have. We recently ran a pressure survey with both of the fields shut in, and this pressure survey showed that the depth-to-fluid in all of the producing wells in the Media was 930 feet and the depth of the fluid in the southwest Media was only 630 feet, indicating that

actually the production in this reservoir has not affected SOMERS-DIRECT the pressure in this reservoir.

- Are the depths of the producing formations approximately the same in the two areas?
 - Yes, within 100 feet -- within 50 feet, actually.
 - Have you run any pressure tests in the southwest Q
 - We are in the process right now. As a matter Media? of fact, I was trying to make some telephone calls to get this information before the Hearing. We have a bomb in this well. We had it in there overnight and should have pressure build-up information on that Bowling 6-22 this morning and we can furnish that to you as soon as it is
 - Do you have any pressure information in the available. Media proper?
 - Yes, we do.
 - What information is that?
 - It indicates pressure depletion, that production has depleted this reservoir to the extent of about 400 pounds.
 - Was that information offered at the previous Q hearing?

Page.....13

- A I am not sure. I believe some of the pressure information was.
- Q Would you briefly review it then, what the pressures are?
- A The original pressure appears to have been between 2100 and 2200 pounds in the Media field and it is now around 1780 pounds, whereas the pressure in the southwest Media still appears to be around 2100 pounds.
- Q You will have that pressure information later for the Commission?
 - A Yes, we will.
- Q Do you have anything to add in connection with Exhibit No. 1?
 - A No, I don't believe so.
- Q Mr. Somers, in connection with the Application in Case No. 5262, the Applicant also applies for a special depth bracket allowable for the southwest Media of up to 750 barrels per day. Do you have anything to say in connection with that, confining your answer to the southwest portion of the area?
- A We, as I say, are presently testing the Bowling 6-22 Well on completion, and we presently have swab rates that have varied from 720 barrels a day to 890 barrels a

CASE 5152 5262

Page 14

SOMERS-DIRECT

day from just six of the 42 feet of pay in the well. So, the well definitely has the capacity to produce -- be a top allowable producer, actually, as all the wells in here do. The PI's or Productivity Indexes of the wells in the Entrada in both of these pools indicate a minimum productivity of 11,000 barrels a day, barrels of fluid a day capacity, so we are talking about a very small percentage of the actual capacity of the wells to produce.

Q What is the producing characteristics of the other well in the southwestern area?

A This has been a high volume water-producing well up until it was treated to restrict water production. The well -- and I think this is principally because of the viscous nature of the oil -- was producing 7 to 10 barrels of oil a day and 1500 barrels of water a day. It was then treated to restrict the water production and came back producing about 180 barrels of oil and about 200 barrels of water a day. Since that time, we have had difficulty with sustaining fluid production because of the treatment of the well, and as a result, our bottomhole temperatures dropped and our oil rates have also dropped so that the well is only making around 40 barrels of oil a day with about 200 barrels of water a day. Again, we

Page.....15

SOMERS-DIRECT

had treated the well with Injectrol which is a chemical which sets up in the water and prevents water production, fluid production, and we are anticipating treating the well with hot oil to try to restore some of its productivity. It is definitely limited in productivity because of the treatment and because of the way it was completed initially. The completion practices initially were, before they were aware of the primary producing mechanism in the field, to complete the wells from the top of the sand all the way to the oil-water contact. As a result, the minute you produced the well at all, you have water production into the wellbore, and with this viscous oil which has a very high pore point, it is very very difficult

MR. PORTER: Which well were you talking about that is now making about 40 barrels a day?

to produce at a very low water cut in any of the wells

THE WITNESS: The Fluid Power No. 5 Well.

MR. PORTER: In Section 22?

THE WITNESS: Yes, sir.

which were completed in this manner.

MR. PORTER: Thank you.

BY MR. KELLAHIN:

In your opinion, is it necessary -- again, confining your answer to the southwest portion that we are

THE NYE REPORTING SERVICE

STATE-WIDE DEPOSITION NOTARIES
225 JOHNSON STREET

225 JOHNSON STREET SANTA FE, NEW MEXICO 87501 TEL. (505) 982-0386

Page 16

talking about -- is it necessary to produce those wells at high rates?

A I would say definitely it is. I can't say from experience in the southwest area because we have such limited production experience from Fluid Power No. 5, but definitely from the experience we have had in the Media proper.

- Q Take the Bowling Well, for example, would producing it at the rate of the proposed 750 barrels per day cause premature water encroachment in your opinion?
 - A No, not at all.
 - Q Or coning of water?
 - A No.
- Q Have you found any evidence of that in producing the other pool?
 - A No, we have not.
- Q Do you feel the producing characteristics of the two areas are similar?
 - A Very very similar.
- Q Now, Mr. Somers, in your opinion, do the areas which you have outlined in green on your Exhibit No. 1 constitute two separate sources of supply?
 - A Yes, they do.

Page 17

- Q Do you find any evidence from the well completions that you have made showing any communication across the zones between those two areas?
 - A No, we don't.
- Q And the pressures you have encountered indicate there has been no communication?
 - A That's correct.
- Q Now, Mr. Somers, turning to Case No. 5152, and referring to Exhibit No. 1 in that case which is the cumulative production versus percent oil on the Fluid Power No. 3, would you discuss that exhibit, please?

A This is an exhibit which we prepared and I believe presented in Case No. 5218, however, it has been updated with test information and cumulative production as of the 1st of August, 1974. This exhibit is a plot of cumulative oil production versus percent oil for Fluid Power No. 3 in the Media proper field. It shows that since the installation of submersible high-volume pumping equipment, we have had an increase with high withdrawal rates of oil percent and it looks like we are going to recover a substantially greater — we have already recovered three times the oil that we would have anticipated under continued beam pumping operations or low volume

Page 18

pumping operations. At this point it is difficult to project, but we are going to substantially improve the ultimate recovery over what might have been anticipated at low withdrawal rates.

show the decline in trend which had been established with low volume withdrawal. The solid points show the oil cut versus cumulative history which has been established since the installation of high volume submersible pump. We are pumping at the rate of 3800 barrels of fluid a day, whereas previously, we were limited to approximately 1200 to 1400 barrels of fluid a day.

Q Referring to Exhibit No. 2, in Case No. 5152, would you discuss that exhibit?

A This is a plot of cumulative oil production versus percent oil for Fluid Power No. 1 Well. It, again, shows the history, producing history of the well prior to the installation of high volume pumping equipment. It also shows the same type of response; as we increased the producing rate, we got an increase in oil percent, and it appears from this graph that we are going to recover in this well, over 300,000 barrels of oil more than we would have recovered under continued low volume withdrawals.

Page 19

- Q Would producing the wells in the Media-Entrada

 Pool at a lower rate result in the loss of oil that would

 not be recovered?
 - A Yes, it appears that it would.
- Q In your opinion, is it necessary to have the higher rates of withdrawal in order to reduce the amount of water in relation to the amount of oil recovery?
 - A That is correct, yes, it is.
- Q Now, Mr. Somers, in connection with the two cases, have any plans been made for forming a unit for the operation of these two pools?
- A Yes. We have made plans based on our reservoir work to form a unit and a pressure maintenance project to cover Media proper.
 - Q That is the original Media field?
- A That is the original Media field which is made up of four producing wells: Fluid Power No. 1, Fluid Power No. 3, Federal Media No. 1 and Federal Media No. 2. Those would continue to be producing wells. Some of the wells that are also in the pool which are shut in or watered out such as Fluid Power No. 4, Federal Media No. 4, would be utilized as injection wells in this project.

Basically, this project is because our study

Page 20

viscous nature of the oil, and we feel and our calculations indicate that we can increase the recovery substantially by returning the water to the reservoir instead of disposing of it in the shallow Gallup formation. We would be able to return approximately 93 percent of the present produced fluid to the reservoir if we were able to initiate this project.

- Q Would injection of water in the Media proper be of any benefit whatsoever to the southwest Media area?
 - A No.
- Q Could you then include it in a participating area in any unit that might be formed?
 - A No, I don't believe so.
- Q Have you checked with the United States Geological Survey on the possibility of forming a unit including both areas with a participating area for one and not for the other?
 - A Yes, we have.
 - Q What answer did you get?
- A They emphatically suggested that a unit be formed to cover just Media proper, that the two areas could not be covered under a single unit.

Page 21

- Q Did they flatly say they would not approve such a unit?
 - A Yes.
- Q Now, Mr. Somers, in Order No. R-4713, which approved the special allowable for the Media-Entrada Pool, it was a suggestion, being in the final portion of the Order, that the Applicant install production equipment at each of the existing 160-acre non-standard units to produce the units in such a manner as to minimize the fluid-head differentials between units and to eliminate drainage which might not be offset by counter-drainage. Has this been done?
- A Yes, it has. We replaced the small pumping units on Federal Media No. 1 and Federal Media No. 2 with larger pumping units. Federal Media No. 2 was equipped with a 320,000 inch pound pumping unit. That was replaced with a 640,000 inch pound pumping unit, and the pumping unit on the Federal Media No. 1 which was 456,000 inch pound unit was replaced with a 640,000 inch pound unit.
- Q In your opinion, has that resulted in more equalized withdrawals from the four units?
 - A Yes, it has.
- Q Have you filed, as required by the Order, production fluid level tests on each of the producing wells
 THE NYE REPORTING SERVICE

STATE-WIDE DEPOSITION NOTARIES
225 JOHNSON STREET
SANTA FE, NEW MEXICO 87501
TEL. (505) 982-0386

Page 22

in the pool?

- A Yes, we have.
- Q And these were filed at the Aztec office?
- A Yes, with Mr. Arnold.
- Q Was Exhibit 1 in Case 5262 and Exhibit 1 and 1 in Case 5152 prepared by you or under your supervision?
 - A Yes, they were.

MR. KELLAHIN: I would like to offer at this time these three exhibits in the consolidated cases.

MR. PORTER: We have one exhibit for one case and two exhibits for the other. If there are no objections, the exhibits will be admitted.

(Whereupon, Applicant's Exhibit No. 1 in Case No. 5262 and Applicant's Exhibits Nos. 1 and 2 in Case No. 5152 were marked for identification and admitted into evidence.)

BY MR. KELLAHIN:

- Q Do you have anything further to add, Mr. Somers?
- A No, sir.

MR. KELLAHIN: I tender the witness for cross examination.

CROSS EXAMINATION

BY MR. PORTER:

Q Mr. Somers, what you are seeking is to remove the northwest quarter of Section 22 from the Media-Entrada Pool and form a separate pool under 160 acres and continue the 750 barrels of top allowable?

A Yes, sir.

Q For the Media-Entrada. What about the new pool that you desire to form; are you asking for the same allowable?

Yes, for the same field rules for both fields.

MR. PORTER: Mr. Derryberry, do you have a

question?

MR. DERRYBERRY: Yes.

CROSS EXAMINATION

BY MR. DERRYBERRY:

Q Did the U.S.G.S. refuse or indicate they would refuse to authorize the establishment of the pressure maintenance project encompassing both of these areas, and premise that refusal on the creation of two separate pools? In other words, did they assume that these two areas constitute two separate pools in refusing to allow the unit to cover both of those areas?

A I don't know. They didn't say that, let's put it that way.

Page. 24

- Q I was wondering what information --
- A (Interrupting) Carl Traywick just indicated that they would not consider approving a unit which would cover both areas but have different participation bases.
- Q Did the information that you gave in soliciting this answer indicate that these two areas constituted separate sources of supply?
 - A Yes.
- Q The other question I had was: In your opinion, is the water drive for the Media proper pool in communication with the water drive for the southwest Media pool?
- A Well, it is all in the Entrada formation, and that is a blanket formation that covers the whole San Juan Basin, so anyplace in the Entrada is in communication with any other place in the Entrada.
- Q In other words, this caprock that comes down in the saddle separates the oil zones but not the water zones?
- A Well, let's put it this way: It doesn't completely cut the Entrada off from the Entrada that is
 present over there. In other words, it is a blanket sand
 all over the San Juan Basin. The erosion at that point was
 not enough to completely erode all of the Entrada, so all

Page. 25

of the Entrada is in pressure communication.

MR. DERRYBERRY: I see. Thank you.

CROSS EXAMINATION

BY MR. PORTER:

- Q All of it is in pressure communication to some degree?
 - A To some degree, right.
- Q But you don't think the fluids are moving from one of these reservoirs as indicated on your exhibit?
 - A No.
 - Q Moving to the other?
 - A No.
 - Q You have no indication of that at all?
- A Not at all. As a matter of fact, with the static pressures remaining high and relatively constant in the southwest Media and having dropped in the Media proper, we definitely have indications that the behavior of one reservoir is not affecting the other.
- Q Do you have the levels of production of the various wells? I was interested in the current level of production on the Fluid Power Pump No. 1 in Section 14?
 - À Tes.
 - Q It has an allowable here I see of 614 barrels.

I wondered what the production level is?

- A The current production level is 442 barrels a day.
- Q That is 442 barrels of oil. Now, what volume of fluid do you have to lift to get that?
 - A We have to lift 3700 barrels of fluid to get that.
- Q But you do have capacity for 11,000 barrels of capacity?
- A That well actually has the capacity of producing 18,000 barrels a day based on the productivity index calculations on that well. The minimum productivity of any of the wells is 11,000 barrels of fluid a day.
- Q So far you haven't needed a level of 740 barrels a day?
- A That's correct. When we initially put this equipment in, we felt that we could achieve a top allowable well, however, the capacity of the reservoir is such that we did not. We got to 624 barrels a day initially. The well is presently at its present capacity of 440 barrels a day because of wear on the pump. We produced over 1,300,000 barrels of fluid through that pump, and this Reda, because we have to handle quite a bit of kaolin and clay in this water, it has started to wear and the productivity has come off. We feel we can install a 240

Page 27

horsepower Reda and get the 750 barrel top allowable probably this fall.

CROSS EXAMINATION

BY MR. NUTTER:

- Q Mr. Somers, what are the present limits of the Media-Entrada Pool itself, the originally designated pool?
 - A As shown on Exhibit 1 here.
- Q I mean, the defined limits as far as the Commission is concerned.
 - A As far as the Commission is concerned?
 - Q Yes.
- A They would be the five drilling and spacing units which have been set up which would cover the south half of the northwest quarter of Section 14, the southwest quarter of Section 14, the north half of the northwest quarter of Section 23, the southeast quarter of Section 15, the south half of the northeast quarter of Section 15, the north half of the northeast quarter of Section 22, and the northwest quarter of Section 22.
- Q Now, you sought to have the northwest quarter of 22 deleted from the reservoir or from the designated pool but not the north half of the northeast quarter of Section 22, and it appears that that 80 acres would be more

Page 28

productive under your proposed new pool than it is from the old pool, is that correct?

- A That's correct.
- Q Isn't this inconsistent to be putting this acreage in a pool that is not producing from there?
 - A Are you describing --
- Q (Interrupting) The 80 acres there obviously contains some non-productive acreage according to your exhibit?
 - A Right.
- Q And it contains maybe five acres in the extreme northeast quarter that is productive?
 - A Correct.
- Q But it would contain probably almost 40 acres or more that is productive from your proposed new pool?
 - A That's correct.
- Q Well, isn't that inconsistent to leave the acreage in the pool that is not producing and not include it in the other pool when it is producing from the other pool essentially?
- A Well, the only way we might be able to accomplish that it is inconsistent we have an overlap situation in that particular 80 acres, and in terms of our proposed

Page. 29

unit boundary, our proposed unit boundary includes only the northeast quarter of the northeast quarter of Section 22 in that Media proper unit. So, the only thing that we were attempting to set up in the southwest Media was the existing producing proration unit, and then we could go from there as our drilling plans progressed.

- Q Do you have any plans to develop the southwest of the northeast of Section 22? The southwest of the northeast is right where your high is?
 - A Yes, we do.
 - Q What would you dedicate to that well?
- A At the present time, we would have to dedicate the south half of the northeast quarter and the north half of the southeast quarter. What I would propose to do is dedicate everything in the northeast quarter exclusive of the 40 acres which would go into the Media proper.

MR. TRUJILLO: Mr. Somers, isn't that well in the southeast of the northeast? Is that a producing well? This one right here?

THE WITNESS: No, sir. This is a water disposal well in the Gallup formation.

MR. PORTER: By the way, what volumes are you disposing in that well at the present time?

Page......30

SOMERS-CROSS

A At the present time, we are disposing of between 10,000 and 12,000 barrels of water a day into the Gallup.

MR. PORTER: Mr. Nutter, were you through with your questions?

MR. NUTTER: Not quite.

BY MR. NUTTER:

Q Mr. Somers, your cross section does not include wells that you made reference to with Exhibits 1 and 2, the Fluid Power No. 1 and the Fluid Power No. 3. There is no evidence of the two wells that are on the cross section. What would those wells look like if you included them on the cross section as far as their perforated interval and where they lie with respect to the oil-water contact?

A They would look just like Federal Media Nos. 1 and 2.

Q Well, 1 and 2 are actually quite a lot different from each other. One of them goes all the way through the pay and apparently down pretty far into the water. That is the No. 1. The No. 2 looks like the top of the perforation is right at the top of the water.

A Well, this exhibit wasn't made to show the perforation. It doesn't show the perforations on it. In

Page	31	
		· • • • • • • • • • • • • • •

other words, the cross section doesn't have the perforations on it. It just has the TD, I guess, is what the draftsman has put on here.

MR. TRUJILLO: Excuse me just a minute. Let's pull this thing over and then we can all see it.

BY MR. NUTTER:

- Q So the actual perforations aren't shown here.

 The well may have perforated it, or the well may have penetrated down into the water, but it is not perforated into the water?
 - A That is correct.
- Q And if we drew your Bowling 6-22 on here, how deep was it drilled?
 - A It was drilled all the way through the Entrada.
- Q All the way through the Entrada, so it has gone down below the water?
- A Right. It went all the way through into I believe what is called the Wing Field.
- Q But the perforations are only in the top six feet of the Entrada?
 - A That's correct.
- Q Take, for instance, your Fluid Power Federal
 No. 2 which shows the top of the Entrada at 1599 and the

Page 32

TD at the base of the oil section there. Where are the perforations on that well?

A They are from the top of the sand all the way from the original -- well, not to the original oil-water contact -- but to the -- throughout the oil productive interval, so it would be all the way to the TD shown here. I am not sure that is correct. The point shown here at the base of the present oil-water contact is not correct because we have a core which was cut from 5192 to 5252 which would indicate -- we are talking about 60 feet of core and it was 40 feet into the -- 20 feet of limestone, so we are talking about 40 feet of Entrada and there was only 29 feet of oil pay in the Federal Media No. 2, so that definitely cuts the original oil-water contact. It is not depicted correctly. That point should have had a TD below the original oil-water contact.

Q The point I am trying to arrive at, Mr. Somers, I can appreciate the fact that some of these wells which may be perforated below aren't producing large volumes of fluid which is necessary to do in order to obtain a substantial amount of oil. Now, when you come over here to your Bowling 6-22 Well, you perforated only the top six feet of the Entrada pay, far above the cil-water contact.

Page.....33

Doesn't it occur to you that whereas you may need to produce large volumes in the other wells, that you may not need these large volumes here and that you may, in fact, cone water up into the well by producing at such large rates?

A No, I don't believe so. I don't believe that when we are talking about the low amounts of pressure drawdown that we are talking — in other words, when I am producing at 4000 barrels a day, I am only pulling the fluid down 600 feet, which in terms of pressure, it means that I have only pulled it down 200 pounds. So, I have very very little drawdown. I am talking about 600 feet of drawdown in a possible drawdown of 5000 feet. These stand fluid to within 500 feet of the surface and this well was actually making oil while we were drilling it.

- Q I thought you said 930 feet to the depth of the fluid?
- A It is presently. Presently the static fluid level is 930 feet.
 - Q The original was 500 feet?
- A That's correct. And the pressure is being drawn down in the reservoir by virtue of completion, but the point that I am making is that we have very little

Page 34

SOMERS-CROSS

in coning.

drawdown at 4000 barrels a day. We are talking about only pumping this well at 700 barrels a day. We are talking about one-sixth of the drawdown there. We are talking about 100 feet of drawdown which is only 40 PSI, and it is very doubtful that 40 PSI drawdown is going to cause coning. It is very doubtful in our minds that 40 PSI

Q But you haven't produced enough over there to know that it won't occur, have you?

in total reservoir pressure of 2200 pounds would result

- A No, sir, we haven't.
- Q Which of the two wells did you say that you would use for the injection of water in the Media, the original Media Pool?
- A We would like to use Fluid Power No. 4 and Federal Media No. 4.
- Q That would be the well at the oil-water contact on the west side and on the east side of the pool?
- A At the present oil-water contact on the west side and on the east side. We may possibly at a later date want to use Baird No. 1 and Fluid Power No. 2. This would give us a much better sweep efficiency.
 - Q Are all the wells you have referred to so far

Page. 35.....

presently shut in?

A Yes, sir, they are temporarily abandoned or shut in. They are all completed with casing through the Entrada, and with our present disposal plant having to already handle 10,000 or 12,000 barrels of water a day that is presently going into these two wells into the Gallup, we could very easily, by just laying line to these other wells, return this water to the reservoir and arrest the pressure decline that we have seen to date, and hopefully increase our recovery.

MR. FORTER: Mr. Nutter, do you have anything further?

MR. NUTTER: Yes.

BY MR. NUTTER:

Q Mr. Somers, in the original hearing of Case 5152, you had a contour map of the pool submitted by Mr. Bummer which is different than the contours which we got today.

- A That's correct.
- Q Were those, in your opinion, drawn wrong?
- A Yes, sir, because I know the basis that those were drawn on. What Mr. Bummer did -- actually, Don Madden performed the reservoir work -- what he did was to take the

Page....36

core information which was available on the wells, and he strictly took the core information without relating it to the oil-water contact or the geology and then just contoured it, so he did not relate it to either the structure or the oil-water contact. As a result, he did not identify or pick up the tilted oil-water contact or the separation in the two reservoirs.

- Q And perhaps he didn't recognize the thickening of the limestone?
 - A Or the Todilto, correct.
 - Q That lies above the Entrada?
- A Well, what he did was just basically take the core information and just contour it.
- Q I see. So that would be the reason that you can show two separate structures here today and that he only showed one structure with the nose extending southwest?
 - A Yes, sir.

MR. NUTTER: I believe that's all.

CROSS EXAMINATION

BY MR. PORTER:

- Q Mr. Somers, the well located here in the northeast of Section 22, is that currently producing?
 - A No, sir, that is an injection well in the Gallup

formation. It was drilled to the Entrada, but encountered this thick Todilto section and was below or at the oil-water contact. It was cored and only about 7 feet of that core showed any oil saturation whatsoever.

- Q So this acreage is not currently dedicated to any well?
- A Yes, sir, this acreage is presently dedicated to the Federal Media No. 2 Well.
 - Q It crosses the Section line?
 - A Yes, sir. It is a non-standard proration unit.
 - Q I see.

MR. TRUJILLO: There is nothing in the northeast quarter at all other than that dedication to that one well up there?

THE WITNESS: Right.

BY MR. PORTER:

Q What you would have if we created another pool encompassing the northwest quarter of Section 22, you would have one well in it, and then you would have a portion of that same structure dedicated to a well in the northwest?

A Yes, sir.

CROSS EXAMINATION

BY MR. TRUJILLO:

Page......38

- Q You have a projected well, a second well, in the northwest quarter of 22 right here, is that correct?
- A No, sir. It would be in the southwest of the northeast.
 - O Of the northeast?
 - A Right in this location.
- Q That projection would be included in the new pool that you propose creating?
- A That's correct. When we wanted to drill that well, we would apply for a unit to cover that particular well and expand the pool by including that.

MR. PORTER: Does anyone else have any questions?

Mr. Carr, do you have any questions?

MR. CARR: Not at this point.

REDIRECT EXAMINATION

BY MR. KELLAHIN:

Q Mr. Somers, in connection with the line of questioning that we have just covered, would you go back to the exhibit and replace the overlay for a moment?

Now, on the basis of that exhibit, would that indicate that cumulative production would have to be attributed to the northeast of the northeast?

A Yes, sir, definitely.

Page.....39

- Q In forming any kind of a unit, would that have to be taken into consideration?
 - A Yes, it would.
- Q And there is no other production from the northeast quarter for which you would have to account, is there?
 - A No, there is not.

MR. KELLAHIN: That is all I have.

RECROSS EXAMINATION

BY MR. TRUJILLO:

- Q Mr. Somers, if there is pressure communication in this area, why isn't there any fluid movement through there?
 - A Well, --
- Q (Interrupting) You say there is pressure communication there, but no fluid. I believe that was your testimony.
- A Well, what I am saying is that the Entrada formation is present all over this area.
 - Q Yes.
- A But from the basis of our pressure information after having produced these two reservoirs and taking pressures subsequently, there is no indication that there

Page 40

movement of fluid from this reservoir to this reservoir or vice versa which you would expect. Because this is higher pressure, you would expect movement, but there is no indication of that.

- Q Even though there is a pressure communication?
- A Well, even though the formation is blanket formation. The only communication, obviously, is in the water. In other words, there is waterflow which caused this tilting. There is waterflow going through here. That's the only actual communication, and what you have is an aquifer that covers hundreds of square miles. As a result, when you produce, even as we are, 10,000 barrels of water a day, it is very very insignificant in terms of the total volume of that aquifer covering the whole San Juan Basin. So, as a result, this aquifer is keeping pressure in here and you are not seeing any actual effect of one reservoir on the other.

MR. KELLAHIN: In that sense, Mr. Somers, there isn't any effective pressure communication between the two reservoirs?

THE WITNESS: No.

MR. PORTER: Mr. Nutter?

RECROSS EXAMINATION

Page 41

BY MR. NUTTER:

- Q Mr. Somers, if the water underlying the southwest anticline is in contact with the water underlying the northeast anticline and you have had a depletion of some 400 pounds of pressure in the northeast, why hasn't the water equalized the pressure in the two reservoirs? The water is in contact with both of them. The water is under similar pressure, is it not?
 - A That's correct.
- Q With the exception of a slight gradient to the southwest?
 - A That's correct.
- Q Why aren't the pressures equalized in the two reservoirs?
- A It is indicating that water is not coming into the Media proper reservoir and completely replacing voidage.
- Q And that is the reason that you are going to start injecting water into here and then you will have 93 percent of the fluids replaced, I think you stated?
- A Yes, sir. What we are wanting to do, we are taking out all of this water and not replacing it back into that reservoir, and by returning it to that reservoir,

our indications are that we can go from like 28 percent ultimate recovery to a recovery of over 40 percent which you might expect from normal natural water drive. So, what we actually have here is not that actual water drive; we have influx; really the problem is completion here which has caused us to produce this water. In other words, there is still a component in terms of producing mechanism in terms of fluid expansion above the bubble point.

- Q Well, the reservoir is already in communication to the extent that if you had continuous withdrawal from the northeast reservoir without replacing any of the fluid, that ultimately some of the pressure underlying the southwest reservoir would be depleted, isn't this correct? Or, would you have an influx underlying the northeast anticline that would go under the depleted area and keep the pressure up in the southwest area?
- A I really don't know. With the direction of tilt, you would expect that your recharge is from the northeast.
 - Q You would expect the flow to be in that direction?
- A Right. You would expect the flow to be in that direction.
 - Q From that direction?

A Yes, from that direction. So, you would expect the Media proper would be maintained without any effect on the southwest Media.

Q That would be like taking water up out of the stream upstream and --

A (Interrupting) And saying you are not going to affect the downstream?

Q Saying you are not going to affect the downstream, yes.

A Yes.

MR. NUTTER: That's all.

RECROSS EXAMINATION

BY MR. PORTER:

Q Mr. Somers, back to the discussion of the unit, as I understand it, the U.S.G.S. will not go along with a unit which includes this northwest quarter of 22 in the unit?

A That's correct.

Q And in order to get your injection program going, you are going to have to have a unit?

A Yes, sir.

Q Who else owns land in there except the Federal Government?

Page....44

- The working interest is common in all four. The SOMERS-RECROSS royalty is common. The overriding royalty is what is
 - Are you going to have to unitize the overriding different. Q royalty?
 - That is correct. A
 - Before you start your injection?

 - In the event this Application were approved, Yes, sir. what kind of timetable are you talking about before you
 - We would hope to have it started by wintertime, start injection? by the time the snow flies.
 - And you already have the injection wells avail-
 - Yes, we already have the wells available. They able? are already cased. We have tubing available in the field all ready to go. We already have the plant which is being used to put water in here which could be used just immediately to convert to put water in these points. So, all we would actually have to do is lay the line, physically lay the lines to the wells.
 - Do you have an estimate on what you would expect,

THE NYE REPORTING SERVICE 1E NIE REPURING SERVICE
STATE-WIDE DEPOSITION NOT ARIES
225 JOHNSON STREET
225 JOHNSON STREET SANTA FE. NEW MEXICO 87501 TEL. (505) 932-0386

CASE 5152 5262

SOMERS-RECROSS

Page.....4.5....

additional oil you would expect to recover from that unit over and above what you will if you don't have the injection program?

A Yes, sir. It is over 600,000 barrels.

MR. PORTER: Thank you. Any further questions?

Does anyone have a statement that they would like to make
in the cases? If not, we will take the cases under
advisement. The Hearing is adjourned.

(Whereupon, the Hearing was adjourned at approximately 10:10 a.m.)

CASE 5152 5262

Page 46

STATE OF NEW MEXICO)
) SS.
COUNTY OF SANTA FE)

I, RICHARD L. NYE, Court Reporter, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me and the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

COURT DEDORMED

NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
July 24, 1974

EXAMINER HEARING

IN THE MATTER OF:

Case No. 5152 being reopened pursuant to the provisions of Order No. R-4713, depth bracket allowable for the Media. New Mexico.

Case No. 5152

BEFORE: Richard L. Stamets, Examiner.

TRANSCRIPT OF HEARING

 $\underline{A} \ \underline{P} \ \underline{P} \ \underline{E} \ \underline{A} \ \underline{R} \ \underline{A} \ \underline{N} \ \underline{C} \ \underline{E} \ \underline{S}$

For the New Mexico Oil Conservation Commission:

William Carr, Esq.
Legal Counsel for the
Commission
State Land Office Bldg.
Santa Fe, New Mexico

MR. STAMETS: Call the next Case, 5152.

MR. CARR: Case 5152. In the matter of Case No. 5152 being reopened pursuant to the provisions of Order No. R-4713, which order established a special depth bracket allowable for the Media-Entrada Oil Pool, Sandoval County, New Mexico.

MR. STAMETS: The Commission has received a request to continue this Case until August the 19th and Case 5152 will be so continued.

STATE OF NEW MEXICO)

SS.

COUNTY OF SANTA FE)

I, RICHARD L. NYE, Court Reporter, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

RICHARD L. NYE, Court Reporter

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 6752.

New Mexico Oil Conservation Commission

NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico January 16, 1974

EXAMINER HEARING

IN THE MATTER OF:

Application of Petro-Lewis Corporation for a Special Depth Bracket Allowable, Media-Entrada Oil Pool, Sandoval County, New Mexico.

Case No. 5152

BEFORE: Richard L. Stamets, Examiner.

TRANSCRIPT OF HEARING

APPEARANCES

For the New Mexico Oil Conservation Commission:

william Carr, Esq.
and
Thomas Derryberry, Esq.
Legal Counsel for the Commission
State Land Office Building
Santa Fe, New Mexico

For the Applicant: (Petro-Lewis Corporation)

Jason Kellahin, Esq. KELLAHIN & FOX 500 Don Gaspar Santa Fe, New Mexico

For the Protestant: (John K. Reimer & R. E. McKenzie) George H. Hunker, Jr.
HUNKER, FEDRIC & HIGGINBOTHAM
P. O. Box 1837
Roswell, New Mexico

p_{age} 2

\underline{I} \underline{N} \underline{D} $\underline{\mathcal{X}}$

2.1 2. 2.1	
WITNESS	PAGE
BRUCE L. BUMMER	
Direct Examination by Mr. Kellahin	3
Cross Examination by Mr. Arnold	22
Cross Examination by Mr. Stamets	24
Cross Examination by Mr. Hunker	25
Cross Examination by Mr. Stamets	36
Redirect Examination by Mr. Kellahin	39
JOHN B. SOMERS	
Direct Examination by Mr. Kellahin	41
Cross Examination by Mr. Stamets	48
JOHN K. REIMER	
Direct Examination by Mr. Hunker	50
<u>E X H I B I T S</u>	
Applicant's Exhibits 1 through 8 ——	Admitted 22
Applicant's Exhibits 9 and 10	40

MR. STAMETS: Call the next case 5152.

MR. CARR: Case 5152. Application of Petro-Lewis Corporation for a Special Depth Bracket Allowable, Media-Entrada Oil Pool, Sandoval County, New Mexico.

MR. KELLAHIN: Jason Kellahin, Kellahin and Fox, appearing for the Applicant. I have one witness I would like to have sworn.

MR. STAMETS: Are there other appearances in this case?

MR. HUNKER: George Hunker, representing John K. Reimer and R. E. McKenzie, Junior. I have one witness.

MR. STAMETS: Are there any other appearances?

Will the witnesses all stand and be sworn at this time, please?

(Witnesses sworn.)

BRUCE L. BUMMER

a witness, having been previously sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

- Q State your name, please?
- A Bruce L. Bummer.
- Q How do you spell that, Mr. Bummer?

D	4	
rage	 *	-

- A B-u-m-m-e-r.
- Q Where do you live?
- A I live in Casper, Wyoming.
- Q What business are you engaged in?
- A Oil and gas exploration, production.
- Q Do you work for a consulting firm?
- A Yes, sir. I work for Mineral Management, Incorporated, a Casper based consulting firm. I'm the production manager for this firm.
- Q Has Mineral Management firm done any work for Petro-Lewis Corporation in connection with Case 5152?
- A Yes, sir. Mineral Management is the contract operator for the operator, which is Petro-Lewis, Media-Entrada Field.
- Q Now, that field was formed and operated by Fluid Pump Company, was it not?
 - A Yes, sir, up until the end of May, 1973.
- Q Then, did Petro-Lewis take over the operation of the group?
 - A Yes, sir.
 - Q With Mineral Management as its contract operator?
 - A Yes.
 - Q Have you ever testified before the Oil Conservation

Page 5

Commission of New Mexico?

A No, sir.

Q For the benefit of the Examiner, would you briefly outline your education and experience as an engineer?

A I graduated from the University of North Dakota in 1967 with a BS in Chemical Engineering. I have worked for five-and-a-half years with Amoco Productions in Casper and midwest Wyoming as a production engineer. I have been employed by Minerals Management for a year and a half as production engineer and as production manager.

Q Since your employment by Petro-Lewis, have you personally made a study of the Media-Entrada Pool?

A Yes, sir.

MR. KELLAHIN: Are the witnesses qualifications acceptable?

MR. STAMETS: They are.

BY MR. KELLAHIN:

Q Mr. Bummer, referring to what has been marked as Petro-Lewis' Exhibit 1, would you identify that, please?

A This is a structure map on the Entrada sandstone in the Media Dome Field. The field is located about 15 miles southwest of Cuba, New Mexico. On the structure map we have locations of all wells drilled in the immediate vicinity.

Page 6

On the structure map we have five wells that are presently on production, Fluid Power Pump No. 1, Fluid Power Pump No. 3, Federal Media No. 1, Federal Media No. 2 and also, Fluid Power Pump No. 5, which in the very near future will be turning to production.

- Q Where is that No. 5 Located?
- A It is located in the northeast of the northwest Section 22.
- Q Now, you have also shown on the Exhibit the present 160-acre unit dedicated to the four presently producing wells?
- A Yes, sir, they are outlined in blue, 116 non-standard producing units, four of which have been approved.
- Q Now, referring to what has been marked as Exhibit No. 2. Would you discuss the information that is shown on that Exhibit?
- A Yes, sir. This is a producing extrapolation of the Entrada producing wells on the Media Dome Field from April of '69 through December of '73. There was small amounts of production in the 1950s, which I do not have on this tabulation. Production is shown on barrels of oil per month, barrels of water per month and then the water-oil ratio for each of these five wells, Federal Media 1, Federal Media 2, Fluid Power 1, Fluid Power 3 and Fluid Power 5. Then, on the

right-hand side of the tabulation is total Entrada production with cumulative oil added in an additional column.

Q What is the significance of this information, Mr. Bummer?

What I primarily would like to discuss is the effect of increased production from increased withdrawals from, particularly Fluid Power Pump No. 1 and up until June of 1973, production reported was oil and water production at water-oil ratio of 3.0. At June 1st, 1973, you can see the water-oil ratio and oil production is considerably different than 3.0. The production as of June and on a fairly accurate measurement made by meters that will meter water production and also, of course, oil production, tankage, et cetera. From June on, the production information is quite accurate. What I particularly would like to show in November of 1975, we installed a high volume submersible pump to Fluid Power Pump No. 3. Fluid Power Pump No. 1, the production as you can see, increased from approximately 69,000 barrels in the month of October to approximately 120,000 barrels in the month of December, 1973.

- Q Are you talking about total fluid?
- A Yes, total oil and water for those respective months. Coincident with this increase was the reduction in

Page.......

water-oil ratio from eight-and-a-half to nine range down to 6.4 water-oil ratio.

Also, Fluid Power Pump No. 3, we placed back on production in June of 1973, with casing pump installations. The well produced for 17 days and made some 26,000 plus barrels of fluid. That production was produced at a water-oil ratio of 3.14.

In August -- the first portion of August -- installed high volume submersible pump there, and increased fluid withdrawals very dramatically two to three full ranges. In coincident with this increase we noted the reduction in water-oil ratio from 30 down to a low 20 water-oil ratio ranges.

Q Now, referring to what is marked Exhibit No. 3, would you discuss the information shown on that Exhibit?

A Yes, sir. This is a detailed presentation of the production Fluid Power Pump No. 1. These are obtained weekly, gauge reports. Oil was measured daily. Water production as well, was measured daily. What I am particularly interested in presenting that production up until the date we installed this submersible, November 19th, 1973, averaged approximately 230 barrels of oil per day and approximately 21 -- 2,000 to 2,100 barrels of water per day.

Page.....9

oil-water ratio average of approximately nine. With installation of a submersible with general increased withdrawals increase up to 540 barrels of oil per day range and water increase of up to 33 to 400 barrels of water per day. The water-oil ratio decreased from the average of nine down to an average of approximately 6.3 during this month-and-a-half period.

- Q What kind of a pump are you using on that well?
- A Presently we have Reda submersible pump, electric motor driven.
- Q The Exhibit here would indicate you are moving something like 4,000 barrels of fluid a day, is that correct?
 - A Yes.
- Q As a result of moving that much fluid, have you any significant draw down in fluid level in the well?
- A We had some draw down, a fluid level shot that was taken during the week of October 18th through the 25th showed 3,911 feet of fluid on the formation while the well was producing. After installation of the submersible during the week of December 2nd through the 9th, a fluid level shot indicated only 3,575 feet fluid as a result of increase lift
- Q Does that kind of draw down and amount of fluid you are removing there, actually indicate very strong water

Page 10

drive in this pool?

A Yes, sir. This water cuts and tremendous fluid productive wells certainly indicate that.

Q Does this Exhibit indicate that it is more efficient operations to move high volume of fluid in this particular pool?

A Yes, I believe so, certainly from water-oil ratio standpoint which can reduce our water cuts and increase our oil cuts and further more the oil produced from this Entrada structure is a very high pour point oil. Only $32\frac{1}{2}$ degrees API, but pour point of approximately 90 degrees Farenheit. The temperature lifting the higher volumes, particularly the high volumes of water allows us to transmit and keep this temperature at reservoir temperature, allows our production at the surface to stay hotter, minimizes problems due to the pour point of the oil.

- Q If you produce a lower rate, would you have a drop in termperature from the reservoir temperature?
 - A Yes.
 - Q Have you had to insulate your installation?
- A They're all surface insulation which sea oils are insulated to two to four inches of foam insulation,
 - Q Is it possible to store the oil any length of time?

No, sir. We ship it as rapidly as we can. BUMNER-DIRECT

- A
- How do you ship it? Q
- Via trucks to Bloomfield.
- Do you have any further comments on Exhibit No.3?
- Yes. I'd like to make one additional point. As a result of this submersible insulation increased fluid product tion to 2,300 barrels to 3,900 barrels of fluid, but they only reduce that fluid level some 336 feet. We have another 3,500 feet to work with. So, what I want to particularly point out is that we're producing that well at only in range of 10 to 30 percent of its ultimate capacity. If we were to withdraw the well down, I expect considerable more volumes of fluid.
 - Is that the purpose of this Hearing to receive an allowable to produce this well at a higher rate? Do you have a temporary allowable?

 - You maintain that, is that correct? A Q.
 - Now, you talk about this allowable before the pool A
 - was a pool for this particular well?
 - We would prefer to have it as a pool as a whole. Á
 - What allowable would you ask the Commission to assign Q

for the purpose of the production from this pool?

We would like at least an allowable of 750 barrels of oil per day per 160 acres proration unit.

Now, referring to what has been marked Exhibit No. 4, would you identify that Exhibit?

This is simply a graphical illustration of the data that was presented in Exhibit No. 3. It shows the water production, barrels of water per day, oil production, barrels of oil per day and the resulting oil-water ratio during that period of September 2nd, '73 to January 1st, 1974. There is an error in that graph. It is January 1st, '74.

Now, you say this is an active water drive reservoir. In your opinion, will producing this reservoir at the rate you are quoting cause any damage?

In fact, to the contrary. It will No, sir. increase ultimate oil recovery.

As a general proposition, won't water encroach more rapidly when you produce at higher rates?

Yes. You will obtain a faster encroachment of the water. However, that doesn't necessarily indicate that you would, say, water up your wells prematurely.

Do you know of any comparable reservoir in the State of New Mexico?

- A No, sir, I do not know of an active water driving if there is one, outside the Entrada.
- Q You heard the testimony this afternoon on the Tocito Dome Pool?
 - A Yes, sir.
- Q Is that the first time you had considered that pool?
- A Yes. Well, actually, in discussions with New Mexico State people last week, I was familiar with this property. It is somewhat different property than Entrada structure.
- Q Have you had any experience with similar reservoirs which have been produced at high rates without damage to the reservoir?
 - A Yes, sir.
- Q Would you refer to Exhibit No. 5 and explain that Exhibit please?
- A Because I could not find similar information on active waterway sandstone reservoirs in New Mexico, I reverted back to Wyoming and in Exhibit No. 5 is a production performance graph of a well that produces from sandstone in Johnson County, Wyoming. The well is in the North Fork Unit, which is a very active water drive. It produces

Page. 14

a fairly low gravity oil. Permeability and porosities are similar to those in the Media-Entrada. Porosity is 20 percent plus. Permeability 200 to 300 millidarcy.

Q What are they in the Media Dome?

A They average porosity in the Media Dome is 23 1/2 percent. Permeability is around 75 millidarcy, as an average. The Exhibit No. 5 is a graph, production rate of barrels of oil per day which shows the production from the North Fork Unit Well No. 1. The upper graph shows the oil rate, or the upper line on the graph production, the increase in production is attributed to insulation of a high volume submersible pump in fluid withdrawal from this well. By extrapolating two declines, one before this submersible and one after the installation of the submersible, you can note that an increase in ultimate recovery from this well in order of 1.125 million stock tank barrels of oil. You may note that the rate of decline of these two lines was lessened after the installation of a submersible pump.

Also, the lower line on the plot, oil-water ratio versus cumulative oil production, the rate of increase of water-oil ratio was reduced after the installation of a submersible pump and it was their extrapolating this water-oil ratio curve that arrived in an increase in ultimate oil

Page...... 15.....

recovery of 1,125,000 st ck tank barrels as result of higher volume lift.

Q Now, referring to Exhibit No. 6, would you identify that Exhibit, please?

A Yes, sir. This is a production history on another intensity reservoir in this County. It is a very active reservoir with similar porosity, similar to this Media Dome Field. This is oil rate in barrels of oil per day versus the time during the period, the last three-quarters of 1966 and 1967. They have established a rather -- a very well extrapolated decline. For the period at the end of 1967 through '68 and even into 1969, the operator installed seven submersible pumps in seven of the wells with increased withdrawals dramatically from the reservoir. There was no other infill drillings or any other significant operations during this time to account for this increase in oil production.

As you note that after the installation of the submersible the production rate increased and the rate of production, oil production declined -- decreased -- cranking out these numbers would indicate the ultimate recovery from the reservoir was increased better than four million barrels of stock tank oil as a result of installing a higher volume lift

lequipment.

Now, refer to Exhibit No. 7. Would you discuss Q

The decline established during the 1968 through '70, compared to the decline established from '71 to date, as a that? result of installing high volume lift equipment, indicates that ultimate recovery was increased in the area of 600,000 stock tank barrels of oil.

Now, on the basis of this information you have at the present time on the Media-Entrada Oil Pool, would you anticipate similar performance as those on the Pool

Yes. Everything that we have to date would you discussed? indicate that we have observed a decrease in water-oil ratio in both of the wells that we have installed high volume lift equipment. Everything would point that ultimate recovery certainly would not be reduced and very likely would be

Would any waste result as a result of assignment increased. of allowable asked for by Petro-Lewis?

Referring to Exhibit No. 8, would you identify No, sir. A Q

THE NYE REPORTING SERVICE STATE-WIDE DEPOSITION NOT ARIES ATE-WIDE DEPOSITION NOT ARE 225 JOHNSON STREET
SANTA FE, NEW MEXICO 87501 TFL. (505) 982-0386

that, please?

A This is simply an Exhibit that shows the open hole logs, electric logs and structure logs on Fluid Power Pump No. 1 and shows the oil pay from 5218 and 5264, 46 feet of pay.

Q Now, is the oil pay in this well greater or less than other wells in the pool?

A This is -- this well has the largest oil pay in the reservoir.

Q Now, does the Media-Entrada Pool have any gas drive at all?

- A No, sir.
- Q Any solution gas?
- A No, sir.
- Q No gas production whatsoever?
- A Not from Entrada.
- Q Now, referring back to Exhibit No. 1, I note you have four producing wells on four units which you have outlined in blue. Will, for example, the production of 700 barrels of oil a day with the accompanying volumes of water from Fluid Power Pump No. 1 Well cause any damage to any of the offsetting wells?

A I don't --

Q (Interrupting) Let's take first, the Fluid Car Pump No. 3 Well to the west of the No. 1. What's the situation on that?

A They are very high volume lift, submersible pump, pumping approximately 4,100 barrels of fluid per day, drawing the fluid level down approximately 1,600 feet from surface.

Q Is that approximately the same volume of fluid you are producing, or proposing to produce, from the No. 1 Well?

A Yes. Actually, the volume of fluid might be slightly more or 100 barrels more than what we're currently producing from Fluid Power Pump No. 1.

Q Going to the wells to the south, what's the situation in regard to them?

A In the Federal Media No. 1, we are presently reviewing the installation of higher volume lift equipment. We are reviewing in installing either large 40 API Unit or submersible pump. We are presented with a problem in this well that we have four-and-a-half inch casings which limits our maximum production from the well. Currently, we are producing approximately 1,500 barrels of fluid per day from Federal Media No. 1 and are drawing a new level down to

approximately 1,400 feet from the surface to our draw down on Federal Media No. 1 is quite similar to our draw downs on two fluid power pump wells. Again, we -- I would like to note we have a rig in the field as quickly as we can get in to install our equipment to maximize withdrawals from the well.

- Q But you will be limited because of size of the casing?
 - A Yes.
 - Q Is that true of both wells?
 - A Yes, sir.
 - Q No. 1 and No. 2?
 - A Yes, sir.
- Q Now, you say this is an active water drive reservoir, from what direction, in your opinion, is the water coming?
 - A From the northeasterly direction.
 - Q What do you base that on?
- A Based on core information and log information in a tilted water table, lower in the southwestern direction.
- Q Now, with water encroachment from the northwest I mean northeast -- minimize the effect of high withdrawals from the No. 1 well as it might affect the Media No. 1 and

Page 20

2?

A Yes, sir, being the water will likely hit Fluid Power Pump No. 1 Well first, I would suspect the effect of enlargement of the drainage areas from fluid power pump would be more in the northeasterly direction than in a southerly direction to effect in Federal Media Well.

Q So, if there were any drainage of the Media Wells, it would be minimized, is that correct?

A Yes, I believe so. I might also point out, although the lower production is as obtained from the Federal Media No. 1 and No. 2 wells these wells also have only 29 and 30 feet of oil pay respectively. I would expect as much as 50 percent less productivity as indicated Federal Media No. 1 is being drawn to very near the same condition as are wells with high volume lift equipment in it. The productivity of the wells just are not as high as Fluid Power Pump No. 1.

Q In your opinion, will high withdrawal damage this reservoir?

A No, sir.

Q Will it result in a greater ultimate recovery of oil from the reservoir?

A All indications today would indicate oil recovery

Page 21

BUMMER-DIRECT will be increased similar to these reservoirs that we have

Petro-Lewis is the only operator in the pool, is discussed. Q. it not?

They are the only adjoining acreage surrounding Yes. Q.

Yes, sir. They own the working interests, the this pool? adjoining interests and all that acreage outlined in the dashed black lines in Exhibit No. 1.

Now, is all of that federal acreage?

Yes, I believe it is.

Now, the only difference in ownership would be in Α Q overriding royalties?

Yes, sir.

Do you have anything else to add, Mr. Bummer?

Yes, I would just like to point out that increased with royalties, you could get an ultimate recovery, it is just not observed in Wyoming, nor in the Entrada structure, Media-Dome, New Mexico. An article entitled, "Water May Not Be Harmful" appeared September 3rd and Teptember 10th issues of Oil and Gas Journal by Mr. -- prepared by Mr. Barn and Mr. Morris of Texas A & M University based on field case

BUMMER-DIRECT CROSS

Page......22

history and model studies indicated that nothing they could find would indicate that higher withdrawals on an activewater drive reservoir would reduce the ultimate recovery, it conversely indicated that with very high increase, ultimate recovery, particularly from the economic standpoint.

Q Were Exhibits 1 through 8 prepared by you or under your supervision?

A Yes, sir.

MR. KELLAHIN: At this time, I would like to offer Exhibits 1 through 8, inclusive.

MR. STAMETS: Without objection, Applicant's Exhibits 1 through 8 will be admitted.

(Whereupon, Applicant's Exhibits
Nos. 1 through 8 were admitted
in evidence.)

MR. KELLAHIN: That completes our case.

MR. STAMETS: Are there questions of this witness?

MR. ARNOLD: Yes, sir, I have some.

CROSS EXAMINATION

BY MR. ARNOLD:

Q You mentioned several times that the ultimate recovery of the pool would utimately be increased by production rates. How do you account for that, what factors cause

you to have greater ultimate recovery?

A Okay. I probably think the most important factor is by increasing the withdrawal rates effectively, you increase the pressure differential causing fluid to enter the reservoir and into your flow stream. A result of increased pressure differential, you are allowing lower porosity, lower permeability zones to produce. These zones are in relative virgin conditions and were not being produced under the reduced pressure differential.

Another reason why you could -- I think this is the main one, particularly since we've seen a tremendous reduction of water-oil ratio. If we don't see reduction in oil-water ratio, ultimate oil recovery could be obtained simply by enlarging drainage of the well involved.

Q Is time a factor in that, of course? You could also extend the drainage by producing twice as long?

A I'm not too sure. You might leave some oil out by just reduced pressure differential. The pressure in a very active water-drive reservoir, the pressure hasn't decreased any appreciable amount.

Q Where are you putting produced water?

A We're injecting it in two disposal wells into the Gallup formation.

BUMMER-CROSS

Page. 24

- Q Is there any reason why you made the decision not to reinject into this reservoir?
- A When Petro-Lewis began in this reservoir, injections were already being connected into Gallup. We are, at present, reviewing to see if it's desirable to reinject Entrada water back into Entrada. At this time, we don't know what the best interests to do would be.
- Q The increased allowable rates on these wells won't give any problems as far as water is concerned?

A We have spent considerable money in revamping the injection system. We can handle the present volume production from the reservoir and perhaps as much as 50 percent more, any very dramatic increase in water production, we might have to look at reinjecting Entrada water into another Gallup well injection disposal.

CROSS EXAMINATION

BY MR. STAMETS:

Q I would like to expand what you just answered Mr. arnold. Did you say you can handle water rates you have at the present time, plus 50 percent?

A Right. I think we could. I believe we could handle as much as a 50 percent additional water. Our injection pressures are 250 to 300 pounds. Of course, we're

BUMMER-CROSS

Page 25

designed to handle larger injection pressures than that.

MR. STAMETS: Mr. Hunker, you had some questions?

CROSS EXAMINATION

BY MR. HUNKER:

Q In connection with your Exhibit 8, Mr. Bummer, have you prepared similar Exhibits to that covering the No. 3 Well and the Federal Media 1 and 2?

A I have similar Exhibits for Federal Media 1 and 2
I have a copy of the -- just one copy of the logs of Fluid
Power Pump No. 3.

Q Will those Exhibits verify what you said with regard to the amount of pay in each of these wells?

A Yes, sir. 29 and 30 feet. I forget which well has which.

Q How much pay is there in the No. 3 Well?

A There is 30 feet of oil saturated fluid in Power Pump No. 3.

Q 30?

A 30, right.

Q Did you say the No. 5 Well was not producing from the Media-Entrada Pool?

A It is opened for production from the Media-Entrada.

At this date, the well is not on production. We are

BUMMER-CROSS

Page 26

insulating surface equipment in preparation to returning the well to production. We estimate we will have this completed well on production tomorrow.

- Q Will that well be re-perforated?
- A No. sir.
- Q Do you recognize that the casings and tubings are set in that well at a depth below the water-oil contact point?
 - A Yes.
- Q You will be producing oil from below the oil-water contact point?
- A No, sir. We have -- just a little background.

 We had Fluid Power Pump No. 5. Approximately during December we went into the well and squeezed off the lower portion of the existing perforations and we re-perforated the upper 10 feet of the Entrada structure, Entrada sandstone, and that's what we're capable of producing from now.
 - Q It's been re-perforated?
 - A It has been, yes.
- Q Thank you. In Petro-Lewis' Application, it stated that other wells were probably completed or recompleted in the Entrada formation in the future. What additional wells are contemplated and when will these wells

BUMMER-CROSS

be drilled, at what future time?

A On Fluid Power Pump No. 5, on the result of the work that has been conducted, we have a well that capable of approximately 200 barrels of oil per day and small amounts of water, relatively small amounts of water, so that the Petro-Lewis, as operator, contemplating offsetting this Fluid Power Pump No. 5 Well, perhaps in the southeasterly direction. Exact location is still being reviewed. Plans would call for conducting some drilling operations in the spring of '74.

- Q Do you contemplate any other wells at this time?
- A We have a bunch of work going on in the field.

 Other Media-Entrada Wells would be dependent upon -- we drill one well at a time and see what the situations looks like. We are currently completing Federal Media No. 8, which is a Gallup Well in the Media Dome area. If this would make an oil well, we would do some additional work as a result of that.
- Q At this time, though, the Media Field is pretty well defined, isn't that correct?
- A I don't think that the Media Field as where the Fluid Power Pump 1 and 3, Federal 1 and 2 Wells are located is fairly well defined, although, there is still some

locations that could be defined there.

Q Do you realize that all four of the wells that you just mentioned could be placed within a single-40-acre tract?

A Yes.

Q Do you ask the Commission that higher allowable be fixed for these four units that are in this field or it is a higher allowable or an unlimited allowable?

MR. KELLAHIN: If the Examiner please, the Application is filed unlimited allowable. The Applicant is considering this and during testimony, as it was presented, we have asked for 700 barrels per well.

MR. STAMETS: 700 or 750?

MR. KELLAHIN: 750 per well, and that's what we are asking for.

MR. STAMETS: That would be to the 160-acre unit instead of the well?

THE WITNESS: Yes.

BY MR. HUNKER:

Q So you know what the allowable is that has been assigned to the units presently containing the Federal Media No. 1 Well?

A I don't have that number with me. Off the top of

BUMMER-CROSS

Page. 29

my head, something like 347 barrels of oil per day.

- Q Something less than 347 barrels --
- A (Interrupting) I believe it's 100 and some barrels.
- Q Has that unit been able to produce that allowable during the last six months since Petro-Lewis took over the operation?
- A It has been fairly near that amount of production. Federal Media No. 1 would have averaged something slightly less than 3,000 barrels of oil per month. I would say 100 barrels of oil per day.
- Q If the allowable for that unit is 348 barrels and the average monthly production has been about 3,000 barrels per month, would you say that the well has been making its allowable or has it not been making its allowable?
 - A Has not.
- Q Is the same true with regards to units containing Media No. -- Federal Media No. 2?
 - A Yes, sir.
- Q Are you aware of the fact that the leases or the lease embracing the No. 1 Fluid and No. 3 Fluid is a Federal Competitive Oil and Gas Lease?
- A I was aware of Fluid Power 3. I didn't know Fluid Power 1 was.

BUMMER-CROSS

Page......30.....

- Q Are you aware of the differential in the royalty rate prescribed by the lessor --
 - A (Interrupting) Yes, sliding scale.
 - Q (Continuing) -- in that lease?
 - A Yes, sir.
- Q Are you aware of the fact that certain individuals owning overriding royalty interests under the Federal Media Wells 1 and 2 have not committed their interest to the units that are shown on your plat?
 - A Yes, sir.
- Q What evidence do you have to submit to the Commission that will show that the thrust of the water drive is from the northeast?
- A The information that I'm sure is on file with the State of New Mexico, showing core data as obtained from five or plus wells in the Entrada, using this information locating the wells, locating oil-water contact, and from the core information and/or from logs would indicate that there -- if the geology presented here is valid, indicates there is a tilting water table at this time tilting low to the southwest.
 - Q What is the regional dip in this particular area?
 - A I believe it dips downward to the northwesterly

BUI-MER. CROSS

Page. 31

direction.

Q If the dip is to the northwest, wouldn't the thrust of water drive be from the southeast?

A I'm not fully prepared to answer that. The Entrada -- I think I told you wrong -- the Entrada outcrops as I understand, are to the northeast of the Media Field, and, as I understand it, this is where you -- it would be believed that the water drive is originating.

MR. KELLAHIN: I have another witness we can put on, if you wish?

MR. HUNKER: Perhaps we better.

BY MR. HUNKER:

Q In Paragraph No. 3 of the Application, Petro-Lewis has indicated that it plans the installation of similar thrusts back on other wells in the pool. Do you contemplate the installation of Reda-down-hole pumps in the No. 1 and the No. 2 Federal Media Wells?

A I would say either Reda down-hole pumps or a large 640-pumping unit on the surface that would still produce these wells with the rod pumps, only longer strokes which would essentially account for a higher production rate. We would do whatever would allow us to make maximum production rates.

BUMMER-CROSS

Page....32

Q Within what period of time are you talking about, Mr. Bummer?

A I would say within a matter of a month or two, we'll have this accomplished.

Q Do you think that the installation of those pumps will compensate for the drainage that may have occurred by reason of the installation of your Reda pump in the Fluid Power No. 1?

A Yes, I believe so, simply, I believe with the four-and-a-half inch casing with the present productivity of this well, we'll be able to, by installing this maximum lift equipment, we'll be able to withdraw that limited level down to approximately 1,400 feet from the surface. It will have essentially the same draw down as the Fluid Power 1 and Fluid Power 2.

Q Do you feel that one well in this pool will drain 160 acres, is that correct?

A Yes.

Q How much would the volume of production be from a well similar to the Fluid Power -- I beg your pardon -- from the Federal Media No. 1 with a four-and-a-half inch casing; what volume of fluid can you move out of a hole like that?

Page 33

I would believe we could approach 2,500 barrels BUMNER_CROSS

What was the volume you expect to produce; what of fluid per day. is the volume you are producing from the No. 1 Fluid Power Pump at the present time?

- Approximately, 2,900.
- Has your company conducted any down-hole pressure tests with regard to the wells in this particular field

Down-hole tests, pressure tests, have been made since Petro-Lewis took over? by measurements of fluid levels, is the only pressure-type work we have done. Shooting fluid out and determining how much fluid it will stand on the formation and knowing the density of the fluid when it arrives at pressure.

- Have you done any work on the economics of this particular pool, Mr. Bummer?
- Only from -- approximately, nine months ago, we Worked on evaluating the property and then, more recently, from a day-to-day type operation, the economics of installing larger lift equipment to various projects that we have under-
 - Should the Commission approve a 750 barrels per day allowable in this connection, how much new oil would you taken.

be producing from these wells? By new oil, I mean, oil that would be free of price restriction -- price control restrictions?

A It would, of course, on the fluid power Pump No. 1, all that production would be at new oil price. Production from Fluid Power No. 3, I believe, is mostly -- will be mostly -- at new oil prices. With installation of higher volume equipment on Federal Media No. 1 and Federal Media No. 2, I believe we can get all of that at new oil prices.

Q All of the increase, or all of the oil?

A All of the oil production from those wells at new oil prices. I say this, I need to look at the exact number, but a 50 percent increase in oil production essentially allow all the oil produced to be at new oil price and/or released oil price.

Q What does Petro-Lewis contemplate doing to protect their correlative rights of parties who have interests that are not necessarily compatible with the interests of Petro-Lewis?

A If you are speaking particular of Federal Media
No. 1 and No. 2 --

Q Yes, sir, I am.

A It would be the installation of higher lift equipment.

BUMMER-CROSS

Page..... 3.5....

Q You are presently representing to the Commission that you contemplate or Petro-Lewis contemplates installation of this equipment within a month, is that correct?

A The only drawback would be equipment deliveries. Within a month or two, I feel certain that this equipment will be installed.

Q Is it on order at the present time?

A No, sir. The reason it isn't, we're still evaluating whether to install a larger pumping unit or installing a Reda submersible pump. If you order a Reda submersible, occasionally you get long deliveries, but that may not cause a problem.

Q Are you aware of the fact that action has been filed by Fluid Power Pump Company in this Commission to force pool the interests of of R. E. McKenzie, Junior and John K. Reimer?

A Yes, sir.

Q You have been told that this has been filed, is that correct?

A I have -- no, I don't honestly know that. I don't know that it has been filed. I know there has been difficulty with the pooling arrangements of this Federal Media of those two tracts. I don't know the details additionally where Fluid Power Pump was concerned.

BUMMER - CROSS

Page. 36

Q Is the Fluid Power Pump Well No. 1 presently overproduced as far as allowable is concerned?

A No. We have obtained -- received a test allowable from the Commission for the period of 60 days which would be up the end of January.

MR. HUNKER: I have no further questions.

CROSS EXAMINATION

BY MR. STAMETS:

- Q Mr. Bummer?
- A Yes, sir.
- Q Would Applicants here have any strong objection to the establishment of temporary special allowable for this field, something such as we've done for the Tocito Dome and reappearing in, say, some six months, 12 months, to try to establish permanent rules?
- A No, sir, I don't believe so. If some damage would be observed from higher withdrawal rate, the operator would be the first to reduce their rates, I'm sure.
- Q I understand you will have another witness who will speak to the region dip and more precisely to the water-drive direction and so on?
 - A Yes.
 - Q Now, I believe, if I understand your testimony on

BUMMER-CROSS

Page.......37

Cross Examination, the factor which would control drainage between these wells, which would not be offset by counter drainage, would be a difference in the fluid level, sub-sea, on these wells. In other words, if you were producing Fluid Power Well with a 200-foot lower fluid level, then the offsetting well there could be drainage to the Fluid Power Wells, whereas if, all of them were producing at approximately the same fluid level, there would not be drainage from the lease to lease?

- A I would believe that is essentially correct.
- Q Now, could you take periodic tests on these wells to determine whether or not there was a substantial variation in your fluid levels?
 - A Yes, and we do.
- Q You could report this to the Commission's Aztec District Office on a regular basis?
 - A Yes, sir.
- Q And it would be available there for the interest owners, I'm sure?
 - A Yes.
- Q I believe you indicated that it would be a month or two before you could get the equipment in. Would the Applicant have a strong objection to an Order which would

BUMMER-CROSS

limit the higher allowables pending installation of the capacity-type equipment in other wells?

A Our objection would be, Fluid Power 1 and Fluid Power 3, it's very difficult to alter production from our submersible. We would have to either hold considerable back pressure on surface on submersible which would likely remove it from its optimum producing range and could cause us some problems. The other way, we couldn't restrict production, we would, of course, have to shut the well down. When we shut a well down, particularly in this winter weather, we have considerable freeze problems are also constantly fighting this high pour point oil. You know, under those situations we would prefer not to have restricted production from the wells with existing submersibles.

Q Has the Applicant considered unitization in this pool, to your knowledge?

A Yes, sir. We have discussed this briefly. We have been very busy in the field with other projects which we feel were more important at the time, just a day-to-day type operation, but yes, sir, we'll definitely consider that.

Q What's the range of fluid production on the submersible pump that you have on the Fluid Power No. 1 at the present time?

BUMMER-CROSS REDIRECT Page 39

- A The optimum design range for the pump.
- Q How much flexibility will you have on a daily basis?
- A I would need to go to the design curve on that particular pump. I don't have those numbers available. I would normally -- a submersible pump within 10 percent of optimum design would work properly.
 - Q Could you furnish those figures to the Commission?
 - A Yes, I sure could.
- Q If you were getting inefficient use of your water drive in this area, would you expect to see the water cut on the fluid power increase or decrease?
- A I would expect to see some water encroachment, water coning, see water cuts increase.
 - Q In fact, you've observed the opposite?
 - A Yes.

MR. STAMETS: Are there any other questions of this witness? Mr. Kellahin?

REDIRECT EXAMINATION

BY MR. KELLAHIN:

Q Mr. Bummer, referring to what has been marked Petro-Lewis' Exhibit 9, would you identify that Exhibit, please?

A Electric log, porosity log, represented for Federal Media No. 1.

Q Exhibit No. 10, would you identify that again?

A That's the electric log, porosity log, for Federal Media No. 2.

MR. KELLAHIN: I would at this time like to offer Exhibits 9 and 10.

MR. STAMETS: Without objection, Applicant's Exhibits 9 and 10 will be so now admitted.

(Whereupon, Applicant's Exhibits Nos. 9 and 10 are admitted into evidence.)

MR. KELLAHIN: That's all I have.

MR. STAMETS: The witness may be excused.

(Witness excused.)

MR. STAMETS: We'll take a recess until 3:15.

(Whereupon, a recess was taken.)

MR. STAMETS: Mr. Kellahin, do you have your next witness?

MR. KELLAHIN: I'd like to call Mr. Somers.

MR. STAMETS: I don't believe Mr. Somers has been sworn. Stand and be sworn, please.

(Witness is sworn.)

Page. 41

JOHN B. SOMERS

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

- Q Will you state your name, please?
- A John Somers.
- Q By whom are you employed and in what position, Mr. Somers?
- A Petro-Lewis Corporation, manager of production operations.
 - Q Where are you located?
 - A Denver, Colorado.
- Q Does the area involved in this Case No. 5152 come within your jurisdiction?
 - A Yes, it does.
 - Q Are you a petroleum engineer?
 - A Yes, I am.
- Q For the benefit of the Examiner, would you briefly outline your education and experience as a petroleum engineer?
- A I was educated at Colorado School of Mines, graduated in 1963 and employed by the Cities Service Oil Company and having been subsequently employed by Tenneco Oil Company,

Page 42

Exxon --

Q (Interrupting) Could you give those approximate dates of employment and where?

A I was employed as a petroleum engineer by Cities Service Oil Company from 1963 through 1965. Then, I was employed by Tenneco Oil Company as a petroleum engineer and reservoir engineer from '65 through '68 and was employed by Davis Oil Company until 1972 as an operations engineer and was subsequently then employed by Petro-Lewis Corporation as production manager.

Q In connection with your work with Petro-Lewis Corporation, have you made any study of the Media Dome Field?

A Yes, I have.

MR. KELLAHIN: Are the witnesses qualifications acceptable?

MR. STAMETS: They are.

BY MR. KELLAHIN:

Q Mr. Somers, you heard Mr. Bummer's testimony with direction of the water drive in this pool and, in your opinion, what is the direction of this water drive?

A From the northeast to the southwest on the penetration of the seven wells drilled into the Media-Entrada Pool.

Q Have you had cores on these wells?

Page 43

- A Yes, we did.
- Q Did you show the oil saturation and the water saturation and water-oil contact?
- A Yes, sir. It does indicate from these seven wells that penetrated the oil-water contact that there is more than 40 feet of displacement difference from one side of the pool to the other.
 - Q From what side to what side?
- A It is 40 feet higher on the northeast side than it is on the southwest side, indicating that there is dynamic water influx from the northeast, based on basically the fact that the only area from which you can get recharging in Entrada is the outcrop to the northeast.
 - Q Boes it outcrop to the northeast?
 - A Yes, it does.
 - Q What distance, do you know?
 - A I'm not definitely sure about that.
- Q Now, the fact that the water drive is coming from the northeast, would that have any bearing on the effect of the high rates of production from the Fluid Power Pump Well No. 1 and No. 3 in relation to the Media Wells? Would that effect the drainage pattern is what I'm saying.
 - A Not particularly, because it is such a dynamic

Page 44

water drive that the fluid level shots which we've taken since we took over operations indicated that there is an appreciable difference in fluid level with a higher withdrawal rate, so, it basically would be the amount of oil column and the quality of reservoir which is present at each location and not so much the direction of the water drive.

- Q Now, would producing those two wells, the Fluid
 Power Pump No. 1 and No. 3, result in drainage of the Media
 Wells, in your opinion, any appreciable extent?
 - A Not to any appreciable extent, no.
- Q Now you heard Mr. Bummer's testimony as to plans for putting in pumping equipment in the Media No. 1 and No. 2 Wells?
 - A That's correct.
 - Q Do you have anything to add to that?
- A We have already had AFE Officer's authority to do this work. We're now just considering the best means of increasing the pumping capacity within limitations that we have in this four-and-a-half inch casing. We, also have work plans on three wells that are suspended which are very similar to this Fluid Power No. 5, which we recently completed for 220 barrels a day oil well. These are Federal Media No. 4, Fluid Power Pump No. 2 and Fluid Power Pump No. 4. However,

Page......45.....

we have deferred any action on this due to the cost and nature of these recompletions until something is resolved as far as the drilling units and until we can determine exactly what we feel we can produce from the standpoint of the allowable granted for these drilling units.

The Fluid Power Pump No. 5 cost us about \$30,000 for the recompletion work to date, not including the installation work which we are presently doing.

- Q Now, you said, until the question of these units is resolved or unitization of the four pools, pooling action, is that what you are talking about?
- A Yes, this is in there, also there has been a lawsuit as I understand it, filed against Fluid Power Pump Company, the company that we bought half interest in this property from.
- Q What about the Fluid Power Pump No. 2 Well, you plan any work on it?
 - A Yes.
 - Q Is that one that you might recomplete?
- A Yes, there is indicated problems with the initial completion and the possibility there is such oil column there to justify recompletion of that well as well.
 - Q Your understanding that the present state of the

Page. 46

Application before the Commission, an allowable would be assigned to the 160-acre unit?

- A That's correct.
- Q If you had two wells, you would still only have one allowable, do you understand that?
- A That's correct. Well, basically, what we are saying is that before we want to spend \$30,000 to go into the Federal Media No. 4 Well, to recomplete that well which has 12 feet of Media-Entrada pay, we want to know that if we made a 500-barrel-a-day well like Fluid Power No. 1 that we wouldn't be restricted in producing. We have to have some justification for that expenditure.
- Q Will this 750-barrel allowable be sufficient in your opinion?
 - A Yes, it would.
- Q Now, there's some question asked of Mr. Bummer in regard to curtailing production on the Fluid Power Pump No.1 and No. 3 Wells, what would be the effect if you curtailed production on those wells?
- A If we tried to curtail production of those wells to the extent that the pumps were not able to function at their optimum range, we very easily could burn off the bearings on these pumps and they cost between \$15 and \$21,000 a piece.

Page. 47.

This investment we presently have in these two pumps. Trying to curtail production would severely -- we would risk damaging and having to replace these pumps.

Q What about shutting them in?

A This would cause a problem, because this water is essentially fresh, potable water suitable for stock and the oil, because of a high pour point, is extremely viscous. We would have a real severe production problem getting it back on production, having to shut it down during the winter or even summer weather. We have difficulty even during the summer, because this is a fairly high altitude. Your elevation is rather high and it is cool enough that we get below pour point of oil even during the summertime.

Q Petro-Lewis is willing to supply the Commission, the Aztec Office of the Commission, with the information on the fluid levels at regular periods?

A Yes. We have already been -- we would be willing to give them back history that we have and furnish them information at periodic intervals.

- Q Do you have anything else to add, Mr. Somers?
- A No.

MR. KELLAHIN: That's all I have of this witness.

SOMERS-CROSS

Dano	48
rage	~~

CROSS EXAMINATION

BY MR. STAMETS:

- Q Mr. Somers, what periodic interval would you be referring to, every week, every two weeks, every month?
 - A Probably every month.
 - Q How often would you check the fluid levels?
 - A That's what I mean, once a month.
 - Q Once a month?
 - A Right.
- Q Would you have some sort of a production record that would go along with that indicating what volume is then removed from the well?
 - A Correct.
- Q Mr. Somers, were you aware of the capabilities of the Reda pump prior to the time it was installed in the Fluid Power Well No. 1?
 - A As far as the capacity of the pump itself?
 - Q What it would do with that particular well?
- A No, because we rented these or got them on a lease-purchase option. After 60 days we have had the option of whether we are going to purchase them for \$20,000 or return the pumps.
 - Q So, if the Application is not granted, what do you

propose to do?

A Well, we've already optioned for the purchase of the equipment, because we are beyond the option date. We've already purchased the equipment.

Q Are you anticipating a favorable Order will be entered in this case?

A I would hope so.

Q Do you think that all of the oil in this pool could be produced from the single well from Federal Media No. 1?

A No, I don't believe so.

Q Was the question that Mr. Kellahin asked you a question for a geologist o an engineer with regard to thrust of the water in this particular pool?

A I'm a reservoir engineer. I feel qualified to answer it, yes.

Q Could a geologist give a better answer to the Commission?

A No, sir.

Q I'd like for you to explain again for my information how you contemplate maintaining similar pressures between the l and 3 Wells as against the l and 2 Federal Medias so there is not drainage that is not offset by counter drainage?

A By maintaining a similar amount of pressure draw down

from the reservoir. Since we have such a dynamic water drive by maintaining constant pressure withdrawal at all four points, we have in essence, a constant pressure in thrust of water. It would prevent any drainage from occurring in this reservoir and the more, as I say, if we were able to return these other three wells to production, we would have more points of withdrawal and probably better supervision and better recovery. This would be the means that we would try to achieve the optimum recovery from the reservoir.

MR. STAMETS: Thank you. I have no further questions of this witness.

Any other questions of this witness? He may be excused.

(Witness excused.)

Anything further, Mr. Kellahin? MR. STAMETS:

MR. KELLAHIN: That's all.

MR. STAMETS: Mr. Hunker, do you have a witness?

MR. HUNKER: Yes, sir, I do.

JOHN K. REIMER

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

DIRECT EXAMINATION

BY MR. HUNKER:

Will you state your name, address, and occupation
THE NYE REPORTING SERVICE
STATE-WIDE DEPOSITION NOTARIES

SANTA FE, NEW MEXICO 87501 TEL. (505) 982-0386

REIMER-DIRECT

Page. 51

for the record, please?

- A John K. Reimer, R-e-i-m-e-r.
- Q Your address?
- A Box 11594, Albuquerque.
- Q What is your occupation, Mr. Reimer?
- A I'm semi-retired.
- Q What was your occupation prior to your retirement or semi-retirement?
- A I was at the Atomic Energy Commission for some 27 years.
- Q Did you sell United States Gas Lease NM-058122, embracing the Southwest quarter of the Southwest quarter of Section 14 and the Southeast quarter of the Southeast quarter of Section 15, Township 19 North, Range 3 West, Sandoval County, New Mexico to Mr. Donald Wiley and Fluid Power Pump Company?
 - A Yes, sir.
- Q Did you reserve an interest when you made that assignment?
- A Yes, sir, I reserved five percent overriding royalty interest in this sale. In addition to this five percent override royalty, there had already been assigned a two percent overriding royalty.

Page. 52

REIMER-DIRECT

- Do you and Mr. R. E. McKenzie, Junior, at the present time own a six percent overriding royalty under this lease?
 - That is right.
 - Is that unit communitized?
 - No.
 - Has it been unitized?
 - No, not that I know of.
 - Have you read the Transcripts in Cases 4642 and 4673 and 4685, which were cases before this Commission brought by Fluid Power Pump Company?
 - Were certain representations made in connection I have. with those cases by the representative of Fluid Power Pump Company?
 - There are references in these cases to changes in development that would be made. There are references to unitization of the area.
 - Is reference made to pressure maintenance?
 - Yes, Sir. Pressure maintenance was the subject of it -- was the main object of the -- I believe it was Case 4642.
 - Are you aware of any pressure maintenance that has been instituted in this particular area? Q

REIMER-DIRECT

Page......53

- A I am not.
- Q Are you aware of any actual unitization that has been instituted in connection with this area?
 - A I have not.
- Q What's the present status of your overriding royalty, Mr. Reimer?
 - A What respect?
 - Q Are you being paid?
- MR. KELLAHIN: If the Examiner please, this material is irrelevant to this Hearing here. There is a case, as I understand it, has been filed. I haven't seen it, asking for forced pool of this interest of Mr. Reimers. As I understand it, there is also a case filed in court involving this. That's the proper forum to hear these complaints about whether he is being paid or isn't being paid and what happened to his royalty interests, not in this Hearing. It has no bearing whatsoever on these questions.

MR. STAMETS: Is what you are getting at here -MR. HUNKER: The thrust of my question has to do
with correlative rights of these individuals and the representations that have been made to this Commission with regard
to the position of the operator.

REIMER-DIRECT

Page...... 54

MR. KELLAHIN: If the Examiner please, the operator who made those representations is no longer the operator.

That was Fluid Power Pump Company. They are not the operator of this, Petro-Lewis is. Testimony in this case shows that.

If they have a dispute with Fluid Power Pump Company, and I think they do, that's the place to resolve it, not blame what transpired at that time on the new operator who has come in here.

MR. HUNKER: I have no further comment.

MR. STAMETS: Mr. Hunker?

MR. HUNKER: I'll withdraw my question. It might not be entirely material to this Hearing. I'll withdraw the question.

MR. STAMETS: Okay. Fine.

MR. HUNKER: I would like to ask the Commission to take administrative notice of the testimony that was adduced in the cases that were mentioned, namely, 4642, 4673 and 4685.

BY MR. HUNKER:

Q Mr. Reimer, have you made a study of the records of the Oil Conservation Commission with regard to the allowable that has been assigned to the Fluid Power Pump Company and Petro-Lewis Wells in the Media-Entrada area; have

Page...... 5 5

REIMER-DIRECT

you made such a study?

I have for Federal Media No. 1 and 2. I have some

What does that data reflect, Mr. Reimer, with data on this. regard to the allowable and actual production?

For the time period of some 13 or 14 months it showed that Federal No. 1 and No. 2 combined were producing about 65 percent of the allowable for those two wells.

MR. HUNKER: I have no further questions.

MR. STAMETS: Are there questions of this witness?

MR. KELLAHIN: No questions.

MR. STAMETS: You may be excused.

Do you have anything further to offer, Mr. Hunker?

MR. HUNKER: No.

MR. STAMETS: Is there any other testimony in this

Are there any statements in subject case? If not, case? we will take this case under advisement and return to the order of the docket.

STATE OF NEW MEXICO)

COUNTY OF SANTA FE)

I, RICHARD L. NYE, Court Reporter, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

RICHARD L. NYE, Court Reporter

I do hereby develop that the foregoing is a conclusion to the Examiner hearing of the English to 1974.

Tickered L. Stamut, Evaniner New Mexico Oil Conservation Commission



STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION AZTEC DISTRICT OFFICE

July 11, 1980

1000 RIO BRAZOS ROAD AZTEC, NEW MEXICO 87410 (505) 334-6178

R= 4713

Mr. J.R. Harrison Petro-Lewis Corporation P.O. Box 507 Levelland, Texas 79336



Re: Water Cut and Fluid Level Reports, Certain Entrada Pools

Dear Mr. Harrison:

Orders R-4713, R-4822, and R-5118, directed that you submit water cut and/or fluid level reports on wells which you operate in certain Entrada pools. It now appears that these tests have served their purpose and may be discontinued.

These test requirements may be reinstituted at any time that the Division feets that they are necessary.

If you have any questions, please contact this office.

Yours truly.

Frank Chavez

District Supervisor

FC/1s

Xc: OCD Santa Fe Reading File

U.S.G.S. Farmington



STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING GOVERNOR LARRY KEHOE July 2, 1980.

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

Mr. Frank T. Chavez Oil Conservation Division 1000 Rio Brazos Road Aztec, New Mexico 87410

Re: Water Cut and Fluid Level Reports,

Certain Entrada Pools

Dear Frank:

We have reviewed the statistics relating to oil and water production in the Media-Entrada, Southwest Media-Entrada, and Eagle Mesa-Entrada Oil Pools and concur with your opinion that the producing characteristics in these reservoirs have been well enough established that continuation of the monthly fluid level tests and water cut reports is unnecessary.

These tests were required when the operators in said pools were granted a special 750-BOPD allowable in order to lift large volumes of water to keep the oil moving in the reservoir. At the time there was some apprehension that water coning and subsequent loss of oil would result.

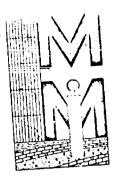
It now appears that the tests have served their purpose and may be discontinued, and you may so notify the operators in the subject pools.

Very truly yours,

JOE D. RAMEY, Director

JDR/DSN/dr

cc: Case File 5574 Case File 5262 Case File 5152



MINERALS MANAGEMENT

WESTERN RESOURCES BUILDING . P. O. BOX 25754 3440 TELEPHONE (307) 265-4860 CASPER, WYOMING 82601

December 22, 1975

Case 5152

New Mexico Oil Conservation Commission Mr. Al Kendrick 1000 Rio Brazos Road Aztec, New Mexico 87410

Re: Fluid Level Survey & Concurrent Production Tests Eagle Mesa Field Sandoval County, New Mexico

Dear Mr. Kendrick:

Please find attached results of December, 1975, fluid level and production tests of producing wells in the Entrada Formation of the Eagle Mesa Field.

Yours very truly,

Barbara D. Dame

Production Clerk

BD

Enc.

Mr. Don Henderson Mr. Dale Worth

Mr. Arnold Snell

OIL CON. COM. DIST. 3

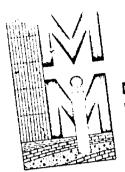
FLUID LEVEL SURVEY

ENTRADA FORMATION EAGLE MESA FIELD

SANDOVAL COUNTY, NEW MEXICO

12-10-75 12-10-75	WELL NAME	2901	PRODUCTION BOPD BWPD 25 880 191 2250 120 100 70 124	REMARKS Pumping 6 hours Pumping 18 hours Pumping 24 hours Pumping 24 hours
----------------------	-----------	------	---	--





MINERALS MANAGEMENT WESTERN RESOURCES BUILDING P. O. BOX 2919 TELEPHONE (307) 265.4950 CASPER, WYOMING 82601

December 8, 1975

Mr. Al Kendrick
New Mexico Oil Conservation Commission 1000 Rio Brazos Road Aztec, New Mexico 87410

Re: Fluid Level Survey & Concurrent Production Tests Eagle Mesa Field Sandoval County, New Mexico

30 5/5 2

please find attached results of November, 1975, fluid Dear Mr. Kendrick: level and production tests of producing wells in the Entrada Formation of the Eagle Mesa Field. Yours very truly,

Barbara D. Dame

Barbara D. Dame Production Clerk

BD

Enc.

Mr. Don Henderson Mr. Dale Worth cc: Mr. Arnold Snell

FLUID LEVEL SURVEY

ENTRADA FORMATION

EAGLE MESA FIELD

SANDOVAL COUNTY, NEW MEXICO

DATE	WELL NAME Federal 12 #1 Federal 11C #1 Navajo 13C #1	DEPTH TO FLUID LEVEL FROM SURF. 1200' 1240' 2015' 279'	200 1 129	000 <u>ABD</u>	REMARKS Pumping 18 hours Pumping 12 hours Pumping 24 hours Pumping 24 hours
------	---	---	--------------	-------------------	---

12-8-75



OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO P. O. BOX 2088 - SANTA FE 87501

DIRECTOR
JOE D. RAMEY

LAND COMMISSIONER
PHIL R. LUCERO
September 23, 1975



STATE GEOLOGIST EMERY C. ARNOLD

Kellshin & Fox	ORDER NO. K-4713-B
Attorneys at Law Post Office Box 1769 Santa Fe, New Mexico	Applicant:
	Petro-Lewis Corporation
Dear Sir:	
	copies of the above-referenced entered in the subject case.
Yours very truly, JOE D. RAMEY Director	
JDR/fd	
Copy of order also sent to	:
Hobbs OCC x	_
Artesia OCC X	
Aztec OCC *	-

Re: CASE NO.

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

> CASE NO. 5152 Order No. R-4713-B

IN THE MATTER OF CASE NO. 5152 BEING REOPENED PURSUANT TO THE PROVISIONS OF ORDER NO. R-4713-A, WHICH ORDER EXTENDED ORDER NO. R-4713, WHICH ORDER ESTABLISHED A SPECIAL DEPTH BRACKET ALLOWABLE FOR THE MEDIA-ENTRADA OIL POOL, SANDOVAL COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on August 13, 1975, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 23rd day of September, 1975, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That by Order No. R-4713, dated January 24, 1974, a temporary special depth bracket allowable of 750 barrels of oil per day was established for the Media-Entrada Oil Pool, Sandoval County, New Mexico.
- (3) That by Order No. R-4713-A, dated September 3, 1974, the aforesaid temporary special depth bracket allowable was extended for a one-year period.
- (4) That pursuant to the provisions of Order No. R-4713-A, this case was reopened to permit all interested parties to appear and show cause why said special depth bracket allowable should remain in effect.
- (5) That the evidence presented at the hearing indicates that high volume pumping of oil wells in the Media-Entrada Oil Pool generally results in a lower water-oil cut, thereby improving the producing efficiency of the reservoir.

-2-Case No. 5152 Order No. R-4713-B

- (6) That the evidence further indicates that the original applicant in this case, Petro-Lewis Corporation, has unitized the Media-Entrada Oil Pool for the purpose of instituting a pressure maintenance project therein, and that upon initiation of said project, even greater volumes of fluid will be produced than have been produced to date.
- (7) That should the previously established trend of a greater percentage of oil per barrel of fluid produced, when producing the wells in the subject pool at high volumes, continue, the water-oil cut would be further reduced, and producing efficiency for the reservoir further improved.
- (8) That retention of the special depth bracket allowable for wells in the subject pool should improve reservoir producing efficiency and result in the ultimate recovery of additional oil, thereby preventing waste.
- (9) That retention of the special depth bracket allowable for wells in the subject pool will not cause waste nor impair correlative rights, and should be approved.

IT IS THEREFORE ORDERED:

- (1) That the special depth bracket allowable of 750 barrels of oil per day for the Media-Entrada Oil Pool, Sandoval County, New Mexico, shall remain in full force and effect until further order of the Commission.
- (2) That the operator of the Media-Entrada Unit Area shall report monthly to the Aztec District Office of the Commission the previous month's water-oil cut for each producing well in the Media-Entrada Oil Pool.
- (3) That the Secretary-Director of the Commission may, at any time that it appears that premature water encroachment or water coning is occurring, or other evidence of reservoir damage is apparent, rescind the provisions of this order and cause the top unit allowable for the Media-Entrada Oil Pool to revert to 347 barrels of oil per day.
- (4) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

Case No. 5152 Order No. R-4713-B

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

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

PHIL R. LUCERO, Chairman

EMERY O. ARNOLD, Member

JOE D. RAMEY, Member & Secretary

SEAL

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

> CASE NO. 5152 Order No. R-4713-A

IN THE MATTER OF CASE NO. 5152 BEING REOPENED PURSUANT TO THE PROVISIONS OF ORDER NO. R-4713, WHICH ORDER ESTABLISHED A SPECIAL DEPTH BRACKET ALLOWABLE FOR THE MEDIA-ENTRADA OIL POOL, SANDOVAL COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on August 19, 1974, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 3rd day of September, 1974, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That by Order No. R-4713, dated January 24, 1974, a temporary special depth bracket allowable of 750 barrels of oil per day was established for the Media-Entrada Oil Pool, Sandoval County, New Mexico, for a period of six months.
- (3) That pursuant to the provisions of Order No. R-4713, this case was reopened to allow the operators in the subject pool to appear and show cause why said special depth bracket allowable should remain in effect.
- (4) That the evidence presented indicates that the temporary special depth bracket allowable should be continued in effect for an additional one year.
- (5) That this case should be reopened at an examiner hearing during August, 1975, at which time the operators in the subject pool should appear and show cause why the temporary special depth bracket allowable should remain in effect.

-2-CASE NO. 5152 Order No. R-4713-A

IT IS THEREFORE ORDERED:

- (1) That the temporary special depth bracket allowable of 750 barrels of oil per day for the Media-Entrada Oil Pool, Sandoval County, New Mexico, shall remain in full force and effect.
- (2) That this case shall be reopened at an examiner hearing during the month of August, 1975, at which time operators in said pool may appear and show cause why said special depth bracket allowable should not be rescinded.
- (3) That the Secretary-Director of the Commission may, at any time that it appears that premature water encroachment or water coning is occuring, or other evidence of reservoir damage is apparent, rescind the provisions of this order and cause the top unit allowable for the Media-Entrada Oil Pool to revert to 347 barrels of oil per day.
- (4) That each month the applicant shall take production fluid level tests on each producing well in the pool and shall report the results of these tests along with other pertinent monthly well production data to the Aztec District Office of the Commission.
- (5) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

/

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

I. R. TRUJILLO, Chairman

ALEX J. ARMIJO, Member

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

SEAL



1600 Broadway P,O. Box 2250 Denver Colorado 80201 303/892-6010

Oil and Gas Producers

October 9, 1975

Mr. Al Kendrick New Mexico Oil Conservation Commission 1000 Rio Brazos Road Aztec, NM 87410

Re: Fluid Level Survey and Concurrent Production Tests Media and Southwest Media Fields Sandoval County, New Mexico Case 5152

Dear Mr. Kendrick:

Please find attached results of September, 1975, fluid level and production tests of producing wells in the Entrada and Gallup Formations of the Media and Southwest Media Field.

Yours truly,

PETRO - LEWIS CORPORATION

John B. Somers

Denver Division Manager

JBS/ml

Attachment



FLUID LEVEL SURVEY MEDIA AND SOUTHWEST MEDIA FIELDS SANDOVAL COUNTY, NEW MEXICO

DATE	WELL NAME	DEPTH TO FLUID LEVEL FROM SURFACE, FT. September	PRODUCTION BOPD BWPD	STATUS
9-22-75	Federal Media l	992'	77 PM	Down
9-22-75	Federal Media 2	1023'	60 1100	Pumping
9-22-75	Fluid Power Pump 1	16431	250 3000	Pumping
9-22-75	Fluid Power Pump 3	23871	60 1700	Pumping
9-24-75	Boling Federal 5	744'	par pala . Ann diri	Down
9-24-75	Boling Federal 6	1240'	353 850	Pumping

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

> CASE NO. 5152 Order No. R-4713

APPLICATION OF PETRO-LEWIS CORPORATION FOR A SPECIAL DEPTH BRACKET ALLOWABLE, SANDOVAL COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on January 16, 1974, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 24th day of January, 1974, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Petro-Lewis Corporation, is the sole operator in the Media-Entrada Oil Pool, Sandoval County, New Mexico.
- (3) That the applicant seeks the assignment of a special depth bracket allowable of 750 barrels of oil per day for the Media-Entrada Pool to replace the current regular depth bracket allowable for said pool of 347 barrels per day.
- (4) That the evidence presently available indicates that the assignment of a special depth bracket allowable to wells in the subject pool will not result in damage to the reservoir or cause waste, and will be in the interest of protection of correlative rights.
- (5) That the applicant should install production equipment at each of the existing 160 acre non-standard spacing units to produce these units in such a manner as to minimize the fluid head differential between said units to eliminate, inscfar as may be practicable, drainage which may not be offset by counter drainage.

- (6) That the special depth bracket allowable should be assigned for a temporary period to expire six months from the date of this order; that during this period all operators in the subject pool should gather all available information relative to the effects on said reservoir.
- (7) That this case should be reopened at an examiner hearing in July, 1974, at which time the operators in the subject pool should appear and show cause why the temporary special depth bracket allowables should be made permanent.

IT IS THEREFORE ORDERED:

- (1) That a temporary special depth bracket allowable of 750 barrels of oil per day is hereby established for the Media-Entrada Oil Pool, Sandoval County, New Mexico.
- (2) That this case shall be reopened at an examiner hearing in July, 1974, at which time the operators in the subject pool may appear and show cause why the temporary special depth bracket allowable should not be rescinded.
- (3) That the Secretary-Director of the Commission may, at any time it appears that premature water encroachment or water coning is occurring, or other evidence of reservoir damage is apparent, rescind the provisions of this order and cause the top unit allowable for the Media-Entrada Oil Pool to revert to 347 barrels of oil per day.
- (4) That each month the applicant shall take production fluid level tests on each producing well in the pool and shall report the results of these tests along with other pertinent monthly well production data to the Aztec district office of the Commission.
- (5) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

I. R. TRUJILLO, Chairman

EX J. ARMIJO Member

ORTER, Jr., Member & Secretary

7

dr/

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

CASE NO. 5152 Order No. R-4713-A

IN THE MATTER OF CASE NO. 5152 BEING REOPENED PURSUANT TO THE PROVISIONS OF ORDER NO. R-4713, WHICH ORDER ESTABLISHED A SPECIAL DEPTH BRACKET ALLOWABLE FOR THE MEDIA-ENTRADA OIL POOL, SANDOVAL COUNTY, NEW MEXICO.

Transcist +
Adibits

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on August 19, 1974, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 3rd day of September, 1974, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That by Order No. R-4713, dated January 24, 1974, a temporary special depth bracket allowable of 750 barrels of oil per day was established for the Media-Entrada Oil Pool, Sandoval County, New Mexico, for a period of six months.
- (3) That pursuant to the provisions of Order No. R-4713, this case was reopened to allow the operators in the subject pool to appear and show cause why said special depth bracket allowable should remain in effect.
- (4) That the evidence presented indicates that the temporary special depth bracket allowable should be continued in effect for an additional one year.
- (5) That this case should be reopened at an examiner hearing during August, 1975, at which time the operators in the subject pool should appear and show cause why the temporary special depth bracket allowable should remain in effect.

Exhibits 3-10 will be capied this afternoon.

For Hearing August 13,1975 BAH

HUNKER, FEDRIC & HIGGINBOTHAM, P.A. 210 HINKLE BUILDING TELEPHONE 622-2700 AREA COUE 505 POST OFFICE BOX 1837 ROSWELL, NEW MEXICO 88201 Car 5152 GEORGE H. HUNKER, JR.
DON N. FEDRIC
RONALD M. HIGGINBOTHAM August 8, 1975 ROBERT I. WALDMAN W.p. Uhren, Vice President Petro-Lewis Corporation P.O. Box 2250 Denver, Colorado 80201 Media Entrada Unit Sandoval County, New Mexico Re: Our File 73-2-1 Your Company, as Operator, will be submitting for final Your Company, as Operator, Will be submitting for final approval to our clients, John K. Reimer and Robert E. McKenzie, approval to our clients, John K. Reimer and Robert E. McKenzie, approval to our clients, John K. Reimer and Robert E. McKenzie, approval to our clients, John K. Reimer and Robert E. McKenzie, approval to our clients, John K. Reimer and Robert E. McKenzie, approval to our clients, John K. Reimer and Robert E. McKenzie, approval to our clients, John K. Reimer and Robert E. McKenzie, approval to our clients, John K. Reimer and Robert E. McKenzie, approval to our clients, John K. Reimer and Robert E. McKenzie, approval to our clients, John K. Reimer and Robert E. McKenzie, approval to our clients, John K. Reimer and Robert E. McKenzie, approval to our clients, John K. Reimer and Robert E. McKenzie, approval to our clients, John K. Reimer and Robert E. McKenzie, approval to our clients, John K. Reimer and Robert E. McKenzie, approval to our clients, John K. Reimer and Robert E. McKenzie, approval to our clients, John K. Reimer and Robert E. McKenzie, approval to our clients, John K. Reimer and Robert E. McKenzie, approval to our clients, ap Dear Mr. Uhren: which they own a noncommunitized overriding royalty interest of which they own a noncommunitated overriding royalty interest of 6% in the proportions of 5% and 1%, respectively. The subject lease was originally conveyed by McKenzie to Reimer, subject to a 2% overriding royalty interest. Reimer sold the lease to Texaco and reserved a right of reassignment. When Texaco tendered a reassignment, Reimer accepted the same, subject to the original 29 overriding revealth provided to tendered a reassignment, Reimer accepted the same, subject to the original 2% overriding royalty previously reserved. Reimen then sold the lease, subject to certain drilling commitments, to Don C. Wiley and kept an additional 5% overriding royalty interest. McKenzie conveyed 1/2 of the 28 he owned to Eugenia Interest. McKenzie conveyed 1/2 or the 2% ne owned to Eugenia Bate, and Mrs. Bate conveyed .5% to Barbara Talento. and Reimer have accepted payment in cash for the overriding and Reliner have accepted payment in cash for the overriding royalty interest for a period from first production ending royalty interest for a period from first production ending rebruary 28, 1974. Although obligated under contract to pay or repruary 28, 19/4. Arthough obligated under contract to p deliver 6% of the oil produced from the subject lease, no payment has been made to Reimer and McKenzie for 53,778 bbls. of oil sold by Operator during the period from March 1, 1974, Under the terms of the New Mexico law (65-3-14.5 B), when an operator fails to obtain voluntary pooling (as is the to June 30, 1975. when an operator rails to obtain voluntary pooling (as is the present case), operator "shall nevertheless be liable to account to and pay each owner of minerals or leasehold interest, to and pay each owner or minerals or reasonord interests and other including owners of overriding royalty interests and other including owners or overriding royalty interests and other payments out of production, either the amount to which each interest would be entitled if pooling had occurred or the interest would be entitled in the absence of amount to which each interest is entitled in the absence of amount to which each interest is entitled in the absence of pooling, whichever is the greater".

W.P. Uhren, Vice President Petro-Lewis Corporation August 8, 1975 Page 2

Formal demand is now made for the greater of the amounts, i.e. the amount Reimer and McKenzie would be entitled to had pooling not occurred. At this time, this demand is for 6% of 53,77% bbls. of oil, or 3,226.6% bbls. of oil in kind. You will notify us in an appropriate manner so that we can obtain permission to transport the deliveries of crude at the farm to our purchaser.

We also contemplate the filing of our suit for unlawful and excessive drainage from Operator's FPP #1 well. In this regard, you are advised that your excessive withdrawals from the FPP #1 have not gone unnoticed. While 49,814 bbls. of crude was being produced from the FM #1 and FM #2 during the 14 months from March 1, 1974, to May 31, 1975, 180,141 bbls. of crude were taken from and sold from the FPP #1 and the FPP #3 wells.

This inordinate and nonratable production among the several tracts cannot be tolerated, either from the standpoint of drainage or from the standpoint of the reservoir waste occasioned thereby.

Based on surface and subsurface seismograph information furnished by Shell Oil Company, Magnolia Petroleum Company, W.H. Cheney and W.H. Cheney, Jr., Mr. McKenzie has spent many hours preparing detailed structural maps of the Media Entrada This work clearly demonstrates that approximately 44.40% of all the oil in place in the pool lay under the Reimer and McKenzie 80-acre lease at the time the initial discoveries were made. The total production to May 31, 1975, for the pool, as reported to the accounting office in Santa Fe, is 732,272 bbls. Of this amount, 307,135 bbls., or 41.95%, was shown to have been produced from the FM #1 and FM #2 wells. A study will show that as compared to late 1973 and all of 1974 production, your present production from the FPP #1 well has dramatically decreased in the last six months, lending much credibility to our engineer's conclusions earlier expressed; that Operator is producing from a reservoir which is being rapidly depleted by excessive pumping, all to the detriment of the reservoir and those owning the principal interests in and under the wells.

If you will permit us to be trite, we would like to make an observation on behalf of our clients. Your Company better

W.P. Uhren, Vice President Petro-Lewis Corporation August 8, 1975 Page 3

get off of its and do something about working out a reasonable settlement of one of a big mess: Our settlement offer of March 4, 1975, is withdrawn as no longer being acceptable. Reasonable people do not litigate, and we invite you to outline to us a basis upon which a settlement may be negotiated. A carbon copy of this letter is being sent to the New Mexico Oil Conservation Commission to demonstrate on behalf of our clients their objection to the continued special depth bracket allowable for the Media Entrada Pool, Sandoval County, New Mexico, as reopened and readvertised in Case No. 5152, Order R-4713-A. The special depth bracket allowable is no longer justified.

Please let us have a response at an early date.

Very truly yours,

HUNKER, FEDRIC & HIGGINBOTHAM, P.A.

George H. Hunker, Jr.

GHH: dd

CC: Mr. J.D. Ramey

Executive Director

New Mexico Oil Conservation Commission
P.O. Box 2038

Santa Fe, New Mexico 87501

xc: Jason W. Kellahin, Esq. Kellahin & Fox P.O. Box 1769 Santa Fe, New Mexico 87501

xc: Mr. John K. Reimer 6 La Villita Circle, N.E. Albuquerque, New Mexico 87112

xc: Mr. Robert E. McKenzie, Jr. 605 Bay Meadow Drive Roswell, New Mexico 88201

DOCKET: COMMISSION HEARING - MONDAY - AUGUST 19, 1974

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

CASE 5262: (DE NOVO)

Application of Petro-Lewis Corporation for pool contraction, creation, and special pool rules, Sandoval County, New Mexico. Applicant, in the above-styled cause, seeks the contraction of the Media-Entrada Oil Pool by the deletion of the NW/4 of Section 22, Township 19 North, Range 3 West, Sandoval County, New Mexico, and the creation of a new pool for Entrada production comprising said lands. Applicant further seeks the promulgation of special rules for said pool, including a provision for 160-acre proration units and the establishment of a special depth bracket allowable for said pool of up to 750 barrels per day.

Upon application of Petro-Lewis Corporation, this case will be heard \underline{De} Novo pursuant to the provisions of Rule 1220.

CASE 5152: (Reopened) Continued from July 24, 1974 Examiner Hearing

In the matter of Case No. 5152 being reopened pursuant to the provisions of Order No. R-4713, which order established a special depth bracket allowable for the Media-Entrada Oil Pool, Sandoval County, New Mexico. All interested parties may appear and show cause why said special depth bracket allowable should not be rescinded.

Dockets Nos. 25-74 and 26-74 are tentatively set for hearing on September 4 and September 18. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - AUGUST 21, 1974

9 A.M. - OIL CONSERVATION COMMISSION 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

- CASE 5294: Application of Shenandoah Oil Corporation for a buffer zone allowable, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the assignment of a special buffer zone allowable to its Gissler "A" Wells Nos. 1 and 3, located 430 feet from the North line and 1720 feet from the West line, and 1320 feet from the North line and 2310 feet from the West line, respectively, of Section 23, Township 17 South, Range 30 East, Grayburg Jackson Pool, Eddy County, New Mexico. These wells offset an active waterflood project and have received an apparent response to water injection.
- CASE 5295: Application of Amoco Production Company for a non-standard proration unit and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 480-acre non-standard gas proration unit comprising the N/2 and SE/4 of Section 24, Township 20 South, Range 36 East, Eumont Gas Pool, Lea County, New Mexico, to be simultaneously dedicated to its Gillully Federal Gas Com Well No. 4 and its Gillully "A" Federal Well No. 7 located in Units B and O, respectively, of said Section 24.
- CASE 5296: Application of Texaco Inc. for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle Vacuum-Upper Pennsylvanian production with the presently commingled North Vacuum-Abo and North Vacuum-Wolfcamp production in the wellbore in its New Mexico "Q" State Well No. 4 located in Unit P of Section 25, Township 17 South, Range 34 East, Vacuum Field, Lea County, New Mexico.
- CASE 5297: Application of Exxon Corporation for a non-standard proration unit and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 160-acre non-standard gas proration unit comprising the NE/4 of Section 35, Township 20 South, Range 36 East, Eumont Gas Pool, Lea County, New Mexico, to be simultaneously dedicated to its Eumont Gas Com 3 Well No. 1 and its Fopeano Federal A/C Well No. 7, located in Units A and G, respectively, of said Section 35.
- CASE 5298: Application of General American Oil Company of Texas 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 E/2 of Section 29, Township 17 South, Range 29

(Case 5298 continued from Page 1)

East, Eddy County, New Mexico, to be dedicated to a well to be drilled at a standard location for said unit. Also to be considered will be the cost of drilling and completing said well and the allocation of such costs, as well as actual operating costs and charges for supervision. Also to be considered is the designation of applicant as operator of the well and a charge for risk involved in drilling said

- Application of Coquina Oil Corporation for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an we11. order pooling all mineral interests in the Pennsylvanian formation underlying the E/2 of Section 23, Township 22 South, Range 25 East, Eddy County, New Mexico, to be dedicated to a well to be drilled at CASE 5299: a standard location for said unit. Also to be considered will be the cost of drilling and completing said well and the allocation of such costs, as well as actual operating costs and charges for supervision. Also to be considered is the designation of applicant as operator of the well and a charge for risk involved in drilling said well.
 - Application of Mesa Petroleum Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp formation underlying the SE/4 of Section 7, Township 16 South, Range 36 East, North Shoe Bar-Wolfcamp Pool, Lea County, New Mexico, to be dedicated to a CASE 5300: well to be drilled 555 feet from the South line and 2085 feet from the East line of said Section 7. Also to be considered will be the cost of drilling and completing said well and the allocation of such costs, as well as actual operating costs and charges for supervision. Also to be considered is the designation of applicant as operator of the well and a charge for risk involved in drilling said well.
 - Application of Cleary Petroleum Corporation for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Quarry Unit Area comprising 5177 acres, more or less, of Fee and Federal lands in Township 22 South, Range 32 East, Lea CASE 5301: County, New Mexico.

Docket No. 23-74

DOCKET: COMMISSION HEARING - MONDAY - AUGUST 19, 1974

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

CASE 5262: (DE NOVO)

Application of Petro-Lewis Corporation for pool contraction, creation, and special pool rules, Sandoval County, New Mexico. Applicant, in the above-styled cause, seeks the contraction of the Media-Entrada Oil Pool by the deletion of the NW/4 of Section 22, Township 19 North, Range 3 West, Sandoval County, New Mexico, and the creation of a new pool for Entrada production comprising said lands. Applicant further seeks the promulgation of special rules for said pool, including a provision for 160-acre proration units and the establishment of a special depth bracket allowable for said pool of up to 750 barrels per day.

Upon application of Petro-Lewis Corporation, this case will be heard <u>De Novo</u> pursuant to the provisions of Rule 1220.

CASE 5152: (Reopened) Continued from July 24, 1974 Examiner Hearing

In the matter of Case No. 5152 being reopened pursuant to the provisions of Order No. R-4713, which order established a special depth bracket allowable for the Media Entrada Oil Fool, Sandoval County, New Mexico. All interested parties may appear and show cause why said special depth bracket allowable should not be rescinded.

Dockets Nos. 25-74 and 26-74 are tentatively set for hearing on September 4 and September 18. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - AUGUST 21, 1974

9 A.M. - OIL CONSERVATION COMMISSION 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

- CASE 5294: Application of Shenandoah Oil Corporation for a buffer zone allowable, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the assignment of a special buffer zone allowable to its Gissler "A" Wells Nos. 1 and 3, located 430 feet from the North line and 1720 feet from the West line, and 1320 feet from the North line and 2310 feet from the West line, respectively, of Section 23, Township 17 South, Range 30 East, Grayburg Jackson Pool, Eddy County, New Mexico. These wells offset an active waterflood project and have received an apparent response to water injection.
- CASE 5295: Application of Amoco Production Company for a non-standard proration unit and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 480-acre non-standard gas proration unit comprising the N/2 and SE/4 of Section 24, Township 20 South, Range 36 East, Eumont Gas Pool, Lea County, New Mexico, to be simultaneously dedicated to its Gillully Federal Gas Com Well No. 4 and its Gillully "A" Federal Well No. 7 located in Units B and O, respectively, of said Section 24.
- CASE 5296: Application of Texaco Inc. for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle Vacuum-Upper Pennsylvanian production with the presently commingled North Vacuum-Abo and North Vacuum-Wolfcamp production in the wellbore in its New Mexico "Q" State Well No. 4 located in Unit P of Section 25, Township 17 South, Range 34 East, Vacuum Field, Lea County, New Mexico.
- CASE 5297: Application of Exxon Corporation for a non-standard proration unit and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, socks approval for a 160-acre non-standard gas proration unit comprising the NE/4 of Section 35, Township 20 South, Range 36 East, Eumont Gas Pool, Lea County, New Mexico, to be simultaneously dedicated to its Eumont Gas Com 3 Well No. 1 and its Fopeano Federal A/C Well No. 7, located in Units A and G, respectively, of said Section 35.
- CASE 5298: Application of General American Oil Company of Texas 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 E/2 of Section 29, Township 17 South, Range 29

(Case 5298 continued from Page 1)

East, Eddy County, New Mexico, to be dedicated to a well to be drilled at a standard location for said unit. Also to be considered will be the cost of drilling and completing said well and the allocation of such costs, as well as actual operating costs and charges for supervision. Also to be considered is the designation of applicant as operator of the well and a charge for tisk involved in drilling said

Application of Coquina Oil Corporation for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an well. order pooling all mineral interests in the Pennsylvanian formation underlying the E/2 of Section 23, Township 22 South, Range 25 East, CASE 5299: Eddy County, New Mexico, to be dedicated to a well to be drilled at a standard location for said unit. Also to be considered will be the cost of drilling and completing said well and the allocation of such costs, as well as actual operating costs and charges for supervision. Also to be considered is the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

Application of Mesa Petroleum Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp formation underlying the SE/4 of Section 7, Township 16 South, Range 36 East, North Shoe Bar-Wolfcamp Pool, Lea County, New Mexico, to be dedicated to a CASE 5300: well to be drilled 555 feet from the South line and 2085 feet from the East line of said Section 7. Also to be considered will be the cost of drilling and completing said well and the allocation of such costs, as well as actual operating costs and charges for supervision. Also to be considered is the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

Application of Cleary Petroleum Corporation for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Quarry Unit Area comprising 5177 acres, more or less, of Fee and Federal lands in Township 22 South, Range 32 East, Lea CASE 5301: County, New Mexico.

- CASE 5536: Application of Petroleum Development Corporation for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the dual completion (conventional) of its McKay-West Federal Well No. 1 located in Unit F of Section 34, Township 18 South, Range 32 East, Lea County, New Mexico, to produce oil from the Bone Spring formation and gas from the Morrow formation through parallel strings of tubing.
- CASE 5537: Application of Cotton Petroleum Corporation 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 E/2 of Section 10, Township 21 South, Range 25 East, adjacent to the Catclaw Draw-Morrow Cas Pool, Eddy County, New Mexico, to be dedicated to a well to be drilled at an orthodox location in Unit I of said Section 10. 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 the applicant as the operator of the well and a charge for the risk involved in drilling said well.
- CASE 5538: Application of Phillips Petroleum Company for a dual completion and salt water disposal, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Luther-A Well No. 1, located in Unit N of Section 18, Township 8 South, Range 32 East, to produce oil from the Lonesome-San Andres Pool and to dispose of produced water into the Glorieta formation in the open-hole interval from 4584 feet to 4720 feet through parallel strings of tubing.

CASE 5152: (Reopened & Readvertised)

In the matter of Case No. 5152 being reopened pursuant to the provisions of Order No. R-4713, as amended by Order No. R-4713-A, which order established a special depth bracket allowable for the Media-Entrada Oil Pool, Sandoval County, New Mexico. All interested parties may appear and show cause why said special depth bracket allowable should remain in effect.

CASE 5262: (Recpented & Readvertised)

In the matter of Case No. 5262 being reopened pursuant to the provisions of Order No. R-4822-A, which order promulgated special pool rules for the Southwest Media-Entrada Oil Pool, Sandoval County, New Mexico, including a provision for 160-acre proration units. All interested parties may appear and show cause why said pool should not be developed on 40-acre spacing.

Dockets Nos. 20-75 and 21-75 are tentatively set for hearing on August 27 and September 10, 1975. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - AUGUST 13, 1975

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

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

- ALLOWABLE: (1) Consideration of the allowable production of gas from seventeen prorated pools in Lea, Eddy, Roosevelt, and Chaves Counties, New Mexico, for September, 1975;
 - (2) Consideration of the allowable production of gas from five prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico, for September, 1975.
- CASE 5533: Application of Southern Union Production Company for compulsory pooling, Chaves County, New Mexico. Applicant, in the abovestyled cause, seeks an order pooling all mineral interests in the Ellenburger formation underlying the N/2 of Section 21, Township 12 South, Range 26 East, Chaves County, New Mexico, to be dedicated to a well to be drilled at an orthodox location in Unit F of said Section 21. 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 the applicant as the operator of the well and a charge for the risk involved in drilling said well.
- CASE 5534: Application of Texaco Inc. for three unorthodox oil well locations and an administrative procedure, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox oil well locations of its West Vacuum Unit Well Nos. 51, 52, and 53 to be drilled, respectively, 1310 feet from the South line and 10 feet from the East line of Section 33; 1310 feet from the South and West lines of Section 34; and 1310 feet from the South line and 2630 feet from the West line of Section 34, all in Township 17 South, Range 34 East, Vacuum Grayburg-San Andres Pool, Lea County, New Mexico. Applicant further seeks the establishment of an administrative procedure whereby additional wells at unorthodox locations in the West Vacuum Unit could be approved without notice and hearing.
- CASE 5535: Application of Cognina Oil Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a Morrow gas well located 660 feet from the North and East lines of Section 5, Township 19 South, Range 27 East, Eddy County, New Mexico, the N/2 of said Section 5 to be dedicated to the well.

Docket No. 19-

TOWNSHIP 8 SOUTH, RANGE 31 EAST, NMPM

Section 3: NW/4 Section 4: NE/4

(1) EXTEND the Tulk-Pennsylvanian Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 14 SOUTH, RANGE 32 EAST, NMPM
Section 32: E/2
Section 33: SW/4

Section 35: NE/4

CASE 5539: Southeastern nomenclature case calling for the creation, contraction, and extentions of certain pools in Lea and Chaves Counties, New Mexico.

(a) CREATE a new pool in Lea County, New Mexico, classified as a gas pool for Devonian production and designated as the Custer-Devonian Gas Pool. The discovery well is the Shell Oil Company State B Com Well No. 1 located in Unit C of Section 36, Township 24 South, Range 36 East, NMPM. Said pool would comprise:

TOWNSHIP 24 SOUTH, RANGE 36 EAST, NMPM Section 36: N/2

(b) CONTRACT the Bagley-Pennsylvanian Pool in Lea County, New Mexico, by the deletion of the following described area:

TOWNSHIP 12 SOUTH, RANGE 33 EAST, NMPM Section 10: W/2 SE/4

(c) EXTEND the North Bagley-Pennsylvanian Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 12 SOUTH, RANGE 33 EAST, NMPM Section 10: W/2 SE/4

(d) EXTEND the Casey-Strawn Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 16 SOUTH, RANGE 37 EAST, NMPM Section 34: NE/4

(e) EXTEND the South Flying M-Atoka Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 9 SOUTH, RANGE 32 EAST, NMPM Section 36: N/2

(f) EXTEND the West Knowles-Drinkard Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 16 SOUTH, RANGE 37 EAST, NMPM Section 34: SW/4

(g) EXTEND the Maljamar-Grayburg, San Andres Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 33 EAST, NMPM Section 14: NW/4

(h) EXTEND the Tom Tom- San Andres Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 7 SOUTH, RANGE 31 EAST, NMPM Section 34: S/2 SW/4 and SW/4 SE/4

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

Nan:
We usually issue a test allowable for a single value — not a daily vale.



OIL CON. COM DIST. 3

December 14, 1973

Mr. Emery Arnold New Mexico Oil Geological Supervisor Conversation Commission 1000 Rio Brazos Road 87401 Aztec, New Mexico

Re: Approval Test Allowable F.P.P. 11, Sandoval County, New Mexico

Petro-Lowis Corporation and Fluid Power Pump Company; operators of Media Field, Sandoval County, New Mexico respectfully requests your approval to produce their Finid Power Piper 31 well or operators of Media Field, Sandoval County, New Mexico respectfully requests your approval to produce their Fluid Power Pump allowable basis as governed by your Rule a completion and testing allowable basis as governed by your Rule. requests your approval to produce their Fluid Power Fump #1 well o a completion and testing allowable basis as governed by your Rule #504. Dear Mr. Arnold:

Fluid Power Pump #1 Well located 1980' fal and 300' fwl and proper Pump #1 Well located 1980' fal and 300' fwl and proper Pump #1 Well located 1980' fal and 300' fwl and proper Pump #1 Well located 1980' fal and 300' fwl and proper Pump #1 Well located 1980' fal and 300' fwl and proper Pump #1 Well located 1980' fal and 300' fwl and proper Pump #1 Well located 1980' fal and 300' fwl and proper Pump #1 Well located 1980' fal and 300' fwl and proper Pump #1 Well located 1980' fal and 300' fwl and proper Pump #1 Well located 1980' fal and 300' fwl and proper Pump #1 Well located 1980' fal and 300' fwl and proper Pump #1 Well located 1980' fall and 300' fwl and proper Pump #1 Well located 1980' fall and 300' fwl and proper Pump #1 Well located 1980' fall and 300' fwl and proper Pump #1 Well located 1980' fall and proper f Fluid Power Pump #1 well located 1980' fsl and 300' fwl the section 14, T19N, R3W, Sandoval County, New Mexico completed in the entrada formation 5206'-5254'. An increase in production resulted from the installation of a 120 hp Reda pump. \$504· entrada formation 5206'-5254'. An increase i from the installation of a 120 hp Reda pump.

Transporter of crude: Permain Corporation, Farmington, Request a test allowable of 600 BOPD.

New Mexico.

A request for a hearing covering allowables in the subject field is presently being processed for January, 1974. Your approval of the above test allowable will be greatly that a second of the above test allowable will be greatly that approval of the above test allowable will be greatly that approval of the above test allowable will be greatly that approval of the above test allowable will be greatly that approval of the above test allowable will be greatly that approval of the above test allowable will be greatly that approval of the above test allowable will be greatly that approval of the above test allowable will be greatly that approval of the above test allowable will be greatly that approval of the above test allowable will be greatly that approval of the above test allowable will be greatly that approval of the above test allowable will be greatly that approval of the above test allowable will be greatly that approve the approval of the above test allowable will be greatly that approve the approve test approve that approve the approve test approve the approve test approve that approve the approve test approve the approve test approve that approve the approve test approve the approve test approve t Your approval of the above test allowable will be greatly appreciated. If additional information is needed, please call collect (303) 573-7561 or write the undersigned.

cci U.S.G.S., Jerry Long DRW: jee Betro-Lewis, John Somers

Dale R. Worth Minerals Management, Inc. 928 Patterson Building 80202 Denver, Colorado



OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO P. O. BOX 2088 - SANTA FE 87501

January 24, 1974

I. R. TRUJILLO CHAIRMAN LAND COMMISSIONER ALEX J. ARMIJO MEMBER STATE GEOLOGIST A. L. PORTER, JR. SECRETARY - DIRECTOR

Re:	CASE NO	
Mr. Jason Kellahin Kellahin & Fox Attorneys at Law Post Office Box 1769 Post New Mexico	Applicant: Petro-Lewis Corporation	.3
Post Office Box Mexico DOCKET MAILED Santa Fe, New Mexico DOCKET MAILED		

Date 7-12-74

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

A. L. PORTER, Jr. Secretary-Director

DOCKET MAILED Copy of order also sent to: ALP/ir Hopps Occ Artesia OCC Mr. George Hunker Aztec OCC Other_



MINERALS MANAGEMENT INC.

WESTERN RESOURCES BUILDING P. O. BOX 2919
TELEPHONE (307) 265-4960
CASPER, WYOMING 82601

January 21, 1974

Mr. R. L. Stamets, Examiner New Mexico Oil Conservation Commission State Land Office Building Santa Fe, NM 87501

Re: Case 5152

Pocket No. 2-74

Dear Sir:

As per your verbal request last Wednesday, January 16, 1974; attached please find the Reda Pump curve for the pump currently installed in Fluid Power Pump #1, Media Dome Field, Sandoval County. The curve shows the recommended capacity range of the pump to be 3200-4500 BFPD. As per Exhibit 3 of the subject case, the current production from the well is approximately 3900 BFPD. This rate is the most optimum rate to operate the pump and any deviation would decrease efficiency, increase maintenance costs, and reduce pump life.

Also attached is a record of fluid level surveys and coincidental production tests for the four wells in the Media Dome Field. Fluid Power Pump #5 is not included because the well was shut-in.

Please advise if additional information is required.

lours very truly.

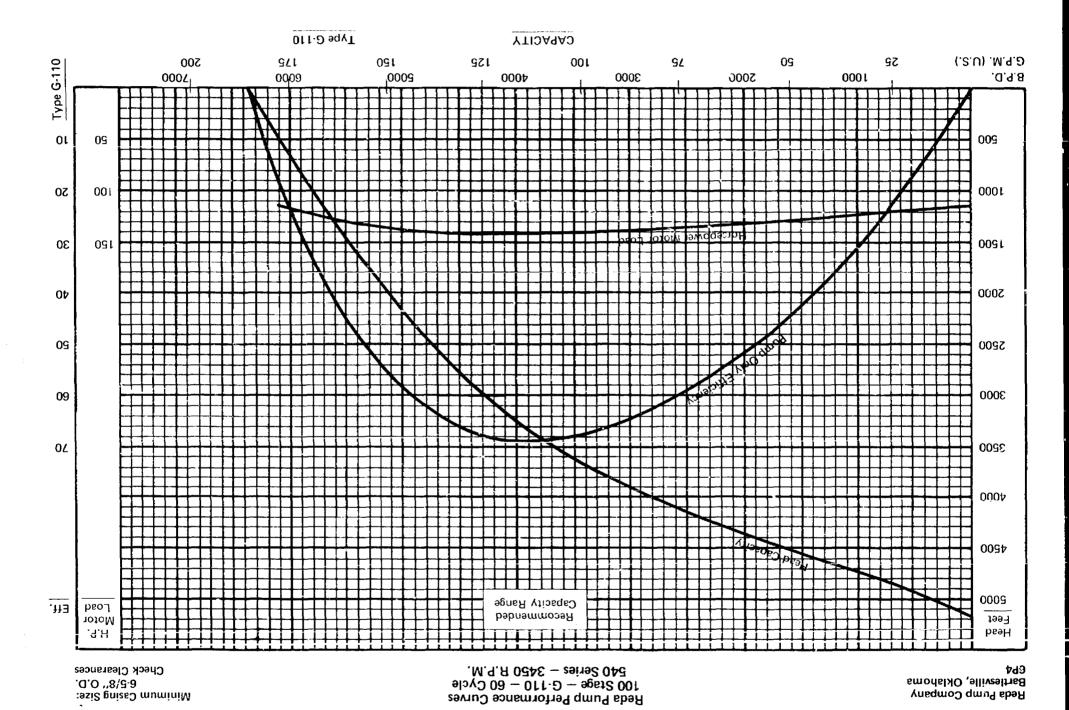
Drun L Dum Bruce L. Bummer Production Manager

peg

Emery Armold, Supervisor
New Mexico Oil Conservation Commission

John Somers Petro-Lewis Corp.

Dale R. Worth Minerals Management Inc. 3



Reda Pump Company

FLUID LEVEL SURVEY HISTORY MEDIA DOME FIELD

Well Name Fluid Power Pump #1	Date 4-08-72 6-97-73 10-23-73 12-06-73	Depth to Fluid, Ft. 977 1,085 1,307 1,643	Production BOPD 238 240 550	n Test BWPD 2,002 1,990 3,500
Fluid Power Pump #3	4-08-72 6-07-73 8-09-73 8-10-73 9-21-73 10-23-73 12-06-73	914 590 1,635 1,604 1,685 1,622 1,519	 (Shut 133 136 127 116	- in) 3,067 3,064 3,070 2,500
Federal Media #1	4-08-72 5-11-73 9-21-73 10-23-73 12-06-73	945 941 1,292 1,229 1,395	 109 80 115	 916 945
Federal Media #2	4-08-72 5-11-73 9-72-73 10-23-73 12-06 73	441 775 1,087 1,103 1,310	(Shr 107 110 113	ut - in) 918 914

KELLAHIN AND FOX ATTORNEYS AT LAW 500 DON GASPAR AVENUE POST OFFICE BOX 1769

SANTA FE, NEW MEXICO A7501011 CORSERVATION TELEPHONE 982-4315 Santa Fe

JASON W. KELLAHIM ROBERT E.FOX W.THOMAS KELLAHIN

July 19, 1974

Oil Conservation Commission of New Mexico

P. O. Box 2088

Santa Fe, New Mexico

87501

Re: OCC Case No. 5152

Special Depth Bracket Allowable

Media-Entrada Oil Pool

Sandoval County, New Mexico

Gentlemen:

On behalf of Petro-Lewis Corporation, the operator of the above referenced pool, we respectfully request that this matter now set for the examiner hearing on July 24, 1974, be continued and be reset for hearing before the Commission on the same date as the hearing for the enclosed Application De Novo in Case 5262, Order No. R-4822.

Very truly yours,

W. Thomas Kellahin

WTK:ks

Enclosure

cc: Petro-Lewis Corporation

DOCKET MAILED



MINERALS MANAGEMENT INC. WESTERN RESOURCES BUILDING . P. O. BOX 2919

TELEPHONE (307) 265.4960 CASPER, WYOMING 82601

February 21, 1974

care 5152

New Mexico Oil Conservation Commission 1000 Rio Brazos Road Aztec, New Mexico 87410

Re: Fluid Level Surveys & Concurrent Production Tests Entrada Wells Media Dome Field

Attached please find results of January, 1974, and Dear Sir: concurrent production tests for all Entrada producing wells in the Media Dome Field.

Yours very truly,

Bruce L. Bummer Production Manager

cc. New Mexico Oil Conservation Commission BLB-jan Attachments p. O. Box 2088 Santa Fe, New Mexico 87501

Mr. Dale Worth

Mr. John Somers

MEDIA DOME

JANUARY 30	, 1974	DEPTH TO FLUID	PRODUC	CTION BWPD
DATE	WELL NAME	FL FROM SURFACE	BOPD 527	3,373
1-30-74	Fluid Power Pump #1	1 612	166	3,734 155
1-30-74	Fluid Power Pump # Fluid Power Pump #		92	(measured into tank)
1-30-74		1,395	121	1,379
1-30-74	Federal Media #1 Federal Media #2	1,364	107	
1-30-74	rederan			



April 4, 1974

New Mexico Oil Conservation Commission Mr. Emery Arnold 1000 Rio Brazos Road Aztec, New Mexico Re:

Fluid Level Survey and Concurrent Production Tests Concurrent Flounderon Tests
Entrada Wells - Media Dome Field

Please find attached results of March, 1974, fluid level and production tests of all Entrada producing wells in the Media Dome Field. Dear Sir:

We will install a large 640-pumping unit on Federal Media #2

a April 1974 to increase fluid withdrawals. we will install a large bau-pumping unit on F during April, 1974, to increase fluid withdrawals. Field.

Yours very truly,

Production Manager

Attachment Conservation Commission cc. New Mcxico 2088 p. O. Box 2088 Mexico Santa Fe, New Mexico BLB-jan Attachment

petro-Lewis Corporation

Dale Worth

ENTRADA PRODUCTION MEDIA DOME

	DEPTH TO FLUID	PRODI BOPD	UCTION BWPD	REMARKS
WELL NAME	LEVEL FROM SURFACE,	549	3,351	Pumping
Fluid Power Pump #1	1,814' 1,735'	130	3,770	Pumping Static Fluid Level
Fluid Power Pump #3	946'	0	0	Well down - parted
Fluid Power Pump #5	961'	0		rods Well down - tubing
Federal Media #1	977'	0	0	leak
	1,070'	124	90	pumping
Federal Media #2	-,			•

Emery

MINERALS MANAGEMENT INC.

WESTERN RESOURCES BUILDING . P. O. BOX 2919

TELEPHONE (307) 265.4960 CASPER, WYOMING 82601

This does not appear

OIL CONSERVATION COMM

June 20, 1974

to satisfy the requirements of order R 4713 for production"

Mr. Emery Arnold order culls for these tooks to be
New Mexico Oil Conservation Commission
1000 Rio Brazos Road

1000 Rio Brazos Road Aztec, New Mexico 87410

Re: Fluid Level Survey

Entrada Walls

Entrada Wells Media Dome Field

Dear Mr. Emery:

Please find attached results of May, 1974, fluid levels of all Entrada producing wells in the Media Dome Field.

The Fluid levels were taken when all wells were shut in.

Yours very truly,

Production Manager

BLB-bd

Enc.

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

> John Somers, Petro-Lewis Corporation Dale Worth

CONSERVATION Santa Fo

Which they have Super. The Court for treet

am not sore what they prove without for treet

in formation. The testing requirement in the order is

somewhat vayue of the lase comes back for (only)

ENTRADA PRODUCTION MEDIA DOME May 21, 1974

	DEPTH TO FLUID LEVEL FROM SURFACE, FT.
WELL NAME	1040'
Fluid Power Pump #1	866'
Fluid Power Pump #3	6301
Fluid Power Pump #5	1040'
Federal Media #1	850'
Federal Media #2	



ENTRADA PRODUCTION

MEDIA DOME

Date: 4-21-74

Well Name	Depth to Fluid Level from Surface, ft.	Produc BOPD	tion BWPD	Remarks
Well Name				
Fluid Power Pump #1	1860	624	3276	Pumping
Fluid Power Pump #3	1922	150	3750	Pumping
Fluid Power Pump	1116	0	0	Static
Fluid Power Pump #5	4991	49	341	Pumping
Federal Media #1	992	0	0	Static
Federal Media #2	1147	67	958	Pumping



ENTRADA PRODUCTION

MEDIA DOME

3-2|-74

WELL NAME Fluid Power Pump #1 Fluid Power Pump #3 Fluid Power Pump #5	DEPTH TO FLUID 1,814' 1,735' 946' 961'	PRODU <u>BOPD</u> 549 130 0 0	3,351 3,770 0 0	Pumping Pumping Static Fluid Level Well down - parted rods Well down - tubing leak Pumping
Federal Media #1 Federal Media #2	977' 1,070'	124	90	pumping

Dockets Nos. 22-74 and 24-74 are tentatively set for hearing on August 7 and August 21. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - JULY 24, 1974

9 A.M. - OIL CONSERVATION COMMISSION 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:

CASE 4954: (Reopened)

In the matter of Case 4954 being reopened pursuant to the provisions of Order No. R-4555, which order established temporary special pool rules for the South Lindrith Gallup-Dakota Oil Pool, Rio Arriba County, New Mexico, including a provision for 160-acre spacing. All interested parties may appear and show cause why said pool should not be developed on 40-acre spacing.

- CASE 5277: Application of Pierce & Dehlinger for the amendment of Order No. R-4560, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an extension of time in which to commence the drilling of the third well covered by Order No. R-4560, to be drilled in the NE/4 of Section 24, Township 9 South, Range 33 East, Vada-Pennsylvanian Pool, Lea County, New Mexico. Applicant further seeks the establishment of an administrative procedure for additional extension of time in which to comply with the drilling schedule as set forth in the subject order. Applicant further seeks the amendment of Orders Nos. 4 and 5 of Order No. R-4560 to provide certain changes in the time schedules outlined therein for the furnishing of estimated well costs and the payment of proportionate shares of well costs by all parties.
- CASE 5278: Application of Texaco Inc. for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Blinebry, Drinkard, and Tubb production in the wellbores of its A. H. Blinebry Federal Wells Nos. 23 and 26, located in Units C and B, respectively, of Section 29, and its C. H. Lockhart Federal Well No. 5, located in Unit C of Section 18, all in Township 22 South, Range 38 East, Lea County, New Mexico.
- CASE 5279: Application of Tom L. Ingram for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Delaware Sand in the perforated interval from 5012 feet to 5033 feet in his State "O" Well No. 2 located in Unit E of Section 7, Township 24 South, Range 33 East, Triple X-Delaware Pool, Lea County, New Mexico.
- CASE 5280: Application of Coastal States Gas Producing Company for an unorthodox location and the amendment of Order No. R-4715, Lea County, New Mexico. Applicant, in the above-styled cause, seeks, as an exception to Order No. R-2746, approval for the unorthodox oil well location for its

(Case 5280 continued from Page 1)

McGuffin Well No. 3 to be drilled 660 feet from the North line and 1980 feet from the West line of Section 29, Township 9 South, Range 33 East, Flying "M" San Andres Pool, Lea County, New Mexico, the N/2 NW/4 of said Section 29 to be dedicated to the well. Applicant further seeks the amendment of Order No. R-4715 which dedicated the W/2 NW/4 of Section 29 to its McGuffin Well No. 2 located 1980 feet from the North line and 660 feet from the West line of said Section 29. Applicant proposes that the N/2 NW/4 of said Section 29 be dedicated jointly to said McGuffin Well No. 2 and to its McGuffin Well No. 1 located in Unit F of said Section 29.

- CASE 5281: Application of Morris R. Antwell for an extension of time, Order No. R-4772, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks a 90-day extension of the July 15 deadline for the commencement of drilling operations in the S/2 of Section 17, Township 22 South, Range 27 East, South Carlsbad Field, Eddy County, New Mexico, which lands were pooled to form a standard 320-acre gas spacing and proration unit by Order No. R-4772.
- CASE 5282: Application of Union Texas Petroleum Corporation for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Jalmat and Langlie-Mattix production in certain of its wells in the Langlie-Jal Unit Area, currently being waterflooded under authority of Commission Order No. R-4051.

CASE 4969: (Reopened)

In the matter of Case No. 4969 being reopened pursuant to the provisions of Order No. R-4557-A, which order continued the special depth bracket allowable for the Tocito Dome-Pennsylvanian "D" Pool, San Juan County, New Mexico, for an additional six months. All interested parties may appear and show cause why said special depth bracket allowable should not be rescinded.

CASE 5283: Application of Belco Petroleum Corporation for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in formations of Pennsylvanian age or older underlying the W/2 of Section 5, Township 22 South, Range 27 East, Eddy County, New Mexico, to be dedicated to a well to be drilled at a standard location for said unit in Unit F of said Section 5. Also to be considered will be the cost of drilling and completing said well and the allocation of such costs, as well as actual operating costs and charges for supervision. Also to be considered is the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

Application of Champlin Petroleum Company for a dual completion, Eddy CASE 5284: County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its Nix-Yates Well No. 1 located in Unit G of Section 2, Township 22 South, Range 27 East, Eddy County, New Mexico, in such a manner as to produce gas from the Morrow formation through tubing and from the Wolfcamp formation through the casing-tubing annulus.

(Reopened) Cout to ling 19 Com. Ky. CASE 5152:

> In the matter of Case No. 5152 being reopened pursuant to the provisions of Order No. R-4713, which order established a special depth bracket allowable for the Media-Entrada Oil Pool, Sandoval County, New Mexico. All interested parties may appear and show cause why said special depth bracket allowable should not be rescinded.

CASE 5285: Application of Texas Pacific Oil Co. for an unorthodox location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox gas well location of its Phantom Draw Unit Well No. 1 to be located at a point 800 feet from the South line and 1000 feet from the West line of Section 20, Township 26 South, Range 31 East, Eddy County, New Mexico, the W/2 of said Section 20 to be dedicated to the well.

CASE 5286: Application of Texaco Inc. for a Special Allowable, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for an injection response allowable increase for its Vacuum Grayburg-San Andres Unit Pressure Maintenance Project, Lea County, New Mexico. Applicant seeks an additional 2320 barrels of oil per day to be added incrementally to the current 4640 barrel per day allowable as injection response occurs. Applicant further seeks the establishment of an allowable of up to 240 barrels per day for lease line wells which have demonstrated a substantial response to water injection.

June 20, 1974

TELEPHONE (307) 265.4960 CASPER, WYOMING 82601

New Mexico Oil Conservation Commission 1000 Rio Brazos Road Aztec, New Mexico 87410

Re: Fluid Level Survey Entrada Wells Media Done Field

please find attached results of May, 1974, fluid levels Dear Mr. Emery:

of all Entrada producing wells in the Media Dome Field. The Fluid levels were taken when all wells were shut

in.

Yours very truly,

Bruce L. Bummer production Manager

BLB-bd

Enc.

New Mexico Conservation Commission P. O. Box 2088 cc:

Santa Fe, New Mexico

John Somers, Petro-Lewis Corporation

Note to Emmy 6/26/24 that requirements R4713.

Satisfy "production" test requirements QLS 0.5152

DOCKET MAILED

OIL CONSCIPATION CONS.

ENTRADA PRODUCTION MEDIA DOME May 21, 1974

	DEPTH TO FLUID LEVEL FROM SURFACE, FT.
WELL NAME	1040'
Fluid Power Pump #1	866'
Fluid Power Pump #3	630'
Fluid Power Pump #5	1040'
Federal Media #1	850'
Federal Media #2	

DOCKET: COMMISSION HEARING - MONDAY - AUGUST 19, 1974

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

CASE 5262: (DE NOVO)

Application of Petro-Lewis Corporation for pool contraction, creation, and special pool rules, Sandoval County, New Mexico. Applicant, in the above-styled cause, seeks the contraction of the Media-Entrada Oil Pool by the deletion of the NW/4 of Section 22, Township 19 North, Range 3 West, Sandoval County, New Mexico, and the creation of a new pool for Entrada production comprising said lands. Applicant further seeks the promulgation of special rules for said pool, including a provision for 160-acre proration units and the establishment of a special depth bracket allowable for said pool of up to 750 barrels per day.

Upon application of Petro-Lewis Corporation, this case will be heard <u>De Novo</u> pursuant to the provisions of Rule 1220.

CASE 5152: (Reopened) Continued from July 24, 1974 Examiner Hearing

In the matter of Case No. 5152 being reopened pursuant to the provisions of Order No. R-4713, which order established a special depth bracket allowable for the Media-Entrada Oil Pool, Sandoval County, New Mexico. All interested parties may appear and show cause why said special depth bracket allowable should not be rescinded.

Dockets Nos. 25-74 and 26-74 are tentatively set for hearing on September 4 and September 18. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - AUGUST 21, 1974

9 A.M. - OIL CONSERVATION COMMISSION 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

- CASE 5294: Application of Shenandoah Oil Corporation for a buffer zone allowable, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the assignment of a special buffer zone allowable to its Gissler "A" Wells Nos. 1 and 3, located 430 feet from the North line and 1720 feet from the West line, and 1320 feet from the North line and 2310 feet from the West line, respectively, of Section 23, Township 17 South, Range 30 East, Grayburg Jackson Pool, Eddy County, New Mexico. These wells offset an active waterflood project and have received an apparent response to water injection.
- CASE 5295: Application of Amoco Production Company for a non-standard proration unit and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 480-acre non-standard gas proration unit comprising the N/2 and SE/4 of Section 24, Township 20 South, Range 36 East, Eumont Gas Pool, Lea County, New Mexico, to be simultaneously dedicated to its Gillully Federal Gas Com Well No. 4 and its Gillully "A" Federal Well No. 7 located in Units B and O, respectively, of said Section 24.
- CASE 5296: Application of Texaco Inc. for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle Vacuum-Upper Pennsylvanian production with the presently commingled North Vacuum-Abo and North Vacuum-Wolfcamp production in the wellbore in its New Mexico "Q" State Well No. 4 located in Unit P of Section 25, Township 17 South, Range 34 East, Vacuum Field, Lea County, New Mexico.
- CASE 5297: Application of Exxon Corporation for a non-standard proration unit and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 160-acre non-standard gas proration unit comprising the NE/4 of Section 35, Township 20 South, Range 36 East, Eumont Gas Pool, Lea County, New Mexico, to be simultaneously dedicated to its Eumont Gas Com 3 Well No. 1 and its Fopeano Federal A/C Well No. 7, located in Units A and G, respectively, of said Section 35.
- CASE 5298: Application of General American Oil Company of Texas 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 E/2 of Section 29, Township 17 South, Range 29

CASE 5150: Application of Hanson Oil Corporation for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Queen formation through 10 wells in its Mescalero Ridge Unit Area in Sections 26 and 35, Township 19 South, Range 34 East, Pearl-Queen Pool, Lea County, New Mexico.

CASE 5151: Application of Penroc Oil Corporation for a dual completion, Eddy County, New Mexico. Applicant, in the above-styled cause seeks approval for the dual completion (conventional) of its Dero-Federal A-Com Well No. 1, located in Unit N of Section 35, Township 19 South, Range 28 East, Eddy County, New Mexico, in such a manner as to produce gas from the Winchester-Wolfcamp gas pool and an undesignated Strawn gas pool through the casing-tubing annulus and through tubing.

CASE 5152: Application of Petro-Lewis Corporation for a Special Depth Bracket Allowable, Media-Entrada Oil Pool, Sandoval County, New Mexico.

Applicant, in the above-styled cause, seeks a special depth bracket allowable for the Media-Entrada Oil Pool, Township 19 North, Range 3 West, Sandoval County, New Mexico.

CASE 5140: (Continued from the January 3, 1974, Examiner Hearing)

Application of Pierce & Dehlinger for compulsory pooling, Vada-Pennsylvanian Pool, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Vada-Pennsylvanian Pool underlying the NW/4 of Section 24, Township 9 South, Range 33 East, Lea County, New Mexico, to be dedicated to the King Resources Sheridan Well No. 1-A located in Unit C of said Section 24. Also to be considered is designation of the applicant as operator of the NW/4 of said Section 24 and the well located thereon, provision for allocation of actual operating costs and charges for supervision, and allocation of costs for reworking said well including a 200% charge attributable to any non-consenting working interest owner's pro rata share of said workover costs, for the risk involved in said workover.

CASE 4956: (Reopened) (Continued from the January 3, 1974, Examiner Hearing)

Application of Pierce & Dehlinger for a determination of well costs, Lea County, New Mexico. Applicant, as operator of the Sheridan Well No. 1 located in Unit M of Section 13, Township 9 South, Range 33 East, Lea County, New Mexico, to which well is dedicated the SW/4 of said Section 13, all mineral interests in the Vada-Pennsylvanian Pool thereunder having been pooled by Commission Order No. R-4560, seeks the determination of reasonable well costs attributable to applicant and to King Resources, including, but not limited to, the costs of reworking and placing said Sheridan Well No. 1 back on production and attorneys fees in connection therewith. Applicant further seeks an order assessing, as a charge for the risk involved in the reworking of the well, 120% of the pro rata share of the reasonable well costs attributable to the working interest of King Resources.

CASE 5145: Application of Texas Pacific Oil 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 Devonian formation in the perforated interval from 10,872 feet to 11,032 feet in its State "B" Well No. 2 located in Unit B of Section 11, Township 12 South, Range 33 East, Bagley Siluro-Devonian Pool, Lea County, New Mexico.

CASE 4969: (Reopened)

In the matter of Case No. 4969 being reopened pursuant to the provisions of Order No. R-4557, which order established a temporary special depth bracket allowable for the Tocito Dome-Pennsylvanian "D" Oil Pool, San Juan County, New Mexico. All interested parties may appear and show cause why the special allowable should be made permanent.

- CASE 5146: Application of Midwest Oil Corporation for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the Target Unit Area comprising 5120 acres, more or less, of State and Federal lands in Townships 25 and 26 South, Range 25 East, Eddy County, New Mexico.
- CASE 5147: Application of Mesa Petroleum Corporation for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Morrow formation underlying the S/2 of Section 12, Township 16 South, Range 35 East, North Shoe Bar Field, Lea County, New Mexico, to be dedicated to a well to be drilled at a standard location for said unit in Unit 0 of said Section 12. Also to be considered will be the cost of drilling and completing said well and the allocation of such costs, as well as actual operating costs and charges for supervision. Also to be considered is the designation of applicant as operator of the well and a charge for risk involved in drilling said well.
- CASE 5148: Application of Coquina Oil Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill a well at an unorthodox gas well location 990 feet from the North and East lines of Section 16, Township 19 South, Range 25 East, Boyd-Morrow Gas Pool, Eddy County, New Mexico, the N/2 of said Section 16 to be dedicated to said well.
- CASE 5149: Application of Cities Service Oil 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 N/2 of Section 33, Township 21 South, Range 27 East, Eddy County, New Mexico, to be dedicated to a well to be drilled at a standard Pennsylvanian gas well location for said unit. Also to be considered will be the cost of drilling and completing said well and the allocation of such costs, as well as actual operating costs and charges for supervision. Also to be considered is the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

(Case 5112 continued from Page 1)

Also to be considered will be the institution of gas prorationing in said pool to provide for fixing the total allowable natural gas production from said pool to an amount equal to reasonable market demand and to the capacity of the gas transportation facilities. Also to be considered will be the adoption of special rules and regulations for Baid pool including a grovision for allocating the allowable production among the wells in the pool.

CASE 5113: (Continued from the November 15, 1973, Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the institution of gas prorationing in the Burton Flats-Atoka Gas Pool, Eddy County, New Mexico, and to provide for fixing the total allowable natural gas production from said pool to an amount equal to reasonable market demand and to the capacity of the gas transportation facilities. Also to be considered will be the adoption of special rules and regulations for said pool including a provision for allocating the allowable production among the wells in

CASE 5124: (Continued from the November 28, 1973, Examiner Hearing)

Application of Belco Petroleum Corporation for compulsory pooling and an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the S/2 of Section 30, Township 20 South, Range 33 East, South Salt Lake-Morrow Gas Pool, Lea County, New Mexico, to be dedicated to a well to be drilled at an unorthodox location 660 feet from the South line and 1300 feet from the East line of said Section 30. Also to be considered will be the cost of drilling and completing said well and the allocation of such costs, as well as actual operating costs and charges for supervision. Also to be considered is the designation of applicant as operator of the well and a charge for risk

- CASE 5143: Application of El Paso Natural 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 its proposed Rocky Arroyo "D" Com. Well No. 2 in the center of Unit L of Section 4, Township 22 South, Range 22 East, Rocky Arroyo-Morrow Gas Pool, Eddy County, New Mexico, the S/2 of said Section 4 to be dedicalled to the well.
 - Application of Depco, Inc. for two waterflood projects, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute two waterflood projects by the injection of water into the Grayburg-San Andres formation through six wells located CASE 5144: on applicant's State 647 lease in Sections 31 and 32, Township 17 South, Range 28 East, Artesia Pool, Eddy County, New Mexico, and through one well on the Kersey and Company Ramapo "A" Lease in said Section 32.

DOCKET: EXAMINER HEARING - WEDNESDAY - JANUARY 16, 1974

9 A.M. - OIL CONSERVATION COMMISSION 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:

- ALLOWABLE: (1) Consideration of the allowable production of gas for February, 1974, from fifteen prorated pools in Lea, Eddy, Roosevelt and Chaves Counties, New Mexico;
 - (2) Consideration of the allowable production of gas from nine prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico, for February, 1974.

CASE 5110: (Continued from the November 15, 1973, Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider extending the horizontal limits of the Washington Ranch-Morrow Gas Pool, Eddy County, New Mexico, to include the S/2 of Section 28, Township 25 South, Range 24 East.

Also to be considered will be the institution of gas prorationing in said pool to provide for fixing the total allowable natural gas production from said pool to an amount equal to reasonable market demand and to the capacity of the gas transportation facilities. Also to be considered will be the adoption of special rules and regulations for said pool including a provision for allocating the allowable production among the wells in the pool.

CASE 5111: (Continued from the November 15, 1973, Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider extending the horizontal limits of the Burton Flats-Morrow Gas Pool, Eddy County, New Mexico, to include the S/2 of Section 34, Township 20 South, Range 28 East, and the N/2 of Sections 8 and 9, and all of Section 10, Township 21 South, Range 27 East.

Also to be considered will be the institution of gas prorationing in said pool to provide for fixing the total allowable natural gas production from said pool to an amount equal to reasonable market demand and to the capacity of the gas transportation facilities. Also to be considered will be the adoption of special rules and regulations for said pool including a provision for allocating the allowable production among the wells in the pool.

CASE 5112: (Continued from the November 15, 1973, Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider extending the horizontal limits of the Burton Flats-Strawn Gas Pool, Eddy County, New Mexico, to include all of Section 10, Township 21 South, Range 27 East.

6 La Villita Circle, N. E. Albuquerque, New Mexico 37112 August 14, 1975

Mr. Daniel S. Nutter c/o New Mexico Oil Conservation Commission P. O. Box 20%8 Santa Fe, New Mexico 87501

Dear Mr. Nutter:

Attached are RAM Exhibits No. 1 and 2 for Case No. 5152, heard August 13, 1975, in which you were the Examiner.

I have reproduced these exhibits and have forwarded copies to Mr. George I. Hunker, Jr. for distribution.

Sincerely yours,

John K. France

John K. Reimer

Inciosures: As Stated

MEDIA ENTRADA PRODUCTION

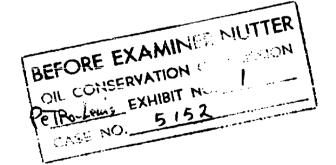
June 1974 through June 1975 (Barrels per Month)

		~ #1
	Federal Medi	<u> </u>
		Water
	011	41027
	2495	² F082
June 1974	1904	1.1120
July	2065 1206	25750 39800
J 2115.	1201	⊾გვ5∪
September October	2009	24500
TILLIAMOC.	1040	28950
Decembe.	1704	2230U
January 1	9/2 1200	29750
February	1514	226/2
March	1099 765	13500 33408
Aprii	1280	3 7
May	(2	_ #
June		. Power Pump #

N/		1200				
nue 1			id Pow	Pun	P#1	
		e 111	id POW	<u>e1</u>		
				Wat	er	
		01	1			
				97	823	
		13	2643	106	228	
June	1974	¥	2509	10	3502	
11.4		1	12631	10	1700	
July	s t		10950	9	გინზს	
Augu	ember		9175		03000	
Sep	her		10307		90750	
Octi	ober ember		10357		•	
HOA	ember				61250	
Dec	Semo	_	617	2	46204	,
	nuary	1975	625	53	იცვ0'	v
Ja	nuai	V	80	64	2755	,U
E	PPLUA.	•	12	40	728	50`
. 4	arch		: 6	254	892	.00
	\prii		7	519	•	
1	May		,			
	June					

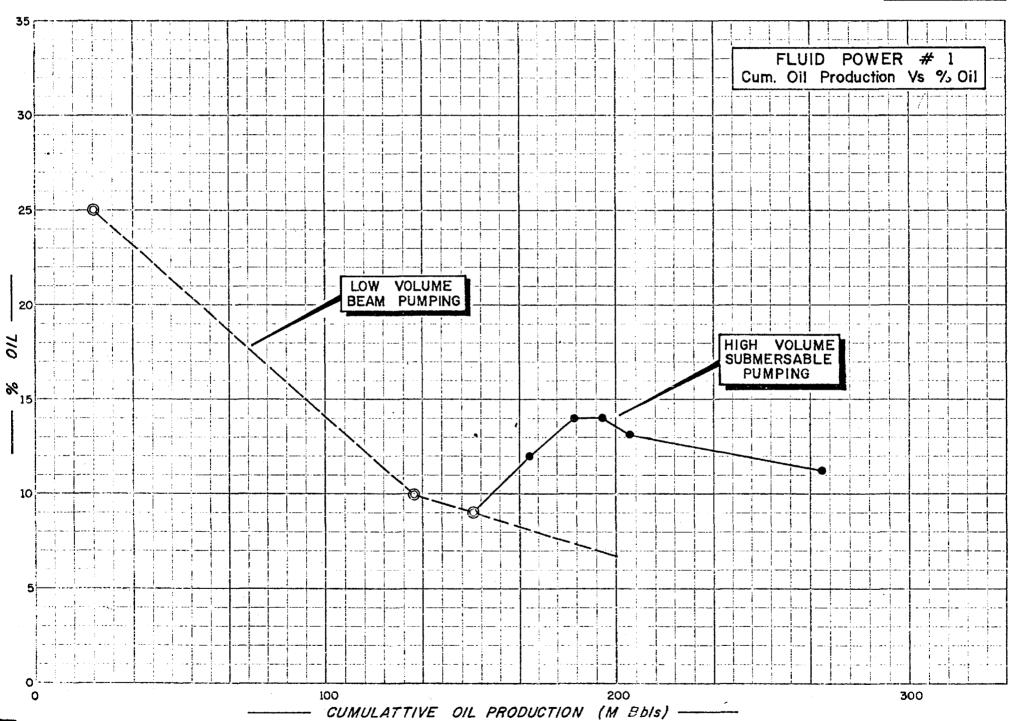
Federal Medi	ia #2
_	Water
011	30623
2018 275	3527 -0-
96	-0- 8180
-0- -0-	$\mu O g O O$
1659 2750	33150
	34375 24300
2772 1718	2H600
2689 2105	33100 29000
2465 2702	28900
	nmr
51 11	id Power Pump

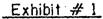
somer	Pump #3
Fluid Power 011 2923 3302 2997 15 -0- 1122 1232 1218 773 1092 1069	80106 105576 87209 23300 6980 34200 53250 51270 36680 33150 41560
146 899	40820

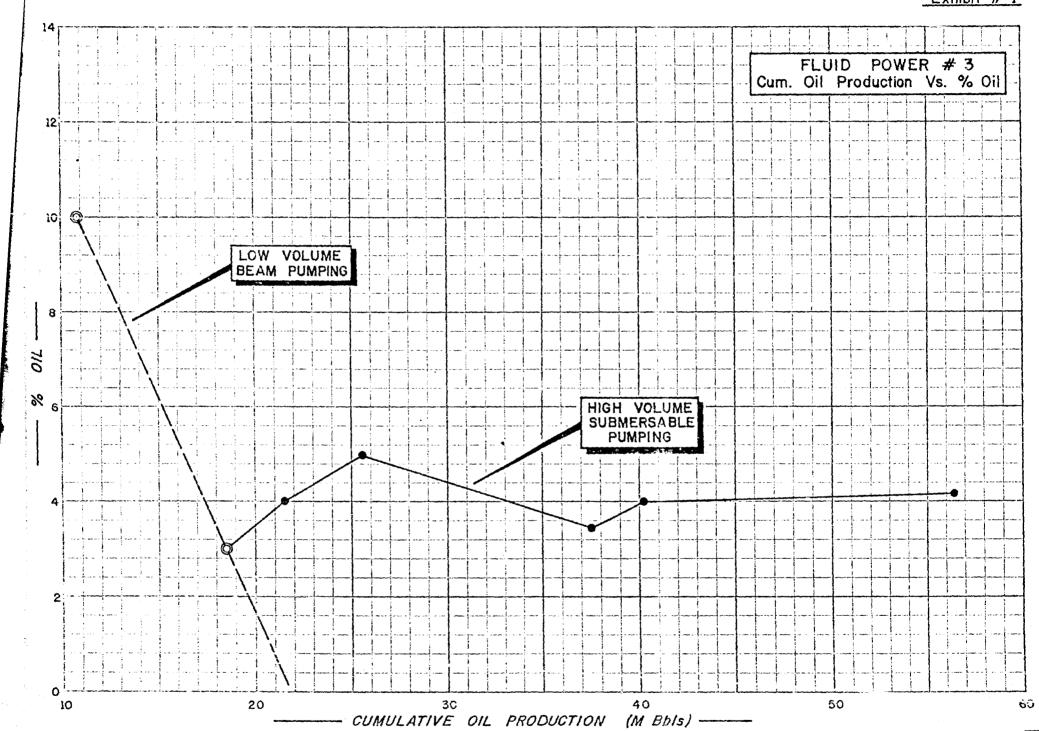


9.% 5 X 5 TO THE INCH 46 0410 MEETS 0 5.4. KEUFFEL A ESSER CO.

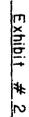


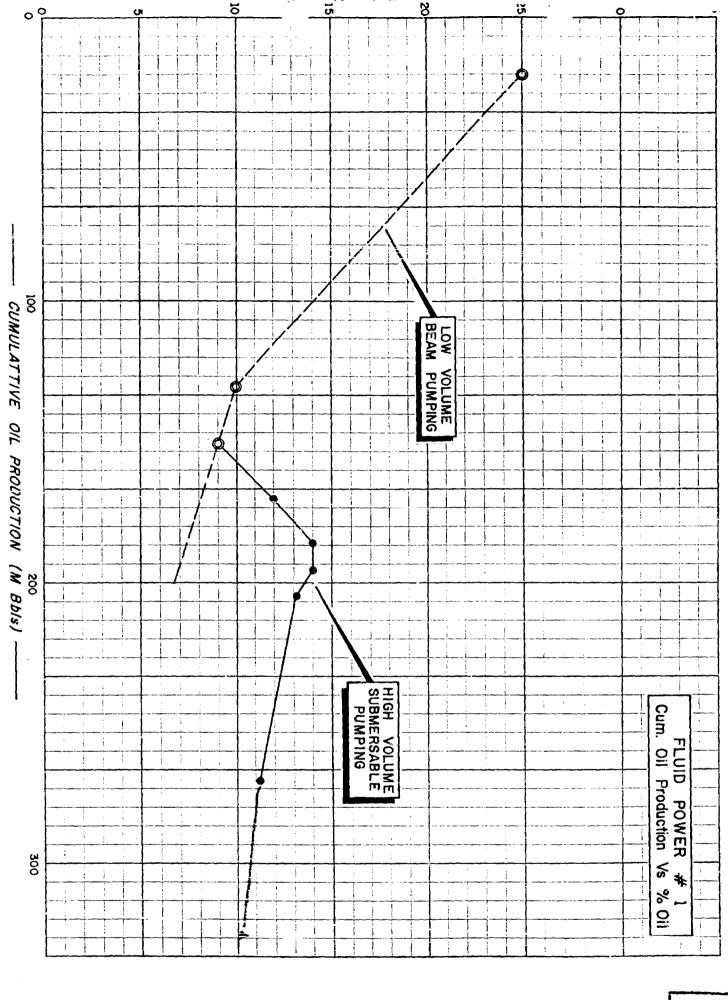






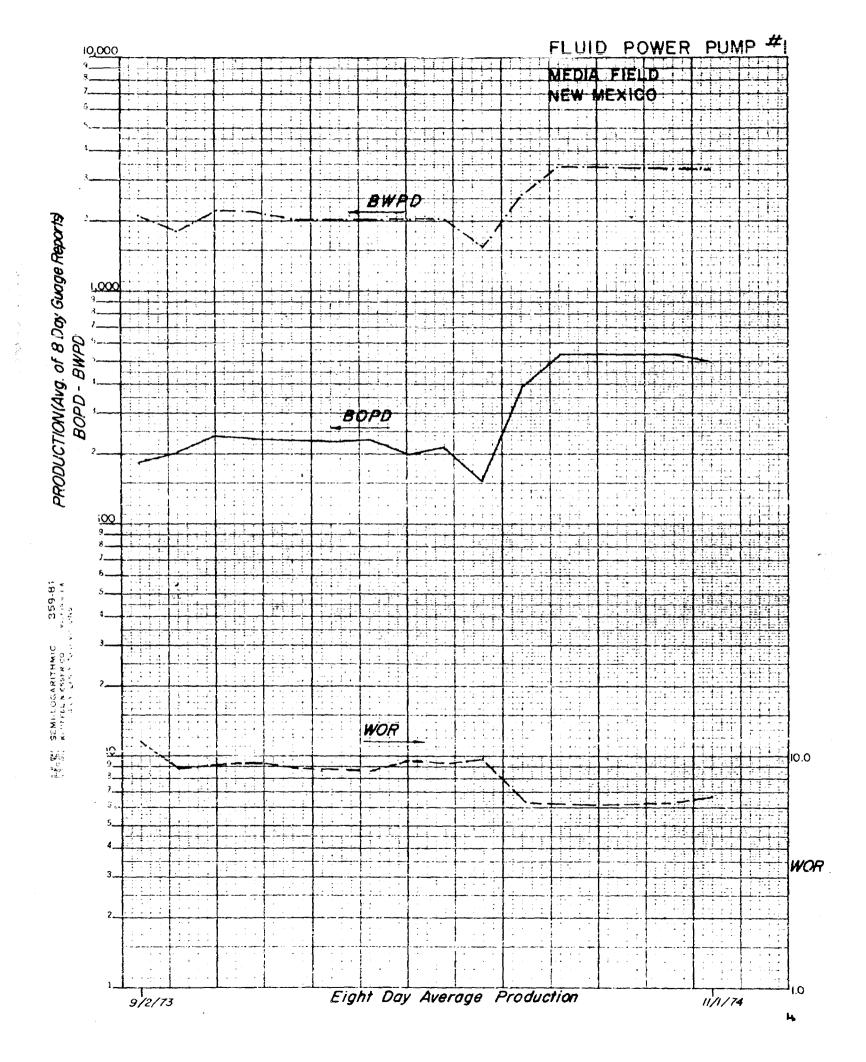
5 X 5 TO THE INCH 46 0410





BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION

OIL CONSERVATION COMMISSION
PETA-ARMI EXHIBIT NO. 2
CASE NO. 5/52



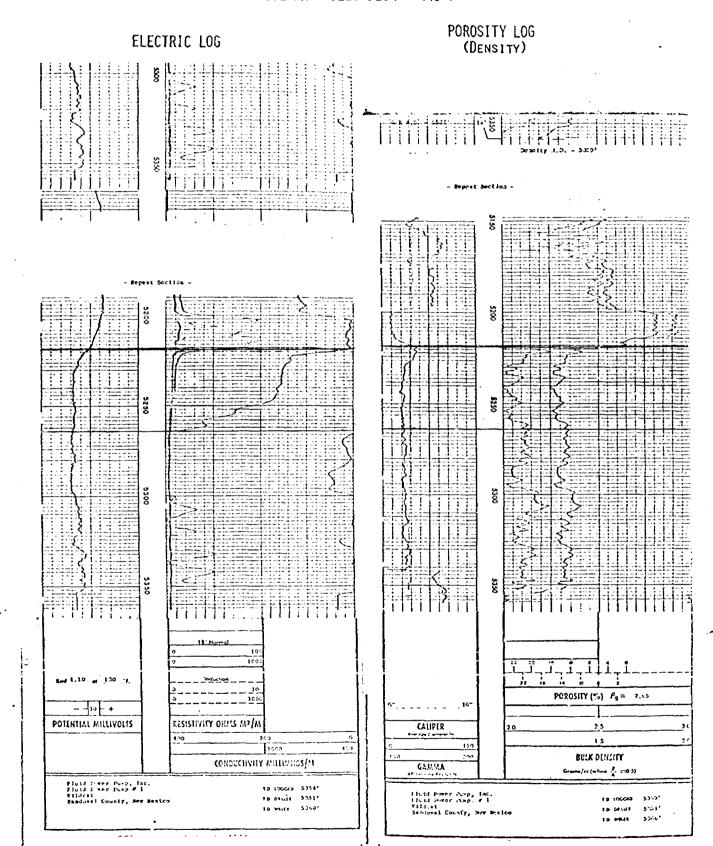
FLUID POWER PUMP #1 MEDIA DOME FIELD SANDOVAL COUNTY, NEW MEXICO

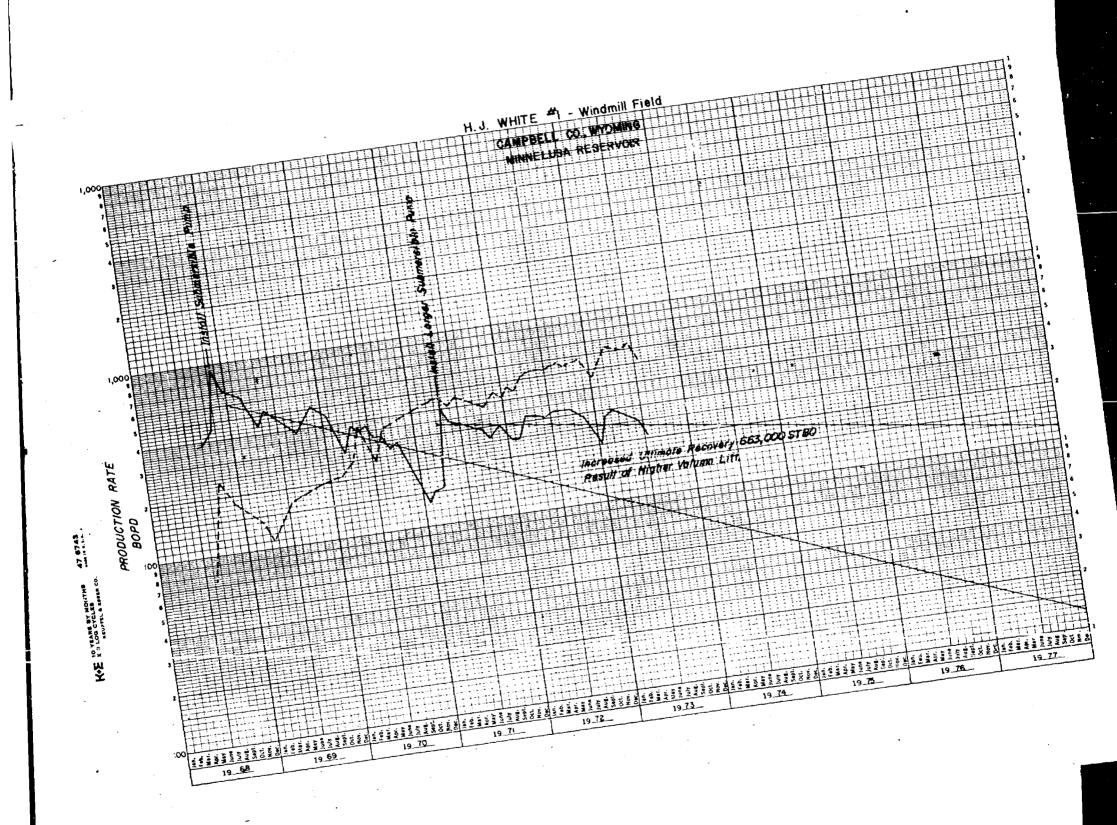
	BOPD	BWPD	WOR	(Ft. C) LEVEL on Format	ion)
DATE	184	2,126	11.55			
September 2-9, 1973	203	1,774	8.74			
September 10-17, 1973	236	2,205	9.34	L		
September 18-25, 1973	235	2,209	9.40	0		
September 26-October 1, 1973	229	2,010	8.78	8		
October 2-9, 1973	229	2,010		8	. ✓	
October 10-17, 1973	234	2,005		3,	,911	
October 18-25, 1973	209	2,03				
October 26-November 1, 1973		2,02	_	37	Submur pump	ble
November 2-9, 1973	216	1,52	_	83 - 2	Submir	Wow 17
November 10-17, 1973	155	2,52	_	45	, south	
November 18-25, 1973*	392	3,3	_	.28		336 of fluid
November 26-December 1, 1973	536		•		3,575	_ 33
	540	3,3				
December 2-9, 1973	533	3,3		.31		
December 10-17, 1973	530	3,3	359 6	5.34		
December 18-25, 1973	499	3,	399 6	6.81		
December 26, 1973 - January 1, 1974						

^{*} Installed Submersible November 19, 1973

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
Petro. Juris EXHIBIT NO. 3
CASE NO. 5152
Submitted by Brus Burnsons
Hearing Date Ja., 16, 1974

FLUID POWER PUMP #1 OIL PAY 5218-5264' (46')





X & LOG CYCLES

PEFORE EXAMINER STAMETS
CIL CONSCRIVITION COMMISSION
FEDERAL MEDIA #1
OIL PAY 5249-5278' (29')
CASE NO. 5 15
Submitted on Back Back
Hearing Date 1-16-74
POROSITY LOG
(DENSITY)

ELECTRIC LOG

\$200 RESISTIVITY ohms-m³/m

PEDERAL MEDIA #2
OIL PAY 5218-5248' (30') 5152 POROSITY LOG Dave Burns (DENSITY) SANOSTONE POPOSITY - Y.

SANOSTONE POPOSITY - Y.

6 4 2 9

CANADA TERRANDA SANOSTONE FED. HOTA. 8 REPEAT SECTION SANCSTONE FOR DUTY - Y.

10 6 4 2 9

GRAIN DENDLEY 203 GRAMS, CC 8 12 12 14 16 7 9 11 12 15 -23---COSSECTION BULK DENSITY CAMMA RAY 500 5200 A - 16" - M SHOTT NORWAL BULK DENISHTY CAMMA RAY AM UNITS SANDSTONE POPOCITY — %. RESISTIVITY WIRL ____FERSAL PERIADI - 141 . 1410 ____ PEDIA ___ COUNTY__SUNCTIAL ___STATE _ REW RESIDED_ CONDUCTIV:TY
nillimhos/m = 100 SPONFANEOUS POTENTIAL ATAD MOITARSUAD SCHE, 78, 5257 __. SCHE, 70, 5253 __. SCHE, 70, 5260 __. Evil 10,5260 __. COMPANY, DON, S., WILLEY & FLUID, CONER, PURP COMPANY, ## 8319 ... ## 6.13 ... ## 6.97 ... TRID___NEDIA____

COUNTY SANCTY/L STATE, HEY PEXICO

LAW OFFICES OF

HUNKER, FEDRIC & HIGGINBOTHAM, P. A.

210 HINKLE BUILDING

POST OFFICE BOX 1837

TELEPHONE 822-2700

GEORGE H. HUNKER, JR DON M FEDRIC RONALD M. HIGGINBOTHAM ROSWELL, NEW MEXICO 88201

AREA CODE 505

L CONSERVATION COMM.

Santa Fe

October 2, 1975

Sandoval County Clerk Bernalillo, New Mexico 87004

T. 19 N., R. 3 W.

Sec. 14: SW\sW\s Sec. 15: SE\SE\

Dear Madam:

We hand you herewith the original of a Notice of Lien dated October 1, 1975, covering production of oil from the above described tract. Will you please record this lien and return the same to us. Our check in the amount of \$1.75 to cover the recording charge, is enclosed.

Sincerely yours,

HUNKER-FEDRIC LAW OFFICES

George H. Hunker, Jr.

GHH:dd Enc.

xc: Mr. Jason W. Kellahin, w/enc.

xc: Petro-Lewis Corporation, w/enc. xc: New Mexico Oil Conservation Commission, w/enc.

Attn: Mr. Bill Carr

xc: Mr. John K. Reimer, w/enc.

xc: Mr. R.E. McKenzie, Jr., w/enc.

NOTICE OF LIEN

NOTICE IS HEREBY GIVEN that JOHN K. REIMER and R.E.
McKENZIE, JR., whose address is c/o George II. Hunker, Jr.,
P.O. Box 1837, Roswell, New Mexico 88201, own a Six Percent
(6%) interest in the products severed from the Federal Media
No. 1 and Federal Media No. 2 wells by Fluid Power Pump Company,
1420 Carlisle Blvd., N.E., Albuquerque, New Mexico 87110,
Petro-Lewis Corporation and/or Partnership Properties Co.,
1400 Colorado State Building, 1600 Broadway, Denver, Colorado
80202, which said wells are located on the following described
land in Sandoval County, New Mexico:

Products severed from said production units have been and are now or may be taken, received and purchased by The Permian Corporation; and the above-named interest owners have a purchase money security interest in and lien upon such products and the proceeds thereof to secure payment of the purchase price for the period of 7:00 A.M., March 1, 1974, to and including the date hereof, under the provisions of the Oil and Gas Products Lien Act, Section 61-10-1 et seq., NMSA 1953, as amended.

DATED this 1st day of October, 1975.

JOHN K. REIMER

R.E. MCKENZIE, JR.

STATE OF NEW MEXICO) ss

COUNTY OF CHAVES)

The foregoing instrument was acknowledged before me this 1st day of October, 1975, by John K. Reimer and R.E. McKenzie, Jr.

My Commission expires:

9-27-77

BEFORE THE

OIL CONSERVATION COMMISSION OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF PETRO-LEWIS CORPORATION FOR UNRESTRICTED ALLOWABLES, MEDIA-ENTRADA OIL POOL, SANDOVAL COUNTY, NEW MEXICO.

APPLICATION

COMES NOW Petro-Lewis Corporation and applies to the Oil Conservation Commission of New Mexico for an order granting unrestricted allowables in the Media-Entrada Oil Pool, Sandoval County, New Mexico, and in support thereof would show the Commission:

1. Applicant is the operator of all of the producing wells in the Media-Entrada Oil Pool, and is presently producing from the following wells:

Township 19 North, Range 3 West, N.M.P.M.

No. 1 Fluid - 1980' FSL, 330' FWL, Sec. 14
No. 1 Media - 990' FSL, 660' FWL, Sec. 14
No. 2 Media - 940' FSL, 330' FEL, Sec. 15
No. 3 Fluid - NE/4 NE/4 Sec. 15
No. 5 Fluid - NE/4 NW/4, Sec. 22

and other wells will probably be completed or recompleted in the Entrada formation in the future.

2. The producing wells in the Media-Entrada make large volumes of water, as the result of an active water drive, and in order to efficiently produce the wells, they must be produced at high rates. At higher rates of production the ratio of oil to water is greatly reduced.

DOCKET MAILED

- 3. On or about November 20, 1973, applicant installed a new 150 horsepower Reeda down-hole pump on the No. 1 Fluid Power Pump well, and plans the installation of similar pumps on other wells in the pool.
 - 4. Present rules of the Commission permit the production of 348 barrels of oil per day per well, and said wells are capable of producing in excess of the allowable without waste.
 - 5. The applicant is the only operator in the pool, and there are no offset operators that would be affected by the approval of this application.
 - 6. Approval of the application will result in the recovery of oil that would not otherwise be recovered, will prevent the premature abandonment of the pool, and will prevent waste. Correlative rights will be protected by approval of the application.

WHEREFORE applicant prays that this application be set for hearing before the Commission or the Commission's duly appointed examiner, and that after notice and hearing as required by law, the Commission enter its order granting unrestricted allowables, as requested.

Respectfully submitted, PETRO-LEWIS CORPORATION

By FOX

F. O. Box 1769

Santa To Nov.

Santa Fe, New Mexico

dr/

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

CASE NO. 5152

Order No. R- 4713-B

IN THE MATTER OF CASE NO. 5152 BEING REOPENED PURSUANT TO THE PROVISIONS OF ORDER NO. R-4713-A, WHICH ORDER EXTENDED ORDER NO. R-4713, WHICH ORDER ESTABLISHED A SPECIAL DEPTH BRACKET ALLOWABLE FOR THE MEDIA-ENTRADA OIL POOL, SANDOVAL COUNTY, ORDER OF THE COMMISSION NEW MEXICO.

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on August 13 , 19 75 , at Santa Fe, New Mexico, before Examiner Daniel S. Nutter

NOW, on this day of September , 1975 , the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That by Order No. R-4713, dated January 24, 1974, a temporary special depth bracket allowable of 750 barrels of oil per day was established for the Media-Entrada Oil Pool, Sandoval County, New Mexico.
- (3) That by Order No. R-4713-A, dated September 3, 1974, the aforesaid temporary special depth bracket allowable was extended for a one-year period.
- (4) That pursuant to the provisions of Order No. R-4713-A, this case was reopened to permit all interested parties to appear and show cause why said special depth bracket allowable should remain in effect.

-2-Case No. 5152 Order No. R-4713-B

- (5) That the evidence presented at the hearing indicates that high volume pumping of oil wells in the Media-Entrada Oil Pool generally results in a lower water-oil cut, thereby improving the producing efficiency of the reservoir.
- (6) That the evidence further indicates that the original applicant in this case, Petro-Lewis Corporation, has unitized the Media-Entrada Oil Pool for the purpose of instituting a pressure-maintenance project therein, and that upon initiation of said project, even greater volumes of fluid will be produced than have been produced to date.
 - (7) That should the previously established trend of a greater percentage of oil per barrel of fluid produced, when producing the wells in the subject pool at high volumes, continue, the water-oil cut would be further reduced, and producing efficiency for the reservoir further improved.
 - (8) That retention of the special depth bracket allowable for wells in the subject pool should improve reservoir producing efficiency and result in the ultimate recovery of additional oil, thereby preventing waste.
 - (9) That retention of the special depth bracket allowable for wells in the subject pool will not cause waste nor impair correlative rights, and should be approved.

IT IS THEREFORE ORDERED:

(1) That the special depth bracket allowable of 750 barrels of oil per day for the Media-Entrada Oil Fool, Sandoval County, New Mexico, shall remain in full force and effect until further order of the Commission.

-3-Case No. 5152 Order No. R-4713-B

- (2) That the operator of the Media-Entrada Unit Area shall report monthly to the Aztec District Office of the Commission the previous month's water-oil cut for each producing well in the Media-Entrada Oil Pool.
- (3) That the Secretary-Director of the Commission may, at any time that it appears that premature water encroachment or water coning is occurring, or other evidence of reservoir damage is apparent, rescind the provisions of this order and cause the top unit allowable for the Media-Entrada Oil Pool to revert to 347 barrels of oil per day.
- (4) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

DRAFT

jr/W/

wo race

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

CASE No. 5152

Order No. R-4713-A

IN THE MATTER OF CASE NO. 5152
BEING REOPENED PURSUANT TO THE
PROVISIONS OF ORDER NO. R-4713,
WHICH ORDER ESTABLISHED A SPECIAL
DEPTH BRACKET ALLOWABLE FOR THE
MEDIA-ENTRADA OIL POOL, SANDOVAL
COUNTY. NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on August 19, 1974, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this day of 1974, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by Law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That by Order No. R-4713, dated January 24, 1974, a temporary special depth bracket allowable of 750 barrels of oil per day was established for the Media-Entrada Oil Pool, Sandoval County, New Mexico, for a period of six months.
- (3) That pursuant to the provisions of Order No. R-4713, this case was reopened to allow the operators in the subject pool to appear and show cause why said special depth bracket allowable should remain in effect.

|-2-|CASE NO. 5152 |ORDER NO. R-4713-A

(4) That the evidence presented indicates that the temporary special depth bracket allowable should be continued in effect for an additional one year.

 (5) That this case should be reopened at an examiner hearing during August, 1975, at which time the operators in the subject pool should appear and show cause why the temporary special depth

bracket allowable should remain in effect.

IT IS THEREFORE ORDERED:

(1) That the temporary special depth bracket allowable of 750 barrels of oil per day for the Media-Entrada Oil Pool, Sandoval County, New Mexico, shall remain in full force and effect.

(2) That this case shall be reopened at an examiner hearing during the month of August, 1975, at which time operators in said pool may appear and show cause why said special depth bracket allowable should not be rescinded.

(3) That the Secretary-Director of the Commission may, at any time that it appears that premature water encroachment or water coning is occuring, or other evidence of reservoir damage is apparent, rescind the provisions of this order and cause the top unit allowable for the Media-Entrada Oil Pool to revert to 347 barrels of oil per day.

(4) That each month the applicant shall take production fluid level tests on each producing well in the pool and shall report the results of these tests along with other pertinent monthly well production data to the Aztec District Office of the Commission.

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

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

In the matter of Care 182. 515 - Caring neoponed pursuant to the procession of Doder 110. A. 4713, which at der 200 Aubluhed as special depth Crushet allowable for the media Entrate Oil Pool, landaval County, New Mixie COKE NO. 5752 Order No. R-4713-A August 19, 1974 - Commission ... LINNS 1) Lucestulian Can had by Order No. 12. 9118 , Salad Janesary 3.4, 1974, a Superary speech light Crathet allowable of 250 harmon of sil par day was established for the Mosto-Kolinda Oil Pool, Landard County, Now Maries for a sould of six ments (3) that plurement to the provision of Order No. A-1713, This gave was heapered to allow the Operation in the subject soot to appear and show eure why paid opening doubt bushed allowable should I enden in offert. I hat the evidence presented indicates Abet the Temporary Driend topthe Erarbet allamoth About be inderwed in spect for in addi (5) lest this Para Strapeth Les Acopenet al

for examiner heaving thering August 1975 let

what two the of materials to the Ruly of pool About affect with plans course to the the former payary, Special dept brack to althouse like phoethe nomain de speciel. OKBEKETA Dittal the temparate special asphi Gracket alcomatice 3 ved baracks of on pool for have here Levery, New Maries, phall names in full for in and officet. 2) that this case shall be recepered at an Creating heaving the month of August,

1975, at which time operation for said pool may appeare and slow come why Daid precise depth brusher allewalle Should not be possible - Durton & He Commisse stor may at any time that it appears that premature water eneroachment on water cening to securing or other evidence of neservoir danny is apparent, her into the previous of this subjected court the top unitallamable por the media Entrala - Oil Pool to never to the Barris Joil Jan 194. (4) That each minth the applement Whell fike production fluid level tests on each producing well in The good and whell report the paralle of Here 12010 200g with there parties monthly well . production date to the Agree Nestrul Office of

. 3 Junediction



BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

APPLICATION OF PETRO-LEWIS CORPORATION
FOR A SPECIAL DEPTH BRACKET ALLOWABLE

SANDOVAL COUNTY, NEW MEXICO

ORDER OF THE COMMISSION

R

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on January 16, 1974 at Santa Fe, New Mexico, before Examiner Richard L. Stamets

NOW, on this day of January, 1974, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Petro-Lewis Corporation, is the sole operator in the Media-Entrada Oil Pool, Sandoval County, New Mexico.

- (3) That the applicant seeks the assignment of a special depth bracket allowable of 750 barrels of oil per day for the Media-Entrada Pool to replace the current regular depth bracket allowable for said pool of 347 barrels per day.
- (4) That the evidence presently available indicates that the assignment of a special depth bracket allowable to wells in the subject pool will not result in damage to the reservoir or cause waste, and will be in the interest of protection of correlative rights.
- (5) That the applicant should install production equipment at each of the existing 160 acre non-standard spacing units to produce these units in such a manner as to minimize the fluid head differential between the units to eliminate, so far as may be practicable, drainage which may not be offset by counter drainage, between said units.
- (6) That special depth bracket allowables should be assigned for a temporary period to expire six months from the date of this order; that during this period all operators in the subject pool should gather all available information relative to the effects on said reservoir.
- (7) That this case should be reopened at an examiner hearing in July, 1974, at which time the operators in the subject pool should appear and show cause why the temporary special depth bracket allowables should be made permanent.

IT IS THEREFORE ORDERED:

(1) That a temporary special depth bracket allowable of 750 barrels of oil per day as hereby established as cop unit allowable for the Media-Entrada Oil Pool, Sandoval County, New Mexico.

-3-Case No. 5152 Order No. R-

- (2) That this case shall be reopened at an examiner hearing in July, 1974, at which time the operators in the subject pool may appear and show cause why the temporary special depth bracket allowable should not be rescinded.
- (3) That the Secretary-Director of the Commission may, at any time it appears that premature water encroachment or water coning is occurring, or other evidence of reservoir damage is apparent, rescind the provisions of this order and cause the top unit allowable for the Media-Entrada Oil Pool to revert to 347 barrels of oil per day.
- (4) That each month the applicant shall take production fluid level tests on each producing well in the pool and shall report the results of these tests along with other pertinent monthly well production data to the Aztec district office of the Commission.
- (5) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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