FIELD RULES HEARING

RANGER LAKE (PENNSYLVANIAN) FIELD

AUGUST 17, 1960

The information contained in this report has been assembled by Phillips Petroleum Company. The interpretation of these data and recommendations represents the views of Phillips Petroleum Company, and are not necessarily concurred in by the other operators in the field.

RANGER LAKE (PENNSYLVANIAN) FIELD

LEA COUNTY, NEW MEXICO

1. PHYSICAL PROPERTIES OF THE RESERVOIR ROCK

a.	Approximate Average Porosity	6.7%
b.	Maximum Measured Permeability	28 md.
c.	Average Connate Water	25%

2. STRUCTURAL FEATURES OF THE RESERVOIR

a.	Structure Map)	See Geological Exhibits
b.	Cross Sections)	
c.	Original Gas-Oil Contact	Not Applicable
d.	Original Water-Oil Contact	-6210 ft. subsea

3. CHARACTERISTICS OF RESERVOIR FLUID

a.	Average Gravity of S.T. Oil	40.4° API
b.	Estimated Saturation Pressure	2250 psia
c.	Formation Volume Factor	
	At Original Pressure	1.409
	At Saturation Pressure	1.430
d.	Solubility	
	At Original Pressure	754 cf/b
	At Saturation Pressure	754 cf/b

4. PRESSURE AND TEMPERATURE

a.	Original Reservoir Pressure	3620 psi
b.	Reservoir Temperature	162°F
c.	Reservoir Pressure History	See Attachment
d.	Average Shut-In Time Prior to Pressure Survey	48 hours
e.	Productivity Indices Data	
	Range - Bbl/Day/psi Pressure Drop	.793 to 1.553

5. STATISTICAL DATA

a.	Accumulated Production to 6-1-60	
	Oil	1,238,365 bbls.
	Gas	1,175,405 MCF
	Water	13,690 bbls.
b.	Monthly Oil Production)	See Attachment
c.	Monthly Producing Gas Oil Ratio)	
d.	Number of Producing Wells	20
e.	Spacing Pattern	Staggered 80-Acre Units
f.	State of Depletion	Development

6. GENERAL RESERVOIR MECHANICS

Originally this was an undersaturated crude which produced by fluid expansion above the saturation pressure. Indications are the reservoir will be depleted under a solution gas drive mechanism. There is no evidence of a water drive.

PRODUCTION DATA

RANGER LAKE (PENNSYLVANIAN) FIELD

LEA COUNTY, NEW MEXICO

YEAR AND MONTH		NUMBER OF WELLS	OIL PRODUCTION - BBLS. MONTHLY	OIL PRODUCTION - BBLS. ACCUMULATED	GAS PRODUCTION - MCF MONTHLY	GAS PRODUCTION - MCF ACCUMULATED	GAS OIL RATIO
1956	October	1	5,669	5,669	6,217	6,217	1,097
	November	1	5,360	11,029	5,628	11,845	1,050
	December	1	5,812	16,841	6,087	17,932	1,047
Yearly Total			16,841		17,932		
1957	January	1	5,299	22,140	5,562	23,494	1,050
	February	1	6,369	28,509	5,070	28,564	796
	March	1	6,069	34,578	4,831	33,396	796
	April	1	5,988	40,566	4,766	38,161	796
	May	2	6,773	47,339	5,545	43,706	819
	June	2	10,736	58,075	8,847	52,553	824
	July	2	11,276	69,351	9,292	61,845	824
	August	2	10,674	80,025	8,795	70,640	824
	September	3	15,780	95,805	12,949	83,589	821
	October	3	16,296	112,101	14,279	97,868	876
	November	3	15,075	127,176	13,211	111,079	876
	December	4	22,211	149,387	14,665	125,744	660
Yearly Total			132,546		107,812		
1958	January	4	21,648	171,035	14,294	140,038	660
	February	4	19,665	190,700	12,984	153,022	660
	March	4	20,665	211,365	15,209	168,231	736
	April	4	18,809	230,174	13,843	182,074	736
	May	4	19,344	249,518	14,237	196,311	736
	June	4	18,689	268,207	13,755	210,066	736
	July	4	19,170	287,377	14,108	224,174	736
	August	4	20,512	307,889	16,173	240,347	788
	September	4	20,130	328,019	14,816	255,163	736
	October	4	19,965	347,984	14,695	269,858	736
	November	5	20,727	368,711	17,493	287,351	844
	December	5	24,836	393,547	16,780	304,131	676
Yearly Total			244,160		178,387		
1959	January	5	24,860	418,407	16,724	320,855	673
	February	5	22,680	441,087	15,199	336,054	670
	March	5	24,306	465,393	16,904	352,958	695
	April	6	26,883	492,276	17,529	370,487	652

YEAR AND MONTH	NUMBER OF WELLS	OIL PRODUCTION - BBLS. MONTHLY	OIL PRODUCTION - BBLS. ACCUMULATED	GAS PRODUCTION - MCF MONTHLY	GAS PRODUCTION - MCF ACCUMULATED	GAS OIL RATIO
1959 - Cont'd						
May	7	29,408	521,684	19,520	390,007	664
June	8	36,245	557,929	29,612	419,619	817
July	9	28,696	586,625	30,713	450,332	1,070
August	11	45,011	631,636	35,337	485,669	785
September	11	51,675	683,311	42,887	528,556	830
October	14	68,892	752,203	54,645	583,201	793
November	16	69,828	822,031	79,326	662,527	1,136
December	18	71,025	893,056	82,044	744,571	1,155
Yearly Total		499,509		440,440		
1960 January	19	84,670	977,726	92,369	836,940	1,091
February	19	66,386	1,044,112	77,416	914,356	1,166
March	20	65,506	1,109,618	81,167	995,523	1,239
April	20	61,458	1,171,076	88,118	1,083,641	1,434
May	20	67,289	1,238,365	91,764	1,175,405	1,364

CLASS OF SERVICE
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WESTERN UNION

TELEGRAM

W. P. MARSHALL, PRESIDENT

1220 (R 11-54)

SYMBOLS
DL=Day Letter
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LA216 DA462

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A L PORTER JR. SECRETARY AND DIRECTOR=

OIL CONSERVATION COMMISSION SANTA FE NMEX=.

REGARDING THE HEARING ON 13 MAY 1959 OF THE COMMISSION FOR THE APPLICATION OF PHILLIPS PETROLEUM COMPANY FOR AN ORDER ESTABLISHING TEMPORARY 80 ACRE SPACING IN THE RANGER LAKE FIELD LEA COUNTY NEW MEXICO. SANTIAGO OIL AND GAS COMPANY IS FAMILIAR WITH THE FACTS INVOLVED IN THIS APPLICATION AND AS AN OPERATOR IN THE AREA WISHES TO RESPECTFULLY URGE THAT THE 80 ACRE SPACING PROGRAM BE ADOPED BY THE COMMISSION=

R L REDLINE JR PRESIDENT SANTIAGO OIL AND GAS CO=

Case 1668

=13 1959 80 80=

OIL CONSERVATION COMMISSION
P. O. BOX 871
SANTA FE, NEW MEXICO

COPY

July 1, 1959

Mr. Charlie Spann
Simms Building
Box 1031
Albuquerque, New Mexico

On behalf of your client, Phillips Petroleum Company, we enclose two copies of Order No. R-1418-A issued July 1, 1959, by the Oil Conservation Commission in Case No. 1668.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Enclosures

Copy sent to Chas. White on behalf of Gordon Cone 7-1-59 jr

PHILLIPS PETROLEUM COMPANY

BOX 791
PERMIAN BUILDING

MIDLAND, TEXAS

LAND AND GEOLOGICAL DEPARTMENT
MIDLAND DIVISION

May 26, 1959

Re: Application of Phillips Petroleum Company for a temporary order establishing 80 acre drilling units and promulgating special rules and regulations for the Ranger Lake Pennsylvanian Pool, Lea County, New Mexico.

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

Attention: Mr. Nutter

Dear Sir:

Under separate cover I am forwarding to you one copy of the Radioactive and Electrical Logs run on Phillips Petroleum Company and T&P Coal and Oil Ranger Lake wells #1, #2, #3, #4, and #6, in the Ranger Lake Field, Lea County, New Mexico. As you recall, the Commission requested these logs at our May 14, 1959 hearing.

If we can be of any further service or if there is any additional information which you may require, please let us know.

Yours truly,

C. F. Lawrence,
Division Development Geologist

CFL/lac

cc: Mr. C. F. Keller
Mr. Carl Jones
Mr. C. Spann
Mr. J. N. Perkins

BEFORE THE OIL CONSERVATION COMMISSION

OF THE STATE OF NEW MEXICO

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

CASE NO. 1668
Order No. R-1418

APPLICATION OF PHILLIPS
PETROLEUM COMPANY FOR
AN ORDER ESTABLISHING
TEMPORARY SPECIAL RULES
AND REGULATIONS FOR THE
RANGER LAKE-PENNSYLVANIAN
POOL, LEA COUNTY, NEW
MEXICO, TO PROVIDE FOR
80-ACRE PRORATION UNITS

MEMORANDUM BRIEF

STATEMENT OF THE CASE

Phillips Petroleum Company heretofore filed their application for an order establishing temporary special rules and regulations for the Ranger Lake-Pennsylvanian Pool, Lea County, New Mexico, to provide for 80-acre spacing and proration units.

After the requisite notice, a hearing on the application was had on May 13, 1959. At the hearing, applicant presented the only evidence which was, of course, in support of the application. An original protestant, Gordon Cone, withdrew his objection to the application during the hearing. Thereafter, the Commission on June 9, 1959, entered its order denying the application and made two findings upon which its order was based. They were -

(1) That the applicant has failed to prove that the Ranger Lake-

Pennsylvanian Pool can be efficiently drained and developed on an 80-acre spacing pattern.

(2) That the development of said Ranger Lake-Pennsylvanian Pool on 40-acre proration units will not cause the drilling of unnecessary wells.

Phillips has filed this motion for rehearing asserting generally that the order of the Commission is erroneous in that it was issued in violation of the rules and statutes that bind the Commission in its determinations; that specifically the Commission's findings of fact Nos. 3 and 4 were in each instance made contrary to the uncontradicted and substantial evidence in the record.

THE EVIDENCE

The only evidence in this case was presented by the applicant and consists of the testimony of Mr. Lawrence, a geologist, and Mr. Berthelot, a petroleum engineer, and certain exhibits prepared and presented by these witnesses. In addition, and in a final statement, the attention of the Commission was called to certain prior orders that had been entered granting permanent rules and regulations for 80-acre spacing in two Pennsylvanian pools in Lea County, New Mexico.

Mr. Lawrence and Mr. Berthelot were both qualified experts in their particular field and their qualifications were accepted by the Commission in each instance.

A general summary of applicant's evidence is as follows:

Exhibit 1 was a structure map of the field constructed on the top of the Ranger Lake Pay Zone (Tr. 4). The exhibit showed 6 wells had been completed by Phillips in the field (Tr. 6). An additional well, the

J. C. Barns No. 1 had been completed a few days prior to the hearing (Tr. 6). Likewise, Gordon Cone had drilled a well in the field which was producing.

The eastern limits of the field had been established, but the northern, western and southern limits had not. (Tr. 6).

Additional wells have been staked and at least 10 wells will be drilled on 80-acre spacing within the next year (Tr. 7). The area is being developed on 80-acre spacing at this time (Tr. 7).

Exhibit 2 was a cross-section of the field made up from radio active logs run on Phillips' western Ranger Lake Unit No. 1, 2, 3 and 4 wells. The exhibit shows the completion data and initial pressure of the 4 wells. The quality of the wells is dependent upon the porosity development of the upper zone. The wells are producing from a common source of supply and within a common reservoir.

From the examination and tests made, Mr. Lawrence gave it as his opinion that there is "definite communication between wells and one well would drain 80 acres". (Tr. 11) His opinion is based upon the correlativeness of each identical zone throughout each well, as well as good porosity and permeability (Tr. 11). The sample analysis in the field indicates formations and lithology that lend itself to good communication between wells. (Tr. 52).

Mr. Lawrence further stated that as much ultimate recovery of oil would result by developing on 80 acres as would result in developing on 40's (Tr. 32). He felt that additional evidence would be availabe at the end of a year to confirm the opinion that one well would drain 80 acres (Tr. 59)

Mr. Lawrence's opinion was confirmed by the engineering study made of the field and the conclusions therefrom which appear in the testimony of Mr. Berthelot, the petroleum engineer.

Mr. Berthelot made a general engineering study of the Ranger Lake-Pennsylvanian Field. He introduced Exhibit 4, which is a summary of engineering features which show the characteristics of the field and of the reservoir rock.

Exhibit 5 shows production data.

Exhibits 6, 7, 8 and 9 are concerned with pressure data and graphically illustrate the pressure decline that has occurred in the field as the wells have been drilled and produced.

Exhibits 10, A, B, C and D is a list of individual well tests taken throughout the life of the field. The tests indicate the oil in the various wells has been in intimate communication (Tr. 70).

Exhibits 11 and 12 are calculations of the drainage area of one well in the field using the formulas described in these exhibits, which confirm each other. It is clear from these exhibits that one well will drain in excess of 80 acres in the Ranger Lake-Pennsylvanian Field (Tr. 72).

Essentially then, we have described the tests made of the wells now producing and based upon these tests have confirmed by mathematical formula and calculations, our assertions that one well would drain in excess of 80 acres.

The fact that the Commission in their Order No. 9892 entered in Cause No. 1102, establishing 80-acre spacing in the Dean Permo-Pennsylvanian Pool and their Order No. R895 in Case No. 1125 establishing permanent 80-acre spacing in the Lane-Pennsylvanian Pool would be

evidence that the Pennsylvanian formation in Lea County, New Mexico in two instances, at least, has been found to drain 80 acres. This would be some evidence of a characteristic of the Pennsylvanian formation.

The Commission says that such evidence is not substantial in effect by finding that we have failed to prove that one well would efficiently drain 80 acres.

Applicant's Exhibit 3 which was described and introduced through Mr. Lawrence is an economic analysis of the type which is made by Phillips prior to drilling and developing a field and is prepared for the purpose of determining whether a company should invest their money in a particular area.

The exhibit shows that in the Ranger Lake-Pennsylvanian Field by drilling on 80 acre units, the Company would receive an annual rate of return of 43 percent (Tr. 13). Drilling on 40 acre units, they would sustain a loss (Tr. 14). The exhibit shows the estimated reserves, the estimated recoverable oil with its value and the drilling costs. As a matter of policy, unless a well will make a return of 20 to 22 percent annually for the company, Phillips will not drill the well (Tr. 14).

Mr. Berthelot confirmed Mr. Lawrence's testimony concerning the economics of the field except that he felt Mr. Lawrence was optimistic in his calculations or estimates concerning possible profits in drilling on 80's as opposed to 40's.

Mr. Berthelot has made a separate analysis of the economics of the field and states that drilling on 40 acres in the Ranger Lake-Pennsylvanian Field is not commercial (Tr. 74). The exhibits and testimony reflect that a well in this field will cost from $170,000.00 to $200,000.00 per

well with the discovery well costing approximately $300,000.00 (Tr. 89). Considering these factors and otherwise describing in detail the basis for estimates for possible recoverable reserves and the price thereof, it is clear that drilling on 40-acres in this field would be uneconomic.

Since the evidence establishes that in this field, as much oil can be recovered by drilling on 80's as 40's, then it follows that by refusing to grant the application and establish the temporary rules, the Commission has caused the drilling of unnecessary wells.

It will take from 30 to 35 wells to develop the pool (Tr. 75) and therefore, it can be seen that the Commission is requiring the operators to drill an additional 30 to 35 wells at a cost of some $180,000.00 per well or a total unnecessary expenditure of some $5,000,000.00.

POINTS, AUTHORITIES AND ARGUMENTS

It should be first pointed out that Phillips's application is for temporary rules only, these rules to be effective for a period of one year or until further order of the Commission. Under such circumstances it would seem that less proof should be required than would be necessary if permanent rules were being sought.

It should be again noted that the New Mexico Oil Commission, by Order No. R-892 entered in Case No. 1102, established permanent 80-acre spacing in the Dean-Pennsylvanian Pool, and by Order R-895 in Case No. 1125 established 80-acre spacing in the Lane-Pennsylvanian Pool, both in Lea County, New Mexico. (Tr. 104).

We point this out for the reason that the construction placed upon a particular law, rule or regulation by an administrative agency or officer is to be given weight in considering how much law, rule or regulation should be subsequently applied. Sedalia ex rel Ferguson vs. Shell Pet. Corp. (8 CCA) 81 F. 2d. 193

In other words, exceptions to rule 104 as applied to the Pennsylvanian formation in Lea County, New Mexico, have been heretofore granted on a permanent basis, and this precedent is entitled to some weight in considering whether temporary rules should be granted for the same Formation in subsequent applications.

The Order and decision of the Commission in this case are clearly erroneous because the Commission has simply rejected the clear, substantial and uncontradicted evidence in the case and made findings contrary thereto. This is in violation of the rules of evidence and decisions that bind administrative tribunals under our New Mexico law, and such an order will be set aside by our courts on appeal.

Rule 1212 of the Oil Conservation Commission Rules provides:

> "RULES OF EVIDENCE - Full opportunity shall be afforded all interested parties at a hearing to present evidence and to cross-examine witnesses. In general, the rules of evidence applicable in a trial before a court without a jury shall be applicable, provided that such rules may be relaxed, where, by so doing, the ends of justice will be better served. No order shall be made which is not supported by competent legal evidence."

By the Commission's own rule an order must be supported by "competent legal evidence" and the present order is not.

Regardless of this Rule of the Commission our Supreme Court has laid down certain basis evidentiary precepts which control our Courts and also our administrative tribunals in their decisions. As applied to this case they are:

1. Administrative tribunals are governed by the substantial evidence rule. That is to say, their findings must be supported by substantial evidence.

> Ferguson Steere Motor Co. v. State Corp. Comm.
> 62 N.M. 143, 306 P2 637

2. Findings of fact may not be based upon surmise, speculation or conjecture.

Southern Union Gas Co. v. Cantrell
241 P. 2d 1200, 56 N.M. 183

3. Before a finding of fact will be sustained, there must be some evidence in the records of a tangible nature to support such a finding.

DeBaca v. Kohn
49 N. M. 225, 161 P 2d 630
Medler v Henry, 101 P 2d 398, 44 N.M. 275

4. A Court may not arbitrarily reject uncontradicted testimony or evidence.

Mracek v Dunifon, 55 N.M. 342, 233 P 2d 792

5. Rules relating to weight, applicability or materiality of evidence may not be limited or relaxed by an administrative tribunal.

Ferguson Steere v. State Corp. Comm.,
314 P 2d 894, 63 N.M. 137

6. A finding of fact which is not supported by evidence of a probative character is arbitrary and cannot be sustained.

Baca v Chaffin, 253 P 2d 309, 57 N.M. 17

7. An order of an administrative body which is not based upon the substantial evidence may properly be described as conjectural, speculative, unlawful, unreasonable, arbitrary and capricious, and cannot be sustained.

Baca v Chaffin, 253 P 2d, 309, 57 N.M. 17
Ferguson Steere v. State Corp. Comm.,
314 P 2d 894, 63 N.M. 137

There are other cases on the subject, but these are sufficient to clearly point up the basic concept involved.

In this case we have two qualified experts testifying concerning studies and tests made in the Ranger Lake-Pennsylvania Pool. These experts gave it as their opinions that:

A. One well would drain in excess of 80 acres in the field.

B. That as much ultimate recovery would result from drilling on 80's as on 40's.

C. That the costs of the wells were such that drilling on a 40-acre pattern was uneconomic, and a loss to the operator would result.

D. That the drilling of wells on 40-acre spacing was an unnecessary expense to the operators.

E. That by drilling on 80's the development of the field would be encouraged and enhanced.

F. That at the end of a year additional information would be available from which the opinions given would be further confirmed.

G. That if it were determined that additional fill-in wells were required they could be drilled, but that unnecessary wells could not be "undrilled".

The evidence introduced stands uncontradicted and we believe is substantial evidence under any definition of that term and clearly so under our New Mexico decisions. The Commission simply rejected this evidence and entered an Order which is based on no evidence in the record. The findings upon which this Order are based are clearly erroneous.

As we have heretofore pointed out a finding of fact of an administrative tribunal must be based upon substantial evidence. A clear definition of substantial evidence is found in Lumpkins vs McPhee, 59 N. M. 442 @ 453, 286 P2d 299, as follows:

> "Ordinarily, the evidence is deemed substantial if it tips the scales in favor of the party on whom rests the burden of proof, even though it barely tips them. He is then said to have established his case by a preponderance of the evidence. A finding

in his favor on the decisive issue is thus said to be suppored by substantial evidence."

Substantial evidence so as to support a finding is merely the preponderance of evidence. See also 42 Am. Jur P. 467 (Public Administrative Law Pr. 132).

"Preponderance is a greater weight of credible evidence."

See: Campbell v Campbell, 310 P 266, 62 N. M. 330

In Lopez v Thompson, 42 N. M. 601, 82 P 2d 921, it was held "In civil cases, where circumstantial evidence is relied upon for recovery, the burden of proof resting on the plaintiff is merely to make up the more probable hypothesis. It is unnecessary that his proof attain a degree that excludes every other reasonable conclusion as in a criminal case."

Our proof which was undisputed, established that, based upon the evidence available, one well in the Ranger Lake Field would drain far in excess of 80 acres. By the very nature of things, this evidence is circumstantial in that it is a conclusion arrived at from certain real or direct evidence which included pressure tests, core analysis, decline curves, etc. We could, of course, not exclude entirely the possibility one well would not drain 40 acres, but we were not required to do so under the rule. The applicant's case was established by the uncontradicted testimony of two expert witnesses, who, although employees of Phillips Petroleum Company, had their qualifications accepted by the Commission. In 42 Am Jur Page 568 (Public Administrative Law Par. 132) it is stated:

"Administrative officers are not bound to accept as conclusive the testimony of expert witnesses, but they may not disregard expert testimoney and reach a conclusion contrary thereto, where such conclusion has no support in any other evidence before the officer or in their own knowledge or experience."

It may be contended that Mr. Lawrence and Mr. Berthelot were employees of Phillips Petroleum Company, the applicant, and therefore, in-

terested witnesses. This makes no difference under the proposition above announced. In Dempster v Burnet; 46 Fed 2d 604 and Bonwit-Teller & Co. v. Commissioner of Internal Revenue, CCA 2d, 53 Fed 2d 381, 82 ALR 325, it was held that an expert witness's testimony if uncontradicted, cannot be ignored or rejected even if he is an interested witness.

New Mexico likewise has held in several cases that "the testimony of a witness whether interested or disinterested, cannot arbitrarily be disregarded by the trier of the facts." See Medler v Henry 44 N.M. 275, 101 P 2d 398; Heron v Gayler, 52 N.M. 23, 190 P 2d 208. In this later case, in a very short opinion, the court summarily reversed a trial court that had failed to consider the testimony of a party to the action. It is stated that the testimony was such that there was no inherent improbability as to its truthfulness and accordingly it could not be arbitrarily disregarded and this notwithstanding the fact that the testimony was that of a party to the suit and one who was interested in the outcome. See also, Citizens Finance Co. v Coe, 47 N.M. 73, 123 P 2d 550. See also, Mracek v Dunifon, 55 N.M. 342, 233 P 2d 792 and Morris v Cartright 258 P 2d 719, 57 N.M. 328, on the point that the trial court may not arbitrarily reject uncontradicted evidence.

In the Cartright case, the trial court directed a verdict against the plaintiff in behalf of Cartright Hardware on the basis that the undisputed evidence in the record showed that at the time of the collision, the truck involved was being driven by an employee of the Cartright Hardware Company without authority or permission of the owners. The court stated that the evidence on this point was undisputed and must, therefore, be accepted as true. It was argued by appellant that certain inferences and deductions should be indulged in because of the fact that tools and pipe were found in

the car and the driver was in working clothes at the time of the collision. The court said,

> "This claim leads into the field of speculation. The courts generally hold that such doubtful inferences are not sufficient to contradict positive testimony."

This becomes important in our present case in view of the fact that all of the positive evidence resulting from pressure tests, pressure decline curves and other direct evidence indicates that one well would drain in excess of 80 acres. There is no evidence to the contrary. Any finding to the contrary results from mere speculation which is not proper under the rule.

It is pure speculation and conjecture to find that one well would not drain in excess of 80 acres, which is the effect of the Commission's finding No. 3.

This is likewise true as to its finding No. 4. If one well will drain in excess of 80 acres, as the undisputed, substantial evidence established, then development on a 40-acre pattern results in unnecessary wells being drilled. In this case, some 30 unnecessary wells costing approximately $180,000.00 per well. The evidence is undisputed that development on a 40-acre pattern will result in losses; that 80 acre spacing will result in as much ultimate recovery of oil as on 40's. There is no evidence, substantial or otherwise supporting in these findings and we respectfully submit, under the cases cited and discussed, they are erroneous.

It is true that in hearings before administrative tribunals, the rules as to admissibility of evidence are relaxed. However "Rules relating to weight, applicability or materiality of evidence are not limited or relaxed."

Ferguson-Steere v. Corporation Commission, 63 N.M. 137, 314 P 2d 894.

A general statement of the proposition and the reasons for it are found in 42 Am Jur P. 462 (Public Administrative Law Par. 129) as follows:

> "The more liberal the practice in admitting testimony, the more imperative the obligation to preserve the essential rules of evidence by which rights are asserted or defended. Administrative officers cannot act upon their own information. All parties must be fully apprised of the evidence submitted or to be considered and must be given an opportunity to cross-examine witnesses, to inspect documents, to offer evidence in explanation or rebuttal".

And in Paragraph 130 at Page 464,

> "Papers in the files of a Commission, special knowledge gained from experience or other hearings or information secured by independent investigation apart from the hearing and not made known upon the hearing is not evidence properly in the case. It is the denial of the fundamentals of the trial for a Commission to reach a decision on evidentiary facts not spread upon the record and upon information secretly collected and not disclosed which the party complaining had no opportunity to examine or analyze, explain or rebut."

In Baca v Chaffin, 57 N.M. 17, 253 P 2d 309, which involved an appeal from a decision of the State liquor director, our Supreme Court held:

> "A trial which proceeds to a conclusion resulting in a quasi-judicial determination depriving a party of legal rights is unfair and arbitrary if the determination is necessarily based on a finding of fact which is not supported by proof of a probative character."

We feel constrained to say that the Commission in this case either went outside the record and considered information or knowledge gained from experience or in other hearings in violation of the last discussed rule; or they simply ignored the substantial evidence rule and rejected the uncontradicted evidence in the record.

Sec. 65-3-11, N. M. S. A., 1953, gives the Oil Commission broad powers to make investigations, inspections, examine property, etc. We

point this out because it clearly gives the Commission the authority to conduct its own investigations and present evidence controverting an applicant's case if such evidence is available. This the Commission should do in the event there is any question about the evidence presented, and then the applicant has the right to cross-examine, explain or rebut as the rule requires.

A further error is apparent in the Commission's Order herein under our New Mexico decisions.

The New Mexico Oil Commission is a statutory agency and has only such authority as is given it by statute. Vermejo vs French, 43 N.M. 45, 85 P 2d 90; Maxwell Land Grant Co. vs Jones, 28 N.M. 427, 213 P. 1034; Transcontinental Bus System vs State Corporation, 56 N.M. 158, 241 P 2d 829.

Sec. 65-3-14 (b), N.M.S.A., 1953, provides:

> "The Commission may establish a proration unit for each pool, such being the area that can be efficiently and economically drained and developed by one well, and in so doing the Commission shall consider the economic loss caused by the drilling of unnecessary wells, the protection of correlative rights, including those of royalty owners, the prevention of waste, the avoidance of the augmentation of risks arising from the drilling of an excessive number of wells, and the prevention of reduced recovery which might result from the drilling of too few wells."

This statute directs the Commission to "consider" the economic loss caused by the drilling of unnecessary wells" and "the avoidance of the augmentation of risks arising from the drilling of an excessive number of wells", and the "prevention of waste".

The evidence in this case was to the effect that the drilling of wells on 40 acres was unnecessary and that loss would result to the operator by drilling on 40-acre units. This evidence was substantial. There is no

evidence to the contrary. Obviously the Commission has failed to comply with the statutory mandate contained in Sec. 65-3-14. In two similar cases our New Mexico Supreme Court held that the action of an administrative tribunal in failing to comply with a similar statute was error, and its order was set aside.

In Transcontinental Bus System vs State Corporation Commission, supra, we have an appeal from a judgment of the District Court, Santa Fe County, upholding in part an order of the New Mexico State Corporation Commission, At the time of the hearing on the application before the Corporation Commission, there was pending, and undecided, another application which conflicted with the one being considered. The protestants objected to the hearing on the grounds that if the other application were granted, then the effect of this additional service on the territories should first be observed before an additional authority could be granted. This was because of a clear statutory mandate that "the Corporation Commission shall consider existing facilities in the field" before granting a certificate. The decision at Page 173 reads:

> "Under this provision of the statute the Commission has no authority to grant a certificate unless it first takes into consideration existing transportation facilities and, unless it has evidence on the existing transportation facilities, it would have no valid or legal method or right of determining whether or not the service furnished by existing transportation facilities is reasonably adequate."

And at Page 177

> "The Commission is authorized only to make its decision upon the evidence adduced at the hearing and made a part of the record. In either instance the Commission violated the statute and failed to give the appellant a fair and full hearing. The appellant was entitled to such a hearing as the statute provides. It was entitled to a hearing as provided by law, conducted fairly and impartially, with an opportunity to introduce evidence to refute or modify any matters or facts which the Commission might take into consideration in reaching its decision."

In State vs. Mt. States Tel & Tel, 54 N. M. 315, 224 P 2d 155, another order of the State Corporation Commission was being questioned. The Supreme Court pointed out that our Constitution provides that in fixing or approving telephone rates, the Corporation Commission shall give due consideration to the "earnings, investments and expenditures of the Company." It then held:

> "Unless due consideration is given to the earnings, investment and expenditures as a whole within the State in fixing values of public utility corporations' property as a basis for rate making, an order fixing or approving such rates is void."

Under these cases, the instant order is void because the Commission failed to consider the economic loss to applicant by the drilling of unnecessary wells and the risks arising to applicant by the drilling of an excessive number of wells.

Furthermore, under Section 65-3-14 (b) of our statutes, the Commission is to "prevent waste" and "protect correlative rights".

There is no question of correlative rights under the evidence and no operators or royalty owners objected to the application. There was no evidence that the granting of the application would result in waste. Mr. Lawrence testifying for applicant, stated that as much ultimate recovery of oil would be obtained by developing on 80 acres as on 40's. This evidence was uncontradicted.

Both witnesses gave it as their opinion that the granting of temporary rules would encourage the exploration and development of the field. Conversely, the denial of the application would impair or discourage this development.

We submit it constitutes waste when oil reserves and oil fields

are not developed and produced. Any order of this Commission impairing or discouraging the exploration for and development of oil and gas reserves violates the statutory mandate directing this Commission in the prevention of waste.

We likewise contend that an order which in effect requires the development of a field on a 40-acre pattern when as much ultimate recovery can be obtained by development on 80's, results in waste.

We submit the Commission was in error in failing to consider these factors as is evidenced by their denial of the instant application.

CONCLUSION

The applicant has established its case by substantial and undisputed evidence. Under the rules of evidence applicable to this case, as our Supreme Court has announced them, we are entitled to have our application granted. The Commission has summarily denied the application. This presents a problem insofar as future 80-acre spacing applications are concerned.

We would first point out that it is difficult for attorneys to advise their clients as to how to proceed in these matters because it is impossible to determine what evidence is required to sustain an application. It appears that 80-acre spacing will not be granted by this Commission regardless of the evidence presented.

If it is the position of this Commission to deny 80-acre spacing applications regardless of the evidence presented, as the Commission's action in this case indicates, then the Commission ought to say so and not put the companies to the trouble and expense of filing applications, gathering evidence and going through hearings.

We would further suggest that if the Commission is considering

evidence from other hearings or other facts not in the record when deciding these applications, they are in error and ought to present such evidence at the hearing so that the applicants will have an opportunity to explaint or rebutt such evidence.

If it is the Commission's position that applications will be granted when competent legal evidence is presented, as Commission Rule 1212 and the substantial evidence rule contemplate, then the Commission's order herein should be vacated and our application approved.

Respectfully submitted,

CARL W. JONES
P.O. Box 791, Midland, Texas

GRANTHAM, SPANN AND SANCHEZ
904 Simms Building, Albuquerque, N.M.

By _____
Attorneys for Applicant
Phillips Petroleum Company

No. 18-59

DOCKET: REGULAR HEARING MAY 13, 1959

Oil Conservation Commission, 9 a.m., Mabry Hall, State Capitol, Santa Fe

ALLOWABLE: (1) Consideration of the oil allowable for June, 1959.

(2) Consideration of the allowable production of gas for June, 1959, for six prorated pools in Lea County, New Mexico, and also presentation of purchasers' nominations for the six-month period beginning July 1, 1959; consideration of the allowable production of gas for seven prorated pools in San Juan and Rio Arriba Counties, New Mexico, for June, 1959.

CONTINUED CASES AND REHEARING

CASE 1615: (Rehearing)

In the matter of the rehearing requested by Malco Refineries, Inc. for reconsideration by the Commission of Case No. 1615, Order R-1363. Case 1615 was an application by Stanley Jones, et al, for an order requiring Malco Refineries, Inc. to purchase oil produced from wells in the Dayton-Abo Pool in Eddy County, New Mexico, under the provisions of the Common Purchaser Act. Case 1615 culminated in the entry of Order No. R-1363 which required Malco Refineries, Inc. to purchase all oil tendered to it which is produced from the Dayton Field in Eddy County, New Mexico.

CASE 1522: Application of General Petroleum, Inc. , for an amendment to Order No. R-1299. Applicant, in the above-styled cause, seeks an order amending Order No. R-1299 to provide that any merchantable oil recovered from sediment oil shall not be charged against the allowable for wells on the originating lease, which amendment would revise Rule 311.

CASE 1635: Application of Mapenza Oil Company for an exception to the requirements of Order No. R-1224-A. Applicant, in the above-styled cause, seeks an order authorizing an exception to the salt water disposal requirements of Order No. R-1224-A for its State No. 1-A Well, located in the SE/4 SE/4 of Section 14, Township 18 South, Range 37 East, Hobbs Pool, Lea County, New Mexico.

NEW CASES

CASE 278: Application of Farm Chemical Resources Development Corporation and National Potash Company for an extension of the Potash-Oil Area as set forth in Order R-111-A. Applicants, in the above-styled cause, seek an order extending the Potash-Oil Area as defined in Order R-111-A to include additional acreage in Townships 19, 20, and 21 South, Ranges 29, 31, and 32 East, Lea and Eddy Counties, New Mexico.

CASE 1668: Application of Phillips Petroleum Company for an order promulgating temporary special rules and regulations for the Ranger Lake-Pennsylvanian Pool in Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order promulgating temporary special rules and regulations for the Ranger Lake-Pennsylvanian Pool and certain adjacent acreage in Lea County, New Mexico, to provide for 80-acre spacing units and well location requirements, and such other provisions as the Commission deems necessary.

CASE 1669: Application of Pan American Petroleum Corporation for the promulgation of temporary special rules and regulations for the Atoka-Pennsylvanian Gas Pool in Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order promulgating temporary special rules and regulations for the Atoka-Pennsylvanian Gas Pool in Eddy County, New Mexico, to provide for 320-acre spacing units and for well location requirements.

CASE 1670: Southeastern New Mexico nomenclature case calling for an order creating new pools, deleting a portion of a pool, and extending existing pools in Chaves, Eddy, Lea and Roosevelt Counties, New Mexico.

(a) Create a new oil pool for Queen production, designated as the Chisum-Queen Oil Pool, and described as:

TOWNSHIP 11 SOUTH, RANGE 27 EAST, NMPM
Section 16: SW/4
Section 21: N/2

(b) Create a new gas pool for Yates production, designated as the Chisum-Yates Gas Pool, and described as:

TOWNSHIP 11 SOUTH, RANGE 27 EAST, NMPM
Section 13: SE/4

(c) Create a new oil pool for Delaware production, designated as the Loving-Delaware Oil Pool, and described as:

TOWNSHIP 24 SOUTH, RANGE 27 EAST, NMPM
Section 1: SW/4

(d) Create a new oil pool for San Andres production, designated as the Prairie-San Andres Oil Pool, and described as:

TOWNSHIP 8 SOUTH, RANGE 36 EAST, NMPM
Section 8: SW/4

(e) Delete a portion of the Square Lake Oil Pool described as:

TOWNSHIP 17 SOUTH, RANGE 29 EAST, NMPM
Section 3: W/2 NW/4

(f) Extend the Cave Pool to include:

TOWNSHIP 17 SOUTH, RANGE 29 EAST, NMPM
Section 3: W/2 NW/4

(g) Extend the Allison-Pennsylvanian Oil Pool to include:

TOWNSHIP 9 SOUTH, RANGE 36 EAST, NMPM
Section 14: NW/4
Section 15: NE/4

(h) Extend the Crosby-Devonian Gas Pool to include:

TOWNSHIP 25 SOUTH, RANGE 37 EAST, NMPM
Section 21: SW/4

No. 29-59

DOCKET: REGULAR HEARING AUGUST 13, 1959

Oil Conservation Commission 9 a.m., Mabry Hall, State Capitol, Santa Fe, New Mexico

Allowable: (1) Consideration of the oil allowable for September, 1959.

(2) Consideration of the allowable production of gas for September, 1959, from six prorated pools in Lea County, New Mexico, also consideration of the allowable production of gas from seven prorated pools in San Juan, Rio Arriba and Sandoval Counties, New Mexico.

CASE 1668: (Rehearing)
In the matter of the rehearing requested by Phillips Petroleum Company for reconsideration by the Commission of Case No. 1668 which was an application for an order promulgating temporary special rules and regulations for the Ranger Lake-Pennsylvanian Pool and certain adjacent acreage in Lea County, New Mexico, to provide for 80-acre proration units. The rehearing will be limited to a brief and argument on the legal propositions raised in the petition for rehearing and their application to the facts heretofore presented in said case.

NEW CASES

CASE 278: Application of Duval Sulphur and Potash Company for an extension of the Potash-Oil Area as set forth in Order R-111-A. Applicant, in the above-styled cause, seeks an order extending the Potash-Oil Area as defined in Order R-111-A, to incluse additional acreage in Townships 18, 22 and 23 South, Range 30 East, Eddy County, New Mexico.

CASE 278: Application of United States Borax & Chemical Corporation for an extension of the potash-oil area as defined in Order No. R-111-A. Applicant, in the above-styled cause, seeks an extension of the potash-oil area as defined in Order No. R-111-A to include additional acreage in Townships 21 and 22 South, Ranges 29 and 30 East, NMPM, Eddy County, New Mexico.

CASE 1735: Application of The Ohio Oil Company for an order promulgating special rules and regulations for the Bluitt-Pennsylvanian Pool in Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks an order promulgating special rules and regulations governing the drilling, spacing and production of wells in the Bluitt-Pennsylvanian Pool in Roosevelt County, New Mexico, including the establishment of 80-acre spacing for wells in said pool. Applicant further seeks an exception from the proposed spacing requirements for a well to be drilled in the NE/4 of Section 20, Township 8 South, Range 37 East.

CASE 1736: Application of Texas Crude Oil Company for 80-acre spacing for its State H N Well No. 1, producing from an undesignated Atoka pool and located 660 feet from the South line and 1982 feet from the West line of Section 16, Township 11 South, Range 33 East, Lea County, New Mexico.

CASE 1737: Southeastern New Mexico nomenclature case calling for an order creating and extending existing pools in Eddy and Lea Counties, New Mexico.

(a) Create a new oil pool for San Andres production, designated as the Eagle Creek-San Andres Pool, and described as:

TOWNSHIP 17 SOUTH, RANGE 25 EAST, NMPM
Section 14: SE/4

(b) Create a new oil pool for San Andres production, designated as the Jenkins-San Andres Pool, and described as:

TOWNSHIP 9 SOUTH, RANGE 35 EAST, NMPM
Section 30: SE/4

(c) Create a new oil pool for Yates production, designated as the Maljamar-Yates Pool, and described as:

TOWNSHIP 18 SOUTH, RANGE 32 EAST, NMPM
Section 5: NE/4

(d) Create a new oil pool for Paddock production, designated as the North Paddock Pool, and described as:

TOWNSHIP 21 SOUTH, RANGE 37 EAST, NMPM
Section 2: Lots 1-2-7-8

(e) Create a new oil pool for Tansill production, designated as the Parallel-Tansill Pool, and described as:

TOWNSHIP 20 SOUTH, RANGE 31 EAST, NMPM
Section 25: NW/4

(f) Extend the Crosby-Devonian Gas Pool to include therein:

TOWNSHIP 26 SOUTH, RANGE 37 EAST, NMPM
Section 4: NW/4

(g) Extend the Empire-Abo Pool to include therein:

TOWNSHIP 18 SOUTH, RANGE 27 EAST, NMPM
Section 3: NW/4

(h) Extend the West Henshaw-Grayburg Pool to include therein:

TOWNSHIP 16 SOUTH, RANGE 30 EAST, NMPM
Section 2: Lots 11-12-13-14

(i) Extend the High Lonesome Pool to include therein:

TOWNSHIP 16 SOUTH, RANGE 29 EAST, NMPM
Section 13: NE/4 & SW/4
Section 14: SE/4
Section 15: SE/4

(j) Extend the Justis Blinebry Pool to include therein:

TOWNSHIP 25 SOUTH, RANGE 37 EAST, NMPM
Section 21: SW/4

Texas Pacific Coal and Oil Company
P O Box 2110
Fort Worth, Texas

Gulf Oil Corporation
Petroleum Building
Roswell, New Mexico

H. J. Porter
Gulf Building
Houston, Texas

The Ohio Oil Company
Midland National Bank Building
Midland, Texas

Tide Water Oil Company
Petroleum Building
Midland, Texas

The Pure Oil Company
J. P. White Building
Roswell, New Mexico

Continental Oil Company
Petroleum Building
Roswell, New Mexico

Magnolia Petroleum Company
1116 West First Street
Roswell, New Mexico

Humble Oil and Refining Company
First National Bank Building
Roswell, New Mexico

Monsanto Chemical Company
602 West Missouri
Midland, Texas

Pacific Western Oil Company
c/o Tide Water Oil Company
Petroleum Life Building, Midland, Texas

Joseph I. O'Neill, Jr.
410 West Ohio, Midland, Texas

Gordon M. Cone
Lovington, New Mexico

Vickers Petroleum Corporation
P O Box 2240, Wichita 1, Kansas

Transcript of Hearing, Case No. 1668, dated May 14, 1959, mailed to Ada Dearnley on August 5, 1959.

vem

RANGER LAKE PENNSYLVANIAN POOL
LEA COUNTY, NEW MEXICO
PHILLIPS RANGER LEASE

BOTTOM HOLE PRESSURE - PSI X 100

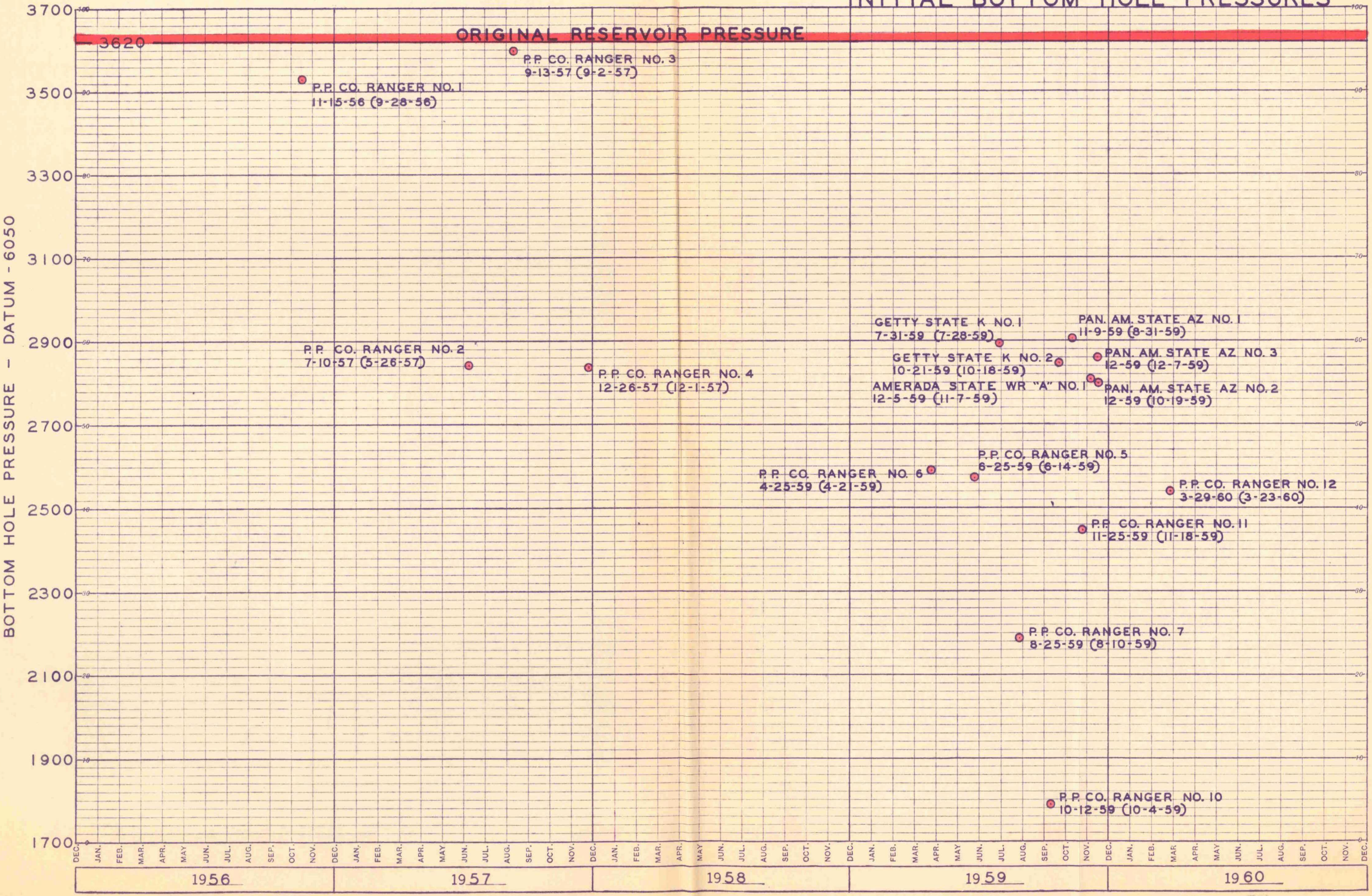
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36

CUMULATIVE OIL PRODUCTION - BARRELS X 100,000

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

- PHILLIPS RANGER NO. 1
- " " 2
- " " 3
- " " 4
- " " 5
- " " 6
- " " 7
- " " 9
- " " 10
- " " 11
- " " 12

RANGER LAKE PENNSYLVANIAN POOL
LEA COUNTY, NEW MEXICO
INITIAL BOTTOM HOLE PRESSURES



RANGER LAKE PENNSYLVANIAN POOL
LEA COUNTY, NEW MEXICO

BOTTOM HOLE PRESSURE - DATUM - 6050

3600
3200
2800
2400
2000
1600
1200
800
400
0

PHILLIPS RANGER NO. 1
" " 2
" " 3
" " 4
" " 5
" " 6
" " 7
" " 9
" " 10
" " 11
" " 12

AMERADA STATE WR NO. 1-A
PAN AMERICAN ST. AZ NO. 1
" " " " 2
" " " " 3
TIDEWATER ST. K NO. 1
" " " 2
CONE STATE NO. 2

DEC. JAN. FEB. MAR. APR. MAY JUN. JUL. AUG. SEP. OCT. NOV. DEC.

1956 | 1957 | 1958 | 1959 | 1960

RANGER LAKE PENNSYLVANIAN FIELD
BOTTOM HOLE PRESSURE DATA
DATUM -6050

Phillips Ranger No. 1			Phillips Ranger No. 2			Phillips Ranger No. 3			Phillips Ranger No. 4			Phillips Ranger No. 5			Phillips Ranger No. 6		
Date	Hrs SI	BHP	Date	Hrs SI	BHP	Date	Hrs SI	BHP	Date	Hrs SI	BHP	Date	Hrs SI	BHP	Date	Hrs SI	BHP
11-15-56	48	3530															
7-24-57	48	2800	7-10-57	48	2843	9-13-57	48	3597									
12-26-57	48	2569							12-26-57	48	2838						
11-21-58	48	2311	11-18-58	48	2305	11-28-58	48	2551	11-18-58	48	2004						
12-29-58	24	2144	12-19-58	72	2212	1- 5-59	24	2440	1- 6-59	48	1882						
3-29-59	49	2009	3-29-59	53	2025	3-29-59		2360	3-29-59	49	1795						
10-12-59	48	1326										6-25-59		2568	4-25-59	48	2591
11- 2-59	50	1231	11- 2-59	51	1163	11- 2-59	53	1989	11- 9-59	49	1544	11- 2-59	52	2031	11- 9-59	43	1859
3-24-60	48	995	3-24-60	48	975												
8- 8-60	48	927	8- 8-60	48	961*	8- 8-60	48	1539	8- 8-60	48	1418*	8- 8-60	48	1836*	8- 8-60	48	1341

Phillips Ranger No. 7			Phillips Ranger No. 9			Phillips Ranger No. 10			Phillips Ranger No. 11			Phillips Ranger No. 12			Amerada State WR "A" No. 1		
Date	Hrs SI	BHP	Date	Hrs SI	BHP	Date	Hrs SI	BHP	Date	Hrs SI	BHP	Date	Hrs SI	BHP	Date	Hrs SI	BHP
8-25-59		2188															
						10-12-59		1789									
11- 9-59	50	1613				11-18-59	48	1385	11-25-59	48	2453						
															12- 5-59	27	2810
															12- 7-59	74	2816
															2- 3-60	49	2630
												3-29-60		2517			
															5-18-60	48	2507
8- 8-60	48	1313*	8- 8-60	48	1209*							8- 8-60		2342	8- 8-60	48	2458

Pan American State AZ No. 1			Pan American State AZ No. 2			Pan American State AZ No. 3			Tidewater (Getty) State K No. 1			Tidewater (Getty) State K No. 2			Gordon M. Cone State No. 2		
Date	Hrs SI	BHP	Date	Hrs SI	BHP	Date	Hrs SI	BHP	Date	Hrs SI	BHP	Date	Hrs SI	BHP	Date	Hrs SI	BHP
									7-31-59	72	2896						
												10-21-59	72	2849			
11- 9-59	48	2903							11- 2-59	48	1443				11- 2-59	72	1188
			12- ?-59	24	2795	12- ?-59	48	2860									

*Sonolog Pressures

NO. 41120. FIVE YEARS BY MONTHS X 100 DIVISIONS.

MONTHLY PRODUCTION - BARRELS

100,000
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0

NUMBER PRODUCING WELLS

30
20
10
0
3000

GAS OIL RATIO - CF/B

2000
1000
0

NUMBER OF WELLS

OIL PRODUCTION

GAS OIL RATIO

RANGER LAKE PENNSYLVANIAN POOL
LEA COUNTY, NEW MEXICO

DEC. JAN. FEB. MAR. APR. MAY JUN. JUL. AUG. SEP. OCT. NOV.

19 56 | 19 57 | 19 58 | 19 59 | 19 60