

CASE 4100: Application of J.M.C.
RITCHIE FOR AN EXCEPTION TO ORDER
NO. R-3221, AS AMENDED, EDDY CO.

Case Number.

4/00

Application

Transcripts.

Small Exhibits

ETC.

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BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

April 16, 1969

REGULAR HEARING

IN THE MATTER OF:

Application of J.M.C.
Ritchie for an exception
to Order No. R-3221, as
amended, Eddy County,
New Mexico.

Case No. 4100

BEFORE: A. L. Porter, Jr., Secretary-Director
Alex J. Armijo, Land Commissioner
George Hatch, Counsel

TRANSCRIPT OF HEARING

MR. HATCH: Case 4100, application of J.M.C. Ritchie for an exception to Order No. R-3221, as amended, Eddy County, New Mexico.

MR. NEAL: If it please the Commission, I am C. Fincher Neal, Box 278, Hobbs, New Mexico. I represent Mr. J.M.C. Ritchie. I have a witness, Mr. Sikes, who I would like to have sworn.

(Witness sworn.)

J. N. SIKES

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

DIRECT EXAMINATION

BY MR. NEAL:

Q Would you state your name, sir?

A J. N. Sikes.

Q Where do you live?

A I reside in Odessa, Texas. I have an office in Midland, Texas.

Q What is your profession?

A I am a registered professional engineer.

Q Specializing in petroleum engineering?

A Yes, sir.

Q How long have you specialized and practiced in that

field, sir?

A Since I left college in 1952.

Q Did you obtain a petroleum engineering degree in college?

A Bachelor of Science Degree, Petroleum Engineering.

Q University of what?

A University of Tulsa.

Q And you have been practicing your profession since that date?

A Yes, sir.

Q Are you familiar with West Texas and Southeast New Mexico, and the oil production and oil fields of that area?

A Yes, sir.

Q Are you, in particular, familiar with the land that is the subject matter of this application?

A Yes, I am.

Q You have prepared a plat for the Commission showing the location of these wells which you would like for them to consider as Exhibit Number 1?

A Yes, sir.

Q Would you tell us the location of these wells, how many there are, and what their production is?

A These wells are located in southern Eddy County,

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Township 26 South, Range 27 West, Sections 20, 21, and 16.

Q And on the exhibit that you have presented to the Commission, they are marked in red?

A Yes, sir.

Q Now, how is the present operation of these wells, as far as the disposal of water?

A There are four producing wells, and they have a common tank battery, and a pit, an open pit, and the water is presently flowing into them.

Q Would you advise the Commission approximately the location of the pit?

A The pit is in the northwest quarter of Section 21, in the vicinity just south of Well No. 2, about the center, near the center of the four wells there that are colored in red.

Q Now, were there other wells -- there are just four producing wells, is that true?

A Yes, sir.

Q Were there other wells drilled in that area by Mr. Ritchie?

A Yes, sir, there have been several wells drilled. I am not sure exactly how many. I believe a total of ten wells, I believe.

Q What is the present condition of those wells that were drilled?

A All the other holes that were drilled in this vicinity have been plugged and abandoned, casing pulled.

Q Will you state the production of these wells, average production of these wells in terms of oil, and also in terms of water.

A They produce a total of eleven barrels per day of oil, and approximately 90 barrels of water per day.

Q Would you tell about how big the disposal pit is at the present time?

A It is approximately 70 feet long, 40 feet wide, and three feet deep.

Q What is the capacity of that?

A Approximately 1,500 barrels.

Q I hand the Commission a picture. Is that a picture of the pit?

A That is a picture of one end of the pit. It shows some new work that we have done in preparing it for the Commission's approval.

Q Have you had an analysis of the water made that is in your pits, sir?

A Yes, sir, the analysis, I think you have an exhibit to

submit.

Q I hand the Commission an exhibit which may be marked at a later time. What is the chloride content of that water?

A 12,000 parts per million.

Q And review the rest of the content of the water.

A It has a very faint trace of iron; 7,500 parts per million of sodium and potassium; 200 parts per million calcium; 92 parts per million magnesium; 12,000 parts per million chloride; no hydrogen sulfide; 440 parts per million bicarbonate.

Q Now, the chloride content of that is 12,000 parts per million. How does that compare with the water from the Delaware Formation?

A Most of the water that I have, that I know about -- of course, I don't know all of the analysis, but ordinarily they run somewhere between 60,000 and 80,000 parts per million chloride.

Q This well is from what source?

A From the Delaware Formation.

Q Are you ~~prepared with~~ ^{aware of} an existing tank or water pond in the adjacent area?

A Yes, sir, there is an open pit, I suppose you would call it, that was dug about ten or twelve years ago. I'm not sure of the date. It was dug down to water, actually, and it

maintains a water level the year round.

Q Where is this pit in relation to the well --

A It is approximately 1.7 miles southeast from this pit, where we are disposing of water.

Q How long have you been disposing of water in these wells?

A About ten years.

Q Have you had an analysis made of the water content of that pit?

A Yes, sir, it is an exhibit.

Q Will you please review that for the Commission?

A Very faint trace of iron; 1,358 parts per million sodium and potassium; 192 parts per million calcium; 19 parts per million magnesium; 440 parts per million chloride; no hydrogen sulfide; 305 parts per million bicarbonate; 2,540 parts per million sulfate.

Q In your opinion, the chloride content of this, and taking into consideration that the water has been disposed in this pit for a number of years, ten years, do you think it has had any effect on the chloride content of this open pit?

A No, sir, I do not.

Q What is the depth of your wells, do you have a record of any of the wells in that area?

A Yes, sir. This exhibit is a record, the well record of one of the wells, which is typical of the other three.

Q What is the total depth of the sand and gravel area of that well?

A The surface beds, 222 feet.

Q Now, would you also for the benefit of the Commission -- have you been to the wells?

A Yes, sir.

Q Will you tell them what type of country that is, and what type of vegetation, and what this part of New Mexico looks like?

A Well, it is, I guess you would describe it as being a fairly arid area, not much vegetation.

Q Any agricultural development around this area?

A I do not see any. I do not believe so.

Q What is the closest windmill to the area that you know of?

A I couldn't get across to it to measure the actual mileage, but it looked to be about three miles in an east-south-east direction.

Q Did you have a chance to examine the water content of that well?

A No.

Q And you do not know the depth of that well?

A No. It would be above this 222 feet, I imagine.

Q Now, considering the production from these wells, and the amount of water that is being disposed of, would it be economically feasible, in your opinion, to dispose of this water in any other manner?

A No, sir, it would not be economical.

Q Approximately what would it cost to tank that, or to take that water out of the area?

A We are estimating the cost of hauling water at about 35 cents a barrel. I think probably it might run a little more, because hauling the oil cut costs 55 cents a barrel.

Q Is it possible to put that water back into any of those abandoned wells?

A No, sir, they have all been plugged in such a manner that they cannot be reentered, economically reentered.

Q Because of the flow of water from these wells, would it be possible, in your opinion, or feasible to have it disposed of in a lined tank?

A No, sir, I do not. We still have to have a tremendous pit, or still have to have water hauled out.

Q In your opinion, based on your knowledge of the area

and your training, do you think that it would be economical or feasible to continue the operation of these wells unless an exception is made to the existing order of the Oil Conservation Commission?

A. No, sir, I don't. The wells are marginal now, as you can see, low, low marginal, and I think that is a correct statement.

MR. NEAL: Are there any questions the Commission has?

MR. NUTTER: Any questions?

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Sikes, it has been reported to me that there are two wells located in Section 27, which would be some mile or mile and a half southeast from the area under question here. There is a topographical feature south of this pool known as Owl Draw, and apparently these wells are in or near this Owl Draw.

Now, do you know anything about these wells in Section 27?

A This open hole pit that I was telling you earlier is right in the base of this draw, and El Paso Natural Gas Company dug this out, I suppose to procure fresh water in their drilling operation of a deep test there in the northwest corner

of 21, and left it there for the cattle, and the water does stand in this pit.

Q There is a windmill there?

A No, sir, it is just an open pit, and it is surface water. It just keeps it full. It is not rainwater. It is my understanding there has been as high as three years without rain, and there is still open water in this pit.

Q This is down in Owl Draw?

A Yes, it is in the base of this draw. The only windmill, Mr. Nutter, that I saw was the one at the ranch house, and I thought it was a little farther than that.

Q Mr. Sikes, I hand you what is a State Highway Quadrangle map, and it would appear that in Section 27 there would be two windmills located in that Section, and that also in Section 29 there would be a windmill which would be approximately a mile and a half to the south, southwest. Are those windmills in existence at this time?

A I didn't see them, Mr. Nutter, if they are there.

Q So, to your knowledge, you don't know whether there is any windmill there producing water of usable character?

A I sure don't.

Q Now, this analysis that you gave us, is this the analysis of the natural water that stands in the tank in Owl Draw?

A Yes, sir.

Q Again referring to the map, there would appear to be a windmill approximately four miles east.

A This would be east, and it looked like a little south on the location there. That could be it, though.

Q Do you know the source of water for that house?

A There is a windmill at the house, but I don't have any information on it.

MR. NUTTER: Thank you.

CROSS EXAMINATION

BY MR. STAMETS:

Q Mr. Sikes, I have some indication that there is a windmill in the southwest quarter of the southwest quarter of Section 22, Township 26 South, Range 27 East, which would be, oh, within a mile and a half of your disposal pit.

Do you have any information on that?

A No, sir, I do not.

Q I don't want to get to where I am testifying here, but I have an analysis here --

MR. PORTER: You already have.

Q I have an analysis before me on that particular windmill which shows chlorides on the order of 1,400 parts per million.

If this well is producing out of the same general section that we are talking about, this stock water tank, would this possibly be an indication that there is some contamination, but it is at a lower level than you find in this dug pit?

A I think it could be, yes. I sure couldn't deny it. It appears that this water in our pit, or this company has been using this open pit for about ten years, and it just looked to me like it would come right on down that draw from a topographic standpoint, to the south or southeast, but it is possible that it would go to the east. But I didn't have any information on that well.

Q In your picture of the pit, the pit is dry.

A Yes, sir.

Q Is there a hole right there below the drain line where this water disappeared?

A Not right below it. It is out about ten feet or so. It is taking water real good.

MR. STAMETS: I believe that is all the questions I have.

MR. PORTER: Does anyone else have a question?

Mr. Stamets, I believe, has visited the area.

Mr. Stamets, do you have any information on the specific

location of these wells, and the depths of the water, and so forth?

MR. STAMETS: I have been into the area, and as I drove in, I observed both right and left, and the only windmill I saw was this one I spoke of as being in the southwest quarter of the southwest quarter of Section 22. I do not have any information at this time as to the depth of this well. I also felt that the company representative would likely have very detailed information, and there was no need to duplicate this. However, I did take a water sample, and it has been analyzed.

MR. PORTER: Mr. Stamets, we are going to ask you to take the stand.

R. L. STAMETS

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

DIRECT EXAMINATION

BY MR. NUTTER:

Q Mr. Stamets, would you just proceed to tell us what you know about the area, what your examination of the premises revealed?

A Yes, sir. After the application was filed, I made a trip into this area. As I say, I just drove down the road which

roughly parallels this Owl Draw which has been spoken of previously. Owl Draw drains generally from the west to the east into the Pecos River. It is very desolate country, very dry country.

As I said before, I looked on both sides of the road as I went in, and I saw no windmills. It doesn't mean that there aren't some someplace on the other side of the hill, but generally in the distance as you could see there are no windmills. I drove into the pool and went by the tank battery, and very hurriedly took a water sample. I went out to where the water was draining into the pit, and at the end there was a large hole about three feet in diameter, and by throwing a rock in, I would estimate it to be about twelve feet deep. I was a little leery about walking out there and putting my bottle in, but I finally managed to get a sample.

Then I went around and generally surveyed the wells, and on the way out I could see what I thought was a fine ranch house down the pike a little bit, so I made a left hand turn and started to the east, and came upon this old abandoned ranch house. Apparently, it has been occupied in recent years, but the general appearance indicates that the last two or three years it is likely that it has not been occupied. I did find a windmill there, which was supplying water for stock in the area,

and I took a sample of this water.

Then I made my way on back, and the Commission's office here in Hobbs has analyzed both the water samples.

Q Would you care to put that into the record?

A Yes, sir. We have extra copies of these available, I am sure.

Q This is an analysis of the water found where?

A The first one is the produced water from the Welch Delaware Pool. It has total dissolved solids of 22,320 parts per million; chlorides, 9,050 parts per million; sulfates, 36 parts per million.

The second sample was taken at the water well in Unit M, Section 22, Township 26 South, Range 27 East. Total dissolved solids, 5,670 parts per million; chlorides, 1,420 parts per million; and sulfates, 2,240 parts per million.

If you will notice the high sulfate content here correlates with the water sample presented by Mr. Sikes from the dug pit. However, you will also notice that the chlorides are considerably higher than the chlorides reported on the previous sample. Now, this could be for a number of reasons, but there is an indication here that at least at some lower depth than this pit, there is a higher concentration of chlorides.

MR. NEAL: I don't understand that. Which pit, the

bottom of the --

A The dug pit in the bottom of Owl Draw. I did see this pit, and I assumed it was just a stock tank that had been dug there, and didn't stop to take a water sample. This is very good information that you have on that.

MR. NEAL: You were there, I presume, prior to the time of the building of the new pit, disposal pit? Have you seen the exhibit of the Commission, the picture, the big hole we talked about? It has since been repaired, I believe.

A I couldn't see the big hole until I got right up there. I do see some evidence of work being done. This type thing is not unusual in this area. I have seen it at other pits, and I would assume -- this is theoretical, of course -- I would assume that after a period of time that the hole would reappear. That would be my analysis of the situation.

MR. NEAL: That is all.

MR. PORTER: Does anyone have any further questions of Mr. Stamets?

Incidentally, let the record show that Mr. Stamets is the geologist with the Oil Conservation Commission in the District of Artesia, and the Commission does consider him qualified. You are free to ask him any questions that you would like to.

Mr. Stamets, what was the nearest fresh water that you found to the well, or usable water to the disposal pit? Do you know whether it was usable or not?

MR. STAMETS: Do you mean for human consumption or stock water?

MR. PORTER: Well, either one.

MR. STAMETS: Well, I would say that the dug pit that Mr. Sikes talks about is on the order of three-quarters of a mile immediately south, and somewhat lower than the disposal pit.

MR. NUTTER: Did you measure that distance, Mr. Sikes?

MR. SIKES: Yes, it is 1.7 miles. It didn't look like it was that far, but it was.

MR. PORTER: Is that in the direction of drainage, surface drainage from the pit area?

MR. SIKES: It appeared to be, yes. It is in the base of the draw. It all runs a little to the east of that, to the south and east.

MR. PORTER: Does anyone else have a question?

MR. NEAL: We would like to offer our exhibits into evidence.

MR. NUTTER: Mr. Neal, could you designate those by number?

MR. NEAL: Yes, I would designate the plat as Number 1; and the first, the 12,000 chloride content of the pit water, that would be Number 2; and the analysis of the open tank would be Number 3; the well record would be Number 4; and we can make the photograph Number 5.

MR. PORTER: If there is no objection, the exhibits will be admitted.

(Whereupon, Applicant's Exhibits Numbers 1 through 5, inclusive, were marked for identification, and received in evidence.)

MR. NEAL: If you would like further sampling of that windmill, we will attempt to do that.

MR. NUTTER: I believe it would be helpful if we could get that.

MR. NEAL: All right, sir.

MR. PORTER: If there is nothing further, we will take the case under advisement. At this time, we will recess for lunch.

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EXHIBITS

MARKED

OFFERED AND
ADMITTED

Applicant's Exhibits
Numbers 1 through 5,
inclusive

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STATE OF NEW MEXICO)
) ss.
COUNTY OF BERNALILLO)

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


COURT REPORTER



OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

P. O. BOX 2088 - SANTA FE

87501

GOVERNOR
DAVID F. CARGO
CHAIRMAN

LAND COMMISSIONER
ALEX J. ARMIJO
MEMBER

STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

May 8, 1969

Mr. C. Fincher Neal
Neal & Neal
Attorneys at Law
Post Office Box 278
Hobbs, New Mexico 88240

Re: Case No. 4100

Order No. R-3747

Applicant:

J. M. C. Ritchie

Dear Sir:

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

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Copy of order also sent to:

Hobbs OCC x

Artesia OCC x

Aztec OCC

Other State Engineer Office

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. 4100
Order No. R-3747

APPLICATION OF J. M. C. RITCHIE
FOR AN EXCEPTION TO ORDER NO.
R-3221, AS AMENDED, EDDY COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on April 16, 1969, at Hobbs, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 5th day of May, 1969, 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 the applicant, J. M. C. Ritchie, is the owner and operator of four wells located in Sections 16, 20, and 21 of Township 26 South, Range 27 East, NMPM, Welch-Delaware Pool, Eddy County, New Mexico.

(3) That effective January 1, 1969, Order (3) of Commission Order No. R-3221, as amended, prohibits in that area encompassed by Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico, the disposal, subject to minor exceptions, of water produced in conjunction with the production of oil or gas, or both, on the surface of the ground, or in any pit, pond, lake, depression, draw, streambed, or arroyo, or in any watercourse, or in any

CASE No. 4100
Order No. R-3747

other place or in any manner which would constitute a hazard to any fresh water supplies and said disposal has not previously been prohibited.

(4) That the aforesaid Order No. R-3221 was issued in order to afford reasonable protection against contamination of fresh water supplies designated by the State Engineer through disposal of water produced in conjunction with the production of oil or gas, or both, in unlined surface pits.

(5) That the State Engineer has designated, pursuant to Section 65-3-11 (15), N.M.S.A., 1953 Compilation, all underground water in the State of New Mexico containing 10,000 parts per million or less of dissolved solids as fresh water supplies to be afforded reasonable protection against contamination; except that said designation does not include any water for which there is no present or reasonably foreseeable beneficial use that would be impaired by contamination.

(6) That the applicant seeks an exception to the provisions of the aforesaid Order (3) to permit the continued disposal of salt water, produced by applicant's four wells located in said Sections 16, 20, and 21, in an unlined surface pit located in the NW/4 of said Section 21.

(7) That the applicant is presently disposing of approximately 90 barrels of water per day in the subject pit.

(8) That there is shallow fresh water in the area as evidenced by a fresh water spring approximately 1.7 miles southeast of the subject pit.

(9) That the surface and subsurface drainage appears to be from the subject pit in a southeasterly direction.

(10) That fresh water supplies as designated by the State Engineer exist within a radius of 1.7 miles from the subject pit.

(11) That the applicant has failed to establish that continued disposal of water produced in conjunction with the production of oil or gas, or both, by the subject wells in the subject unlined surface pit would not constitute an additional threat of contamination of fresh water supplies existing in the vicinity of said pit.

-3-

CASE No. 4100
Order No. R-3747

(12) That the subject application should be denied.

IT IS THEREFORE ORDERED:


- (1) That the subject application is hereby denied.
- (2) 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


DAVID F. CARGO, Chairman


ALEX J. ARMILLO, Member


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

esr/

C. MELVIN NEAL (1907-1968)
J. W. NEAL
C. FINCHER NEAL

NEAL & NEAL
LAWYERS
NEAL BUILDING - P. O. BOX 278
HOBBS, NEW MEXICO
88240

TELEPHONE
AREA 505 393-5171

APR 28 AM 7 18

April 26, 1969

Oil Conservation Commission
State Capitol
Santa Fe, New Mexico 87501

Attention: Mr. Pete Porter

RE: CASE NO. 4100, APPLICATION OF JAMES C. RITCHIE
FOR EXEMPTION TO ORDER R-3221, AS AMENDED.

Gentlemen:

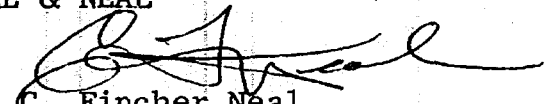
In regard to the above styled case, please find enclosed
Water Analysis by the Western Company, Service Laboratory,
which we request be considered as Applicant's Exhibit "7".

Thank you.

Very truly yours,

NEAL & NEAL

BY:


C. Fincher Neal

CFN/n
Encls.

SAMPLE NO. _____

THE WESTERN COMPANY
Service Laboratory

APR 28 AM 7 19

WATER ANALYSIS

Operator J. M. C. Ritchie

Date Sampled

Well Welch Unit

Date Received

4-19-69

Field

Submitted by

Kermit District

Formation

Worked by

Koehl

Depth

Other Description

Water well @ Ranch Hse.
Approximately 2 miles
S. E. Lease

County

CHEMICAL DETERMINATIONS

Density 1.000 @ 75°F

pH 8.1

Iron Very Faint Trace

Hydrogen Sulfide None

Sodium and Potassium 3,090 ppm

Bicarbonate 354 ppm

Calcium 544 ppm

Sulfate 7,500 ppm

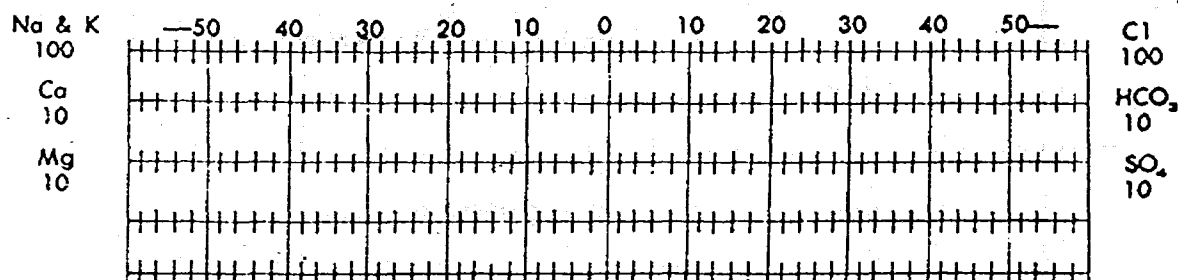
Magnesium 452 ppm

Phosphate ppm

Chloride 1,320 ppm as Sodium Chloride ppm

Remarks:

for Stiff type plot (in meq./l.)



Per _____

SAMPLE NO. _____

THE WESTERN COMPANY
Service Laboratory

MAIN CITY
APR 28 AM 7 18

WATER ANALYSIS

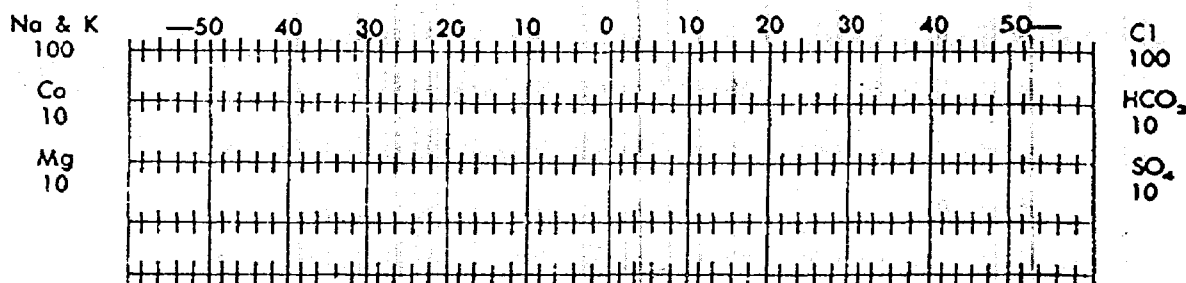
| | |
|-----------|--|
| Operator | Date Sampled |
| Well | Date Received |
| Field | Submitted by |
| Formation | Worked by |
| Depth | Other Description |
| County | Humble Service Station Mentone, Texas |

CHEMICAL DETERMINATIONS

| | | | |
|----------------------|--------------|--------------------|-----------|
| Density | 1.000 @ 75°F | pH | 7.9 |
| Iron | No Trace | Hydrogen Sulfide | None |
| Sodium and Potassium | 635 ppm | Bicarbonate | 281 ppm |
| Calcium | 655 ppm | Sulfate | 2,470 ppm |
| Magnesium | 262 ppm | Phosphate | ppm |
| Chloride | 1,000 ppm | as Sodium Chloride | ppm |

Remarks:

for Stiff type plot (in meq./l.)



Per _____

SAMPLE NO. _____

THE WESTERN COMPANY
Service Laboratory

APR 28 AM 7 18

WATER ANALYSIS

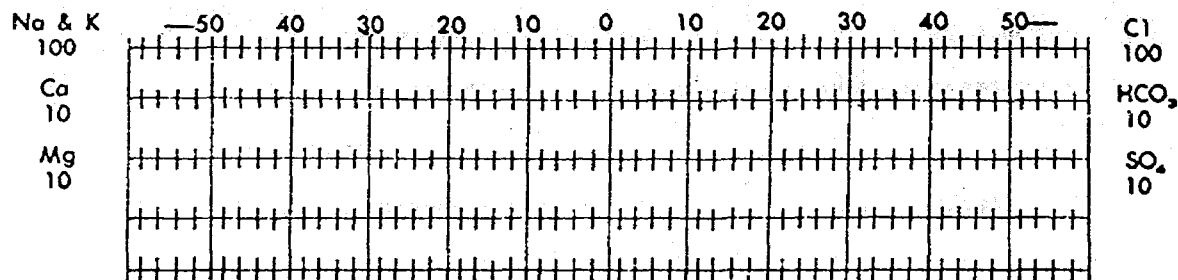
| | | | |
|-----------|------------------|-------------------|---|
| Operator | J. M. C. Ritchie | Date Sampled | |
| Well | Welch Unit | Date Received | 4-19-69 |
| Field | | Submitted by | Kermit District |
| Formation | | Worked by | Koehl |
| Depth | | Other Description | Sample from Spring |
| County | | | Fed Stream - approximately 2 miles S. W. Lease |

CHEMICAL DETERMINATIONS

| | | | |
|----------------------|--------------|--------------------|-----------|
| Density | 1.000 @ 75°F | pH | 7.8 |
| Iron | No Trace | Hydrogen Sulfide | None |
| Sodium and Potassium | 186 ppm | Bicarbonate | 85 ppm |
| Calcium | 616 ppm | Sulfate | 2,070 ppm |
| Magnesium | 218 ppm | Phosphate | ppm |
| Chloride | 432 ppm | as Sodium Chloride | ppm |

Remarks:

for Stiff type plot (in meq./l.)



Per _____

C. MELVIN NEAL (1907-1966)
J. W. NEAL
C. FINCHER NEAL

NEAL & NEAL
LAWYERS
NEAL BUILDING - P. O. BOX 278
HOBBS, NEW MEXICO
88240

April 22, 1969

TELEPHONE
AREA 505 393-5171

69 APR 24 PM 1 15

ma

Oil Conservation Commission
State Capitol
Santa Fe, New Mexico 87501

Attention: Mr. Pete Porter

RE: CASE NO. 4100, APPLICATION OF JAMES C. RITCHIE
FOR EXEMPTION TO ORDER R-3221, AS AMENDED.

Gentlemen:

In regard to the above styled case, please find enclosed three copies of Waiver signed by Dale Willhoit, land owner and lessee of the land surface in the area of the J.M.C. Ritchie Lease located in SECTION 16, TOWNSHIP 26 SOUTH, RANGE 27 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO, wherein he does not have objections to the granting of the exemption to Order R-3221.

I have also had the pumper to check again for the windmill reported by the commission geologist as being closer than the windmill at the house. He has checked thoroughly in every direction and was unable to find a producing windmill closer than the one at the ranch house. We obtained a sample of water from this well and also one of a pit to the West which are being tested by the laboratory and will be sent to the Commission when received.

I would request that the enclosed Waiver be made a part of the record of Application as Exhibit "6".

Kind personal regards.

Yours very truly,

NEAL & NEAL

BY: *C. Fincher Neal*
C. Fincher Neal

CFN/n
Encls.

W A I V E R

Oil & Gas Commission
Box 1980
Hobbs, New Mexico

As land owner or lessee of the land surface in the
area of the J.M.C. Ritchie Welch Unit Lease, located in
Section 16, T-26S, R-27E, NMPH, Eddy County, New Mexico,
I have no objection to the granting by the Commission of
an exemption to Order R-3221.

Dale Trechoit
Date: 4-17-69

MAILED
'69 APR 24 PM 1 15

*Welch Delaware
CASE
File*

NEW MEXICO
OIL CONSERVATION COMMISSION

MAILED
'69 MAR 28 AM 9 18

FIELD TRIP REPORT

Date 3/25/69

Name of Employee R. L. Stamets

Time of Departure 8:30 a.m. Time of Return 5:10 p.m.

Miles Travelled 207

In the space below please indicate purpose of trip and duties performed, listing wells or leases visited.

To Eddy County to check water production. Welch Delaware Pool,
T26S-R27E. Wells producing on gas engine pumps 24 hours a day
according to the pumper. Water was going to the pit at the rate
of one gallon in 18 seconds or 110 BWPD. The water goes into a
hole in the pit about 3 feet in diameter, 12 feet deep and goes
underground immediately. Took water sample. There is a dug stock
tank in Owl Draw about 1.5 miles south of the tank battery and a
windmill in the SW SW 22-26-27. The windmill is at an abandoned
ranch house and is currently supplying stock water. A sample was
taken. No other windmills or stock tanks were seen.

Continued:

R. L. Stamets
Employee's Signature
District # 2

The El Paso Compressor Station in 12-26-28, gets its water supply from two wells of unknown depth in NW 8-26-30. They furnish volumes of from 0.5 to 1.2 million gallons per month for El Paso and two or three ranches.

Brushy Draw-Delaware Pool. Checked 7 wells for Curtis Hankamer. They were making from 1.5 to 49 BWPB to the pits. The high producers will be cancelled.

Pecos Delaware Pool 34-26-29. George H. Mitchell, Littlefield BO Fed. the well flows "on the clock" which appears to be set for 4 one hour flows per day. The well was on a SI cycle while I was there and the pit was virtually dry. There was some water in two pits on the west side of the main pit. This appeared to be rain water off the location.

Ford Chapman, Gulf Pipkin Federal #1-H, 36-26-29. The well is and has been for some time SI. The pump sheaves are rusty. A 30 X 30 pit at the battery appears to have a foot or two of water in it along with some oil. The leases immediately to the south in Texas are being produced and the water, about 34 BPD in one case, is going to unlined pits. There is some farming in the area north of the pool. The water source is unknown at this time. We will check.

Docket No. 11-69

DOCKET: REGULAR HEARING - WEDNESDAY - APRIL 16, 1969

OIL CONSERVATION COMMISSION - 9 A.M. THE HOLIDAY INN, 200 SOUTH LINAM,
HOBBS, NEW MEXICO

- ALLOWABLE: (1) Consideration of the oil allowable for May, 1969.
- (2) Consideration of the allowable production of gas for May, 1969, from thirteen prorated pools in Lea, Eddy, and Roosevelt Counties, New Mexico. Consideration of the allowable production of gas from nine prorated pools in San Juan, Rio Arriba and Sandoval Counties, New Mexico, for May, 1969.

CASE 4099: Application of Joseph L. Dunigan for an exception to Order No. R-3221, as amended, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Order No. R-3221, as amended, which order prohibits the disposal of water produced in conjunction with the production of oil on the surface of the ground in Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico, after January 1, 1969. Said exception would be for the Sudderth and Hicks Vickers Well No. 1 located in Unit A of Section 23, Township 20 South, Range 28 East, Russell (Yates) Pool, Eddy County, New Mexico. Applicant seeks authority to continue to dispose of produced salt water in an unlined surface pit located near said well.

CASE 4100: Application of J. M. C. Ritchie for an exception to Order No. R-3221, as amended, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Order No. R-3221, as amended, which order prohibits the disposal of water produced in conjunction with the production of oil on the surface of the ground in Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico, after January 1, 1969. Said exception would be for four wells located in Sections 16, 20 and 21 of Township 26 South, Range 27 West, Welch-Delaware Pool, Eddy County, New Mexico. Applicant seeks authority to continue to dispose of salt water produced by the four wells in unlined surface pits.

CASE 4101: Application of George H. Mitchell for an exception to Order No. R-3221, as amended, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Order No. R-3221, as amended, which order prohibits the disposal of water produced in conjunction with the production of oil or gas or both, on the surface of the ground in Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico, after January 1, 1969. Said exception would be for all wells producing from the Pecos-Delaware Pool, Eddy County, New Mexico. Applicant seeks authority for the operators of said wells to continue to dispose of produced water in unlined surface pits servicing said wells.

CASE 4102: Application of W. H. McKinley for an exception to Order No. R-3221, as amended, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Order No. R-3221, as amended which order prohibits the disposal of water produced in conjunction with the production of oil or gas, or both, on the surface of the ground in Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico, after January 1, 1969. Said exception would be for the applicant's lease covering the SE/4 of Section 1, Township 17 South, Range 30 East, Square Lake Grayburg-San Andres Pool, Eddy County, New Mexico. Applicant seeks authority to continue to dispose of salt water produced by the wells on said lease in unlined surface pits.

CASE 4103: Application of New Mexico Salt Water Disposal Company, Inc., for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Queen and Penrose formations in the perforated interval from approximately 4823 feet to 5146 feet in the Charles B. Read Atlantic Richfield Well No. 2 located 660 feet from the South and West lines of Section 13, Township 19 South, Range 34 East, Quail-Queen Pool, Lea County, New Mexico.

CASE 4104: In the matter of the hearing called by the Oil Conservation Commission upon its own motion to consider the adoption of an administrative procedure whereby the Secretary-Director of the Commission could grant exceptions to Rule 303 (a) of the Commission Rules and Regulations and permit marginal zones in dually completed oil wells to be commingled in the well-bore provided waste would not result thereby, provided dual-flow down-hole choke assemblies or other acceptable mechanical devices were installed, and provided that the total production from both zones would not exceed top allowable for the uppermost zone. Further, to consider an administrative procedure to permit down-hole commingling of low marginal wells approaching their economic limit without the installation of the above-mentioned down-hole equipment.

CASE 4105: Southeastern nomenclature case calling for an order for the creation and extension of certain pools in Lea, Eddy, Chaves and Roosevelt Counties, New Mexico:

(a) Create a new pool in Lea County, New Mexico, classified as an oil pool for San Andres production and designated as the Cormac-San Andres Pool comprising the following:

TOWNSHIP 10 SOUTH, RANGE 33 EAST, NMPM
Section 17: NE/4

Further, for the assignment of approximately 22,040 barrels of oil discovery allowable to the discovery well Corinne Grace's T. P. State Well No. 1 located in Unit A of said Section 17.

(b) Create a new pool in Eddy County, New Mexico, classified as a gas pool for Morrow production and designated as the South Carlshad-Morrow Gas Pool. The discovery well is Pennzoil United, Inc., Mobil 12 Federal No. 1 located in Unit G of Section 12, Township 23 South, Range 26 East, NMPM. Said pool should comprise:

TOWNSHIP 23 SOUTH, RANGE 26 EAST, NMPM
SECTION 12: N/2

(c) Create a new pool in Lea County, New Mexico, classified as an oil pool for Delaware production and designated as the Lusk-Delaware Pool. The discovery well is Pan American Petroleum Corporation, Plains Unit Federal No. 7 located in Unit D of Section 33, Township 19 South, Range 32 East. Said pool should comprise:

TOWNSHIP 19 SOUTH, RANGE 32 EAST, NMPM
SECTION 33: NW/4

(d) Extend the East Bluitt-San Andres Pool in Roosevelt County, New Mexico, to include therein:

TOWNSHIP 8 SOUTH, RANGE 37 EAST, NMPM
SECTION 13: SW/4

TOWNSHIP 8 SOUTH, RANGE 38 EAST, NMPM
SECTION 18: NW/4

(e) Extend the South Corbin-Morrow Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 33 EAST, NMPM
SECTION 29: W/2

(f) Extend the Drinkard Pool in Lea County, New Mexico, to include therein:

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SECTION 25: NW/4

(g) Extend the Hobbs-Blinbry Pool in Lea County, New Mexico, to include therein:

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SECTION 29: SW/4

(h) Extend the Imperial Tubb-Drinkard Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 37 EAST, NMPM
SECTION 21: E/2
SECTION 27: SW/4
SECTION 28: E/2
SECTION 33: NE/4

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

TOWNSHIP 17 SOUTH, RANGE 33 EAST, NMPM
SECTION 9: SE/4

(j) Extend the South Prairie-Devonian Pool in Roosevelt County, New Mexico, to include therein:

TOWNSHIP 8 SOUTH, RANGE 36 EAST, NMPM
SECTION 26: W/2 NE/4

(k) Extend the Sulimar-Queen Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 15 SOUTH, RANGE 29 EAST, NMPM
SECTION 24: S/2 NE/4

(l) Extend the Teague-Blinebry Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 37 EAST, NMPM
SECTION 33: SE/4

(m) Extend the Vada-Pennsylvanian Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 9 SOUTH, RANGE 33 EAST, NMPM
SECTION 36: E/2

TOWNSHIP 9 SOUTH, RANGE 34 EAST, NMPM
SECTION 31: SW/4
SECTION 34: NW/4

TOWNSHIP 10 SOUTH, RANGE 33 EAST, NMPM
SECTION 1: NE/4

TOWNSHIP 10 SOUTH, RANGE 34 EAST, NMPM
SECTION 5: NE/4

(n) Extend the Wantz-Abo Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 37 EAST, NMPM
SECTION 1: S/2

TOWNSHIP 21 SOUTH, RANGE 38 EAST, NMPM
SECTION 6: SW/4
SECTION 18: NW/4

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPM
SECTION 1: S/2

TOWNSHIP 22 SOUTH, RANGE 38 EAST, NMPM
SECTION 6: S/2
SECTION 7: NW/4

Docket No. 11-69

DOCKET: REGULAR HEARING - WEDNESDAY - APRIL 16, 1969

OIL CONSERVATION COMMISSION - 9 A.M. THE HOLIDAY INN, 200 SOUTH LINAM,
HOBBS, NEW MEXICO

- ALLOWABLE: (1) Consideration of the oil allowable for May, 1969.
- (2) Consideration of the allowable production of gas for May, 1969, from thirteen prorated pools in Lea, Eddy, and Roosevelt Counties, New Mexico. Consideration of the allowable production of gas from nine prorated pools in San Juan, Rio Arriba and Sandoval Counties, New Mexico, for May, 1969.

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Application of George H. Mitchell for an exception to Order No. R-3221, as amended, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Order No. R-3221, as amended, which order prohibits the disposal of water produced in conjunction with the production of oil or gas or both, on the surface of the ground in Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico, after January 1, 1969. Said exception would be for all wells producing from the Pecos-Delaware Pool, Eddy County, New Mexico. Applicant seeks authority for the operators of said wells to continue to dispose of produced water in unlined surface pits servicing said wells.

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TOWNSHIP 10 SOUTH, RANGE 33 EAST, NMPM
Section 17: NE/4

Further, for the assignment of approximately 22,040 barrels of oil discovery allowable to the discovery well Corinne Grace's T. P. State Well No. 1 located in Unit A of said Section 17.

(b) Create a new pool in Eddy County, New Mexico, classified as a gas pool for Morrow production and designated as the South Carlsbad-Morrow Gas Pool. The discovery well is Pennzoil United, Inc., Mobil 12 Federal No. 1 located in Unit G of Section 12, Township 23 South, Range 26 East, NMPM. Said pool should comprise:

TOWNSHIP 23 SOUTH, RANGE 26 EAST, NMPM
SECTION 12: N/2

(c) Create a new pool in Lea County, New Mexico, classified as an oil pool for Delaware production and designated as the Lusk-Delaware Pool. The discovery well is Pan American Petroleum Corporation, Plains Unit Federal No. 7 located in Unit D of Section 33, Township 19 South, Range 32 East. Said pool should comprise:

TOWNSHIP 19 SOUTH, RANGE 32 EAST, NMPM
SECTION 33: NW/4

(d) Extend the East Bluitt-San Andres Pool in Roosevelt County, New Mexico, to include therein:

TOWNSHIP 8 SOUTH, RANGE 37 EAST, NMPM
SECTION 13: SW/4

TOWNSHIP 8 SOUTH, RANGE 38 EAST, NMPM
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SECTION 29: W/2

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SECTION 25: NW/4

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SECTION 27: SW/4
SECTION 28: E/2
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SECTION 24: S/2 NE/4

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(m) Extend the Vada-Pennsylvanian Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 9 SOUTH, RANGE 33 EAST, NMPM
SECTION 36: E/2

TOWNSHIP 9 SOUTH, RANGE 34 EAST, NMPM
SECTION 31: SW/4
SECTION 34: NW/4

TOWNSHIP 10 SOUTH, RANGE 33 EAST, NMPM
SECTION 1: NE/4

TOWNSHIP 10 SOUTH, RANGE 34 EAST, NMPM
SECTION 5: NE/4

(n) Extend the Wantz-Abo Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 37 EAST, NMPM
SECTION 1: S/2

TOWNSHIP 21 SOUTH, RANGE 38 EAST, NMPM
SECTION 6: SW/4
SECTION 18: NW/4

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPM
SECTION 1: S/2

TOWNSHIP 22 SOUTH, RANGE 38 EAST, NMPM
SECTION 6: S/2
SECTION 7: NW/4

WATER ANALYSIS

#1 -- Welch-Delaware Pool, T26S-R27E
Produced Water

| | | |
|------------------------|---|------------|
| Specific Conductance | = | 24,000 m/ |
| Total Dissolved Solids | = | 22,320 PPM |
| Chlorides | = | 9,050 PPM |
| Sulphates | = | 36 PPM |

#2 -- Stock Tank Well Unit M, Section 22, T26S, R27E

| | | |
|------------------------|---|-----------|
| Specific Conductance | = | 6,100 m/ |
| Total Dissolved Solids | = | 5,670 PPM |
| Chlorides | = | 1,420 PPM |
| Sulphates | = | 2,240 PPM |

Sample #2 - Well produces from the gypsum beds of Castile formation.

Sulphate correct. Mr. Jim Wright, State Engineer's Office, Roswell, New Mexico, pulled card on their nearest recorded water well in Section 14, T26S, R27E. It ran 2,300 PPM Sulphate.

J. W. R.

WATER ANALYSIS

#1 Windmill NW - 35-17-29

| | | |
|------------------------|---|------------|
| Specific Conductance | = | 13,600 m/ |
| Total Dissolved Solids | = | 12,650 PPM |
| Chlorides | = | 4,400 PPM |
| Sulphates | = | 460 PPM |

#2 Windmill H - 27-20-28

| | | |
|------------------------|---|-----------|
| Specific Conductance | = | 2,600 m/ |
| Total Dissolved Solids | = | 2,420 PPM |
| Chlorides | = | 92 PPM |
| Sulphates | = | 500 PPM |

#3 Russell Pool - House well E - 13-20-28

| | | |
|------------------------|---|-----------|
| Specific Conductance | = | 3,700 m/ |
| Total Dissolved Solids | = | 3,440 PPM |
| Chlorides | = | 608 PPM |
| Sulphates | = | 480 PPM |

Water of all three samples apparently produces from a water formation high in gypsum.

Samples #1 and #3 appear to be contaminated by chlorides, that is, in comparison to Sample #2 which has only 92 PPM Chlorides.

J. W. R.
NMCCC - Hobbs

[illegible]

SAMPLE NO. _____

THE WESTERN COMPANY
Service Laboratory

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

app. Exhibit No. 2
Case No. 4100

WATER ANALYSIS

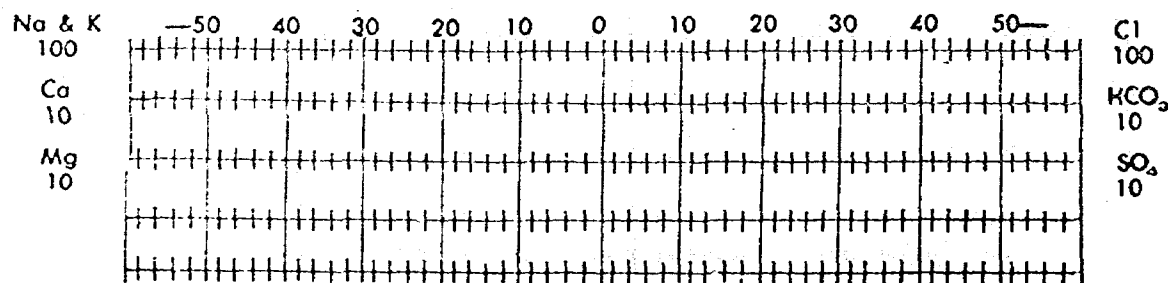
| | | | |
|-----------|------------------|-------------------|-----------------|
| Operator | J. M. C. Ritchie | Date Sampled | 3-7-69 |
| Well | Welch Unit | Date Received | 3-11-69 |
| Field | | Submitted by | Kermit District |
| Formation | Delaware | Worked by | Jones |
| Depth | 2200' | Other Description | Pit Water |
| County | Eddy, N. M. | | |

CHEMICAL DETERMINATIONS

| | | | |
|----------------------|------------------|--------------------|---------|
| Density | 1.020 @ 72°F | pH | 8.0 |
| Iron | Very Faint Trace | Hydrogen Sulfide | None |
| Sodium and Potassium | 7,500 ppm | Bicarbonate | 440 ppm |
| Calcium | 200 ppm | Sulfate | 20 ppm |
| Magnesium | 92 ppm | Phosphate | ppm |
| Chloride | 12,000 ppm | as Sodium Chloride | ppm |

Remarks:

for Stiff type plot (in meq./l.)



SAMPLE NO. _____

THE WESTERN COMPANY
Service Laboratory

*Tank in
Draw*

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

Exhibit No. 3

Case No. _____

WATER ANALYSIS

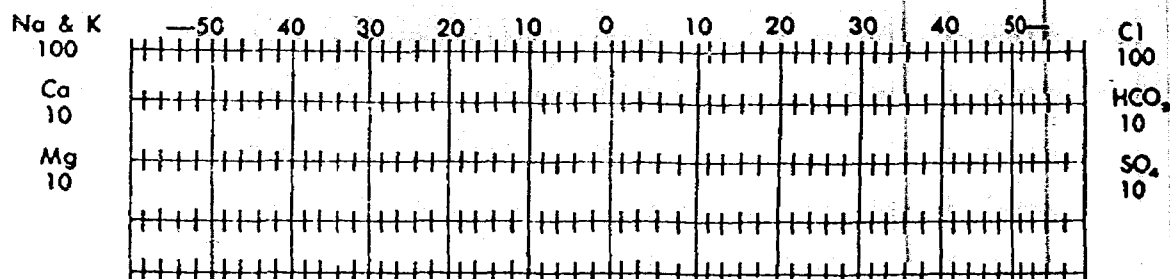
| | | | |
|-----------|------------------|-------------------|-----------------|
| Operator | J. M. C. Ritchie | Date Sampled | 3-7-69 |
| Well | Surface Tank | Date Received | 3-11-69 |
| Field | | Submitted by | Kermit District |
| Formation | | Worked by | Jones |
| Depth | | Other Description | |
| County | Eddy, N. M. | | |

CHEMICAL DETERMINATIONS

| | | | |
|----------------------|------------------|--------------------|-----------|
| Density | 1.010 @ 72°F | pH | 7.7 |
| Iron | Very Faint Trace | Hydrogen Sulfide | None |
| Sodium and Potassium | 1,358 ppm | Bicarbonate | 305 ppm |
| Calcium | 192 ppm | Sulfate | 2,540 ppm |
| Magnesium | 19 ppm | Phosphate | ppm |
| Chloride | 440 ppm | as Sodium Chloride | ppm |

Remarks:

for Stiff type plot (in meq./l.)



Per _____

Santa Fe, New Mexico

Exhibit No. 4 WELL RECORD
Case No. 4700

Mail to District Office, Oil Conservation Commission, to which Form C-101 was sent not later than twenty days after completion of well. Follow instructions in Rules and Regulations of the Commission. Submit in **QUINTUPLICATE**. If State Lead submit 6 Copies

AREA 640 NORTH
LOCATE WELL CURRENTLY

El Paso Natural Gas Company.
(Company or Operator)

Welch Unit
(L-100)

Well No. 3 in SW $\frac{1}{4}$ of SW $\frac{1}{4}$ of Sec. 16, T. 26 S., R. 27 E., NMPM.

Welch Delaware

Fool

Eddy

Country.

Well is 330 feet from South line and 990 feet from West line

of Section 16 If State Land the Oil and Gas Lease No. is E-1719-4

Drilling Commenced February 3, 1958 Drilling was Completed February 12, 1958

Name of Drilling Contractor.....Frontier Drilling Company

Address 20th Floor Wilco Building; Midland, Texas

Elevation above sea level at Top of Tubing Head..... 3250.8 The information given is to be kept confidential until
..... 19.....

OIL SANDS OR KOSTER

No. 1, from 2137 to 2147 (011) No. 4, from to

No. 2, from to No. 5, from to

No. 3, from to No. 6, from to

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in boiler.

No. 1, from to feet.

No. 2, from to Sect.

No. 3, from to of 1961.

No. 4, from to loc. 1

CASTING RECORD

| SIZE | WEIGHT PER FOOT | NEW OR USED | AMOUNT | KIND OF TISSUE | CUT AND FULLED FROM | PREPARATIONS | PURPOSE |
|-------|-------------------|-------------|--------|----------------|---------------------|--------------|------------|
| 8-5/8 | 24 3 | New | 238 | Guide | - | - | Surface |
| 5-1/2 | 15.5 5 | New | 2233 | Guide | - | 2137 - 2147 | Production |
| | | | | | | | |

MUDDING AND CEMENTING RECORD

| SIZE OF HOLE | SIZE OF CASING | WATER GSY | NO. BAGS OF CEMENT | METHOD USED | MUD GRAVITY | AMOUNT OF MUD USED |
|--------------|----------------|-----------|--------------------|-------------|-------------|--------------------|
| 11" | 8-5/8 | 238 | 150 | Pump & Plug | | |
| 7-7/8" | 5-1/2 | 2233 | 150 | Pump & Plug | | |
| | | | | | | |

RECORD OF PRODUCTION AND STIMULATION

(Record the Process used, No. of Qts. or Gals. used, interval treated or shot.)

Spotted 200 gallons acid at perforations 2137 - 2147. Treated thru perforations with 4000 gallons oil & 40000 sand.

Result of Production Stimulation

...Days Closed On... 2214'



if either of the above special tests or deviation surveys were made, submit report on separate sheet and attach here:

TOOLS USED

Rotary tools were used from Surface feet to 2236 feet, and from feet to feet
Cable tools were used from feet to feet, and from feet to feet

PRODUCTION

Put to Producing February 23, 19 58

OIL WELL: The production during the first 24 hours was 120 Barrels of liquid of which 50 % was
was oil; % was emulsion; 50 % water; and % was sediment. A.P.I.
Gravity 41.0

GAS WELL: The production during the first 24 hours was M.C.F. plus barrels of
Liquid Hydrocarbon. Shut in Pressure lbs.

Length of Time Shut in

PLEASE INDICATE BELOW FORMATION TOPS (IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE):

Southeastern New Mexico

Northwestern New Mexico

| | | |
|---|------------------------------|-------------------------------------|
| T. Anhy. <u>222</u> | T. Devonian <u> </u> | T. Ojo Alamo <u> </u> |
| T. Salt <u>1308</u> | T. Silurian <u> </u> | T. Kirtland-Fruitland <u> </u> |
| B. Salt <u>1889</u> | T. Montoya <u> </u> | T. Farmington <u> </u> |
| T. Perm. Del. Lime <u>2075</u> | T. Simpson <u> </u> | T. Pictured Cliffs <u> </u> |
| T. Perm. Del. Sand <u>2110</u> | T. McKee <u> </u> | T. Menefee <u> </u> |
| T. Queen <u> </u> | T. Ellenburger <u> </u> | T. Point Lookout <u> </u> |
| T. Grayburg <u> </u> | T. Gr. Wash. <u> </u> | T. Mancos <u> </u> |
| T. San Andres <u> </u> | T. Granite <u> </u> | T. Dakota <u> </u> |
| T. Glorieta <u> </u> | T. <u> </u> | T. Morrison <u> </u> |
| T. Drinkard <u> </u> | T. <u> </u> | T. Penn. <u> </u> |
| T. Tubbs <u> </u> | T. <u> </u> | T. <u> </u> |
| T. Abo <u> </u> | T. <u> </u> | T. <u> </u> |
| T. Penn. <u> </u> | T. <u> </u> | T. <u> </u> |
| T. Miss <u> </u> | T. <u> </u> | T. <u> </u> |

FORMATION RECORD

| From | To | Thickness in Feet | Formation | From | To | Thickness in Feet | Formation |
|------|------|----------------------|----------------------|------|----|----------------------|-----------|
| 0 | 222 | 222 | Sand, gravel, gypsum | | | | |
| 222 | 1308 | 1086 | Anhydrite lime | | | | |
| 1308 | 1500 | 192 | Salt limestone | | | | |
| 1500 | 1590 | 90 | Anhydrite | | | | |
| 1590 | 1889 | 299 | Salt | | | | |
| 1889 | 2075 | 186 | Anhydrite, lime | | | | |
| 2075 | 2110 | 35 | Lime, shaly sand | | | | |
| 2110 | 2236 | 126 | Sand, shale | | | | |
| | T.D. | | | | | | |

ATTACH SEPARATE SHEET IF ADDITIONAL SPACE IS NEEDED

I hereby swear or affirm that the information given herewith is a complete and correct record of the well and all work done on it so far
as can be determined from available records.

February 24, 1958

(Date)

Company or Operator El Paso Natural Gas Company

Address 2026 Wilco Building

Name Lloyd R. Baskin

Position or Title Drilling and Production Supt.

DRAFT

GMH/esr

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. 4100

Order No. R-3747

APPLICATION OF J. M. C. RITCHIE
FOR AN EXCEPTION TO ORDER NO.
R-3221, AS AMENDED, EDDY COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on April 16, 1969, at Hobbs, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 16 day of April, 1969, 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 the applicant, J. M. C. Ritchie, is the owner and operator of four wells located in Sections 16, 20, and 21 of Township 26 South, Range 27 East, NMPM, Welch-Delaware Pool, Eddy County, New Mexico.

(3) That effective January 1, 1969, Order (3) of Commission Order No. R-3221, as amended, prohibits in that area encompassed by Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico, the disposal, subject to minor exceptions, of water produced in conjunction with the production of oil or gas, or both, on the surface of the ground, or in any pit, pond, lake, depression, draw, streambed, or arroyo, or in any watercourse, or in any

other place or in any manner which would constitute a hazard to any fresh water supplies and said disposal has not previously been prohibited.

(4) That the aforesaid Order No. R-3221 was issued in order to afford reasonable protection against contamination of fresh water supplies designated by the State Engineer through disposal of water produced in conjunction with the production of oil or gas, or both, in unlined surface pits.

(5) That the State Engineer has designated, pursuant to Section 65-3-11 (15), N.M.S.A., 1953 Compilation, all underground water in the State of New Mexico containing 10,000 parts per million or less of dissolved solids as fresh water supplies to be afforded reasonable protection against contamination; except that said designation does not include any water for which there is no present or reasonably foreseeable beneficial use that would be impaired by contamination.

(6) That the applicant seeks an exception to the provisions of the aforesaid Order (3) to permit the continued disposal of ^{four} salt water, produced by applicant's wells located in said Sections 16, 20, and 21, in an unlined surface pit located in the NW/4 of said Section 21.

(7) That the applicant is presently disposing of approximately 90 barrels of water per day in the subject pit.

~~(8) That there is a water supply approximately 1.7 miles southeast of the subject pit.~~

(9) That the surface and subsurface drainage appears ^{to be} from the subject pit ~~toward the Pecos River~~ in a southeasterly direction.

(10) That fresh water supplies as designated by the State Engineer exist within a radius of 1.7 miles from the subject pit.

(11) That the applicant has failed to establish that continued disposal of water produced in conjunction with the

*Shallow
(8) That there is fresh water in the area
as evidenced by a freshwater spring
approximately 1.7 miles Southeast of the subject pit*

production of oil or gas, or both, by the subject wells in the subject unlined surface pit would not constitute an additional threat of contamination of fresh water supplies existing in the vicinity of said pit.

(12) That the subject application should be denied.

IT IS THEREFORE ORDERED:

- (1) That the subject application is hereby denied.
- (2) 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.