

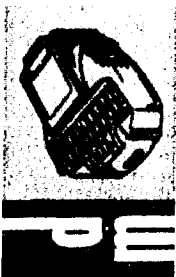
Case. Number.

4451

Application,
Transcripts.

Sm all Exhibts.

ETC.



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BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
November 18, 1970

EXAMINER HEARING

IN THE MATTER OF:

Application of Union Oil Company of
California for a non-standard oil
production unit, Roosevelt County,
New Mexico.

Case No. 4451

BEFORE: Elvis A. Utz, Examiner.

TRANSCRIPT OF HEARING

MR. UTZ: Case 4451.

MR. HATCH: Application of Union Oil Company of California for a non-standard oil proration unit, Roosevelt County, New Mexico.

If the Examiner recalls, this case was heard on October the 28th and was readvertised or we decided to re-advertise it because at that hearing the location of the well was changed, but we did hear the testimony.

MR. UTZ: So we readvertised it to cover this change in location that they proposed at the October 28th hearing?

MR. HATCH: Right.

MR. UTZ: So that anyone that wanted to voice an objection to that change in location will have the opportunity to do so at this time.

MR. HATCH: In the absence of the objection or testimony, I move that the case be submitted and an order issued on the testimony received on October the 28th.

MR. UTZ: Do we have any appearances on this case? Let the record show that there were no appearances.

We will issue an order based on the testimony at the October 28th hearing.

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STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, GLENDA BURKS, 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.

Glenda Burks
Court Reporter

I do hereby certify that the foregoing is a complete record of the proceedings in the hearing before the New Mexico Oil Conservation Commission of case No. 4451, held by the Commission on 11/18/72, 1972.

Glenda Burks
New Mexico Oil Conservation Commission

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BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO

October 28, 1970

EXAMINER HEARING

IN THE MATTER OF:

Application of Union Oil Company)
of California for a non-standard)
oil proration unit, Roosevelt)
County, New Mexico.)

Case No. 4451
and
Case No. 4423

BEFORE: Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: Case No. 4451.

MR. HATCH: This is the application of Union Oil Company of California, for a non-standard oil proration unit, Roosevelt County, New Mexico.

MR. BUELL: We have got a few preliminary matters to take up on this one.

MR. HATCH: Did I understand correctly, you are going to request a change of location of the well?

MR. BUELL: Yes, sir. We are going to ask that the well location in this non-standard unit be located in the northwest of the northeast quarter of Section 20. The reason for this is that we have received assurances from an operator directly to the south of us, Delaware Apache, that they will not object to the granting of this non-standard unit if we will drill in Section 20 as opposed to Section 17 as stated in our application.

MR. HATCH: This case, Mr. Examiner, was advertised for a location in Section 17 and we do have a telegram from Apache agreeing not to oppose if that location is sought by the applicant, but we do have a telegram from John Koch opposing the creation of the non-standard unit and I believe since we do have an objection to it, that the case should be re-advertised before it is heard. I think it might save more

time than hearing it and later getting another objection and rehearing it.

MR. BUELL: If I may say something at this point, the fact of the advertisement of a non-standard unit is without error in the advertising.

MR. HATCH: Right.

MR. BUELL: As I understand it, from what you have mentioned of Mr. Koch's telegram, he does not enter any objection as to well location but as to the non-standard unit. The one potential objection to a well location has been waived by our seeking to amend. Since Mr. Koch does not object to the well location and since all the personnel necessary in this--

MR. HATCH: It is rather difficult to know exactly -- it is confusing, anyway.

MR. BUELL: You are quite correct. It is confusing, but it doesn't seem that he objects to the well location. He just objects to the non-standard unit that was advertised. He has had his opportunity to be here. We have brought our witnesses and appear here and we feel that the Examiner can hear the non-standard unit part of this. We feel there is no issue as to the well location. In addition, Mr. Examiner, I'd like to add that we have had some indications from Delaware Apache that they would like to have an approval or disapproval

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of this so that based upon our drilling in Section 20, they would like to sink a well before the end of the year, based upon what we come up with.

MR. UTZ: Do you happen to know John Koch, do you happen to know where his interest in this area is?

MR. BUELL: Yes, sir. This is the piece of land involved as the southern part of the proration. This would be the north. Mr. Koch is along this side. Delaware Apache is down here. Incidentally, the well location, as I understand it, was the one preferred by Mr. Koch if there were to be a compulsory pooling, so he had endorsed this well location before, however, not in the context of a non-standard unit.

MR. UTZ: Well, if we heard the case today and then advertised next, when would that be?

MR. HATCH: We will be advertising this week, so that would be re-advertised for the 18th.

MR. UTZ: If this gentleman showed up and you people weren't here with your witnesses and made objection, then we'd have to continue it again, give you people a chance to come, put on some testimony while he was here, right, so that would end up somewhere around the 1st of December, wouldn't it?

MR. HATCH: The second of December would be the next hearing after November 18th.

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MR. BUELL: Well, I again would like to repeat that so far as the non-standard unit is concerned, there is no error in the advertising of that. He has had due notice of that and he has had his opportunity to come here as we have come here, put on our case, and he has had the opportunity to object and he choose to object by sending a telegram.

MR. UTZ: Off the record.

(Whereupon, there was a discussion off the record.)

MR. UTZ: Does Case No. 4451 have any bearing with regard to 4423?

MR. BUELL: We are going to dismiss 4423. The only reason it has not been dismissed, we understood Mr. Koch asked for a continuance on it. 4451 is in lieu of 4423.

MR. UTZ: Did he ask for a continuance on this at this time?

MR. HATCH: That is another confusion on it. It says "please permit continuance of Examiner's Hearing."

Did you contact Mr. Koch in relation to a continuance or dismissal of this 4423?

MR. BUELL: He wanted 4423 continued and he would oppose 4451.

MR. HATCH: Was there any indication from him that he would oppose dismissal of that case 4423?

MR. BUELL: He just said "ask for a continuance."

MR. UTZ: I thought this might be the time to take care of 4423, so we can clear the air as to what we want to do with 4451.

MR. BUELL: All right. If you want to call 4423, I will move to dismiss it.

MR. UTZ: All right. We will call 4423 at this time.

MR. HATCH: Case 4423, continued from the September 30, 1970 Examiner Hearing. This is the application of Union Oil Company of California for compulsory pooling, Roosevelt County, New Mexico.

MR. BUELL: Mr. Examiner, I am Sumner Buell of the firm of Montgomery, Federici, Andrews, Hannahs and Morris appearing on behalf of the Union Oil Company of California and at this time I would move to dismiss Case No. 4423 as being unnecessary in light of Case No. 4451 upon the Examiner's docket at this time.

MR. UTZ: Is there any objection to the dismissal of 4423?

I hear no objection.

We have no correspondence that would indicate any opposition of the dismissal, so I will dismiss Case 4423.

Now, back to Case 4451.

MR. BUELL: Mr. Examiner, my name is Sumner Buell of the firm of Montgomery, Federici, Andrews, Hannahs and Morris, appearing on behalf of the Union Oil Company of California.

At this time, Mr. Examiner, we would move to amend the application in this case. The application that is presently pending before this Examiner asks that an 80-acre non-standard unit be dedicated to a well to be drilled in the southwest quarter of the southeast quarter of Section 17. We would move to amend to have the acreage dedicated to a well to be drilled in a standard location in the northwest quarter of the northeast quarter of Section 20 in Township 8 South, Range 38 East in Roosevelt County, New Mexico.

Mr. Examiner, we have two witnesses and we ask that they be sworn at this time.

MR. UTZ: Are there other appearances?

You may proceed.

DAVID A. DUNN,

a witness, having been first duly sworn according to law, upon his oath, testified as follows:

DIRECT EXAMINATION

BY MR. BUELL:

Q Would you state your name for the record, by whom you

are employed, where and in what capacity.

A My name is David A. Dunn. I am employed by the Union Oil Company of California as an Assistant Manager of Exploration for the central region.

Q Where is your residence, Mr. Dunn?

A In Midland, Texas.

Q Have you testified before the Oil Conservation Commission of New Mexico or one of its examiners before and had your qualifications accepted as a matter of record?

A I have.

MR. BUELL: Are the witness' qualifications acceptable?

MR. UTZ: Yes, sir. They are.

Q Mr. Dunn, are you familiar with what the applicant seeks in Case 4451?

A I am.

Q Would you briefly state for the Examiner what is asked for in this case?

A Union Oil Company is asking for a non-standard proration unit in the Bluit Associated San Andres Field consisting of the northwest of the northeast of Section 20 and the southwest of the southeast of Section 17 of Township 8 South, Range 38 East of Roosevelt County, New Mexico,

for the drilling of a well to be located in the northwest of the northeast of Section 20 to the regular oil field pay of the Bluit Associated Field.

(Whereupon, Applicant's Exhibits 1 through 4 were marked for identification.)

Q Referring to what has been marked as Applicant's Exhibit No. 1, would you explain what is shown on this exhibit?

A Exhibit No. 1 is a map of a portion of the southeastern Roosevelt County that extends into a small segment of Cochran County, Texas. On this map are the location of all of the wells drilled that we can find of record. It gives the land ownership in the ownership covered by the Bluit Associated Field. On this map, Union's acreage position in the Bluit Field and near the Bluit Field is surrounded by a yellow line. It illustrates that Union has under lease the unorthodox or non-standard locations that have been requested in the application. This exhibit has a type log at the left of the map taken from the Union No. 117 Federal which is located in the southeast of the southwest of Section 17, Township 8 South, Range 38 East. This well is a diagonal offset to the proposed location and a direct offset to a portion of the proposed non-standard unit.

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The log is a gamma ray sonic log showing the entire San Andres section with the top of the San Andres indicated on the log.

The prominent marker that is frequently used in the Bluit Field area, the pie marker, which is a sandy zone that is easily identified on all electric logs, the top of the Milne sand zone, which is the upper pay zone of the Bluit Associated Field and the top of the Todd zone, which is the main producing zone of the Bluit Associated Field.

On this log, the porosity in most of the Todd zone is shown and porosity cutoff line of four percent is utilized with the extension beyond the porosity line being colored in orange. This color corresponds with the production code that is shown on the producing wells in the Bluit Associated Field. The same porosity cutoff section in the porosity of the Milne sand zone is shown in purple to correspond with the production code of the wells in the Bluit Associated Field. There is a small segment of the Todd zone that is below the TD of this map of this log.

The main pay section, the one that is furnishing most of the pay in this field, is represented by the colored

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section. The perforations in this particular well are shown in green in the middle of the log.

Q What depths or at what depths are those perforations?

A Those perforations on this log are from 4742 to 4768. The top of the Todd zone is the datum that is used to make the structure map and control the structure contours that are shown on the map. The datums of the wells where this could be picked or reasonably estimated are shown under each of the wells on the map.

The segment of the Allison Field where logs were available has all of the points as do the wells shown in Texas and surrounding the Bluit Associated Field. The color code in the area of the Bluit Associated Field is orange for the Todd zone producers, purple for the Milne sand producers.

The wells that show both colors have both zones open and are producing from the two zones.

Wells that have cross hatched colors are wells that have been plugged or no longer productive and they designate the zone from which production was obtained while the wells were on production.

The legend on this exhibit is complete and explains each of the well designations and well codes.

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The large circles around the wells are used to illustrate the Todd zone dry holes and wells within the producing limit that either did not test the Todd zone or tested and proved non-commercial.

In all cases the information on this exhibit is directed principally at the Todd zone since it is the principal producer in the area.

Around the Bluitt Associated Field there is a dashed line that represents our opinion of the commercial limits of the Todd zone accumulation of the Bluitt Associated Field. There are some producers outside this line, but they are from the Milne sand zone alone and we do not consider that any Milne sand zone well to date is commercial.

The blue arrows on the map represent wells that produced water in June of 1970. By the production reports from the oil and gas committee, one well, the Tenneco No. 2 Fasken in the northeast of the northwest of Section 20 was not completed in June. It was completed in September and this well was completed, producing water with the oil and therefore the blue dot.

It might be noted that one additional well could have had a blue dot at the present time. That is the

Union No. 217 located in the northeast of the southwest of Section 17. This well is producing some water with the oil at the present time.

All of the wells that are producing water are near a permeability reduction within the producing area -- are located very near the limits as defined on this map.

You will note that on all of the surrounding wells located south of the producing limits of the Bluit Associated Field the complete testing and the results of the Todd zone.

The recent well drilled by Delaware Apache, in the northwest of the northwest of Section 21, had good porosity on the electric logs. This well had a drillstem test that indicated practically no permeability. It had extremely low pressures.

Delaware Apache has acidized the zone with three thousand gallons of acid and then followed it on a frac with twenty thousand gallons and never recovered the load. This well is a dry hole in the Todd zone.

The well in Section 19 in the northeast of the southwest by Skelly, Mexico Federal had a DST of the Todd in the lower Todd zones. This is a small amount of porosity that is just below the type log shown on this

section, and they recovered eighty feet of muddy salt water and seven hundred fifty-three feet of salt water, plugged and abandoned the test.

The well in the northeast of the southeast of Section 24, a Jack McClellan Atlantic Federal, did not test the Todd zone. There was no indication of effective porosity or permeability, in his opinion. He completed this well as a gas well from the Milne sand zone.

The Ingram well, the well drilled originally by Shell, located in the northwest of the northwest of Section 24, cored the Todd zone and recovered forty-nine feet of Dolomite with no shows. No completion attempt was made in the Todd zone. This is a sub-commercial well from the Milne sand zone.

In the northeast of the southeast of Section 14, the Tom Ingram Kirkpatrick perforated the Todd. The well flowed three hundred MCF gas, thirty-six barrels of formation water in twenty-four hours. The Todd was re-perforated, acidized with eighty-five gallons and swabbed five barrels of formation water per hour with no indication at all of gas or oil production in commercial quantities.

In Section 9, in the northeast of the southeast,



the BTA Belmont 1A perforated the lower Milne sand and upper Todd zones, acidized, fraced and had not recovered load after a month of swabbing and plugged and abandoned the test.

This control along with the structural control indicates a permeability separation between the producing interval of the field and the locations to the south. It is my opinion that this is a well controlled line that we have drawn our limits, commercial limits of the Todd zone in the optimum position and that we have shown effectively all of the commercial producing area from the Todd zone of the Bluit Associated San Andres Field.

Milne sand production is extremely erratic. In Union's No. 217 we drillstem tested the Milne sand zone and had extremely low peressures and while we had favorable porosity, we had very very low permeability.

The Baumgartner well located in the northwest of the northeast of Section 19 drillstem tested the Milne sand zone by itself and recovered gas with no oil. This well was completed as an oil well from the Todd zone. It is producing water with the oil at lower rates than other wells in the field, indicating its proximity to a permeability barrier.

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The permeability barrier line shown extending from the northeast of Section 19 through Section 18 to the Austral McGrail located in the northwest of the northeast of Section 18 is based on the performance of the Roden Federal located in the southeast of the northwest of Section 18 which was unable to make a well from the Todd zone.

On the relatively small amount of production from the combined zones of the Milne sand and the Todd in the Austral No. 1 McGrail located in the northwest of the northeast of 18 and the very poor performance of the Union No. 118 located in the southwest of the southeast of Section 18, this line was further verified by Union's finding gas in the Todd zone in its 218 located in the southeast of the southeast of 18.

The erratic nature of the zone is well known. The risk involved in drilling to this zone is indicated by the number of relatively low volume wells offset by excellent producers.

The Todd zone itself is a Dolomitized section confined between two impermeable and hydrate formations that extend over the entire area of the field. It can be easily isolated. The porosity is generally well developed

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and in the ranges of four to eight percent; consists of vugular Dolomite with pin point porosity and the porosity is further enhanced by minor fracturing.

The permeability is the most erratic condition existing within this zone and it is definable only from the study of all of the wells in the area.

Q Mr. Dunn, on your map is it correct to state that the southern permeability barrier of the field approximately coincides the south line of the proposed non-standard unit?

A That is correct.

Q And it is your opinion that there will not be commercial quantities of oil to the south of that line, is that correct?

A Not from the Todd zone and not from the Bluit Associated San Andres Field.

Q Is there anything you'd like to add about this exhibit?

A I think that this exhibit illustrates the reason that Union is desirous of the non-standard unit. We feel that any combination of a standard unit with Union's northwest of the northeast in Section 20 with acreage south of it would be combining non-productive acreage with productive acreage and would result in a drainage

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area from Union's lease that the well is located on and from Union's leases to the north that would be dedicated to other wells in the Bluit Field. We feel that the location of this tract is much more favorable than the Koch tract located on the east half of the northeast quarter of Section 20 which is offset by the dry hole drilled by Delaware Apache. We do feel that there is some possibility of a well being successful on Mr. Koch's acreage. We feel that Union, if pooled with either tract to the east or to the south, would be producing oil principally from the leases it owns one hundred percent in Section 17.

I have recommended to my management that this non-standard unit location be made in the southwest of the southeast of section 17 because this location is the one that has the absolute lowest risk on the tract.

I have also recommended to them or stated to them that I can recommend the well in the northwest of the northeast of Section 20 even though it has a much higher risk because it will protect Union's tract from drainage by the Tenneco wells to the west. It will make a better drainage pattern in the Bluit Associated Field and it will be draining oil that is a hundred percent Union

and would probably more effectively completely aid in the maximum production from the Bluit Associated San Andres Field.

Q Do you think granting the non-standard unit would prevent waste in this case?

A I think granting the non-standard unit would prevent waste in this case two-fold. I believe that it would prevent waste in unrecovered oil in the field and that it would prevent waste, economic waste by preventing the drilling of unnecessary wells.

MR. BUELL: I have no other questions of this witness.

MR. UTZ: You just had the one exhibit?

MR. BUELL: He will have the one exhibit. We have another witness.

MR. UTZ: Okay.

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Dunn, do you have any other proposed locations in Section 20 or 17, I am sorry?

A In Section 17, Mr. Examiner, Roden Oil has announced a location in the southeast of the northwest of Section 17. I am not aware whether or not they have started

drilling this test.

Q What was that location again?

A In the southeast of the northwest of Section 17. This has been announced as a No. 1 Sands. I believe it is on your exhibit as the small circle. We just picked it up and added it to this exhibit. We feel that this will give us added information as to the profitable area of this field and we have budgeted and contemplated at least three additional wells to be located on Union acreage in 1971.

Q What kind of a well is your Federal No. 1 to the north of that non-standard unit?

A Our 1 to the north is an excellent well. It is a top allowable well. Our 117, which is the type log that was taken, just to the west of our non-standard unit, is an excellent well. It is a top allowable well, an excellent well. Our 217 is a relatively poor well. It is well under top allowable.

Q Why have you decided to drill a well in the northwest of the northeast, dedicated across the section, rather than to dedicate the south half of the southeast quarter of 17?

A We realize that we can dedicate the south half of the

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southeast quarter of Section 17 to a location either in the southeast of the southeast of 17 or the southwest of the southeast of 17. Union has attempted to form a joint operation with Mr. Koch for a standard east-west 80-acre tract composed of the north half of the northeast of Section 20. We have requested Mr. Koch join us in drilling a joint well at the proposed location. Mr. Koch has not accepted our offer. We had on application a forced pooling to keep a standard unit of this nature. After Delaware Apache drilled their test, it became apparent that the risk factor involved in this well was such that we could not stand the economic risk that would be involved in drilling the well and carrying Mr. Koch, paying a hundred percent of the well for the penalty, that maximum penalty that could be allowed and I believe this will be covered more fully by our following witness.

We are attempting to orderly develop the field. As I say, we have a location to the north and we can drill this location. If we do, we leave ourselves open to an undrilled forty which would not necessarily be bad. It would not provide the information for the extension of the field. It is obvious the Delaware Apache has

some different interpretation than the one we are presenting here and they believe that if we drill the well in the northwest of the northeast of Section 20, that it will prove whether our suggested limits of the field are correct and after such a well is drilled and analyzed, they believe that they can drill farther to the south and develop the Bluit Associated Field to the south. It is my opinion that they will be unsuccessful in doing so. I see no evidence whatsoever to indicate that this field will extend beyond our forty acre tract to the south.

Our request for the non-standard unit is one that is brought on by the untenable situation that we find ourselves in in regard to our relationship with Mr. Koch and the Delaware Apache.

Q In other words, the reason you don't want to drill in the south half of the southwest quarter or southeast quarter of 17 is to leave your forty stranded out there?

A That is right. It would be just as safe after we drilled the well in the south half of Section 17. It might be a safer location after we drill the well in Section 17. It would not give any information to better define the limit of the field to the south. It would not cast any light at this time, in my opinion -- it

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would not cast any light on whether or not there would be a pooling of equitable interest by going east, west or north, south with the lone forty that we had to the south. We do not wish to deprive anyone of the opportunity of drilling. We believe that our non-standard unit that we are proposing here will provide Koch with an offset location. We realize that if he drills a well in the northeast of the northeast of 20, that, in our opinion, if he is successful, he will be draining oil from Union's tract rather than from his own tract to the south.

We would not oppose his eighty acre spacing any more than we would oppose the dedication of Tenneco's north-south tracts just to the west. We feel that most of their oil is coming from our tract, but we feel that we have offset the drainage and we feel that we can further offset it if we are allowed to drill with the non-standard unit that we have proposed.

MR. UTZ: Any further questions of the witness?

You may be excused.

HENRY R. WILLIS,

a witness, having been first duly sworn according to law,
upon his oath, testified as follows:



DIRECT EXAMINATION

BY MR. BUELL:

Q Would you state your name, please?

A My name is Henry R. Willis.

Q And by whom are you employed, where and in what capacity?

A I am employed by the Union Oil Company of California as District Engineer, presently residing in Midland, Texas.

Q Since you have not testified before the Commission or Examiner, would you please state your educational and employment background?

A I was graduated from the Missouri School of Mines at Rolla in 1953; Bachelor of Science Degree in mining engineering. Upon completion of my college schooling, I was employed by Shell Oil Company as an Exploration and Reservoir Engineer working primarily in Oklahoma and Texas. I remained employed by Shell from 1953 until 1959 at which time I joined United Producing Company, Incorporated in Liberal, Kansas as District Engineer and was again primarily associated with petroleum reservoir engineering and economic analysis work relating to Kansas, Oklahoma and Texas. In 1963 I joined the Pure Oil Company, resided in Oklahoma City as District Engineer working again in petroleum reservoir

engineering work primarily and was associated with the area of Oklahoma, Kansas and Texas until 1965 when the Pure Oil Company was merged as the Union Oil Company of California. Since that time I have worked for Union in both Oklahoma City and Midland, Texas and have been associated with Oklahoma, Kansas, Texas and New Mexico operations.

MR. BUELL: Are the witness' qualifications acceptable?

MR. UTZ: Yes, sir. They are.

Q Are you familiar with the Bluitt San Andres Associated Pool Field and its characteristics?

A Yes, sir.

Q Are you familiar with what is sought in their application 4451?

A Yes, sir.

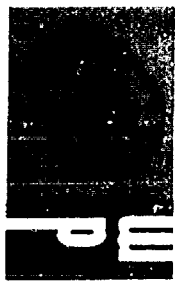
Q Referring now to what has been marked as Exhibit No. 2, would you explain for the Examiner what is involved in that?

A We have developed various economic analyses of drilling and developing in the Bluitt San Andres Pool. Exhibit 2 sets forth some of the economic data that we used in our analysis. You will notice that under Item A we

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have listed out income data which shows the commodity prices we have received for the products we produce. It also shows state taxes, the allowable and the gas-oil ratio used in our work.

Item B relates to the cost data. You will note that the total cost of the completed well with tank battery is approximately sixty-four thousand dollars which we will substantiate in just a minute.

We are experiencing an annual operating cost to produce the property of approximately of twenty-four hundred dollars a year. To defer this cost we have calculated an economic limit which you will see shown as one thousand twenty-two barrels per year. This production rate is necessary so that we can break even pay our direct operating costs to continue production. We also have set forth a reserve calculation as we see it in the Bluit Field.

In our particular area our average pay, net pay, is approximately twenty-five feet. We have encountered a porosity of six percent and water saturation of thirty percent; these two later values being obtained from core and log examination. We have utilized a formation volume factor of 1.2 in our reserve work and we have also used



an estimated recovery of fifteen percent of the oil in place. Utilizing these parameters we have calculated the reserves as you see them there to be eighty-one thousand four hundred barrels of oil under eighty acre drainage. Now, this is a recoverable reserve and it does assume that we have a productive horizon under the entire eighty acres dedicated to the well.

Q Is it a reasonable assumption that in the proposed non-standard unit that all eighty acres are going to be a consistent production horizon?

A To our best knowledge at this time, it is, yes, sir.

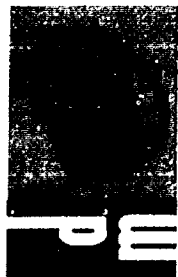
Q I refer you to Exhibit No. 3. Would you briefly go through that and explain what that shows?

A Exhibit No. 3 substantiates the completed well cost number I gave you previously of sixty-four thousand four hundred eighty-three dollars. Actually we have set out here our actual experience in the Bluit San Andre Associated Pool that we encountered in drilling different wells in this area and you will notice that we have set out the well number, location, the completion date, current status and then have gone into the details of the costs that we encountered in drilling these wells and completing them. We have taken a straight average

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of the intangible cost to arrive at this value for typical well to be thirty-nine thousand two hundred eighty-three dollars. On the attachment or the second page of this exhibit you will notice that we have set forth in detail the tangible cost analysis for a typical proposed well to be twenty-five thousand two hundred dollars. We have done this since that would allow for separate tankage for new well to be completed whereas the existing wells have a variety of different battery situations, namely being gas wells, two wells connect to the same battery and then also monitoring or metering across lease lines.

Q Mr. Willis, assuming the well cost of sixty-four thousand dollars and assuming that the potential recovery under the non-standard unit of eighty acres that we are asking for is eighty-one thousand four hundred, does this eighty-one thousand four hundred barrels of oil, under the eighty acres, does this make it an economically feasible project to drill this?

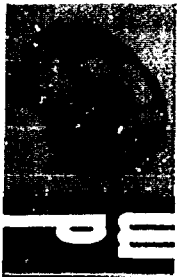
A Yes, sir. If you, of course, do not give any consideration to risk, this is a very good venture.

Q Now, going to Exhibit No. 4, would you explain what is shown on this?

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A Exhibit 4 sets forth the economic summary that we prepared in evaluating an east-west eighty acre unit to be located in the north half of the northeast quarter of Section 20, Township 8 South, Range 38 East, and the Bluit San Andres Associated Pool. Now, this venture, if we drilled it there, of course, could be a fifty percent working interest venture with both parties, namely Union and in this particular case, Mr. Koch, paying their own proportionate share of the cost as the well is drilled and also receiving their own proportionate share of the income. Union's actual picture for the forty acres involved indicates it would cost us half the well costs, thirty-two thousand two hundred forty-two dollars and that we should realize an after tax present worth cash flow of thirty-eight thousand six hundred fifty-two dollars on discount. We have also set forth some various numbers below there discounting that ten percent and twenty percent interest rate for your information. The column on the right side entitled "Remaining Forty Acres Forced Pooled" shows what would happen if Union had to carry the other fifty percent interest with the various banking provisions that could be expected. Basically it shows that Union would spend thirty-two

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thousand two hundred forty-one dollars and if they could receive a maximum penalty of one hundred fifty percent, we would only realize an additional ten thousand five hundred ninety-three dollars.

Q Mr. Willis, does this take into account any risk that may be involved in this well not being an optimum well?

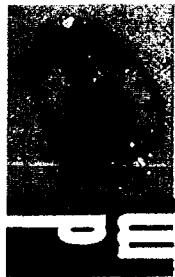
A No. It does not. If you look at the risk that we have experienced in our operations in the Bluit San Andres Field, you will find we have drilled five wells out there and two of them right now appear to be in the category that we would call an optimum well and this is a very early stage even to classify them there, but they are producing top allowable and therefore we feel they are good; that they will fulfill our expectations.

The other three wells we have drilled out there, however, have been rather disappointing and will not, in my opinion, show that we made a very good investment with our money in drilling. These same three wells, if you analyze the number of wells and the number of poor wells that we have come up with, you can easily see a sixty percent poor well risk margin that you have to apply to the drilling that we have already done and at the time we drilled these wells we thought that they

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were in the better portion of the field and could achieve the optimum condition of recovering eighty-one thousand barrels of oil. With the new control we have it is very obvious that the well location in the north portion of Section 20 is going to be very risky and because of this identification at this early stage it is very obvious that the risk is even going to be substantially greater than sixty percent; that we could, in reality, end up with a very marginal well.

Q So is it correct to state that even if you were to go on an east-west pool arrangement with one hundred-fifty percent penalty you do not think the economics and the risk would justify such a venture?

A That is correct.

Q You would not recommend it?

A That is correct. We don't mind risking our own money if the entire gain can be ours, but we hate to risk all the money when we can only make or maybe see half of it.

Q And even if this were assuming this well to be a certain optimum well, all you could realize, with a one hundred fifty percent penalty, would be approximately ten thousand five hundred dollars on an investment of thirty-two thousand two hundred something?

A This is correct, yes, sir.

Q Do you think that granting this application for a non-standard unit would prevent waste in this case?

A Yes, sir. I do.

Q Do you believe it would protect correlative rights involved?

A Yes, sir. I do that too.

Q Were Exhibits 2 and 3 and 4 prepared by you or under your supervision?

A Yes, sir.

MR. BUELL: I have no other questions of this witness.

CROSS EXAMINATION

BY MR. UTZ:

Q Your testimony then is that this hundred fifty percent penalty is even not enough?

A Yes, sir. In this particular case, because of the high risk involved.

MR. UTZ: Any questions of the witness?

CROSS EXAMINATION

BY MR. HATCH:

Q Why does the hundred fifty percent come out with ten thousand rather than sixteen thousand on the well cost

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of thirty-two thousand?

A This is, of course, the actual profit that we are going to be deprived from and we are going to have to sustain some operating costs which we should recoup on that and by the various expenses that are charges that we are going to have to sustain. It is true this would be reduced, but even if it were sixteen thousand, this still isn't a very good venture with the risk involved.

Q The additional money received would be -- from the other forty -- would be sixteen thousand dollars plus rather than ten thousand?

A Right, and as I was going to say, this is after tax evaluation -- paying federal income tax too. Before taxes this sixteen thousand would be the number.

MR. UTZ: Any other questions?

You may be excused.

MR. BUELL: Mr. Examiner, at this time I would move the introduction of Exhibits 2, 3, and 4 into evidence and I would like to recall Mr. Dunn for some housekeeping purposes.

MR. UTZ: Without objections, Exhibits 1 through 4 will be entered into the record of this case.

MR. BUELL: Mr. Dunn, was Exhibit 1 prepared by you or under your supervision?

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MR. DUNN: It was.

MR. BUELL: I move the introduction of Exhibit 1 into evidence.

MR. UTZ: It has already been accepted.

MR. BUELL: Mr. Examiner, I'd like to make a very brief statement on our application here and point out the alternatives which we have considered in light of what we had and in the way of technical information and why we are here asking for this non-standard unit.

I think it is fairly obvious that Union has an isolated forty acre section in a field where eighty acres is the standard proration unit. Forty acres is located on the south extreme edge of the pool. They cannot pool with eighty acres to the west of them because it is already occupied by Tenneco wells. Their information indicates directly south of this eighty acres there is no production and to pool with eighty acres, forty acres south, would mean that the property owner to the south would get a share of the Union Oil without contributing any of the product itself.

To go on an east-west basis, which we seriously considered, as the Examiner knows, because we have had an application filed to that affect, we feel, on closer analysis, the maximum the Commission could provide us in a penalty does

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not justifying drilling here simply because of the risky location of the well.

We feel the only way to make this forty acres productive and to prevent it from standing idle and having the petroleum underneath wasted is to drill that forty acres and pool it with forty acres directly to the north of it. We feel this will result in good and complete drainage of the field. We feel that we have not hurt anybody by doing this. We feel also that some of our surrounding land owners, as the Examiner is aware, because of the telegrams and telephone messages, would like to have a free ride and we would prefer not to turn Union Oil Company into a charitable organization at this time and we would like to produce our oil and make them provide theirs and we feel that in this way correlative rights are protected and waste is prevented.

MR. UTZ: Any other statements?

The case will be taken under advisement.

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

I, PETER A. LUMIA, a 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.

Peter A. Lumia
Peter A. Lumia, C.S.R.

I do hereby certify that the foregoing is a complete record of the proceedings in the hearing before of Case No. 4451873 heard at no on 10-28-59.
[Signature]
New Mexico Oil Conservation Commission

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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

November 23, 1970

Mr. Sumner Buell
Montgomery, Federici, Andrews,
Hannahs & Morris
Attorneys at Law
Santa Fe, New Mexico

Re: Case No. 4451
Order No. R-4066
Applicant:
Union Oil Company of Calif.

Dear Sir:

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

Very truly yours,

G. L. Parker, Jr.

A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Copy of order also sent to:

Hobbs OCC x

Artesia OCC_____

Aztec OCC

Other _____

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. 4451
Order No. R-4066

APPLICATION OF UNION OIL COMPANY
OF CALIFORNIA FOR A NON-STANDARD
OIL PRORATION UNIT, ROOSEVELT
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9:30 a.m. on November 18, 1970, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 23rd day of November, 1970, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Union Oil Company of California, is the owner of a lease or leases comprising, among other lands, the SW/4 SE/4 of Section 17 and the NW/4 NE/4 of Section 20, Township 8 South, Range 38 East, NMPM, Roosevelt County, New Mexico.

(3) That the applicant seeks approval of an 80-acre non-standard oil proration unit in the Bluit-San Andres Associated Pool comprising the above-described acreage to be dedicated to a well to be drilled at a standard location in the NW/4 NE/4 of said Section 20.

(4) That said NW/4 NE/4 of Section 20 comprising all of the interest in said Section 20 owned by the applicant.

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CASE No. 4451
Order No. R-4066

(5) That attempts to pool said NW/4 NE/4 with the NE/4 NE/4 of said Section 20 on a voluntary basis in order to form a standard 80-acre proration unit comprising the N/2 NE/4 of said Section 20 have been unsuccessful.

(6) That the entire non-standard oil proration unit requested by the applicant may reasonably be presumed to be productive of oil from the Bluit-San Andres Associated Pool and can be efficiently and economically drained and developed by the aforesaid well.

(7) That approval of the 80-acre non-standard oil proration unit as requested by the applicant will afford the applicant the opportunity to produce its just and equitable share of the oil in the Bluit-San Andres Associated Pool, will prevent the economic loss caused by the drilling of unnecessary wells, will avoid the augmentation of risk arising from the drilling of an excessive number of wells, and will otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That an 80-acre non-standard oil proration unit in the Bluit-San Andres Associated Pool comprising the SW/4 SE/4 of Section 17 and the NW/4 NE/4 of Section 20, Township 8 South, Range 38 East, NMPM, Roosevelt County, New Mexico, is hereby established and dedicated to a well to be drilled at a standard location in the NW/4 NE/4 of said Section 20.

(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. ARMIGO, Member


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

esr/



western union

Telegram

KA064 LA297 DEA228

(310).

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STATE OF NEW MEXICO OIL CONSERVATION COMMISSION=
SANTA FE NMEX=

10 OCT 27 AM '70

CARE 4451 OPPOSED 59 CROSSING SECTION LINES 80 ACRE
NON- STANDARD OIL PRORATION UNIT THEREFORE STRONGLY
FEEL THAT APPROVAL SHOULD BE DENIED TO MAINTAIN ORDERLY
DEVELOPMENT OF BLUITT SAN ANDERS OIL FIELD CASE 4423
PLEASE PERMIT CONTINUANCE OF EXAMINER HEARING DOCKET
NO 24-70 OCTOBER 28 1970 TO A LATER DATE SELECTED
BY NEW MEXICO OIL COMMISSION
JOHN R KICH 3281 WEST SHORE DR ROCHARD LAKE MICH=

KOCH

WU 1201 (R 5-69)

Added Mail for 11-18-70 Hearing

DOCKET: REGULAR HEARING - WEDNESDAY - NOVEMBER 18, 1970

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

ALLOWABLE: Consideration of the allowable production of gas for December, 1970, from fifteen prorated pools in Lea, Eddy, Roosevelt and Chaves Counties, New Mexico, and also presentation of purchaser's nominations for said pools for the six-month period beginning January 1, 1971. Consideration of the allowable production of gas from nine prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico, for December, 1970.

CASE 4453: In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the promulgation of an order prohibiting the flaring or venting of casinghead gas in the State of New Mexico on or after December 31, 1970, when certain conditions exist. Copies of the proposed order will be circulated by way of the Commission's general mailing list and will be available upon request made to the Commission at its Santa Fe office.

* * * * *

THE FOLLOWING CASES WILL BE HEARD BEFORE DANIEL S. NUTTER, EXAMINER, OR ELVIS A. UTZ, ALTERNATE EXAMINER, IN THE OIL CONSERVATION COMMISSION CONFERENCE ROOM ON THE SECOND FLOOR OF SAID BUILDING AT 9:30 A.M.

CASE 4454: Southeastern New Mexico nomenclature case calling for the extension of certain pools in Lea, Chaves and Roosevelt Counties, New Mexico.

(a) Extend the Baum-Upper Pennsylvanian Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 14 SOUTH, RANGE 32 EAST, NMPM
SECTION 11: N/2 and SW/4

(b) Extend the Double L-Queen Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 14 SOUTH, RANGE 30 EAST, NMPM
SECTION 31: SE/4

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

TOWNSHIP 17 SOUTH, RANGE 33 EAST, NMPM
SECTION 27: SE/4

(d) Extend the North Vacuum-Abo Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 34 EAST, NMPM
SECTION 14: NW/4
SECTION 27: NE/4

(e) Extend the Vada-Pennsylvanian Pool in Roosevelt County,

(Case 4454 continued)

New Mexico, to include therein:

TOWNSHIP 8 SOUTH, RANGE 35 EAST, NMPM
SECTION 33: NE/4

- CASE 4455: In the matter of the hearing called by the Oil Conservation Commission for the creation of a new oil pool and for the assignment of a discovery allowable, Sandoval County, New Mexico. The Commission, at the request of Refiners Petroleum Corporation, will consider the creation of a new oil pool for the production of oil from the Dakota formation comprising the NE/4 of Section 25, Township 22 North, Range 3 West, Sandoval County, New Mexico, said pool having been discovered by said corporation's Cuba Union Well No. 1 located in Unit A of said Section 25. Also to be considered will be the assignment of approximately 34,390 barrels of discovery allowable to said well.
- CASE 4456: Application of Pan American Petroleum Corporation for expansion of pressure maintenance project, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to expand its Cato Baskett Pressure Maintenance Project, Cato-San Andres Pool, by the conversion to water injection of its Baskett "D" Wells Nos. 1 and 2, located respectively, in Units G and A of Section 11, Township 8 South, Range 30 East, Chaves County, New Mexico.
- CASE 4457: Application of Tenneco Oil Company for the creation of a new pool, assignment of discovery allowable, and promulgation of special pool rules, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new pool for the production of oil from the "D" zone of the Dakota formation for its Don Ne Pah Well No. 1 located in Unit D of Section 18, Township 17 North, Range 8 West, McKinley County, New Mexico, and for the assignment of an oil discovery allowable to said well. Applicant further seeks the promulgation of special rules for said pool, including provisions for 80-acre spacing units with wells to be drilled in either the northwest or southeast quarter-quarter sections.
- CASE 4458: Application of Continental Oil Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the South Eunice Unit Area comprising 2720 acres, more or less, of Federal and Fee lands in Sections 20, 21, 22, 28, 29, and 33, Township 22 South, Range 36 East, South Eunice Pool, Lea County, New Mexico.
- CASE 4459: Application of Continental Oil Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in its South Eunice Unit Area by the injection of water into the Seven Rivers and Queen formations through 30 wells located in Sections 20, 21, 22, 28, 29, and 33, Township 22 South, Range 36 East, South Eunice Pool, Lea County, New Mexico.
- CASE 4460: Application of Continental Oil Company for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause,

(Case 4460 continued)

seeks the consolidation of two existing non-standard gas proration units into one 480-acre non-standard unit comprising the N/2 and SE/4 of Section 23, Township 22 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico, to be dedicated to its Meyer B-23 Wells Nos. 1, 2, and 3, located in Units C, O, and E, respectively, of said Section 23. Applicant further seeks authority to produce the allowable from any of said wells in any proportion.

CASE 4461: Application of Continental Oil Company for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the consolidation of two existing non-standard gas proration units into one 120-acre non-standard unit comprising the E/2 SW/4 and NW/4 SE/4 of Section 9, Township 21 South, Range 37 East, Blinbry Gas Pool, Lea County, New Mexico, to be dedicated to its Hawk B-1 Wells Nos. 2 and 6, located in Units J and N, respectively, of said Section 9. Applicant further seeks authority to produce the allowable assigned to said unit from either of said wells in any proportion.

CASE 4462: Application of Continental Oil Company for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle production from an undesignated Gallup oil pool and undesignated Dakota oil pool in the wellbores of four wells to be drilled in Township 25 North, Range 4 West, West Lindrith Field, Rio Arriba County, New Mexico, as follows:

Jicarilla 22 Well No. 5 - Unit L - Section 22
Jicarilla 28 Well No. 9 - Unit A - Section 28
Jicarilla 28 Well No. 10 - Unit L - Section 28
Jicarilla 28 Well No. 11 - Unit B - Section 33

CASE 4463: Application of Roger C. Hanks for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the NE/4 of Section 18, Township 9 South, Range 36 East, Vada-Pennsylvanian Pool, Lea County, New Mexico, said acreage to be dedicated to applicant's Ford Federal Well No. 1 located in the NW/4 NE/4 of said Section 18. Also to be considered will be the costs of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision of said well.

CASE 4451: (Readvertised)

Application of Union Oil Company of California for a non-standard oil proration unit, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks approval for an 80-acre non-standard oil proration unit comprising the SW/4 SE/4 of Section 17 and the NW/4 NE/4 of Section 20, Township 8 South, Range 38 East, Bluitt-San Andres Associated Pool, Roosevelt County, New Mexico, to be dedicated to a well to be drilled at a standard location in the NW/4 NE/4 of said Section 20.

Examiner Hearing
November 18, 1970

Docket No. 25-70

-4-

CASE 4464: Application of Pan American Petroleum Corporation for authority to over-produce a gas well's allowable, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to over-produce the allowable of its Gallegos Canyon Unit Well No. 185, located in Unit D of Section 33, Township 28 North, Range 12 West, Basin-Dakota Pool, San Juan County, New Mexico, in the amount of 19,311 MCF. According to applicant, this amount of gas, produced by other wells in the Gallegos Canyon Unit and with royalty and taxes already paid, was injected into the subject well to create a reservoir back-pressure prior to fracturing on work-over. Applicant seeks authority to produce, without being subject to allowable, royalty, or taxes, the volume of gas injected into the well.



western union

Telegram

KA026 N SA 133

1970 OCT 26 AM 10 29

(1100).

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OIL CONSERVATION COMM, BOX 2088=
SANTA FE NMEX=

[Handwritten signature]

ATTENTION HATCH

RE: CASE NOS. 4423 AND 4451 - APPLICATIONS OF UNION
OIL COMPANY OF CALIFORNIA

DELAWARE-APACHE CORPORATION (APACHE) HAS AGREED NOT
TO OPPOSE UNION'S APPLICATION UNDER CASE NO. 4451 FOR A
NON-STANDARD UNIT COMPRISING THE SW/4 SE/4 OF SECTION 17
AND THE NW/4 NE/4 OF SECTION 20, T-8-S, R-38-E,
ROOSEVELT COUNTY, NEW MEXICO, CONDITIONED UPON UNION'S
AGREEMENT THAT THE WELL WILL BE LOCATED IN THE NW/4 NE/4

WU 1201 (R 5-69)

Check Mailed for 11-18-70 Hearing - R.



western union

Telegram

OF SECTION 20, RATHER THAN THE SW/4 SE/4 OF SECTION 17.
UNION HAS CONCURRED IN SUCH AND WILL INTRODUCE LETTER
TO SUCH EFFECT. ALSO, IT IS UNDERSTOOD THAT CASE NO.
4423 WILL EITHER BE DISMISSED BY UNION OR POSTPONED
PENDING DECISION IN CASE NO. 4451.

DELAWARE-APACHE CORPORATION (APACHE) BY:
MARTIN L ALLDAY ATTORNEY==

WU 1201 (R 5-69)

Core 4451

Heard 11-18-70

Grant Union of Calif. a non std.
80 Ac. unit in the Blunt-S.A. Assoc.
pool comprising SW/4 SE/4 sec 17
and NW/4 NE/4 sec 20, 8 S-38 E.

The well to be located in a std. loc-
ation in NW/4 NE/4 sec 20.

Thos. O. We

ECONOMIC DATA
BLUETT-SAN ANDRES ASSOCIATED POOL
ROOSEVELT COUNTY, NEW MEXICO

A. INCOME DATA

1. Gross Oil Price : \$2.86/Bbl
2. Gross Gas Price : \$0.06/Mcf
3. Royalty : 12.5%
4. State Tax : 6.10% of value
5. Allowable : 70 BOPD
6. Proportional Factors
 - 40 Acre : 1.0
 - 80 Acre : 2.0
7. GOR : 500 Scf/Bbl

B. COST DATA

1. Total Cost of Completed Well with Tank Battery : \$64,483
2. Annual Operating Cost : \$ 2,400
3. Economic Limit

$$E.L. = \frac{\$2,400}{(\$2.86)(.875)(.9384)} = 1022 \text{ Bbl/Yr}$$

Assume no gas sales at abandonment

RESERVE CALCULATION

Pay, h 25 feet
Porosity, ϕ 6%
Water Saturation, S_w 30%
FVF 1.2
Recovery 15%

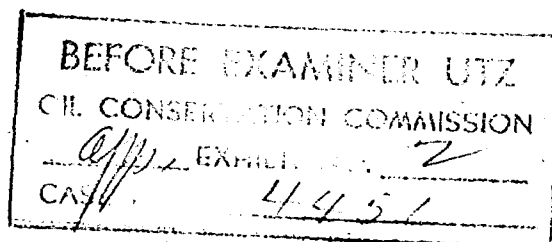
$$\text{Reserves} = \frac{(7758)(\phi)(1-S_w)(R.F.)}{FVF} = 40.7 \text{ BO/Ac-Ft}$$

$$= 1017.5 \text{ BO/Ac}$$

$$= 40,700 \text{ BO/40 Acs.}$$

$$= 81,400 \text{ BO/80 Acs.}$$

80,000
81,400



BLUETT-SAN ANDRES ASSOCIATED POOL
ROOSEVELT COUNTY, NEW MEXICO
COMPLETED WELL COST SUMMARY
UNION OIL COMPANY OF CALIFORNIA

	FEDERAL "18" NO. 1	FEDERAL "18" NO. 2	FEDERAL "17" NO. 1	FEDERAL "17-A" NO. 1	FEDERAL "17" NO. 2	AVERAGE COST
COMPLETION DATE	SW-SE Sec. 18 T-8-S, R-38-E	SE-SE Sec. 18 T-8-S, R-38-E	SE-SW Sec. 17 T-8-S, R-38-E	NE-SE Sec. 17 T-8-S, R-38-E	NE-SW Sec. 17 T-8-S, R-38-E	
STATUS	6-16-69 Oil, Pumping	8-31-69 Gas	3-20-69 Oil, Flowing P.U. Installed	7-9-70 Oil, Flowing	7-30-70 Oil, Pumping	
DRILLING AND BAYWORK	\$ 17,490	\$ 18,122	\$ 18,179	\$ 17,903	\$ 13,622	\$ 18,081
ROD AND CHEMICALS	2,162	1,459	1,144	3,182	1,446	1,879
CEMENT & CEMENTING	2,117	2,271	2,298	3,417	2,648	2,550
HOISTING & REMEDIATING	1,981	3,020	2,850	2,979	3,151	2,796
HOISTING	4,387	504	1,308	696	3,430	2,065
HOISTING	258	231	703	127	444	353
HOISTING	804	401	185	456	1,051	579
HOISTING	-	259	-	-	-	52
HOISTING, CLEAN UP	5,891	2,681	5,620	4,100	3,472	4,353
HOISTING SERVICES	2,455	859	103	368	271	811
HOISTING	3,450	2,732	2,170	2,100	3,750	2,845
HOISTING	3,830	1,325	1,622	1,641	3,677	2,419
HOISTING	N.A.	300	707	N.A.	N.A.	500
HOISTING	44,825	34,184	36,889	37,059	41,902	39,283
CASING, FLOAT EQUIPMENT AND CENTRALIZERS	7,511	8,418	6,508	7,264	9,200	See Attachment
WELL HEAD	380	669	723	1,644	946	
HOISTING EQUIPMENT	12,299	12,098	18,920	11,383	13,160	
TOTAL INVOICES	20,190	21,185	26,151	20,291	23,306	25,200
TOTAL COST	\$ 65,015	\$ 65,369	\$ 63,040	\$ 57,350	\$ 65,268	\$ 64,483

BLUETT-SAN ANDRES ASSOCIATED POOL
ROOSEVELT COUNTY, NEW MEXICO
COMPLETED WELL COST SUMMARY
UNION OIL COMPANY OF CALIFORNIA
APPROVED BY: 11451

TANGIBLE COST ANALYSIS FOR PROPOSED WELL

Casing, Float Equipment & Centralizers	\$ 7,500
Tubing (Used if available)	2,700
Rods	1,600
Pump, Well Head, Seat - Nipple	500
Pumping Unit (Used if available)	1,500
Motor & Controller	400
Tank Battery	
2 Tanks	4,600
Heater Treater with Scrubber	1,700
Flow Line to Well	300
Misc. Fittings & Lines	1,500
Circulating Pump	400
Dirt Work and Pads	1,000
Labor	<u>1,500</u>
TOTAL TANGIBLES	\$ 25,200

ECONOMIC SUMMARY-UNION NET
 EAST-WEST 80 ACRE UNIT
 N/2-NE/4 SEC. 20 T-8-S R-38-E
 BLUITT-SAN ANDRES ASSOCIATED POOL
 ROOSEVELT COUNTY, NEW MEXICO

UNION'S 40 ACRES		REMAINING 40 ACRES (FORCE POOLED)	
Cost	After Tax Present Worth	Cost	125% B.I. Penalty
\$32,242		\$32,241	
	\$38,652		\$4,985
			\$10,593
Undiscounted			
Disc. at 10%	33,068		3,159
Disc. at 20%	28,504		1,580
			8,524
			6,731

REPORT EXAMINED
 CH. CONSERVATION
 EXHIBIT NO. 4
 CASE NO. 11451

J. O. SETH (1883-1963)

A. K. MONTGOMERY
WM. FEDERICI
FRANK ANDREWS
FRED C. HANNAHS
RICHARD S. MORRIS
SUMNER G. BUELL
SETH D. MONTGOMERY

FRANK ANDREWS III
OWEN M. LOPEZ

MONTGOMERY, FEDERICI, ANDREWS, HANNAHS & MORRIS

ATTORNEYS AND COUNSELORS AT LAW

350 EAST PALACE AVENUE
SANTA FE, NEW MEXICO 87501

October 2, 1970

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AREA CODE 505
TELEPHONE 982-3876

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70 OCT 5

Case 4451

Oil Conservation Commission
of the State of New Mexico
Land Office
Santa Fe, New Mexico 87501

Re: Application of Union Oil Company
of California for a non-standard
proration unit, Roosevelt County,
New Mexico

Gentlemen:

Enclosed is an original and two copies of Application of Union Oil Company of California for 80-acre non-standard proration unit in the Bluit-San Andres Associated Pool, Roosevelt County, New Mexico. We would appreciate this application being set for hearing on October 28, 1970, in conjunction with Case 4423 which has been continued to that date. Case 4423 and the present application are alternative applications which, in part, involve the same acreage.

The Commission's cooperation in continuing Case 4423 in anticipation of this application is very much appreciated.

Very truly yours,

Richard S. Morris

RSM:peg
Enc.

cc Bill Petmecky
Union Oil Co. of California
Midland, Texas

DOCKET MAILED

DOCKET MAILED

Date 10-14-70

Date 11-5-70

Docket mailed for
11-18-70 hearing *dk.*

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

APPLICATION OF UNION OIL COMPANY
OF CALIFORNIA FOR A NON-STANDARD
PRORATION UNIT, ROOSEVELT COUNTY,
NEW MEXICO.

Case No. 4457

A P P L I C A T I O N

Comes now UNION OIL COMPANY OF CALIFORNIA, by its attorneys, and applies to the New Mexico Oil Conservation Commission for an order approving and establishing a non-standard proration unit in the Bluitt-San Andres Associated Pool, Roosevelt County, New Mexico, and in support of its application states:

1. Applicant is the owner of the Southwest Quarter of the Southeast Quarter (SW 1/4 SE 1/4) of Section 17, and the Northwest Quarter of the Northeast Quarter (NW 1/4 NE 1/4) of Section 20, Township 8 South, Range 38 East, Roosevelt County, New Mexico, together comprising 80 acres, more or less.

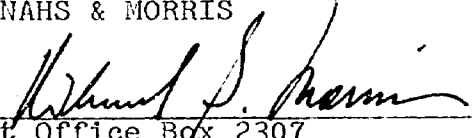
2. Applicant proposes the establishment of a non-standard 80-acre proration unit in the Bluitt-San Andres Associated Pool, comprising the aforesaid acreage, which unit would be dedicated to a well to be drilled to the Bluitt-San Andres Associated Pool at a standard location in the Southwest Quarter of the Southeast Quarter (SW 1/4 SE 1/4) of said Section 17.

3. Applicant requests that this application be considered as an alternative to its application presently pending before the Commission in Case 4423.

4. Approval of this application will neither cause waste nor impair correlative rights.

WHEREFORE, Applicant requests that this application
be set for hearing at the Examiner hearing scheduled for
October 28, 1970.

MONTGOMERY, FEDERICI, ANDREWS,
HANNAHS & MORRIS

BY: 
Post Office Box 2307
Santa Fe, New Mexico 87501

Attorneys for UNION OIL COMPANY
OF CALIFORNIA