CASE 5516: J. R. CONE FOR DOWNHOLE COMMINGLING AND A DUAL COMPLETION, LEA COUNTY, NEW MEXICO

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# CASE NO.

APPIICATION,
Transcripts,
Small Exhibits,

ETC.

### **OIL CONSERVATION COMMISSION**

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

87501
July 23, 1975

CASE NO. 5516 Re: ORDER NO. R-5064 Mr. Tom Kellahin Kellahin & Fox Attorneys at Law Post Office Box 1769 Applicant: Santa Fe, New Mexico J. R. Cone Dear Sir: Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case. Yours very truly JOE D. RAMEY Secretary-Director JDR/fd Copy of order also sent to: Hobbs OCC X
Artesia OCC Aztec OCC

## 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. 5516 Order No. R-5064

APPLICATION OF J. R. CONE FOR DOWNHOLE COMMINGLING AND A DUAL COMPLETION, LEA COUNTY, NEW MEXICO.

#### ORDER OF THE COMMISSION

#### BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on July 2, 1975, at Santa Pe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this <u>22nd</u> day of July, 1975, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

#### FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, J. R. Cone, is the owner and operator of the Eubanks Well No. 4, located in Unit N of Section 14, Township 21 South, Range 37 East, NMPM, Lea County, New Hexico.
- (3) That the applicant seeks authority to commingle Blinebry and Drinkard production within the wellbore of the above-described well.
- (4) That from the Blinebry zone, the subject well is capable of low rates of production only.
- (5) That from the Drinkard zone, the subject well is capable of low rates of production only.
- (6) That the proposed commingling may result in the recovery of additional hydrocarbons from each of the subject pools, thereby preventing waste, and will not violate correlative rights.

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- (7) That the reservoir characteristics of each of the subject zones are such that underground waste would not be caused by the proposed commingling provided that the well is not shut-in for an extended period.
- (8) That to afford the Commission the opportunity to assess the potential for waste and to expeditiously order appropriate remedial action, the operator should notify the Hobbs district office of the Commission any time the subject well is shut-in for 7 consecutive days.
- (9) That in order to allocate the commingled production to each of the commingled zones in the subject well, 74 percent and 82 percent of the commingled oil and gas production, respectively, should be allocated to the Blinebry zone, and 26 percent and 18 percent of the commingled oil and gas production, respectively, to the Drinkard zone.
- (10) That the applicant further seeks authority to complete the above-described well as a dual completion to produce oil and gas from the aforesaid commingled zones and Wantz-Abo production through parallel strings of tubing with separation of the zones by means of a packer.
- (11) That the mechanics of the proposed dual completion are feasible and in accord with good conservation practices.

#### IT IS THEREFORE ORDERED:

- (1) That the applicant, J. R. Cone, is hereby authorized to commingle Blinebry and Drinkard production within the wellbore of his Eubanks Well No. 4, located in Unit N of Section 14, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico.
- (2) That 74 percent and 82 percent of the commingled oil and gas production, respectively, shall be allocated to the Blinebry zone and 26 percent and 18 percent of the commingled oil and gas production, respectively, shall be allocated to the Drinkard zone.
- (3) That the operator of the subject well shall immediately notify the Commission's Hobbs district office any time the well has been shut-in for 7 consecutive days and shall concurrently present, to the Commission, a plan for remedial action.
- (4) That the applicant is further authorized to complete its above-described well as a dual completion (conventional) to produce oil and gas from the aforesaid commingled zones and Wantz-Abo production through parallel strings of tubing with separation of the zones by means of a packer set at approximately 6780 feet.

-3-Case No. 5516 Order No. R-5064

PROVIDED HOWEVER, that the applicant shall complete, operate, and produce said well in accordance with the provisions of Rule 112-A of the Commission Rules and Regulations insofar as said rule is not inconsistent with this order;

PROVIDED FURTHER, that the applicant shall take packer leakage tests upon completion and annually thereafter during the Annual Gas-Oil Ratio Test Period for the Wantz-Abo Pool.

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

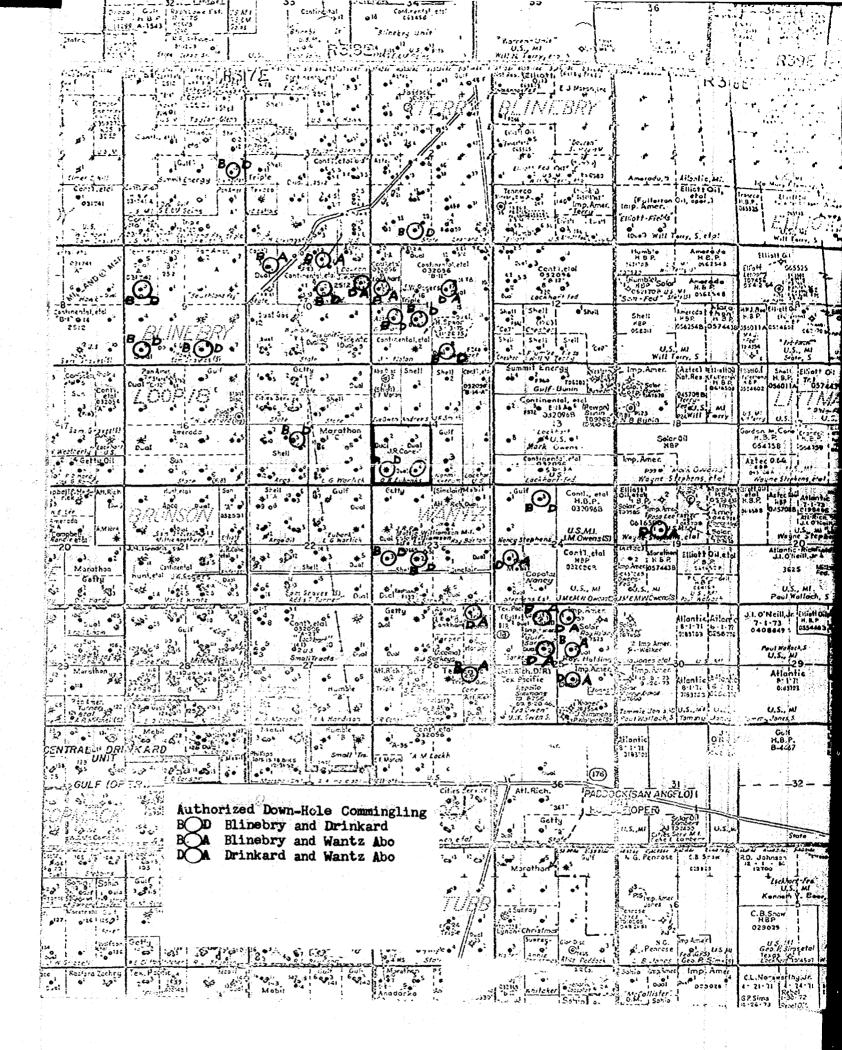
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

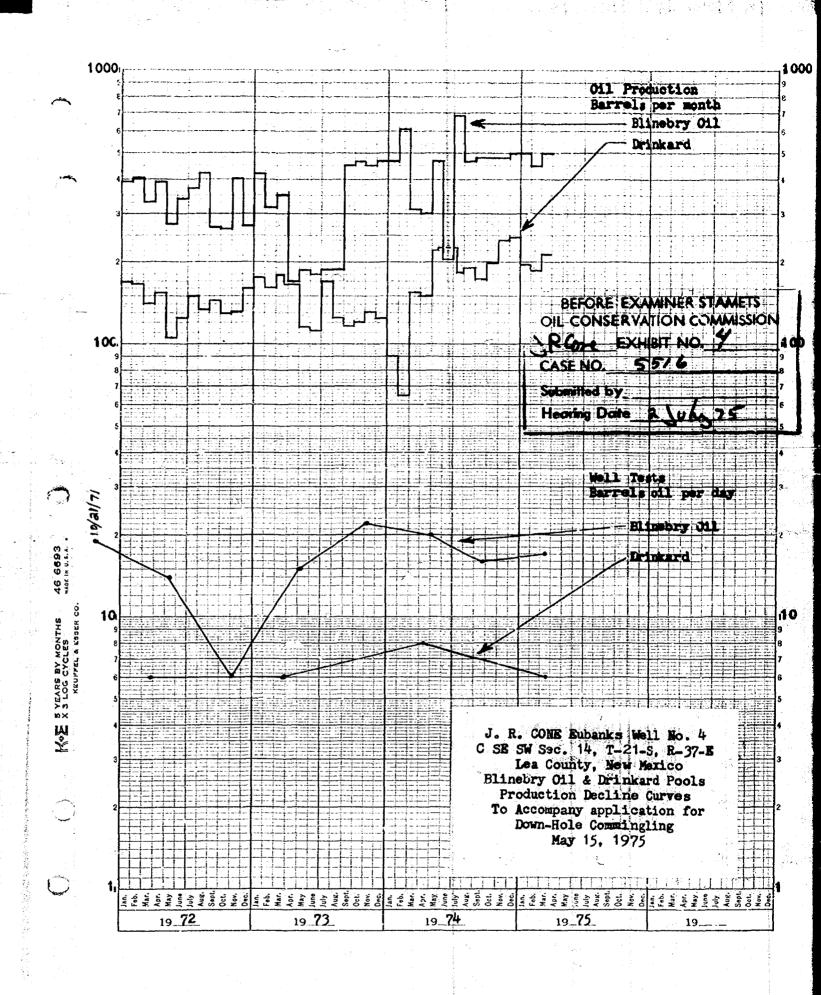
STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

PRIL R. LUCERO, Member

JOE D. RAMEY, Member & Secretary

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# BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico July 2, 1975

#### EXAMINER HEARING

IN THE MATTER OF:

Application of J. R. Cone for downhole commingling and a dual completion, Lea County, New Mexico

CASE NO. 5516

BEFORE: Richard L. Stamets, Examiner

TRANSCRIPT OF HEARING

#### APPEARANCES

For the New Mexico Oil Conservation Commission:

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

For the Applicant:

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

CASE 5516

### EXHIBITS

Applicant's Exhibits Nos. 1 through 4

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Page.......3.....

MR. STAMETS: Case 5516.

MR. DERRYBERRY: Case 5516. Application of J. R. Cone for downhole commingling and a dual completion, Lea County, New Mexico.

MR. KELLAHIN: Tom Kellahin of Kellahin and Fox,

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

(Witness sworn.)

CONTRACTOR OF THE SECOND

#### L. O. STORM

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

#### DIRECT EXAMINATION

#### BY MR. KELLAHIN:

Q Would you please state your name, by whom you are employed and in what capacity?

A My name is L. O. Storm. I am employed by J. R. Cone, as a petroleum engineer.

Q Mr. Storm, have you previously testified before the Oil Commission and had your qualifications as an expert witness accepted and made a matter of record?

A Yes, sir, they have been.

Q Are you familiar with the facts surrounding this particular Application?

A Yes, sir, I am.

MR. KELLAHIN: If the Examiner please, are the witness' qualifications acceptable?

MR. STAMETS: They are.

#### BY MR. KELLAHIN:

Q Mr. Storm, would you refer to what has been marked as Exhibit No. 1, identify it and summarize briefly for the Examiner what the Applicant is seeking?

A The plat identifies the wells in which downhole commingling has been authorized by the Commission in the vicinity of the J. R. Cone-Eubanks Lease, said lease being the southwest quarter of Section 14, Township 21 South, Range 37 East. I won't say that all of the authorized downhole commingling in the general area are identified here. The data were taken from a tabulation maintained in the Conservation office in Hobbs. The letter "B" signifies the Blinebry Oil and Gas Pool, "D" for Drinkard, "A" for Wantz-Abo Pool.

You will note there are all sorts of combinations within roughly a three-mile radius of the Eubanks Lease, and on the Eubanks Lease in the southwest 40 acres, Well

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No. 1 is operated with downhole commingling authorized in 1972. This involves the Blinebry and Drinkard Pools.

Q With reference to that particular well, Mr. Storm, will you recite for the Examiner the Order and Case number that authorized that particular downhole commingling?

under the date of January 27, 1972. The well has been produced since that time with downhole commingling via one tubing string, the long Drinkard ubing string. No production has been taken from any other string in the well. Authority really was requested on the basis of the evidenced downhole failure or communication in the long tubing string. We had tried, before we repaired Well No. 1, to correct the problem. It was a matter of economics and we requested when the third failure showed up on the downhole commingling and it was authorized.

Q What is the situation as to ownership on your Eubanks Lease?

A To my knowledge, all of the oil and gas ownership is common under the 160-acre lease.

Q Please refer to Exhibit 2 and summarize the information contained on that exhibit?

A It is a schematic sketch that I prepared to

present very briefly the downhole mechanical arrangement as it now exists in the JRQ Eubanks Well No. 4. You will note that the well was drilled to a total depth of 7350 feet in basement rocks or granite. The Abo was left available as an open hole with possible completion of 7-inch casing cemented at 6863 feet. We did brief, but inconclusive testing of the Abo at the time the well was drilled in January of 1960. We isolated the Abo with a retainer and expendable plug and dually completed the well with parallel strings of tubing from the Drinkard and the Blinebry oil zone as it was then identified by the Commission. The well has been produced through the parallel tubing strings dually since the initial completion in January of 1960. We have current evidence that leakage is developing again in the long tubing string, the Drinkard string. This is one of the reasons for our request to combine the Blinebry oil and gas pools and the Drinkard pool downhole and produce those through one tubing string, opening up the Abo and produce it through the second tubing string. The Abo would be segregated by the retrievable packer.

Q Would you please refer to what has been marked as Exhibit 3 and identify it?

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A This is the Conservation Commission Form C-116 which reports the latest tests in the Blinebry oil and gas zone and the Drinkard zone in Eubanks Well, No. 4. You will note that the Blinebry oil zone produced 17 barrels of oil and the Drinkard pool 6 barrels of oil. The gravities are very close to liquid oil gravities. Of course, there are variations seasonally from cold to hot weather, but these gravities consistently are pretty close together on the two pays. We would not look for any economic impact by commingling of the oil.

Q Do you have a recommendation as to a percentage for allocating the production between the Blinebry oil and the Drinkard?

A Yes, sir. I conducted this test personally.

I think it is represented as the current capability of the two producing zones, and on that basis, approximately 20 percent of any commingled oil could be allocated to the Drinkard zone and approximately 74 percent could be allocated to the Blinebry oil and gas zone.

Q Would you please refer to what has been marked as Exhibit 4 and identify it?

A This is a plot of oil and gas production as allocated to the well for the Blinebry oil and the Drinkard

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Pools, and the lower part of the graph presents well-test data on the two zones starting from late 1971 up to the test string in 1975. I think the tests are probably more representative than the allocation of oil because the allocation is based on well tests or has been over the history of the wells, and I would lean more toward the well test grafting and the current capabilities of the well as to the zones.

Q Do you anticipate any incompatibility problems with the proposed downhole commingling?

A None that I am aware of. We have no evidence of any problems in this respect in the production of the No. 1 Well where we have been producing with downhole commingling for approximately three years.

Q What are the gravities of the Blinebry and Drinkard oil?

A They will -- C-ll6 reports indicate approximately 38.5 degrees. This will vary up or down depending on the season of the year. It will run a little higher in the wintertime and a little less in the summertime.

Q What reliable pressure information do you have?

A I have none in this respect because currently -let me point out that from the completion of the Drinkard

zone in 1960, we had to produce the well with an intermitter, like a controller in order to maintain the flowing condition, and here recently, the well wants to flow all the time.

That and the fact that shut-in tubing pressures are nearly equal on short shut-in suggests to me that we do have a tubing failure developing in the long tubing string. So, to shut the well in and run a bomb in two tubing strings, I think would not be very enlightening and we would probably obtain what we call an average shut-in pressure of the two zones.

- Q Both zones are in a marginal state at this point?
- A Yes, they are and have been. The Drinkard was from completion.
- Q Were Exhibits 1 through 4 prepared by you,

  Mr. Storm, or prepared under your direction and supervision?
  - A They were all prepared by me.
- Q In your opinion, will approval of this Application be in the best interest of conservation and prevention of waste and the protection of correlative rights?
  - A Yes, sir.

MR. KELLAHIN: If the Examiner please, I move the introduction of Exhibits 1 through 4, and that concludes our direct examination.

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MR. STAMETS: These exhibits will be admitted into evidence.

(Whereupon, Applicant's Exhibits Nos. 1 through 4 were marked for identification, and were offered and admitted into evidence.)

#### CROSS EXAMINATION

BY MR. STAMETS:

Q Mr. Storm, this Order R-4248 you referred to, is that the Order which authorized the downhole commingling of the No. 1 Well?

A No, sir, it does not. I did not read the title. It authorized an activity on a well produced by -- I don't know how to say it -- Acoma Oil Corporation, their S. J. Zarkey A No. 1 Well which initially, I think, was completed as a triple from the Blinebry, Drinkard and Abo formations, and under this Order they were authorized to commingle the Drinkard and Wantz-Abo Pools through one tubing string and the Blinebry Pool to be produced through a separate string, so mechanically, it is a similar arrangement to what we were requesting for the JRQ Eubanks No. 4.

Q I believe your Exhibit No. 1 does show that the Blinebry and Drinkard are downhole commingled in the No. 1 Well?

- A On the Bubanks Lease, the J. R. Cone, yes, sir.
- Q Do you have that Order number?
- A Yes. PHC-117. I do not have the date on it, but it was mid-1972.
  - Q August of '72?
  - A August, 1972.
- Q Is Mr. Cone also the operator of the No. 2 and No. 3 Wells?
- A He is the operator of all oil and gas operations on the lease.
- Q Are either of those wells completed in the Blinebry and/or Drinkard?
  - A All four wells on the lease?
  - Q No, the No. 3 and No. 2?
- A No. 3 is currently a dual Blinebry gas, if you will, over Drinkard oil. The No. 2 Well is a I will have to explain it. It is a Blinebry gas over Tubb gas dual. The Blinebry gas is not produced in the No. 2 Well. The acreage, the 40 acres surrounding the No. 2 Well, insofar as the Blinebry is concerned, are dedicated to the No. 3 Well and the No. 3 Well is produced as an 80-acre non-standard Blinebry gas unit.
  - Q What I was getting at, Mr. Storm, is could the

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Blinebry and Drinkard pressures be obtained on any of these offsetting wells?

- A Yes, sir. On Wells 2 and 3.
- Q Do you have immediate knowledge of what the pressure should be on the Blinebry and Drinkard on this particular well?
- A. Are you asking in terms of shut-in time, like a day or two shut-in pressure?
- Q Right, for determining whether or not they would be potential for cross flow in this particular well? If you would like, I would be happy to have you submit this later.

A Off the top of my head, I would say that where downhole separation exists between the Blinebry oil zone and the Blinebry gas zone, you might find pressures on extended shut-in, say, as high as 500 pounds on the gas zone, but communication behind the casing is probably the norm more than the exception and I have a strong feeling that in the case of Well No. 2 on the Eubanks Lease that we do have communication between the oil and gas zones in the Blinebry section. I think the same also exists in Well No. 3. I do not believe it exists in Well No. 4, and we never opened the gas in Well No. 4, the Blinebry

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gas zone. Only the oil column was perforated.

Q Do you have any evidence that you could furnish us now or later which would demonstrate what the pressure should be in the Blinebry oil zone and the Drinkard oil zone?

Well No. 1, going over the wells one at a time, we have a mechanical failure in the tubing downhole in the long string, so the Drinkard and Blinebry pressures would have a chance to equalize. The pressure on that well, i don't think would be definitive, but in the case of Well No. 1, years back, initially, it was completed as a Blinabry gas well over Drinkard bil, and the Blinebry oil pool development came along in the late '50's and early '60's. We opened the oil section in Well No. 1 and separated the oil and gas columns with a retrievable packer and the pressures that we see on the annulus above the top packer represents the Blinebry gas section. pressures currently are on the order of 500 pounds. don't see pressures that high on the Blinebry oil section in Well No. 4 before we had evidence of apparent failure. I suspect that we have communication outside the casing in Well No. 3 in the overall Blinebry section. I suspect the same in Well No. 2 because both wells were completed

in the Blinebry oil column and produced as Blinebry oil wells until recent years when the gas-oil ratio got out of hand and the State reclassified both as gas wells in the Blinebry. This is Wells 2 and 3. This is when we dedicated the north-half of the lease to Well No. 3 as a Blinebry gas well and shut in the Blinebry zone and stopped production in Well No. 2.

Q Getting back to the mechanics of the work over here, I presume you will be pulling both strings of tubing out of this hole?

A We contemplated, in order, killing the well and treating it with water with all of the suitable chemicals in it and drilling out the two retainers. These are fixed retainers that are now in the well. One separates the Blinebry from the Drinkard and the other separates the Drinkard from the Abo. We would then install a retrievable lock-set packer built by Baker Oil Tools which can be utilized as a bridge plug with the appropriate tools. It would serve to segregate the Abo and the oil pays above it. The long tubing string would be extended to latch into this packer and the Abo would be produced separately from anything above it. It would be segregated from all zones above it.

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- Q Where would that be set, approximately?
- A Somewhere near the base of the 7-inch casing. I think in my sketch, I estimated -- I think I made a statement about where we would put it. Near 6700 feet.
- Q Where would the string for the production of the Blinebry and Drinkard production be set?
- A I anticipated lengthening that string so that it would be landed near the base of the Drinkard perforations which would be on the order of, say, 6650.
  - Q Those would both be standard sized tubings?
- A They both are. Currently the well is equipped on long string standard 2 and 3/8 subset round tubing. The sub-string is 2 and 3/8 high drill, and this is an obsolete joint. I will have to cross it over to a 2 and 3/8 subset, but those strings would be lengthened to produce the well from near the base of each producing section.
  - Q Would the well be pumped or would it be flowed?
- A The Abo is something that I wouldn't want to second-guess. From the very brief testing that we did in early 1960, I would expect that with some luck we will have a short flowing period from the Abo and it will then require artifical lift. Accordingly, Mr. Cone has acquired a new pumping unit in anticipation and it will be installed on

the Abo side to lift that production. It is my impression from what Abo wells I looked at that almost all have been lifted artificially during their productive lives.

Q What about the commingled Blinebry and Drinkard production?

A I think we have a reasonable chance of flowing production there on the basis of the performance of Well No. 1 for some time in the future. Water production is negligible. You have to look for it on the lease. It is probably on the order of 1 or 2 barrels a day in all zones open on the lease.

Q You have recommended 26-percent to the Drinkard and 74-percent to the Blinebry. Would you recommend that the gas be divided up also based on the production tests?

A Yes, sir, I would. Those are segregated. They were actual measurements of the gas produced from each zone.

MR. STAMETS: Are there any other questions of the witness? He may be excused.

(Witness dismissed.)

MR. STAMETS: Is there anything further in this case? We will take the case under advisement.

STATE OF NEW MEXICO )

COUNTY OF SANTA FE )

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

COURT REPORTER

the Examiner hearing of Case No. 55.6.

Her Mexico 011 Conservation Commission

Examiner

# 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. 4645 Order No. R-4248

APPLICATION OF ACOMA OIL CORPORATION FOR DOWN-HOLE COMMINGLING, LEA COUNTY, NEW MEXICO.

#### ORDER OF THE COMMISSION

#### BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on January 19, 1972, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 27th day of January, 1972, 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, Acoma Oil Corporation, is the owner and operator of the S. J. Sarkeys A Well No. 1, a triple completion, located in Unit A of Section 26, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico.
- (3) That pursuant to authority granted by Administrative Order MC-1692, the subject well was completed as a triple completion to produce oil from the Blinebry, Drinkard, and Wantz-Abo Oil Pools through parallel strings of tubing.
- (4) That the applicant now proposes to complete the subject well in such a manner as to produce oil from the Blinebry Oil Pool through one string of tubing and to produce the Drinkard and Wantz-Abo Pools through a single parallel string of tubing, commingling in the well-bore the production from the Irinkard and Wantz-Abo oil zones, with separation of

the Blinebry zone and the commingled zones by means of a packer.

- (5) That from the Drinkard zone, the subject well is capable of extremely low marginal production only.
- (6) That from the Wantz-Abo zone, the subject well is capable of extremely low marginal production only.
- (7) That the reservoir characteristics of the Drinkard and Abo zones are such that underground waste would not be caused by the proposed commingling.
- (8) That the proposed commingling may result in the recovery of additional hydrocarbons from each of the commingled zones, thereby preventing waste, and will not violate correlative rights.
- (9) That in order to allocate the commingled production to each of the commingled zones in the subject well, 33% of the commingled oil production should be allocated to the Drinkard Pool, 67% of the commingled oil production to the Wantz-Abo Pool, and 100% of the commingled gas production to the Drinkard zone.
- (10) That Administrative Order MC-1692 should be placed in abeyance.

#### IT IS THEREFORE ORDERED:

(1) That the applicant, Acoma Oil Corporation, is hereby authorized to complete its S. J. Sarkeys A Well No. 1, located in Unit A of Section 26, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico, in such a manner as to produce oil from the Blinebry Pool through one string C. tubing and to produce oil from the Drinkard and Wantz-Abo Pools through a single parallel string of tubing, commingling in the well-bore the production from the Drinkard and Wantz-Abo Pools, with separation of the Blinebry zone and the commingled zones by means of a packer.

PROVIDED HOWEVER, that the applicant shall complete, operate, and produce said well in accordance with the provisions of Rule 112-A of the Commission Rules and Regulations insofar as said rule is not inconsistent with this order;

-3-CASE NO. 4645 Order No. R-4248

PROVIDED FURTHER, that the applicant shall take packerleakage tests upon completion and annually thereafter during the Annual Gas-Oil Ratio Test Period for the Blinebry Oil Pool.

- (2) That 33% of the commingled oil production shall be allocated to the Drinkard zone, 67% of the commingled oil production to the Wantz-Abo zone, and 100% of the gas production to the Drinkard zone.
- (3) That the commingling in the well-bore authorized by this order shall continue only so long as the commingled production of the two zones does not exceed 50 barrels of oil per day nor 100 barrels of water per day.
- (4) That the maximum amount of gas which may be produced daily from the commingled zones in the subject well shall be determined by multiplying 2,000 by the top unit allowable for the Drinkard Pool.
- (5) That Administrative Order MC-1692 is hereby placed in abeyance.
- (6) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

BRUCE KING, Chairman

ALEX J. ARMIJO, Member

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

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# NEW MEXICO OIL CONSERVATION COMMISSION GAS-OIL RATIO TESTS

C-116 Revised 1-1-65

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To well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool is which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing

Mail original and one copy of this report to the district office of the New Mexico Oli Conservation Commission in accordance with Rule 301 and appropriate pool rules.

I hereby certify that the above information is true and complete to the best of my knowledge and belief:

(Signature)
Engineer
(Title)

M11 30, 1975

(Date)

Dockets Nos. 16-75 and 17-75 are tentatively act for hearing on July 16 and July 30, 1975. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - JULY 2, 1975

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

The following cases will be heard before Richard L. Stamets, Examiner, or Joe D. Ramey, Alternate Examiner:

CASE 5501: (Continued from the June 10, 1975, Examiner Hearing)

Application of Hanagan Petroleum Corporation for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the N/2 of Section 24, Township 21 South, Range 26 East, Eddy County, New Mexico, to be dedicated to a well to be drilled at a standard location for said unit. Also to be considered will be the cost of drilling and completing said well and the allocation of such costs as well as actual operating costs and charges for supervision. Also to be considered will be designation of application as operator of the well and a charge for the risk involved in drilling said well.

CASE 5514: Application of Texaco Inc. for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Blinebry, Tubb-Drinkard, Devonian, and Fusselman production in the wellbore of its G. L. Erwin "B" Federal Well No. 4, located in Unit O of Section 35, Township 24 South, Range 37 East, Justis Field, Lea County, New Mexico.

CASE 5515: Application of Exxon Co., USA for a quadruple completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the quadruple completion of its NM State "S" Well No. 24, located in Unit J of Section 2, Township 22 South, Range 37 East, Lea County, in such a manner as to produce Grayburg and Granite Wash production through parallel strings of 2 7/8-inch casing cemented in a common wellbore and to dually complete the third string of 2 7/8-inch casing in the well in such a manner as to permit Wantz-Abo production through the 1 1/2-inch tubing and Drinkard production through the casing-tubing annulus.

CASE 5516:

Application of J. R. Cone for downhole commingling and a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Blinebry and Drinkard production in the wellbore of his Eubanks Well No. 4, located in Unit N of Section 14, Township 21 South, Range 37 East, Lea County, New Mexico, and for the dual completion of said well in such a manner as to produce the aforesaid commingled Production and Abo production through parallel strings of tubing.

OFFICE PHONE

J. R. CONE

P. D. BOX 871 LUBBOCK, TEXAS 79408

June 2, 1975

Oil Conservation Commission P. O. Box 2088 Santa Fe, New Mexico 87501

Attention: Mr. J. D. Ramey, Secretary-Director

Re: Application for down-hole commingling and dual completion, J. R. Cone Eubanks Well No. 4, Unit M, Sec. 14, T-21-S, R-37-E, Lea County, New Mexico

Dear Mr. Ramey:

We have been advised that our captioned application of May 15, 1975 must be presented at open hearing. Accordingly we shall appreciate the application being placed on the next Examiner Hearing docket which we understand is tentatively scheduled for July 2, 1975.

Briefly, our application requests authority for down-hole commingling of the Blinebry Oil and Gas Pool and the Brinkard Pool, and dual completion of those with the Wantz Abo Pool via two strings of 2-3/8 inch tubing. A retrievable-type packer will be used to segregate the Wantz Abo Pool production down-hole from the Blinebry-Drinkard production.

Respectfully yours,

J. R. CONE

- FO

cc: Oil Conservation Commission P. O. Box 1980 Hobbs, New Mexico 88240

> Cal Coss in anon colmsaro Fe

This guy is really asking for permission to downhole commingle the Blindry and Drinbard, and then dual this commingling with the abo.

Blindry and Drinkard now dual completion.

It is probably OK to do this, but can we give administrative approval?

2 orders, I for MC.

del says No I called Com. He says set for hearing. I told him it would probably be July 16th

OFFICE PHONE PORTER 3-8211

Text for

# J. R. CONE 1423 NORTH AVENUE P P. O. BOX 871 LUBBOCK, TEXAS 79408

May 15, 1975

Oil Conservation Commission P. O. Box 871 Santa Fe, New Mexico 87501

Attention: Mr. A. L. Porter, Jr., Secretary-Director

Re: Application for down-hole commingling and dual completion, J. R. Cone Eubanks Well No. 4, Unit N, Section 14, T-21-S, R-37-E, NMPM, Lea County, New Mexico.

Dear Mr. Porter:

J. R. Cone herewith makes application for approval of down-hole commingling in his Bubanks Well No. 4 of the Blinebry Oil and Gas Pool and the Drinkard Pool; and dual completion of the foregoing with the Wantz Abo Pool. The said well is located 660 feet from the South line and 1980 feet from the West line, Unit N, Section 14, T-21-S, R-37-E, NMPM, Lea County, New Mexico.

In support of this application the following attachments are appended hereto:

- 1. Area plat showing location of the subject lease and well.
- 2. Diagrammatic sketch showing the present down-hole mechanical arrangement in Eubanks No. 4.
- 3. NMOCC Form C-116 which presents the most recent well test data on the Blinebry Oil and Gas and the Drinkard zones.
- 4. Production decline curves of the Blinebry Oil and Gas and the Drinkard zones.
- 5. A list of all offset operators to the Eubanks lease each of whom has been furnished a copy of this application.

Ownership is common as to all hydrocarbons underlying the Bubanks lease.

Eubanks No. 4 was drilled and completed as a parallel tubing strings dual Blinebry Oil over Drinkard producer in January 1960 under NMOCC Order No. DC-878. The well has been so operated since that time. Initially, the well was drilled through the Abo formation into the subjected basement rocks. Brief testing was conducted of the Abo before it was isolated with a retainer and the Blinebry Oil - Drinkard dual effected.

It will be noted from the attached C-116 that the Blinebry Oil and Gas and the Drinkard zones both flow with a combined oil production of 23 barrels per day. Water production is negligible.

DOCKET MAILED

Date 6/18/75

Page 2: J. R. Cone down-hole commingling application, Eubanks No. 4:

No incompatibility problems are expected from the proposed down-hole commingling. The west-offsetting J. R. Cone Eubanks No. 1 has been produced since August 1972 under NMOCC Order No. DHC-117 with down-hole commingling of the Blinebry Oil and Gas and the Drinkard zones without any evident negative consequences.

Bottom hole pressures have not been run on the Blinebry and Drinkard Pools in Eubanks No. 4 because of recent evidence of down-hole leakage developing in the Drinkard or long tubing string. The most recent reliable pressure data on the two zones would be reflected in the packer leakage test conducted April 16 to 20, 1974. During that test 72-hour shut-in pressures of 395 and 285 psig were recorded on the Blinebry and Drinkard zones, respectively.

Blinebry and Drinkard oil gravities from Eubanks No. 4 have consistently been very similar, both averaging near 38.50 API. Thus we would expect negligible impact on oil revenues to result from the requested commingling.

Eubanks No. 4 will be conditioned for down-hole commingling and dual completion first by drilling out the Baker model FA retainer production packer at 6365 feet and the model D retainer with expendable plug at 6780 feet. Parallel strings of 2-3/8-inch tubing with a retrievable packer (Baker Lok-Set) set near 6700 feet will be utilized to segregate the Abo from the Blineory and Drinkard. It is planned also to install rod pump equipment on the Abo inasmuch as the majority of Wantz Abo Pool wells have required lift assistance.

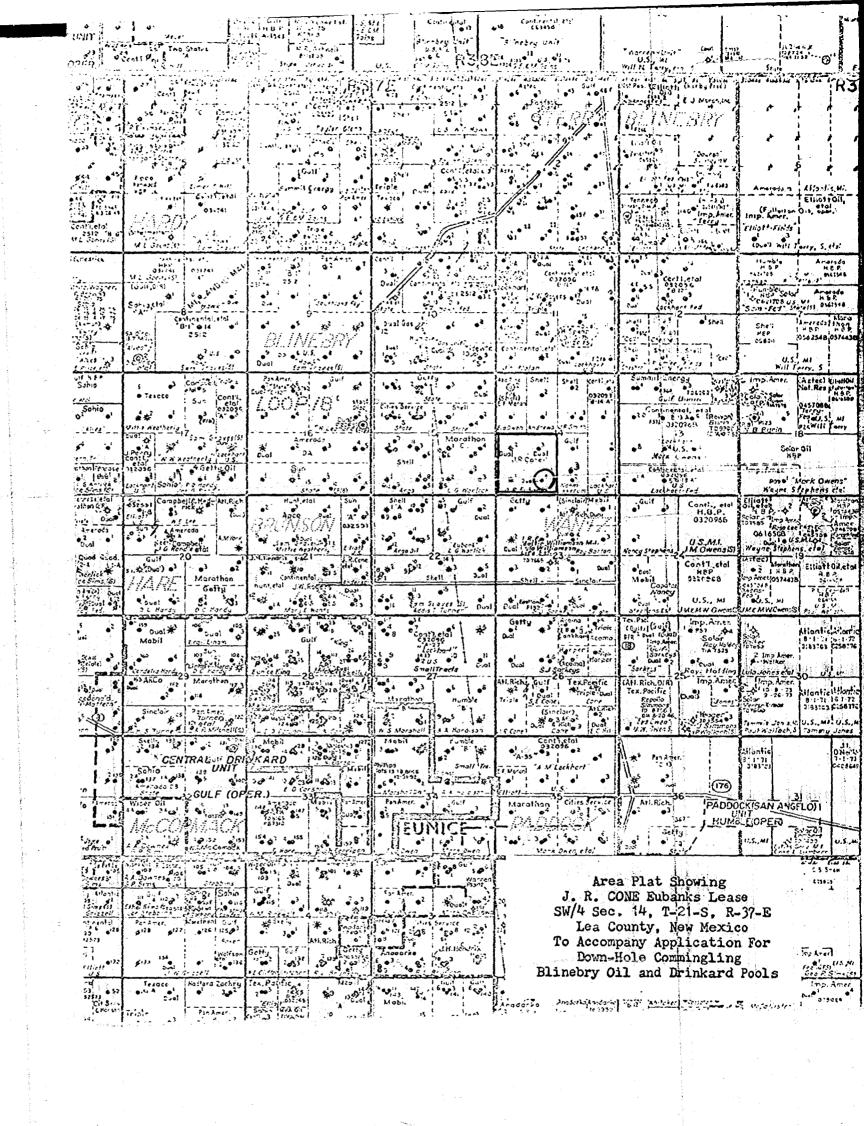
We shall appreciate your favorable consideration of this application. Please advise if any additional information is required.

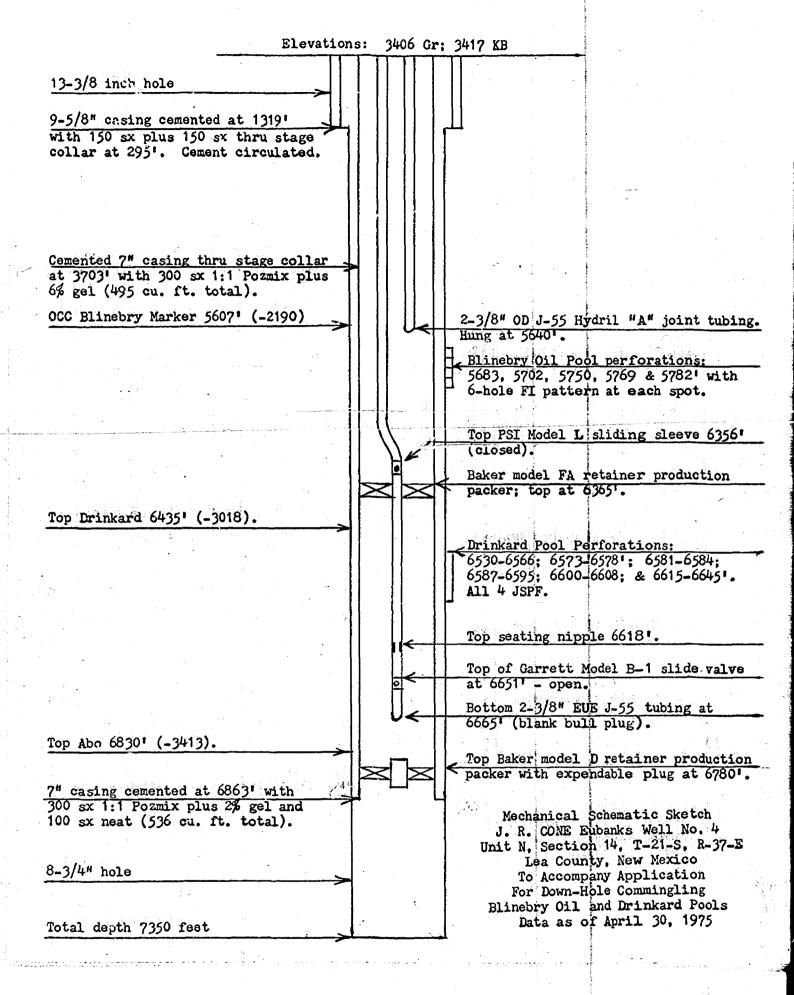
Respectfully yours,

J. R. CONE

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Attachments (5)





# NEW MEXICO OIL CONSERVATION COMMISSION GAS-OIL RATIO TESTS

C-116 Revised 1-1-65

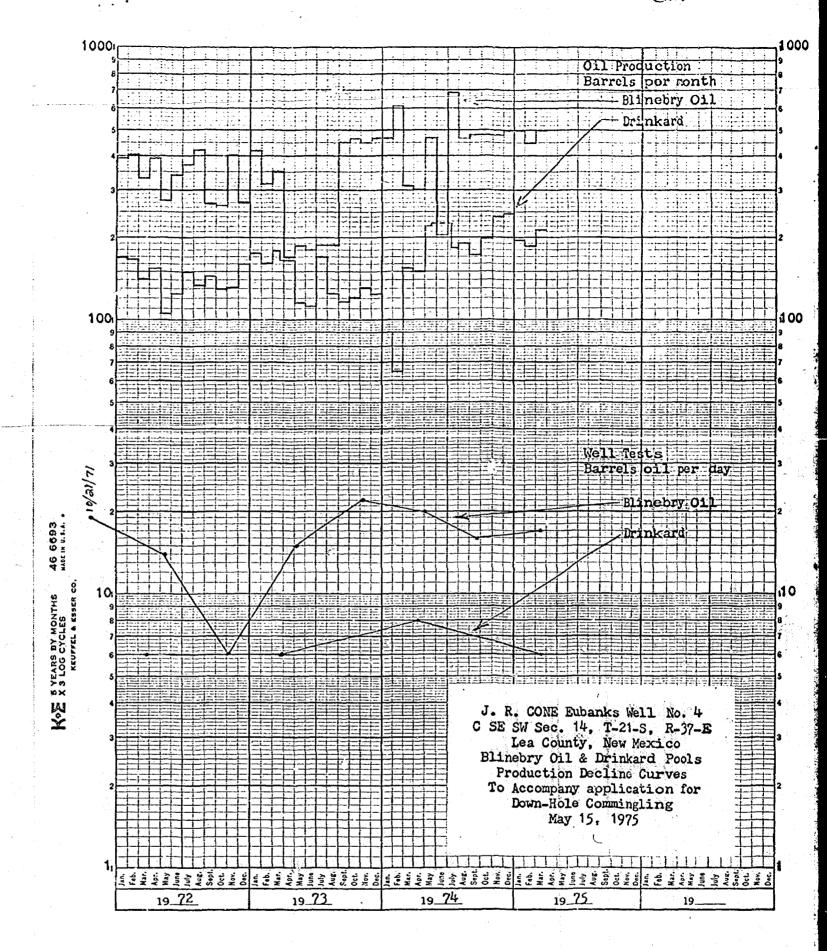
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Report casing pressure in lieu of tubing pressure for any well producing through casing.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Com Rule 301 and appropriate pool rules.

(Signature)
Engineer

(Tide) April 30, 1975



### List of Attachments

- 1. Area plat showing lease and well in question.
- 2. Mechanical schematic sketch showing present down-hole arrangement of well in question.
- 3. NYOCC Form C-116 presenting latest well tests.
- 4. Production decline curves of Blinebry Oil and Drinkard zones.

## DISTRIBUTION LIST

Oil Conservation Commission (2) P. O. Box 2088 Santa Fe, New Mexico 87501

Oil Conservation Commission (1) P. O. Box 1980 Hobbs, New Mexico 88240

Atlantic Richfield Company
P. O. Box 1710
Hobbs, New Mexico 88240 (1)

Getty Oil Company (1) P. O. Box 249 Hobbs, New Mexico 88240

Gulf Oil Company - US (1) P. O. Box 670 Hobbs, New Mexico 88240

Marathon Oil Company (1) P. O. Box 2409 Hobbs, Hew Mexico 88240

Moranco (1) P. O. Box 1919 Hobbs, New Mexico 88240

Shell Oil Company (1)
P. O. Box 1509
Midland, Texas 79701

#### J. R. CONE 1423 NORTH AVENUE P P. O. 80X 871 LUBBOCK, TEXAS 79408

May 15, 1975

Oil Conservation Commission P. O. Box 871 Santa Fe. New Mexico 87501

Attention: Mr. A. L. Porter, Jr., Secretary-Director

Re: Application for down-hole commingling and dual completion, J. R. Cone Eubanks Well No. 4, Unit N, Section 14, T-21-S, R-37-E, NMPM, Lea County, New Mexico.

Dear Mr. Porter:

J. R. Cone herewith makes application for approval of down-hole commingling in his Eubanks Well No. 4 of the Blinebry Oil and Gas Pool and the Drinkard Pool; and dual completion of the foregoing with the Wantz Abo Pool. The said well is located 660 feet from the South line and 1980 feet from the West line. Unit N. Section 14, T-21-S, R-37-E, NMPM. Lea County, New Mexico.

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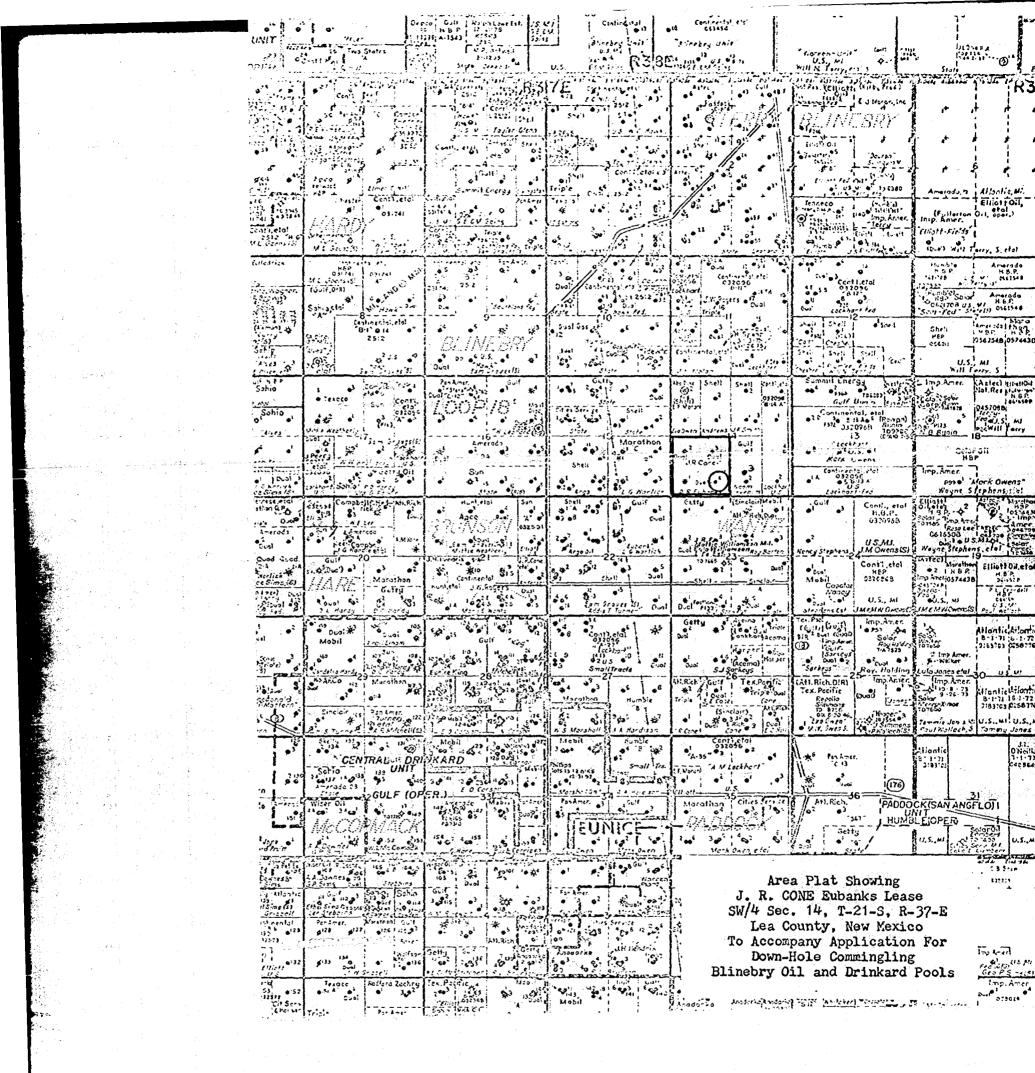
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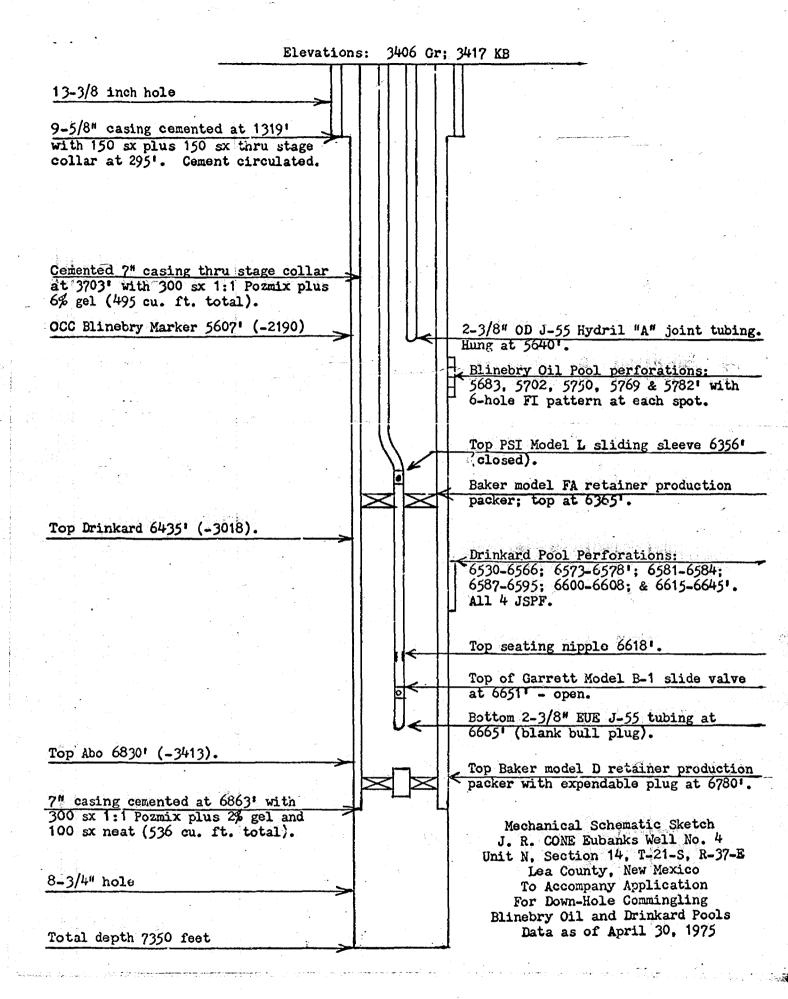
Respectfully yours,

By L. O. Storm

J. R. CONE

Attachments (5)





· cerator	J. R. COME					Blinebry Oil & Drinkard							ounty Lea					
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Gas volumes must be reported in MCF measured at a pressure base of 15,025 psla and a temperature of 60° F. Specific gravity base will be 0.60.

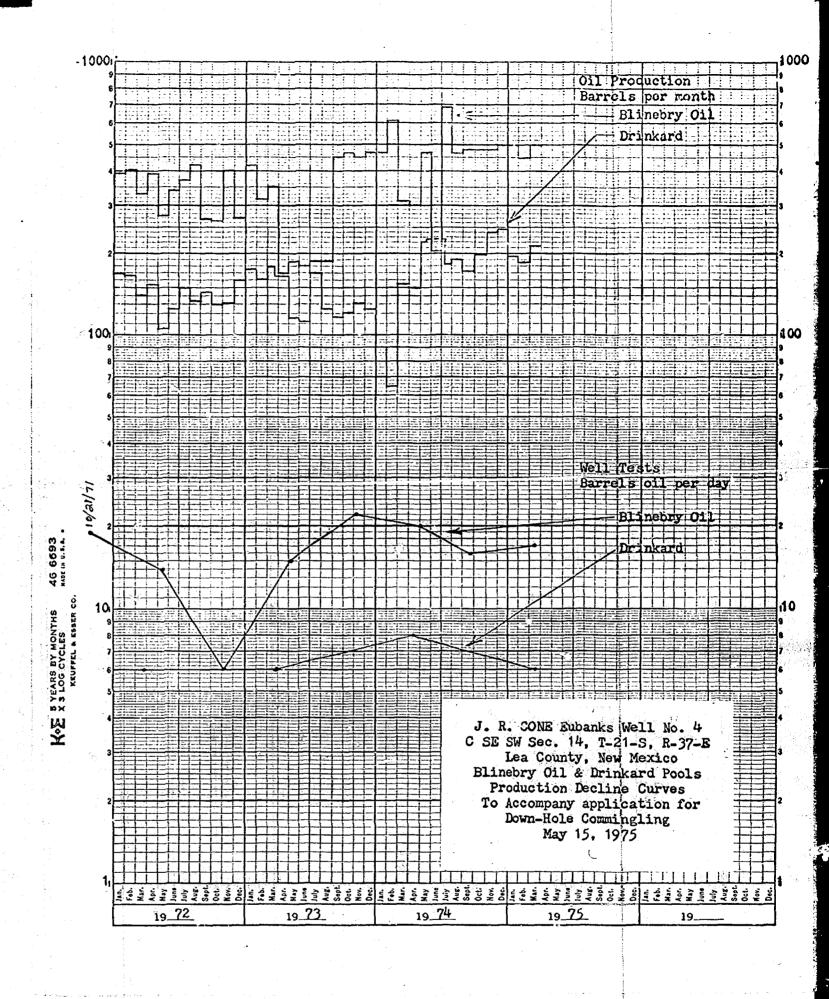
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(Signature) Engineer

(Title)

April 30, 1975



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Moranco (1)
P. O. Box 1919
Hobbs, New Mexico 88240

Shell Oil Company (1) P. O. Box 1509 Midland, Texas ?3701

## BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

dr/

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

APPLICATION OF J. R. CONE FOR DOWNHOLE
COMMINGLING AND A DUAL COMPLETION,

CASE No.

Order No. R-

LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

### BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on July 2 \_\_\_\_\_, 1975 at Santa Fe, New Mexico, before Examiner Richard L. Stamets

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

## FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, J. R. Cone, is the owner and operator of the Eubanks Well No. 4, located in Unit N of Section 14, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico.

-2-Case No. 5516 Order No. R-

- (3) That the applicant seeks authority to commingle Blinebry and Drinkard production within the wellbore of the above-described well.
- (4) That from the Blinebry zone, the subject well is capable of low marginal production only.
- (5) That from the Drinkard zone, the subject well is capable of low marginal production only.
- (6) That the proposed commingling may result in the recovery of additional hydrocarbons from each of the subject pools, thereby preventing waste, and will not violate correlative rights.
- (7) That the reservoir characteristics of each of the subject zones are such that underground waste would not be caused by the proposed commingling provided that the well is not shut-in for an extended period.
- (8) That to afford the Commission the opportunity to assess the potential for waste and to expeditiously order appropriate remedial action, the operator should notify the Hobbs district office of the Commission any time the subject well is shut-in for 7 consecutive days.
- (9) That in order to allocate the commingled production to each of the commingled zones in the subject well, Physical Grand percent of the commingled oilands production, should be allocated to the Blinebry zone, and 26 percent of the commingled percent of the commingled production to the Drinkard zone.
- the above-described well as a dual completion

  to produce of land jos from the aforesaid commingled production

  and Abord production through parallel strings of tubing. With

  separation of the zones by 1771442 of a packer.

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-3-Case No. 5516 Order No. R-

(11) That the mechanics of the proposed dual completion are feasible and in accord with good conservation practices.

### IT IS THEREFORE ORDERED:

- (1) That the applicant, J. R. Cone, is hereby authorized to commingle Blinebry and Drinkard production within the wellbore of his Eubanks Well No. 4, located in Unit N of Section 14, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico.
- production shall be allocated to the Blinebry zone and 26 production shall be allocated to the Blinebry zone and 26 production shall be allocated to the Drinkard zone.
- (3) That the operator of the subject well shall immediately notify the Commission's Hobbs district office any time the well has been shut-in for 7 consecutive days and shall concurrently present, to the Commission, a plan for remedial action.
- its above-described well as a dual completion Conventional
  to produce of and position through parallel strings of tubing. With space and Abo production through parallel strings of tubing. With Space PROVIDED HOWEVER, that the applicant shall complete, operate, and produce said well in accordance with the provisions of Rule
  112-A of the Commission Rules and Regulations insofar as said

PROVIDED FURTHER, that the applicant shall take pocker

tests upon completion and annually thereafter during the Annual Gas - Oil Ratio

Test Period for the Wantz - 1760 Pool.

rule is not inconsistent with this order;

entry of such further orders as the Commission may deem necessary.

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

That jurisdiction of this cause is retained for the

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