Case Mo.

1221

Hopkication, Transcript, Small Exhibits Etc.

2 BEFORE THE OIL CONSERVATION COMMISSION SANTA FE, NEW MEXICO July 17, 1957. - : 2 IN THE MATTER OF: 1 Application of the Oil Conservation Colmission on its own motion for an order amending Commission : Order R-586 insofar as it relates to the Byers-Queen and Tubb Gas Pools. Applicant, in the above- :Case 1221 styled cause, seeks an order amending the Special : Rules and Regulations for the Tubb Gas Pool to make provision in said rules for the regulation of oil wells completed within the defined limits of said pool; and further to consider the deletion of that portion of Order R-586 relating to the : : Byers-Queen Gas Pool. : - : **BEFORE:** Mr. Murray Morgan Mr. A. L. Porter Governor Edwin L. Mechem TRANSCRIPT OF PROCEEDINGS MR. FORTER: We will take up next Case 1221. MR. COOLEY: Case 1221. Application of the Oil Conservation Commission on its own motion for an order amending Commission Order R-586 insofar as it relates to the Byers-Queen and Tubb Gas Pools. MR. KASTLER: Honorable members of the Oil Conservation Commission, my name is Fill Kastler, and I am the representative of the Industry Committee. 1 am also with Gulf Oil Corporation, a member of their Law Department, and I am representing the committee for the reason that Gulf was appointed as the chairman of this committee. This was the committee which was formed by letter of January 28, 1957, for the purpose of making a study of DEARNLEY / MEIER & ASSOCIATES

DEARNLEY - MEIER & ASSOCIATE incorporate General Law Reforters Albuquerque - sante pe 3-6601 - 2-2211 the present rules pertaining to the Tubb Gas Pool and making recommendations to the Commission for the purpose of formulating rules and regulations governing oil wells within the horizontal limits of the Tubb Gas Pool. I wish to state on behalf of the Committee our appreciation for the capable staff assistance given by Mr. Morgan, Mr. Fisher, Mr. Runion, and Mr. Cooley. My intent in presenting this, or my style of presenting it, <sup>rather</sup> is to present two witnesses, Mr. Guy Swartz, a geologist, and Mr. Bumpass, who is the Area Engineer for the Hobbs Production Office of Gulf Oil Corporation; and I wish also to state that after I have presented this testimony, or elicited it, there will no doubt be some comments from other members, the operators in the Tubb Gas Pool. At this time, may Mr. Bumpass and Mr. Swartz be sworn, please?

#### (Witnesses sworn.)

MR. KASTLER: Mr. Swartz, please take the stand.

## GUY A. SWARTZ

a witness, of lawful age, having been first duly sworn on oath, testified as follows:

## DIRECT EXAMINATION

By MR. KASTLER:

Q Will you state your name and position?

A My name is Guy A. Swartz. I sm a staff production geologist with the Gulf Oil Corporation in Roswell.

Q Have you previously been qualified as an expert witness and testified before the New Mexico Gil Conservation Commission?

A I have.

MR. KASTLER: Are Mr. Swartz's qualifications approved? MR. PORTER: They are.

Q Mr. Swartz, did you serve as a member of the Industry Committee and attend Committee meetings of the Committee studying this matter?

A Yes, sir, I attended all the Committee meetings related to this matter and was appointed along with Johnnie Higgins, geologist for Ohio Oil Company as a geologi al sub-committee for the Committee.

Q Have there been exhibits prepared by members of the Committee with your cooperation?

A Yes, sir.

(Exhibits No. 1, 2, 3, 4, 5 marked for identification.)

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I would like to present five exhibits numbered 1 through 5, which were prepared by John Runion, a geologist with the Oil Conservation Commission in Hobbs, and which were examined by John Higgins with Ohio and myself, and were found to be correct.

Q Are you thoroughly familiar with these exhibits and can you testify using them as to what they show?

A Yes, sir.

Q All right. In Exhibit No. 1, would you state what it shows?

A Exhibit No. 1 is a structural map contoured on the Tubb marker as defined by the Oil Conservation Commission, and shows a general north-south gentle anticlinal structure with several depressions on top. It's one of a gentle nature and also indicates, it is also indicated on the map the lines of cross-sections which were prepared as Exhibits 2 through 5.

Q Is the location of the oil wells in the Tubb Gas Pool shown

DEARNLEY - MEIER & ASSOCIATES MEORPORATED GENERAL LAW REPORTERS ALBOQUEROF - SANTE FE 3-66(1) 2-2211 on Exhibit No. 1?

A Yes, sir. The wells which are producing lower gravity oils are indicated by red dots; and two wells which have drill stem tested within the Tubb zone and which have tested oil, have been indicated by red circles.

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Q I see. How is this Exhibit No. 1 correlated with Exhibits No. 2, 3, 4, and 5?

A Exhibits 2, 3, 4 and 5 are indicated by heavy dark lines and designated A, A prime, B, B prime, C, C prime, and D, D prime on Exhibit 1.

Q I see. In the line, now A, A prime, is that the matter that is shown in more detail on Exhibit No. 2?

A Yes, sir.

Q Would you please state what that shows?

A Exhibit No. 2 is a cross-section.

Q I believe the next one is Exhibit No. 2.

A Excuse me. Designated as A, A prime on the map, and is located in Sections 9, 10, and 11 of Township 21 South, Range 37 East, and it shows Humble No.7-N State V, a well which produces low gravity oil; and the Continental No. 2-N Nolan, also a well which is now producing 1  $\vee$  gravity oil, the relationship to two other gas wells.

Q Mr. Swartz, are these two wells that produce low gravity oil the same two wells as are indicated in lines A, A prime on Exhibit No. 1?

A Yes, sir.

Q All right.

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A On Exhibit No. 2 there is also shown a red band which is located in approximate subsea depths of minus 2855 and minus 2875 feet, which indicates a rather narrow oil zone. The perforations of the wells producing the lower gravity oils have, are within or below this interval. Q I see. Is that a firm interval which might be called a gas-oil contact line? A No, sir. This is more of an intermediate zone which seems to be erratic and non-continuous throughout the pool, and --Q (Interrupting) The currents of lower gravity liquids however, seem to be struck at or below that index line, is that correct? A That is correct. There is a coincidence, with this zone and the perforated intervals producing lower gravity oils. The cross-section B, B prime is located in Sections 27, 26, and 25, Township 21 South, Range 37 East. Q Is that the same B, B prime as is indicated on Exhibit No. 1? A Yes, sir. Q Thank you. A This exhibit shows R. Olsen's No. 1 Sarkeys in Section 26, comparison with three gas wells. This well is perforated above and below approximated oil zone, and the initial production was 180 barrels per day, with a gas-oil ratio of 1,035, the gravity of 44 degrees. The production of this well, incidentally, has fallen to approximately 20 barrels of oil per day.

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7 Q Does the well log indicate any existence of high gravity liquid with any certainty? A Above the minus 2855 point, there seems to be no low gravity cils produced. Q Please proceed. Go to Exhibit No. 4, if you will. A Exhibit No. 4 is a cross-section designated C, C prime, which is indicated on Exhibit No. 1, and shows Sinclair No. 2 Rogers, located in Section 12, 22, 37, the relationship to five gas wells extending in an east-west direction across the structure This well has one set of perforations which lie within the oil zone. Exhibit No. 5 is a cross-section, D, D prime, and is indicated on Exhibit No. 1 and was constructed across the southern end of the structure to compare the oil zone with several gas wells in the area. All wells are perforated above this zone and also produce Q Mr. Swartz, now will you testify, please, as to what your gas. conclusions are concerning these, this geological data you have A In conclusion, I would like to emphasize that this zone presented? is not a gas-oil contact, but rather a zone from which oil is derived in some instances. In many instances this zone is open, and wells which don't appear to produce low gravity oil; the zone is not believed to be continuous throughout the pool. The Tubb Gas Pool is directly underlain by the brinkard Vivian Oil Puol. 401 of 450 wells in this Pool are ponalized because of excessive gas. It would appear that this Tubb oil zone is one of an erratic nature, which may or may not always be present throughout DEARNI EY MEIER & ASSOCIATES GENERAL LAW REPORTERS

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the field, and where it is present, it appears to be sandwiched between a main Tubb gas pay and the gas cap of the Drinkard Vivian zone. Where it is present and being produced, it appears to be of minor and uncommercial quantity. It would appear that considered alone a Tubb oil zone won't possess enough dependable oil potential to even warrant consideration as a salvage zone.

Q Is it your conclusion, in other words, that the Tubb Gas Pool is primarily and predominantly a gas pool and should be continued to be developed as such?

A That is correct.

MR. KASTLER: Are there any questions the Commission wishes to ask.

MR. PORTER: Mr. Mankin has a question.

CROSS EXAMINATION

#### By MR. MANKIN:

Q Warren Mankin with the Oil Conservation Commission. Mr. Swartz, you mentioned a while ago this oil zone is directly above the Vivian, or Drinkard Vivian, which has some high gas-oil ratios, is that correct?

A That is correct.

Q Have you examined a number of the Drinkard wells that are closely associated to the Tubb formation to see if some of these might not be more properly classified as Tubb oil wells, rather than Drinkard oil wells?

A I as aware that the Vivian pay zone is situated somewhat below the legal or the defined limits of the Tubb gas zone, and rarely are any wells open above this point and productive of oil. I don't believe this is ever the case.

Q What I meant by my question was, do you feel all the Drinkard wells are properly classified as Drinkard wells, and not some of them might not be Tubb oil wells?

A So far as I know, they are properly classified.

Q Properly classified?

A Yes, sir.

MR. MANKIN: That's all.

MR. PORTER: Anyone else have a question of Mr. Swartz? The witness may be excused.

(Witness excused.)

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MR. KASTLER: Our next witness is Mr. C. M. Bumpass.

## C. M. BUMPASS

a witness, of lawful age, having been first duly sworn on oath, testified as follows:

#### DIRECT EXAMINATION

By MR. KASTLER:

Q Will you please state your name and position?

A I am C. M. Bumpass, Area Petroleum Engineer for Gulf Oil Corporation in Hobbs.

Q Have you previously been qualified as an expert witness to testify before the New Mexico Cil Conservation Commission?

A Yes, sir, I have.

MR. KASTLER: Are the witness's qualifications satisfactors? MR. FORTER: They are.

Q Mr. Bumpass, did you serve as a member of the Industrial Committee, or Industry Committee, which was making a study and made recommendations concerning the Tubb Gas rules?

A Yes, sir.

Q Will you please state what the Committee's activity was and what capacity you served in?

A Well, sir, as a representative of Gulf Oil, chairman of the Committee, I will present the Committee's recommendations in this case.

Since the initial meeting of this Committee, which was held on February 5, 1957, the Committee has been very active in an endeavor to formulate recommendations for additional rules for the Tubb Gas Pool, as requested by the Commission. This has not been an easy task, and the numerous meetings that have been held exemplify the efforts of the Committee to fulfill the obligations to the Commission. I might state the recommendations of the Committee to be presented subsequently are a result of majority vote of the Committee members, and not <sup>by</sup> unanimous agreement of those members.

Q In other words, there was not a unanimity of agreement on these rules?

A That is correct.

Q I see.

A It was the consensus of the Industry Committee that the Tubb Gas Pool is a gas pool, and that the five wells listed in the oil promation schedule in the unclassified and wildcat section, Group 3, I believe it is, are a minor evidence in relation to this Tubb Gas Pool. I believe those records, according to my figures through July, these figures were taken from the July promation schedule for gas and the oil promation schedule shows there is

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114 gas wells in the Pool, and the 5 aforementioned wells in the limits of the Tubb Gas Pool.

Q These were classified as wells producing low gravity liquid hydrocarbons, is that correct?

A That's my understanding.

Q Yes.

(Exhibit No. 6 marked for identification.)

A I have here an Exhibit 6, which is a tabulation of the gas liquid ratio tests of the Tubb Gas Pool, conducted in a approximate period survey, I think October, 1956.

Q Is that exhibit one that was prepared and released by the Oil Conservation Commission?

A That is correct.

Q All right.

A I believe this would be Exhibit No. 6. In essence what this tabulation shows as indicated by the name, shows the operators and their respective wells in the Tubb Gas Pool and the gravity of the liquid hydrocarbons produced with the biguid hydrocapedon rate. the time this was prepared, there were four wells in that category. Group No. 3, listed as oil wells, and since that time there has been the addition of one. I believe that well is Continental Nolan No. 2. That is not indicated on this exhibit here, but that brings to a total of five wells in this particular category. I would like to state at this time that a detailed engineering study of this pool was not made, on the basis the consensus of the Committee members did not feel the probe warranted such a study. Q Was it the conclusion of a majority of the Committee that

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the Tubb Gas Pool is predominantly a gas pool and should be continued to be developed as such?

A I believe that is the contention, yes. It's not intended to enter as an exhibit; however, there was some tabulations on data pertinent to these five wells I have just referred to, such as the producing intervals which have been shown in the geological test. The data was requested and was obtained through, I believe the period was January 31st of '5', and since that time, or just prior to this meeting today I have made some tabulations of the production history of gas and oil of those five wells, and as Mr. Swartz more or less inferred in his testimony, production has dropped. A general statement on these five wells could be that the production has dropped. I think one of the largest producers was around 200 barrels per day when it was completed, and that well is probably producing somewhere around 20 barrels plus or minus at this time. Several of these wells are produced on pump and are apparently producing at capacity. It is also noted that in general the ratios have increased. I recall that one of the wells had an initial ratio of around 700, and that has increased to, I believe around 9,000.

Q Is it your conclusion, therefore, that the oil production record of these wells indicates a rather minor occurrence of oil?

A If the performance as illustrated in this tabulation is an indication, it can be, in my estimation, in view of the fact that this decline has occurred from a year or less period to approximately 20 barrels a day. I think one of the wells has an allowable of 37 on a proration schedule; however, it appears that

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its capacity is somewhere in the neighborhood of 600 barrels a month. I might relate that was flowing, maybe some additional production could be obtained and possibly will be in the near future by pumping; however, there are other wells that are pumping and have been for some time. They seem to be stabilized at around Popty-six barrels per month.

Q Would you recommend any increase or any continued study on this matter, or do you believe your conclusions are now correct based on all the evidence now available?

A I feel we should terminate this study at this time. I feel the Committee has done as much as it could.

Q Mr. Bumpass, will you now present the rules and regulations which the Committee has offered?

A I believe this would be Exhibit No. 7.

(Exhibit No. 7 marked for identification.)

MR. KASTLER: I have no further questions of this witness.

MR. PORTER: Does anyone else have a question of Mr. Bumpass?

A There's one other item here. The Committee was also asked by the Secretary-Director to advise the Commission on the necessity for continued proration in the Byers-Queen Pool. We would like to, the Committee would like to recommend that we feel there is no necessity of continued proration in the Byers-Queen Pool.

MR. KASTLER: Would the Commission like Mr. Bumpass to read these rules into the record? There are additional copies that he has.

MR. PORTEN: We feel it might clarify matters if you go

ahead and have Mr. Bumpass read it.

MR. KASTLER: Thank you.

A Tubb Gas Pool. Following are the proposed changes in Order No. K-586:

1. Item 7 will be added to Rule 5 (d): "In the event more than one gas well producing from the Tubb Gas Pool should be included in a standard or less than a standard proration unit, the sum of the allowables allocated to the wells shall be equivalent to that volume of gas allocated to a proration unit of the same size. The operator of such wells shall have the option to determine the proportion of the assigned allowable to be produced by each individual well, provided all of said wells are orthodox gas locations. In the event that one or more of the gas wells on the proration unit is an unorthodox location, the Commission shall establish the proportion of the assigned allowable to be produced from each individual well."

2. The third from last paragraph of Rule 3 will be reviced to read as follows: "The allowable assigned to any well capable of producing its normal gas allowable in the Tubb Gas Pool shall be the same proportion of the total remaining allowable allocated to said pool after deducting allowables of marginal wells that the number of acres contained in the gas provation unit for that well bears to the acreage contained in all gas provation units assigned to non-marginal wells in the Tubb Gas Pool except that no well which produces liquid hydrocarbons with a gravity of 45° AFI or less regardless of the size of the provation unit will be permitted to produce more liquid hydrocarbons than the Statewide oil allowable

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for wells on 40-acre units producing at depths between 6,000 and 7,000 feet. Any well subject to such limitation shall be so designated on the Commission's monthly allocation schedule of condensate and other incidental liquid hydrocarbons. Any well subject to this liquid hydrocarbon limitation and which produces more than the allowed volume of liquid hydrocarbons during any one month will make up such overage. Any gas production shortage resulting from application of the liquid hydrocarbon limitation or from shutting in a well because of overproduction of liquid hydrocarbons may be made up under the terms of Rule 9 (underproduction balancing provision) provided the liquid hydrocarbon limits described herein are not exceeded."

3. A rule 8b will be added as follows: "Tests to determine the gravity of the liquid hydrocarbons recovered from each well in the Tubb Gas Pool shall be taken following adoption of these rules and reported to the Commission on Form C-116 not later than the 15th day of the next succeeding month following adoption of these rules. The Commission will then mark on the allocation schedule of condensate and other incidental liquid hydrocarbons the wells which are to be subject to the liquid hydrocarbon limitation. Thereafter gravity tests on each well not subject to the liquid hydrocarbon limitation will be made during the months of January and February and reported to the Commission on Form C-116 not later than the 15th day of March."

That is the rule, those are the rules.

MR. FORTER: Does anyone have a question of Mr. Bumpass? Mr. Mankin.

# CROSS EXAMINATION

#### By MR. MANKIN:

Q Mr. Bumpass, do you have knowledge at this time as to whether there is presently any of these low gravity, so-called oil wells which was mentioned as five wells, whether any of these five wells presently on acreage presently dedicated to a Tubb Gas well?

A No, sir, I haven't. I haven't looked into that fact. I did check in the gas proration schedule for July, and I don't, I may be incorrect, but I am just trying to answer your question the best I can, I don't believe they are on a gas proration schedule.

Q Then if I tell you that the oil, these co-call d oil wells none of them are induly called and to concurs indicated to gas in this Pool; would you feel that would be a lot of other to the best of your knowledge?

A Yes, sir.

Q be you feel that this small, in other that originally was thought to be maybe polanow find to be, you feel this solution you have rules will handle the present situation and a might be developed in the immediate future?

A if there -- I do want to qualify my arto this, a small IL is the same as we have for would be workable, yes.

Q Also you indicated in the second propose rules that such allowable or concensate allowat the Statewide allowable. Is it not true at the the allowable for those depths during the curi

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## approximately 68 barrels?

A I know when we first figured it was 78 barrels. It may well be, since the allowable is cut, 68 as you state.

Q With the top allowable of 68 barrels as has been suggested, there would be no<sup>problem</sup> as far as any well exceeding the allowable, due to the low capacity of these five completed wells?

A That is my understanding, yes, sir.

MR. PORTER: Mr. Utz.

By MR. UTZ:

Q Mr. Bumpass, can you tell me, if a well producing, a gas well in the Tubb Gas Pool producing, say twenty million cubic feet of gas and 40 barrels and 46 gravity liquid would void more reservoir space than a gas well in the Tubb Pool which produces only twenty million cubic feet of gas and no liquid?

A I cannot.

MR. UTZ: That's all.

MR. PORTER: Mr. Cooley.

By MR. COOLEY:

Q Mr. Bumpass, in your proposed changes to Rule 8 and your rules and regulations in the Tubb Gas Pool, you suggest a liquid limit equal to 40-acre unit allowable for wells at 6,000 and 7,000 feet on wells producing liquids with a gravity of 45 degrees API?

A Yes.

Q There would be no limit on a well producing 46 gravity oil or 46 gravity liquids?

A That is correct, there hasn't been in the past.

Q Has there been in the past a liquid limit on any wells in the Tubb Gas Pool?

A No, sir, there has not to my knowledge, there hasn't.

Q Do you feel that liquids of 44 gravity oil and 46 gravity liquid would be in competition for the same market?

A If the conditions were right, they possibly could. This, if I might inject a statement here, the 45 is no particular magic number. We feel that, as I recall from this tabulation here, there are six wells that have gravity less than 45. Five of those six are these wells that we are talking about that are on the schedule, probably just as well could have pushed the gravity up to 46 or maybe 47, but we don't think that we even have a problem, even if we did, Mr. Cooley, because the production of those other wells, say that you had a limit set at a 45 and there was a 46 gravity and a 44 gravity well, it doesn't appear that the wells have been producing liquid hydrocarbons to the amounts that you would be competitive. I an corry if I havon't gotten across the point, but

Q. I think you have. Then it's your thought that this can cause no harm because it will in effect never be enforced dut to the fact there is no well that you know of in the pool at the present time with a gravity of 45 degrees or less that would make the allowable, as we --

A (Interrupting) That's true, yes, sir.

Q But if they did make them and they were limited and weren' capable of making in excess of the allowable, there might possibly be some injustice, wouldn't there?

A There possibly could, still the operator which we have a way

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being discrimated against still has the opportunity to go in and maybe try to better his well.

Q Then can you change the gravity of fluids produced from a well by work load?

A No, I wouldn't think so, you might have some influence on what gravity arrives at the surface. Apparently this zone in here is coincidental, or has localized occurrences where it might have some influence on the gravity that you get from the well.

Q Mr. Bumpass, what would you call this well with 45 degrees gravity or less, an oil well or gas well?

A Well, I am not versed on condensate reservoirs, so I don't think I could answer that question, Mr. Cooley.

Q Is this 45 or less liquid still, in your opinion, a condensate?

A No, I don't think so. I think the condensate is somewhere in the heighborhood of 51 gravity as it occurs in the reservoir, to be condensate.

Q Then a well producing 45 degree or less liquids would be producing oil?

A Well, from what I understand, Mr. Cooley, on liquids -- I am not versed on distillate reservoirs, but from my understanding, that 51 is the gravity and if that is so and there are no other elements to classify a reservoir as either oil or distillate, I would say your question you' have asked would be yes.

Q It would be. Well, what I am getting to here is the spacing recommendations, under the general rules and regulations of the Oil Conservation Commission, unless they are termed to be

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otherwise after special hearing, notice, 40 acres for an oil well, and proration unit in the Tubb Gas Pool is 160 acres for a gas well. What size proration unit would you recommend be assigned to a well producing 45 degree gravity or less?

A The way that we have proposed it here on the rule, I don't know that you would necessarily have to change the gas proration acreage.

Q Then you would leave it at 160 as the spacing for the Tubb Gas Pool.

A Yes, I don't quite understand the line of questioning. It is 160, we are not trying to change that. If we have a gas well on 160 and later someone, due to maybe offset operations, someone goes in with good faith to make a gas well and either drill a gas well to the Tubb or recomplete a Drinkard well, hoping to get a gas well, but they get situations like these five --

Q (Interrupting) That's the precise situation. Now what size proration unit would you give to the offset well that was drilled in good faith as a gos would --

A (Interrupting) In these suggested changes I would think you still have a 160-acre proration unit you can take up to, because it is in a gas pool and the gas pool in the Tubb is defined as 160 acres, but you would either be allowed to take the hydrocarbon equivalent to a volume of a 40-acre unit to the depth of six, seven thrusand, or the amount of gas for 640-acre proration unit, whichever came first.

Q Even though there's 160 acres dedicated to this well, you would limit it, as I understand these rules, regardless of the size

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of proration unit committed to produce just a 40-acre allowable for oil?

A That's liquid hydrocarbon. It can produce gas.

Q Can produce gas provided it doesn't exceed its thickness?

A That's true.

Q You have both a liquid and gas limit on such a well, which ever it reaches first, you have one or the other?

A You have one or the other, yes, sir.

Q Now you say they drilled this offset well and get -- they drill the offset well, the hypothetical offset well you referred to, and they get oil on a 160-acre unit, there's four other 40-acre tracts there in your unit. Suppose that they drill another well on that same 160-acre unit and get another oil well. Now would the combined production from these two oil wells be one unit allowable, or would you give it two normal unit allowables of oil?

A The way I understand it, you would give, well, let's say that 70 is the depth allowable for that, instead of having to repeat ourselves here so many times, if 70 barrels is the unit allowable and, as you stated, there you have two wells, the operator could take a maximum of 70 barrels out of each well, provided the gas limit was not exceeded for the 160 acres.

Q By both wells?

A By the total, yes, sir, that's provided in Rule 1.

Q Hating that oil production well by well, give each one a full alicvable?

A Yes.

Q And divide 360-acre gas allowable between the two:

Q Would it be posible in this response to the equivalent of the where on a sole of the where on a sole of the where on a sole of the where on the sole of the work of the sole of the sole

A I don't think I could unswer that.

Q Concerning the Byers-Queen Peel, is it your recommendation the special mutes and regulations contained in Order 3-90. be deleted in their entirety?

A I am a little bit at a loss there. If there is no need for provation, there's no need for the rules, is that the thought?

A. Mee, dir.

MR. CVOLLE: THE STAR SHEET.

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than an active development?

A Well, I don't think I understand your question, Mr. Mankin. You mean the person just opens this zone to take it for salvage or each takes it as he can get it?

Q As he can get it, which amounts to a salvage operation.

A Well, to me that's the sequence of operations here.

Q The only other question I have, Mr. Bumpass, is there's one gas well, Sunray Mid-Continent State 15 Well No. 4-P in Section 16, 21, 37 which shows a condensate gravity of 43 degrees, but it also has a gas liquid, gas condensate ratic of 66,600. Do I understand your recommendations in these proposed rules, even though that is a gravity of less than 45 degrees, there would be no decrease of the 160 acres presently dedicated to that well?

A That's true.

Q It would stay the same as it is?

A That is right. That was the sixth well I referred to, and we feel that these rules would not work a hardship.

MR. MANKIN: That's all.

MR. PORTER: Any other questions of Mr. Bumpass? Mr. Kellahin.

By MR. KELLAHIN:

Q Jason Kellahin, representing Continental Oil Company. Mr. Bumpass, if I understand your testimony correctly, you said there were six wells in the pool now which have a gravity of less than 45 degrees API, and that none of these wells are capable of making the allowable that would be currently assigned, is that correct? A There are six wells.

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Q Well, didn't I understand you to say there were six wells that were producing liquids of gravity of 45 degrees AF1 or less?

A There are six wells producing less than 45 degrees, yes, sir.

Q And didn't you testify that none of these wells would be capable of making their allowable?

A I said that, I believe I said or intended to say, that the records from the Engineering Committee records show that they are not producing that, above this figure, as Mr. Mankin pointed out would be 68 barrels per day for that range.

Q They were, in fact, all of them, producing less than this now, are they not, sir?

A I believe they are on the order of 20 some odd barrels per day.

Q On the basis of that information, and assuming they would not be capable of making that allowable, would there be any reason for opposing a limitation on them?

A I don't think these rules are for these specific five wells.

Q You think there will be other wells that would be affected

A I couldn't answer that. There are some like these, those will not be affected; there are others that could have a longer life, producing life than these have, will be.

Q Have you any reason to anticipate there would be additional wells that --

A No, I don't have any reason one way or the other, anticipated or not.

Q There are wells in the pool which are producing liquid in excess of 45 degrees AFT that would be capable of making the  $\mathbb{C}^{2}$ 

allowable, are there not?

A Possibly there are.

MR. KELLAHIN: Thank you, sir.

MR. PORTER: Anyone else have a question? Mr. Bumpass, you may be excused.

(Witness excused.)

MR. KASTLER: I would like to move for the admission of Exhibits 1 through 7 in evidence in Case 1221, if you please.

MR. PORTER: Without objection they will be admitted.

(Exhibits No. 1 through 7 admitted in evidence.)

MR. PORTER: Anyone have a statement to make in this case? Mr. Seth.

MR. SETH: Oliver Seth on behalf of Shell Oil Company. I would just like to make a brief explanation. The witness indicated that the Committee was not unanimous. Shell was on the Committee and Shell was in the minority. Shell felt that it would be simpler and still equitable to regard all of the wells as gas wells and to prorate them as gas wells. Shell feels very strongly, too, about the elimination of the Byers-Queen Gas Pool regulations, but we would like the record to show and the Commission's understanding that Shell does support the majority opinion at this point. We certainly go along with the majority of the Committee and its recommendations, but I thought an explanation of the witness's reference to the lack of unanimity was in order.

MR. PORTER: Mr. Seth, you mentioned the fact that Shell feels strongly about the elimination of Byors-Queen, which direction? MR. SETH: Just the elimination of the proration rules,

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that's the same as the Committee recommends.

MR. PORTER: You concur in that, do you?

MR. KELLAHIN: That is right.

MR. LAYHE: Bob Layhe, Samedan Corporation. We were the other member of the minority. I have a statement I would like to read.

Samedan is of the opinion that the Tubb Gas Pool is primarily a gas condensate reservoir, and therefore prorated as such. Any regulation as to gravity of produced liquids could cause violation of correlative rights, and an order which might be sought in forced drilling obligations, compensatory royalty payments and facilities for separate storage would cause hardships; that in our opinion is not the Commission's intent. Therefore, as a member of the Industry Committee appointed to study the Tubb Gas Pool, we recommend the production of liquid hydrocarbons be considered as incidental to the production of gas, and that the Pool be prorated on gas only. Should future development prove the reservoir to have a definite oil ring, that would be <u>subjective</u> feasible to develope, then the Commission could cause another study to be made, based on the new evidence.

MR. PORTER: Thank you, Mr. Laybe. Does anyone else have

MR. MELLAHIN: If the Commission please, Jason Kellanin representing Continental Cil Company, and we would like to make a statement. In connection with that statement, I would like to call the Commission's attention to some of the testimony given here this moreice. In the Circlepine, Mr. Swartz's Lestinony

shows very clearly, we feel, it would not be economic to drill a well to the oil zone as he referred to it, for oil production, and that this zone is actually accumulations of oil which are erratic throughout the reservoir, and there is no real definite information as to their occurrence except in the wells which have been brought before the Commission; and that some wells are open in this zone and aren't producing oil. Also, Mr. Bumpass's testimony to the effect that the six wells which are producing liquids of less than 45 degree API are not capable, any of them, apparently, of meeting any allowable which might be assigned under their proposed rules; and for that reason, it would seem a futile thing to assign an allowable to those wells, and there's no indication there's going to be any further problem in connection with that at the present time. If such should occur, of course, it could be taken care of at the time the problem arose.

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Continental Oil Company is the operator of 15 wells in the Tubb gas pool. Two of these wells produce liquid hydrocarbons of comparatively low API gravity. Our experience to date indicates that there are no wells in the Tubb pool which are capable of producing excessive volumes of liquid hydrocarbon. We recognize, however, the possibility that future wells may change this situation and, in fact, may be capable of producing such volumes of liquids that the statewide oil proration system could be jeopardized unless controls are provided.

We are in general agreement with the intent of the rules proposed by the industry Committee. We firmly believe, however, that the differentiation between various wells on the basis of the gravity of produced liquids is unwise and, in fact, discriminatory for the following reasons:

1. It, in effect, provides a definition which infers that some wells are oil wells and raises a question whether that well may legally be allocated more than a standard 40-acre oil unit.

2. It places such wells in a position where their allowable is calculated on a different basis than other wells of virtually identical characteristics.

3. It will not prevent the unlimited production of liquids from wells producing liquids reported to be in excess of the gravity boundary.

4. The proposed system will violate correlative rights because wells on adjoining acreage producing from the same pool will be prorated on different bases.

5. It may violate correlative rights because a well producing liquids below the gravity boundary may be denied the right to have allocated to it an equal amount of acreage that a well producing above the gravity boundary can have.

6. It may cause waste if an operator is limited to a 40-acre allocation because such operator may be forced to drill additional wells which are unnecessary to drain the reservoir but are required by his obligation to protect himself and his royalty owner.

In brief, it is our position that either all wells should have a liquid limit, or none should. It is our opinion that a liquid limit should be provided. The limit we propose will not to our knowledge restrict the liquid production of any well pro-

ducing today, but it will provide a means of limiting gas wells producing large quantities of liquids which could otherwise endanger our statewide oil proration system. We urge the Commission to amend the rules in such a manner as to provide the following features:

1. Classify all Tubb wells as gas wells.

2. Prorate each well on the basis of a gas allowable based 100 per cent on acreage.

3. Place a liquid hydrocarbon limit on all wells equal to a 40-acre oil allowable for wells of this depth.

We submit for the Commission's consideration some proposed additions to the Tubb Pool rules in Order No. R-586, which we believe will accomplish the objectives described.

In this connection, we propose that Rule 5 of gas proration under subsection (a) be amended by inserting some additional matter at the beginning of the rule, reading as follows: "For purposes of allocation of hydrocarbon production all wells in the Tubb gas pool shall be classified as gas wells regardless of the characteristics of fluids produced therefrom." The remainder of Rule 5 (a) will remain as it presently is.

We suggest under Rule 8 that the Commission insert a new paragraph following the fourth paragraph, which will read as follows: "In addition to the gas allowable assigned under the provisions of Rule 5 (a), the monthly production of liquid hydrocarbons shall be limited to a volume equal to the daily allowable assigned to an oil well on a normal 40-acre unit producing from a depth of 6000 to 7000 feet under the provisions of Rule 505 of the

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Commission's Rules and Regulations, multiplied by the number of days in the month. A twenty-five per cent overproduction tolerance shall be permitted during any one month. Such overproduction shall be made up by underproduction during succeeding months. Any well which has produced its liquid hydrocarbon limitation plus the twenty-five per cent tolerance for overproduction during any one month shall be shut in for the remainder of the month. All overproduction shall be deducted from the liquid hydrocarbon limitation imposed on such well for the next succeeding month."

MR. CCOLEY: Mr. Kellahin, would you care to introduce a copy of your statement as Continental's Exhibit 1 in this case?

MR. KELLAHIN: I would be glad to. You want me to be sword?

MR. COOLEY: I don't believe your testimony is in the nature of expert testimony. However, will you be sworn here for the purposes of cross examination?

(Witness sworn by Mr. Cooley.)

Governor Hechem: you want to qualify him?

MR. CCOLEY: Take the stand.

MR. KELLAHIN: I would like to offer Continental's statement as Continental's Exhibit No. 1 in Case No. 1221.

MR. PORTER: Without objection it will be admitted.

(Continental Oil Company's Exhibit No. 1 admitted in evidence.)

MR, PORTER: You have a grestion?

MF. KELLAHIN: I didn't appear here as a witness. I want you to knew that.

(Discussion off the record.)

## JASON KELLAHIN

a witness, of lawful age, having been first duly sworn on oath, testified as follows:

### DIRECT EXAMINATION

# By MR. COOLEY:

Q I would like to ask you the same questions I asked Mr. Bumpass. You propose a liquid hydrocarbon limit on all wells in Tubb Gas Pool. Tell me, Mr. Kellahin, what would be the effect if you have two wells, two gas wells that you would term on one 160-acre proration unit, what would be the liquid limit on production from the unit?

A Well, that question, of course, would have to be resolved by the Commission, but as I see it, the limitation would apply to each well, since the allocation is based on a 40-acre allocation, without limitation on the gas. Now that's my own personal opinion, and I am not at all sure that is the position Continental takes.

Q You were very concerned about the necessity of drilling offset wells?

A Yes, sir.

Q It would certainly be to the advantage of the operator to drill a great number of wells on a 160-acre unit, because he would be able to produce more liquids, would you not?

A Not with the records of production in the pool up to this time, and the testimony of Mr. Swartz clearly shows it's not economical to drill oil wells in this pool.

Q Would the drilling have the effect of imposing an offset obligation on an operator?

A I wouldn't think so, no.

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MR. COOLEY: That's all.

MR. FORTER: Mr. Walker.

# CROSS EXAMINATION

By MR. WALKER:

Q Don Walker with Gulf. Mr. Kellahin, I just have one question. You think it would be Continental's view that all gas fields should be controlled on the amount of liquids produced?

A I couldn't speak for Continental on what their policy might be on the rules.

Q All right, thank you.

A Yes, sir.

MR. PORTER: Anyone else have a question of counsel?

A I want to make this observation. I don't think it's proper to have an attorney who has made a statement sworn.

MR. SELINGER: Are you objecting to your testimony?

A No.

MR. PORTER: The witness may be excused.

(Witness excused.)

MR. FORTER: Anyone else have a statement to make? Mr. Tomlinson.

Mk. TOMLINSON: W. F. Tomlinson, Atlantic Refining Company. We have a working interest in approximately twolve wells in this pool, and some of them are gas wells and some are oil. First we would like to state we were not a member of the Industry Committee, but we do feel that we would like to add a little bit. We would like to arge the Commission not to set up a separate pool for oil wells, since we feel that there will be confusion in the future if you do set up one. Some wells might vary between what some

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people would consider to be a gas well and an bil well at that time. Second, we have no objection to the 45 degree gravity limitations that are proposed at this time. However, in the future we think that it might be reconsidered as necessary.

MR. PORTER: Thank you, Mr. Tomlinson. Mr. Bushnell.

MR. BUSHNELL: H. D. Bushnell, attorney with Amerada. Amerada is a member of the Tubb Industry Committee, and I would like to make a statement on behalf of Amerada, with the understanding, however, that I wouldn't be induced to take the witness stand. Amerada, as a member of that Committee, concurs in the findings, conclusions, recommendations, and proposed changes of the rules made by Gulf in its testimony in this case.

MR. PORTER: Thank you, Mr. Bushnell. Mr. Heald.

MR. HEALD: K. C. Heald, representing Humble Oil and Refining Company. Humble was a member of the Industry Committee, and it concurs in the recommendations of the Committee. Further, we feel that there should be no attempt at allocation of any condensate produced from the Tubb gas field, since gas and condensate are in one phase in the reservoir; and since condensate as such does not occupy any reservoir space, the allocation of condensate as well as the allocation of gas would in effect be honproration. We wouldn't like to see that. Now we don't want to set a limit on what would be condensate or what would be oil. We feel that that is actually up to the Commission to decide which wells are producing oil and which wells are producing condensates. Since oil does warrant reservoir space as it's produced, some form of allocation should be used to control that reservoir voidage,

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just as you control a reservoir voidage by the allocation of gas. MR. PORTER: Thank you, Mr. Heald. Mr. Walker.

MR. WALKER: Don Walker with Gulf. Speaking separately, as our witnesses were speaking  $fc^{\pm}$  the Committee, I am speaking for Gulf. We concur with the conclusions of the Committee, and we feel that any attempt to, as suggested by Mr. Heald, any attempt to control gas production by, prorate gas production by distillate control would be a bad precedent, and we would certainly recommend that that method not be adopted. We feel that -- I would like to mention this Committee has worked quite a long time on this problem and it is a little odd in that they do have what might be called oil wells in this Tubb Gas Pool, but for the administrative ease of the Commission, they attempted to set up a rule that would call them all gas wells and give them some means of controlling the production from them; and we would like to underline the Committee's recommendations, and we think this rule would take care of the situation. We also feel that the Byers-Queen proration should be eliminated.

MR. FORTER: Thank you, Mr. Walker. Mr. Steele.

MR. STEELE: Tom Steele, Ohio Oil Company. I would like to read a statement into the record. The Ohio Oil Company favors the purposes indicated in the plan outlined in the Industry Committee's proposed amendments to the Tubb Gas Pool Rules. The Ohio does not choose to make any objection to the text of the rules as proposed by the Industry Committee; likewise we would certainly have no objection to any other reasonable method for solution of the problems, provided an appropriate limitation is placed upon

the liquid hydrocarbon production from any well in the Tubb Pool if such liquid hydrocarbon is in the form generally regarded by the industry as crude oil.

MR. PORTER: Thank you, Mr. Steele. Anyone else have a statement?

Before we take the case under advisement, I would like to express the appreciation of the Commission to the various members of the Industry Committee which have worked on this problem, representing Amerada, Continental, Humble, Onio, Shell, Penrose, Gulf, and Samedan, and our special thanks to Mr. Bumpass for his service as chairman of that committee.

We will take the case under advisement.

\* \* \* \* \* \* \* \*

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# <u>CERTIFICATE</u>

STATE OF NEW MEXICO ) : ss COUNTY OF BERNALILLO )

I, MARIANNA MELER, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Proceedings before the New Mexico Oil Conservation Commission was reported by me in stenotype and reduced to typewritten transcript under my personal supervision, and that the same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my hand and seal this day of , 1957 in the City of Albuquerque, County of Bernalillo, State of New Mexico.

NOTARY PUBLIC

My commission expires: April 8, 1960.
# Memo

From

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DUPLIMATED COPIES OF ORDER R-586-B, Case 1221, WERE SENT TO THE FOLLOWING:

JASON Kellahin, Santa Fe, (Continental) Oliver Seth, Santa Fe, (Shell) Bob Layhe, Santa Fe, (Shell) Bob Layhe, Samedan Corp., Box 2137, Hobbs Don Walker, Gulf, Box 1290, Ft. Worth 1 W. P. Tomlinson, Atlantic, Box 6640, Roswell H. D. Bushnell, Amerada, Box 2040, Tulsa Tom Steele, Ohio, Box 552, Midland Humble, Box 1600, Midland Weville G. Penrose, Inc. Neville G. Penrose, Inc. 9-11 57 15 F 1813 Fair Bldg., Ft. Worth

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

September 10, 1957

Mr. C. M. Bumpass Gulf Oil Corporation P.O. Box 2167 Hobbs, New Mexico

Dear Sir:

We enclose a copy of Order R-585-B issued September 9, 1957, by the Oil Conservation Commission in Case 1221.

Very truly yours,

A. L. Porter, Jr. Secretary - Director

bp Encl.

#### DIL CONSERVATION COMMISSION P. D. BOX 871 SANTA FE, NEW MEXICO

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September 10, 1957

Mr. Bill Kastler Gulf Oil Corporation P.O. Box 669 Roswell, New Mexico

Dear Sir:

We enclose a copy of Order R-586-B issued September 9, 1957, by the Oil Conservation Commission in Case 1221.

Very truly yours,

A. L. Porter, Jr. Secretary - Director

bp Encl.

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

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

> CASE NO. 1221 Order No. R-586-B

APPLICATION OF THE OIL CONSERVATION COMMISSION UPON ITS OWN MOTION FOR AN ORDER AMENDING THE SPECIAL RULES AND REGULATIONS FOR THE TUBE GAS POOL TO MAKE PROVISION IN SAID RULES FOR THE REGULATION OF OIL WELLS COMPLETED WITHIN THE DEFINED LIMITS OF SAID POOL; AND FURTHER, TO CONSIDER THE DELETION OF THAT PORTION OF ORDER R-586 WHICH RELATES TO THE BYERS-QUEEN GAS POOL.

#### ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on March 14, 1957, May 16, 1957 and again July 17, 1957, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this  $9^{t/t}$  day of September, 1957, the Commission, a quorum being present, having considered the testimony and evidence adduced 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 case and the subject matter thereof.

(2) That several wells have been completed within the defined limits of the Tubb Gas Pool which are capable of producing liquid hydrocarbons with gravities in the range which is commonly accepted to be that of crude petroleum oil, and that such wells should be classified as oil wells.

(3) That to classify, space, and prorate the aforesaid wells as though they were gas wells could be unfair to the royalty owners in the Tubb Gas Pool.

(4) That an oil woll in the Tubb Gas Pool should be defined as a well which produces liquid hydrocarbons possessing a gravity of 45° API or less.

(5) That an oil well in the Tubb Gas Fool should have dedicated thereto a proration unit consisting of 40 acres, more or less, being a governmental quarter-quarter section legal subdivision of the United States Public Land Surveys. -2-Case No. 1221 Order No. R-586-B

(6) That no acreage should be simultaneously dedicated to an oil well and to a gas well in the Tubb Gas Pool.

(7) That the limiting gas-oil ratio for oil wells in the Tubb Gas Pool should be 2000 cubic feet of gas for each barrel of oil produced.

(8) That the Special Rules and Regulations for the Byers-Queen Gas Pool as set forth in Order R-586 should be deleted since the production from the said Byers-Queen Gas Pool is no longer of sufficient consequence to warrant its continued prorationing.

IT IS THEREFORE ORDEPED:

(1) That the Special Rules and Regulations for the Tubb Gas Pool as set forth in Order R-586, be and the same are hereby amended to include the following rules:

#### SPACING AND OPERATION OF CIL WELLS

RULE 16. An oil well in the Tubb Gas Pool shall be defined as a well which produces hydrocarbons possessing a gravity of  $45^{\circ}$  API or less.

RULE 17. An oil well in the Tubb Gas Pool shall have dedicated thereto a proration unit consisting of 40 acres, more or less, being a governmental quarter-quarter section legal subdivision of the United States Public Land Surveys.

RULE 18. No acreage shall be simultaneously dedicated to an oil well and to a gas well in the Tubb Gas Pool.

RULE 19. The limiting gas-oil ratio for oil wells in the Tubb Gas Pool shall be 2000 cubic feet of gas for each barrel of oil produced.

(2) That the Special Rules and Regulations for the Byers-Queen Gas Pool, as set forth in Order R-586, be and the same are hereby deleted effective September 30, 1957.

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

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

NOWIN L. MECHEM, Chairman

Inga RAY E. MORIAN, Aembor

bita PORTER, Jr., Member & Secretary



#### DIL CONSERVATION COMMISSION P. D. BOX 971 SANTA FE, NEW MEXICO

This letter was sent to the Committee members listed in the attached memo.

January 28, 1957

Amerada Petroleum Corporation Box 2040 Tulsa, Oklahoma

Gentlemen:

You are hereby appointed as a member of an Industry Committee, which is being formed for the purpose of making a study of the present rules pertaining to the Tubb Gas Pool and to make recommendations to the Commission at a hearing on March 14, for the purpose of formulating rules and regulations governing oil wells within the borizontal limits of the Tubb Gas Pool.

The Committee will hold its first meeting at 9:00 A.M., February 5, 1957, at the Office of the Oil Conservation Commission, 1000 West Broadway, Hobbs, New Mexico.

Appointed to work with the Committee will be Mr. Montgomery, Mr. Flacher, and Mr. Hunyun of the Commission Staff.

Attached is a mano chowing the full membership of the Committee.

Your usual cooperation will be appreciated.

Yours very truly,

A. L. Porter, Jr. fectotary - Director

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#### NEW MEXICO DIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

#### MEMORANDUM

TO: TUBB GAS POOL OPERATORS

FROM: A. L. PORTER, JR.

SUBJECT: INDUSTRY COMMITTEE

Due to the recent completion of several oil wells in the Tubb formation within the horizontal limits of the Tubb Gas Pool, the Commission feels that consideration should be given to the matter of the adoption of rules governing the operation of such wells. In order that the Commission may have the most complete information available for use in the formulation of such rules, the following operators of wells in the Tubb Pool have been appointed to an Industry Committee with instructions to prepare and make recommendations to the Commission at a hearing to be held on March 14, 1957.

> Amerada Petroleum Corporation Continental Oil Company Humble Oil & Refining Company Ohic Oil Company Shell Oil Company N. G. Penrose, Incorporated Gulf Oil Corporation Samedan Oil Corporation

Commission Staff Members appointed to work with the Committee are Mr. Montgomery, Mr. Fischer, and Mr. Hunyun.

The first meeting of the Committee will be held at 9:00 A.M., February 5, 1957, at the Commission Office, 1000 West Broadway, in Hobbs.

Representatives of all Pubb Pool Operators are welcome to attend the Committee meetings or to submit suggestions to the Commission Office at Hobbs.

January 28, 1957

bb

GOVERSOR JOHN F. SINDS CHAIRMAN

# New Mexico OIL CONSERVATION COMMISSION

LAND COMMISSIONER E. S. WALKER MEMBER



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

Memorandum regarding Industry Committee for the Tubb Gas Pool was sent

to the following Tubb Gas Pool Operators:

Continental Oil Company, 1710 Fair Bldg., Ft. Worth Cities Service Cil Co., Cities Service Bldg., Bartlesville, Okla. J. R. Cone, 1705 Creat Plains Life Bldg., Lubbock, Texas Greenbrier Oil Co., 327 S. Adams, Ft. Worth Humble Oil & Refining Co., Box 1600, Midland N. B. Hunt, 700 Mercantile Bank Bldg., Dallas Markham, Cone & Redfern, 1706 Great Plains Life Bldg., Lubbock Moran Oil Corn., Box 1712, Hobbs /Ohio Oil Company, Box 552, Midland, R. Olsen Oil Co., 2805 Liberty Bank Bldg., Okla. City. Samedan Oil Corp., Box 2137, Hobbs Shell Oil Co., Box 1957, Hobbs Sinclair Oil & Gas Co., 1103 Fair Bldg., Ft. Worth Sunray Mid-Continent, Box 2039, Tulsa Tidewater Oil Co., Box 1404, Houston Western Oil Fields, 1636 Stout St., Denver 2, -Gulf Oil Corp., Box 1290, Ft. Morth 1, Magnolia Oil Corp., Box 633, Midland Amerada Petr. Corp., Box 2040, Tulsa Cosden Petr. Corp., Box 1311, Big Springs M. G. Penrose, Inc., 1813 Fair Bldg., Ft. Worth Rowan Oil Co., 1915 Fair Bldg., Ft. Worth Skelly Oil Co., Box 1550, Tulsa Stanolind Oil Corp., Box 1410, Ft. Worth Texas Co., Box 1720, Ft. Worth.

Case 1221

GOVERNOR EDWIN L. MECHEM CHAIRNAN

# New Mexico

### OIL CONSERVATION COMMISSION

LAND COMMISSIONER, MURRAY E. MORGAN NEMBER



P. O. BOX 871 SANTA FE, NEW MEXICO

September 3, 1957

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

MEMORANDUM:

TO: GOVERNOR EDWIN L. MECHEM and MR. MURRAY E. MORGAN

FROM: A. L. PORTER, Jr., Secretary-Director

The Tubb Gas Pool in Lea County has existed for several years. During the latter part of 1956 and early months of 1957, several wells were completed within the vertical and horizontal limits of this pool which by all normal standards are oil wells and have been prorated as such.

The question arose as to whether the Tubb Gas Pool Rules should be amended to cover these oil wells or a separate oil pool should be created. The matter was called for hearing and an Industry Committee appointed to make recommendations to the Commission. The Committee was first inclined to follow the procedure established in the Eumont, Jalmat, and Blinebry Pools, of defining an oil well in a gas pool. Later a majority of the Committee recommended that all wells in the pool be considered gas wells and considered as such with liquid limitation to be placed on a stable produce oil possessing a gravity of 45° or less.

To Collow this recommendation the Commission would have to depart from its established procedure of recognizing an oil well in a gas pool. The danger here would be to the royalty holder. Gas provation units in this pool are 160 acres, therefore if an obvious oil well were drilled on John Smith's 40 acres under the recommendations of the Committee, he would receive only one-fourth (1/4)of the royalty to which he is entitled since he would have to share his royalty with the holders of the other 120 acres in the 160 acre unit.

In view of the possible inequities to the royalty owner under the Committee's proposed plan, it is my opinion that we should not follow their recommendations. We therefore have chosen to adhere to the established precedent of defining an oil well in the Tubb Pool.

A. L. PORTER, Jr.;

Secretary-Director

ALP/ir

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#### OIL CONSERVATION COMMISSION SANTA FE, NEW MEXICO

Date 8-6-57 CASE 1221 Hearing Date 7-7-57 My recommendations for an order in the above numbered cases are as follows: 1. all wellain the Dutt Yas soul the classifier as gue wells. 2. Each week be primated of or gue area with train an it is now. 3. That a liquid peroduction limit De applied to lach well in theore. 4. Ne liquet limits board me equal to the Normal with allowable y' the opplicable, derive pactor (6000 - 2000) (1.77) 5. No suchase shoul we have more then liquide from any will them the liquit timit is within a sevention whether.

Staff Member

#### TUBE GAS POOL

Following are the proposed changes in Order No. R-586:

1. Item 7 will be added to Rule 5 (d): "In the event more than one gas well producing from the Tubb Gas Pool should be included in a standard or less than a standard promation unit, the sum of the allowables allocated to the wells shall be equivalent to that volume of gas allocated to a promation unit of the same size. The operator of such wells shall have the option to determine the proportion of the assigned allowable to be produced by each individual well, provided all of said wells are orthodox gas locations. In the event that one or more of the gas wells on the promation unit is an unorthodox location, the Commission shall establish the proportion of the assigned allowable to be produced from each individual well."

2. The third from last paragraph of Rule 8 will be revised to read as follows: "The allowable assigned to any well capable of producing its normal gas allowable in the Tubb Gas Pool shall be the same proportion of the total remaining allowable allocated to said pool after deducting allowables of marginal wells that the number of acres contained in the gas proration unit for that well bears to the acreage contained in all gas proration units assigned to non-marginal wells in the Tubb Gas Pool except that no well which produces liquid hydrocarbons with a gravity of 45° API or less regardless of the size of the promation unit will be permitted to produce more liquid hydrocarbons than the Statewide oil allowable for wells on 40-acre units producing at depths between 6,000 and 7,000 feet. Any well subject to such fimitation shall be so designated on the Commission's monthly allocation schedule of condensate and other incidental liquid hydrocarbons. Any well subject to this liquid hydrocarbon fimitation and which produces more than the allowed volume of liquid hydrocarbons during any one month will make up such overage. Any gas production shortage resulting from application of the liquid hydrocarbon limitation or from shutting in a well because of overproduction of liquid hydrocarbons may be made up under the terms of Rule 9 (underproduction balancing provision) provided the liquid hydrocarbon limits described herein are not exceeded."

3. A rule 8b will be added as follows: "Tests to determine the gravity of the liquid hydrocarbons recovered from each well in the Tubb Gas Pool shall be taken following adoption of these rules and reported to the Cosmission on Form C-116 not later than the 15th day of the next succeeding month following adoption of these rules. The Commission will then mark on the allocation schedule of condensate and other incidental liquid hydrocarbons the wells which are to be subject to the liquid hydrocarbon limitation. Thereafter, gravity tests on each well not subject to the liquid hydrocarbon limitation will be made during the months of January and February and reported to the Cosmission on Form C-116 not later than the 15th day of March."

BEFORE THE . OIL CONSERVATION COMMISSION Hobbs, New Mexico May 16, 1957 IN THE MATTER OF CONTINUED CASE No. 1221 TRANSCRIPT OF PROCEEDINGS DEARNLEY - MEIER & ASSOCIATES INCORPORATED GENERAL LAW REPORTERS ALBUQUERQUE - SANTE FE 3-6691 2-2211

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· · ·	SEPORE THE OIL CONSERVATION COMMISSION Hobbs, New Mexico May 16, 1957
	IN THE MATTER OF:
	Application of the Oil Conser- vation Commission on its own motion for an order amending Commission Order R-586 insofar as it relates to the Byers- Queen and Tubb Gas Pools. Ap- plicant, in the above-styled cause, seeks an order amending the Special Rules and Regulations for the Tubb Gas Pool to make provision in said rules for the regulation of oil wells completed within the defined limits of said pool; and further to consider the deletion of that proration of Order R-586 relating to the Byers-Queen Gas Pool.
	BEFORE:
	The Honorable Edwin L. Mochom Mr. Porter Mr. Mureay Horgan
	TRANSCRIPT OF HEARING
	MR. PORTHA: No will consider next a continued case, No.
	1221.
	MR. COOLEY: Case 1221. Application of the Oil Conservation
	Commission on its own motion for an order emonding Commission Order
	R-586 insofar as it relates to the Byers-Queen and Cubb Ges Pools.
	MR. PORTER: Er. Walker.
	MR. WALKER: Don Malker with Gulf oll Corporation, 1 an
	DEARMERY - MURRIALASSA (195 - Antonio Antonio - Antonio Antonio - Antonio - Antonio - Antonio - Antonio

3 substituting for C. M. Bumpass, the Chairman of the Industry Committee which was appointed recently to study the problem of low ratio wells which have been completed in the Tubb Gas Pool, and since the last statewide hearing, the Study Committee has received yet another proposal as to a method to solve this problem which we don't think is a very big problem, and we, the Committee, have not yet had sufficient time to completely digest this new proposal, and as a result, they agreed to ask for another continuance, in order to come up with some concrete recommendations which they feel will be the answer, and it has been suggested to me this morning, that since we really don't have anything we have to solve today or tomorrow, possibly July would be a good date to reconvene on this matter, because many members of the Industry Committee would like to go to the Compact Neeting in June, and on behalf of the Gommittee, I would move for a continuance of the Case 1221.

MR. PORTER: Is there any objection to Mr. Walker's motion for continuance of Case 1221 to the regular July hearing? Case will be continued at the Regular Hearing Date in July. STATE OF NEW MEXICO ) COUNTY OF BERNALILLO )

I, J. A. TRUJILLO, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing was reported by me in Stenotype at the time and place hereinbefore set forth; that same was thereafter transcribed into typewritten transcript by me; and that same is a true and correct record to the best of my knowledge, skill, and ability.

SS

WITNESS my Hand and Seal this, the 30th day of May, 1957, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

S. G. Angelle-NOTARY PUBLIC

4

My Commission Expires: October 5, 1960.

BEFORE THE OIL CONSERVATION COMMISSION Santa Fe, New Mexico March 14, 1957 ્ર્ન . TRANSCRIPT OF HEARING Case No. 1221 DEARNLEY - MEIER & ASSOCIATES Incorporated General Law Reporters ALBUQUERQUE - SANTE FE 3-6691 2-2211

#### BEFORE THE OIL CONSERVATION COMMISSION Santa Fe, New Mexico March 14, 1957

2

Case 1221

#### IN THE MATTER OF:

Application of the Oil Conservation Commission ) on its own motion for an order amending Commission ) Order R-586 insofar as it relates to the Byers-Queen) and Tubb Gas Pools. Applicant, in the above-styled ) cause, seeks an order amending the Special Rules ) and Regulations for the Tubb Gas Pool to make ) provision in said rules for the regulation of oil ) wells completed within the defined limits of said ) pool; and further to consider the deletion of that ) portion of Order R-586 relating to the Byers-Queen ) Gas Pool.

#### BEFORE:

Honorable Edwin L. Mechem Mr. A. L. Porter Mr. Murray Morgan

#### TRANSCRIPT OF HEARING

MR. PORTER: The Commission will consider next Case 1221.

MR. COOLEY: Application of the Oil Conservation Commission on its own motion for an order amending Commission Order R-580 insofar as it relates to the Byer-sQueen and Tubb Gas Pools.

MR. PORTER: In this case I might say that it is occasioned by the completion of I believe four oil wells within the horizontal limits of the Tubb Cas Pool. On January 28 the Commission appointed an industry committee composed of Amerada, Continental, Amerada, Shell, Fenrose, Gulf and Samedan for the purpose of making a study and recommending rules for the handling of oil wells within the

> DEARNLEY MEIER & ASSOCIATES INCOMPORTED GENERALLYW REPORTED AUBUOLEROUE SANTA FE

Tubb Gas Pool.

I might say that at the first meeting of the committee in Hobbs we appointed Gulf as chairman of the committee, and I recall that all members of the industry committee were present representatives of each committee. The Commission appreciates very much your interest in this matter and the response to our committee call. I would like to call on Mr. Bumpas for Gulf Oil Company, who is chairman of the committee.

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MR. BUMPAS: If it please the Commission, I would like to read into the record some matter in this case. C. M. Bumpas, Gulf Oil Company, chairman of the Tubb Gas Pool industry committee. We wish to advise the Commission that the committee has been active in its assignment and there have been several meetings, the last of which was held 3:00 F. M. March 13: Continuance of this case to the May hearing is requested.

MR. PORTER: Mr. Bumpas, would you mind stating why the committee is requesting a continuance for two months?

A Well, sir, there was some different thoughts on the rules that were being formulated, to fulfill the responsibility that you assigned the committee, we thought that we needed some additional time since there were different opinions on the rules.

MR. PORTER: You ask for a continuance date to May 16?

HR. BUMPAS: Yos, sht.

MR. PORTER: Does anyone have any objection to the motion

for continuance?

The Commission has decided to continue Case 1221 to the regular May 16 hearing.

## CERTIFICATE

SS

STATE OF NEW MEXICO ) COUNTY OF BERNALILLO )

I, ADA DEARNLEY, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and ability.

IN WITNESS WHUREOF I have affixed my hand and notarial seal this gth day of March 1957.

Ida Scaluly

My commission expires:

June 19, 1.959.

DEARNLEY MELER & ASSOCIATES GENERAL LAW REPORTER ALBUQUERQUE SANTA FE 3 5695 - 2 1859

- GAS LIQUID RATIO TESTS IN THE TUBB GAS FCOL-COTOBER 1956 TESTS

DPERATOR Loase Name Woll No.	S-T-R	Eato of Test	Condensate Gravity-	Gus Cond. Ratio
MERADA PET. CORP.				
Baker #3-1	10-22-37	11/24/56	65	51,675
Corrigan #4-A	4-22-37	11/24/55	62	35,546
Hare #7-M State D"A" #3-J	3521 <b></b> 37 162137	11/22/56 11/24/56	67 60	78,252 75,708
E. Wood $\#7-\Lambda$	22-22-37	11/24/56	49	16,423
ITIES SERVICE OIL CO.				
Brunson "B" #3-M	3-22-37	11/15/56	(si-no pc)	9,070
Brunson "C" #6-I	3-22-37	11/15/56	62.7	86,000
Oven #3-J State S #2-F	35-21-37 15-21-37	11/15/56 11/16/55	62 <b>.3</b> 54 <b>.</b> 0	41,509 13,913
ONE, J. R. Anderson #1-1	21-21-37	1/26/57	71.5	167,040
		1/ 20/ 11	• → • <i>&gt;</i>	101,040
ONTINENTAL OIL CO. Hawk B-3 #1-T	3-21-37	1/17/57	37	1,236(0il Well
Hawk B-9 #3-C	9-21-37	1 12/57	53	63,727
Hawk B-9 #5-K	9-21-37	1/15/57		
Hawk B-9 #7-P	9-21-37	1/2/57	55	12,388
Lockhart A-27 #1-D	27-21-37	1/11/57	63	66,388
Lockhart A-27 #1-G	27-21-37	.1/12/57	63	102,285
Lockhart A-35 #3-C	35-21-37	1/13/57	56	37,800
Lockhart B-35 #1-G	35-21-37	1/12/57	56	24,500
Nolan #2-N	11-21-37	1/9/57	44	26,200
State 10 #3-D	10-21-37	1/12/57	54	614,000
Wantz D-21 #3-J	21-21-37	1/21/57 1/12/57	54	61,000
Wantz D-21 #4-K	21-21-37	1/12/57	54	42,200
OSDEN PET. CORP. E. Butler #3-N	18-22-38	12/4/56(csg.	-tbg.)66.3	59,523
		12/8/56	66.3	62,791
REENBRIER OIL CO. Sarkeys #1-B	26-21-37	12/14/56	77.2	61,304
ULF OIL CORP.				
Amanda #1-J	25-22-37	11/21/56	69	97,640
Andrews #2-G	32-22-38	11/22/56	71.8	42,770
Carson "C" #3-P	28-21-37	11/26/56	73.4	29,929
Danglade #1-M	13-22-37	11/22/56	71.3	44,952
Eaves #5-H	10-22-37	11/26/56	68.9	31,813
Eubank #1-B	22-21-37	11/22/56	67.6	49,307
Gutman #1-N Gutman #2-C	19-22-38 19-22-38	12/10/56	65.5 68 1	104,350
Hugh #4-0	14-22-37	11/20/56 12/3/56	68.1 67.9	29,336
Hugh $\#7-C$	14-22-37	11/26/56	60.5	41,247 46,283
E. King #13-A	28-21-37	No connection		40,200
E. King #22-0	28-21-37	11/23/56	70	44,283
Leonard "E" #4-A	16-21-37	11/22/56	66.8	62,068
Mark #5-A	3-22-37	11/26/56	72.8	19,091
M. Oven $#5-A$	34-21-37	1.1/26/56	68.4	40,024
McCormack #7-I	32-21-37	11/21/56	70.6	31,844
Paddock #3-P	1-22-37	12/4/56	52.6	21,412
Vivian #1-C	20-22-38	11/20/56	61.9	41,896
Watkins #1-0	29 <b>-</b> 22- <b>3</b> 8	11/20/56	61.9	52,617
WHELE OIL & REFINING CO				
Blinebry Tubb Gas Unit	t #1-0 10-21-37	12/8/56	56.4	51,067
Hardison B #1-H	34-21-37	10/15/56	61.6	48,843
Hardison B $\frac{1}{27}$ -P	27-21-37	11/5/56	69.1	61,771
Penrose #2-H	13-22-37	12/10/56	70	46,423
N. M. State S #12-A	2-22-31	12/12/56	45.2	45,601
N. M. State S #13-B	2-22-37	11/3/56	68.6	42,347
N. M. State S #20-E	2-22-37	12/8/55	66.5	6,339
	2-22-37	12/6/56	67.9	50,982
N. M. State S #21-L	1-26-51			JU . /
N. M. State F #21-L N. M. State S #23-P N. F. State V #7-D	2-22-37	11/8/56 12/6/56	63.5 36.4	37,019

a Bener ande wie als hijkenninge en die de wekenst van Okonsen im die dereken B		Catober 1956		Page 2
Ubleated Note Will No.	S-4'-R	Dato of Scot	Condettrate Gree pigno	Cris Cond. 24510
N. B. POVP NotMorly E-1-G	21-21-37	11/21/55	67	74 <b>,,</b> NG
MOTOLIA PET. CO.				
	10-22-37	1/14/57	63.8	30,310
Ormon R. H.	33 - 21 - 37	1/14/57	67.8	47,°00
Correct stille is	21 21 27	1/1/37	70.0	57,790
Constitue 37 P Velliumson #1-A	23-07-37 32-01-37	$\frac{1}{2}/12/57$	€4₀50 €1	125-400
Long Ho-J	23-11-37 11-20-39	1/14/57	66	30,000
MARVHAM, CONE AND REDFERI Eubanks #2-4	N 14-21-37	12/9/55	72	10/ 5/0
		TS/ 9/ 00	12	124,542
MORAN OIL FRODUCING & DRI		22/21/21	<i></i>	10 ( 00
Oxen #1-E	14/21/37	12/14/56	54.2	42,633
		12/5/56	59.8	42,633
CHIO OIL COMFANY		n: loc let	11.	20 (/ )
Lynch #2-D	1-22-37	11/29/56	66.4	39,664
	27-27-37	12/6/56 11/20/56	70.5 66.8	84,579
J. L. Maney #1-P M. Owen #3-N	24 7.2-37 35-21 <b>-</b> 37		70.8	83,978 51,379
L. G. Warlick "C" #1-3			68.3	67,489
Worthen #9-E			65.1	34,366
Worthan #11-F	11-22-37	12/7/56	72.4	36,260
R. OLSEN				
Sarkeys #1-E	26-21-37			(0il)
Comp. 1/8/57				
R. CLSEN CIL CONPANY Boyd #5-B	23-22-37	10/26/56	60.9	51,260 (?)
Cone #1-J	26-21-37	11/15/56	65	79,960
Owens #1-M	25-21-37	11/15/56	56	33,700
PENROSE, NEVILLE G.				
Hinton #3T-N	12-22-37	12/19/56	67,8	58,490
Hinton #5-P	12-22-37	12/5/56	67.1	64,284
Elliott Hinton #1-E	12-22-37	, ., .		No p c
RCWAN OIL COMPANY Walden #3-T C	15-22-37	12/12/56	tstm	150,000
	1)-22-21	12/12/ 00		1,0,000
SAMEDAN OIL CORP. Parks "A" #4-0	14-22-37	12/2/56	58	20 605
Parks #6-P	14-22-37	12/2/56	75 75	39,585 40,745
SHELL CIL COMPANY				
Argo #1-11	15-21-37	1/11/57	63.3	108,382
Argo A #3-D	22-21-37	$\frac{1/9}{57}$ $\frac{1}{12}$	69.6	315,393
Louis #5-1	11-22-37	1/13/57	60.4	61,709
Jarneys #1-M	23-21-37	1/9/57	63 2	114,505
State 15 #1-0	15-21-37	1/9/57	56.5	30,484
Turner #2-L	22-21-37	1/9/57	72	62,075
Turner #3-J	22-21-37	1/11/57	63.7	53,774
SINCLAIR OIL & GAS CO.				
Aloxander Bogers //2-A		11/8/56	43.9	1892(Cil Well)
Stake 367 #3-N Sackeys #2-0	362137	11/8/56	53 <b>.</b> 1	19,924 21,060
ωα <i>ι πυ]β ∦2−</i> 0	23-21-37	11/9/56	70	81,950
SEELT OIL COMPANY Baker B #15-J	10-22-37	1.2/12/56	72	71,489

Tubb tests Cctober 1956

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Drinkard #5-G

Page 3

OF GAME OR Ges C -nd. Condenn - a Gravinar Date of S-T-R Louise Hame Mell No. ( .+ F --Test . ... ... . . . . . . . . . . . . ----STANGLIND (PAN ALERICAN PET. CORP.) Southland Royalty "A" #2-B 9-21-37 104,000 11/13,56 11/21/56 11/14/56 57 9-21-37 53,100 45,000 30,100 69 #4--X 4-21-37 11 70 State C" Tr. 12 #5-X-016-21-37 11/15/56 11/12/56 11/2/56 67 36**-21-37** State C Tr. 13 #8-D Eva Cwan "B" #2-L 81,600 65 31-21-57 57,000 66 W. H. Turner #D-P 29-21-37 SUNRAY MID-CONTINENT OIL CONFAM 33,400 48 1/8/57 1--22-37 Elliott "A" #2-H 180,000 1/8/57 1/8/57 63 Linaa "V" #3.A 27-21-37 56, W 72 1-22-37 W, Lynch #4-L 66,300 43 1/5/57 State Land 15 #4-P 16-21-37 THE TEXAS COMPANY 22,000 A H. Blinebry NCT-1#1-0 19-22-38 11/15/56 57.8 76,000 11/19/56 57.9 A. H. Blinebry NCT-1 #7-G19-22-38 TIDEVATER OIL COMPANY 74,198 68.2 12/10/56 26-21-37 S. J. Sarkeys #4-F 79,143 68.5 12/6/56 23--21-37 Williamson #2-E 28,838 53.3 15-21-37 State "S" #2-C WESTERN OIL FIELDS, INC. 52,100 68.1 11/27/56 30-22-38 Drinkard #2-5 75,689 65.2 11/27/56 36-22-37 Gulf State #1-A 138,000 69 12/2/56 25-22-37

NO. 21-57

#### DOCKET: REGULAR HEARING JULY 17, 1957

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

ALLOWABLE: (1) Consideration of the oil allowable for August, 1957.

- (2) Consideration of the allowable production of gas for August, 1957, from the seven prorated pools in Lea County, New Mexico; also consideration of the allowable production of gas from the six prorated pools in San Juan and Rio Arriba Counties, New Mexico, for August, 1957.
- CASE 1275: Application of Shell Oil Company for an exception to Rule 309 of the Commission Rules and Regulations to permit the transportation of oil from the basic lease prior to measurement, and to produce more than eight wells into a central plant, and to commingle production from the participating area of the Carson Unit with production from other wells in the area. Applicant, in the above-styled cause, seeks an order authorizing off-lease measurement of oil produced from the Bisti-Lower Gallup Oil Pool and an undesignated Lower Gallup Oil Pool in Township 25 North, Range 11 West, and Township 25 North, Range 12 West, San Juan County, New Mexico, by means of an automatic custody transfer system; and to authorize the production of more than eight wells into a central testing and measuring plant and further, to authorize the commingling of non-participating area production with participating area production in the Carson Unit, with royalty payments to be calculated by means of periodic production rate tests.
- CASE 1276: Application of Amerada Petroleum Corporation for an order amending Order No. R-991 insofar as said order pertains to the Bagley-Lower Pennsylvanian Gas Pool, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order amending Order No. R-991 to extend the horizontal limits of the Bagley-Lower Pennsylvanian Gas Pool to include the S/2 Section 34, Township 11 South, Range 33 East, and the NE/4 Section 3, Township 12 South, Range 33 East, Lea County, New Mexico, and to increase the size of the standard drilling unit for said pool from 160 acres to 320 acres and to enter such other rules and regulations for said pool as the Commission may deem necessary.
- CASE 1277: Application of the Oil Conservation Commission at the request of Wilson Oil Company for an order establishing a new oil pool with special pool rules in the Potash-Oil Area, Lea County, New Mexico, in accordance with Section 3, Paragraph III, of Order R-111-A. Applicant, in the above-styled cause, seeks an order creating a new oil pool in the area of Wilson Oil Company's recently completed oil well located in the NE/4 NE/4 Section 21, Township 20 South, Range 34 East, Lea County, New Mexico; and for the promulgation of special pool rules to govern future drilling in said pool in order to afford adequate protection for the potash deposits in the area.

-2-Docket No. 21-57

CASE 1278: In the matter of the hearing called by the Oil Conservation Commission upon its own motion to permit Roy T. Short and the Hartford Accident and Indemnity Company and all other interested parties to appear and show cause why the Roy T. Short, et al, Millard Eidson No. B-3 Well located in the SW/4 SE/4 of Section 26, Township 16 South, Range 35 East, in the Shoe Bar Area of Lea County, New Mexico, should not be ordered plugged and abandoned in accordance with the Rules and Regulations of the Oil Conservation Commission of New Mexico.

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- CASE 1279: In the matter of the hearing called by the Oil Conservation Commission upon its own motion to permit Roy T. Short, M. N. Hamilton, Apache Basin Oil Company, and Basin Oil Company, and all other interested parties to appear and show cause why the hole located 660 feet from the South and West lines of Section 25, Township 16 South, Range 35 East, Lea County, New Mexico, should not be ordered plugged and aban oned in accordance with the Rules and Regulations of the Oil Conservation Commission of New Mexico.
- CASE 1280: Application of Sunray Mid-Continent Oil Company for an order authorizing a pilot secondary recovery project in the Bisti-Lower Gallup Oil Pool in exception to Rule 701 of the Commission Rules and Regulations. Applicant, in the above-styled cause, seeks an order authorizing it to drill and operate a well at a point five feet southeast of the northwest corner of Section 6, Township 25 North, Range 12 West, San Juan County, New Mexico, for the injection of liquified petroleum gases and dry gas into the Lower Gallup formation of the Bisti-Lower Gallup Oil Pool for the purpose of secondary recovery of oil from said pool.
- CASE 1281: Application of Skelly Oil Company for approval of an unorthodox oil well location in an undesignated oil pool in Rio Arriba County, New Mexico, in exception to Rule 104 of the Commission Rules and Regulations. Applicant, in the above-styled cause, seeks an order authorizing an unorthodox oil well location in an undesignated oil pool for its Jicarilla "R" Well No. 2 located 1590 feet from the South line and 990 feet from the East line of Section 31, Township 25 North, Range 5 West, Rio Arriba County, New Mexico. Said well was projected as a gas well in accordance with the Commission gas well location rules but was found to be productive of oil.
- CASE 1282: Southeastern New Mexico Nomenclature case calling for an order creating new pools and extending and deleting certain areas from existing pools in Eddy and Lea Counties, New Mexico.

(a) Create a new oil pool for Grayburg production, designated as the Teague-Grayburg Pool, and described as:

TOWNSHIP 23 SOUTH, RANGE 37 EAST Section 20: SE/4 -3-Docket No. 21-57

> (b) Create a new oil pool for Pennsylvanian production, designated as the Kemnitz-Pennsylvanian Pool, and described as:

> > TOWNSHIP 16 SOUTH, RANGE 33 EAST Section 13: SE/4

(c) Extend the Dollarhide-Drinkard Pool to include:

TOWNSHIP 24 SOUTH, RANGE 38 EAST Section 19: NW/4 Section 20: W/2 SW/4

(d) Extend the Drinkard Pool to include:

TOWNSHIP 22 SOUTH, RANGE 37 EAST Section 27: E/2 NE/4

(e) Extend the Gladiola Pool to include:

TOWNSHIP 12 5 TTH, RANGE 37 EAST Section 25: N/2 NE/4

TOWNSHIP 12 SOUTH, RANGE 38 EAST Section 17: NW/4 Section 18: N/2 NE/4

(f) Extend the North Gladiola-Devonian Pool to include:

TOWNSHIP 11 SOUTH, RANGE 38 EAST Section 32: SE/4

TOWNSHIP 12		38	EAST
Section 6:	SW/4		
Section 7:	NW/4		
Section 8;	NW/4		

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

TOWNSHIP 16 SOUTH, RANGE 30 EAST Section 4: SE/4 Section 5: SE/4 Section 8: NE/4

(h) Extend the Langlie-Mattix Pool to include:

TOWNSHIP 23 SOUTH, RANGE 36 EAST Section 4: E/2 SE/4

(i) Extend the Pearl-Queen Pool to include:

TOWNSHIP 19 SOUTH, RANGE 35 EAST Section 22: S/2 SE/4 -4-Docket No. 21-57

(j) Extend the Townsend-Wolfcamp Pool to include:

TOWNSHIP 16 SOUTH, RANGE 36 EAST Section 6: W/2 SW/4

(k) Extend the Terry-Blinebry Pool to include:

TOWNSHIP 21 SOUTH, RANGE 37 EAST Section 3: Lot 16 Section 4: Lot 1

(1) Delete the following area from the Blinebry Gas Pool:

TOWNSHIP 21 SOUTH, RANGE 37 EAST Section 3: Lot 16 Section 4: Lot 1

CASE 1283: Northwestern New Mexico nomenclature case calling for an order extending existing pools in San Juan and Rio Arriba Counties, New Mexico.

(a) Extend the Aztec-Pictured Cliffs Pool to include:

TOWNSHIP 28 NORTH, RANGE 9 WEST All of Sections 9, 10, 11, 12, 13, & 14 Section 15: E/2 & SW/4Section 24: All

TOWNSHIP 31 NORTH, RANGE 11 WEST Section 34: All

(b) Extend the Otero-Pictured Cliffs Pool to include:

TOWNSHIP 23 NORTH, RANGE 5 WEST Section 9: E/2 Section 16: N/2 TOWNSHIP 24 NORTH, RANGE 5 WEST Section 13: SW/4 Section 14: S/2 Section 21: NE/4 Section 22: N/2 & SE/4 All of Sections 23, 24, & 25 Section 31: S/2

(c) Extend the South Blanco-Pictured Cliffs Pool to include:

TOWNSHIP 24 NORTH, RANGE 4 WEST Section 5: W/2 TOWNSHIP 27 NORTH, RANGE 8 WEST Section 4: All \*~ '

-5-Docket No. 21-57

(d) Extend the Blanco-Mesaverde Pool to include:

TOWNSHIP 28 NORTH, RANGE 9 WEST Section 32: All

(e) Extend the Bisti-Lower Gallup Oil Pool to include:

TOWNSHIP 26 NORTH, RANGE 13 WEST Section 36: NW/4

(f) Extend the Verde-Gallup Oil Pool to include:

TOWNSHIP 31 NORTH, RANGE 14 WEST Section 18: All

TOWNSHIP 31 NORTH, RANGE 15 WEST Section 13: N/2

#### CONTINUED CASES

CASE 1221: Application of the Oil Conservation Commission on its own motion for an order amending Commission Order R-586 insofar as it relates to the Byers-Queen and Tubb Gas Pools. Applicant, in the above-styled cause, seeks an order amending the Special Rules and Regulations for the Tubb Gas Pool to make provision in said rules for the regulation of oil wells completed within the defined limits of said pool; and further to consider the deletion of that portion of Order R-586 relating to the Byers-Queen Gas Pool.

CASE 1261: Application of Gulf Oil Corporation and Western Oil Fields, Inc., for an order force pooling certain acreage in the Blinebry and Tubb Gas Pools, Lea County, New Mexico. Applicants, in the above-styled cause, seek an order force pooling the interests of all persons having any right, title or interest in the Blinebry and Tubb formations underlying the SW/4 Section 30, Township 22 South, Range 38 East, Lea County, New Mexico.

- CASE 1262: Application of Gulf Oil Corporation and Western Oil Fields, Inc., for an order force pooling certain acreage in the Blinebry and Tubb Gas Pools, Lea County, New Mexico. Applicants, in the above-styled cause, seek an order force pooling the interest of all persons having any right, title or interest in the Blinebry and Tubb formations underlying the SE/4 Section 30, Township 22 South, Range 38 East, Lea County, New Mexico.
- CASE 1263: Application of Gulf Oil Corporation and Western Oil Fields, Inc., for an order force pooling certain acreage in the Blinebry and Tubb Gas Pools, Lea County, New Mexico. Applicants, in the above-styled cause, seek an order force pooling the interests of all persons having any right, title or interest in the Blinebry and Tubb formations underlying the NE/4 Section 25, Township 22 South, Range 37 East, Lea County, New Mexico.

-6-Docket No. 21-57

- CASE 1264: Application of Gulf Oil Corporation and Western Oil Fields, Inc., for an order force pooling certain acreage in the Blinebry and Tubb Gas Pools, Lea County, New Mexico. Applicants, in the above-styled cause, seek an order force pooling the interests of all persons having any right, title or interest in the Blinebry and Tubb formations underlying the SE/4 Section 25, Township 22 South, Range 37 East, Lea County, New Mexico.
- CASE 1265: Application of R. Olsen Oil Company for an order force pooling certain acreage in the Justis Gas Pool, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order force pooling the interests of all persons having any right, title or interest in the Glorieta formation of the Justis Gas Pool underlying the NE/4 Section 23, Township 25 South, Range 37 East, Lea County, New Mexico.

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No. 16-57

#### DCCKET: FEGULAR HEARING MAY 16, 1957

#### Oil Conservation Commission 9 a.m., Hobbs Senior High School, 1300 E. Scharbauer

#### HOBBS, NEW MEXICO

ALLOWABLE: (1) Consideration of the oil allowable for June, 1957.

(2) Consideration of purchasers' nominations for the six-month period beginning July 1, 1957, for six prorated pools in Lea County, New Mexico; also consideration of the allowable production of gas for June, 1957, for seven prorated pools in Lea County, New Mexico, and consideration of the allowable production of gas from six prorated pools in San Juan and Rio Arriba Counties, New Mexico for June, 1957.

#### NEW CASES

- CASE 1252: Application of the Oil Conservation Commission upon its own motion for an order revising Commission Form C-104, as established by Rule 1107 of Commission Rules and Regulations. Applicant, in the above-styled cause, seeks an order revising the format and information required on Commission Form C-104, Request For (oil-gas) Allowable.
- CASE 1253: Application of Sinclair Oil and Gas Company for the creation of a new oil pool to be known as the Seaman Wolfcamp Pool underlying portions of Township 16 South, Range 33 East, and Township 16 South, Range 34 East, Lea County, New Mexico, and for the establishment of 80-acre well spacing and proration units, and for the promulgation of special rules and regulations for said pool. Applicant, in the above-styled cause, seeks an order creating a new oil pool for production from the entire Wolfcamp formation underlying Sections 13, 24, and 25, Township 16 South, Range 33 East, and Sections 16, 17, 18, 19, 20, 21, 28, 29, and 30, Township 16 South, Range 34 East, Lea County, New Mexico, and for the establishment of 80-acre well spacing and proration units consisting of any contiguous 80-acres within a given quarter section with no designated quarter quarter section in which a well must be drilled, and for the promulgation of special rules and regulations for said pool.
- CASE 1254: Application of Tennessee Gas Transmission Company for the creation of a new oil pool to be known as Kemnitz Lower Wolfcamo Pool underlying portions of Township 16 South, Range 33 East, and Township 16 South, Range 34 East, Lea County, New Mexico, and for the establishment of temporary 80-acre well spacing and proration units, and for the promulgation of special rules and regulations for said pool. Applicant, in the above-styled cause, seeks an order creating a new oil pool for Lower Wolfcamp production in the Kemnitz Area embracing Sections 23, 24, 25, 26, 35, and 36, Township 16 South, Kange 33 East, and Sections 16, 17, 18, 19, 20, 21, 28, 29, 30, 31, 32, and 33, Township 16 South, Kanye 34 East, Lea County, New Mexico, and for the establishment of temporary 80-acre well spacing and protation units consisting of the North and South halves of each quarter section with drilling locations limited to the Northeast quarter and Southwest quarter of each quarter section, and for the promulgation of special rules and regulations for said nool.

-2-Docket No. 16-57

CASE 1255:

Southeastern New Mexico nomenclature case calling for the extension of existing pools in Lea, Chaves, Eddy and Roosevelt Counties, New Mexico.

(a) Extension of the Artesia Pool to include:

Township 17 South, Range 28 East Section 36: S/2 NW/4

(b) Extension of the Atoka Pool to include:

Township 18 South, Range 26 East Section 12: W/2 NW/4

(c) Extension of the Brown Pool to include:

Township 10 South, Range 26 East Section 22: SE/4 SE/4 Section 23: S/2 SW/4

(d) Extension of the Cass Pool to include:

Township 20 South, Range 37 East Section 14: SW/4 Section 15: SE/4

(e) Extension of the Dollarhide-Drinkard Pool to include:

Township 24 South, Range 38 East Section 19: N/2 NE/4

(f) Extension of the E-K Queen Pool to include:

Township 18 South, Range 33 East Section 23: NW/4

(g) Extension of the Fowler-Devonian Pool to include:

Township 24 South, Range 37 East Section 10: W/2 SW/4

(h) Extension of the Gladiola Pool to include:

Townshin 12 South, Hange 38 East Section 18: N/2 SE/4 & S/2 NE/4

(i) Extension of the South High Lonesome Pool to include:

Township 17 South, Range 29 East Section 4: 54/4

(j) Extension of the Milnesand-Pennsylvanian Pool to include:

Township 8 South, Range 34 East Section 13: SE/4 NE/4

Township 8 South, Range 35 East Section 18: S/2 NM/4 -3-Docket No. 16-57

(k) Extension of the Roberts Pool to include:

#### Township 17 South, Range 33 East Section 8: SE/4

<u>CASE 1256</u>: Northwestern New Mexico nomenclature case calling for the creation of a new pool and the extension of existing pools in San Juan and Rio Arriba Counties, New Mexico.

(a) Creation of a new gas pool for Fruitland production, designated as the Flora Vista-Fruitland Pool, and described as:

Township 30 North, Range 12 West All of Sections 9 & 10

(b) Extension of the Aztec-Pictured Cliffs Pool to include:

Township 30 North, Range 11 West Section 6: SE/4

(c) Extension of the Ballard-Pictured Cliffs Pool to include:

Township 25 North, Range 7 West Section 19: S/2

(d) Extension of the South Blanco-Pictured Cliffs Pool to include:

Township 25 North, Range 5 West Section 26: SW/4 Section 27: S/2 Section 28: S/2 Section 33: All Township 26 North, Range 5 West Section 23: SW/4

Section 23: SW/4 Section 26: W/2 Section 35: NW/4

(e) Extension of the Bisti-Lower Gallup Oil Pool to include:

Township 26 North, Range 13 West Section 26: SE/4

(f) Extension of the Verde-Gallup Oil Pool to include:

Township 31 North, Range 15 West Section 12: NW/4 & SE/4 -4-Docket No. 16-57

<u>CASE 1257</u>: Application of Great Western Drilling Company for an order promulgating special rules and regulations for the South Carter-San Andres Pool, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order promulgating special rules and regulations for the South Carter-San Andres Pool, Lea County, New Mexico, to provide a method for the establishment of well allowables in said pool which would be commensurate with allowables for wells in the same common source of supply lying outside the State of New Mexico.

#### CONTINUED CASE

<u>CASE 1221</u>: Application of the Oil Conservation Commission on its own motion for an order amending Commission Order R-586 insofar as it relates to the Byers-Queen and Tubb Gas Pools. Applicant, in the above-styled cause, seeks an order amending the Special Rules and Regulations for the Tubb Gas Pool to make provision in said rules for the regulation of oil wells completed within the defined limits of said pool; and further to consider the deletion of that portion of Order R-586 relating to the Byers-Queen Gas Pool.

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MAXIMUM SHUT IN PRESSURES

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TUBB GAS POOL





























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	FORM 983 (REV. 9-1. 38)	RACK-PRESSURE TEST WORKSH	IEET
and a state of the	COMPANY Pan American Pet. Coroo	ration LEASE Southland Roy	alty "A" well No. 2
9 <sup>1</sup>	HELL ON PREFLOW: TATE 10-30-58 TIME 8:45 AM	WELL SHUT IN: DATE 11-7-58 TIME 10:30 AM	PRESSURE TAKEN: DATE <u>11-12-58</u> TIME 10: 30 AN
	AVG. PREFLOW LENGTH OF RATE 3100 Mcfd PREFLOW 8 Days	SHUT-IN PRESS. CSG.1511.5 TBG	LENGTH OF SHUT-IN 5 Days Pc 2 2117.1
	SEP. GAS API GRAVITY GRAVITY 0.685 OF LIQUID NONE	NETER RUN OPIFICE SIZE 4" SIZE 2.25"	TAPS Pipe co, 0.108 H, 2.198

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WEDNES	DAY, NOVEME	ER 12	1958					ĺ			1	
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iested Bri R. L. Mest & J. D. Horton (Permian) wirness: None
358-11 358-11 358-11

000 2 Sinclair Oil & Gas Company Barton 1 Sw NE 23-218-37E Tubb Gas Pool Date of Test = 1-2-59 to 2-4-59

M. OF ST JY PRENDER (Days)

### BACK-PRESSURE TEST WORKSHEET

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COMPANY	Sinclain	<b>r Oil &amp; G</b>	es Compan	<b>Z</b> ı	EASE	Barton				WELL	HO. 1	
HFUL ON P Cate <b>1-1</b>	- <b>59</b>	TINE 2:0	WELC DO PM DATE	енит и <b>1_2</b> -	•5 <b>9</b>	TIME_2:	30 PM	PPESSUI DATE	2-11-59	1: 2TI	9:15 AM	
AVG. PREF RATE 222	Low L O Mcfd p	ENGTH OF REFLOW 20	.50 Hrs.	SHUT-I) PRESS.	csc. <u>1</u>	797.1 TBG.		LENG	rh of -14 <u>33</u>	Days	_ Pc <sup>2</sup> 3277	
SEP. GAS Guarder <u>—</u>	f	API GRAVITA DE LIQUID_	r 4070 \$1.28	r eun	¢	171 171		TAPS_		co <sub>2</sub>	<sup>8</sup> 2	
TIME OF DAY	CASING Psig	L P Csq.	G PRESS. TUBING Psig	Г. р Т02.	NELL- HEAD TEMP.	NETER OR PROVER PRESS.	DIFC.	METER OP PROVER TEMP,	851 s. OF LIQUID	۴t <sup>2</sup>	$P_c^2 - P_t^2$	Q
	JANUARY 2 WELL SP	2, 1959										
TUESDAY 12:15	, JANUARY 1769.5	6, 1959	<b>(93.7</b> 5 H	OUR SP	UT IN	PRESSURE	5					
WEDNESD 12:00	AY, JANUAI 1773.4	r 7, 195	9 (5 DAY S	HUT IN	PRES	SURE)		           				
THURSDA 1:30	Y, JANUARY 17 <b>76.</b> 4	× 8, 1959	(6 DAY S	TUT IN	PRES	· · · · · · · · · · · · · · · · · · ·				·		
FRIDAY, 12:00	JANUARY 1777.6	9, 1959	(7 DAY S	HUT II	PRES	SURF )					-	
MONDAY, 1:30	JANUARY 1782.7	12, 1959	(10 DAY	SHUT I	N PRE	SSURE)	· · · · ·	,				
TUESDAY 10:45	, JANUARY 1734.2	13, 1959	) (11 DAY	SHUT I	IN PRE	SSURE)		}				
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MONDAY, 11: 1:5	JANUARY 1789.9		(17 DAY	SHUT 1	N PRE	SSURE)						
THF SDA1 10:30	. JANHARY 1791.0		) (18 DAY	34 /丁 1	N PRE	SSURE)						

See Page (2)

fested By: R. L. West & J. D. Horton (Permian) mineral None

FORM 903 (REV. 3. 1. 30)

### Page (2) BACK-PRESSURE TEST WORKSHEET

COMPANY Sinclair Oil & Gas Company LEASE Barton WELL NO. 1 WELL ON PREFLOWS WELL SHUT IN: PRESSURE TAKEN: 0A75\_\_\_\_\_ \_\_TIME\_ TIME\_ AVG. PREFLOW LENGTH OF SHUT-18 LENGTH OF RATE\_\_\_\_\_\_ PREFLON\_\_\_\_\_ PRESS. CSG.\_\_\_\_\_ TAG.\_\_\_\_\_ SHUT-IN\_\_\_\_\_ HETSE DUN 0015155 SEP. GAS APE GRAVITY \_\_\_\_\_ OF LIQUID\_\_\_\_\_\_ \$17E\_\_\_\_\_ \$17E\_\_\_\_\_ TAPS\_\_\_\_\_C02-GDAMEEN\_ AFLI. METEO OR HEAD PROVER TD 9. TEMP. PRESS. W.H. FLOWING PRESS. METER Bbls. TIM Pt2  $P_c^2 - P_t^2$ Csq. Psig Q EROVER CASING Psig OF DAY LIQUID Csq. WEDNESDAY, JANUARY 21, 1959 (19 DAY SHUT IN PRESSURE) 11:15 1790.8 THURSDAY, JANUARY 22, 1959 (20 DAY SHUT IN PRESSURE) 10:45 1791.0 FRIDAY, JANUARY 23, 1959 1792.1 (21 DAY SHUT IN PRESSURE) 10:15 MONDAY, JANUARY 26, 1959 10:00 1793.8 (24 DAY SHUT IN PRESSURE) TUESDAY, JANUARY 27, 1959 (25 DAY SHUT IN PRESSURE) 11:00 1794.1 WELL ESTIAT, JANUARY 29, 1959 1794.4 (26 DAY SHUT IN PRESSURE) 10:30 THURSDAY, JANUARY 29, 1959 10:30 1795.2 (27 DAY SHUT IN PRESSURE) FRIDAY JANUARY 30, 1959 (28 DAY SHUT IN PRESSURE) 10:30 1795.0 ł TUESDAY FEBRUARY 3, 1959 1796.3 (32 AY SHUT IN PRESSURE) 9:15 WEDNESDAY, FEBRUARY 4, 1959 1797.1 (33 DAY SHUT IN PRESSURE) 9:15 This is the maximum shut in pressure obtained. THURSDAY FEBRUARI 5, 1959 9:00 1796.8 (34 DAY SHUT IN PRESSURE) FEBRUARY 6, 1950 FRIDAY 8:45 (35 DAY SHIT IN PRESSURE) 1797.0

TEST COMPLETE

FORM 903

Tested By: R. L. West & J. D. Horton (Permian) airmss: None

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Gulf Cil Corporation Andrews 2-T SW NE 32-225-33F Tubb Gas Pool Date of Test \* 11-30-58 to 2-6-59

(Stad) MENSSERA NI MAS

LENGTH OF SHUT IN PRESSURE (Days)

N

### RACK-PRESSURE TEST WORKSHEET

FORM 903 (REV. 3-1. 101

COMPANY Gulf	il Corporation	LEASE	Andrews	WELL	NO. 2-T
HELL ON PREFLOW: CATE 11-28-58	TIME 10:30 AM	NELL SHIT IN: DATE 11-30-58	TIME 10:30 AM	PRESSURE TAKEN: DATE <u>1-30-59</u> TIM	F 9:15 AM
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10:00	<u>,</u>	<u></u>	1847.1	(16	DAY S	HUT IN PR	ESSUR	5)				

See Page (2)

Tested By: R. L. West & J. D. Horton (Permian) None

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FORM 983 (REV.9-1.	<b>π</b> η`		BA	<u>rk-pri</u>	ESSU	RE T	EST	<u> </u> W	ORKS	HEET					
COMPANY	Gulf 011	Corpo	ration		LEASE	A	ndre	WS				WELL	NO	2 <b>-</b> T	
MELL ON P CATE	REFLORE	TIMF	WEL	L SHUT Е	18:	1	1 M E _			PRESSU Date	RE TAKE	N: T1	HE		
AVG. PREF	LOV L	ENGTH OF PEFLOW		SHUT-TI PPESS.	R CSG		T	86.		LENG SHUT	TH OF -1%		_ ^c^^_		
3 <u>8</u> 8. GAS GD&M1TY. <u>.</u>	د م	NP) GRAVI DF LIQUIR	ту чет 9 \$17	ter run Ze		OR1F STZE	105			YVEL TAPS		. co,		<sup>H</sup> 2	
T IME CF DAY	CASING	I D P I	ING PRESS. TUBING Psig	Гр Тр3.	HEAD	- MĘ PI	ROVER		D185.	METER OP FROVER TEMP	OF	۶ <sub>t</sub> ²	Pc?	- P <sub>t</sub> <sup>2</sup>	Q
wednesd 8:45	AY, DECEME			(17	DAY	SHUT	IN	PR	SSUR	E)					
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FRIDAY, 8:45	DECEMBER	19, 19	58 1850.0	(19	DAY	SUT	IN	PRI	ISSUR	E)					
MONDAY, 8:45	DECEMBER	22, 19	58 1851.0	(22	DAY	SHUT	IN	PR	SSUR	c)					
TUESDAY 9:30	, DECEMBER	23, 1	958 1851.9	(23	DA Y	SHUT	IN	PRI	CS SU R	E)					
	AY, DECFME		1958 1851.9	(21;	DAY	SHUT	IN	PRI	ESSURI	E)					
FRIDAY, 9:00	DECEMBER	26, 19		(26	DAY	SHUT	IN	PRI	ESSUR	)					
MONDAY, 9:00	DECEMBER	29, 19	58 1855.9	(29	DAY	SHUT	IN	PRI	ESSUR	E.)		· · · · · · · · · · · · · · · · · · ·			
TUESDAY 9:00	, DECEMBER	30,1	958 1856.2	(30	DAY	SHUT	IN	PRI	SSUR	E)	*				
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FRIDAY, 9:00	JANUARY 2	, <u>195</u> 9	1357.1	(33	DAY	SHUT	IN	PRI	ISSUR	E)					: 
MONDAY, 9:00	JANUARY 5	5, 1959	1857.0	(36									1		

Page (2)

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See Page (3)

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fested By: R. L. West & J. D. Horton (Permian) wirmss: None

# Page (3) FORM 443 (REV. 9-1-58) BACK-PRESSURE TEST WORKSHEET COMPANY Gulf Oil Corporation LEASE Andrews WELL NO. 2-T WELL SHIT IN: PRESSURE TAKEN: THE\_\_\_\_\_\_DATE\_\_\_\_\_TIME\_\_\_\_\_DATE\_\_\_\_\_TIME\_\_\_\_\_DATE\_\_\_\_\_TIME\_\_\_\_\_ WELL ON PREFIDE: AVG. PREFLOW LENGTH OF SHUT-TN LENGTH OF PESS. CSG. \_\_\_\_\_\_\_TBG.\_\_\_\_\_SHUT-TN \_\_\_\_\_\_PC^2\_\_\_\_ SEP. GAS AP1 GRAVITY HETSR RIN OP1FICE TVFE GPAYETY\_\_\_\_\_\_ OF LIQUID\_\_\_\_\_\_\_SIZE\_\_\_\_\_\_\_SIZE\_\_\_\_\_\_\_ TAPS\_\_\_\_\_\_\_CO\_\_\_\_\_N\_\_\_\_\_N\_\_\_\_\_

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FRIDAY,	JANUARY 9,	1959												
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MORDAN	JANUARY 19	100	······			- <b> </b>							<u>+</u>	
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	and an entry of the second			- <u></u>		7				· · · · · · · · · · · · · · · · · · ·	، ز			
TUESDAY	JANNARY 2	0,19	<u>,9</u>			1								
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9:45	Y, JANUARY	21,	1861.0	100		1 10 1 m	TN	וסס	SSUR					
7:45			1001-0	1.52	DAT 9		11	rn.	.550K					
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See Page (1)

Tested By: R. L. West & J. D. Horton (Permien) gitness: None

### Psge (L) BACY-PRESSURE\_TEST\_WORKSHEET

. FORM 983 (REV. 9-1-38)

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ch information       Ls p       rumine       Ls p       rumine       Ls p       rumine       Ls p       rumine       Proving       Proving       Pit       Pit <th< th=""><th></th><th></th><th></th><th>Bb1s.</th><th>METER</th><th>Í</th><th></th><th>VETEO</th><th>],</th><th>WELL</th><th></th><th>ING PRESS.</th><th>I. FLOW</th><th>W.)</th><th>TIME</th></th<>				Bb1s.	METER	Í		VETEO	],	WELL		ING PRESS.	I. FLOW	W.)	TIME
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9:15       1862.8       (52 DAY SHUT IN PRESSURE)         THURSDAY, JANUARY 29, 1959       1863.6       (60 DAY SHUT IN PRESSURE)         9:15       1863.6       (60 DAY SHUT IN PRESSURE)         FRIDAY, JANUARY 39, 1959       1864.1       (61 DAY SHUT IN PRESSURE)         9:15       1864.1       (61 DAY SHUT IN PRESSURE)         This is the maximum shut in pressure obtained.       1         THECHTY, FEBRUARY 3, 1959       1863.1       (65 DAY SHUT IN PRESSURE)         WEDNEGLAY, FEBRUARY 4, 1959       1863.2       (66 DAY SHUT IN PRESSURE)         THURCLAY, FEBRUARY 5, 1959       1863.2       (66 DAY SHUT IN PRESSURE)		1							<u></u>				i		
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9:15       1863.6       (60 DAY SHUT IN PRESSURE)         FRIDAY, JANUARY 30, 1959					E)	ESSUR	PR	<u>jī 11</u>	SH	DAY	(59	1862.8			9:15
9:15       1863.6       (60 DAY SHUT IN PRESSURE)         FRIDAY, JANUARY 30, 1959       1864.1       (61 DAY SHUT IN PRESSURE)         9:15       1864.1       (61 DAY SHUT IN PRESSURE)         This is the maximum shut in pressure obtained.       10 pressure obtained.         TUE::::::::::::::::::::::::::::::::::::				-			<sup>1</sup>				-	050	20 1	V LANTIA DV	TUTIDODA
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9:15       186h.1       (61 DAY SHUT IN PLESSURE)         This is the maximum shut in pressure obtained.         TUESDAY, FEBRUARY 3, 1959         9:h5       1863.1;         065 DAY SHUT IN PRESSURE)         9:h5         1863.1;         065 DAY SHUT IN PRESSURE)         9:h5         1863.1;         065 DAY SHUT IN PRESSURE)         9:h5         1863.2;         066 DAY SHUT IN PRESSURE)         THURGUAY, FEBRUARY 5, 1959				;								· · · · · · · · · · · · · · · · · · ·	·		
This is the maximum shut in pressure obtained.         TUENDAY, FEBRUARY 3, 1959         9:15         1863.1;         (65 DAY SHUT IN PRESSURE)         WEDNESLAY, FEBRUARY 4, 1959         9:15         1863.2         (66 DAY SHUT IN PRESSURE)         THURSDAY, FEBRUARY 5, 1959										1			1, 195	JANUARY 30	
TUE::D/Y, FEBRUARY 3, 1959         9:15         1863.1; (65 DAY SHUT IN PRESSURE)         WFDNFSI/AY, FEBRUARY 1, 1959         9:15         1863.2         1959		} 		i	E)						a ferri se te managemente	and the second second many second			9:15
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9:15 1863.2 (66 DAY SHUT IN PRESSURE) THURSDAY, FEBRUARY 5, 1959		<u> </u>		ξ						- DA 3.					/•••/
9:15 1863.2 (66 DAY SHUT IN PRESSURE) THURSDAY, FEBRUARY 5, 1959		1		1	ا، میں۔ 1				· · · ·		<u> </u>	1959	y 1	AY, FEBRUAR	WEDNESI
				ļ	E)	ESSUR	PR	UT IN	SF	DAY	(66	1863.2			9:15
			··· •							<b> </b>	<u> </u>				0.11103 cit
					F )	RUSPE	qq	11 11	4 2	DAY	167			Y, SEBRIM RY	
		}			<u> </u>	10001			-			100201	<b> </b>	stan and so in the set for any analysis in the set	
FRIDAY, FEFRUARY 6, 1959				• • · • • · ·						 	1	9	195	FEFRUARY E	FRIDAY.
9:15 1°62.3 (68 DAY SHUT IN PRESSURE) TEST COMPLETE		**		••••••	E)	ESSUR	PR	JT II	SH	DAY	(68	1°62.3	-		

Jested By: R. L. West & J. D. Horton (Permian) witness: None

Skelly Oil Compary Baker "B" 15-T NW SE 10-22S-37E Tubb Gas Pool Date of Test = 12-24-58 Date of Test = 12-24-58



LENGTH OF SHUT IN PRESSURE (Days)

# BACK-PRESSURE TEST WORKSHEET

FORM 983 (REY. 9-1-52) ٠

COMPANY Skelly	Oil Company	LEASE .	Baker "B"	WELL NO. 15-T
MELL ON PREFLOWS	THE 12:45 PM	WELL SHIT IN: DATE 12-21-58	TIME 10:00 AM	RESSURE TAKEN: ATE 2-5-59 TIME 9:30 AM
AVG. PREFLOW	LENGTH OF	SHUT-IN	TBG 1689.0	LENGTH OF
RATE 2650 Mcfd	DEFLOW 8 Days	PPESS. CSG.		SHUT-IN 43 Days p 2 2897
GEP. GAS	ADE GEAVITY	HETSE BUN	8915106	TAPS Pipe co, 0.05% N, 1.60%
DEMANER 0.685	OF LIGHTD None	SIZE 4	8171 2.004	

	 w.,	I. FLOW	ING PRESS.		4511	METER OR		METER	BDIS.		1	1
TIME OF DAY	CATING Psig	L P Csq.	TUBING Psig	15 P 101.	HEAD TEMP.	PROVER PRESS.	DIFT.	OP PROVER TEMP.	OF LIQUID	P. 2	$P_c^2 = P_t^2$	Q
WEDNE SD	AY, DECEMB	R 24,	1958									
10:00	10011 000		592.1	Flo	ing F	ressure						
10:00	WELL SHU	T IN	·	+	<u> </u>							
				-								
FRIDAY.	DECEMBER 2	6.19	58		<b> </b>							
10:00			1589.6	(1:8	HOUR	SHUT IN P	RESSU	RE)	·			
MONDAY,	DECEMBER 2	9, 19	58									<u> </u>
10:00	·····		1634.1	(5 ]	AY SH	IUT IN PRE	6 URF				<u> </u>	
TUESDAY	, DECEMBER	30, 1	958			1					1	<b> </b>
10:00			1640.8	(6 1	AY SH	IUT IN PRE	STURE					
WEDNY SD	AY, DFCEMBE	R 31.	1958	_		1 	<u>t</u>					
10:00			1646.0	(7)	DAY SH	UT IN PRE	SSUFE	)				
	JANUARY 2	1959						• • • • • • • • • • • • • • •				
10:00		·	1656.3	(9 !	DAY SH	UT IN PRE	<u>şsure)</u>	) -				
MONDAY,	JANUARY 5	1959					+ +	1				
10:30			1664.1	(12	DAYS	HUT IN PR	ESSURI	F.)			1	
TUESDAY	, JANUARY 6	, 195	2			· · ·			fu u uu uu u u f u f f u uu uu u u u f			
10:15			1667.0	(13	DAY S	HUT IN PR	ESSUR	5)	. ; [			ļ
	AY, JANUARY	7,1		1	<b>.</b>							
10:00			1669.2	(14	DAY S	<u>HUT IN PR</u>	<u>ESSUR</u>	<u>5</u>	i 			
THURSDA	r, JANUARY	1, 19	59						· · · · · · · · · · · · · · · · · · ·			
11:30			1670.8	(15	IDAY S	HUT IN PR	ESSUR	;)	<b> </b>			
	JANUARY C,	1959		1	<u> </u>	<u> </u>						
10:00		1	1671.8	1 (16	INAY 9	HUT IN PR	reenor	6 Y	1		t	i

See Page (2)

Tested By: R. L. West & J. D. Horton (Permian) Horsey Noted

### Page (2) BACK-PRESSURE TEST WORKSHEET

TIME	W.1	. FLOW	ING PRESS.		NELL.	NET	.E.B. 0.4	.		METER	BDIS.			
OF DAY	CASING Psig	L P Csg.	TURING Psig	10 P 10 7.	HEAD TEMP.	) PR	OVER ESS.	DIF	۶.	OP PROVER TEMP.	OF	Pt <sup>2</sup>	$P_c^2 - P_t^2$	° <b>Q</b>
MONDAY,	JANUARY 12		9	1		1-		-				<u>.</u>		
10:30			1675.8	(19	DAY	TUH	IN I	PRESS	UR	3)				
TUESDAY	JANUARY 1	3.19	59		<u>}</u>	+								
9:45			1677.3	(20	DAY	TUF	IN I	PRESS	SUR	E)				
WEDNESD	AY, JANUARY	14.	1959			╂								
9:45			1678.4	(21	DAY S	TUH	IN I	PRESS	UR	E)				
THURSDA	Y, JANUARY	15. 1	959		ļ	+					1			
10:00			1679.0	(22	DAY	HUT	IN I	ness	UR	E)				
FRIDAY	JANUARY 16	. 195	9											
10:30			1679.4	(23	DAY	SHUT	IN	PRESS	UR	E)	· · · · · ·			
MONDAY	JANUARY 19	105	0					<u> </u>	!					
9:45		<u>مے ب</u> ھی و	1682.3	: (26	DAY	अ <b>ा</b>	IN	PRES	UFI	E)				
THECOAY	JANHARY 2	0. 19	59		: 									
9:45	, JANUARY 2		1683.0	(27	DAY	SHUT	TN	PRESS	SUR	)	:			
	AY, JANUARI	الجابية مراجع المراجع				- <sup>1</sup>					<u> </u>			
9:45			1683.?	(28	DAY	SHUT	IN	PRESS	UR	3)				
THURSDA	Y, JANUARY	22. 1	959		<u> </u>			́			·			
9:45	, or contract		1684.1	(29	DAY	SHUT	IN	PRESS	ŪR	E:)	•			
FRIDAY	JANUARY 23	190	<del>.</del>									· ·		
9:45			1683.6	(30	DAY	SHUT	IN	PRESS	SUR	E)	· · · · · · · · · · · · · · · · · · ·			
MONDAY	JANUARY 20	. 194	9		} 					· .				
9:45		• • · · ·	1685.2	(33	DAY	<b>HUT</b>	IN	PRESS	SUR	F)				
THUCDAY	JANUARY 2	7 20	10	+		_								
9:45	<u>, onnopiti e</u>	La di	1685.4	(34	DAY	shur Shur	IN 1	Pierse		· · · · ·		سيد ير بر		

See Pare (3)

D T II LAT D Harbor (Demoter)

FORM 483			BAC		age (3) SURE TEST I	WORKSH	EET				
COMPANY _	Skelly	011 Com	ipa n <b>y</b>	LEA	Ba <b>ker</b> !	1 Bu			WELL	NO	15 <b>-</b> T
WELL ON P					TIME					×F	
					5TBG					- <sup>p</sup> c <sup>?</sup>	
					091510E 512E				co,		<sup>8</sup> 2
TIME OF DAY	CABING Psig	W.H. FLOY	TUSING PRESS.	Nr IN P HE TOq. TE	LL- METED OR AD PROVER MP. PRESS.	DIFT	METER DR PROVER TEMP	Bbls. OF Liquid	۴t <sup>2</sup>	Pc <sup>2</sup> -	Pt?
WEDNEST	AV TANII	RC VOL	hodo		Y SHIT TN PI	1 1					

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WEDNESI	AY, JANUARY 28	<b>1</b> , <u>1959</u>									L	ļ	
9:30		1685.6	(35	DAY	SHUT	IN	PR	ESSUR	5)			1	
				1									
THURSDA	Y. JANUARY 27,	1959		t						1			
9:30	Le Ontonita Lie	1686.4	(36	DAY	SHIT	TN	PR	ESSUE	F.)	<b>∤</b>		<b></b>	
										<u> </u>		<u> </u>	
FOTOIV	JANUARY 30, 1	0.00	f	<u> </u>							{		
9:30	JANUARI JU. 1	1687.3	127	DAY	CHUR	TH	DIN	ESSUR		{	<u></u>		
9:30		1001.3	1.01	JAL	5101	111	F RI	19904	<u>-</u> /	ļ			
				ļ						ļ			
	, FEBRUARY 3,	1959		Į	_					l		L	
10:15	<u> </u>	1687.1	(41	DAY	SHUT	IN	PR	ESSUR	E)		 		
			l	İ	į.				I				
WEDNEST	AY. FEBRUARY L	. 1959	1		!								
9:30		1687.8	(1)2	DAY	SHUT	IN	PR	ESSUR	E)	1			
		1		}-=:===					i				
THIRSON	Y. FEBRUARY 5.	1000		i					;	<u> </u>			
9:30	I, FEDRUPAL 3	1689.0	(1.2	DAY	CUIT	TN	DDI	reento	F \	<u> </u>			
3.30	i			÷~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~					ы <b>)</b>		<b> </b>		
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FRIDAY	FEBRUARY 6. 1	959	• • • • • • • • • • • • • • • • • • •						•		•	*	·
9:45		1687.3	: (J.).	DAY	SHUT	TN	PRI	ESSUR	E)	2			1
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MC ND I.Y	Impound 7	orb	l								!		t
MCNDAY,	FEBRUARY 1, 1	. <u>77</u>	1 11 2	Dev						ļ		<u> </u>	<b>{</b>
10:30		1680.3	(47	<u>DAY</u>	SHUT	LN	PK	rssur	<u>Ľ)</u>			<u> </u>	<b> </b>
	TEST COMPLE	TE	! }	ļ							; ,		ļ
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	ll		1							]	l	l	L

Tested By: R. L. West & J. D. Horton (Permian) witness: None

\* FORN 403 SREV. 3-1. 1

Neville G. Penrose, Inc. Hinton 10 NA NN 13-225-37E Tubb Gas Pool LENGTH OF SHUT IN PRESSURE (Days)

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1.1.1.1 111 1 -), 22, 1. 1. 1. 1. 1. 1. 1. 1. 1. 

FORM 903 IREV. 9-1-085			RAC	<- <u>PR</u>	ESSURI	E_TEST_W	ORKS	HEET				
COMPANY Ne	ville G.	Penr	ose, Inc.	1	LEASE	Hinton				WELL	HO. 10	
WELL ON PREEL	сма 5 <b>8</b>	THE	WELL 10:00 AMATE	ения 12-1	1×: 2 <b></b> 58	TIME 10	:00 A	PPESSU	RE TAKE	1: 5811	<u>8:30</u>	AM
AVS. PREFL PATE <b>190</b> 0 16	LEN GED PRE	IGTH OF	2 <u>7 Days</u> ,	NUT-11 PESS.	n csc1	707.4 TBG		LENG"	гн ог -т <b>ч <u>16</u></b>	Days	_ r <sub>c</sub> ²_2 <b>960</b> _	
1 2. GAS G 247 : FY	۵۴ OF	I GRAVI	177 METS )	R 9114	0 ?	91670E 17E		TAPS_		co,		
TIME OF DAY C	W.H ASING Psig	I. FLOW D. P Csq.	ING PRESS. TURING Psig		NELL- HEAD TEMP	NETER OR PROVER PRESS.	DIFE.	METER OP PROVER TEMP.	Bbls. OF LIQUID	Pt <sup>2</sup>	$P_c^2 - P_t^2$	Q
SUNDAY, DE	CEMBER 1 WELL SHU	4, 19	58									
MONDAY, DE				DUR S	UT IN	PRESSURE	5					
TUESDAY, D 10:30	FCEMBER 11.72.5	16, 1	958 (118.50 H	DUR S	UT IN	PRESSURE	<b>)</b>					
WEIN ESDAY, 10:30			1 <u>958</u> (72.50 H	OUR SI	HUT IN	PRESSURE	}					
THURSDAY, 10:30	DFCEMBER 1547.6	2 18,	1958 (96.50 H	DUR S	HUT IN	PRESSUPE	)					
FRIDAY, DE 10:30	CEMBER 1 1580.1	9, 19	58 (5 day s	HUT I	N PRE	SURE)						
	CEMBER 2 1620.2		58 (8 DAY S	HUT I	N PRES	SURE)		· · · · · ·				
TUESD/Y, D 10:00	ECEMBER 1626.7	23, 1	958 (9 AY S	HUT I	N PRES	IPE)	* ** *********************************		*			
WEDNESTAY, 8:30	DFCFMBR 1645.2	<u>R 24</u> ,	1958 (10 DAY :	SHUT	IN PRF	SSURE)		For the property of the same		· · · · · · · · · · · · · · · · · · ·		
	CFMPER 1660.3	27, 1	959 (12 DAY )	SHUT	IN PRE	SSURE)			• • • • • • • • • • • • • •		-	
MONDAY, DEN 8:30	CEMBER 2 1668.1	2 <u>.19</u>	58 (15 DAY	SHUT	N PRE	ssure)						
8:30	ЕСЕМВЕ 1707.Ц		958 (16 DAY aximum shut									

This is the maximum shut in pressure obtained.

See Page (2) Tested By: R. L. West & J. D. Horton (Permian) Witness. None

7 FORM 983 (REV. 9-1.			BAC	K-PR	Page ESSUR	(2) E_TEST_1	KORKS	SHEET				
COMPANY_	Neville	G. Per	nrose, Inc.		LEASE -	Hinton				WELL	NO. 10	
WELL ON I	PREFLOW:		WEL.	L SHUT E	IN:			PPESSUE DATE	E TAKE	1: TI	ic F	
AVG. PREI RATE	FLOW LEI PFI	NGTH OF		SHUT-1 PRESS.	N CSG		·	LENGT SHUT-	'H OF -14		~ <sup>n</sup> c <sup>7</sup>	
SEP. GAS Gravier_	ەت 0F	T GRAY	1 TY M(1 D \$17	158 RUH 18		0111100 St20		TAPS_		co,	<sup>4</sup> 2	
TIME OF DAY	W,I CABING PSig	H. FLOW	TUBING PRESS. TUBING Psig	Гр Тра.	NELL- HEAD TEMP.	METER OR PROVER PRESS.	DIFF.	METER OP PROVER TEMP.	BD1 S. OF LIQUID	۶ <sub>t</sub> ?	$P_c^2 - P_t^2$	Q
WEDNESD 8:30	Y, DECEMBE 1687.2	<u>R 31.</u>	1.258									
FRIDAY, 8:30	JANUARY 2, 1658.1	1959	(19 DAY	SHUT 3	N PRE	ssure)						
MONDAY, 8:30	JANUARY 5. 1648.8	1959	(22 DAT	SHUT I	N PRE	SURE)						
	TEST COM	PLETE			1							
						1	-	· · · · · · · · · · · · · · · · · · ·		· ·		
	<u>+</u>	÷			\$ 	<u>}</u>	-					
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		+						-				<u> </u>

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Tested By: R. L. West & J. D. Horton (Permian) withous None

TEXTODERS TONCH 358-11

4 1:12 1.4 Culf Cil Corporation McCormack 13 NE NE 32-215-37E Tube Gas Pool Date of Test = 1-4-59 to 1-26-59

LENGTH OF SHUT IN PRESSURE (Days)

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(Risq) ASUCOUSE (NI TURE

BACK-PRESSURE TEST WORKSHEET

COMPANY Gulf (	Dil Corporation	LEASE	McCormack		WELL HO	
MELL ON PREFLOM: CATE 12-24-58	TIME 11:00 AM	well shift en: [date <u>1-4-59</u>	TIME 7:45 A	PRESSURE TA M DATE 1-2	KEN: 2-59TIME	10:45 AM
AVG. PREFLOW RATE 2650 Mcfd	LENGTH OF PREFLOW 11 Days	SHUT-EN PRESS. CSG.	1762.878G	LENGTH DF	18 Days P	,²3154
GER. GAS GDAVEEY	API GRAVITY		691F1CE 	TAPS		<sup>H</sup> 2

	4.W	H. FLO#11	NG PRESS.		NELL.	METER OR		METER	Bhls.			
TIME OF DAY	CASING Psig	D P Csq.	TURING Psig	<u>Гр</u> 709.	HEAD TEMP.		DIFE.	PROVER TEMP.	OF LIQUID	Pt?	$P_c^2 - P_t^2$	Q
SUNDAY,	JANUARY 4.	1959										
7:45	WELL SHU	T IN										
·		}										
MONDAY,	JANUARY 5	1959	107 50 50					l f				
11:15	1620.5	{ <u></u>  -	(27.50 H	UR SP	IOL IN	PRESSURE	f					
THESDAY	, JANUARY 6	1950										
11:00	1691.7		(51.25 H	UR SH	UT IN	PRESSURE	5				<u> </u>	
· · · · · · · · · · · · · · · · · · ·		1				······································	f					
WEDNESD	AY, JANUARY	7, 19	59									
11:15	1708.4		(75.50 H	UR SI	UT IN	PRESSURE	)					
	Y, JANUARY	8, 195	9					ļ				
12:00	1719.4		(100,25 8	IOUR S	SHUT I	N PRESSUR	<u>E)</u>	ļ				
DETRUT	TA STITLE DUT				ļ						+	
<u>FRIDAY</u> , 11:00	JANUARY 9, 1727.1	1959	(5 DAY S	ד ידיוד	ספסמ ה		) 	: • • •·				
11.00		· · · · · · · · · · · · · · · · · · ·	G DAI G			30ms)	<u> </u>	•				
MONDAY	JANUARY 12	1050			L		<u>.</u> 1	1	<u></u>		-	
12:15	1741.9		(8 DAY SI	IUT II	PRES	SURE)		har ay any any any any any any any any any				
					4		<b>.</b>		• • • • • • • • • • • • • • • • • • •	·		
TUESDAT	, JANUARY ]	3. 195	9			, a managang ang ang ang ang ang ang ang ang	**************************************					
10:15	1744.8	1	(9 DAY S	UT I	PRES	SURE)	]		 		1	
							: 					
	AY, JANUARY		259	Ĺ					! 			
10:15	1748.3	ļ	(10 DAY 9	SHIT ]	IN PRF	BAIRE)	<b></b>					
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	Y, JANUARY	15, 19	59 /11 DATE			a gupp)		ter en	۱ ۱۰ - می می ۱۰ - ۱۰ ق ۱۰			
10:30	1749.0	<u>├</u>  .	(11 DAY :	an or	TN THE	<u>550kk)</u>						
FRIDAY,	JANUARY 16	1000	•····••						·		1	
$\frac{11:00}{11:00}$	1750.7	1 17.7/	(12 DAY 3	6HTT 1	N PRF	ESURE)						
	+1,2~+1	╪╍╌╌╀	(a)				<u></u>	•	(		1	
MONDAY .	JANMARY 19	10:0			<b> </b>			• •		· ····		
11:45	1756.3		(15 DAY 8	HIT	N PRE	BURE)						
		- <b>kk</b>		L			• • • • •	•	l			

See Page (2)

fested By: I. West & J. D. Horton (Permian) witness: None

FORM 983

# Page (2)

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# BACK-PRESSURE TEST WORKSHEET

COMPANY Gulf	011 Corporatio	n LEAS	McCormack		WELL NO. 13
HELL ON PREFEREN		WELE SHAT IN:		PPESSURE TAKEN:	
CATE	T <u>† MF</u>	DATE	TIME	DATE	T1HF
AVG. PREFLOW	LENGTH OF	SHUT-IN		LENGTH OF	
RATE	PREFLON	PPESS. CSG.	TBG	SHUT-IN	
SEP. GAS	API GRAVITY	ዛርፖዶጽ የዞለ	OPTFICE	****	
GRANTLA	DF_LIQUID	5178	SIZE	TAPSC	0,

	W., F	1. FLOW	ING PRES	 3.				NETER OR	T	METER	Bb1s.			
TIME OF DAY	CA3ING Psig	Csq.	TUB I Psi	NG Q	Кр тол.	1 845	0.0	PROVER PRESS.	DIFT.	PROVER TEMP	OF	Pt?	$P_c^2 = P_t^2$	Q
TITESDAY					1									
8:45	JANUARY 2 1757.5	×	(16	DAY	SHUT	11	PRE	S SURE)	1					
					<b></b>	1			1					
WEDNESD	AY, JANUARY	21.	1959		1	1			1					
8:45	AY, JANUARY 1760.0		(17	DAY	SHUT	ĪN	PRE	SSURE)						
THURSDA	Y, JANUARY	22, 1	959											
10:45	1762.8		the second s	the second s			_	SSURE)						
	This is	the m	aximum	shut	in v	res	sur	e obtaine	d.					
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FRIDAY,	JANUARY 23	<u>, 195</u>	2		<u> </u>	4							l	
10:45	1760.2		(19	DAY	EHUT	IN	PRE	SSURE)		1 •. •. •. •. •. •. •. •. •. •. •. •. •. •			ļ	
			_		ļ			 	1					
MONDAY,	JANUARY 26 1753.9	1 <u>, 195</u>	9	TO A M	CT II IM	+		SGURE)	·				·	
10:30		فسمام سنام مساف		DAT	<u> <u> </u></u>	Ť <u>N</u>	PRE	Source)		t	ļ ļ			
	TEST CON	PLFTE			į			·····			ļ			
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Tested By: R. L. West & J. D. Horton (Permian) witness: None



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LENGTH OF SHUT IN PRESSURE (Days)

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WELL ON PREFLOWS WELL SHUT IN: FPESSURE TAKEN: DATE 12-19-58 TIME 10:00 AMDATE 1-2-59 TIME 12:00 PM DATE\_\_\_\_\_TIME\_\_\_\_ AVG. PREFLOW LENGTH OF SHUT-IN LENGTH OF \_\_ ^ ^ \_ RATE\_\_\_\_\_ PREFLON PPESS. CSG.\_\_\_\_\_ TAG.\_\_\_\_ SHUT-IN 1777 TADS \_\_\_\_\_ CO, \_\_\_\_ H2-W.H. FLOWING PRESS. METER HEAD PROVER TEMP. PRESS. Bb1s. TIME Бr CASING L P Psig Csq. 01 PROVER P. 2  $P_c^2 = P_t^2$ DIFE OF-TUBING OF DAY LIQUID Tbg. Psig TEMP. FRIDAY . DECEMBER 19, 1958 WELL SHIT IN 10:00 MONDAY, DECEMBER 22, 1958 (72.00 HOUR SHUT IN PRESSURE 10:00 1512.0 TUESDAY, DECEMBER 23. 1958 (99.00 HOUR SHUT IN PRESSURE 1512.0 1:00 WEDNESDAY, DECEMBER 24, 1958 1511.9 (5 DAY SEUT IN PRESSURE) 12:15 1 FRIDAY, DECEMBER 26, 1958 1513.0 (7 DAY SHUT IN PRESSURE) 12:15 MUNDAY, DECEMBER 29, 1958 1514.6 (10 DAY SHUT IN PRESSURE) 12:15 TUESDAT, DECEMBER 30, 1958 1514.8 (11 DAY SHUT IN PRESTURE) 12:15 WEDNESDAY, DECEMBER 31, 1958 (12 DAY SHUT IN PRESSURE) 12:00 1513.5 FRIDAY, JANUARY 2, 1959 12:00 (11 DAY SHUT IN PRESSURE) 1515.0 | This is the maximum shut in pressure obtained MONDAY JANUARY 5. 1959 1513.2 (17 DAY SHUT IN PRESSURE) 12 00 JANUARY 6 TUESDAY 1950

### BACK-PRESSURE TEST WORKSHEET

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COMPANY Sunray Mid-Continent Oil Company Class State "15" WELL NO. 1

FORM 983 (REV. 9-1-30)

11:45

1513.7

Ser Page (2)

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Tested By: R. L. West & J. D. Horton (Permian) witness: None

(18 DAY SHUT IN PRESSURE)

### Page (2)

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FORM 903 (REV. 9-1.00)

### BACK-PRESSURE TEST WORKSHEET

.

COMPANY Sunray Mid-Continent Oil Company LEASE State "15" WELL NO. L WELL ON PREFLOW: WELL SHUT IN: PRESSURE TAKEN: TIME\_\_\_\_ DATE\_\_\_\_\_ DATE\_\_\_\_\_ DATE\_\_\_\_\_ DATE\_\_\_\_\_ DATE\_\_\_\_\_ AVG. PREFLOW LENGTH OF SHUT-IN LENGTH OF RATE\_\_\_\_\_\_ PREFLOW\_\_\_\_\_ PRESS. CSG.\_\_\_\_\_ TBG\_\_\_\_\_\_ SHUT-IN\_\_\_\_\_\_ Pc^2\_\_\_ GEP. GAS AP3 GRAVITY METER RUN OPTETCE GRAVIER\_\_\_\_\_\_OF LIQUID\_\_\_\_\_\_SIZE\_\_\_\_\_\_SIZE\_\_\_\_\_\_ <u>หหตุย</u> \_\_\_\_\_ co,\_\_\_\_ TAPS METER BOIS. OP OF PROVER LIQUID NELL- METER OR HEAD PROVER TUT. TEMP. PRESS. W.H. FLOWING PRESS. T 1ME ۴t<sup>2</sup>  $P_c^2 = P_t^2$ CASING D P Psig Csq. DIFF. Q TUBING Psig CF DAY WEDNESDAY, JANUARY 7, 1959 (19 DAY SHUT IN PRESSURE) 11:45 1513.5 THURSDAY, JANUARY 8, 1959 1513.4 (20 DAY SHUT IN PRESSURE) 12: 30 FRIDAY, JANUARY 9, 1959 (21 DAY SHUT IN PRESSURE) 12:30 1513.1 TEST COMPLETE

Tester R. L. West & J. D. Horton (Permian) witness: None



LENGTH CF SHUT IN PRESSURE (Days)

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a Farith an t There is a sub-			μ <b>Λ</b> ε	r bR	e tir a nee	e test b	กษณ	t e t				
°≊‰p≦n¥.	The Ohi	o (11 C	outert.		) E M S F	Warlick	"6"			WELL	но. 1.	ang ming galance and an an
9111 08 1 31 <b>11-</b>	19-58	* 2 -41	BIOD AM DATE	11-27	-58	1141-21	<b>0</b> 0 <b>AH</b>	ратт <u>12</u> ратт <u>12</u>	16 TAKEN 1-29-58	1 	4 <u>12:00 P</u>	1
RATE 290	( Mord -	. F N 64 F H - (1 F 18 F F 5 - 43	R Days	1903 <b>1   1</b> 9931   177	r Tera Di	09.9 FBIL		<b>₹</b> ₹₩6₹ ≦₩₽₹	н оғ ін. <u>32</u>	Days	r, <sup>2</sup>	2
ne en la Greco Notes a composition		889 - 68 <b>87</b> 98 - <b>88</b> - 888	1 <b>17 - 1964</b> 9	≮⊾ 9404, ≸		P\$1301 171		ነና ነ ተለድኑ ጋ	a paramenta da la d	¢0,		
СГ РА <b>А</b> Т 1111	CANING Phig	Caq.	TOBING PSID	15 P 189.	ATTT. HEAD TEMP.	WETER OR PROVIR PRESS.	btEv.	METER (**) PROVER TEMF,	Phis.	f e	Pc - P2	Q
THORODA	Y, NOVEMB WELL S		4.7.2.2									
FRIDAY, 10:45	NOVEMBER 1319.8	29, 19	58 (23.75 H	OUR SI	TT IN	PRESSURE						
	DECEMBER 1360.7		B (97.00 H	ICUR SI	UT IN	PRESSURE	)					
TUESD'Y 10:00	DECEMBE 1366.9	R 2, 19	58 (5 DAY 5	HUT I	PRES	SURE)				·		
WEDNESD 10:00	AY, DECEM 1374.0	BER 3,	1958 (6 DAY S	SE IT I	PRFS	SURE )						
10:00	Y, DECEMB 1376.5		(7 DAY 5	SUT I	PRES	SURE)						
FEIDAY, 10:00	DECFMBER 1379.8		(8 DAY S	FIFT TI	PRES	SURE)						
MONDAY, 10:00	DECEMBER 1389.1		(11 DAY	5HUT	IN PRE	SSURE)		,				
10:00	, <u>DECEMBE</u> 1390.7		(12 DAY	SHUT	N PRE	SSUR <b>E)</b>						
10:00	1Y, DECEM 1392.7		(13 DAY	SHUT	IN PRE	SSURE)						
THURSDA 10:00	1394.6		(14 DAY	SHUT	N PPE	SSURE)						
FRIDAY, 10:00	DECEMBER 1396.0		58 (15 DAY	SHUT :	N PRE	SSURE)						

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# See Page (2)

fested By: R. L. West & J. D. Horton (Permian) dituess: None

# Page (2) RACK-PRESSURE TEST WORKSHEET

FORM 983

VILL AN FERTION         VILL SHIT IN:         PRESSURE TALKY:           ANG. PERTION         CRATH OF         SNUT-IN         DATE         THM         DATE         THM         THM         DATE         THM         THM         DATE         THM	COMPANY	The Ohio	011	Company		LEASE -	Warlick	r "C"	· •			×01	
AVG.         PERTLAW         LENGTH OF         SHUT-IN         LENGTH OF         PRESS.         CSG.         FRG.         SHUT-IN         PRESS.         CSG.         CS	MELL ON FI	<b>RFT</b> 12003		WEL	SHUT	IN:			PRESSU	RE TAKE	۹:		
CATE         PERFINI         PPESS.         CSG.         FRG.         SHUT IS         Pr           124, 531         PESS.         PESS.         OFFICE         TATE         Pr         Pr           124, 531         OF LOWIP         STZE         STZE         TATE         Pr         Pr           124, 531         OF LOWIP         STZE         STZE         TATE         Pr         Pr           124, 531         Cashing         Cashing         Cashing         Cashing         Pr	015 <u></u>		<u>. tenr</u>	DATI	·				DATE		TI	ht	· ··········
Description         Size         TAPS         Copy         Ny           Time         Cosing         Exp(n)         Exp(n)         Note							TRG					<sup>p</sup> c <sup>2</sup>	
Description         Size         TAPS         Copy         Ny           Time         Cosing         Exp(n)         Exp(n)         Note							0010100		<b>S</b> an a				
Grink         CALLER         C. P.         TURING         D. MAR         Provide Ton.         Provide Ton. <td></td> <td>co,</td> <td></td> <td></td>											co,		
Grink         CALLER         C. P.         TURING         D. MAR         Provide Ton.         Provide Ton. <td></td> <td>•</td> <td></td> <td></td>											•		
OF DAV         CALINE         C.P.         PHAD         PROVED         Diff.         PROVED         Pit         Pc'-Pi         G           MONDAY, DECEMBER 15, 1958         (13 DAY SHUT IN PRESSURE)         (13 DAY SHUT IN PRESSURE)         (11 DAY SHUT I				ING PRESS		T	1	1	I METER	1	[	T	1
MONDAY         DECEMBER         15, 15%         (18 DAY SHUT IN PRESSURE)           10:00         1399.8         (18 DAY SHUT IN PRESSURE)         (18 DAY SHUT IN PRESSURE)           10:00         1401.0         (19 DAY SHUT IN PRESSURE)         (18 DAY SHUT IN PRESSURE)           10:00         1401.0         (19 DAY SHUT IN PRESSURE)         (18 DAY SHUT IN PRESSURE)           10:00         1402.0         (20 DAY SHUT IN PRESSURE)         (18 DAY SHUT IN PRESSURE)           10:00         1402.0         (20 DAY SHUT IN PRESSURE)         (18 DAY SHUT IN PRESSURE)           10:00         1403.0         (21 DAY SHUT IN PRESSURE)         (18 DAY SHUT IN PRESSURE)           10:00         1403.0         (22 DAY SHUT IN PRESSURE)         (19 DAY SUUE IN PRESSURE)           10:00         1404.8         (22 DAY SHUT IN PRESSURE)         (10 DAY DECEMBER 22, 1958           10:00         1405.2         (25 DAY SHUT IN PRESSURE)         (10 DAY DECEMBER 22, 1958           12:10         1406.1         (26 DAY SHUT IN PRESSURE)         (10 DAY DECEMBER 23, 1958           12:10         1406.6         (27 DAY SHUT IN PRESSURE)         (10 DAY DECEMBER 24, 1958           12:100         1406.9         (32 DAY SHUT IN PRESSURE)         (10 DAY DECEMBER 29, 1958           12:100         1407.7         (29 DAY SHUT		CASING	D P	TURING	<u>Бр</u>	HEAD	PROVER	DIFC.	PROVER	0F	Pt?	$P_c^2 - P_t^2$	Q
10:00       1399.8       (18 DAY SHUT IN PRESSURE)         TUESDAM, DECEMBER 16, 1958       (19 DAY SHUT IN PRESSURE)         10:00       1101.0       (19 DAY SHUT IN PRESSURE)         WEDNESDAY, DECEMBER 17, 1958       (20 DAY SHUT IN PRESSURE)         10:00       1102.0       (20 DAY SHUT IN PRESSURE)         THUF-SDAY, DECEMBER 18, 1958       (21 DAY SHUT IN PRESSURE)         10:00       1103.0       (21 DAY SHUT IN PRESSURE)         FRIDAY, DECEMBER 19, 1958       (22 DAY SHUT IN PRESSURE)         10:00       1104.8       (22 DAY SHUT IN PRESSURE)         FRIDAY, DECEMBER 19, 1958       (25 DAY SHUT IN PRESSURE)         10:00       1105.2       (25 DAY SHUT IN PRESSURE)         TUESDAY, DECEMBER 23, 1958       (25 DAY SHUT IN PRESSURE)         10:00       1106.1       (26 DAY SHUT IN PRESSURE)         TUESDAY, DECEMBER 24, 1958       (27 DAY SHUT IN PRESSURE)         12:00       1106.6       (27 DAY SHUT IN PRESSURE)         FRIDAY       DECEMBER 24, 1258         12:00       1107.7       (29 DAY HUT IN PRESSURE)         12:00       1107.7       (29 DAY HUT IN PRESSURE)         12:00       1107.7       (29 DAY HUT IN PRESSURE)         12:00       1107.7       (32 DAY HUT IN PRESSURE)	MONDAY	PSIG	15 10		104.				1047.	<b> </b>		+	
TUESDAY, DECEMBER 16, 1953         Image: Constraint of the state of the stat	10:00	1399.8	129_±2	(18 DAY	SHUT	IN PRI	SSURE)	1	†				
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WEDNESDAY, DECEMBER 17, 1958         10:00       1102.0       (20 DAY SHUT IN PRESSURE)         THURSDAY, DECEMBER 18, 1958       (21 DAY SHUT IN PRESSURE)         FRIDAY, DECEMBER 19, 1958       (21 DAY SHUT IN PRESSURE)         FRIDAY, DECEMBER 19, 1958       (22 DAY SHUT IN PRESSURE)         IO:00       1403.0       (21 DAY SHUT IN PRESSURE)         FRIDAY, DECEMBER 29, 1958       (22 DAY SHUT IN PRESSURE)         IO:00       1405.2       (25 DAY SHUT IN PRESSURE)         TUESDAY, DECEMBER 22, 1953       (25 DAY SHUT IN PRESSURE)         12:15       1406.1       (26 DAY SHUT IN PRESSURE)         WEDNESSAY, DECEMBER 24, 1953       (27 DAY SHUT IN PRESSURE)         12:00       1406.6       (27 DAY SHUT IN PRESSURE)         YEIDAY, DECEMBER 29, 1958       (22 DAY SHUT IN PRESSURE)         12:00       1406.6       (27 DAY SHUT IN PRESSURE)         YEIDAY, DECEMBER 29, 1958       (22 DAY SHUT IN PRESSURE)         12:00       1407.7       (29 DAY SHUT IN PRESSURE)         This is the spaximum shut in pressure obtainel.       (33 DAT SHUT IN PRESSURE)         12:00       1407.8       (33 DAT SHUT IN PRESSURE)         12:00       1407.8       (35 DAT SHUT IN PRESSURE)         12:00       1407.8       (35 DAT SHUT IN PRESSURE)				958 (10 DAY	SUIT	N DDT	14911225		<b> </b>	<b> </b>			
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10:00       1402.0       (20 DAY \$HUT IN PRESSURE)         THUESDAY, DECEMBER 18, 1958       10:00       1403.0       (21 DAY \$HUT IN PRESSURE)         FRIDAY, DECEMBER 19, 1959       10:00       1403.0       (21 DAY \$HUT IN PRESSURE)         FRIDAY, DECEMBER 19, 1959       10:00       1404.8       (22 DAY \$HUT IN PRESSURE)         MONDAY, DECEMBER 22, 1959       10:00       1405.2       (25 DAY \$HUT IN PRESSURE)         TUESDYY, DECEMBER 23, 1953       12:00       1406.1       (26 DAY \$HUT IN PRESSURE)         12:00       1406.6       (27 DAY \$HUT IN PRESSURE)       10         FRIDAY, DECEMBER 26, 1953       10:30       10:00.1       10:00         VESDAY, DECEMBER 26, 1953       10:00       1406.6       (27 DAY \$HUT IN PRESSURE)       10         VEDNESDAY, DECEMBER 26, 1953       10:00       1406.6       (27 DAY \$HUT IN PRESSURE)       10         FRIDAY DECEMBER 26, 1953       10:00       1407.7       (29 DAY \$HUT IN PRESSURE)       10         FRIDAY, DECEMBER 29, 1953       10:00       1407.8       (32 DAY HUT IN PRESSURE)       10         THESDAY, DECEMBER 30, 1958       10       10       10       10       10         YEDNESDAY, DECEMBER 30, 1953       10       10       10       10       10	WEDNESD	AY, DECEMBI	BR 17.	1958		<b></b>	1						
10:00       1h03.0       (21 DAY SHUT IN PRESSURE)         FRIDAY       DECEMBER 19, 1959         10:00       1h04.8       (22 DAY BHUT IN PRESSURE)         MONDAY       DECEMBER 22, 1959         10:00       1h05,2       (25 DAY SHUT IN PRESSURE)         TUFSD/Y, DECEMBER 23, 1958				(20 DAY	\$HUT	IN PRI	SSURE)						
10:00       1h03.0       (21 DAY SHUT IN PRESSURE)         FRIDAY, DECEMBER 19, 1958						<b>_</b>	·		1	1			<b>!</b>
FRIDAY       DECEMBER 19, 1958         10:00       1LOL.8       (22 DAY BHUT IN PRESSURE)         MONDAY       DECEMBER 22, 1958         10:00       1LOS.2       (25 DAY SHUT IN PRESSURE)         TUFSDAY       DECEMBER 23, 1958         12:15       1LOG.1       (26 DAY SHUT IN PRESSURE)         WEDNESDAY       DECEMBER 23, 1958         12:00       1LOG.6       (27 DAY SHUT IN PRESSURE)         FRIDAY       DECEMBER 26, 1958         12:00       1LOG.6       (27 DAY SHUT IN PRESSURE)         FRIDAY       DECEMBER 26, 1958         12:00       1LOG.6       (27 DAY SHUT IN PRESSURE)         MONDAY       DECEMBER 26, 1958         12:00       1LOG.6       (29 DAY SHUT IN PRESSURE)         MONDAY       DECEMBER 26, 1958         12:00       1LOG.8       (32 DAY SHUT IN PRESSURE)         This is the maximum shut in pressure obtainel.       THESDAY, DECEMBER 30, 1958         12:00       1LO7.6       (31 DAY SHUT IN PRESSURE)         WEDNESDAY, DECEMBER 31, 1958       100.00.00.00.00.00.00.00.00.00.00.00.00.	10:00	Y, DECEMBE	<u>H 18,</u>	1958 (21 DAY	SHUT	TN PRE	( RSSURE)		1	{ 		·	
10:00       1h0h.8       (22 DAY SHUT IN PRESSURE)         NONDAY, DECEMBER 22, 1958         10:00       1h05.2       (25 DAY SHUT IN PRESSURE)         TUFSDYY, DECEMBER 23, 1958         12:15       1h06.1       (26 DAY SHUT IN PRESSURE)         WEDNESDAY, DECEMBER 24, 1958         12:00       1h06.6       (27 DAY SHUT IN PRESSURE)         FRIDAY       DECEMBER 26, 1958         12:00       1h06.6       (27 DAY SHUT IN PRESSURE)         FRIDAY       DECEMBER 26, 1958         12:00       1h07.7       (29 DAY SHUT IN PRESSURE)         MONDAY       DECEMBER 29, 1958         12:00       1h07.7       (29 DAY SHUT IN PRESSURE)         This is the maximum shut in pressure obtainel.       10         TUESDAY, DECEMBER 30, 1958       11         12:00       1h07.8       (35 DAY SHUT IN PRESSURE)         WEDNESDAY, DECEMBER 30, 1958       1007.8         12:00       1h07.6       (31 DAY SHUT IN PRESSURE)         WEDNESDAY, DECEMBER 31, 1958       1007.6         12:00       1h07.6       (36 DAY SHUT IN PRESSURE)         ""NOT ONLOY, DECEMBER 31, 1959       11007.4         12:00       1h07.4       (36 DAY SHUT IN PRESSURE)						[	}						
MONDAY, DECEMBER 22, 1959         10:00       1h:05.2       (25 DAY SHUT IN PRESSURE)         TUESDAY, DECEMBER 23, 1958         12:15       1h:06.1       (26 DAY SHUT IN PRESSURE)         WEDNESDAY, DECEMBER 26, 1958         12:00       1h:06.6       (27 DAY SHUT IN PRESSURE)         FRIDAY, DECEMBER 26, 1958         12:00       1h:06.6       (27 DAY SHUT IN PRESSURE)         FRIDAY, DECEMBER 26, 1958         12:00       1h:07.7       (29 DAY SHUT IN PRESSURE)         MONDAY, DECEMBER 29, 1958         12:00       1h:07.7       (29 DAY SHUT IN PRESSURE)         This is the raximum shut in pressure obtainel.         TUESDAY, DECEMBER 30, 1258       (33 DAY SHUT IN PRESSURE)         12:00       1h:07.8       (33 DAY SHUT IN PRESSURE)         WEDNESDAY, DECEMBER 31, 1958       (36 DAY SHUT IN PRESSURE)         12:00       1h:07.6       (36 DAY SHUT IN PRESSURE)         "PHOF", JENMARY 2, 1957       (36 DAY SHUT IN PRESSURE)         "PHOF", JENMARY 2, 1957       (36 DAY SHUT IN PRESSURE)         "PHOF", JENMARY 2, 1957       (36 DAY SHUT IN PRESSURE)	FRIDAY,	DECEMBER	19, 19	58		1							
10:00       1h05.2       (25 DAY SHUT IN PRESSURE)         TUESDYY, DECEMBER 23, 1958	10:00	1404.8		(22 DAY	<b>EHUT</b>	IN PRI	ESSURE)		<u>ļ</u>				1
10:00       1h05.2       (25 DAY SHUT IN PRESSURE)         TUESDYY, DECEMBER 23, 1958	MONDAY	TEATMORD	22 10	28		ļ	· · · · · · · · · · · · · · · · · · ·	<u> </u>					
TUFSDYY, DECEMBER 23, 1958         12:15       1106.1       (26 DAY SUT IN PRESCURE)         MEDNESSAY, DECEMBER 24, 1953         12:00       1406.6       (27 DAY SHUT IN PRESSURE)         FRIDAY       DECEMBER 26, 1958         12:00       1h07.7       (29 DAY SHUT IN PRESSURE)         MONDAY       DECEMBER 29, 1958         12:00       1h08.9       (32 DAY BUT IN PRESSURE)         This is the maximum shut in pressure obtained.	10:00	11:05.2	<u>, + (</u> 22	(25 DAY	SHUT	IN PRI	ES JURE)						.L
12:15       1406.1       (26 DAY SHUT IN PRESCURE)         MEDNESDAY, DECEMBER 24, 1953													
WEDNESDAY, DECEMBER 21, 1253         12:00       1406.6       (27 DAY SHUT IN PRESSURE)         FRIDAY       DECEMBER 26, 1958         12:00       1h07.7       (29 DAY SHUT IN PRESSURE)         MONDAY       DECEMBER 29, 1958         12:00       1h08.9       (32 DAY BUT IN PRESSURE)         MONDAY       DECEMBER 29, 1958         12:00       1h08.9       (32 DAY BUT IN PRESSURE)         THIS IS the maximum shut in pressure obtained.	TUESD Y	DECEMBER	<u>23, 1</u>	958	1						 		
12:00       1h06.6       (27 DAY SHUT IN PRESSURE)         FRIDAY       DECEMBER 26, 1958         12:00       1h07.7       (29 DAY SHUT IN PRESSURE)         MONDAY       DECEMBER 29, 1958         12:00       1h08.9       (32 DAY HUT IN PRESSURE)         This is the maximum shut in pressure obtained.	12:45	1406.1		(26 DAY	SHUT 1	N PRES	Seore)		- 		<u>}</u>		<u> </u>
12:00       1h06.6       (27 DAY SHUT IN PRESSURE)         FRIDAY       DECEMBER 26, 1958         12:00       1h07.7       (29 DAY SHUT IN PRESSURE)         MONDAY       DECEMBER 29, 1958         12:00       1h08.9       (32 DAY HUT IN PRESSURE)         This is the maximum shut in pressure obtained.	WEDNESS	AY, DECEMB	1. ER 24.	1.958							<u>.</u>	•	
12:00       1/107.7       (29 DAY SHUT IN PRESSURE)         MONDAY       DECEMBER 29, 1958         12:00       1/108.9       (32 DAY HUT IN PRESSURE)         This is the maximum shut in pressure obtained.				(27 DAY	SHUT	IN PR	ESSURE)				8		ļ
12:00       1/107.7       (29 DAY SHUT IN PRESSURE)         MONDAY       DECEMBER 29, 1958         12:00       1/108.9       (32 DAY HUT IN PRESSURE)         This is the maximum shut in pressure obtained.							· · · · · · · · · · · · · · · · · · ·		; 	2 *	! {		
MONDAY       DECEMBER 29, 1958         12:00       1408.9       (32 DAY HUT IN PRESSURE)         This is the maximum shut in pressure obtained.				58 (20 DAV	STILL	TN DDI	(RUIDE)		در میدوسد در در ا	j			1
12:00       1408.9       (32 DAY HUT IN PRESSURE)         This is the maximum shut in pressure obtained.         TUESDAY, DECEMBER 30, 1258         12:00       1407.8         WEDNESDAY, DECEMBER 31, 1958         12:00       1407.6         WEDNESDAY, DECEMBER 31, 1958         12:00       1407.6         (31 DAY SHUT IN PRESSURE)         FRID/7, JANUARY 2, 1959         12:00       1407.4         (36 DAY SHUT IN PRESSURE)         TEST COMPLETE	12:00	TUO (• (		VC2 DAT	1	LIV FRI							+
12:00       1408.9       (32 DAY HUT IN PRESSURE)         This is the maximum shut in pressure obtained.         TUESDAY, DECEMBER 30, 1258         12:00       1407.8         WEDNESDAY, DECEMBER 31, 1958         12:00       1407.6         WEDNESDAY, DECEMBER 31, 1958         12:00       1407.6         (31 DAY SHUT IN PRESSURE)         FRID/7, JANUARY 2, 1959         12:00       1407.4         (36 DAY SHUT IN PRESSURE)         TEST COMPLETE	MONDAY	DECEMBER	29.19	58						1			
TUESDAT, DECEMBER 30, 1258         12:00       1407.8       (33 DAY FIUT IN PRESCURE)         WEDNESDAY, DECEMBER 31, 1958         12:00       1h07.6       (34 DAY SHUT IN PRESSURE)         FRID/7, JANUARY 2, 1959         12:00       1h07.4       (36 DAY SHUT IN PRESSURE)         FRID/7, MARY 2, 1959       (36 DAY SHUT IN PRESSURE)         THST COMPLETE       (36 DAY SHUT IN PRESSURE)		1408.9		(32 DAY							}		
12:00       1407.8       (33 DAY PHUT IN PREDCURE)         WEDNESDAY, DECEMBER 31, 1958					tin r	ressi	re <u>obtain</u>	<u>ei1.</u>		•	: }		<u> </u>
WEDNESTAY, DECEMBER 31, 1958         12:00       1h07.6         (3L DAY SHUT IN PRESSURE)         FRIDAY, JANUARY 2, 1959         12:00       1h07.4         (36 DAY SHUT IN PRESSURE)         THST COMPLETE			130 1		DHIT	TN PRI	FS CURF)						<u> </u>
12:00     1h07.6     (3L DAY SHUT IN PRESSURE)       FRIDAR, JANUARY 2, 1959       12:00     1h07.4       THST COMPLETE		<u></u>	+										<u> </u>
FRIDAR, JANUARY 2, 1952 12:00 11/07.4 (36 DAY SHUT IN PRESSURF) THST COMPLETE			ER 31,			<u></u>							
12:00 1407.4 (36 DAY SHUT IN PRESSURF) TEST COMPLETE	12:00	11.07.6		( <u>34</u> DAY	BHOT	IN PR	FISSURE)		l				<b> </b>
12:00 1407.4 (36 DAY SHUT IN PRESSURF) TEST COMPLETE	EPTOY	LANILL DZ O					1	]	1	}		1	1
				(36 DAY	SHIT	IN PR	ESSURF)						
Tested av. R. L. West & J. D. Norton (Permian) signal None					1.5	. 、		NT .= · -					

5 25 97 7 10 97 . 7 • ••• ••• • Sinclair Cil & Gas Company J. R. Cone Tubb Unit 1-A SW SW 26-21S-37E Tubb Gas Pool. Date of Tert = 12-22-58 to 2-6-59 • .

19

LENGTH OF SHUT IN PRESSURE (Days)

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# BACK-PRESSURE TEST WORKSHEET

. • FORM 463

COMPANY Sincle	ir Oil & Gas Com	IDANY LEASE	J. R. Cone		WELL NO	
MELL ON PREFLOW: CATE 11-19-58	TINE 10:00 AP	WELL SHUT IN: DATE 12-22-58	TIME9:00	AMDATE 2-6-59	: TIME 8:45 AM	
AVG. PREFLOW RATE 2500 Mcfd	LENGTH OF PREFLOW 34 Days	SHUT-IN PRESS. CSG.	1642.2 тва	LENGTH OF	Days c <sup>2</sup> 27	4 <u>0                                    </u>
SEP. GAS GRAVIEY	APE GRAVITY OF LIQUID		0716105 	TAPS	co,H,_	· · · · · · · · · · · · · · · · · · ·

	W.1	H. FLOW	ING PRESS.		ALL.	WETER OR	1	METER	8b1s.			
TIME OF DAY	CASING Psig	Csq.	TUBING Psig	Б.Р. Тод.	HEAD TEMP.	PROVER PRESS.	DIFF.	OP PROVER TEMP	OF L10010	₽t <sup>2</sup>	$p_c^2 - p_t^2$	Q
MONDAY,			58				1					
9:00	WELL SHU	TIN		1								
				ļ			ļ					
	DECEMBER	23, 1	950 104 of u	ATD G	TTTT TAT	PRESSURE	k	[ ]				
11:12	1 190.1		(20.25 11			I REAX JUIN	₩ <u></u>					
WEDNEST	AY, DECEMBI	R 24	1958				1					
11:15	1533.4		(50.25 H	OUR S	UT IN	PRESSURE	)	····				
							1	1				
FRIDAY,	DECEMBER 2	6. 19	58									
11:15	1566.7	i	(98.25 H	OUR SI	HUT IN	PRESSURE	P		┟┨-			
			~~~		·		ļ		-		<b></b>	
MONDAY	DFCEMBER 2	<u> 29, 19</u>	58 (7 DAY S		N DDEC		ļ	ļ				
11:15	1590.7				PRES	SURE)	1					
THESDAY	DECEMBER	30 1	or8		·	( 						
11:15	1596.6		9 <u>58</u> (8 Day s	HUT I	N PRES	GURE)		• • •				
				ļ	;		1					
WEDNESE	AY, DECEMBI	IR 31,	1958 (9 DAY S		·		i					
11:15	1599.7	۱ است	(9 DAY S	HUT I	N PRES	SURE)	<u> </u>	, }				
							.i					
FRIDAY, 11:15	JANUARY 2 1602.2	1959	(11 DAY	CTUTO	IN DDD	C CTITA )	·•• ·•• ·•••	• • • • • • • • • • • • •	·		l	
11:12	1002.2	<u>.</u>	(II DAI_		IN PRE	520125.) 220125.)	<u>.</u>	****				
MOND/ V	JANUARY 5.	1950			[			۲۰۰۰ میں اور			+	
11:45	1616.0		(14 DAY	SHUT	IN PRE	SSURE)			·			
		•		1	1	L	1					
TUESDAN	, JANUARY (	1. 190	2			· · · · · · · · · · · · · · · · · · ·	1		1			
11:45	1621.2		(15 DAY	TUR	IN PRE	SSURE)						
		ļ					İ		ļ			
WEDNESF	AY, JANUAR	7.1	359				<b> </b>		<b> </b>			
11:45	1620.9	<u> </u>	(16 DAY	5HUT	LN PRE	SSURE)						
milliona		8 16										
<u>1:15</u>	Y, JANUARY 1623.1	<u></u>	<u></u>	SHIT	IN PRF	GUIRE)		<b> </b>				
ر ۲ • ۲	100.001	1		<u>Pilor</u>	f i				l		1	£

Sec Page (2)

CMPANY_	Sinclair (	) <u>il &amp; G</u>	as Company		LENSE -	J. R. (	Cone T	ubb Un	it	WELL	NO. 1-A	
FELL ON F			WEL	L SHUT					RE TAKEI		KF	
AVG. PREF RATE		ENGTH OF Reflow		SHUT-I PPESS.		TBG	•		TH OF -14		~ <sup>p</sup> e <sup>2</sup>	
350. GAS G784164_			TY HET SIZ					TAPS.		co,	<sup>H</sup> 2	
		H FLOW	ING PRESS.			1	T	METER		[	1	1
TIME OF DAY	CABING Psig	L P	TUBING	Д. Р Т0 7.	LUTAD	NETER OR PROVER PRESS.	DIEE.	1 00	Bb1s. OF LIQUID	<sup>P</sup> t <sup>2</sup>	$P_c^2 = P_t^2$	Q
FRIDAY, 11:30	JANUARY 9 1624.2		(18 DAY	SHUT	IN FRE	ESSURE)	4					
MONDAY.	JANUARY	12. 195	9				+					
1:30	1629.2		(21 DAY	SHUT	N PRE	ESURE)		<u> </u>	<b>†</b>			
MITE OT AN	TA NTITA TYP		r0		<u> </u>			 				<b> </b>
	, JANUARY 1629.2		(22 DAY	SHUT	N PRI	ESURE)						
WEDNESD	AY, JANUAI	RY 1).	1959								-	
			(23 DAY	SHUT	N PRI	ESURE)						
THURSDA	Y, JANUARY	ור בו ז	959		+			<u> </u>				<b> </b>
11:15	1631.4		(24 DAY	SHUT	IN PRI	ESSURE)		ļ				
FRIDAY.	JANUARI	6. 195	9				<u> </u>	•	<b> </b>		1	
11:30	1632.7		(25 DAY	SHUT	İN PRI	ESSURE)						
MONDAY,	JANUARY	9. 195	9				- <u> </u>	-			+	<b> </b>
11:45	1635.2		(28 DAV	SHUT	IN PRI	ESSURE)						
TUESDAY	, JANUARY	20 10				(					<u> </u>	<b> </b>
10E.30	1636.2	40, 17	(29 DAY	SHUT	IN PRI	ESSURE)				•	- <u> </u>	<u> </u>
UPD NL CT	AY, JANUA		ה מביס		ļ	;		1 1911	! *		.i	<u> </u>
11:00	1635.6	11 (2)	(30 DAY	\$HUT	IN PRI	ESSURE)		. /				
m17100-			ado			1	-				<u> </u>	<b> </b>
<u>THURSD/</u> 10:45	Y, JANUAR 1636.?	22, 1	959 (31 DAY	SHUT	IN PRI	ESURE)			•		<u> </u>	<u> </u>
<u></u>	· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·		· • · · · · · · · · · · · · · · · · · ·	· •			1 · · · · · · · · ·	•	······································	•
FRIDAY,	JANUARY 2 1637.0	23, 195	9 (32 DAY	ar m	TN DDI	(अन्नाहतू						
10:00	10)(.0		US DEL	<u>1/1-11</u>	1	drame'						1
MONDAY,	JANFARY 2	2(1, 195			<b>+</b>							1
9:45	1639.3		(35 DAY	\$HUT	TH PRI	ESTURE)		1			1	1

Page (2)

See Page (3)

Tested By: R. L. West & J. D. Horton (Permian) diamas. None

,UMPANI <u></u>	011101811 0		as company		LEASE -	<u> </u>				WELL	NO. 1-A	- <u></u>
			WELL DATE								٩۴	
NG. PREFL	ÓW LEN	IGTH OF		SHUT-1 PPESS.	N CSG	TBG		LENGI SHUT	ГН ОF -1%		_ Pc <sup>2</sup>	
SEP. GAS Spanety <u>—</u>	۸۶ ٥۴	E GRAVI LEQUED	ty 407 s12	FR RUN E	{ ;	STREESE		YMPE Taps_	<b>1449</b>	co,	<sup>4</sup> 2	
TIME	W. F	1. FLOW	ING PRESS.		NET1.	WETER AR	1	METER	BDIS.		T	
CF DAY	CA3ING Psig	Csg.	TURING Psig	Гр Тол.	HEAD TEMP.	HETED OR PROVER PRESS.	DIFC.	PROVER TEMP.	OF LIQUID	<sup>P</sup> t <sup>2</sup>	$P_c^2 - P_t^2$	Q
	JANUARY 2 1639.6	7. 19	(36 DAY	SHUT	IN PRE	SSURE)						
	Y, JANUARY 1640.3		.959 (37 DAY	SHUT :	IN PRE	S SURE)						
	, JANUARY 1640.1	29,1	959 (38 DAY	झाणाः :	IN PRE	SURE)		 				
FRIDAY, 10:30	JANUARY 30 1640.7	. 195	) (39 DAY S	HUT I	N PRES	SURE)					   	
TUESDAY,	FEBRUARY	3, 19	<i>.</i> <i>.</i> <i>.</i>									
	1641.2			SHUT	IN PRE	SSURE)		Į				<u> </u>
WEDNESDA 9:00	Y, FEBRUAR 1611.7	Y 4,	.959 (44 day	SHUT	IN PRE	SCURE)		- -				
THURSDAY 8:45	, FEBRUARY 1641.6	5,1	959 (45 DAY	ŞHUT_	IN PRE	SCURE)	1		· · ·			
FRIDAY, 8:45	FEBRUARY 6 1642.2	. 1959	) (Цб Дач	SHUT	IN PRE	SSURE)	.i	• • •		; ;,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, ,,,, ,_, ,		
	TEST COM	PLETE				(,		· · · · · · · · · · · · · · · · · · ·			· · · · · · · · · · · · · · · · · · ·	
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Page (3)

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Tested By: R.L. West & J.D. Horton (Permian) witness: None

LFNGTH OF SHUT IN PRESSURE (Days)

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	1 5						- - - 						:
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any	1-16-59 2-18-59												
The Ohio Oil Company Lynch L-T M. NW 1-22-37	<b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b>												
• 011 -1 1-22-5	Test												
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ril on r str <b>1-</b>	15-59	T141 91	15 AM 14	и знит и гт. <b>1-16</b> -	• <del>9</del>	TIM2:00	PM	FRESSU DATE	re taken 2-16-5	1: 2TI/	9 2:15 PM	
VG. PRTF ATE <b>250</b>	Lav OMafd	CENGTH OF PERFOR	7.75 Hrs.	580 <b>1-1</b> 1 - PPESS.	( (SG.	TRG.	16%.	LENG 7 SHUT	TN OF 	l Davs		
											<u>00%</u>	
T PHE DE DAY	CARING Psig	C89.	tubing Psig	Тур Твр.	HEAD	NETER OR PROVER PRESS.	Dtre.	METER OR PROVER TEMP.	Bb1s. Cy L FOUID	P	$P_c^2 - P_z^2$	Q
RIDAY, L:00 L:00	JANUARY WELL	16, 1259 SHUT IN	1243.7	Flow	ing F	ressure						
IONDAY,	JANUARY	19, 1959	1599.7	(70.	50 HC	UR SHUT I	N PRE	SSURE)				
	ere annan an chuir annan S	<u>10, 19</u>			1	DUR SHUT I	1	1				
TEDNE 0:15	<u>лу, ј</u> д "	<u>, , , , , , , , , , , , , , , , , , , </u>	6 535.6		DAY S	UT IN PRE	SUPF			·		
		un in the second is			AY SF	UT IN PRE	SURE	<u>}</u>				
3:30		23, 195			WAY SI	IDT 1N PRE	BOURT	·				
10NDAY,		26, 1959 a 27, 195			DAY S	HUT IN PR	SSUR	E)				
3:30		U 21, 12 MARY 23, 1			DAY S	SHITT IN PF	E SSUR	<b>E</b> )				
3:30		.RY 29, 15	10 1		)	ب ، ۲۹۹ محمد و مربو ، ۲۹۹ محمد و مربو ، و محمد و محمد و	∉SSUA					· · · · · · · · · · · · · · · · · · ·
3:30		30, 195		i jî î	YAC S		ESTUR T	E)				

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rested By: R. L. Mest. & J. D

tone

### Page (2) BACK-PRESSURE TEST WORKSHEET

FORM 983 (REV. 9-1-583

HELL ON P	REFLOW:	TIME	WELI DATI	SHIIT	IN:	T1ME		PRESSU	RE TAKEN	1: 	н£	
VG. PREF ATE	LOW LE	NGTH OF		SHUT-TI PRESS.	N CSG		G	LENG	TH OF -14		P_2	
EP. GAS DAVIEY	A0	PI GRAVI F LIQUIS	TY 4CT \$17	<u>er</u> rum C		0918105 5125		TYPE TAPS		co,		
TIME DE DAY			ING PRESS. TUBING Psig	Г. р Т0 д.	NELL- HEAD TEMP.	METER OF PROVER PRESS.	DIFF.	METER OP PROVER TEMP.	OF	Pt <sup>2</sup>	$P_c^2 - P_t^2$	Q
ruesday 9:15	, FEBRUARY	3, 19	59 1671.0	(18	DAY S	SHUT IN I	PRESSUR	E)				
	AY, FEBRUA		1959 1671.7	(19	DAY S	NUT IN I	PRESSUR	Æ)				
	Y, FEBRUAR		959 1672 <b>.</b> 3	(20	DAY S	SHUT IN I	PRESSUR	E)				 
RIDAY,	FEBRUARY	6, 195	9 1674.6	(21	DAY S	SHUT IN 1	PRESSUR	E)				
CNDAY,	FEBRUA RY	9, 195	9 1680.3	(24	DAY S	SHUT IN	PRESSUR	E)				
TUESDAY	, FEBRUARY	10, 1	959 1681 <b>.8</b>	(25	DAY S	SHUT IN	PRESSUF	Æ)				
VEDNESD 9:00	AY, FEBRUA	RY 11,	1959 1682.3	(26	DAY	SHUT IN 1	PRESSUF	Æ)	· · · · · · · · · · · · · · · · · · ·			
THURSDA 3:30	Y, FFBRUAR	Y 12,	1959 1684.6	(27	DAY	SHUT IN	PRESSUR	(F.)			-	 
FRIDA", 2:30	FEBRUARY	13, 19	59 1685.6	(28	DAY S	SHUT IN	PRESSUF	Æ)	· ·			
10NDAY, 2:15	FEBRUARY		1686.7	~!~		SHUT IN	<u> </u>	E)				
			eximum shut		ressui							<u> </u>
TUESDAY 1:15	FEBRUARY	17, 1	959 1683.6	(32	DAY :	HUT IN	PRESEUR	(jr.)				
WEDNESD 8:30	AY, FEBRUA TEST CO		1959 1633.1	(33		או דיופ	PRESSUE	₹ <u>₹</u> ,	 			<u> </u>

Tested by: R. L. West & J. D. Horton (Permian) witness: None

÷. 10 .1 ÷ V 1.1 Gulf Cil Corporation King 13 NE NE 28-215-37E Tubb Gas Pool Date of Test = 12-12/23-58 · · · { . 1

LENGTH OF SHUT IN PRESSURE (Days)

(Stad) BRUNGARS NI WURS

OMPANY _	Gulf Oil (	Corpora	tion		LEASE -	King			-	WELL	KO. 13	. <u></u>
FLL ON 1 ATE 11	-28-58	TEME 10	WELL 1:15 AM DATE	SHUT 12-	12-58	TIME_11	:15 A	PRESSU	RE TAKE 12-19-	- <u>58</u>	nr 11:30 /	<u>M</u>
19. PREI NTE <u>57</u>	10W LE 100 Mcfd Pr	NGTH OF	L Days	SHUT-TI PPESS.	csg. <u>1</u>	352.8 TRG.		LENG SHUT	rh of -1n <u>7</u>	Da <b>ys</b>	_ <sup>p</sup> c <sup>2</sup> 1866	5
EP. GAS 287177_	0.680 of	PI GRAVI F Ltouid	None siz	R RUM	1 <sup>18</sup>	STREE 2.5	<u>0"</u>	TYPE TAPS	Pipe	co, <u>O</u>	<u>00%</u> * <sub>2</sub> _2	. 361
	w.	H. FLOWI	ING PRESS.	· · · · · · · · · · · · · · · · · · ·	NELL.	METER OR	1	METER	Bb1s.		1	
TIME DE DAY	CA3ING Psig	[] P]	TUBING	Тр Трд.	HEAD TEMP.	PROVER PRESS.	DIFF.	CP PROVER TEMP.	OF LIOUID	i P₊≦	$P_c^2 - P_t^2$	٩
	DECEMBER	12. 195	8									
<u>.1:15</u> .1:15	1044.2 WELL SHI	T TN	Flowing	Pres	ure		<u> </u>	┢		,		
······												
IONDAY -	DECEMBER	15, 195										
	1335.7			OUR S	HUT I	N PRESSUR	E)					
IIEOD . T	DEGENO		NT9	ļ								
<u>1:30</u>	, DECEMBER 1341.2	<u>116, 19</u>	(96.25	HOUR	HUT I	N PRESSUR	E)					
				ļ				ļ				
	AY, DECEMBI 1343.3		1958 (5 DAY	CUIT	NT DOF	caipe)					<u> </u>	
	<u> </u>		<u>()</u> DAT	0.101							<u> </u>	
THURSDA	Y, DECEMBE	R 18, 1	.958					ļ				
1:30	1348.5	• • · · · · · · · · · · · · ·	(6 DAY	SHUT I	IN PRE	SSURE )	1 1	: 			· · · · · · · · · · · · · · · · · · ·	 
FRIDAY.	DECEMBER	19. 195	38		<u>.</u>		<u>.</u>					
L1:30	1352.8		(7 DAY			· · · · · · · · · · · · · · · · · · ·		; ;				
	This is	the ma	ximum shut	<u>in p</u>	ressur	e obtaine	<b>a.</b>					ļ
·	[	<u> </u>		<u>}</u>	ļ			.)			· · · · · · · · · · · · · · · · · · ·	
MONDAY,		22, 195	(8			; ;	÷					
1:30	1349.5	, : 	(10 DAY	SHUT	IN PR	ESSURE)		, 			.   <u> </u>	
TUESDAY	, DECEMBER	23 10		!			l	an an an an an an an an an an an an an a			<b></b>	
1:00	1348.0		(11 DAY	SHUT	IN PR	ESSURE)	1				+	
	TEST CON	PLETE			• • • • • • • • • • • • • • • • • • •		1	1				
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• • • • <u>-</u> • • • • •		+		+	t						•	<u> </u>
		<u>†</u> †		1	<b>†</b>		1	1			1	

Jested By: R. L. West & J. D. Horton (Perminn) sizuesa: None

GULT VIL VOT <u>POTEGION</u> Merk 5 NE NE 3 238 375	Tubb Gas Porl	f Test <b>t</b>				- - - -							
uor		11-26-58 1-16-59											
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LENGTH OF SHUT IN PRESSURE (Days)

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### BACK-PRESSURE TEST WORKSHEET

FORM 903 TREV. 9-1-001 ٠

COMPANY Gulf O	il Corporation	LEASE	Mark	WELL NO				
HELL ON PREFLOW: CATE 11-21-58	TIME11:00 AM D	ELE SHUT IN: ATE 11-26-58	TIME 11:15 AM	PRESSURE TAKEN: DATE 1-14-59 TIME 10:00 AM				
AVG. PREFLOW RATE 2250 Mcfd	LENGTH OF PREFLOW 5 Days	SHUT-IN PRESS. CSG.1	781.2 TBG	LENGTH OF SHUT-IN 49 Days Pc 3220				
SEP. GAS RDAMER <b>0.665</b>	API GRAVITY	HETER RUH STZE <u>4</u> n	091FICE STZE 1.75"	TAPS Pipe co, 0.00% N, 2.17%				

	W.5	1. FLOW	ING PRESS.	~	<b>F</b>		l	METER	BDIS.		1	
TIME OF DAY		L P Csq.	TUBING Psig	<u>Гр</u> тад.	HEAD TEMP,	NETER OR PROVER PRESS.	DIFC.	C <sup>12</sup> PROVER TEMP:	0F LIOUID	Pt2	$P_c^2 - P_t^2$	Q
WEDNESD	AY, NOVEMBE	R 26,	1958									
11:15	653.4		Flowing	Pres	sure							
11:15	WELL SHU	TIN	L									
					ļ						L	
	Nothermon	0 10										
	NOVEMBER 2 1652.3	<u>, 1</u> ,		IOUR	SHIT T	N PRESSUE	F)					
11.17	1092.5			100n .		R TREP.DE	<u>+)</u>				+	
MONDAY.	DECEMBER 1	. 195	8								1	
11:15		<b></b>	(5 DAY	SHUT	IN PRE	SSURE)					1	
TUESDAY	, DECEMBER	2, 19	58			l						
11:15	1731.7		(6 DAY	SHUT	IN PRE	SSURE)	ļ					
				l			·					
	AY, DECEMBE 1739.0	R 3.	1958 (7 DAY	ישונט.	IN DDE	(acupe)	l 1					
11:12	1137.0					SOUTE)						
THURSDA	Y, DECEMBER	1, 1	958				k	· · ·				
11:15	1745.5	·····	(8 DAY :	SHUT :	IN PRE	SSURE)						
					· · · · · · · · · · · · · · · · · · ·	•i						
FRIDAY,	DECEMBER F	, 195	8									
11:15	1749.0		(9 DAY 8	HUT	IN PRE	SSURE)						
						: 1	·					
MONDAY, 11:15	DECEMBER 9	<u>, 195</u>	3 (12 DAV	CUIT	TN DD	7391923		: لارینی میں میں میں م				
11.17	1 17 J • 1					ESSORE/					4	
TIFSDAY	, DECEMBER	2 10	58			i						
11:00	1760.0	<u> </u>	(13 DAY	SHUT	IN PR	ESSURE)						1
			nation i strance			·						······································
WEDN: SD	AY, DECEMBE 1761.7	R 10,	1958									
11:00	1761.7		(11; DAY)	SHUT	IN PR	BOURE)						
	Y, DECEMBER	11,			L							
11:00	1762.8		(15 DAY	SUUT	IN PR	ESSURE)						
L					l						I	

See Page (2)

lested By: R. L. West & J. D. Horton (Permian) Mitness: None

Page	(2)
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FORM 983 (REV. 9+1-583

### BACK-PRESSURE TEST WORKSHEET

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 COMPANY
 Gulf Oil Corporation
 LEASE
 Mark
 Well NO.
 S

 Well ON PREFLOW:
 Well SHUT IN:
 PRESSURE TAKEN:
 DATE
 TIME
 DATE
 TIME
-	₩.)	4. FLOW	ING PRESS.		AFL		METER OR	1	METER	8615.		T	]
TIME OF DAY	CASING Psig	Csg.	TUBING	TD 1	HE	۹.Ο	PROVER PRESS.	DIFT.	PROVER TEMP.	0F 110010	Pt <sup>2</sup>	$P_c^2 - P_t^2$	Q
FRIDAY.	DECEMBER 1	2, 19	58										
11:00	1763.5		(16)	DAY SHU	r in	PF	ESSURE						
								<u> </u>					
MCNDAY,	DECEMBER 1	5, 19	58		_			<u> </u>					
11:15	1764.9		(19 ]	DAY SHU	<u>r in</u>	PF	ESSURE)	<u> </u>	l 			· · · · · · · · · · · · · · · · · · ·	
mitton M	DIVERSION		0×9								<u></u>		
11:15	, <u>DECEMBER</u> 1766.1	<u>10, 1</u>	720 1	DAY SHIT	TITN	PF	ESSURE)		···-			+	
+1.1)	1100-1		(20)	DAT ONS	111								<b> </b>
WEDNESD	AY, DECEMBE	R 17.	1958				}	<b>.</b>				1	
11:15			(21 1	DAY SHU	<u>r</u> in	PR	ESSURE)		•				
			· · · · · · · · · · · · · · · · · · ·										
THURSD/	Y, DECEMBER	18,	1958						<u></u>			L	
11:15	1766.3		(22 ]	DAYSHU	<u>r   IN</u>	PR	ESSURE)		L				ļ
					1	•	i	. <u> </u>	ļ			·	
FRIDAY, 11:15	DFCFMBER 1 1768.2	<u>9, 19</u>	58 792 T	TAV. CUIT	TN	DD	E-SURE)					+	ļ
11:15	1/00.2	÷	(2) 2	1	1 1 IV	- <u>-</u> -	e ourey		• • • •	1		· [	{·
MONDAY	DECEMPER 2	2 19	<8						•				
11:15	1769.7	· • - ·	(26 ]	DAY SHU	Γ IN	PR	ESSURE)		<b>h</b>			+	
							· · · · · · · · · · · · · · · · · · ·	-	. 1			1	
TUESDAY	, DECEMBER	23, 1	958		 1								
10:15	1770.2		(27 I	DAY SHU	T IN	PB	ESSURE)						
		; ; }					:		1 1	1 + 1			
WEDNESD	AY, DECEMBE	R 21:,	1958								• • · · · · · · · · · · · · · · · · · ·		ļ ļ
10:15	1770.3		(28-1	DVA 12510		Ph	ESSURE)	-	6. an eilen - an air -	· · · · · · · · · · · · · · · · · · ·			
FRIDAY, 10:15	DECEMBER 2 1772.6	<u>6. 19</u>	<u>198</u> (20.1			DE	ESSURE)						
10:12	1112.0		(50-1	1	111	Г. Г 							
MONDA Y .	DECEMPTE 2	0 10	<u>جم</u>									1	<u> </u>
10:15	1773.2	السعنا	(33 ]	DAY SHU	TIN	PB	ESSURE)						
					+-								<u> </u>
TUESDAY	DECEMBER	30, 1	958										
1.0:15	1773.5		(34 1	DAY SHU	7 IN	PB	ESSURE)		]				
									]				

See Page (3)

Tested By: R. L. West & J. D. Horton (Permian) Alternation None
## Page (3)

- FORM 983 (REV. 3-1-505

# BACK-PRESSURE TEST WORKSHEET

٠

COMPANY Gulf	Oil Corporation	n LEAS	e Mark		WELL NO
WELL ON PREFLOW: DATE		WELL SHIFT IN:	TIME	PRESSURE TAKEN:	TEKE
AVG. PREFLOW Rate	LENGTH OF	SHUT-1X PPESS. CSG	· 786	LENGTH OF	<sup>p</sup> c <sup>2</sup>
		METER RUN STZE		TYTE TAPS	۵۰٫ ۲ <sub>2</sub>

	r				г						T	·
TIME OF DAY	CASING	FLOW	ING PRESS. TUBING	IN P	HEAD	METER OR PROVER	DIFT	METER CP PROVER	BDIS. OF	$P_t^2$	$P_{p}^{2} = P_{p}^{2}$	Q
	Psig	Csq.	Psig	101.	TEMP.	PRESS.		TEMP.	LIQUID			
	AY, DECEMBE	<u>R</u> 31,	1958			l	<u> </u>					
10:15	1773.6		(35 DAY	SHUT	IN PR	ESSURE)					l	
·		1000				ļ		ļ				ļ
FRIDAY, 10:15	JANUARY 2.	1959	(37 DAY	CUIT	TH DD	(acupp)	+	<b> </b>			·}	
10:15	11/2.0		() DAI			ESSURE)	+	}			+	
MONDAY.	JANUARY 5.	1959						<b> </b>				
10:45	1775.2	1727	(LO DAY	SHIT	TN PR	FSSIRE)						
			(40 5/11									
TUESDAY	, JANUARY 6	. 195	9	1			··· <b>}</b>				1.	
10:45	1776.0	د	(L1 DAY	SHIT	IN PR	ESSURE)	······································	∮				
;				t		•		4			1	1
WEDNESD	AY, JAMUARY	7, 1	959					1			1	
10:15	1778.7		(42 DAY	SHUT	IN PR	( ग्नाए २व						
						·		İ				
THURSDA	Y, JANUARY	<sup>9</sup> , 19	59		i •	j La popular na sana sana					L	L
11:45	1777.2		(L3 DAY	SHUT	IN PR	ESSURE)					1	
·				ļ	) 	· · · · · · · · · · · · · · · · · · ·	- <del> </del>	, , ,				Ì
FRIDAY,		1959		1 (71)100				i }			ļ	
10:30	1777.6		(44 DAY	SHUT	IN PR	ESSURE)					+	<b> </b>
MONDAY,	JANUARY 12	100	0	ļ	1	{		}	l			<b> </b>
11:00	1779.2	<u>, 177</u>	(47 DAY	SHIT	TN PR	FSSURF)	- <u> </u>					<u>}</u>
			(4) 211			: :		•••••••••••••••••	i		1	
TUESULY	, JAFUARY 1	3. 19	59		ф		. <u>.</u>					<u> </u>
10:00	1780.5	····	(48 DAY	SHUT	IN PR	ESSURE)		)			1	
					†	•	1	*			1	
WEDNESI	MY, JANDARY	11.,	1959	1	1	Name and a second second second second second second second second second second second second second second s 2	•]•••••	4				
10:00	1781.2		( <b>L9</b> DAY	SHUT	IN PR	ESSURE)		1				
			aximum shut	in p	ressur	e obteine	H.				1	
THURSDA		14, 1					1	; ;				
10:15	1781.0		(50 DAY	SHUT	IN PR	ESSURE)	1					L
				ļ				<u>.</u>				
FRIDAY,	JANULEY 16	, 195	9	1				<b>.</b>				l
10:30	1790.9		(51 DAY	SHIT	IN PR	ESSURF)						ļ
	TEST CON	PLETE		<u> </u>	I		]	Į	) 		1	

Jested By: R. L. Ment & J. D. Horton (Permian) situations Note

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1 er er er -Kitze . Cities Service Cil Company Even 3 NV Sr 35-21S-37E Tubb Gas Pool Datr of Test = 11-26-55 to 12-21-59

LENGTH OF SHUT IN PRESSURE (Days)

FORM 983 (REV. 9-1-			BACK	(- <u>F</u> R	SSUR	E TEST W	ORKS	HEET				
COMPANY	Cities Ser	vice C	il Company	1	LEASE -	Owen				WELL	HO	
WELL ON P	20-58	THME 10	WELL	SHUT 1 11-20	5-58	TIME ]]:	<u>45 am</u>	PRESSUE DATE	RE TAKEP 12-21:-1	1: 58	«F 10:30 AM	·····
AVG. PREF RATE 1600	LOW LEN O Mofd Pre	NGTH OF EFLOW	6 Days	HUT-IX	csc. <u>1</u>	.719.2 TBG.		LENGI SHUT-	(n of -1n <u>28</u>	Days	_ Pc <sup>2</sup> _3001	
SEP. GAS G267157	0.685 OF	T GRAVIT	None size	ר איז ער גר	1 (	512E 2.0	<u>Cn</u>	TAPS_	Pipe	co, <u>O.</u>	<u>031 H</u> 2-	1.80%
TIME CF DAY			NG PRESS.		NELL-	METER OR	DIFE	METER OP PROVER	Bbls. OF	P. <sup>2</sup>	$P_c^2 = P_t^2$	0
				Tbq.	HEAD TEMP.	PRESS.		TEMP.	LIQUID			
11:45 11:45	AY, NOVEMBE 718.5 WELL SHU		Flowing	Pres	sure							
FRIDAY, 11:45	NOVEMBER 2 1686.7	8, 195				N PRESSUF	5	·		·····		
11:45	1000.1			IOUR	phur 1	N PRESSUR	E)					<u> </u> j
	DECEMBER 1 1704.6		(5 DAY :	HUT .	N PRE	S.SURE)						
TUESDAY 11:00	, DECEMBER 1706.7	2, 195	38 (6 DAY 5	HUT .	IN PRE	esure)						
WEDNESD 11:00	AY, DECEMBI 1708.2	<u>3</u> , 1	.958 (7 DAY :	HUT :	IN PRF	SSURE)						· · · · · · · · · · · · · · · · · · ·
THURSDA 11:00	Y, DECEMBER 1709.9	<u>l l, 19</u>	958 (8 DAY S	SHUT	IN PRF	SSURE)				j		
FRIDAY, 11:00	DECEMBER 9	<b>i.</b> 1958	(9 DAY :	SHUT	IN PRE	SSURE)						
MONDAY, 11:00	DFCFMBER 8 1712.7	1958		SHUT	IN PF	ESSURE)	· · · · · · · · · · · · · · · · · · ·		·		· · · · · · · · · · · · · · · · · · ·	
<u>TUESDAY</u> 10:45	, DECEMBER 1713.1	9, 195		SHUT	IN PF	ESCURE)			·	: 		
WEDNESD 10:45	AY, DECEMBI 1713.0	R 10,	<u>1958</u> (11, DAY	SHUT	IN PF	ESSURE)			· · · · · · · · · · · ·	•		
THURSDA 10:45	Y, DECEMBER 1714.?	11, <b>1</b>	.958 (15 DAY	SHUT	IN PF	ESSURE)						
									ļ			<u> </u> ]

See Parte (2)

Tested By: R. L. West & J. D. Horton (Permian) incess: None

# Paxe (2) BACK-PRESSURE TEST WORKSHEET

.

COMPANY	<u>Cities</u> Ser	rvice Oi	1 Company		LEASE -	Owen				WELL	NO	
MELL ON P	REFLOWE	. T I MF		<u>енит</u>		TIME		PRESSU	RE TAKE	1: TI	HE	
	LOW LE					TaG.		LENGI SHUT-			_ <sup>p</sup> c <sup>2</sup>	
SERL GAS Gravery			4CTS SIZC					TAPS_		co <sub>2</sub>		
THME OF DAY	W. CASING Psig	H. FLOWING	F PRESS. TUBING Psia	IN P	NICLL- HEAD TEMP.	PROVER PROVER PRESS.	DEFS.	METER OP PROVER TEMP	861 s. OF 1 10010	۴t <sup>2</sup>	$P_c^2 = P_t^2$	Q
FRIDAY, 10:45	DECEMBER 1 1714.9	2. 1958	(16 DAY									
MONDAY, 11:00	DECEMBER 1 1715.5	5, 1958	(19 DAY	SHUT	IN PR	ESSURE)						
TUESDAY 11:CO	, DECEMBER 1716.0	16, 1958	3 (20 DAY	SHUT	IN PR	ESSURE)						
WEDNESD 11:00	AY, DFCEMBE 1716.3	R J7, 19	958 (21 DAY	SHUT	IN PR	ESSURE)	     					
THURSDA 11:00	Y, DECEMBER 1717.0	18, 199	58 (22 DAY	হাগ্য	IN PR	ESSURE)						
FRIDAY, 11:00	DECEMBER 1 1717.5	19, 1958	(23 DAY	SHUT	IN PR	ESSURE)	<u> </u>	<b>)</b>				
MONDAY, 11:00	DECEMBER 2 1719.0	2, 1958	(26 DAY	SHUT	IN PR	ESSURE)						
TUESD/Y 10:15	, DFCFMBER 1719.2	23, 195	3 (27 DAY	डमण	IN PR	ESSURE)					· · · · · · · · · · · · · · · · · · ·	 
WFDN ESD 10:30	Y, DFCFMBI 1719.2		(28 DAY		1			· · · · ·				     
	This is TEST CO!		imum shut	in p	re <u>ssur</u>	e obtaine	2 <b>4.</b>					
				1				]				

Tested By: R. I. West & J. D. Horton (Permien) airmoss: None

- FORM 903 (REV. 3-1-12)

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ры Черкен **358-17** 1. вест — **358-1**7

6. 1 1 2 Gulf Cil Corporation Paddock 5 NW NE 1-225-37E Tubr Gas Poc1 Drte of Test - 2-4/24-59

LENGTH OF SHUT IN PRESSURE (Days)

(Fisq) ASUSSANA IN TURR

# BACK-PRESSURE TEST WORKSHEET

A ORM 983 (REV. 9-1-083

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COMPANY Gulf OF	11 Corporation	LEAS	Alice Paddoc	k	WELL NO
MELL ON PREFLOW: CATE 1-31-59	THE 11:00 AM	WELL SHIFT IN: DATE 2-1-59	TIME 8:00 A	PRESSURE TAKEN: M DATE 2-21-59	TIME 10:30 AM
AVG. PREFLOW RATE 4100 Mcfd	LENGTH OF PREFLON 4 Days	SHUTHIN PPESS. CSG	1768.6 TBG	LENGTH OF SHUT-IN 20 D	eys c <sup>2</sup> 31 75
SEP. GAS Graviey	and a	METSR RUN S176	00161CE 	TAPSC	0 <sub>2</sub>

T LME		H. FLOW	NG PRESS.		AFEL -	METER OR		METER	8615.			1
OF DAY	CABING Psig	L P Csg.	TUBING Psig	К.р. твр.	HEAD TEMP	PROVER PRESS.	DIFS.	OP PROVER TEMP.	OF	Pt?	$P_c^2 - P_t^2$	Q
WEDNESD	AY, FEBRUAN	jr 4. j	.959									
8:00	WELL SHU	T IN										
FRIDAY,	FEBRUARY 6	, 195	>									
9:00	1501.4	ļ	(1:9.00	OUR	SHUT I	N PRESSUR	) (E)					
MONDAY .	FEBRUARY	1. 1959	}									L
	1667.0		(5 DAY	SHUT	IN PRE	SSURE)						
TUESDAY	, FEBRUARY	10. 18	959	<b> </b>								<b> </b>
9:00	1681.2		(6 DAY	ईमग्र	N PRE	SSURE)						
ן מצוועראיי	AY, FEBRUA	רר אין	1000	<b> </b>		• •						
			(7 DAY	SHUT	IN PRE	SSURE)						
THIRSON	V VEDDIAD	( 12	000		ļ							<b></b>
8:45	1707.3		1959 (8 day	SHUT	IN PRE	SSURE)	· · · · · · · · · · · · · · · · · · ·	-			-	
				<u> </u>	1	<b>i</b>	<u> </u>	: j				
2:45	FEBRUARY 1 1719.7	L2 J 17	(9 DAY	SHUT	IN PRE	SSURE)						
						· · · · · · · · · · · · · · · · · · ·			·			
2:00	FEBRUARY 1 1742.1	16, 19	9 (12 DAY	SHUT	IN PR	ESSURE)			; }		1	
		1				1. <u> </u>			·			•
TUESDAY 1:45	<u>, FEBRUARY</u> 1746.8	17, 1	959 (13 DAY	CUIT	IN DD	regilbe)					<u>]</u>	
1.42	T [10+0	<u> </u>		5101	TH EU	1.000 mg /						
WEDNESD	AY, FEBRUAL		1959		TH	E a a u contra a l		[				 
9:00	1751.2		(14 DAY	<u>  54171</u>	IN PR	LSSURE)	<u> </u>		:			
	Y, FEBRUARY	19,	1959		1	 					· .	
3:00	1755.8	<u> </u>	(15 DAY	TUIR	IN PRE	F FURE)						
TUESDAY	FEBRUARY	21. 1	759	·}								
10:30	1768.6	11	(20 DAY	SHUT	IN PR	ESSURE)	1	1			]	1

This is the maximum shut in pressure obtained.

See Page (?) Tested By: R. L. Most & J. D. Horton (Permian) situess: None 

Pay	;e (2)		
BACK-PRESSURE	TEST	WORKSHEET	

COMPANY _	Gulf Oil	Corpo	ration		LEASE .	Alice Pa	ddock			WELL	NO5	
	REFLORT	TIME		LL 5847 TE				PPESSU	RE TAKEN	1: TH	14 F	
				SHUT-I PRESS.		TBG	terman or an c	LEKG SHUT			- Pc <sup>2</sup>	
SEP. GAS GRAMIEY.			тт не S1							co,		
TIME	₩.	H. FLOW	ING PRESS.		NELL.	NETER OR PROVER	DIFC.	METER OP	861s.	р ?	$P_c^2 - P_t^2$	Q
OF DAY	CASING Psig	Csq.	TUBING Psig	TOq.	TEMP.	PRESS.		TEME.	LIQUIN	't	ic it	
THURSDA 9:15	Y, FEBRUARY 1762.0	( <u>26</u> ,	1959 (22 DA	Y SHIT	IN PR	RISCURE)						
FRIDAY, 1:15	FEBRUARY 2 1758.6	7, 19	59 (23 D/	Y SHUT	IN PR	ESSURE)	+	+				
	TEST CO											
	·				<u> </u>				i I		1	
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					1					   		

Tosted By: R. L. West & J. D. Horton (Permian) disease None

.FORM 983 (REV. 9-1-38)

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i.v. Pan American Petroleum Corporation W. H. Turner 3-T ST SE 29-215-37E Tube Gas Pool Date of Test = 12-21/29-58 

LENGTH OF SHUT IN PRESSURE (Days)

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(risq) SUCCENS NI TURE

FORM 983 (REV. 9-1-	5A)		BAC	K-PRI	E <u>SSUR</u>	ETEST	ORKS	HEET				
OMPANY	Pan Amer	ican Pe	t. Corpore	tion	LEASE -	W. H. Tu	rner			WEEL	NO	۹ ـــــــ
ELL ON PI ATE <b>12-</b>	REFLOW: 7-58	THME 9:	WELL 45 AM DATE	SHUT 12-2	1	TIME 8:	LO AM	PRESSU	re taxer 2-23-5	1: 3TIX	4 10:45 AM	[
VG. PREF ATE <b>155</b>	LOW LE OMcfd PP	NGTH OF EFLOW 14	Days	SHUT-U PRESS.	csc. <u>18</u>	105.0 TBG.		LENG SHUT	тн ог -1 и <u>Ц9.</u> '	75 Hrs.	_ <sup>p</sup> c <sup>2</sup> 330	6
59. GAS 247177_(	D.680 0F	PI GRAVIT F LIQUID_	None size	E 9111	n (	STZE	-	TAPS.	Pipe	co <u>, 0.</u>	12# *2-	2.73%
TIME DE DAY	W. CASING Psig		NG PRESS. Tubing Psig	I. n	NELL- HEAD TEMP.	METER OR PROVER PRESS.	0165.	METER 07 PROVER TEMP.	8615. OF 110010	Pt <sup>2</sup>	$P_c^2 - P_t^2$	Q
SUNDAY, B:LO	DECEMBER WELL SH	21, 195										
NUESDA Y	DECEMBER	23, 19	58									
.0:30	This is	the ma	1805.0 ximum shui			DUR SHUT e obtaine		ESSURE	<b>}</b>			
VEDNESD. LO:45	AY, DECEME	BR 2L	1958 1804.8	(7)	.00 H	OUR SHUT	IN PR	ESSURE				
RIDAY, 10:30	DECEMBER	26, 195	8 1801,.8	(5	DAY S	HUT IN PF	ESSUR	?F;)				
40NDAY, 10:30	DECEMBER TEST CO		8 1801.6	(8	DAY S	SHUT IN PE	ESSUR	Ε.)				
							· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	·	·	· · · · · · · · · · · · · · · · · · ·	
				     		· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·				

Tested By: H. L. West & J. D. Horton (Permian) History None



(; isa) HHISSHad HI JUNC

## BACK-PRESSURE TEST WORKSHEET

FORM 403 (REV. 9-1-303

	29-58											
		TIME 10:	WELL OO AM DATE	знит 1-4-	1 N : 59	TIME2:	45 AM	PRESSU	re taken 2-4-59	l: TI	HE 9:30 AM	
NG. PREF	LOW LEN O Mcfd Pre	IGTH OF	Days	SHUT-I PRESS.	× csc. <u>1</u> 8	101:09 TBG.		LENG	th of -14 <u>31</u>	Day s	- <sup>r</sup> c <sup>2</sup>	<u>5</u>
SEP. GAS	24	I GRAVIT	Y HETE	R 904	,	PRIETCE		NV75				
юлин сү. <u>—</u>	0.F	LIQUID_				STZE		TAPS	<b></b>	co,	<sup>H</sup> 2	
		. FLOWIN	IG PRESS.		AT. 1	METER OR	1	METER	Bbls.		T	<u> </u>
TIME OF DAY	CASING			Гр Тра.	HEAD TEMP.	PROVER PRESS.	DIFF.	OP PROVER TEMP.	OF LIQUID	۴٤²	$P_c^2 - P_t^2$	Q
	JANUARY L	1959										
9:45	WELL SHU	T IN										
MONDAY	JANUARY 5.	1959										
10:00	1500.0		(24.25	HOUR	SHUT 1	N PRESSUE	E)					
	JANUARY 6											
10:00	1596.9		(48.15	HOUR	HUT 1	N PRESSUR	₩ <u>E)</u>	) 				
WEDNESD 9:15	AY, JANUARY 161.6.2					N PRES JUR		 				
9:05	1040.2		(72.00)	HOUR		N PRESSUR						
	Y, JANIJARY 1677.0		(97,50)	HOUR	SHUT I	N PRESSUR	[	ļi				
							······································					
	JANUARY 9, 1699.6		(5 DAY	SHUT	IN PRE	SSURE)						
MONDAY	JAN'ARY 12	, 1959			1 3	- 	<u> </u>					
10:15	JAN''ARY 12 1738.2		(8 DAY 8	SHUT	IN PRF	SEURE)						
TUESDAY		3, 1959		}		<u></u> ; ;	· · · · · · · · · · ·	· · · · · · · · · · · · ·	······		· · · · · · · · · · · · · · · · · · ·	
9:30	1747.2		(9 DAY 8	<u>SHUT</u>	IN PRE	SSURE)	i				¢ 	
WEDNESD 9:30	AY, JANUAR 1751.2	14, 19		01117		t course)						
9.30	1150.5		(10 DAY	SHUT		ES URE)	*					
THURSDAY 10:00	Y, JANUARY 1760.5	15, 199	() (11 DAY	्रागण	TN PD	ESCHRE)			] بر			
		·			<u> </u>	10001897						
FRIDAY, 10:15	JANUARY 16 1765.7	1959	(12 DAY	SH T	IN PR	ESSURF)					<u> </u>	
MONDAY, 10:00	JANUARY 19 1779.7	, 1959	(15 DAY	SHUT	TN PE	FSSURF						

See Page (2)

fested By: R. L. West & J. D. Horton (Permian) Millioss. None

## Page (2) BACK-PRESSURE\_TEST\_WORKSHEET

FORM 983 (REV. 9-1-58)

COMPANY The Ohio Oil Company LEASE Wortham \_\_\_\_\_\_ WELL NO. \_\_\_\_\_ WELL SHUT IN: WELL ON PREFLOW: PRESSURE TAKEN: . DATE ... \_\_\_\_TIME\_ DATE ..... \_ TIME \_ DATE\_ \_TIME\_ AVG. PREFLOW LENGTH OF SHUT-IN LENGTH OF PREFLON \_\_ ^ ^ \_\_ RATE PRESS. CSG.\_\_\_\_\_ TAG\_\_\_\_\_ SHUT-IN\_\_\_\_\_ COLLEGE SEP. GAS API GRAVITY METCE RUN 1775 GPAVETY\_ \_ OF LIQUID \_\_\_\_ \_\_\_\_\_ \$17<u>5</u>\_\_\_\_ SIZE ..... TAPS\_ - co,-METER CP PROVER W.H. FLOWING PRESS. WELL- METER OR HEAD PROVER TEMP. PRESS. 851 s. OF TIME Pt?  $P_c^2 - P_t^2$ CASING D P Psig Csg. Х Р Т01. DIFT HEAD TEMP. Q TUBING Psig OF DAY LIQUID TEMP. TUESDAY JANUARY 20, 1959 (16 DAY SHUT IN PRESSURE) 10:00 1782.7 , JANUARY 21, 1959 WEDNESD Y (17 DAY SHUT IN PRESSURE) 10:15 1784.8 THURSDAY, JANUARY 22, 1959 (18 DAY SHUT IN PRESSURE) 9:45 1788.7 FRIDAY, JANUARY 23, 1959 (19 DAY SHUT IN PRESSURE) 9:30 1790.6 MONDAY, JANUARY 28, 1959 (22 DAY SHUT IN PRESSURE) 9:30 1796.3 TUESDAY, JANUARY 27, 1959 1799.4 (23 DAY SHUT IN PRESSURE) 9:30 WFDNESDAY, JANUARY 23, 1959 (2L DAY SHUT IN PRESSURE) 1798.5 9:30 THURSDAY, JANUARY 29, 1959 (25 DAY SHUT IN PRESSURE) 1800.0 9:30 JANUARY 30, 1959 FRIDAY. (26 DAY SHUT IN PRESSURE) 1800.7 9:30 FEBRUARY 3, 1959 TUESDAY (30 DAY SHUT IN PRESSURE) 1803.6 10:00 WEDNESHAY, FEBRUARY 1, 1959 (31 DAY GUT IN PRESSURD) 1804.9 9:30 This is the maximum shut in pressure obtained.

See Page (3

Tested By: R. L. West & J. D. Horton (Persion) witness: None

## Page (3)

EORM 983 1 (REV. 9-1-983

## BACK-PRESSURE TEST WORKSHEET

COMPANY The O	hio Oil Commany	LEASE	Wortham	······································	WELL NO. 11
MELL ON PREELON:				PRESSURE TAKEN:	TIKE
AVG. PREFLON Rate		SHUT-IN PRESS. CSG.		LENGTH OF SHUT-IN	<sup>r</sup> c <sup>2</sup>
SEP. GAS GONVESY					2 H2

T 1115	¥,¥	. FLOW	ING PRESS.	~~~~~~~~	ARLL.	METER OR	1	METER	Bols.			
DE DAY	CASING Psig	l∖ P Csq.	TUBING Psig	Х.р Трд.	HEAD TEMP.	PROVER PRESS.	DIFF.	PROVER TEMP	LIQUID	Pt <sup>2</sup>	$P_c^2 - P_t^2$	Q
THURSDAY	. FEBRUARY		959				1	<u> </u>				[
9:30	, FEBRUARY 1804.0		(32 DAY	SHUT	IN PR	ESSURE)						
FRIDAY,	FEBRUARY 6	. 195	<b>P</b>									
9:30	1803.5		(33 DAY	SHUT	IN PR	ESSURE)	1					
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Tested By: R. L. West & J. D. Horton (Permian) sincessi None

" THESE ARE THE ONLY COPIES SENT TO YOUR COMPANY."

Hobbs, New Mexico June 5, 1957

To: Operators in Tubb Gas Pool

Subject: Minutes of the Tubb Gas Pool Industry Committee Meeting of May 29, 1957.

You will recall Mr. Porter's memorandum of January 28, 1957, concerning the appointment of an Industry Committee for a study and recommendations concerning rules for oil wells recently completed in the Tubb Gas Pool. Mr. Porter's memorandum is quoted in part as follows:

"Due to the recent completion of several oil wells in the Tubb formation within the horizontal limits of the Tubb Gas Pool, the Commission feels that consideration should be given to the matter of the adoption of rules governing the operation of such wells. In order that the Commission may have the most complete information available for use in the formulation of such rules, the following operators of wells in the Tubb Pool have been appointed to an Industry Committee with instructions to prepare and make recommendations to the Commission at a hearing to be held on March 14, 1957.

> Amerada Petroleum Corporation Continental Oil Company Humble Oil & Refining Company Ohio Oil Company Shell Oil Company N. G. Penrose, Incorporated Gulf Oil Corporation Samedan Oil Corporation

"Commission Staff Members appointed to work with the Committee are Mr. Montgomery, Mr. Fischer, and Mr. Runyun."

This committee has been quite active in an effort to fulfill the charge assigned it by the Commission and from the meeting of May 3, 1957, there developed two proposed plans for regulation of these specific wells in the Tubb Gas Pool. You will also recall that at the May 16th hearing, continuation of Case 1221 to the July Statewide hearing was requested of the Commission. This letter is to apprise you of the Committee's work conducted on May 29, 1957, which was concerned mainly with the formulation of final recommendations to be made to the Commission at the July hearing.

The two plans, one offered by Humble Oil and Refining Company and amended by the Industry Committee, and the other proposed by Continental Oil Company, are attached.

In considering adoption of the Humble plan, the Industry Committee voted as follows:

Amerada	Yes	Continental	Abstained
Humble	Yes	Penrose	Absent
Gulf	Yes	Ohio	Yes
Shell	No	Samedan	No

In considering adoption of the plan submitted by Continental, the voting results were as follows:

Amerada No Continental Abstained 1. 223 - • !~' Gulf No 1 24 4 4 4 Humble No Penrose 7 3 7 3 14 Absent Shell Yes Samedan Yes Ohio No

Following the voting presented above, Continental made the following statement in expressing their views in this matter. In general, Continental is in favor of;

- (1) Classifying all wells as gas wells.
- (2) Place a gas allowable on all wells as now in effect.
- (3) Place a liquid limit on each well equivalent to the basic unit
- allowable of an oil well for the depth of 6000' to 7000'.

By majority vote, although not unanimous, the Humble plan was selected for recommendation to the Commission.

Another matter which Mr. Porter asked the Industry Committee to consider was the necessity of continued proration in the Byers-Queen Gas Pool. The Industry Committee will recommend to the Commission that provation in the Byers-Queen Gas Pool be discontinued.

In presenting the work of the Committee to the Commission the Chairman will make general comment relating the contention that the Tubb Gas Pool is primarily a gas pool and mill present the recommendations of the Committee, which are;

Humble's plan as ammended by the Committee.
Abolish proration of Byers-Queen Gas.

Geologists of Ohio Oil Company and Gulf Oil Corporation will present for the Commissions record, the Geological work done by Mr. Runyon, Commission Staff Geologist, and make general statements pertaining to same.

C. M. BULPASS Chairman Industry Committee Tubb Gas Pool

CC: To All Tubb Pool Operators Oil Conservation Commission Att: Nr. A.L. Porter, Jr. Box 871 Santa Fe, New Nexico OCC- Hobbs, N.N. Att: Mr. R. F. Montgomery -2-

#### TUBB GAS POOL

Following are the proposed changes in Order No. R-586 as proposed by Humble Oil & Refining Company as amended by the Industry Committee:

1. Item 7 will be added to Rule 5 (d): "In the event more than one gas well producing from the Tubb Gas Pool should be included in a standard or less than a standard proration unit, the sum of the allowables allocated to the wells shall be equivalent to that volume of gas allocated to a proration unit of the same size. The operator of such wells shall have the option to determine the proportion of the assigned allowable to be produced by each individual well, provided all of said wells are orthodox gas locations. In the event that one or more of the gas wells on the proration unit is an unorthodox location, the Commission shall establish the proportion of the assigned allowable to be produced from each individual well."

2. The third from last paragraph of Rule 8 will be revised to read as follows: "The allowable assigned to any well capable of producing its normal gas allowable in the Tubb Gas Pool shall be the same proportion of the total remaining allowable allocated to the said pool after deducting allowables of marginal wells that the number of acres contained in the gas proration unit for that well bears to the acreage contained in all gas proration units assigned to non-marginal wells in the Tubb Gas Pool except that no well which produces liquid hydrocarbons with a gravity of 45 degrees API or less regardless of the size of the proration unit will be permitted to produce more liquid hydrocarbons than the Statewide oil allowable for wells on 40-acre units producing at depths between 6,000 and 7,000 feet. Any well subject to such limitation shall be so designated on the Commission's monthly allocation schedule of condensate and other incidental liquid hydrocarbons. Any well subject to this liquid hydrocarbon limitation and which produces more than the allowed volume of liquid hydrocarbons during any 1 month will make up such overage. Any gas production shortage resulting from application of the liquid hydrocarbon limitation or from shutting in a well because of overproduction of liquid hydrocarbons may be made up under the terms of Rule 9 (underproduction balancing provision) provided the liquid hydrocarbon limits described herein are not exceeded."

3. A rule 8a will be added as follows: "Tests to determine the gravity of the liquid hydrocarbons recovered from each well in the Tubb Gas Pool shall be taken following adoption of these rules and reported to the Commission on Form C-116 not later than the 15th day of the next succeeding month following adoption of these rules. The Commission will then mark on the allocation schedule of condensate and other incidental liquid hydrocarbons the wells which are to be subject to the liquid hydrocarbon limitation . Thereafter, gravity tests on each well not subject to the liquid hydrocarbon limitation will be made during the months of January and February and reported to the Commission on Form C-116 not later than the 15th day of March."

### TUBB GAS POOL

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Continental's proposed plan for recommendation to the Commission is as follows:

1. The committee has made a study and finds that there is no regulatory problem resulting from liquid production in the Tubb Gas Pool at present.

2. The committee recommends that all wells in the Tubb Pool be classified as gas wells and prorated on the basis of the volume of gas preduced, in accordance with present rules and that no limit be placed on liquid production.

3. The committee recommends that should liquid production from the Tubb Pool become a problem in the future that a study be made at that time to determine appropriate action.

### Those present were as follows:

J. H. Moore C. R. Smith V. T. Lyon V. R. Cammack R. E. Layne A. K. Palmer W. G. Abbott J. J. Riha D. E. Morris Jack Cooley R. F. Montgomery Eric Engbrecht J. W. Runyan R. C. Heald, Jr. H. B. Wofford, Jr. G. A. Swartz C. M. Bumpass

Continental Oil Company Continental Oil Company Atlantic Refining Company Samedan Oil Corporation Shell Oil Company Amerada Petroleum Corporation Ohio Oil Company Ohio Oil Company Ohio Oil Company Oil Conservation Commission Oil Conservation Commission Oil Conservation Commission Oil Conservation Commission Oil Conservation Commission Humble Oil & Rfg. Company Gulf Oil Corporation Gulf Oil Corporation Gulf Oil Corporation

Continental Oil Company

Roswell, New Mexico Eunice, New Mexico Roswell, New Mexico Hidland, Texas Hobbs, New Mexico Hobbs, New Mexico Monument, New Mexico Midland, Texas Santa Fe, New Mexico Hobbs, New Mexico Hobbs, New Mexico Hobbs, New Mexico Midland, Texas Roswell, New Mexico Hobbs, New Mexico Hobbs, New Mexico Hobbs, New Mexico Hobbs, New Mexico

# PERMINE HOLE DE MILLE DE LA MILLE

# SOUTHERST ALL HELLS

# TUBE CAB 100L

CONDANY - Well & No. ANERADA PETROLEUM CORFORATION	Init	<u> </u>	No. of Days on Line.	Yolune	Average Daily Rate of Flow
** Baker 3 7	I	10-22-37	16	*22 380	1 243
Corrigan 4	Ă	4-22-37	31	18 895	- 610
Hare 7	M	33-21-37	30	31 043	1 035
State D A 3	J	16-21-37		34 330	1 144
Wood 7	*	22-22-37	27	10 865	402
CITTES SERVICE OIL CONFANT Brunson C 6	I	3-22-37	30	28 014	934
Ouren 3	J	35-21-37		34 803	1 582
CULY OIL CONFORATION	-		_		
Amanda 1 P	J	25-22-37		10 187	329
Andrews 2 T	G P	32-22-38		30 092	1 003
Carson C 3 Danglade 1	M	28-21-37 1 <b>3-22-</b> 37		22 513 33 091	750 1 103
Eaves 5	H	10-22-37		19 552	1 629
Euhenk 1	B	22-21-37		25 200	873
Gulf State 1 (W.O.F.)	Ă	36-22-37	-	13 363	703
Gutman 1 T	N	19-22-38		34 838	1 124
Gutann 2 T	C	19-22-38	•	26 935	1 910
Bagh 4	Å	14-22-37		24 665	3 524
Hagh 7 T	C	14-22-37		40 966	1 366
King 13	Å	28-21-37	7	40 863	5 838
** King 22	C	28-21-37	2	*17 100	8 550
Leonard 4 T	*	16-21-37		24 380	2 216
Nark 5	Å	3-22-37	31	29 806	961
McCormack 7	I	32-21-37		9 338	301
Over 5	P	34-21-37		34 436	1 148
Vivian 1	C	30-22-38	10	9 791	979
Watkins 1	0	29-27-38	16	7 365	460
MACHOLIA PETROLEUM COMPANY Brunson Argo 6 T	E	10.00.00	31	6 112	204
Gerson 8 T	24 12	10-22-37 33-21-37	19	6 446 34 422	208 1 812
Corrigan 7 T	F	33-21-37		3 002	200
** Long 8 T	Ĵ	11-2:-37		*11 710	
Williamson 1 T	A		31	2 790	~ <u>)</u>
THE OHIO OIL COMPANY					
Butler 3 (Coaden)	N	18-22-38	30	8 829	294
Lynch 4 T	D	1-22-37	r,	13 656	
Marshall B 2	N	27-21-37	31	16 531	
Oven 3	R	35-21-37	30	26 260	
Warlick C 1	J	15-21-37	25	49 946	
sorthan 9 T	¥,	27-21-37 35-21-37 15-21-37 12-22-37	31	10 761	
Worthan 11	N	11-22-37	30	46 654	
FAN AMPRICAN FETROLOPY DORF.					
Oven B 2	Ĩ.	34-23-37	30	37 624	1 254
Southland Royalty A 2	8	9-21-37	19	33 138	
Southland Royalty & 4	Х	4-21-37	¢,	24 116	
State C 6X	G	16-21-37	4	14 357	3 589
State C 8	13	36-21-37	20	39 190	1 960
"" Turner 3	<u>-</u>	23-21-37	13	*30-376	2 375
NAVILLE G. PENROSE, INC.					
Hinton 3 I	1	12-2-37		31 534	
Sinton 5	Ê.	12-22-37	30	25 ぶち	14.9
OMAN OIL C HEANY					
Walden 3 T	4	15-22-37	31	1, 688	151

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Tubb Gas Fool Continued

			No. of Days on		Average Daily Rate
Compary - Hell & Ho.	Unit	R	Line	Volume	of Flow
SINCLAIR OIL & GAS CONFANY					
** Barton 1	G	23-21-37	15	*45 810	3 054
** Come A 1	м	26-21-37	10	*34 490	3 449
State 367 3 T	K	36-21-37	31	8 984	290
STALLY OTL CONGANY	_				
Balour B 15 T	J	10-22-37	18	51 701	2 872
SURAY NID_CONTINUET OIL CO.					
** Ellisti A 2	H	21-21-37	5	* 9 420	1 884
Linem V 3	*	29-21-37	30	36 701	1 223
State 15 4	P	16-21-37	18	46 17?	2 565
THE TEXAS COMPANY					
** Blimebry 7	G	19-22-38	11	*31 650	2 877
15					

•\* Data obtained from month's production other then January 1957.

\* Estimated volumes.

GOVERNOR EDWIN L. MECHEM



## OIL CONSERVATION COMMISSION

New Mexico

MISSIONER MURRAY E. MORGAN



P. O. BOX 2045 HOBBS, NEW MEXICO February 26, 1957

Mr. A. L. Porter, Jr., Director Oil Conservation Commission Box 871 Santa Fe, New Mexico

Dear Mr. Porter:

The Tubb Gas Pool Committee had their second meeting a 1:00 P.M. the 25th. At this time the various sub-committees presented their work and discussion of the material took about two hours.

John Runyon made a structure map and four cross-sections, all on short notice. It required considerable night work to finish, however the work was well done.

Considerable discussion was on the definition of an oil well. The committee will probably recommend that an oil well be defined as a well with less than 45 degree gravity and a ratio less than 20,000 : 1 with the limiting ratio being 3,000 : 1. Ernest Fischer worked on this committee and furmished the enclosed test data.

The Commission staff was very active in the committee work, however no attempt was made to make any recommendations to the Committee other than when requested.

Mr. Chuck Bumpass did an excellent job as chairman, and I attribute the extra effort that was shown to his being chairman.

Yours very truly,

OIL CONSERVATION COMMISSION

11 lent genery

R. F. Montgomery Proration Manager

RFM/mc encl. STATE GEOLOGIST A.L. PORTER JR. SECRETARY DIRECTOR

cobruary al. 1957

MEMORANDU	1 - La - L	
TO:	nubb Gas Pool Operators	
	Request for Ferbinci an dete mit ins	

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You will recall Mr. Foreacts Lengtondus of Jensory 28, 1957 constraining the appointment of an Industry Coralities for a study and propercultations concorning rules for oil wolls recently completed in the Tuth Geo Fools. Mr. Performs memorandum is quoted as follows:

"Due to the recent coupletion of second of rether in the fact that within the horizontal limits of the Tubb Cas Veel, the Courtestan forth that consideration should be given to the matter of the receiver any have the restored in a restore of the respected of restored by the following the operation of such wells. To order that the formulation of such that for the following operators of wells in the Tubb Fool have been appointed to an Ereberty Countries with instructions to prepare and reterious constitutions to the formulation of a formulation of a hear is a hear . to be held on March Ma, 1957.

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GAS LIQUID RATIO TESTS IN THE TUBB GAS POOL-CCTOBER 1956 TESTS

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Lease Name Well No.	S-T-R	Date of Test	Condens <b>at</b> e Gravity- <sup>0</sup>	Gas Cond. Ratio
MERADA PET. CORP.				
Baker #3-I	10-22-37	11/24/56	65	51,675
Corrigan #4-A	4-22-37	11/24/56	62	35,546
Hare #7-M State D"A" #3-J	33-21-37 16-21-37	11/22/56 11/24/56	67 60	78,252 75,708
E. Wood #7-A	22-22-37	11/24/56	49	16,423
ITIES SERVICE OIL CO.				
Brunson "B" #3-M	3-22-37	11/15/56	(si-no pc)	9,070
Brunson "C" #6-I	3-22-37	11/15/56	62.7	86,000
Owen #3-J State S #2-F	35 <b>-21-37</b> 15 <b>-</b> 21-37	11/15/56 11/16/56	62.3 64.0	41,509 18,913
ONE, J. R. Anderson #1-1	21-21-37	1/26/57	71.5	167,040
	21-21-31	1/20/){	(±•)	107,040
ONTINENTAL OIL CO. Hawk B-3 #1-T	3-21 <b>-</b> 37	1/17/57	( 37	1.236(0il Wei
Hawk B-9 #3-C	9-21-37	1/12/57	53	63,727
Hawk B-9 #5-K	9-21-37	1/15/57		
Hawk B-9 #7-P	9-21-37	1/2/57	55	12,388
Lockhart A-27 #1-DT	27-21-37	1/11/57	63	66,388
Lockhart A-27 #1-G	27-21-37	1/12/57 1/13/57	63 56	102,285
Lockhart A-35 #3-C Lockhart B-35 #1-G	35-21-37 35-21-37	1/12/57	56	37,800 24,500
Nolan #2-N	11-21-37	1/9/57	(III)	26,200
State 10 #3-D	10-21-37	1/12/57	54	614,000
Wantz D-21 #3-J	21-21-37	1/21/57	54	61,000
Wantz D-21 #4-K	21-21-37	1/12/57	54	42,200
OSDEN PET. CORP.	10 00 20	12/4/56(csg.	tha 146 2	50 522
E. Butler #3-N	18-22-38	12/8/56	-66.3	59,523 62,791
REENBRIER OIL CO. Sarkeys #1-B	26-21-37	12/14/56	77.2	61,304
ULF OIL CORP.			<i>(</i> -	
Amanda #1-J	25-22-37	11/21/56	69	97,640
Andrews #2-G	32-22-38	11/22/56 11/26/56	71.8	<u>12,770</u>
Carson "C" #3-P Danglade #1-M	28-21-37 13-22-37	11/20/56	73.4 71.3	29 <b>,92</b> 9 44,952
Eaves #5-H	10-22-37	11/26/56	68.9	31,813
Eubank #1-B	22-21-37	11/22/56	67.6	49,307
Gutman #1-N	19-22-38	12/10/56	65.5	1.04,350
Gutman #2-C	19-22-38	11/20/56	68.1	29,336
Hugh #4-0	14-22-37	12/3/56	67.9	41,247
Hugh #7-C	14-22-37	11/26/56 No connectior	60.5	46,283
E. King #13-A E. King #22-C	28-21-37 28-21-37	11/23/56	70	44,283
Leonard "E" #4-A	16-21-37	11/22/56	66.8	62,068
Mark #5-A	3-22-37	11/26/56	72.8	19,091
M. Owen #5-A	34-21-37	11/26/56	68.4	40,024
McCormack #7-I	32-21-37	11/21/56	70.6	31,844
Paddock #3-P	1-22-37	12/4/56	52.6	21,412
Vivian #1-C Watkins #1-0	20-22-38 29 <b>-22-38</b>	11/20/56 11/20/56	61.9 61.9	41,896 52,617
MBLE OIL & REFINING CO				
Blinebry Tubb Gas Uni	t #1-0			
••• ••• ···	10-21-37	12/8/56	56.4	51,057
Hardison B #1-H	34-21-37	10/15/56	61.6	48,843
Hardison B #7-P	27-21-37	11/5/56 12/10/56	69.1 70	61,771
Penrose #2-H N. M. State S #12-A	13-22-37 2-22-37	12/10/56	70 45.2	46,483 45,601
N. M. State S #12-A N. M. State S #13-B	2-22-37	11/3/56	68.6	48,347
N. M. State S #20-E	2-22-37	12/8/56	66.5	63,869
N. M. State S #21-L	2-22-37	12/6/56	67.9	50,961
N. M. State S //23-P	2-22-37	11/8/56	68.5	37,019
N. M. State V #7-N	10-21-37	12/6/56	36.4	2,563 (0il)

Tubb	tests	October	1956
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				A GLAG K
OPPRATOR .				
lideau Hama Well No.	S-T-R	Date of Test	Condeus at o Graving-0	Gas Cond. Hatio
N. B. POW				
Weatherly E-1-G	212137	11/21/56	67	74,000
MONOLIA PET. CO.				· • • • • •
Bruncon Argo #6-E	10-22-37	1/14/57	40 <b>d</b>	
Carson #3-F	33-01-37	1/14/57	63.8	30,350
Carson #19-L	26-01-37	1/1//37	67.8 70.0	47,000
Commission #7 P	33-22. 37	1/ 1/ 87	64,0	57,200 125,500
Williamson #1-A	23-21-37	1/14/57	61	33,000
Long #8-J	11-22-37	1/14/57	66	
MARKHAM, CONE AND REDFI Eubanks #2-L	ERN 14-21-37	12/9/56	72	124,542
MORAN OIL PRODUCING & I				1~4,9 )42
Owen #1-E	14/21/37	an in i ler	-	
ست خدير	14 21/31	11/14/56 12/5/56	54.2	42,633
		12/0/00	59.8	42,633
CHIC OIL COMFANY				
Lynch #4-D Marchall #P# #0 N	1-22-37	11/29/56	66.4	39,664
Marshall "B" #2-M	27-21-37	12/6/56	70.5	84,579
J. L. Mancy #1-P M. Owen #3-N	24-22-37	11/29/56	66,8	83,978
L. G. Warlick "C" #1	35-21-37	11/25/56	70.8	51,379
Worthan #9-E	11-22-37	12/7/56 11/29/56	68.3	67,489
Worthan #11-F	11-22-37	12/7/56	68.1 72.4	34,366
, OLSEN			<i>{</i> ~ • 4	36,260
Sarkeys #1-E	26-21-37			<b>`</b>
čemp. 1/8/57	20-21-27	3/12/57	44.2	2 50 0(0il)
OLSEN OIL COMPANY				
Boyd #5-B	23-22-37	10/26/56	60.9	51,260 (?)
Cone #1-J	26-21-37	11/15/56	65	79,960
Owens #1-M	25-21-37	11/15/56	56	33,700
NROSE, NEVILLE G.				
Hinton #3T-N	12-22-37	12/19/56	67 0	
Hinton #5-P	12-22-37	12/5/56	67,8 67.1	58,490
Elliott Hinton #1-E	12-22-37	~~/ )/ )~	OI T	64,284
WAN OIL COMPANY				Nор <b>с</b>
Walden #3-T C	15-22-37	12/12/56		<b>-</b>
	-1	TK/ TK/ 00	tstm	150,000
MEDAN OIL CORP.	-			
Parks "A" #4-0 Parks #6-P	14-22-37	12/2/56	<u>58</u>	39,585
	14-2-37	12/2/56	56	40,745
ELL OIL COMPANY				
Argo #1-M	15-21-37	1/11/57	63.8	108,382
Argo A #1-D	22-21-37	1/5/57	69.6	315,393
Long #5-N Sarkeyb #1-M	11-24-37	1/15/57	60.4	61,709
State 15 #1-0	23-21-37	1/9/57	68,2	114,505
Turner #2-1	15-21-37 22-21-37	1/5/57	56.5	30,484
Turner #3-J	22-21-37	1/9/57 1/11/57	72 60 0	62,075
		¥/ ××/ >/	68.7	53,774
CLAIR OIL & GAS CO.				
Alexander Bogero /2-A	12-22-37	11/8/56	/ 43.9	1892(Cil Well)
State 367 #3-N Sarkeys #2-0	30 21-37	11/8/56	( 53.1	19,924
-ai acys 172-U	23-21 37	11/9/56	70	81,950
LLY OIL COMPANY				, -
Bakor B #15-J	10-22-37	12/12/56	72	<b>613</b>
		,, )0	$I \in$	71,489

•	Tabb tests (	October 1956	) .	Page 3
Constant Local Alona Moll No.	S-T-3	Date of Test	Gondensans Gravity	Gas Cond. Patio
STANOLIDE (PAN AMELICAN PE Couldiand Regalty "A" " #4-X State C" Tr. 12 #6-X-C State C Tr. 13 #8-D Eve Over "2" #2.L W. S. Theasy #3-P	#2-3 9-2137 4-21 <b>-</b> 37 016-21 <b>-</b> 37	9-2137 11/13/56 11/21/56 11/14/56 11/15/55 11/15/56 11/15/56 11/15/56	57 69 70 67 65 65	104,500 53,100 45,000 39,100 60,600 57,000
SUNPAY MID-CONTINENT OIL Elliott "A" #2-H Linam "V" #3-A W. Lynch #4-L State Land 15 #4-P	COMPANX 122-37 29-21-37 122-37 16-21-37	1/8/57 1/8/57 1/8/57 1/8/57	48 63 72 43	<b>33,4</b> 00 180,000 06,500 66,600
THE TEXAS COMPANY A H. Blinebry NCT-1# A. H. Blinebry NCT-1	1-0 19-22-38 #7-G19-22-38	11/15/56 11/19/56	57.8 57.9	22,000 76,000
TIDEWATER OIL COMPANY S. J. Sarkeys #4-F Williamson #2-E State "S" #2-C	26-21-37 23-21-37 15-21 <b>-</b> 37	12/10/56 12/6/56 12/6/56	68-2 63-5 53,8	74,198 79,143 23,838
WESTERN OLLFIELDS, INC. Drinkard #2-L Gulf State #1-A Drinkard #5-G	30-22-38 36-22-37 25-22-37	11/27/56 11/27/56 12/2/56		52,100 75,68 138,000

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SUBJECT: A meeting of the Portuette Courd time and Director of Directory and Conservation Commission at 9130 acres MSR. MSR. 1957; Nobbs Officers of Directory and Conservation This letter is to provide the subject modifier of the content the countries of the business to be periode which is provide. (1) Review the proposed changes in Order (reids on prevation by Hurble Of ) and Schultz the proposed changes in Order (reids on provided by Hurble Of ) nembers of the business to be conjusted, which is pareter (2) Selsables of an Industry Acabular Constitute for the surgess of pre-partos beological ribbles and presenting the the Counterion on the bearing of this canton, fore 1993. (3) Folling of the constitute contraction of contract the constitute of the or the trace NOLLINE IL UNE CURER FREU RELIGIU SEL BONGUERISE OF UNE LESS UN ENS 2380180 JUNE RECEVES CONSIMENCO IS POSTIAN UNCLUSE UN THE LESS Committee 2380180 JUNE RECEVES AU ENE CONTRACTO DE CONSE DU ENS CONTRACT COMMITTEE 2018 MIL DE LEVEN AU ENE CONTRACTO DE CONSE DU ENS CONTRACT COMMITTEE regular June Reacting Constitution of the Science Decision of the Real Committee that sill be irrelated in the resk to be core of the Geological Committee and review of the Constitution renewanderious by meansanch of the

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 Industry Committee Page 2 April 26, 1957

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Samedan Oil Corp. Attn: R. E. Layhe Box 2137 Hobbs, New Mexico

Gulf Oil Corporation Attn: M. I. Taylor Box 962 Roswell, New Mexico New Mexico Gil Conservation Commission Attn: A. L. Porter, Jr. Box 871 Santa Fe, New Mexico

Cil Conservation Commission Attn: F. J. Montgomery Box 2045 Hobbs, New Mexico

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1. There 7 will be added to Date 3 fight the second since data one gas well producing from the Tebb Das Poor block in the entry of the or the base and the fail better producing from the Tebb Das Poor block in the entry is a constant of these they a standard promation unit, the sum of the there affects affects the list the track the equivalent to that volume of gas allocated to a poercise work of the construct of the operator of each wells shall have the option to determine the properties of the construct of the entry block of the produced by each individual well, proveded the projection of the projection attempted to be predice by each individual well, proveded the of the trible of the probate (as ) constants. In the event that one of the gas rable on the provedence of the residual tention, the Commission will establish, a the measure and bracking the properties of the assigned allowable to be projuged from the continued tention.

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TO: TUBB GAS POOL OPERATORS

## March 5, 1957

SUBJECT: "INDUSTRY COMMITTEE - Supplement to Letter of February 28, 1957.

Subsequent to the letter of February 28; 1957, which was the Minutes of Industry Committee Meeting of February 25th<sup>44</sup>, one of the Committee members suggested that a Commission Attorney be invited to join the Committee in presenting the testimony in this matter to the Commission. A poll of a majority of the committee members revealed this action to be a favorable one.

An informal meeting was held at 10:30 A. M., March 4, 1957, at the Hobbs Office of the Commission for the purpose of acquainting and reviewing the Industry Committee's work with Mr. Jack Cooley, Attorney for the Commission. Those attending the meeting are listed and consisted, in addition to the Commission Staff Members, of Amerada, Shell & Gulf. An attempt to notify all members of the Committee was not made because of the nature of the meeting to acquaint the Attorney with the Committee's work.

Yeu will recall the set of rules attached to the February 28th letter, which was submitted for your consideration and for which it was stated that these rules "may be proposed at the March 14th Hearing." These rules were drafted to serve as a guide and to accomplish the end result of the objective, this is, the regulation of oil wells in the Tubb Gas Pool.

**Bollowing** the review of the "Special Rules and Regulations for the Tubb Gas Pool" at the March 4th meeting with Mr. Jack Cooley, it was the opinion that to make new rules to replace that portion of the Tubb Gas Pool Rules in the Commission Order R-586 was beyond the call of the hearing in Case 1221. That required of the Industry Committee was to make provisions in the existing Commission Rules for regulation of oil wells in the Tubb Gas Pool, and further to consider the deletion of that portion of Order R-586 relating to the Byers-Queen Gas Pool.

Therefore, as a result of the above meeting, submitted for your consideration are the suggested rules to be incorporated into Order R-586 for regulation of oil wells in the Tubb Gas Pool. (The Special Rules submitted February 28th may be discarded).

#### SPECIAL RULES AND REGULATIONS FOR OIL WELLS IN THE TUBB GAS FCCL

1. Acreage dedicated to a gas well in the Tubb Gas Pool shall not be simultaneously dedicated to an oil well in said Pool.

2. In the event an oil well is reclassified as a gas well in the Tubb Gas Pool, the operator of such well will be afforded the opportunity to form a nonstandard proration unit for the well.

3. In the event such reclassification should cause the occurrence of more than one gas well producing from the Tubb Gas Pool within a standard or less than a standard proration unit, the sum of the allowables allocated to the wells shall be equivalent to that volume of gas allocated to a promation unit of the same size. The operator of such wells shall have the option to determine the proportion of the assigned allowable to be produced by each individual well, provided all of said wells are orthodox gas locations. In the event that one or more of the gas wells on the proration unit is an unorthodox location, the Cormission shall establish, after notice and hearing, the proportion of the assigned allowable to be produced from each individual well.

### TUBB GAS POOL OPERATORS - CONT D.

4. A gas well in the Tubb Gas Pool shall mean a well producing from within the vertical and horizontal limits of the Tubb Gas Pool which:

- (a) Produces liquid hydrocarbons possessing a gravity greater than 45° API, or,
- (b) Froduces liquid hydrocarbons possessing a gravity of 45° API or less, but with a producing gas-liquid ratio in excess of 20,000 cubic feet of gas per barrel of liquid hydrocarbon.

5. A well producing from within the horizontal and vertical limits of the Tubb Gas Pool and not classified as a gas well as defined in rule 4, shall be classified as an oil well in the Tubb Gas Pool.

6. The Proration Manager may reclassify a well under rule No. 4 or 5, if production data, gas-oil ratio tests or other evidence reflects the need for such reclassification.

The Proration Manager will notify the operator of the reclassified well of such reclassification and the effective date thereof; provided, however, that operator may appeal such reclassification to the Secretary-Director of the Commission in writing.

7. Gas-liquid ratio tests and determinations of the gravity of that liquid hydrocarbon recovered from wells in the Tubb Gas Pool shall be conducted annually during the months of July and August on all wells located in and producing from the Tubb Gas Pool. Results of such tests will be reported to the Commission on Form C-116 on or before the 15th day of September of each calendar year, respectively.

8. The <u>limiting</u> gas-oil ratio for an <u>oil</u> well in the Tubb Gas Pool shall be 3,000 cubic feet of gas for each barrel of oil produced, and all oil proration units having a gas-oil ratio exceeding the limit of 3,000 cubic feet of gas per barrel of oil produced will be penalized in accordance with the customary formula designated by Commission Rule 506 (b).

Because of these special rules for oil wells in the Tubb Gas Pool, the following amendment to Rule 8 of Order R-586 pertaining to the Special Rules and Regulations for the Tubb Gas Pool is proposed:

Delete the last paragraph of Rule 8 and insert <u>If during a proration month</u> there is a change in acreage dedicated to a gas well the change of allowable allocated to the well shall be effective on the 1st day of the month following approval of such change by the Oil Conservation Commission.

For sake of review and for clarification, such being deemed advisable as a result of the March 4th meeting described above, and since the conclusions made by the Committee remain the same and are:

(1) Available information indicates an oil rim on the eastern flank of the Tubb Gas Pool.

(2) By majority vote of the committee members definition of a gas well and of an oil well in the Tubb Gas Pool was deemed necessary.

In view of the conclusions presented and to comply with the Commission's request of the Industry Committee, the following recommendations and these matters for consideration are presented:

#### TUBB GAS POOL OPERATORS - CONTID.

(a) The Special Rules and Regulations for oil wells in the Tubb Gas Pool as stated previously herein, rules 1 through 8.

(b) Delete last paragraph of Rule 8 of Order R-586 pertaining to the Tubb Gas Pool and adding, If during a proration month, etc., for consistency of Rule 8 because of these special rules for oil wells in the Tubb Gas Pool.

(c) Mr. A. L. Porter, Jr., also requested of the Industry Committee recommendations as to the need of continued proration of the Byers-Queen Gas Pool. This matter is presented for your consideration as a decision on the matter will be solicited at the meeting of the Industry Committee (all interested operators invited) to be held at the LaFonda Hotel, Santa Fe, New Mexico, March 13, 1957, at 3:00 P. M. NST.

The manner of presentation of the Committee's findings and recommendations to the Commission is as originally planned, that is a joint-rembers participation.

C. M. Bumpass - Chairman Industry Committee

cc: All Tubb Gas Pool Operators OCC - Hobbs, New Merico OCC - Santa Fe, New Merico

#### ATTENDANCE ROLL MARCH 4, 1957

CONTISSION STAFF MENBERS

R. F. Montgomery Jack Cooley J. W. Runyan E. J. Fischer

COMMITTEE MEMBERS

REPRESENTATIVE

Amerada Petroleun Corporati	on
Shell Oil Company	
Gulf Oil Corporation	

M. G. Abbott B. Nevill C. M. Dumpass GOVERNOR JOHN F. SIMMS CHAIRMAN

## New Mexico

### OIL CONSERVATION COMMISSION



P.O. Box 2045 Hobbs. New Mexico August 9, 1956 STATE GEOLOGIST A. L. PORTER, JR. SECRETARY-DIRECTOR

Mr. A. L. Porter, Jr., Director New Mexico Oil Conservation Commission P.O. Box 871 Santa Fe, New Mexico

Dear Pete,

LAND COMMINS DONER E. S. WALKER

MEMBER

Enclosed is an alphabetical list by pools and operators of Dual Completion Orders and R-Orders pertaining to dually completed wells. This listing will enable us to check for the filing of the Packer Leakage form which is to be filed on all dually completed wells during the Gas-Oil Ratio survey of the pool involved. We plan to identify the GOR cards with a code and when C-116's are filed a check can be made for Packer Leakage forms to see if filed.

It is my recommendation that a memorandum be issued before the first of September or October in order that the packer leakage survey can be made in conjunction with the ratio tests which commence at the first of the month.

Yours very truly,

R. Montgomery

R. F. Montgomery Proration Munager

RFM/mc encl. Lease Name

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DUAL COMPLETION LIST

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Lease Name	Well No.	Operator	S-T-R	D.C. No.
		Arrowhead Eumont Pool		· · · · · · · · · · · · · · · · · · ·
State P "An	#1	Amerada Petroleum Co.	18-22-37	265
		Drinkard Blinebry Pool		
Walden	#7			
E. Wood	# 10	Amerada Petroleum Co.	15-22-37	<b>E</b> (
Lee	# 1	N	22-22-37	56
Brunson C	# <b>7</b>	Anderson Prichard	23-00 00	58
Hawk B-3	# 3	Cities Service Oil 'o.	3-22-37	171
Hawk B-9	# 1	Continental Oil Co.	3-21-37	131
Hawk B-9	# 2	n	9-21-37	223
Hawk B-9	#6	n	9-21-37	224
State 10	#2	H	9-21-37	206
Lockhart B-35	# ~ # 2	11	10-21-37	201
Eubank		ti	35-21-37	215
J. M. Carson A	# 4	Gulf Oil Corporation	22-21-37	221
Eunice King	# 4		28-21-37	41
Eunice King	# 5	81	28-21-37	109
McCormack	69	n	28-21-37	255
Mark Owen	# 10	Ħ	22 22 20	70
Mark	#6	n	32-21-37	115
Eaves	# 7	tt.	34-21-37	89
Hugh	# 6	17	3-22-37	243
Ollie Boyd	#6	n	10-22-37	76
Vivian	# 3	50 14	14-22-37	254
Vivian /	# 4	11	23-22-37	179
Sarkeys F F V	# 1	Harper Oil C.	30-22-38	218
F. F. Hardison B		Humble Cil & Rfg. Co.	26-21-37	277
N. M. State "S"	# 14	n	27-21-37	91
Greenwood	# 1 <b>1</b>	Ħ	2-22-37	54
Marshall Unit	# 3	Magoolia Petroleum Co.	9-22-37	119
L. G. Warlick "C"	# 2	The Chio Cil Co.	34-21-37	22
W. S. Marshall	#4	n n	15-21-37	14
Mark Owen	# 2	11	27-21-37	13
Edith Butler "A"	#1	11	35-21-37	61
Elliott R-15	<b>#</b> 4	Rowan Cil <sup>U</sup> o.	18-22-38	146
J. O. Parks	# 2	Samedan Oil Co.	15-22-37	165
Parks	#5		14-22-37	6
Southland Royalty	BAn # 5	Stepoling of a se	14-22-37	5
Southland Royalty	"A" #6	Stanolind Oil & Cas Co.	4-21-37	105
State C Track 12	# 4	Ħ	9-21-37	37
Eva Owen B	# 4	1	16-21-37	97
State C Track 13	# 5	n	34-21-37	35
Eva Owen A	# 2	n	26-21-37	96
State Land 15	# 3		3-22-37	110
Elliott Federal A	# 2	Sunray Mid-Continent Oil	16-21-37	67
Drinkard	# 4		21-21-37	77
	22 - C <b>T</b>	Western Cilfields Inc.	25-22-37	64
				~ <b>4</b>

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Lease Name     Well No.     Operation       Drinkard Tubb Pool     Drinkard Tubb Pool       State D "A"     # 3     Amerada Petroleum Co.     16-21-37     25       Corrigan     # 4     N     4-22-37     46       Eugene Wood     # 7     Cities Service Oil Co.     35-21-37     23       Ouen     # 3     Cities Service Oil Co.     3-22-37     213	2 L 9 3 7
State D *A*   # 3   Amerada Petroleum Co.   16-21-37   25     State D *A*   # 3   4   4-22-37   46     Corrigan   # 4   #   22-22-37   44     Eugene Wood   # 7   6   35-21-37   23     # 3   Cities Service 0il Co.   3-22-37   213	2 L 9 3 7
Eugene Wood # 7 # 3 Cities Service 01. Co. 35-21-37 213	2 L 9 3 7
	2 L 9 3 <del>9</del>
<b>Owen</b> $\frac{\pi}{4}$ $\frac{5}{100}$ $\frac{5}{100}$ $\frac{5}{100}$ $\frac{5}{100}$ $\frac{5}{100}$ $\frac{1}{100}$	2 2 3 <del>3</del> <del>7</del>
Brunson C $\pi$ Continental Oil Co. $222$	L 9 3 <del>7</del>
Hawk B-9 $7/2$ w $7/2$ 74	9 3 <del>7</del>
Hawk B-9 $\frac{\pi}{2}$ $\frac{\pi}{2}$ $\frac{\pi}{2}$ $\frac{\pi}{2}$ $\frac{\pi}{2}$ $\frac{\pi}{2}$ $\frac{\pi}{2}$	9 3 <del>7</del>
	3 <del>7</del>
J. H. Nolan $\pi^{-1}$	7
Mary Wantz # 40 H Classic 220	
Lockhart A-2/ / 2 30	
	1
Lockharv 5 55 Ho Cosden Petroleum W	3
Greenbrier Ull VO.	
$\frac{1}{1}$ Gulf UIL $\frac{1}{20}$ $\frac{28-21-37}{28-21-37}$ 83	
$\frac{1}{28-21-37}$ 33	
$\frac{1}{22}$ $\frac{1}{22}$ $\frac{32-21-37}{12}$	
$\frac{1}{2}$	
#5 10-22-37 7	
#5 "1/-22-37 2	59
$\frac{1}{2}$ $\frac{1}{2}$	78
Ollie Boyd $\#^2$ = $29-22-38$	31
Watkins $\#1$ with 01 & Bfg. Co. $27-21-37$	
$\mathbf{F} = \mathbf{F} + \mathbf{Harchson} = \mathbf{D} + \mathbf{T} + \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = \mathbf{Harchson} = $	
<b>F. F.</b> Hardison B $\#1$ <b>n</b> $2-22-37$	3
N. M. State S $\# 13$ " $2-22-37$	0 19
N M. State S $\# 20$ N Oil Company 14-21-37	1
Owen $\#1$ The Opio Oil 0. $15-21-37$	2
L. G. Warlick $\pi$ i i $27-21-21$	52
M = Marshall # A = 35-21-37	124
Mark Oven #3 $24-22-37$	204
Muncy $\pi^{-1}$ Semedan Oil Co. $11-22-57$	141
Parks A " 4 Sinclair Oil & Cas Co. 2)-21-91	104
Sarkeys " $\frac{1}{2}$ ctouclind (i) & Gas $\mathcal{O}_{\bullet}$ $4^{-2}$	59
Southland Royalty A // 4	32
	36
	196
Eva choir B	68
Sunray Fid-contribution of an	66
State Land 17 " 7 Tidewater Oil Co.	65
Williamson # to Wortern Oil Fields Inc. 20-22-01	81
Amanda Simms, riter n zy-zz-yr	
Urinkard n 2	

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Lease Name	Well No.	Operator	S-T-R	D.C. N <u>o</u>
		Eumont Eumont Pool		
	# 8	Gulf 011 Co.	6-21-36	250
H. T. Orcutt C	# 3	N N	23-21-36	248
A. Ramsey D	# J # 4	Skelly Oil Co.	2-21-35	212
Mexico W. State 175	# 4 # 1 <b>-1</b> 75	Superior Oil Co.	11-21-35	230
		Eumont Jalmat Pool		
W. A. Ramsey D	#3	Gulf Cil Co.	34-21-36	300
•		Eunice Eumont Pool		
	# 1	Amerada Petroleum Co.	1-21-35	138
State W E "F"	# 1 # 2	11 N	12-21-35	78
State W E *A	#~ #1		13-21-35	116
State W E "E"	# 1 # 1	The Atlantic Rfg. Co.	5-21-36	31
State G	# 1 # 1	n	5-21-36	18
State H	# 1 # 1		17-21-36	1
0. L. Coleman	#1	Charm Oil Co.	1-21-35	164
Gulf State	#1 #1	tt	12-21-35	126
Superior State	# 1 # 3	Cities Service Oil Co.	16-21-36	120
State C	# 3	Drilling Expl. Co.	9-21-36	148
State F		N	12-21-35	122
State Endura	#4	Gulf Cil Corporation	25-20-36	169
L. W. White "A"	#2	n	36-20-36	92
R. R. Bell "F"	# 2	11	36-20-36	270
Orcutt "C"	# 5 # 2	n	6-21-35	94
Graham State "E"	# 2	**	15-21-36	200
R. R. Bell "C"	#4 #12	n	21-21-36	197
A. Ramsey "C"	# 13 "	Humble Oil & Hrg. Co.	10-21-36	112
J. D. Knox	#1	Stanolind Oil & Gas Co.	22-21-36	R-308
State I	# 2	Superior Cil Co.	12-21-35	142
State 12	# 1-3.2	Tidewater Oil Co.	8-21-36	196
State <b>A</b> State <b>A-</b> 20	#4 #1	Vem Oil Co.	20-20-37	157
		Eunice-Monument Eumont Po	ol	
State W E "B"	#3	Amerada Petroleum Co.	1-21-35	167
		Langlie-Mattix Jalco Pool		
			8-24-37	19

Lease Name	Well No.	Operator	S-T-R	D. C. N <u>o</u> .
		Langlie-Mattix Jalmat Pool		
0. M. Hedges	# 1	Amerada Pet. Co.	3-24-37	2
Falby	# 3	*	14-24-37	235
W. H. Henderson	#1		7-25-37	10
Manda C	#1	Gulf Oil Corporation	35-23-36	209
J. R. Holt "B"	# 2		36-23-36	253
Holt "A"	# 2		16-24-37	180
Arnott Ramsey "B"			32-25-37	236
Van Zandt	#1	R. Olsen Oil Co.	25-24-36	130
Meyer	# 2	**	5-24-37	155
Meyer Federal	# 1 // 1		6-24-37	139
Mosley	# 1 # 2	Sinclair Oil & Gas Co.	34-24-37	185
J. D. Young	# 3	The Texas Company	5-24-37	198
Steeler	# 2 # 1	Western Natural Gas Co.		133
Toby	#1	T.	12=24 <b>-</b> 36	262
		Langlie-Mattix Langmat Pool		
Fowler Hair	#1	John M. Kelly	8-24-37	20
E. L. Steeler	#7	Skelly Oil Co.	17-23-37	106
J. C. Johnson	# 4	11	20-23-37	125
Steeler	#1	Western Natural Gas Co.		101
Cooper	<i>#</i> 1	Ħ	12-24-36	100
		McCormask Tubb Pool		
W. H. Turner	#3	Stanolind Oil & Gas <sup>C</sup> o.	29-21-37	194
		Monument-Blinebry Eumont Po	ol	
Anderson	# 4	<b>A</b> mərada Pet. Co.	8-20-37	144
		Monument Eumont Pool		
Weir B	# l	Amerada Pet. Co.	26-19-36	27
M. E. Gaither	# 1	N N	34-19-36	103
State F	# 1	13	36-19-36	191
State G	# 1	31	18-19-37	29
State T	# 5	н	20-19-37	192
Phillips	# 2	n	33-19-37	263
State D	# 3	n	1-20-36	30
State J	# 3	n	2-20-36	294
Federal D	# 5	33	26-20-36	187
L. W. White	# 1	n	34-20-36	145
State G	#1	General Crude Oil Co.	16-20-37	211
State C	# 1	Gulf Oil Corporation	24-19-36	227
Graham State F	# 4	11	36-19-36	135

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Lease Name	Well No.	Cperator	<b>S-T-</b> R	D.C. N <u>Q</u> .
		Monument Eumont Pool (conti	inued)	
Graham State F C. H. Kyte Elbert Shipp B Graham State G B. V. Culp A Fred Luthy	# 8 # 1 # 3 # 1 # 3 # 2 # 1	Gulf Oil Corporation N N N N N N	25-19-36 7-19-37 7-19-37 17-19-37 19-19-37 29-19-37 13-20-36	234 181 266 87 267 274 281
R. R. Bell Theo Anderson B. Whitmire Theo Anderson Laughlin Hobbs Mixico	# 1 # 2 # 4 # 3 # 4 # 3 # 1	n n The Ohio Oil <sup>C</sup> o. Phillips Petroleum Co. n Sinclair Oil & Gas <sup>C</sup> o.	8-20-37 8-20-37 17-20-37 9-20-37 18-20-37 18-20-37 21-20-37	149 251 136 143 161 152 127
W. C. Roach Christmas Gilluly B Gilluly B Wm. Weir State of N. M. State J	# 1 # 6-X # 4 # 1	Stanolind Oil & Cas Co. Stanolind Oil & Cas Co. The Texas Company " Tidewater Oil Co.	25-19-36 21-20-37 22-20-37 25-19-36 19-19-37 17-19-37	63 85 80 163 176 3
		TubbBlinebry Pool (Gas-	-Gas) Duals	
Carson Long Brunson Argo Williamson Hugh Amanda Baker Lou Worthan Lynch H. Leonard E.	# 8 # 8 # 6 # 1 # 7-T # 1 # 3 #9 4 #9 4 # 4 # 2	Magnolia Pet. Co. M Gulf Oil Corporation n Amerada Petroleum Co. Ohio Oil Co. Gulf Oil Corporation Rowan Oil Co.	$\begin{array}{c} 33-21-37\\ 11-22-37\\ 10-22-37\\ 23-21-37\\ 14-22-37\\ 25-22-37\\ 10-22-37\\ 11-22-37\\ 1-22-37\\ 1-22-37\\ 16-21-37\\ 15-22-37\end{array}$	8 9 16 16-A 42 49 57 60 69 72 107
Walden W. Lynch Long Gutman Eva Owen S. E. Cone Hilton Andrews State S State S State 367 Parks N. M. State S Carson	#3 #45 #12 #132 #23 #423 #421 #19	Mid Continent Petroleum Shell Oil Co. Gulf Oil Corporation R. Olsen Oil Co. " N. G. Penrose Gulf Oil Corporation Humble Oil & Rfg. Co. Sinclair Oil & Cas Co. Samedan Oil Co. Humble Oil & Hfg. Co. Magnolia Petroleum Co.		123 140 153 154-A 156 170 175 190 195 214 228 252

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	•	DUAL COMPLETICN R* ORDER	25	
Lease Name	Well No.	Operator	R-Order No.	S-T-R
		Cooper-Jal Jalco Pool	L	
E. J. Wells	# 1	Continental Cil Co.	<b>R-28</b>	1-25-37
		Cooper-Jal Jalmat Poo		
Lynn A	# 5	Continental Cil <sup>C</sup> o.	<b>R-24</b> 2	28-23-36
		Cooper-Jal Langmat Po	pol	
Shell State G	# 2	Continental Oil Co.	R-21	21-21-37
	•	Drinkard Blinebry Poo	<b>)</b> 1	
Shell Turner	#5	Shell Oil Co.	R-131	22-21-37
Eubnak	# 1	Marcham, Cone, & Redfe	ern	
			<b>R-13</b> 7	14-21-37
Lou Worthan	# 12-	Ohio Oil <sup>C</sup> o.	R-139	11-22-37
Turner	# 13	Shell Oil Co.	R <b>-18</b> 8	22-21-37
State	# 1	1	R-189	15-21-37
Argo	#3	*	<b>R-19</b> 3	15-21-37
Argo	#5	ti	R <b>-19</b> 4	22-21-37
Dauron	# 2	Aztec Oil & Gas Co.	R-209	10-21-37
Livingston	#8	Shell Oil Co.	R-225	3-21-37
Livingston	#9	St.	R-226	3-21-37
Owen	# 2	E. F. Moran	R-228	14-21-37
Hardison B	#4	Humble Oil & Rfg. Co.	R-244	34 <b>-</b> 21-37
State S	# 12	*	R-250	2-22-37
State S	# 1	Cities Service Oil Co.	R-253	15-21-37
Sims	#4	Phillips Pet. Co.	h-255	24-22-37
Sarkeys	#3	Tidewater Oil Co.	R <b>-266</b>	2 <b>6-21-</b> 37
State DA	#4	Western Natural Gas.	R-304	16-21-37
Boyd	#4	Sinclair	<b>R-30</b> 8	23-22-37
Lockhart A-27	<i>ŧ</i> 5	Continental Oil Co.	R-319	27-21-37
Lockhart A-27	#7	11	R-320	27-21-37
Sarkeys	# 2	Shell Cil Co.	R-131	23-21-37
		Drinkard Tubb Pool		
Anderson	# 1	S. E. Cone	R-83	21-21-37
Turner	# 2	Shell Oil Co.	R-134	22-21-37
Eubank	# 2	Marcham, Cone & Hedfer	m	
Turner	# a		R-138	14-21-37
State	# 3 # 1	Shell Cil Co.	R-187	22-21-37
	# 1 # 1	**	R-190	15-21-37
Argo A	π 1		R <b>-1</b> 91	22-21-37

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Lease Name	Well No.	Operator	R-Order No.	S-T-R
		Drinkard Tubb Pool ((	Continued)	
Argo	#1	Shell 011 Co.	R-192	15-21-37
State S	#2	Cities Service Oil Co.	R-254	15-21-37
Sarkeys	#4	Tidewater Oil Co.	R-267	26-21-37
Sarkeys	# 1		R-277	23-21-37
Mary Wantz	# 3-D	Continental Oil o.	R-21	21-21-37
		Eumont Eumont Pool		
State B	#1	Humble Oil & Rfg. Co.	R-227	29-21-3 <b>6</b>
		Eunice Eumont Pool		
Coleman	# 3	Tidewater Oil Co.	R-173	17-21-36
State	# 2 <b>-</b> E	ti .	R-180	16-21-36
State A	# 2	Aztec Oil Čo.	R <b>-196</b>	8-21-36
State L	# 2	Shell Oil Co.	R-217	12-21-35
State H	#2		R-222	13-21-35
Fopeano Fed.	#1	Humble Oil & Rfg. Co.	R-229	25-20-36
Devonian State	#1	Tidewater Oil Co.	R <b>-27</b> 0	20-21-36
State H	# 4	N (1)	R-271	13-21-35
Meyer B-4	#7	Continental	R-290	4-21-36
Meyer B-8	#.3	×	R-291	8-21-36
Meyer A-17	# 4	n	R-293	17-21-36
Meyer B-8	#4	n	R-294	8-21-36
		Eunice Jalco Pool		
State A	# 2	Shell Oil "o.	R-218	12-21-35
		Langlie-Mattix Jalmat	Pool	
State LMT	# 2	Amerada Pet. Co.	R-33	36-23-36
Vosburg	# 1	Culberson & Irwin	R-213	18-25-37
State LMT	# 5	Amerada Pet. Co.	R-295	36-23-36
Langford	#1	Western Natural Cas	R-306	25-23-36
Combest	# <b>1−</b> X	n	R-318	35-23-36
Winters C	# 1	Dalport Oil vo.	R-332	7-25-37
Meyer B	# 11	Stanolind Cil & Gas	R-130	6-24-37
		Langlie Mattix Langmat	Pool	
State M	# 3	Skelly Gil Co.	R-85	32-24-37
Mixico D	#1	ท้	R-801	36-23-36
Jack	.∦ 1	Howard Hogan	R-121	8-24-37

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Lease Name	Well No.	Operator	R-Order No.	S-T-R
		Monument Eumont Pool		
Britt B-10 State A Shell St. F. State B Weir	# 1 # 1 # 1 # 1 # 4 # 1	Continental Oil <sup>C</sup> o. Shell Oil <sup>C</sup> o. W Tidewater Amerada Pet. Co.	R-140 R-215 R-224 R-272 R-297 R-298	10-20-37 35-19-36 29-19-37 36-19-36 35-19-36 9-20-37
Laughlin State V State U State P State O	# 1 # 3 # 1 # 2 # 1	94 94 98 98	R-300 R-301 R-302 R-303	9-20-37 36-19-36 32-19-37 29-19-37 30-19-37
		Monument-Paddock Eumont	Pool	
Britt A-6	#4	Continental Oil Co.	R-82	6-20-37
		North Eunice Eumont Po	ol	
State G	# 1	Skelly Oil Co.	R86	30-20-37
		GAS GAS DUALS		
		Blinebry Tubb Pool		
State S Baker B	# 2 # 15	Tidewater Oil Co. Skelly Oil <sup>C</sup> o.	R-307 R-590	15-21-37 10-22-37
		Eumont Eumont Pool		
State B	#7	Humble Oil & Rfg. Co.	R <b>-</b> 239	29-21-36
		Justis Langlie-Mattix P	001	
Coats C	# 1	Tidewater Cil <sup>C</sup> o.	R-378	24-25-37

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A2 NWA@1 Memo			Aug. Lister O. F. G. M.		
Jo 1316 (31000 GOR 11 11 2000 11 11 11 11 11 11 11 11 11 11 11 11 11 11	YEAR 196,072 93,036 62,024 93,037 5,024 37,214 37,214 31,012 26,571	DAY 209.7 259.7 161.9 187.7 101.9 84.9 71.8		1 < 6,072.	
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#### FOLLOWING WILL BE THE RECOMMENDATIONS OF THE INDUSTRY COMMITTEE FOR THE TUBB GAS POOL:

SPECIAL RULES & REGUL 'TIONS FOR OIL TELLS IN THE TUBB GAS POOL

RULE 1. Acreage dedicated to a gas well in the Tubb Gas Pool shall not be simultaneously dedicated to an oil well in said Pool.

RULE 2. In the event an oil well is reclassified as a gas well in the Tubb Gas Pool, the operator of such well will be afforded the opportunity to form a non-standard promation unit for the well.

<u>RULE 3.</u> In the event such reclassification should cause the occurrence of more than one gas well producing from the Tubb Gas Pool within a single standard or less than standard promation unit, the sum of the allowables allocated to the wells shall be equivalent to that volume of gas allocated to a promation unit of the same size. The operator of such wells shall have the option to determine the proportion of the assigned allowable to be produced by each individual well, provided all of said wells are orthodox gas locations.

RULE 4. A gas well in the Tubb Gas Pool shall mean a well producing from within the vertical and horizontal limits of the Tubb Gas Fool which:

(a) Produces liquid hydrocarbons possessing a gravity greater than 45<sup>0</sup> AP1, or,

(b) Produces liquid hydrocarbons possessing a gravity of 45° APT or less, but with a producing gas-liquid ratio in excess of 20,000 cubic fact of gas per barred of Liquid hydrocarbon. RULE 5. A well producing from within the horizontal and vertical limits of the Tubb Gas Pool and not classified as a gas well as defined in Rule 17, shall be classified as an oil well in the Tubb Gas Pool.

RULE 6. The Proration Manager may reclassify a well under A well under Rules 17 or 18 if production data, gas-off ratio tests or other evidence reflects the need for such reclassification.

The Proration Manager will notify the operator of the reclassified well of such reclassification and the effective date thereof; provided, however, that operator may appeal such reclassification to the Secretary-Director of the Commission in writing.

RULE 7. Gas-liquid ratio tests and determinations of the gravity of that liquid hydrocarbon recovered from wells in the Tubb Gas Pool shall be connected annually during the months of July and August on all wells located in and producing from the Tubb Gas Pool. Regults of such tests will be reported to the Commission on Form C-116 on or before the 15th day of September of each calendar year.

RULE 8. The limiting gas-oil ratio for an oil woll in the Tubb Fool shall be 3,000 cubic feet of gas for each barrel of oil produced, and all oil protation units having a gas-oil ratio exceeding the limit of 3,000 cubic foot of gas per barrel of oil produced will be penalized in accordance with the customary formula designated by Cormission Bule 506 (b).

It is further recommended that the last paragraph of Hule 8 of the Special Rules and Regulations for the Tubb Cas Sool as set forth in Order R-586 be amended as follows:

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"If during a provation month there is a change in the acreage dedicated to a gas well, the change of allowable allocated to the well shall be effective on the first day of the month following approval of such change by the Commission.

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