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CON,	NEW MEXICO OIL CONSERVATION COMMISSION
DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS • O. BOX 1072 • PHONE 243-4491 • ALBUQUERDUE, NEW MEXICO	Santa Fe, New Mexico
SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATE MENTS, EXPERT TESTIMONY, I 1120 SIMMS BLDG + P. O. BOX 1072 + PHONE 243-4491 + ALBUQUERQUE, NEW MEXICO	May 21, 1969
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6 00X) Application of Gulf Oil) Case 4131
0 L • Ž 0	Corporation for downhole)
SPECIALIZING IN: 1120 SIAMS BLDG •	commingling, Lea County,) New Mexico.)
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	BEFORE: ELVIS A. UTZ, Examiner

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TRANSCRIPT OF HEARING

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MR. UPZ; Case 4131.

MR. HATCH: Application of Gulf Oil Corporation for downhole commingling, Lea County, New Mexico.

MR. KASTLER: If the Examiner please, I am Bill Rastler from Roswell, New Mexico, appearing on behalf of Gulf Oil Corporation. Our witness this morning is Mr. John Hoover.

JOHN HOOVER

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

DIRECT EXAMINATION

BY MR. KASTLER:

MR. UTZ: Any other appearances? You may proceed.

MR. **KASTLER:** Will you state your name, by whom you are employed and what capacity?

THE WITNESS: John H. Hoover, employed by Gulf Oil Corporation as District Production Engineer, Roswell, New Mexico.

Q Are you familiar with the downhole commingling application of Culf in this case?

A Yes, sir.

9 Have you previously testified before the Oil Conservation Commission hearings and Examiner hearings?

A Yes, sir.

MR. **KASTLER:** Are the witness's qualifications acceptable?

MR. UTZ: Yes, they are.

MR. **KASTLER**: Please state, briefly, what Gulf is seeking in this application?

A We are asking approval of downhole commingling in the wellbores of oil and gas production in the Jalmat and South Eunice oil pools in Lea County, New Mexico, and six wells. These wells are Arnott Ramsay, (NCT-D) Well No. 6, in Unit K: Arnott Eamsay (NCT-D) Well No. 7, in Unit M; Arnott Ramsay (NCT-D) Well No. 9 in Unit N; Arnott Ramsay (NCT-D) Well No. 9 in Unit L. All of these in Section 33, Township 21 South, Range 36 East. The J. F. Janda (NCT-D) Well No. 4 in Unit 0 in Section 32, Township 21 South, Range 36 East; and the J. F. Janda, (NCT-F), Well No. 8 in Unit C in Section 4, Township 22 South, Range 36 East.

0 Have you prepared a plat, showing the location of these wells? A Yes. It is marked by Exhibit I. and the Arnott Ramsay NCT-E lease is outlined in red in this plat, and is described as all of Section 33, Township 21 South, Range 36 East. The J. F. Janda B lease is outlined in green, and is described as the Southeast quarter of Section 32. The Janda B, Well No. 4, is circled and colored in green; the Arnott Ramsay D --Wells No. 6, 7, 8, and 9, are circled and colored in red. The J. F. Janda (NCT-F) lease is outlined in orange, and is described as all of Section 4, Township 22 South, Range 36 East, and Well No. 8 is circled and colored in orange.

Q Mr. Hoover, are the reasons for Gulf's request for downhole commingling, in each of these wells, the same for all of them?

A Yes, they are. These wells are all in the same pools; they are close together, and indicated on plat No. 1. They are also duly completed in the same manner -- they are all marginal, with the same operating problems mainly, pumping through hollow rods, from below a packer, and four of the wells are already shut in in the South unit oil pool, because they are

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not economical to restore to production. The four wells shut-in in the South Eunice pool, are the Janda B, No. 4, Janda F, No. 8; the Arnott Ramsay D, Wells No. 7 and 8. As far as the two producing wells, now, the Arnott Ramsay D No. 6, and the No. 9; they will probably be shut-in when mechanical problems dictate such action on those.

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Q Are there other Jalmat oil wells near the pertinent wells in this case?

A The only Jalmat oil wells directly offsetting us is the C. E. Long Shell State No. 1, in Unit N of Section 32. Mr. Long, also, has a Jalmat oil well two locations away, being the Petch State No. 1 in Unit L; also, Section 32. There are four wells in the west half of Section 31, Township 21 South, Range 36 East, which are over a mile away; and five wells in Section 6, Township 22 South, Range 36 East, which are, also, over a mile away. There are very few Jalmat oil wells close in this area. In fact, this is an isolated area --

Q As far as the Jalmat is concerned?

A Yes.

Q What is shown on your Exhibit No. 2a, 2b,

2c, 2e, and 2f?

A These are logs of the six wells in question. Exhibit No. 2a is the Arnott Ramsay No. D, No. 6; 2b is for the Arnott Ramsay D No. 7; 2c is for the Arnott Ramsay No. 8; 2d is for the Arnott Ramsay D No. 9; 2e is the Janda B No. 4; and 2f is for the Janda F No. 8. What we have shown on these logs for each well, are the tops and bottoms of the Yates, Seven Rivers, and the Queen formations. The Yates and Seven Rivers, except for the lower 100 feet for the Seven Rivers, makes up the Jalmat pool, and the lower 100 feet of the Seven Rivers and the Queen in this area, is the South Eunice oil pools. I will not go further into each individual log, because the formation tops and perforations are explanatory.

Q Mr. Hoover, will you please identify Exhibit No. 3a, 3b, 3c, 3d, 3e, and 3f?

A Yes. These are schematic diagrams, showing the casing tubing and downhole producing equipment for each well. Each well is identically completed in the same manner. Exhibit 3a is for the Arnott Ramsay D Well No. 6. We have 3 5/8 inch OD casing; set at 276

feet. The cement was circulated. We have 5 1/2 inch OD casing, set at 3,880 feet, and the tops of the cement, by a temperature survey is at 625 feet. We have a string of 2 1/16 inch OD tubing, set at 3,379 feet, in a Baker Parallel Anchor, set at 3,379. We have a Baker Model C Packer, set at 3,442 feet. The total depth was 3,908 feet; the plug back depth is 3,871 feet. The South Eunice perforations from 3,778 feet to 38,58 feet. The Jalmat perforations are at 3,377 feet, and 3,393 feet. We have 2 3/8 inch tubing below the Baker Model C Packer and 2 1/16 inch OD tubing above the packer. And the rod string is 3/4 inch hollow rod. So, we are pumping the South Eunice production through the pump, up the hollow rod. And we have a perforation nipple set in the 2 3/8 inch tubing, below the packer, which acts as a gas vent for the South Eunice gas pool, below the packer. Exhibit No. 3b is for the Arnott Ramsay D Well No. 7 --

MR. KASTLER: Mr. Examiner, do you wish to have Mr. Noover to go through each one of these, and reiterate data that is shown on the exhibit itself?

"R. UTZ: I don't think so: it looks like they are all completed practically the same, except

for the depths.

MR. KASTLER: Yes, sir. They are, identically. MR. UTZ: Well, I think, the Exhibits speak for themselves.

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THE WITNESS: I will just state that the Exhibit No. 3b is the Arnott Ramsay No. 7, which is completed identically with the D No. 6. Exhibit No. 3c is for the Arnott Ramsay No. 8; Exhibit No. 3d is for the Arnott Ramsay D No. 9: and the 3e is for the Janda B Well No. 4; and 3f is for the Janda F No. 8.

MR. **KASTLER:** If the downhole commingling were allowed; how would Gulf complete it -- these wells, then?

A Well, if we would be allowed to downhole commingle, we would take all of the producing equipment out; we would remove the two strings of two and sixteenth inch OD tubing, Baker Parallel Anchor, the Baker Model C Packer -- and we would then have one string of tubing which would be set near the South Eunice perforations -near the bottom. We would, in all probability, utilize the hollow rod string as strictly as a conventional rod string since we would already have them on hand as a matter of economics --- they work all right for a rod string, but the production would not go up the hollow rod, but would go up the rod tubing annulus.

Q Furthermore, would Culf keep the production pump down in the wellbore?

A Yes, sir. Yes, we would.

Q If downhole commingling were allowed, would there be any migration between the existing reservoirs, in your opinion?

A No; in my opinion, there would not be migration, based on the completed state of these reservoirs. We took a bottom hole pressure in our Janda B Well No. 4, which is one of the six wells considered here today, and the results are as follows: for the Jalmat pool, the date of the survey was March 21, 1969; the time shut-in, 193 1/3 hours -- the bottom depth; 3,326 feet, and the datum depth, 3,326 feet. The datum sub-sea depth, plus the 300 feet and the bottom hole pressure at datum, 284 pounds per square inch gauge. In the South Eunice pool -- in the same well. The date of the survey was January 31, 1969, the time shut-in, 192 1/2 hours. The bottom depths, 3,915 feet: and the

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datum depth, 3,876 feet. The datum sub-sea depth, minus 250 feet, and the bottom hole pressure at the datum, 246 pounds per square inch gauge. If the Jalmat pressure is corrected to the minus 250 feet datum, based on the pressure gradiant, obtained in the bottom hole pressure survey, to the pressure at this point, would be 290 pounds per square inch gauge, or 44 pounds per square inch gauge difference than the South Eunice bottom hole pressure. This small differential pressure, in my opinion, would not cause significant migration, and also we would keep the production pumped down in the wellbore. Another thing, it takes approximately 9 days to reach this differential pressure.

MR. DTZ: What was the Jalmat pressure --THE WITNESS: The datum or the corrected depth?

MR. UT2: I didn't get the ---

THE WITNESS: The bottom hole pressure at the datum was 284 psig. And I corrected that pressure to a datum of minus 250 feet, which came out to 290 pounds por square inch gauge.

MR. KAS^mLER: Would there be any lesser value for the oil if it should be commingled?

THE WITNESS. No, it would not. The production has been commingled on the surface for several years. The Commission permits the commingling on the surface in this area for the production from the Jalmat, the South Eunice, and the Eumont oil pools. And, also, the price that we receive for the Jalmat oil and the South Eunice is the same.

Q You stated previously that these six wells are marginal. Now, do you have any production curve, showing this fact?

A Yes. They are marked in Exhibits 4a, b, c, d, e, and f. 4a is the production curve for the Arnott Ramsay D Well No. 6. The legend on the exhibits show the Jalmat oil production -- not the oil production -the solid line. The South Eunice oil production by the dotted line. The average production for the Jalmat from January, 1968, through February, 1969, it has been 4 1/2 barrels per day. The average daily production in the South Eunice has averaged 5 1/2 barrels per day -although, these are **plotted** on a monthly oil production in barrels, T have given these figures as the daily -caily figure.

Do they have curves for each well, Mr. Hoover?A Yes, they do.

Q And the exhibits are associated in a uniform manner, as they are in Exhibit 2, 3 and 4; is that correct?

Yes, except I would like to give a different Α production for each. Exhibit 4b is for the Arnott Ramsay No.7. This well was shut-in in May, 1967, and, at the time, for the period January, 1967 through May, 1967, it averaged 4 1/2 barrels per day in the South Eunice. The Jalmat is now producing, and from January, 1968 through February, 1969, it's averaged 5 1/2 barrels per day. 4c is for the Arnott Ramsay D No. 8. It was shut-in in September of '67, in the South Eunice. The average production for January '67 through September '67, was 6.8 barrels of oil per day. The Jalmat is still producing; it has averaged since January '68 through February '69, 9 1/2 barrels of oil per day. Exhibit 4d is the Arnott Ramsay D No. 9. Both zones are still producing in this well. The South Runice, for January '68 through February '69 is averaging about 5.6 barrels of oil per day, and the Jalmat 4 1/2 barrels

of oil per day. Exhibit 4e is for the Janda B, Well No. 4. It is currently shut-in the South Eunice. It was shut-in in July of '67 and the average production for January '67 through July '67, was about 7.1 barrels of oil per day. The Jalmat is still currently producing and its average production -- in January '68 through February '69, has been 2.6 barrels of oil per day. And the last Exhibit, 4f, is for the Janda NCT-F Well No. 8.

It's also shut-in, in the South Eunice. being shut-in in April, 1968. The average production from January, 1967 through April of'68, has been 5.2 barrels of oil per day in the South Eunice. The Jalmat is still producing, and its average production, January '68 through February '69, has been about 1 barrel of oil per day.

Q Will you please give the dates of the original completions and the pool in which each of these wells were originally completed?

A Yes, sir. The Arnott Ramsay NCT-D Well No. 6, was originally completed August 15, 1956, in the Eumont Oil Pool. It was dualled in the Jalmat oil in June of 1962, and was reclassified from Eumont

oil to South Eunice oil on July 1, 1962. The Arnott Ramsay D Well No. 7 was originally completed February 13, 1957 in the Eumont Oil pool. It was dualled in the Janda oil pool in June of 1962, and reclassified from Eumont oil to South Eunice oil in July 1, 1962. The Arnott Ramsay D No. 8, was originally completed October 31, 1957, in the Eumont oil Pool. It was dualled with Jalmat oil in June of 1962, reclassified from Eumont oil to South Eunice oil on July 1, 1962. The Arnott Ramsay NCT-D No. 9 was originally completed November 14, 1957, in the Eumont oil pool. It was reclassified from Eumont oil to South Eunice oil on July 1, 1962, and it was dualled with Jalmat oil on August 1, 1962. The J. F. Janda NCT-B, Well No. 4, was originally completed on October 5, 1957, in the Eumont Oil pool, and was dualled with the Jalmat oil in June of 1962, reclassified from Eumont oil to South Eunice oil on July 1, 1962. The J.F. Janda NCT-F, Well No. 8, was originally completed October 2, 1956, in the South Eunice pool. It was dualled with Jalmat oil in June of 1962.

Q You stated that there were four of the wells in the South Eunice oil pool that were shut-in. What

is the reason for this?

The South Eunice is pumped from below a packer. А The production is pumped up through hollow pump rods, and paraffin and scale cause expensive repair. Now, the production has now declined to the point that when mechanical trouble is experienced, the wells are shut-in, because they are not economical to repair and return to production. And when trouble is experienced with the two remaining wells which are still currently producing, in the South Eunice, they will also be shut-in. For example, as to economics, the Arnott Ramsay D No. 7, was shut-in in June 1, 1967. The reason for the shut-in was that the rods were sticking, which was caused by paraffin. This trouble occurred approximately every three days; and in order to remove the paraffin, the well has to be hot-oiled. And the cost of each of these hot-oiling jobs, which was required every three days, was \$31.00. The well was only producing approximately 3 barrels of oil per day at the time, and it was not economical to continue production, based on this high operating cost. Now, the same trouble occurred on this Arnott Ramsay D No. 3, which was shut-in in September 10, 1967. The rods were blugged with paraffin, and, also

the pump was sanded-up, and this would require a \$400.00 pump-pulling job in addition. The well was producing only 8 barrels of oil per day at the time, and it, too. was not considered to be economical in view of the pump job also required. Plus, we have the hollow-rod plugging problem, which was occurring frequently. The Janda B No. 4, was shut-in on July 27, 1967, after pulling the hollow-rods and the pump. Prior to this shut-in --

MR. UTZ: Which one is this?

THE WITNESS: This is the Janda B No. 4. MR. UTZ: All right.

THE WITNESS: Prior to shutting it in, the pump and rod had scaled-up, and they were pulled. They were re-run again, and the wells started pumping. After 4 hours, the pump stuck again. And we pulled in, and found the same thing -- that the pump was stuck with scale. It was shut-in at the time -- we were only producing 4 barrels of oil per day. So, therefore, we considered it not economical. The J. F. Janda NCT-F. Well No. 8, was shut-in on April 27, 1968. The rods had parted, or the pump had stuck -- it has ceased to produce, anyway. And the paraffin in the hollow rod had to be removed once each week. Due to the high operating cost that we have been experiencing, we just shut the well in, but at the time, the well was only producing one barrel of oil per day.

MR. KASTLER: How much oil production is now shut-in in these four wells?

THE WITNESS: We estimate approximately 25 barrels of oil per day -- the South Eunice is not being produced.

Q In other words, that's what you may be able to realize if this application is granted?

A Yes. That would be from the four total wells; each well.

Q Do you have any recent production tests from these six wells?

A We have cut test productions on the producing wells, but on the wells which are shut-in -- the four wells shut-in -- those are anywhere from one to two years old. In the Jalmat pool, the Arnott Ramsay D No. 6, which was tested March 12, 1969 -- had 4 barrels of oil per day; no water. The Arnott Ramsay D No. 7, tested March 9, 1969 -- 8 barrels a day; no water. The Arnott Ramsay D No. 8, tested March 11, 1969, 12 barrels

a day; no water.

Q In the Jalmat?

A This is all Jalmat. The Arnott Ramsay D No. 9, March 20, 1969, 4 barrels a day; no water. The Janda B No. 4, April 2, 1969, 3 barrels a day; no water. The Janda F, Well No. 8, March 26, 1969, 1 barrel per day; no water. In the South Eunice, Arnott Ramsay D, No. 6, On March 5, 1969, 7 barrels a day; no water. The Ramsay D, No. 7, on April 9, 1967, produced 7 barrels a day: no water. The Arnott Ramsay D No. 9, on September 16, 1967, 8 barrels a day; no water. The Arnott Ramsay D No. 9, on March 4, 1969, produced 7 barrels; no water. The Janda B No. 4, which the last test was September 1, 1966, produced 9 barrels; no water. And the Janda F Well No. 8, produced 1 barrel of oil; no water.

Q Do you anticipate any objections from the royalty **owners** under these three leases?

A No, sir. These three leases are State lands, and we furnish the State Land Commissioner a copy of our application for this hearing. We didn't ask for his approval, but he sent us a letter, and a copy was sent to the Oil Conservation Commission, dated May 1,

1969, where he approved our proposed downhole commingling, subject to the Oil Conservation Commission's approval. I believe, the Commission has a copy of that letter. I do have some reproduced copies --

MR. UT2: Undoubtedly, we didn't get it -they are not here.

> THE WITNESS: Would you like me to give you a copy? MR. UTZ: Yes, please.

MR. KASTLER: Mr. Hoover, what are Gulf's plans if downhole commingling is not allowed, as a result of this hearing?

THE WITNESS: With the four wells that are now shut-in -- that will remain shut-in -- and when mechanical trouble is encountered with the two remaining wells, they will probably be shut-in, also.

Q To your knowledge, has an application for commingling of these zones, in the wellbore, previously been approved?

A Yes, sir. In Case 3650, Order R-3316, dated September 11, 1967. allowed Mr. Albert Gackle to commingle Jalmat oil and South Eunice in the wellbore of his Esmond B, Well no. 3, Unit H, of Section 33,

Township 22, South, Bange 36 East, Lea County, New Mexico. This well is, approximately, 6 miles south of the wells that we are considering here today.

Q Do you have anything further to add?

A I would like to state that our copy of the Land Commissioner's letter, which we have marked as Exhibit No. 5 -- no, sir, I have nothing.

Q In your opinion, would the granting of this application be consistent with the prevention of waste and the protection of correlative rights?

A Yes, sir.

Q Were Exhibits 1, 2a through 2f, and 3a through 3f, 4a through 4f, all prepared by you or at your direction or under your supervision?

A Yes, sir.

Q And is Exhibit No. Five a true copy of the letter received from the Commissioner of Public Lands in the State of New Mexico?

A Yes, it is.

MR. KASTLER: At this time, I would move the introduction of Exhibits 1, 2a through 2f, 3a through 3f,

and 4a through 4f, and 5.

MR. UTZ: Without objection, the Exhibits mentioned will be introduced into the record.

(Thereupon, Applicant's Exhibits 1, 2a through 2f, 3a through 3f, 4a through 4f and No. 5 were marked for identification.)

MR. **KASTLER:** This concludes the direct examination.

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Hoover, in your opinion, how does the pressure in the other wells compare with the pressure in the Janda 4?

A I would say that they are very close, because the tubing pressures are practically the same.

Q Now, would you tell me, again, how you intend to complete these wells?

A Yes, sir. For example, referring to Exhibit 3a, we would remove the two and one-sixteenth inch OD tubing, which is set in the Baker Parallel Anchor. We would, also, remove that Baker Parallel Anchor; we would remove the Baker Model C Packer; we would remove the pump, and the two and three-eighths inch OD tubing, which is set below that packer. We would remove -- of course, pull the hollow rod, and we would remove the two and sixteenths inch OD tubing, which is on the South Eunice production. So, in effect, we would pull everything shown on that diagram, and the only thing we have left is the two strings of casing. And then, we would rerun one string of tubing, which would be set near the South Eunice perforations, and we would have the production from the Jalmat perforations and the South Eunice perforations coming through the pump, up the tubing, between the tubing, and the tubing rod annulus. We would have the hollow rods, in all probability, pumping as the -- for the pump rods string, but they would be blanked off. So, they would only be a rod string, in effect, for the pump. So, therefore, that is all we would have left in there; one string of tubing, one pump with rod string. We would not change the perforations -- they would remain as they are now. There would be no additional perforations.

Q So, you would remove everything and rerun the pump, is that right?

A Yes.

 Ω The pump would be set down at or near the South Eunice perforations?

A Yes. According to that Exhibit 3a, the pump fitting nipple is set in the tubing string at about 3,855 feet, which is almost to the bottom of the South Eunice perforations; they are 3,858 feet. So, we would have the pump set at about that same place, in a pump fitting nipple -- approximately, in that same location. And each one of the wells would be completed identically.

Q In your opinion, both these zones, together, will not produce one normal unit allowable?

A No, sir. They would be one below one unit allowable -- and we would only ask for one allowable, which would still be a marginal allowable with both zones combined.

Q Are these wells making a gas?

A Yes, sir; a little. In fact, that is the --South Eunice is -- there is some dissolved gas there, and the punping below the packer does give a little gas problem there. The perforated nipple for the gas vent helps, but the clearances are so close between the two and sixteenths inch OD tubing and the hollow

rods, that it doesn't work very satisfactorily.

MR. UTZ: Any other questions of the witness? You may be excused. Statements? The case will be taken under advisement.

INDEX

WITNI	ESS	PAGE
JOHN	HOOVER	
	Direct Examination by Mr. Kastler	2
	Cross Examination by Mr. Utz	21

EXHIBIT	MARKED	ADMITTED IN EVIDENCE
Applicant's Exhibits 1, 2a through 2f, 3a through 3 f, 4a		
through 4f, and No. 5	21	21

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

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

am Tunke



OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO P. O. BOX 2088 - SANTA FE 87501 GOVERNOR DAVID F. CARGO CHAIRMAN

LAND COMMISSIONER ALEX J. ARMIJO MEMBER

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

May 28, 1969

Re: Case No. 4131 Order No. R-3767 Applicant:

Gulf Oil Corporation

Gulf Oil Corporation Post Office Box 1938 Roswell, New Mexico88201

Mr. Bill Kastler

Dear Sir:

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

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Very truly yours, A. H. Carter, H

A. L. PORTER, Jr. Secretary-Director

ALP/ir

Copy of order also sent to: Hobbs OCC_____ Artesia OCC_____ Aztec OCC_____

Other____

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

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

> CASE No. 4131 Order No. R-3767

APPLICATION OF GULF OIL CORPORATION FOR DOWNHOLE COMMINGLING, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMPLISSION:

This cause came on for hearing at 9 a.m. on May 21, 1969, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 28th day of May, 1969, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Gulf Oil Corporation, is the owner and operator of the following-described wells:

LEA COUNTY, NEW MEXICO

TOWNSHIP	21	SOUTH.	RANGE	36	EAST.	MMM

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Ramsay	(NCT-D)	Hell	NO.	Ð	-	Unit	к		Saction	33
Ramsay	(RCT-D)	Well	80.	7	***	Unit	М	-	Section	33
Хальау	(RCT-1:)	Well	80.	8		Unit	\mathbf{i}		Saction	33
Rawsay	(NCT-D)	Wall	No.	Э	-	Unit	L	•~=	Section	33
anda	(80° B)	det	No.	Α	-	Unit	0		Section	32
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anda	(NCP-F)	Hell	No.	R	,	Unit	C		Section	A.
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-2-CASE No. 4131 Order No. R-3767

(3) That each of the subject wells is dually completed for the production of oil from the Jalmat and South Eunice Pools through parallel strings of tubing with separation of zones by a packer.

(4) That each of the subject wells is capable of only low marginal production from each of the subject zones.

(5) That the applicant proposes to remove the packer and one string of tubing from each of the subject wells and to produce the low marginal production from the subject zones through a single string of tubing in each well set at or near the lowermost perforations.

(6) That the proposed commingling may substantially extend the productive lives of the subject zones in each of the subject wells.

(7) That the reservoir characteristics of each of the zones in each of the wells are such that underground waste would not be caused by the proposed commingling in the well-boxe.

(8) That the proposed commingling may result in the recovery of additional oil from each of the subject pools for each of the subject wells, thereby preventing waste, and will not violate correlative rights.

(9) That production tests should be conducted, prior to commingling, to determine the production from each zone in each well.

IT IS THEREFORE ORDERED :

(1) That the applicant, Gulf Oil Corporation, is below authorized to complete each of the following-described wells in such a manner as to produce oil from the Jalmat 21.5 South Eunice Pools through existing parforations, commingling the production from each of said zones in the well-boxe:

LEA COIRTY, MER MENTCO

TOWNSHIP 21 SOUTH, RANGE 36 EAST, NMPM Arnott Ramsay (NCT-D) Well No. 6 - Unit M - Section 33 Arnott Ramsay (NCT-D) Well No. 7 - Unit M - Section 33 -3-CASE No. 4131 Order No. R-3767

(Continued)

TOWNSHIP 21 SOUTH, RANGE 36 EAST, NMPM Arnott Ramsay (NCT-D) Well No. 8 - Unit N - Section 33 Arnott Ramsay (NCT-D) Well No. 9 - Unit L - Section 33 J. F. Janda (NCT-B) Well No. 4 - Unit O - Section 32

TOWNSHIP 22 SOUTH, RANGE 36 EAST, NMPM J. F. Janda (NCT-F) Well No. 8 - Unit C - Section 4

(2) That the production of each zone in each of the subject wells shall be established and future production allocated to the Jalmat Pool and the South Eunice Pool in each of the subject wells in the proportion that the production from each of said zones in each of the subject wells bears to the combined production from both zones in each of said wells until further order of the Commission.

(3) That commingling in any well-bore shall continue only so long as the commingled production for that well does not exceed the top unit allowable for either of the zones in that well.

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

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

STATE OF NEW MEXICO CONSERVATION COMMISSION DAVID P. CARGO, Chairman Nember Sancelory 1980



413/ Kend 5-21-69 Rec. 5-23-69 Hant Hulf permission to cowith the fulmat oil pool JL. 1. anot Paney (NCT-D) #6π. 2. _ #7 7. - 2/5-365 ~ ~ ~, _ **8 #\$9 2. _____ N - 333. -Щq 4 -32 4. L___ J.F. Junda (NCT-B) # 4 0 32 ---C (NEFF)#8 C 4 22-36 Cell welle and Augula with the S. 6. ower So. Emile . & perme sizy. She may . cop is 9.5 BOPD. Copany i) dang & R The pump unit or barrell shull be stort at or near the So. Zmer perf Thurst. It

Docket No. 15-69

DOCKET: EXAMINER HEARING - WEDNESDAY - MAY 21, 1969

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

The following cases will be heard before Elvis A. Utz, Examiner, or Daniel S. Nutter, Alternate Examiner:

CASE 3405: (Reopened) (Continued from the May 7, 1969 Examiner Hearing)

In the matter of Case No. 3405 being reopened pursuant to the provisions of Order No. R-3081, which order established 640acre spacing for the North Indian Hills-Morrow Gas Pool, Eddy County, New Mexico, for a period of one year after first pipeline connection in the pool. All interested parties may appear and show cause why said pool should or should not be developed on 320-acre spacing units.

CASE 4131: Application of Gulf Oil Corporation for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle production from the Jalmat and South Eunice oil pools, Lea County, New Mexico, in the wellbores of six wells located as follows:

TOWNSHIP 21 SOUTH RANGE 36 FAST

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TOWNSHIP 22 SOUTH, RANGE 36 EAST

J. F. Janda (NCT-F) Well No. 8 - Unit C - Section 4

CASE 4132: Application of Pan American Petroleum Corporation for an exception to Order No. R-3221, as amended, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Order No. R-3221, as amended, which order prohibits the disposal of water produced in conjunction with the production of oil on the surface of the ground in Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico, after January 1, 1969. Said exception would be for three wells located in Unit D, E, and P of Section 27, Township 18 South, Range 31 East, Shugart Field, Eddy County, New Mexico. Applicant seeks authority to continue to dispose of salt water produced in two unlined surface pits located in the E/2 of said Section 27.

Examiner Hearing - May 21, 1969 -2-

- CASE 4133: Application of Skelly Oil Company for a unit agreement. Lea County, New Mexico. Applicant, in the above-styled cause seeks approval of the West Dollarhide Drinkard Unit Area comprising 3,533.52 acres, more or less, of Fee, Federal, and State lands in Townships 24 and 25 South, Range 38 East, Lea County, New Mexico.
- CASE 4134: Application of Skelly Oil Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in its West Dollarhide Drinkard Unit Area by the injection of water into the Tubb-Drinkard formation through 43 wells located in Townships 24 and 25 South, Range 38 East, Dollarhide Tubb-Drinkard Pool, Lea County, New Mexico. Applicant further seeks a procedure whereby said project may be expanded administratively without a showing of well response.
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- <u>CASE 4136:</u> Application of Mallard Petroleum, Inc. for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Yates formation in the interval from 3606 feet to 3627 feet in its Milner Federal Well No. 4 located in Unit C of Section 35, Township 20 South, Range 34 East, Lynch Pool, Lea County, New Mexico.
- CASE 4137: Application of Atlantic Richfield Company for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the East Shugart Unit Area comprising 1359.40 acres, more or less, of Federal and State lands in Townships 18 and 19 South, Range 31 East, Eddy County, New Mexico.

Examiner Hearing - May 21, 1969 -3-

- CASE 4138: Application of Atlantic Richfield Company for a waterflood project and unorthodox injection well location, Eddy County, New Mexicc. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Yates-Seven Rivers-Queen formations through 11 wells in Townships 18 and 19 South, Range 31 East, Shugart Pool, Eddy County, New Mexico. Applicant further seeks an exception to permit the drilling of one of said wells at an unorthodox location 100 feet from the South line and 990 feet from the West line of Section 35, Township 18 South, Range 31 East.
- **CASE 4139:** Application of Allied Chemical Corporation for a unit agreement, Roosevelt County, New Mexico. Applicant, in the abovestyled cause, seeks approval of the Milnesand (San Andres) Unit Area comprising 5370.18 acres, more or less, of Federal and Fee lands in Township 8 South, Ranges 34 and 35 East, Roosevelt County, New Mexico.
- **CASE 4140:** Application of Allied Chemical Corporation for a waterflood project, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a water-flood project in its Milnesand (San Andres) Unit Area by the injection of water into the San Andres formation through 33 wells located in Township & South, Ranges 34 and 35 East, Milnesand-San Andres Pool, Roosevelt County, New Mexico. Applicant further seeks a procedure whereby said project may be expanded administratively without a showing of well response.
- CASE 4141: Application of McCasland Disposal System for salt water disposal, Lea County, New Mexico. Applicant, in the abovestyled cause, seeks authority to dispose of produced salt water into the Seven Rivers formation in the intervals from approximately 3756 feet to 3851 feet and from approximately 3918 feet to 3939 feet, respectively, in the Getty Oil Company J. H. Day Wells Nos. 1 and 2, both located in the NW/4 of Section 8. Township 22 South, Range 36 East, Jalmat Pool, Lea County, New Mexico.
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Examiner Hearing - May 21, 1969 -4-

Docket No. 15-69

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TOWNSHIF 22 SOUTH, RANGE 36 EAST

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Examiner Hearing - May 21, 1969 -2-

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Examiner Hearing - May 21, 1969 -3-

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Examiner Hearing - May 21, 1969 -4-

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BEFORE EXAMINER UTZ

OIL CONSERVATION OF A MUN

CASE NU. 1131

PLAT Lea County, New Mexico - LEGEND -

----- Arnott-Ramsay (NCT-D) Lease

------ J. F. Janda (NCT-B) Lease

—— J. F. Janda (NCT-F) Lease

• Pertinent Wells

CASE NO. 4131 EXHIBIT NO. 7 MAY 21, 1969







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CASE NO. <u>4131</u> EXHIBIT NO. <u>320</u> MAY 21, 1969





CASE NO. <u>4131</u> EXHIBIT NO. <u>3/F</u> MAY 21, 1969





State of New Miexico



P. O. BOX 1148 SANTA FE, NEW MEXICO

ALEX J. ARMIJO COMMISSIONER

> Gulf Oil Company P. O. Drawer 1938 Roswell, New Mexico 88201

> > Re: Down-Hole Commingling Request Arnott Ramsay (NCT-D) Lease State No. B-229-1 SW/4, Sec. 33, T-21S, R-36E J. F. Janda (NCT-B) Lease State No. B-229-1 SW/4SE/4, Sec. 32, T-21E, R-36E J. F. Janda (NCT-F) Lease State No. B-229-1 NE/4NW/4, Sec. 4, T-22S, R-36E Lea County, New Mexico

Gentlemen:

The above request is hereby approved by the Commissioner of Public Lands with the understanding that the Commissioner may withdraw his approval at any time the operation does not seem profitable to the State of New Mexico.

This action is also subject to approval by the Oil Conservation Commission. Since these are marginal wells we will expect periodic reports on each one. Please remit a Ten (\$10.00) Dollar filing fee at your earliest convenience.

Very truly yours,

ALEX J. ARMIJO COMMISSIONER_OF_PUBLIC/LANDS

By: 1201 Billion Ted Bilberry, Director Oil and Gas Department

AJA:TB:ML:vls cc: Oil Conservation Commission Oil and Gas Accounting Commission

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
CASE NO. 145 4131

Hearing

Culf Oil Company-U.S.

EXPLORATION AND PRODUCTION DEPARTMENT ROSWELL DISTRICT

April 29, 1969

🗁 🚖 0. Drawer 1938 Roswell, New Mexico 88201

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Case 4/3/

Oil Conservation Commission State of New Mexico Post Office Box 2088 Santa Fe, New Mexico 87501

Attention: Mr. A. L. Porter, Jr.

Re: Application of Gulf Oil Corporation For Approval of Down-Hole Commingling Of Production for Six Wells in the Jalmat and South Eunice Oil Pools, Lea County, New Mexico

Gentlemen:

T W. Kidd USTROT MANASER M. I. Taylor USTROT PROLOCION MANASER P. E. Wyche DISTROT EXPLORATION MANASER

HERRICH H. A. Rankin © STR 03 SERVICES MANAGER

> Gulf Oil Corporation respectfully requests an Examiner Hearing to consider its application for approval of down-hole commingling in the well bore of Jalmat and South Eunice oil and gas production in the following wells, Lea County, New Mexico: Arnott Ramsay (NCT-D) Well No. 6, Unit K, Section 33, T2IS-R36E; Arnott Ramsay (NCT-D) Well No. 7, Unit M, Section 33, T2IS-R36E; Arnott Ramsay (NCT-D) Well No. 7, Unit M, Section 33, T2IS-R36E; Arnott Ramsay (NCT-D) Well No. 8, Unit N, Section 33, T2IS-R36E; Arnott Ramsay (NCT-D) Well No. 9, Unit L, Section 33, T2IS-R36E; J. F. Janda (NCT-B) Well No. 4, Unit O, Section 32, T2IS-R36E; J. F. Janda (NCT-F) Well No. 8, Unit C, Section 4, T22S-R36E.

> > In support of this application the following facts are submitted:

- Applicant is owner and operator of the Arnott Ramsay (NCT-D) Lease described as all of Section 33, T-21-S, R-36-E, and is outlined in red on the attached plat. Wells No. 6, 7, 8, and 9 are circled and colored in red.
- (2) Applicant is owner and operator of the J. F. Janda (NCT-B) Lease described as the SE/4 of Section 32, T-21-S, R-36-E, and is outlined in green on the attached plat. Well No. 4 is circled and colored in green.
- (3) Applicant is owner and operator of the J. F. Janda (NOT-F) Lease described as all of Section 4, T-22-S, R-36-E, and is outlined in orange on the attached plat. Well No. 8 is circled and colored in orange.
- (4) The production from the Jalmat and South Eunice oil pools in the above wells is marginal and four of the wells are shut-in in the South Eunice pool because they are uneconomical to produce.

DOCKET MARED

Date 5-9-69

A DIVISION OF GULF OIL CORPORATION

011 Conservation Commission

(5) Applicant will request no more than one allowable be assigned to each well which will be considerably below the top allowable for the shallowest zone.

Respectfully submitted,

GULF OIL CORPORATION

nesa M. I. Taylo

Attachment JHH:dch

cc: New Mexico Oil Conservation Commission Post Office Box 1980 Hobbs, New Mexico 88240

> Mr. C. E. Long Post Office Box 12463 San Antonio, Texas 78212

> Texas Pacific Oil Company Post Office Box 4067 Midland, Texas 79701

Sinclair Oil & Gas Company Post Office Box 1470 Midland, Texas 79701

Cities Service Oil Company Post Office Box 4906 Midland, Texas 79701

Commissioner of Public Lands State of New Mexico Post Office Box 1148 Santa Fe, New Mexico 87501

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DRAFT

GMH/esr May 26, 1969

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

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

CASE No. Ørder No. R-

4131

APPLICATION OF GULF OIL CORPORATION FOR DOWNHOLE COMMINGLING, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

_, 196<u>9</u>, This cause came on for hearing at 9 a.m. on <u>May 21</u> at Santa Fe, New Mexico, before Examiner <u>Elvis A. Utz</u>

NOW, on this _____day of May ____, 1969, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

That the applicant, Gulf Oil Corporation, is the owner (2)

and operator of the following-described wells:

LEA COUNTY, NEW MEXICO

TOWNSHIP 21 SOUTH, RANGE 36 EAST, NMPM

	Concerning on the second second	the second se	the second s		_			_	_	-	
Arnott	Ramsay	(NCT-D)	Well	No.	6	-	Unit	К		Section	33
Arnott	Ramsay	(NCT-D)	Well	No.	7	-	Unit	М	~	Section	33
Arnott	Ramsay	(NCT-D)	Well	No.	8	-	Unit	Ν		Section	33
Arnott	Ramsay	(NCT-D)	Well	No.	9	-	Unit	\mathbf{L}		Section	33
J. F. J	Janda	(NCT-B)	Well.	No.	4	-	Unit	0		Sectior	32

TOWNSHIP 22 SOUTH, RANGE 36 EAST, NMPM J. F. Janda (NCT-F) Well No. 8 - Unit C - Section 4

(3) That each of the subject wells is dually completed for the production of oil from the Jalmat and South Eunice Pools through parallel strings of tubing with separation of zones by a packer.

-2-CASE No. 4131

(4) That each of the subject wells is capable of only low marginal production from each of the subject zones.

(5) That the applicant proposes to remove the packer and one string of tubing from each of the subject wells and to produce the low marginal production from the subject zones through a single string of tubing in each well set at or near the lowermost perforations.

(6) That the proposed commingling may substantially extend the productive lives of the subject zones in each of the subject wells.

(7) That the reservoir characteristics of each of the zones in each of the wells are such that underground waste would not be caused by the proposed commingling in the well-bore.

(8) That the proposed commingling may result in the recovery of additional oil from each of the subject pools for each of the subject wells, thereby preventing waste, and will not violate correlative rights.

(9) That production tests should be conducted, prior to commingling, to determine the production from each zone in each well.

IT IS THEREFORE ORDERED:

(1) That the applicant, Gulf Oil Corporation, is hereby authorized to complete each of the following-described wells in such a manner as to produce oil from the Jalmat and South Eunice Pools through existing perforations, commingling the production from each of said zones in the well-bore:

LEA	COUNTY,	NEW	MEXICO

TO	WNSHEP 21 S	OUTH, R	ANGE 36	EAST,	NMPM	
Arnott Ra	msay (NCT-D) Well 1	No. 6 -	Unit K	C - Section	n 33
Arnott Rai	msay (NCT-D) Well H	No. 7 -	Unit M	1 - Section	33
Arnott Rai	msay (NCT-D) Well H	No. 8 -	Unit N	- Section	33
Arnott Ra	msay (NCT-D) Well 1	No. 9 -	Unit L	- Section	i 33
J. F. Jan	da (NCT-B) Well H	No. 4 -	Unit O) - Section	n 32

-3-CASE No. 4131

TOWNSHIP 22 SOUTH, RANGE 36 EAST, NMPM J. F. Janda (NCT-F) Well No. 8 - Unit C - Section 4

(2) That the production of each zone in each of the subject wells shall be established and future production allocated to the Jalmat Pool and the South Eunice Pool in each of the subject wells in the proportion that the production from each of said zones in each of the subject wells bears to the combined production from both zones in each of said wells until further order of the Commission.

(3) That commingling in any well-bore shall continue only so long as the commingled production for that well does not exceed the top unit allowable for either of the zones in that well.

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

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

FOR DOWNHOLS CONTINGLING, LEA COUNTY, NEW MEXICO.

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