

Case Number

4371

Application  
Transcripts.

Small Exhibits

ETC.

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SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

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BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
July 1, 1970

EXAMINER HEARING

IN THE MATTER OF:

Application of Getty Oil Company  
for a waterflood expansion and  
amendment of Order No. R-2966,  
as amended, Lea County, New  
Mexico.

Case No. 4371

BEFORE: Elvis A. Utz, Examiner.

APPEARANCES:

For the Applicant:

MONTGOMERY, FEDERICI, ANDREWS,  
HANNAHS & MORRIS, Esqs.  
BY: Richard Morris, Esq.

For the Oil Commission: George M. Hatch, Esq.

TRANSCRIPT OF HEARING

MR. MORRIS: My name is Richard S. Morris of Montgomery, Federici, Andrews, Hannahs and Morris, Santa Fe, appearing on behalf of the Applicant. I have one witness, Mr. Miller, and ask that he stand and be sworn.

EUGENE MILLER

being duly sworn according to law, upon his oath, testified as follows:

(Whereupon, Applicant's  
Exhibits 1 through 7 were  
marked for identification.)

MR. MORRIS: Mr. Examiner, first I would like to point out an error on the Application that was filed in this case which does not effect the notice. In the listing of the proposed injection wells and their locations there is an error on the third well listed described as well 308. It should be well number 305. The footage description, it is 990 from the north line then that should be 330 from the west line and the unit should be unit D rather than unit O. Now, fortunately that was picked up correctly on the notice that was given for this case.

MR. UTZ: What was the footage again?

MR. MORRIS: 990 from the north line and 330 feet from the west line. Mr. Hatch has already picked up the correction on the Docket that the Applicant is Getty Oil Company rather than Betty Oil Company.

DIRECT EXAMINATION

BY MR. MORRIS:

Q Mr. Miller, please state your name and where you reside?

A My name is Eugene Miller. I live in Hobbs, New Mexico.

Q By whom are you employed and in what capacity?

A Getty Oil Company as the area engineer for the Hobbs area.

Q And have you previously testified before the Commission or one of its Commissioners and have your qualifications been established and accepted of record?

A Yes, sir. I have, yes.

Q Since you have been referring to the first two Exhibits at the same time, would you identify what has been marked as Exhibit 1 and Exhibit 2 in this case?

A Exhibit 1 is a plat of the Justice-McKee unit that Getty Oil Company operates and Exhibit 2 is a tabulation of the performance that we have experienced in flooding this unit since 1966.

Q Now, are the presently authorized injection wells designated in green on that Exhibit?

A Yes. Green circles around the periphery.

Q And the well designated in red and the three wells

designated in blue represent the proposal that you intend to make to the Commission in this Hearing?

A That is correct.

Q Referring to these two Exhibits, would you explain to the Examiner what the initial plan was for water flooding in this unit area and how that plan has worked out up to the present time?

A Justice-McKee Unit was formed when Getty, which was formerly Tidewater, assumed the operation January 1st, 1966. Cumulative oil production from the McKee unit area was one million two hundred thirty-one thousand barrels. At that time the Engineering Committee had estimated that the ultimate primary would be one million three hundred fifty-five thousand or that there was a hundred twenty-four thousand barrels remaining in the primary. It was decided that water should be injected on the outside edge as shown on the plat with the green circles -- at the outside edge which would be at or near the oil water contact and the oil should be flushed up structure and a line drive performed. Original plans called for an injection rate of rusty water at the rate of 5,165 barrels a day into these five injectors until fill up and fill up we assumed to be two million barrels. Then the rate was to be reduced to 1640 barrels a day until over six million barrels had been injected.

We actually began water injection in October, 1967

and the maximum beginning rate we were able to get in the four wells -- No. 128 was drilled later as noted on the tabulation here -- the maximum rate we got in for one day was 1591 barrels and the tabulation, as you will note, shows that we got 1185 from all five of the wells. This is pretty far from that 5,000 barrels that we expected to put in. We were putting water in at 900 pounds pressure and since this we have greatly staged the injection pressure upward to 2200 pounds and at the present time, as shown on the tabulation, we are putting about six hundred fifty-six barrels a day in the wells. Obviously we will not be able to flood the McKee zone under these conditions, therefore we are requesting permission to expand the flood to an execute pattern as shown on the plat. It is possible that the wells up structure in a productive portion of the field will take water at sufficient rate to allow us to go ahead and flood the McKee sand.

In our first step we intend to convert No. 108 to injection to see if sufficient water can be injected to flood it. If this test is successful, we will convert the other three wells as shown in blue on the plat and complete the flood. We have chosen 108 for this test because it has produced, as shown in the tabulation, 127,000 barrels of oil. The core from this well shows permeabilities of between fifteen and 635 millidarcies. If there is some physical characteristic in this sand

blocking or making the sand impossible to flood, it should show in 108 fairly quickly if the sand is rearranging and blocking our permeability, if we are having some swelling problems. We have worked quite a bit with our injection water trying to keep any type of problem that we might have down, but we would like to try 108 first and see if we can get water in the ground.

Q You are asking at this time, Mr. Miller, that not only 108 be approved for injection, but on the assumption that that pilot or additional tests works out satisfactorily that you would want to go immediately to the other three wells that are the subject of this Application; so you are asking for permission to inject water into four additional wells at this time?

A That is correct.

Q Would you refer, please, to what has been marked Exhibit 3, 4, 5 and 6, being the mechanical diagrams, mechanical sketch of the mechanical installation of the four proposed injections wells and point out how they are equipped and will be equipped for water injection.

A These wells, as you can see -- three of them are dual completions; one of them is a single. In each case the McKee zone will be isolated with packers and injected down tubing underneath the packer.

Q Do you propose to do any work on well No. 108 before you inject water into that well?

A With this injection test we plan to simply turn it around and start putting water in the ground. It is equipped with a packer up above the formation. The McKee is isolated so this would be an economical way of finding out how far we can go with the flood.

Q If it doesn't work in No. 101, your chances of having it work in the other wells are very slim, is that correct?

A That is correct.

Q Assuming that your expansion project is successful, is there a possibility, that you may, in the future, wish to convert other wells to water injection, other than the wells are presently authorized?

A That is possible in that there are other wells in the area that are twins to these wells and it might be possible that we could economically change over from one to the other and maybe come out with a single well rather than with a dual and for that reason we'd like to allow ourselves to change some wells and also drill other wells as needed to develop this project if it is successful.

Q Are you seeking approval at this time from the Commission of administrative procedure whereby you could convert additional wells to injection without a showing of well



response as a condition to that conversion?

A Yes.

Q Is Exhibit 7 a copy of the water analysis of the water from the Rustler zone or formation that is being used as injection water?

A Yes. This analysis was run early in the life of the flood.

Q Is this water being treated prior to injection?

A It is being treated for corrosion and scale at the source well and being injected.

Q This is water that would be used in the additional four injection wells that are the subject of this Hearing?

A Yes. This is non-potable water that would be used.

Q To point out at the outset, Mr. Miller, that this operation is occurring within the Justis-McKee Unit area, now, Getty Oil Company is the operator of that Unit and is the operator of the Waterflood Project?

A That is correct. There are other companies involved.

Q Would your proposal to the Commission in any way jeopardize the correlative rights of the operators in this area?

A No. It would not in that the Unit involves all of the production in that area.

Q Would approval of your Application be in the best

interests of conversation and the prevention of waste?

A Yes. It would.

MR. MORRIS: At this time, Mr. Examiner, we offer Applicant's Exhibits 1 through 7 into evidence.

MR. UTZ: Without objection, Exhibits 1 through 7 will be entered into the record of this case.

(Whereupon, Applicant's Exhibits 1 through 7 were offered and admitted in evidence.)

Q (By Mr. Morris) Do you have anything further you care to add to your testimony, Mr. Miller?

A I can't think of anything.

MR. MORRIS: All right. That is all I have on Direct Examination.

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Miller, you are asking for all four of these wells to be approved at this time even though you are only going to use the No. 108 addition as a pilot, is that correct?

A That is correct, sir.

Q And in addition to that you want the administrative approval for additional injection wells?

A Yes, in case it becomes necessary to convert additional wells in the future.

Q Or change wells?

A Yes, in case it is successful.

Q On these first three wells, since they are duals I presume that if your opposing zones would start producing water, that would be a pretty good sign the packer wasn't holding, right?

A Yes. We have one we are repairing right now, sir.

Q Now, on your 701 well, what type of tubing are you going to put in that well?

A In 701?

Q Yes?

A It will be plastic coated. That would be converted after the test.

Q Are you going to load the annulus?

A Yes. It will be loaded inert fluid of some type. You will notice that the No. 701 is a proposed sketch. The Ellenburger is depleted. It is now actually completed, but this one will be pulled and reset up like this before it is put on injection.

Q Are these locations on your Application now correct?

A Except as corrected, yes, sir.

MR. UTZ: I have no other questions of the witness.

The witness may be excused.

Any statements? The case will be taken under advisement.

I N D E XWITNESS  
EUGENE MILLER

Direct Examination by Mr. Morris

Cross Examination by Utz

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EXHIBITApplicant's 1  
through 7.MARKED

2

OFFERED AND  
ADMITTED

9

STATE OF NEW MEXICO )  
COUNTY OF BERNALILLO)

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

Peter A. Lumia  
COURT REPORTER

\_\_\_\_\_  
NOTARY PUBLIC

My Commission Expires:  
\_\_\_\_\_

I do hereby certify that the foregoing is  
a complete record of the proceedings  
the September hearing of Case No. 4371  
heard by me on July 20, 1970  
[Signature]  
New Mexico Oil Conservation Commission



## OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO  
P. O. BOX 2088 - SANTA FE  
87801

GOVERNOR  
DAVID F. CARGO  
CHAIRMAN  
LAND COMMISSIONER  
ALEX J. ARMIJO  
MEMBER  
STATE GEOLOGIST  
A. L. PORTER, JR.  
SECRETARY - DIRECTOR

July 15, 1970

Mr. Richard S. Morris  
Montgomery, Federici, Andrews,  
Hannahs & Morris  
Attorneys at Law  
Post Office Box 2307  
Santa Fe, New Mexico

Re: Case No. 4371  
Order No. R-3993  
Applicant:  
Getty Oil Company

Dear Sir:

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

Very truly yours,

A. L. PORTER, Jr.  
Secretary-Director

ALP/ir

Copy of order also sent to:

Hobbs OCC X

Artesia OCC           

Aztec OCC           

Other                      State Engineer Office

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

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

CASE No. 4371  
Order No. R-3993

APPLICATION OF GETTY OIL COMPANY  
FOR A WATERFLOOD EXPANSION AND  
AMENDMENT OF ORDER NO. R-2966, AS  
AMENDED, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on July 1, 1970,  
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 15th day of July, 1970, the Commission, a  
quorum being present, having considered the testimony, the record,  
and the recommendations of the Examiner, and being fully advised  
in the premises,

FINDS:

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

(2) That the applicant, Getty Oil Company, seeks authority  
to expand the Justis-McKee Unit Waterflood Project, Justis-McKee  
Pool, approved by Orders Nos. R-2966 and R-2966-A and formerly  
operated by Tidewater Oil Company, by the conversion to water  
injection of four additional wells described as follows:

LEA COUNTY, NEW MEXICO  
TOWNSHIP 25 SOUTH, RANGE 37 EAST, NMPM

Justis-McKee Unit Well No. 108, to be dually completed,  
Unit B - Section 24

Justis-McKee Unit Well No. 117, to be dually completed,  
Unit H - Section 24

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CASE No. 4371  
Order No. R-3993

TOWNSHIP 25 SOUTH, RANGE 38 EAST, NMPM

Justis-McKee Unit Well No. 305, to be dually completed,  
Unit D - Section 19

Justis-McKee Unit Well No. 701, a single completion,  
Unit M - Section 19

(3) That the wells in the subject waterflood project area are in an advanced state of depletion and should properly be classified as "stripper" wells.

(4) That expansion of the subject waterflood project by the conversion to water injection of the above-described Wells Nos. 108 and 701 should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

(5) That expansion of the subject waterflood project by the conversion to water injection of the above-described Wells Nos. 108 and 701 should be approved.

(6) That the injection of water into the McKee formation in the above-described Wells Nos. 117 and 305 above a packer separating the McKee and Ellenburger formations may cause, through failure of said packer or of the cement surrounding the casing, damage to the Ellenburger formation, thereby causing waste.

(7) That the applicant's request to convert the above-described Wells Nos. 117 and 305 to water injection should be denied.

(8) That the applicant further seeks amendment of said Orders Nos. R-2966 and R-2966-A to provide an administrative procedure whereby the Secretary-Director of the Commission may approve the drilling or conversion of additional water injection wells at orthodox and unorthodox locations without a showing of well response within said Justis-McKee Unit Waterflood Project area as may be necessary to complete an efficient water injection pattern.

(9) That approval of the aforesaid amendment will afford the applicant the opportunity to produce its just and equitable share of the oil in the Justis-McKee Pool, and will otherwise prevent waste and protect correlative rights, provided said



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CASE No. 4371  
Order No. R-3993

injection wells are single completions or dually completed wells in which the injection zone is below the producing zone and are drilled no closer than 330 feet to the outer boundary of the aforesaid unit waterflood project area nor closer than 10 feet to any quarter-quarter section or subdivision inner boundary.

IT IS THEREFORE ORDERED:

(1) That the applicant, Getty Oil Company, is hereby authorized to expand its Justis-McKee Unit Waterflood Project in the Justis-McKee Pool, Lea County, New Mexico, by converting to water injection the following-described wells:

TOWNSHIP 25 SOUTH, RANGE 37 EAST, NMPN

Justis-McKee Unit Well No. 108, to be dually completed,  
Unit B - Section 24

TOWNSHIP 25 SOUTH, RANGE 38 EAST, NMPN

Justis-McKee Unit Well No. 701, a single completion,  
Unit M - Section 19

(2) That monthly progress reports of the expanded Justis-McKee Unit Waterflood Project shall be submitted to the Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

(3) That Order (2) of Commission Order No. R-2966, dated September 13, 1965, is hereby amended to read in its entirety as follows:

"(2) That the subject waterflood project, as expanded, shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations;

PROVIDED HOWEVER, that the Secretary-Director of the Commission may approve the drilling or conversion of additional water injection wells at orthodox and unorthodox locations within said waterflood project area as may be necessary to complete an efficient injection pattern; provided said wells are single completions or dual completions in which the injection zone is below the producing zone and are drilled no closer than 330 feet to the outer boundary of said unit waterflood project area nor closer

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CASE No. 4371  
Order No. R-3993

than 10 feet to any quarter-quarter section or subdivision inner boundary, and provided further, that the application therefor has been filed in accordance with Rule 701 B of the Commission Rules and Regulations, and provided further, that a copy of the application has been sent to all offset operators, if any there be, and no such operator has objected within 15 days. The showing of well response as required by Rule 701 E-5 shall not be necessary before obtaining administrative approval for the conversion of additional wells to water injection."

(4) That the applicant's request to convert to water injection its Wells Nos. 117 and 305 described in Finding No. (2) above, is hereby denied.

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

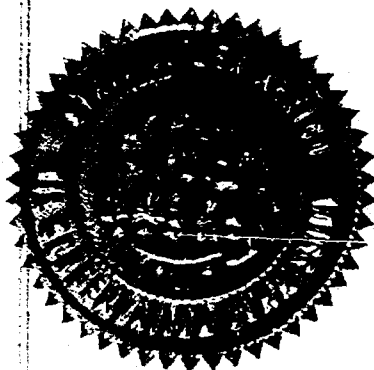
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

  
DAVID F. CARGO, Chairman

  
ALEX J. ARMIJO, Member

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



esr/

Case 4371

Heard 7-1-70

Rec. 7-6-70

Rebut Getty's request for additional injection wells for their Justice M. Ke unit. No flood. Oppose. 4 wells as listed in their application 108-117, 308, 70.

Give amendment to 2866A to allow a demonstrative approval. w/o response.

Thur

P.S.

#5, 108, 117 & 305 are duals. injection in these wells shall be w/o int. plastic coated tubing + annulus filled with inert fluid. The # ~~305~~ 701 is a single injection & shall have int. Plastic coated tubing, injection under a packer, ~~but plastic coat annulus~~ filled w/ ~~plastic coated~~ inert fluid. if you go.

Thur

Docket No. 16-70

DOCKET: EXAMINER HEARING - WEDNESDAY - JULY 1, 1970

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 4354: (Continued from the May 13, 1970, Examiner Hearing)

Application of Michael P. Grace and Corinne Grace for compulsory pooling, Eddy County, New Mexico. Applicants, in the above-styled cause, seek an order pooling all mineral interests from the surface of the ground down to and including the Morrow formation underlying the N/2 of Section 11, Township 23 South, Range 26 East, South Carlsbad Field, Eddy County, New Mexico, said acreage to be dedicated to a well to be drilled in either the NE/4 NW/4 or the NW/4 NE/4 of said Section 11. Also to be considered will be the costs of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision of said well.

CASE 4165: (Reopened):

In the matter of Case No. 4165 being reopened pursuant to the provisions of Order No. R-3795, which order established 160-acre spacing units and an 80-acre proportional factor of 4.77 for the East Bagley-Pennsylvanian Pool, Lea County, New Mexico. All interested parties may appear and show cause why the said pool should not be developed on less than 160-acre spacing units and to show cause why the 80-acre proportional factor of 4.77 should or should not be retained.

CASE 4173: (Reopened):

In the matter of Case No. 4173 being reopened pursuant to the provisions of Order No. R-3811, which order established 80-acre spacing units and a limiting gas-oil ratio of 4000 cubic feet of gas per barrel of oil for the Hobbs-Drinkard Pool, Lea County, New Mexico. All interested parties may appear and show cause why the said pool should not be developed on 40-acre spacing units and why the limiting gas-oil ratio should not revert to 2000 to one.

CASE 4371: Application of Getty Oil Company for a waterflood expansion and amendment of Order No. R-2966, as amended, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to expand its Justis-McKee Unit Waterflood Project, Justis-McKee Pool, by the conversion to water injection of four additional wells in Units B and H of Section 24, Township 25 South, Range 37 East, and Units D and M of Section 19, Township 25 South, Range 38 East, Lea County, New Mexico. Applicant further seeks the amendment of Order No. R-2966, as amended, to permit administrative approval for the drilling or conversion of additional injection wells at orthodox or unorthodox locations without a showing of well response.

CASE 4372: Application of International Hydrocarbons Incorporated for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of an unorthodox gas well location for a well to be drilled 990 feet from the North and West lines of Section 8, Township 26 South, Range 33 East, Red Hills-Wolfcamp Gas Pool, Lea County, New Mexico.

CASE 4373: Application of Benson-Montin-Greer Drilling Corporation for pool redelineation, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks the redelineation of certain pool boundaries to include the deletion of the following-described acreage from the East Puerto Chiquito-Mancos Oil Pool, Rio Arriba County, New Mexico.

TOWNSHIP 26 NORTH, RANGE 1 EAST

Section 20: W/2

Section 29: All

Section 32: All

Section 33: W/2

TOWNSHIP 25 NORTH, RANGE 1 EAST

Section 4: W/2

Section 5: All

Section 8: All

Section 9: W/2

Section 17: All

Section 20: All

Section 29: W/2

and for the extension of the West Puerto Chiquito-Mancos Oil Pool to include the above-described acreage and the following-described acreage in said county:

Examiner Hearing - July 1, 1970

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Docket No. 16-70

(Case 4373 continued)

TOWNSHIP 24 NORTH, RANGE 1 WEST

Sections 1 through 36 - All

TOWNSHIP 24 NORTH, RANGE 1 EAST

Section 6: All

Section 7: All

Section 8: W/2

Section 17: W/2

Section 18: All

Section 19: All

Section 20: W/2

Section 30: All

CASE 4374: Application of Benson-Montin-Greer Drilling Corporation for expansion of a unit area, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks authority to expand the Canada Ojitos Unit Area, authorized by Order No. R-2544, to include some 20,480 additional acres, more or less, of Federal, State and Fee lands in Township 24 North, Ranges 1 East and 1 West, Township 25 North, Ranges 1 East and 1 West; and Township 26 North, Range 1 East, Rio Arriba County, New Mexico.

CASE 4366: (Readvertised)  
Application of Mobil Oil Corporation for down-hole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle production from the Vacuum-Wolfcamp and Vacuum-Upper Pennsylvanian Pools in the well-bore of its Bridges State Well No. 109, a triple completion, located in Unit N of Section 24, Township 17 South, Range 34 East, Lea County, New Mexico.

CASE 4375: Application of Pan American Petroleum Corporation for an exception to Rule 104 C. I, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an exception Rule 104 C. I of the Commission Rules and Regulations to permit the completion within 660 feet of another producing

CASE 4375 - Continued from Page 3 -

well of its Byers "A" Well No. 1 which is being directionally drilled in Unit C of Section 5, Township 19 South, Range 38 East, Hobbs Pool, Lea County, New Mexico, pursuant to Order No. R-3973.

CASE 4376: Application of Pan American Petroleum Corporation for an exception to Order No. R-3221, as amended, Chaves 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. Said exception would be for applicant's Lusk "A" Lease comprising the NE/4 of Section 6, Township 15 South, Range 30 East, Double L-Queen Pool, Chaves County, New Mexico. Applicant seeks authority to dispose of salt water produced by wells on said lease in an unlined surface pit.

CASE 4377: Application of Champlin Petroleum Company for a unit agreement, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks approval of the State 32-7-33 Unit Area comprising 640 acres, more or less, of State lands in Section 32, Township 7 South, Range 33 East, Chaveroo-San Andres Pool, Roosevelt County, New Mexico.

CASE 4378: Application of Champlin Petroleum Company for a waterflood expansion and amendment of Order No. R-3550, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to expand its State 32 Waterflood Project, Chaveroo-San Andres Pool, by the conversion of water injection of one additional well located in Unit B of Section 32, Township 7 South, Range 33 East, Roosevelt County, New Mexico. Applicant further seeks the amendment of Order No. R-3550 to permit administrative approval for the drilling or conversion of additional injection wells without a showing of well response.

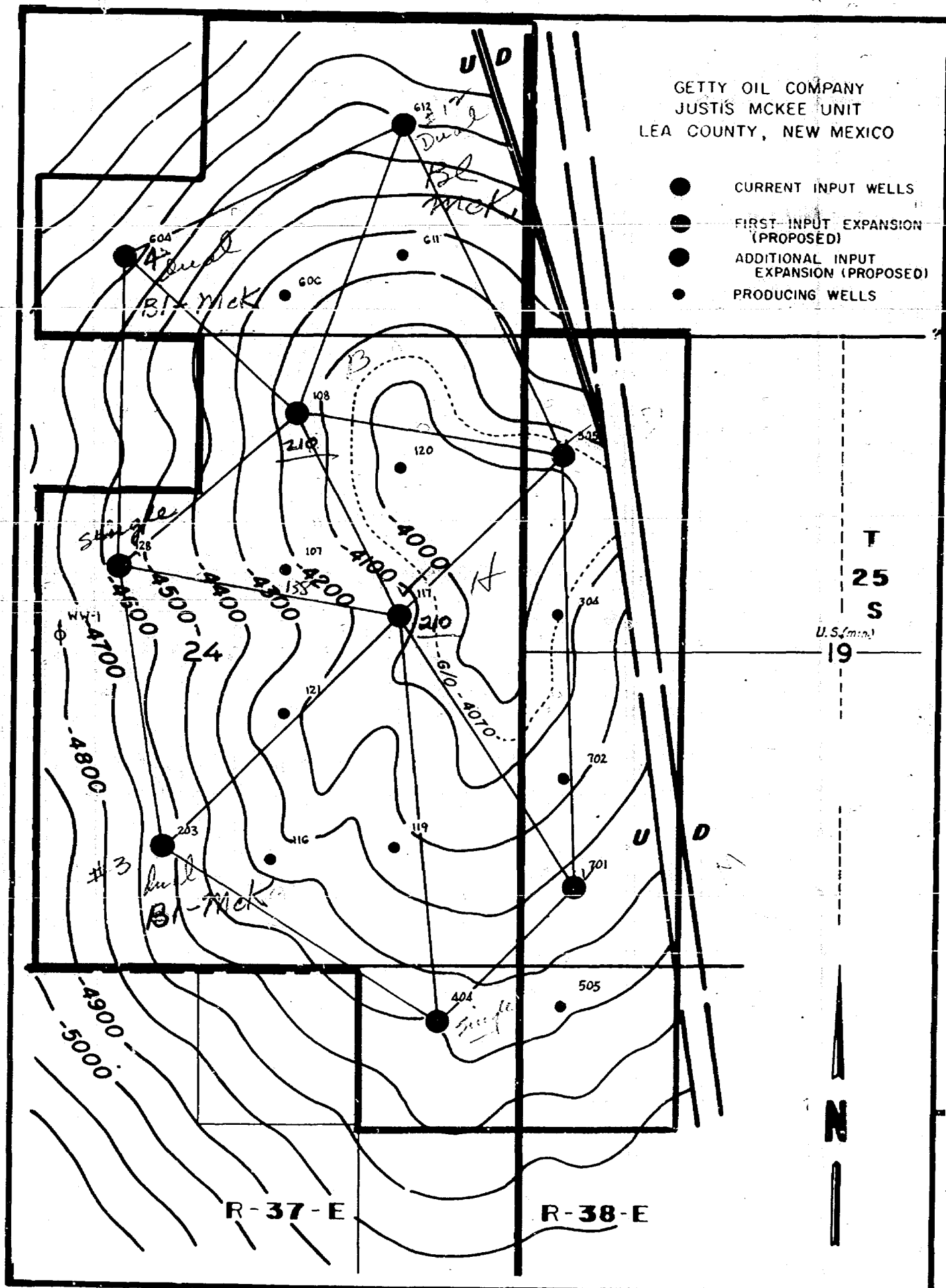
CASE 4379: Application of Hal M. Stierwalt for an exception to Order No. R-3221, as amended, Eddy County, New Mexico. Applicant, in the above-styled cause, for himself and as agent for Southern Union Production Company, seeks an exception to Order No. R-3221, as amended, which order prohibits the disposal 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. Said exception would be for eight of Stierwalt's wells and four of Southern Union Production Company's wells located in Sections 1 and 2 of Township 16 South, Range 30 East, West Henshaw-Grayburg Pool, Eddy County, New Mexico. Applicant seeks authority to dispose of salt water produced by said wells in unlined surface pits located in the vicinity of said wells.

CASE 4380: Application of Shenandoah Oil Corporation for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the Shugart Pool, Eddy County, New Mexico, by the injection of water into the Yates and Queen formations through its Shugart "B" Well No. 1 located in the SW/4 SE/4 of Section 33, Township 18 South, Range 31 East.



GETTY OIL COMPANY  
JUSTIS MCKEE UNIT  
LEA COUNTY, NEW MEXICO

- CURRENT INPUT WELLS
- FIRST-INPUT EXPANSION (PROPOSED)
- ADDITIONAL INPUT EXPANSION (PROPOSED)
- PRODUCING WELLS



Justis McKee Unit Well 108-13

BEFORE EXAMINER
OIL CONSERVATION COMMISSION
EXHIBIT NO. <u>1</u>
CASE NO. <u>4371</u>

GETTY OIL COMPANY  
JUSTIS MC KEE UNIT (EFFECTIVE 1-1-66)  
LEA COUNTY, NEW MEXICO

WELL NO.	CUM. PRODUCTION TO 1-1-66		PRODUCTION RATE AT UNITIZATION		PRODUCTION RATE AT PRESENT		CUM. PRODUCTION SINCE 1-1-66		INJECTION RATE		CUM. TO 6-1-70
	(BO)	(BW)	(BOPD)	(BWPD)	(BOPD)	(BWPD)	(BO)	(BW)	INITIAL (BWPD)	PRESENT (BWPD)	
							TO 6-1-70			MAY TEST	
<b>PRODUCERS</b>											
107	118,948	-	12 (6-65)	-	1 (2-70)	0	3,760	2,308	-	-	-
116	53,081	-	1	0	3	0	6,945	2,119	-	-	-
119	89,283	-	5	0	1	1	4,529	1,298	-	-	-
120	35,503	-	1	-	SHUT IN	-	28	0	-	-	-
121	92,995	-	5	0	SHUT IN	-	1,695	202	-	-	-
304	67,289	-	3	-	2	0	2,885	291	-	-	-
505	26,810	-	SHUT IN	-	-	-	0	567	-	-	-
606	160,516	-	22	-	26	0	28,062	1,045	-	-	-
611	120,614	-	3 (6-65)	-	SHUT IN	-	0	0	-	-	-
702	104,114	-	9	-	SHUT IN	-	1,265	103	-	-	-
<b>PROPOSED INJECTORS</b>											
108	126,891	-	1	0	1	0	1,086	229	-	-	-
117	54,060	-	3	0	1	0	2,994	1,293	-	-	-
305	70,704	-	2 (11-65)	-	1	1	11,485	336	-	-	-
701	83,666	-	12	-	SHUT IN	-	3,798	1,448	-	-	-
<b>PRESENT INJECTORS</b>											
128	*Drilled in 11-68	-	-	-	-	-	-	-	310	111	98,211
203	*	-	-	-	-	-	-	-	306	232	297,851
404	31,759	-	SHUT IN	-	-	-	185	0	273	151	177,041
604	*	-	-	-	-	-	-	-	106	87	80,911
612	*	-	-	-	-	-	-	-	181	75	66,521
<b>UNIT TOTAL</b>											
	1,236,233	-	79	.54	56	2	68,717	11,239	1,185	656	720,551

\*Did not produce out of Justis Mc Kee Zone.

6-25-70  
/bh

GETTY OIL COMPANY  
JUSTIS MC KEE UNIT (EFFECTIVE 1-1-66)  
LEA COUNTY, NEW MEXICO

PRODUCTION 1-66 (BW)	PRODUCTION RATE AT UNITIZATION		PRODUCTION RATE AT PRESENT		CUM. PRODUCTION SINCE 1-1-66		INJECTION RATE		CUM. INJECTION TO 6-1-70 (BW)
	(BOPD)	(BWPD)	(BOPD)	(BWPD)	(BO)	(BW)	INITIAL (BWPD)	PRESENT (BWPD) MAY TEST	
48 -	12 (6-65)	-	1 (2-70)	0	3,760	2,308	-	-	-
81 -	1	0	3	0	6,945	2,119	-	-	-
83 -	5	0	1	1	4,529	1,298	-	-	-
03 -	1	-	SHUT IN	-	28	0	-	-	-
95 -	5	0	SHUT IN	-	1,695	202	-	-	-
89 -	3	-	2	0	2,885	291	-	-	-
10 -	SHUT IN	-	-	-	0	567	-	-	-
16 -	22	-	26	0	28,062	1,045	-	-	-
14 -	3 (6-65)	-	SHUT IN	-	0	0	-	-	-
14 -	9	-	SHUT IN	-	1,265	103	-	-	-
91 -	1	0	1	0	1,086	229	-	-	-
60 -	3	0	1	0	2,994	1,293	-	-	-
04 -	2 (11-65)	-	1	1	11,485	336	-	-	-
66 -	12	-	SHUT IN	-	3,798	1,448	-	-	-
led in 11-68	-	-	-	-	-	-	310	111	98,212
-	-	-	-	-	-	-	306	232	297,855
59 -	SHUT IN	-	-	-	185	0	273	151	177,046
-	-	-	-	-	-	-	106	87	80,915
-	-	-	-	-	-	-	181	75	66,523
233 -	79	.54	56	2	68,717	11,239	1,185	656	720,551

not produce out of Justis Mc Kee Zone.

BEFORE EXAMINER UTZ

OIL CONSERVATION COMMISSION

4/10 EXHIBIT NO. 2

CASE NO. 4371

GETTY OIL COMPANY  
JUSTIS MC KEE UNIT WELL NO. 108  
MECHANICAL SKETCH OF WELL COMPLETION

Long String = 2-3/8" 4.7# J-55  
8R W/Turned Down Couplings

5842'

Tubb Drinkard Perfs.

5960'

Seating Nipple @ 5960'

Perforated Nipple @ 5961'

Baker Parallel Anchor @ 5970'

BEFORE EXAMINER UTZ  
OIL CONSERVATION COMMISSION

EXHIBIT NO. 3  
CASE NO. 4371

SS

Baker Model "L" Sliding Sleeve @ 7214'

Baker Model "D" Packer @ 7219'

SN

Seating Nipple @ 7251'

7325'

Mc Kee Perforations

7372'

PBTD 7484'

7" Casing 7520'

GETTY OIL COMPANY  
JUSTIS MC KEE UNIT WELL NO. 117  
PROPOSED MECHANICAL SKETCH OF WELL COMPLETION

SHORT STRING = 2-3/8" 4.7# J-55  
C.S. Hydril @ 7367'.

Dual Packer @ 7100'

7210'

MC KEE PERFORATIONS  
7320'

Baker Model "L" Sliding Sleeve @ 7613'  
7" 23# Baker Model "D" Packer @ 7615'

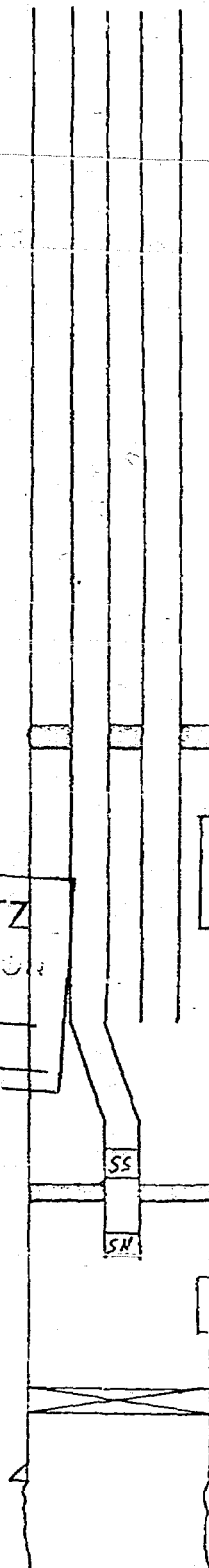
7764'  
ELLENBURGER PERFORATIONS  
7782'

Cement Retainer @ 7849' & PBTD @ 7844'

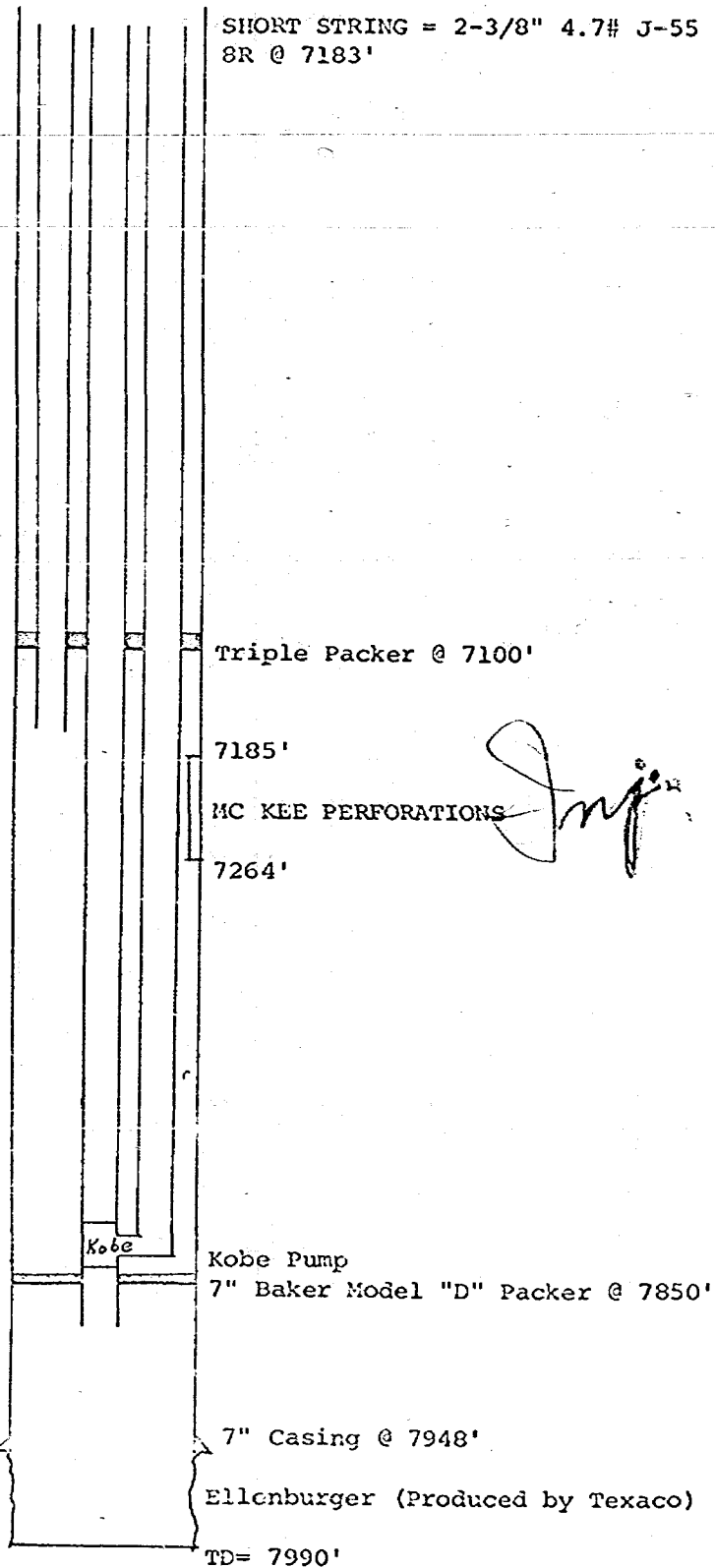
7" Casing @ 7912'.

T.D. @ 7950'

BEFORE EXAMINER UTZ  
OIL CONSERVATION COMMISSION  
EXHIBIT NO. 4  
FILE NO. 4371



GETTY OIL COMPANY  
JUSTIS MC KEE UNIT WELL NO. 305  
PROPOSED MECHANICAL SKETCH OF WELL COMPLETION



BEFORE EXAMINER UTZ  
OIL CONSERVATION COMMISSION  
EXHIBIT NO. 5  
CASE NO. 4371



GETTY OIL COMPANY  
JUSTIS MC KEE UNIT WELL NO. 701  
PROPOSED MECHANICAL SKETCH OF WELL COMPLETION

Tubing = 2-3/8" 4.7# J-55 Set @ 7573'

Tension Packer @ 7400'

7462'

MC KEE PERFORATIONS  
7529'

Bridge Plug @ 7700'.

ELLENBURGER = Abandoned

BEFORE EXAMINER UTZ

OIL CONSERVATION COMMISSION

EXHIBIT NO. 6

CASE NO. 43 71

BOX 1468      MONAHANS, TEXAS      WI 3-3234

LABORATORY NO. 26741  
TO: Mr. Harold Vest  
P. O. Box 249, Hobbs, New Mexico  
SAMPLE RECEIVED 2-14-67  
RESULTS REPORTED 2-16-67  
COMPANY Tidewater Oil Company LEASE A. R. Coates "C"  
FIELD OR POOL Justis (McKee) Unit  
SECTION BLOCK SURVEY COUNTY Lea STATE N. M.  
SOURCE OF SAMPLE AND DATE TAKEN:

SOURCE OF SAMPLE AND DATE TAKEN:

No. 1 Raw water = taken from water supply well #1-E. 5:00 P.M. 2-14-67

NO. 2

**NO. 3**

NO. 4

REMARKS: Rustler Zone

Form No. 1

cc: Mr. R. N. Miller, Midland

BY

Waylan C. Martin, M. A.

JUN 9 PM 1 27

BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION

APPLICATION OF GETTY OIL COMPANY  
FOR APPROVAL OF ADDITIONAL INJECTION  
WELLS IN THE JUSTIS-McKEE UNIT  
WATERFLOOD PROJECT, LEA COUNTY, NEW  
MEXICO AND FOR AMENDMENT OF ORDERS  
NOS. R-2966 and R-2966A

NO. 4371

A P P L I C A T I O N

Comes now the Applicant Getty Oil Company and  
applies to the New Mexico Oil Conservation Commission for an  
Order authorizing four (4) additional injection wells in the  
Justis-McKee Unit Waterflood Project, Lea County, New Mexico,  
and amending Orders Nos. R-2966 and R-2966A, and in support  
of its application states:

1. Applicant is the operator of the Justis-McKee Unit  
Waterflood Project in the Justis-McKee Unit area, Justis-McKee  
Pool, Lea County, New Mexico, as authorized by Orders Nos.  
R-2966 and R-2966A, Case No. 3301.

2. Applicant seeks authority to modify the water  
injection pattern in the said waterflood project and seeks an  
order approving the injection of water into the McKee formation  
through the following wells which will be converted to water  
injection:

Well No. Location

108	660' FNL & 1880' FEL, Unit B, Sec. 24, T25S, R37E
117	2280' FNL & 960' FEL Unit H, " " "
308	990' FNL & 330' FEL, Unit G, Sec. 19, T25S, R38E
701	601' FSL & 330' FWL, Unit M, " " "

3. Applicant further seeks amendment of Orders Nos.  
R2966 and R2966A to establish an administrative procedure  
whereby additional wells may be drilled or converted to water

DOCKET MAILED

Date 6-18-70

injection at orthodox or unorthodox locations without the necessity of further hearing.

4. Attached to this application is a plat showing the unit area and the location of the wells which applicant proposes to convert to injection pursuant to this application.

5. Approval of this application is necessary in order to permit applicant to operate the said waterflood project in an efficient manner. Approval of this application will prevent waste and protect correlative rights.

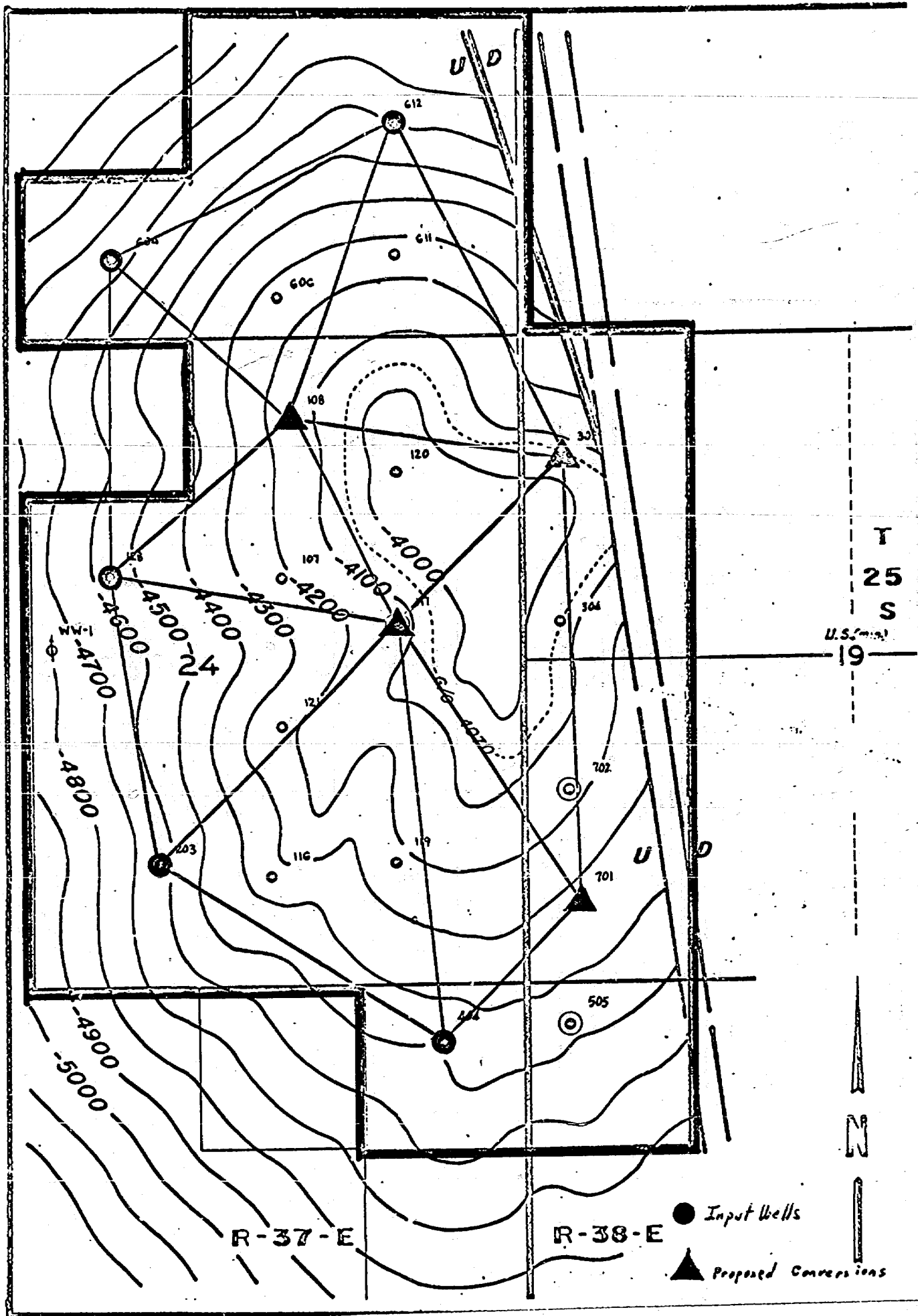
WHEREFORE, Getty Oil Company requests that this application be set for hearing before the Commission or one of its examiners and that the Commission enter its order approving this application.

MONTGOMERY, FEDERICI, ANDREWS,  
HANNAHS & MORRIS

BY:

  
Post Office Box 2307  
Santa Fe, New Mexico 87501

Attorneys for Getty Oil  
Company



Case 4371

DRAFT

GMH/esr

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

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

CASE No. 4371

Order No. R-3993

APPLICATION OF GETTY OIL COMPANY  
FOR A WATERFLOOD EXPANSION AND  
AMENDMENT OF ORDER NO. R-2966, AS  
AMENDED, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on July 1, 1970,  
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

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

FINDS:

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

(2) That the applicant, Getty Oil Company, seeks authority  
to expand the Justis-McKee Unit Waterflood Project, Justis-McKee  
Pool, approved by Orders Nos. R-2966 and R-2966-A and formerly

~~operated by Tidewater Oil Company, by the conversion to water~~

operated by Tidewater Oil Company, by the conversion to water injection of four additional wells ~~in Units B and H of Section 24, Township 15 South, Range 37 East, and in Units D and M of Section 19, Township 25 South, Range 38 East, NMPM, Lea County, New Mexico.~~ described as follows:

Township 25 South, Range 37 East, NMPM

Justin McKee Unit Well No. 108, to be dually completed, Unit B - Section 24  
Justin McKee Unit Well No. 117, to be dually completed, Unit H, Sec. 24

Township 25 South, Range 38 East, NMPM

Justin McKee Unit Well No. 305, ~~Unit D - Section 19~~ to be dually completed, Section 19

Justin McKee Unit Well No. 305, to be dually completed - ~~Unit D~~  
Unit D - Section 19

Justin McKee Unit Well No. 701, a single completion - Unit M, Section 19

(enclosed)

(4) That the ~~proposed~~ expansion of the subject waterflood ~~by the conversion to water injection of the above-described wells Nos. 108 and 701~~ project, should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

(5) That the ~~proposed~~ expansion of the subject waterflood ~~by the conversion to water injection of the above-described wells Nos. 108 and 701~~ project, should be approved.

(6) That the injection of water into the McKee formation in the above-described wells Nos. 117 and 305 ~~from~~ above a packer separating the McKee and Ellenburger formations, may cause, through failure of said packer or <sup>the surrounding fluid</sup> cement, damage to the Ellenburger formation, thereby causing waste.

(7) That the applicant's request to convert the above-described wells Nos. 117 and 305 to water injection should be denied. (under)

(8) That approval of the aforesaid amendment will afford the applicant the opportunity to produce its just and equitable share of the oil in the Justis-McKee Pool, and will otherwise prevent waste and protect correlative rights, <sup>in which</sup> provided said ~~as single completions or the dually completed wells~~ injection wells are drilled no closer than 330 feet to the <sup>unit</sup> outer boundary of the aforesaid waterflood project area nor closer than 10 feet to any quarter-quarter section or subdivision inner boundary.

IT IS THEREFORE ORDERED:

(1) That the applicant, Getty Oil Company, is hereby authorized to expand its Justis-McKee Unit Waterflood Project in the Justis-McKee Pool, Lea County, New Mexico, by converting to water injection the following-described wells:

Township 25 South, Range 37 East, N.M.P.M.

~~Justis-McKee Unit well No. 108 - Unit B - Section 24~~

Justis-McKee Unit well No. 108, to be dually completed - Unit B - Section 24

Township 25 South, Range 37 East, N.M.P.M.

Justis-McKee Unit well No. 701, a single completion, Unit M - Section 19



(2) That monthly progress reports of the expanded Justis-McKee Unit Waterflood Project shall be submitted to the Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

(3) That Order (2) of Commission Order No. R-2966, dated September 13, 1965, is hereby amended to read in its entirety as follows:

"(2) That the subject waterflood project, as expanded, shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations;

PROVIDED HOWEVER, that the Secretary-Director of the Commission may approve the drilling or conversion of additional water injection wells at orthodox and unorthodox locations within said waterflood project area as may be necessary to complete an efficient injection pattern; provided wells ~~are~~ <sup>shall be</sup> drilled no closer than 330 feet to the outer boundary of said waterflood project area nor closer than 10 feet to any quarter-quarter section or subdivision inner boundary, and provided further, that the application therefor has been filed in accordance with Rule 701 B of the Commission Rules and Regulations, and provided further, that a copy of the application has been sent to all offset operators, if any there be, and no such operator has objected within 15 days. The showing of well response as required by Rule 701 E-5 shall not be necessary before obtaining administrative approval for the conversion of additional wells to water injection."

(5) 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.

(4) That the applicant's request to convert to water injection its Wells Nos. 112 and 305 described in Finding No. (2), above, is hereby denied.

*One single completion on dual completion in unit to injection zone is below the producing zone and thus*

CASE 4372: Appli. INTERNATIONAL  
HYDROCARBONS INC. FOR UNORTHODOX  
GAS WELL LOCATION, LEA COUNTY.