CASE NO.

7058

APPLICATION,

TRANSCRIPTS,

SMALL EXHIBITS,

ETC.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

LARRY KEHOE
SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

November 26, 1980

Re: CASE NO. 7058
ORDER NO. R-6525

Mr. William F. Carr
Campbell and Black
Attorneys at Law
Post Office Box 2208
Santa Fe, New Mexico

Applicant:

Tahoe Oil & Cattle Company

Dear Sir:

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

Yours very truly,

JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCD x
Artesia OCD x
Aztec OCD

Other

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 7058
Order No. R-6525

APPLICATION OF TAHOE OIL & CATTLE
COMPANY FOR DOWNHOLE COMMINGLING,
LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on October 29, 1980, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 25th day of November, 1980, the Division Director, 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 Division has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Tahoe Oil & Cattle Company, is the owner and operator of the Harrison Wells Nos. 1 and 2, located in Units A and H, respectively, and its Judy Well No. 1, located in Unit C, all in Section 7, Township 25 South, Range 37 East, NMPM, Lea County, New Mexico.

(3) That the applicant seeks authority to commingle Jalmat and Langlie Mattix production within the wellbores of the above-described wells.

(4) That the vertical limits of the Jalmat Pool as defined by Order No. R-520, dated August 12, 1954, include the Tansill and Yates formations and all but the lowermost 100 feet of the Seven Rivers formation.

(5) That the vertical limits of the Langlie-Mattix Pool, as defined by said Order No. R-520, include the lowermost 100 feet of the Seven Rivers formation and all of the Queen formation.

(6) That there has been some disparity among some geologists as to the actual base of the Seven Rivers formation and the top of the Queen formation and hence as to the location of the 100-foot marker separating the Jalmat and Langlie Mattix Pools.

(7) That as a result of this disparity, the subject wells and certain other wells in the general area which are classified as Langlie-Mattix wells have perforations extending across the aforesaid 100-foot marker in the Seven Rivers formation.

(8) That such crossing over from one pool into the other in this case appears to be an unintentional error.

(9) That to rectify the aforesaid error would require workover operations on the subject wells which would be expensive and might endanger the productivity of the subject wells, and would actually serve no beneficial purpose, inasmuch as the production and reservoir characteristics of the perforations immediately above and below the 100-foot marker are quite similar.

(10) That a reasonable solution to the problem in this case is to authorize the commingling of the production from the Lower Jalmat perforations and the Langlie-Mattix production in the wellbores of the subject wells.

(11) That such commingling will prevent waste and should not impair correlative rights and should be approved.

(12) That to allocate the commingled production to each of the commingled zones in the subject wells would be impracticable in this case and therefore all production should be attributed to the Langlie-Mattix Pool.

IT IS THEREFORE ORDERED:

(1) That the applicant, Tahoe Oil & Cattle Company, is hereby authorized to commingle Lower Jalmat and Langlie-Mattix production within the wellbores of the Harrison Wells Nos. 1 and 2 located in Units A and H, respectively, and its Judy Well No. 1, located in Unit C, all in Section 7, Township 25 South, Range 37 East, NMPM, Lea County, New Mexico.

(2) That all of the commingled production from the subject wells shall be attributed to the Langlie-Mattix Pool.

(3) That the effective date of the aforesaid commingling authorization for each of the subject wells shall be the date

the Harrison Well No. 1 was perforated between 3257 feet and 3390 feet, the date the Harrison Well No. 2 was perforated between 3127 feet and 3377 feet, and the date the Judy Well No. 1 was perforated between 3214 feet and 3335 feet, respectively.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

JOE D. RAMEY
Director

S E A L

fd/

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
29 October 1980

EXAMINER HEARING

IN THE MATTER OF:

Application of Tahoe Oil & Cattle Company for downhole commingling, Lea County, New Mexico. CASE 7058

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation Division: W. Perry Pearce, Esq.
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant: William F. Carr, Esq.
CAMPBELL & BLACK P. A.
Jefferson Place
Santa Fe, New Mexico 87501

I N D E X

E X H I B I T S

MR. NUTTER: The hearing will come to order, please. We'll call now Case Number 7058.

MR. PEARCE: Application of Tahoe Oil and Cattle Company for downhole commingling, Lea County, New Mexico.

MR. CARR: May it please the Examiner, I'm William F. Carr, Campbell and Black, P. A., Santa Fe, appearing on behalf of the applicant. I have one witness.

MR. NUTTER: Will the witness stand and be sworn, please?

(Witness sworn.)

KENNETH FREEMAN

being called as a witness and having been duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. CARR:

Q. Will you state your name and place of residence?

A. Kenneth A. Freeman. I reside in Midland, Texas.

Q. Mr. Freeman, by whom are you employed and in what capacity?

A. I own Tahoe Oil and Cattle Company and I'm a petroleum engineer.

Q. Have you previously testified before this Commission?

A. Yes, I have.

Q. Are you familiar with the application in this case and the subject area?

A. Yes, I am.

MR. CARR: Are the witness' qualifications acceptable?

MR. NUTTER: Yes, they are.

Q. Will you briefly state what Tahoe seeks with this application?

A. We have three wells in the Langlie Mattix zone and we are wanting to downhole commingle these three wells, and this was brought about by the work that was done by the Commission in May and July of this summer.

These wells we purchased in 1975. They were drilled by John Hill in Dallas, and we had purchased the wells, and this is what brought it all about.

Q. Have you prepared certain exhibits for introduction in this case?

A. Yes, I have.

Q. Will you refer to what has been marked

for identification as Tahoe Exhibit Number One and I would first direct your attention to the first page of this exhibit and ask you to explain to Mr. Nutter what this is?

A. This is in reference to the Harrison No. 1 Well and it is a plat of the general area. It's outlined in yellow, Section No. 7, 25, 37, Lea County, New Mexico. And it shows where these three wells are located.

Q. And the Harrison Well is located where? The Harrison No. 1.

A. If we would turn to page two, it has the location. It's in Unit A of Section 7, Township 25 South, Range 37 East.

Q. Does the first page of this exhibit show the location of the Langlie Jal flood?

A. Yes, it does.

Q. And where does that lie with respect to the subject wells?

A. It has a common east boundary.

Q. It generally lies to the south?

A. Well, it's to the north and to the east, the Union Texas Langlie Mattix Unit.

Q. And was an exception granted for the -- to the vertical limits in the Langlie Mattix for this unit?

A. Yes, it was.

Q. Was that by Order Number R-4051?

A. Yes, it was, in 1970.

Q. You are familiar with the study that the Commission made on wells that were completed out of zone in this area, are you not?

A. Yes, I am.

Q. And there are a number of wells in the Langlie Jal Unit, are there not, that are completed at shallower intervals than any of the three wells that are the subject of this application?

A. Yes.

Q. Will you now refer to the second page of this exhibit, your completion history, and summarize any data that we haven't previously reviewed for Mr. Nutter?

A. Well, page two is just the completion history, which has where casing was set, where the tubing is, and the perforations, and how the well was completed as far as the amount of acid and fracture treatment that was used.

Q. Mr. Freeman, will you now refer to the next page of this exhibit, which is your diagrammatic sketch, and review this for Mr. Nutter?

A. Well, this is just a sketch of the wellbore showing the casing, the 8-5/8ths, the 4-1/2, where the perforations are, and where the tubing is set, and the pump

depth.

Q. Now do the perforations in this well overlap the uppermost limit of the Langlie Mattix Pool?

A. Yes, they do.

MR. NUTTER: Mr. Freeman, the schematic diagram may need corrected.

Exhibit Two indicates the perforations are from 3257 to 3513; Exhibit Three, from 3257 to 3515.

And the Runyon report mentions 3257 to 13. Which would be correct?

A. I prepared this schematic from the well file that we obtained from Mr. Hill and the 3257 to 3515 is correct, to my -- to this -- as far as I know. This is what is in our well file.

MR. NUTTER: Well, then Exhibit Two would be the one, it says 3513.

A. Correct. The perforations are 3257 -- just a moment here. The perforations are 3257 to 3513.

MR. NUTTER: Okay, then we'll correct Exhibit Three, then.

A. There are twelve holes.

MR. CARR: So then page three of this exhibit should be corrected.

MR. NUTTER: To 13.

MR. CARR: Yes.

MR. NUTTER: Okay, go ahead.

Q. Is the ownership in the Jalmat and the Langlie Mattix common in the Harrison No. 1 Well?

A. Yes, it is.

Q. Would you now refer to the next page of this exhibit and review the information contained thereon?

A. This exhibit, I have prepared the production data, and the cum production on the No. 1 Well to 12-31-79 is 40,367 barrels of oil. And then I've broken it down, January through August, by monthly volumes of oil, gas, and water.

Q. And this well is producing quite a bit of water?

A. Yes, it is.

Q. Will you now refer to the next page of this exhibit and review this for Mr. Nutter?

A. This page was prepared by Union Texas Petroleum. It's July, 1980. It shows the production of the Langlie Jal Unit, and outlined in red is the Harrison lease, which comprises Well No. 1 that we're now discussing, and I have shown that it is making 20 barrels of oil and 60 barrels of water, and you can compare this to the various other wells in the Langlie Jal Unit and see that it -- productionwise it's

basically the same, and that's all there is to show.

Q. All right, will you now refer to the next page of this exhibit, which is the Commission form C-116?

A. These are well tests that I had submitted to the Commission and it's dated March 4th, 1980. It shows the Harrison 1 as producing 40 barrels of water and 32 barrels of oil and 16 Mcf of gas on the test that was taken February 25th.

Q. Will you now refer to the last page of this exhibit and explain to Mr. Nutter why it is included?

A. This is in essence a backup of the Union Texas report showing the production and the amount of water cut, and the waterflood is at this point 84 percent water cut of total fluid, and our well is in the 77 percent range. And we feel like if we can't downhole commingle, that we're going to lose a lot of oil.

Q. Would it be possible to segregate production between the Langlie Mattix and the Jalmat Pools?

A. In my opinion it would be extremely difficult.

Q. Are the reservoir characteristics such that underground waste would not result from this downhole commingling application?

A. Will you restate that?

Q. Are the reservoir characteristics such that underground waste will not result from downhole commingling?

A. There would not be any waste by commingling.

Q. In your opinion will approval of this application result in the recovery of hydrocarbons from the Harrison No. 1 that would otherwise not be recovered?

A. Yes, sir.

Q. Now would you refer to Exhibit Number Two and review this exhibit for Mr. Nutter?

We might note that Exhibit Number Two is similar to Exhibit Number One but it is for the Harrison No. 2 Well.

A. Well, Exhibit Number Two is the offsetting 40-acre tract to the Harrison No. 1. The front page is the plat of the area that we have just discussed.

Page number two here is the completion history on the Well No. 2. It is located in Unit H. Section 7, 25, 37, Lea County, New Mexico. It shows the casing and cement data and the perforations are 3127 to 3504, 14 holes overall. And then what it was acidized and treated with.

Page three is a sketch of the wellbore showing casing, perforations, the tubing, and the bottom hole pump is set.

Q. Again these perforations overlap the top of the Langlie Mattix?

A. Yes, they do.

The next page is the production data, the cum production as of 12-31-1979 was 30,540 barrels of oil, and the breakdown is from January through August, 1980, of both oil, gas, and water.

Q. Will you now refer to the next page of this exhibit?

A. This is the same copy of the Union Texas Langlie Jal Unit, showing where it is in relationship to the No. 2 Well. The No. 2 Well has a common easterly boundary to the Union Texas Unit.

And the next page is the test data that was taken February 26th, 1980, and we tested the well at 17 barrels of oil, 32 barrels of water, and 13 Mcf of gas.

And the last page is just another copy of the Union Texas production data on the Langlie Jal waterflood.

Q. And now with the Harrison No. 2, would it be possible to segregate the production between the zones in this well?

A. No, it wouldn't.

Q. And in your opinion would approval of

this application result in the recovery of hydrocarbons from the Harrison No. 2 that wouldn't otherwise be recovered?

A. Yes, it would.

Q. Will you now refer to your Exhibit Number Three and review this for Mr. Nutter?

A. Page one shows the area where the Judy No. 1 is located. It's also in Section 7.

If we go to page two, it is located in Unit C of Section 7, was completed in 1974, and the producing perforations are at 2814 to 2895.

Now --

Q. Now will you refer --

A. There are also additional perforations, I'd like to point out, at 3214 to 3469, if you'll look on page three.

Q. And that's the diagrammatic sketch of the well?

A. Yes, it is.

Q. Will you explain to Mr. Nutter what the status of this well is?

A. We had asked for approval to complete it in the Jalmat and we set a retrievable bridge plug and perforated 2814 to 2895, and we treated the well and were attempting to pull out the retrievable bridge plug, and the

tubing parted, and it was decided by the working interest owners to leave it as such. So the bridge plug is stuck at 2950, and this leaves the perforations from 2814 to 2895 open, which is primarily in the Yates zone.

Q. Now what about the perforations indicated from 3214 to 3469? Are they contributing any gas?

A. In my opinion they are not. We feel like they are plugged off with the retrievable bridge plug and the sand that's on top of it.

Q. Will you now refer to the next page of this exhibit, the production data?

A. It will be noted that the production of oil was 14,655 barrels of oil as of January 1, 1980, and during 1980 we have made no oil from the -- this well, and it produces only gas and water, and it is currently averaging 41 Mcf a day, and it is being classified as a stripper gas well.

Q. Will you now refer to the plat, which is the next page in Exhibit Three?

A. Well, this is another copy of the Langlie Jal Unit, showing the Judy 1 has a common north boundary with the Union Texas Unit, the Langlie Jal Unit.

Q. Will you now review the data contained on Form C-116, which is attached?

A. This shows that the test was taken Feb-

ruary 27th, 1980. The well made no oil, 97 barrels of water, and 70 Mcf of gas.

Q. And now the final page?

A. This is just another page of the summation of Union Texas' waterflood, showing production, number of active wells, et cetera.

Q. Now, Mr. Freeman, I would direct your attentio to the report that was prepared by Mr. Runyon concerning the pool boundaries and the wells which appear to be completed out of zone, and ask you in regard to the Judy No. 1, what figure do they recite for the pool boundary in that well?

A. It is referred to as 3335 feet.

Q. Now in the Judy No. 1 as now completed, are all the perforations in the Jalmat zone?

A. Yes, they are.

MR. CARR: Mr. Nutter, at this time we would request that this portion of the case -- we'd like to break this out of the case and ask that it be advertised as an exception to the vertical limits of the Langlie Mattix Pool. We think that the testimony that we've submitted would justify an order for an exception, due to the completion, or the manner in which this well is completed, all the perforations are in one zone, and it would be inappropriate to go

forward and attempt to downhole commingle this production.

MR. NUTTER: Well, you're assuming it's established that there's no communication --

MR. CARR: That's correct.

MR. NUTTER: -- between the uppermost perforations and the lowermost perforations.

MR. CARR: That's correct.

MR. NUTTER: I'm not sure there isn't.

MR. CARR: Okay. Well, if the testimony appears to show that all of the production comes from one zone, we would request that we be permitted to separate the Judy No. 1 from the rest of the -- from the other two wells.

MR. NUTTER: If it's established that there's no communication all of the perforations are in the Jalmat. There's no commingling --

MR. CARR: That's right.

MR. NUTTER: There's no exception. It's just an unusual method of separating the pools.

MR. CARR: All right, well, we'll defer then --

MR. NUTTER: And if it's established that this is the case, then that portion of this case can be dismissed and the well is home free.

MR. CARR: Okay.

Q. Mr. Freeman, is there any -- in your opinion will approval of the application for the Harrison 1, 2, and 3, result in the recovery of hydrocarbons that would not otherwise be recovered?

A. It would be the Harrison 1 --

Q. 1 and 2 and the Judy No. 1?

A. Yes, it would. I would like to point out at this time, the Judy No. 1 is not making any oil.

Q. Do you have anything further you'd like to add to your testimony here?

A. I do not, other than I feel like these wells are the same as the Union Texas Wells that are in the Langlie Jal Waterflood Unit. At one time I worked for Union Texas Petroleum and was unitization engineer and did a great deal of work on the Langlie Jal Unit, and I'm very familiar with it, and I think if we compare the logs, which I have done, and so forth, these are all very comparable wells and they have a common boundary.

Q. Will granting this application be in the interest of conservation, the prevention of waste, and the protection of correlative rights?

A. Yes, it would.

Q. Were Exhibits One through Three prepared

by you or under your direction and supervision?

A. Yes, they were.

MR. CARR: At this time, Mr. Nutter, we would offer into evidence Applicant's Exhibits One through Three.

MR. NUTTER: Exhibits One through Three will be admitted in evidence.

MR. CARR: I have nothing further on direct.

MR. NUTTER: Are there any questions of Mr. Freeman?

CROSS EXAMINATION

BY MR. NUTTER:

Q. Mr. Freeman, on this Judy No. 1, when was the -- where was the well originally perforated, in the lowermost perforations, those down there at 3214 to 3469?

A. Yes, sir.

Q. Uh-huh. And when was the attempt made to perforate in the upper portion, the 2814 to 95?

A. This was done in 1977.

Q. And then the well produced from both sets of perforations for a period of time, did it?

A. No, sir. In 1977 when the perforations

from 2814 to 2895 were opened up, the bridge plug and fish was -- that all occurred at the same time during the workover procedure. And there is a great number of working interest owners in this and there was a problem of getting them together as to whether we were going to clean this out and commingle it, and asked to do this, and we wanted to test what just the Yates would do, and they decided they wanted to leave it just as the upper zone, from 2814 to 2895.

Q. Uh-huh.

A. And so --

Q. So from 1974 until 1977 it produced from the lowermost perforations?

A. Yes, sir.

Q. Then the attempt was made to open the uppermost perforations and at that time, after perforating, you tried to pull the bridge plug and had the trouble.

A. Yes, sir. What we did, the bridge plug was set, the well was fracd, and went down to wash the sand off of it, got it cleaned out and released the bridge plug and it stuck. There was additional sand that fell in on top of it, and the tubing was pulled in two.

Q. Okay, now is that tubing in the bridge plug open at the bottom or did the bridge plug seal off the bottom of the tubing?

A. The bridge plug seals off the bottom of the tubing. This was just to fish out the -- there is not an opening in the bridge plug.

Q. This tubing was not production tubing. This is the tubing that you went in to try to pull the bridge plug.

A. Correct.

Q. So there's no opening down here at the bridge plug?

A. No, there is not.

Q. Now you did pull the bridge plug up from its original seating position, didn't you?

A. It came up 25 to 30 foot.

Q. Before the tubing parted.

A. Yes, sir.

Q. Now do you think it broke its seal at that time?

Q. I think there's a possibility that it broke its seal, but with this sand and so forth that has fallen in on top of it, I feel that it is packed off.

Q. Now how do you know that that sand is there?

A. We went in to try and get on top of the tubing and our overshot would not go down, and so this would

require running washover pipe to circulate the sand off, and the working interest owners did not want to spend the money at that time.

Q. Now would this be sand from the uppermost perforations, or this would be frac sand that was used to -- to frac the uppermost perforations when you made that completion?

A. Yes, it's sand from the uppermost perforations.

Q. Okay. Now did the producing characteristics of the well prior to the time it was dead -- now we realize that it was dead at the time you worked it over. What were the producing characteristics of it prior to the time you worked it over? Before it went dead, I mean? Was it an oil well?

A. Yes, it was. It made about 2 to 3 barrels of oil a day and about 90 barrels of water. And this was uneconomical.

Q. And how about gas production?

A. It had about -- I'm going to estimate the gas on it. It had about 20 Mcf a day from the lower zone.

Q. And then the thing went completely dead?

A. Yes.

Q. Then when you established production from

the uppermost perforations, assuming the lower perforations are sealed off, you're producing 41 Mcf of gas per day with no oil at this time?

A. Correct. And 103 barrels of water.

Q. Still producing water.

A. And if you'll notice on the Union Texas whatever number -- it's the next -- third from the last page.

Q. Exhibit Three.

A. If you'll look at the Well No. 70.

Q. Okay.

A. Union Texas Well is abandoned.

Q. Uh-huh.

A. The well directly -- No. 69 directly north of the Judy 1.

Q. That's an injection well.

A. That's an injection well, and then their Well No. 68, this shows no production. It's temporarily abandoned, and in my opinion, looking at the logs and what was in the well file, this is a very tight area, and I think it's pointed out by the wells to the north.

Q. Well, they are getting an awful lot of water into that No. 69 now, according to this legend.

A. Yes, they are, and the question is, I don't think it's going in the right spot. I think they have

channeling, and I think this is why Well No. 70 and 68 has been abandoned. But you can look just to the north of 69, Well 54, is 2 barrels of oil and 40 barrels of water, and this was very similar to what the Judy 1 was doing prior to the decision being made to come up the hole and complete it in these upper perforations.

Q. Now do you have any idea on the Harrison 1 and 2 what percentage of the production would be coming from the perforations that are in the Jalmat Pool and what percentage of the production would be coming from the perforations that are in the Langlie Mattix Pool?

A. No, sir, I would not. There's never been any tests since I've operated these wells where we have straddled these perforations, and I just couldn't speculate on that. I do not know.

Q. Well, it's customary in commingling cases, Mr. Freeman, to allocate production to each of the pools that's being commingled. What formula should the Division use in allocating your production?

A. I can't answer that because I just don't know. When we were with Union Texas, or I was working with Union Texas, this was discussed in the engineering subcommittees, and so forth, and that time they were thinking that 20 to 25 percent would come from the upper zone, or the Jalmat,

but in my opinion there was never anything very firm that you could base that on.

Q. Now you mentioned that Union Texas had an exemption to the vertical limit rule for this -- the Langlie Jal Unit, is that correct?

A. Yes, sir, it is.

Q. Is an exception to permit commingling in the pools or is it an exception that adjusts the vertical limits of the pools for that area?

A. Well, it -- it's an exemption -- or exception R-520 -- no, I'm sorry, let's see. It's exemption R-4051 that was granted in 1970, and the wells, the maximum --

Q. R what? R-5 --

A. R-4051.

Q. 4051.

A. Yes, sir. And it shows the amount that the vertical limits can cross, and the maximum depth has been 278 feet.

Q. Well, was the exception granted on an individual well basis, then, or a unit basis?

A. To my knowledge it was granted on a unit basis. All these wells were granted at one time when the waterflood was established, or the unit was established.

MR. NUTTER: Mr. Carr, I think it would

be appropriate that we get that order.

MR. CARR: Okay.

MR. NUTTER: And look at it and see how Union Texas was handled.

I'll recess the hearing for one minute.

(Thereupon a brief recess was taken.)

MR. NUTTER: The hearing will come to order, please.

Mr. Freeman, apparently Order No. R-4051 simply authorized a waterflood project in the Jalmat and the Langlie Mattix Pool without making any reference to commingling or allocation of production, or anything. It simply treated the two pools as one pool for waterflooding purposes.

A. Well, that's basically as I remember when -- I mean I couldn't recall. There was discussion at the time in the engineering subcommittee as to trying to break this out into what would be allocated to each zone, and the information, it just wasn't there, and no one had run tests on it, and --

Q. But apparently for unitization purposes the entire interval was unitized and is the unitized formation.

A. Yes, sir.

Q. So it was all common ownership. Now there is common ownership as far as your leases here are concerned.

A. Yes, there is.

Q. And you're offsetting a waterflood project that was recognized as being commingled for waterflooding purposes. Okay.

MR. NUTTER: Are there any further questions of Mr. Freeman? He may be excused.

Do you have anything further, Mr. Carr?

MR CARR: Nothing further, Mr. Nutter.

MR. NUTTER: Does anyone have anything they wish to offer in Case Number 7058?

We'll take the case under advisement.

(Hearing concluded.)

C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Sally W. Boyd C.S.R.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 7058 heard by me on 10/29 80.

Examiner
Oil Conservation Division

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
29 October 1980

EXAMINER HEARING

IN THE MATTER OF:

Application of Tahoe Oil & Cattle Company for downhole commingling, Lea County, New Mexico.

CASE 7058

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation Division: W. Perry Pearce, Esq.
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant: William F. Carr, Esq.
CAMPBELL & BLACK P. A.
Jefferson Place
Santa Fe, New Mexico 87501

I N D E X

E X H I B I T S

MR. NUTTER: The hearing will come to order, please. We'll call now Case Number 7058.

MR. PEARCE: Application of Tahoe Oil and Cattle Company for downhole commingling, Lea County, New Mexico.

MR. CARR: May it please the Examiner, I'm William F. Carr, Campbell and Black, P. A., Santa Fe, appearing on behalf of the applicant. I have one witness.

MR. NUTTER: Will the witness stand and be sworn, please?

(Witness sworn.)

KENNETH FREEMAN

being called as a witness and having been duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. CARR:

Q. Will you state your name and place of residence?

A. Kenneth A. Freeman. I reside in Midland, Texas.

Q. Mr. Freeman, by whom are you employed and in what capacity?

A. I own Tahoe Oil and Cattle Company and I'm a petroleum engineer.

Q. Have you previously testified before this Commission?

A. Yes, I have.

Q. Are you familiar with the application in this case and the subject area?

A. Yes, I am.

MR. CARR: Are the witness' qualifications acceptable?

MR. NUTTER: Yes, they are.

Q. Will you briefly state what Tahoe seeks with this application?

A. We have three wells in the Langlie Mattix zone and we are wanting to downhole commingle these three wells, and this was brought about by the work that was done by the Commission in May and July of this summer.

These wells we purchased in 1975. They were drilled by John Hill in Dallas, and we had purchased the wells, and this is what brought it all about.

Q. Have you prepared certain exhibits for introduction in this case?

A. Yes, I have.

Q. Will you refer to what has been marked

for identification as Tahoe Exhibit Number One and I would first direct your attention to the first page of this exhibit and ask you to explain to Mr. Nutter what this is?

A. This is in reference to the Harrison No. 1 Well and it is a plat of the general area. It's outlined in yellow, Section No. 7, 25, 37, Lea County, New Mexico. And it shows where these three wells are located.

Q. And the Harrison Well is located where? The Harrison No. 1.

A. If we would turn to page two, it has the location. It's in Unit A of Section 7, Township 25 South, Range 37 East.

Q. Does the first page of this exhibit show the location of the Langlie Jal flood?

A. Yes, it does.

Q. And where does that lie with respect to the subject wells?

A. It has a common east boundary.

Q. It generally lies to the south?

A. Well, it's to the north and to the east, the Union Texas Langlie Mattix Unit.

Q. And was an exception granted for the -- to the vertical limits in the Langlie Mattix for this unit?

A. Yes, it was.

Q. Was that by Order Number R-4051?

A. Yes, it was, in 1970.

Q. You are familiar with the study that the Commission made on wells that were completed out of zone in this area, are you not?

A. Yes, I am.

Q. And there are a number of wells in the Langlie Jal Unit, are there not, that are completed at shallower intervals than any of the three wells that are the subject of this application?

A. Yes.

Q. Will you now refer to the second page of this exhibit, your completion history, and summarize any data that we haven't previously reviewed for Mr. Nutter?

A. Well, page two is just the completion history, which has where casing was set, where the tubing is, and the perforations, and how the well was completed as far as the amount of acid and fracture treatment that was used.

Q. Mr. Freeman, will you now refer to the next page of this exhibit, which is your diagrammatic sketch, and review this for Mr. Nutter?

A. Well, this is just a sketch of the well-bore showing the casing, the 8-5/8ths, the 4-1/2, where the perforations are, and where the tubing is set, and the pump

depth.

Q. Now do the perforations in this well overlap the uppermost limit of the Langlie Matrix Pool?

A. Yes, they do.

MR. NUTTER: Mr. Freeman, the schematic diagram may need corrected.

Exhibit Two indicates the perforations are from 3257 to 3513; Exhibit Three, from 3257 to 3515.

And the Runyon report mentions 3257 to 13. Which would be correct?

A. I prepared this schematic from the well file that we obtained from Mr. Hill and the 3257 to 3515 is correct, to my -- to this -- as far as I know. This is what is in our well file.

MR. NUTTER: Well, then Exhibit Two would be the one, it says 3513.

A. Correct. The perforations are 3257 -- just a moment here. The perforations are 3257 to 3513.

MR. NUTTER: Okay, then we'll correct Exhibit Three, then.

A. There are twelve holes.

MR. CARR: So then page three of this exhibit should be corrected.

MR. NUTTER: To 13.

MR. CARR: Yes.

MR. NUTTER: Okay, go ahead.

Q. Is the ownership in the Jalmat and the Langlie Mattix common in the Harrison No. 1 Well?

A. Yes, it is.

Q. Would you now refer to the next page of this exhibit and review the information contained thereon?

A. This exhibit, I have prepared the production data, and the cum production on the No. 1 Well to 12-31-79 is 40,367 barrels of oil. And then I've broken it down, January through August, by monthly volumes of oil, gas, and water.

Q. And this well is producing quite a bit of water?

A. Yes, it is.

Q. Will you now refer to the next page of this exhibit and review this for Mr. Nutter?

A. This page was prepared by Union Texas Petroleum. It's July, 1980. It shows the production of the Langlie Jal Unit, and outlined in red is the Harrison lease, which comprises Well No. 1 that we're now discussing, and I have shown that it is making 20 barrels of oil and 60 barrels of water, and you can compare this to the various other wells in the Langlie Jal Unit and see that it -- productionwise it's

basically the same, and that's all there is to show.

Q. All right, will you now refer to the next page of this exhibit, which is the Commission form C-116?

A. These are well tests that I had submitted to the Commission and it's dated March 4th, 1980. It shows the Harrison 1 as producing 40 barrels of water and 32 barrels of oil and 16 Mcf of gas on the test that was taken February 25th.

Q. Will you now refer to the last page of this exhibit and explain to Mr. Nutter why it is included?

A. This is in essence a backup of the Union Texas report showing the production and the amount of water cut, and the waterflood is at this point 84 percent water cut of total fluid, and our well is in the 77 percent range. And we feel like if we can't downhole commingle, that we're going to lose a lot of oil.

Q. Would it be possible to segregate production between the Langlie Mattix and the Jalmat Pools?

A. In my opinion it would be extremely difficult.

Q. Are the reservoir characteristics such that underground waste would not result from this downhole commingling application?

A. Will you restate that?

Q. Are the reservoir characteristics such that underground waste will not result from downhole commingling?

A. There would not be any waste by commingling.

Q. In your opinion will approval of this application result in the recovery of hydrocarbons from the Harrison No. 1 that would otherwise not be recovered?

A. Yes, sir.

Q. Now would you refer to Exhibit Number Two and review this exhibit for Mr. Nutter?

We might note that Exhibit Number Two is similar to Exhibit Number One but it is for the Harrison No. 2 Well.

A. Well, Exhibit Number Two is the offsetting 40-acre tract to the Harrison No. 1. The front page is the plat of the area that we have just discussed.

Page number two here is the completion history on the Well No. 2. It is located in Unit H, Section 7, 25, 37, Lea County, New Mexico. It shows the casing and cement data and the perforations are 3127 to 3504, 14 holes overall. And then what it was acidized and treated with.

Page three is a sketch of the wellbore showing casing, perforations, the tubing, and the bottom hole pump is set.

Q. Again these perforations overlap the top of the Langlie Mattix?

A. Yes, they do.

The next page is the production data, the cum production as of 12-31-1979 was 30,540 barrels of oil, and the breakdown is from January through August, 1980, of both oil, gas, and water.

Q. Will you now refer to the next page of this exhibit?

A. This is the same copy of the Union Texas Langlie Jal Unit, showing where it is in relationship to the No. 2 Well. The No. 2 Well has a common easterly boundary to the Union Texas Unit.

And the next page is the test data that was taken February 26th, 1980, and we tested the well at 17 barrels of oil, 32 barrels of water, and 13 Mcf of gas.

And the last page is just another copy of the Union Texas production data on the Langlie Jal water-flood.

Q. And now with the Harrison No. 2, would it be possible to segregate the production between the zones in this well?

A. No, it wouldn't.

Q. And in your opinion would approval of

this application result in the recovery of hydrocarbons from the Harrison No. 2 that wouldn't otherwise be recovered?

A. Yes, it would.

Q. Will you now refer to your Exhibit Number Three and review this for Mr. Nutter?

A. Page one shows the area where the Judy No. 1 is located. It's also in Section 7.

If we go to page two, it is located in Unit C of Section 7, was completed in 1974, and the producing perforations are at 2814 to 2895.

Now --

Q. Now will you refer --

A. There are also additional perforations, I'd like to point out, at 3214 to 3469, if you'll look on page three.

Q. And that's the diagrammatic sketch of the well?

A. Yes, it is.

Q. Will you explain to Mr. Nutter what the status of this well is?

A. We had asked for approval to complete it in the Jalmat and we set a retrievable bridge plug and perforated 2814 to 2895, and we treated the well and were attempting to pull out the retrievable bridge plug, and the

tubing parted, and it was decided by the working interest owners to leave it as such. So the bridge plug is stuck at 2950, and this leaves the perforations from 2814 to 2895 open, which is primarily in the Yates zone.

Q. Now what about the perforations indicated from 3214 to 3469? Are they contributing any gas?

A. In my opinion they are not. We feel like they are plugged off with the retrievable bridge plug and the sand that's on top of it.

Q. Will you now refer to the next page of this exhibit, the production data?

A. It will be noted that the production of oil was 14,655 barrels of oil as of January 1, 1980, and during 1980 we have made no oil from the -- this well, and it produces only gas and water, and it is currently averaging 41 Mcf a day, and it is being classified as a stripper gas well.

Q. Will you now refer to the plat, which is the next page in Exhibit Three?

A. Well, this is another copy of the Langlie Jal Unit, showing the Judy 1 has a common north boundary with the Union Texas Unit, the Langlie Jal Unit.

Q. Will you now review the data contained on Form C-116, which is attached?

A. This shows that the test was taken Feb-

ruary 27th, 1990. The well made no oil, 97 barrels of water, and 70 Mcf of gas.

Q. And now the final page?

A. This is just another page of the summation of Union Texas' waterflood, showing production, number of active wells, et cetera.

Q. Now, Mr. Freeman, I would direct your attentio to the report that was prepared by Mr. Runyon concerning the pool boundaries and the wells which appear to be completed out of zone, and ask you in regard to the Judy No. 1, what figure do they recite for the pool boundary in that well?

A. It is referred to as 3335 feet.

Q. Now in the Judy No. 1 as now completed, are all the perforations in the Jalmat zone?

A. Yes, they are.

MR. CARR: Mr. Stuhler, at this time we would request that this portion of the case -- we'd like to break this out of the case and ask that it be advertised as an exception to the vertical limits of the Langlie Mattix Pool. We think that the testimony that we've submitted would justify an order for an exception, due to the completion, or the manner in which this well is completed, all the perforations are in one zone, and it would be inappropriate to go

forward and attempt to downhole commingle this production.

MR. NUTTER: Well, you're assuming it's established that there's no communication --

MR. CARR: That's correct.

MR. NUTTER: -- between the uppermost perforations and the lowermost perforations.

MR. CARR: That's correct.

MR. NUTTER: I'm not sure there isn't.

MR. CARR: Okay. Well, if the testimony appears to show that all of the production comes from one zone, we would request that we be permitted to separate the Judy No. 1 from the rest of the -- from the other two wells.

MR. NUTTER: If it's established that there's no communication all of the perforations are in the Jalmat. There's no commingling --

MR. CARR: That's right.

MR. NUTTER: There's no exception. It's just an unusual method of separating the pools.

MR. CARR: All right, well, we'll defer then --

MR. NUTTER: And if it's established that this is the case, then that portion of this case can be dismissed and the well is home free.

MR. CARR: Okay.

Q. Mr. Freeman, is there any -- in your opinion will approval of the application for the Harrison 1, 2, and 3, result in the recovery of hydrocarbons that would not otherwise be recovered?

A. It would be the Harrison 1 --

Q. 1 and 2 and the Judy No. 1?

A. Yes, it would. I would like to point out at this time, the Judy No. 1 is not making any oil.

Q. Do you have anything further you'd like to add to your testimony here?

A. I do not, other than I feel like these wells are the same as the Union Texas Wells that are in the Langlie Jal Waterflood Unit. At one time I worked for Union Texas Petroleum and was unitization engineer and did a great deal of work on the Langlie Jal Unit, and I'm very familiar with it, and I think if we compare the logs, which I have done, and so forth, these are all very comparable wells and they have a common boundary.

Q. Will granting this application be in the interest of conservation, the prevention of waste, and the protection of correlative rights?

A. Yes, it would.

Q. Were Exhibits One through Three prepared

by you or under your direction and supervision?

A. Yes, they were.

MR. CARR: At this time, Mr. Nutter, we would offer into evidence Applicant's Exhibits One through Three.

MR. NUTTER: Exhibits One through Three will be admitted in evidence.

MR. CARR: I have nothing further on direct.

MR. NUTTER: Are there any questions of Mr. Freeman?

CROSS EXAMINATION

BY MR. NUTTER:

Q. Mr. Freeman, on this Judy No. 1, when was the -- where was the well originally perforated, in the lowermost perforations, those down there at 3214 to 3469?

A. Yes, sir.

Q. Uh-huh. And when was the attempt made to perforate in the upper portion, the 2814 to 95?

A. This was done in 1977.

Q. And then the well produced from both sets of perforations for a period of time, did it?

A. No, sir. In 1977 when the perforations

from 2814 to 2895 were opened up, the bridge plug and fish was -- that all occurred at the same time during the workover procedure. And there is a great number of working interest owners in this and there was a problem of getting them together as to whether we were going to clean this out and commingle it, and asked to do this, and we wanted to test what just the Yates would do, and they decided they wanted to leave it just as the upper zone, from 2814 to 2895.

Q. Uh-huh.

A. And so --

Q. So from 1974 until 1977 it produced from the lowermost perforations?

A. Yes, sir.

Q. Then the attempt was made to open the uppermost perforations and at that time, after perforating, you tried to pull the bridge plug and had the trouble.

A. Yes, sir. What we did, the bridge plug was set, the well was fraed, and went down to wash the sand off of it, got it cleaned out and released the bridge plug and it stuck. There was additional sand that fell in on top of it, and the tubing was pulled in two.

Q. Okay, now is that tubing in the bridge plug open at the bottom or did the bridge plug seal off the bottom of the tubing?

A. The bridge plug seals off the bottom of the tubing. This was just to fish out the -- there is not an opening in the bridge plug.

Q. This tubing was not production tubing. This is the tubing that you went in to try to pull the bridge plug.

A. Correct.

Q. So there's no opening down here at the bridge plug?

A. No, there is not.

Q. Now you did pull the bridge plug up from its original seating position, didn't you?

A. It came up 25 to 30 foot.

Q. Before the tubing parted.

A. Yes, sir.

Q. Now do you think it broke its seal at that time?

Q. I think there's a possibility that it broke its seal, but with this sand and so forth that has fallen in on top of it, I feel that it is packed off.

Q. Now how do you know that that sand is there?

A. We went in to try and get on top of the tubing and our overshot would not go down, and so this would

require running washover pipe to circulate the sand off, and the working interest owners did not want to spend the money at that time.

Q. Now would this be sand from the uppermost perforations, or this would be frac sand that was used to -- to frac the uppermost perforations when you made that completion?

A. Yes, it's sand from the uppermost perforations.

Q. Okay. Now did the producing characteristics of the well prior to the time it was dead -- now we realize that it was dead at the time you worked it over. What were the producing characteristics of it prior to the time you worked it over? Before it went dead, I mean? Was it an oil well?

A. Yes, it was. It made about 2 to 3 barrels of oil a day and about 90 barrels of water. And this was uneconomical.

Q. And how about gas production?

A. It had about -- I'm going to estimate the gas on it. It had about 20 Mcf a day from the lower zone.

Q. And then the thing went completely dead?

A. Yes.

Q. Then when you established production from

the uppermost perforations, assuming the lower perforations are sealed off, you're producing 41 Mcf of gas per day with no oil at this time?

A. Correct. And 103 barrels of water.

Q. Still producing water.

A. And if you'll notice on the Union Texas whatever number -- it's the next -- third from the last page.

Q. Exhibit Three.

A. If you'll look at the Well No. 70.

Q. Okay.

A. Union Texas Well is abandoned.

Q. Uh-huh.

A. The well directly -- No. 69 directly north of the Judy 1.

Q. That's an injection well.

A. That's an injection well, and then their Well No. 68, this shows no production. It's temporarily abandoned, and in my opinion, looking at the logs and what was in the well file, this is a very tight area, and I think it's pointed out by the wells to the north.

Q. Well, they are getting an awful lot of water into that No. 69 now, according to this legend.

A. Yes, they are, and the question is, I don't think it's going in the right spot. I think they have

channeling, and I think this is why Well No. 70 and 68 has been abandoned. But you can look just to the north of 69, Well 54, is 2 barrels of oil and 10 barrels of water, and this was very similar to what the Judy 1 was doing prior to the decision being made to come up the hole and complete it in these upper perforations.

Q. Now do you have any idea on the Harrison 1 and 2 what percentage of the production would be coming from the perforations that are in the Jalmat Pool and what percentage of the production would be coming from the perforations that are in the Langlie Mattix Pool?

A. No, sir, I would not. There's never been any tests since I've operated these wells where we have straddled these perforations, and I just couldn't speculate on that. I do not know.

Q. Well, it's customary in commingling cases, Mr. Freeman, to allocate production to each of the pools that's being commingled. What formula should the Division use in allocating your production?

A. I can't answer that because I just don't know. When we were with Union Texas, or I was working with Union Texas, this was discussed in the engineering subcommittees, and so forth, and that time they were thinking that 20 to 25 percent would come from the upper zone, or the Jalmat,

but in my opinion there was never anything very firm that you could base that on.

Q. Now you mentioned that Union Texas had an exemption to the vertical limit rule for this -- the Langlie Jal Unit, is that correct?

A. Yes, sir, it is.

Q. Is an exception to permit commingling in the pools or is it an exception that adjusts the vertical limits of the pools for that area?

A. Well, it -- it's an exemption -- or exception R-520 -- no, I'm sorry, let's see. It's exemption R-4051 that was granted in 1970, and the wells, the maximum --

Q. R what? R-5 --

A. R-4051.

Q. 4051.

A. Yes, sir. And it shows the amount that the vertical limits can cross, and the maximum depth has been 278 feet.

Q. Well, was the exception granted on an individual well basis, then, or a unit basis?

A. To my knowledge it was granted on a unit basis. All these wells were granted at one time when the waterflood was established, or the unit was established.

MR. NUTTER: Mr. Carr, I think it would

be appropriate that we get that order.

MR. CARR: Okay.

MR. NUTTER: And look at it and see how Union Texas was handled.

I'll recess the hearing for one minute.

(Thereupon a brief recess was taken.)

MR. NUTTER: The hearing will come to order, please.

Mr. Freeman, apparently Order No. R-4051 simply authorized a waterflood project in the Jalmat and the Langlie Mattix Pool without making any reference to commingling or allocation of production, or anything. It simply treated the two pools as one pool for waterflooding purposes.

A. Well, that's basically as I remember when -- I mean I couldn't recall. There was discussion at the time in the engineering subcommittee as to trying to break this out into what would be allocated to each zone, and the information, it just wasn't there, and no one had run tests on it, and --

Q. But apparently for unitization purposes the entire interval was unitized and is the unitized formation.

A. Yes, sir.

Q. So it was all common ownership. Now there is common ownership as far as your leases here are concerned.

A. Yes, there is.

Q. And you're offsetting a waterflood project that was recognized as being commingled for waterflooding purposes. Okay.

MR. NUTTER: Are there any further questions of Mr. Freeman? He may be excused.

Do you have anything further, Mr. Carr?

MR CARR: Nothing further, Mr. Nutter.

MR. NUTTER: Does anyone have anything they wish to offer in Case Number 7058?

We'll take the case under advisement.

(Hearing concluded.)

C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

10/29 7058. 80.

Oil Conservation Division, Examiner

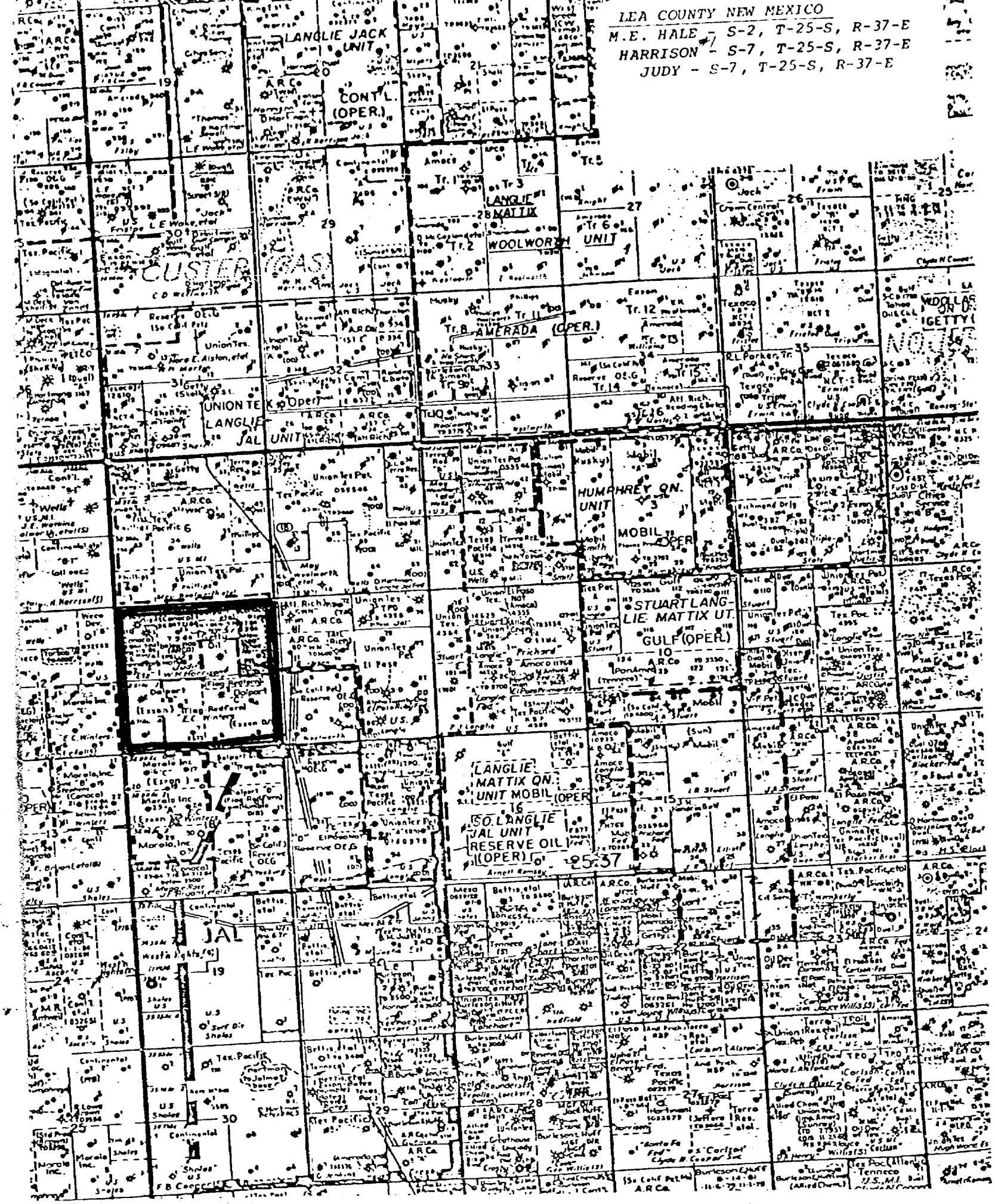
SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

LEA COUNTY NEW MEXICO

M.E. HALE - S-2, T-25-S, R-37-E

HARRISON - S-7, T-25-S, R-37-E

JUDY - S-7, T-25-S, R-37-E



COMPLETION HISTORY

Lease: Harrison, Well No. 1

Pool Name: Langlie-Mattix - Seven Rivers Queen

Fee Lease

Location: Unit Letter A, 660' FNL & 860' FEL of Section 7, Township 25-S, Range 37-E

Spud: 12-8-73

Complete: 3-5-74

T.D. 3642' PBTD 3600' Elev. 3174' GL

12-1/4" hole, 8-5/8" @ 357' w/175 sx.

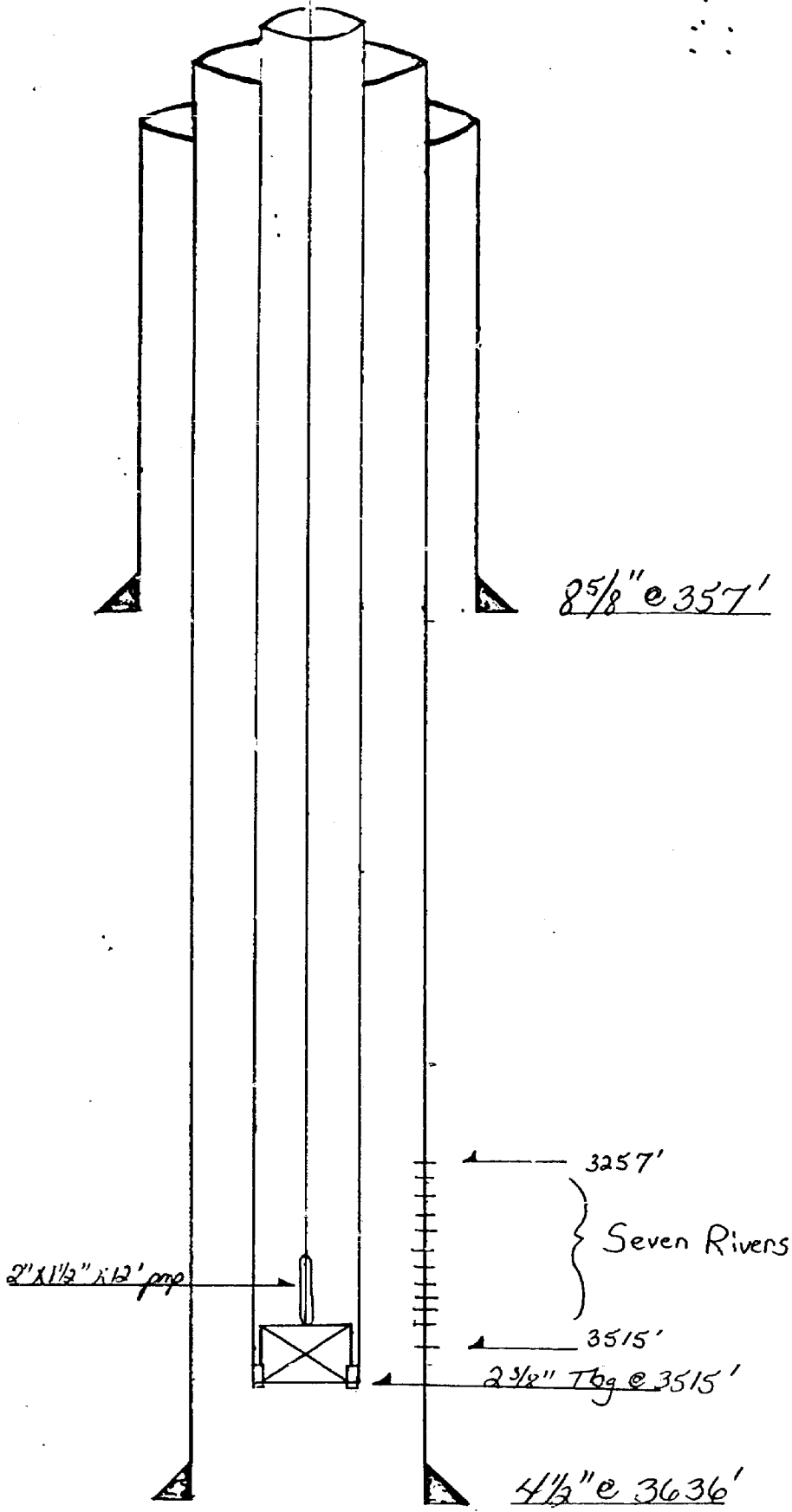
7-7/8" hole, 4-1/2" @ 3636' w/375 sx.

2-3/8" tbg. @ 3515'

Perfs: 3257' - 3513' w/12 shots (overall)

1. Perf'd Seven Rivers Queen 3257' - 3513' w/12 shots, Acidized with 1000 gals 15% & fracture treated w/30,000 gals gelled fresh wtr. & 40,000# sand. Ran pmp & rods & hung well on prod.

Harrison #1


8 5/8" @ 357'
3257'
Seven Rivers Queen Perfs
2" x 1 1/2" x 12' pmp
3515'
2 1/2" Tbg @ 3515'
4 1/2" @ 3636'

Harrison Well No. 1
Lea County, New Mexico
Langlie-Mattix Seven Rivers Queen
A, S-7, T-25-S, R-37-E

Production Data
Cum. to 12-31-79 40,367 Oil

1980	Oil (bbls)	Gas (MCF)	Wtr.(bbls)
January	825	395	1151
February	726	356	1013
March	685	338	963
April	632	338	1000
May	742	326	1111
June	626	319	1100
July	550	305	1108
August	704	330	1114

T 24 S

T 25 S

R-37-E

HARRISON

JUDY

TAHOE Oil & Cattle Co.

— LEGEND —

• PRODUCING WELL

△ INJECTION WELL

—— UNIT OUTLINE

DAILY OIL | CUM OIL (M/BBLS.)
DAILY WTR. | CUM WTR.(M/BBLS.)

DAILY INJ | CUM INJ.(M/BBLS.)
PRESSURE PSI

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
TAHOE EXHIBIT NO. 1
CASE NO. 7058

UNION TEXAS PETROLEUM
A DIVISION OF ALLIED CHEMICAL CORPORATION

LANGLIE-JAL UNIT
LEA COUNTY, NEW MEXICO

WELL TEST DATA

MONTH July - 1980

SCALE IN FEET
2000 0 2000 4000

MIDLAND DISTRICT

NEW MEXICO OIL CONSERVATION COMMISSION

GAS – OIL RATIO TESTS

C-116
Revised 1-1-65

Operator: Tahoe Oil & Cattle Co.

Pool: Langlie Mattix Seven Rivers Queen

County: Lea

Address: P. O. Box 3084, Midland, Texas 79702

TYPE OF TEST – (X): Scheduled [X] Completion [ ] Special [ ]

LEASE NAME	WELL NO.	LOCATION U	S	T	R	DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST WATER BBLS.	GRAV. OIL	OIL BBLS.	GAS M.C.F.	GAS – OIL RATIO CU.FT/BBL.
Ramsey State	1	E	36	24	37	2/29/80	P	--	20	2	24	.5	35	2	10	5,000
	2	K	36	24	37	2/25/80	P	--	20	2	24	.5	35	2	12	6,000
	3	L	36	24	37	2/28/80	P	--	20	2	24	1	35	2	15	7,500
	4	M	36	24	37	2/27/80	P	--	20	2	24	.5	35	2	9	4,500
	5	N	36	24	37	Shut in		--								
	6	D	36	24	37	2/25/80	P	--	20	8	24	6	35	7	50	7,143
Harrison	1	A	7	25	37	2/25/80	P	--	25	33	24	40	38	32	16	500
	2	H	7	25	37	2/26/80	P	--	25	20	24	32	38	17	13	765
Judy	1	C	7	25	37	2/27/80	P	--	25	0	24	97	--	--	70	--
	3	F	7	25	37	2/28/80	P	--	25	13	24	84	38	8	62	7,750
Hale State	1	G	2	25	37	2/26/80	P	--	25	1	24	1	37	2	16	8,000
	2	H	2	25	37	2/27/80	P	--	25	0	24	0	-	0	285	--

No well will be assigned an allowable greater than the amount of oil produced on the official test.

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

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

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

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

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

(Signature)

Petroleum Engineer
(Title)

March 4, 1980
(Date)

UNION TEXAS PETROLEUM

1300 WILCO BUILDING, MIDLAND, TEXAS 79701

MONTHLY FLUID INJECTION REPORT — YEAR 1980

CARGLIE-JAL UNIT (Project)

Seven Rivers Queen (Field/Pool)

Judy Harrison
Clerk

	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
PRODUCTION												
OIL (BBLS.)												
Allowable	33,449	31,291	33,449	32,370	28,396	27,480	28,396					
Produced	27,208	24,801	25,352	24,174	24,998	23,253	24,005					
Daily Average	878	855	818	806	806	775	774					
Cumulative Since Unitization	2,859,876	2,884,677	2,910,029	2,934,203	2,959,201	2,982,454	3,006,459					
WATER (BBLS.)												
Produced	130,737	114,360	124,703	109,050	122,438	118,971	123,961					
Daily Average	4,217	3,943	4,023	3,635	3,950	3,966	3,999					
Percent Total Fluid	83%	82%	83%	82%	83%	84%	84%					
Cumulative Since Unitization	6,262,763	6,377,123	6,501,826	6,610,876	6,733,314	6,852,285	6,976,246					
GAS (MCF)												
Produced	28,550	27,336	28,416	28,242	30,708	31,087	32,923					
GOR	1,049	1,102	1,121	1,168	1,228	1,337	1,372					
Cumulative Since Unitization	3,057,211	3,084,547	3,112,963	3,141,205	3,171,913	3,203,000	3,235,923					
INJECTION												
WATER (BBLS.)												
Injected	324,178	288,430	325,593	275,086	282,624	265,924	326,717					
Daily Average	10,457	9,946	10,503	9,170	9,117	8,864	10,539					
Cumulative Since Unitization	34,403,665	34,692,095	35,017,688	35,292,774	35,575,398	35,841,322	36,168,039					
WELL STATUS												
Producing Active	48	48	48	48	48	48	48					
Producing Inactive	1	1	1	1	1	1	1					
Injection Active	39	39	39	39	39	40	39					
Injection Inactive	6	6	6	6	6	5	6					
Water Supply Active	1	1	1	1	1	1	1					
Water Supply Inactive	0	0	0	0	0	0	0					

EFFECTIVE DATE OF UNIT 3-1-71

CUMULATIVE OIL PRODUCTION TO UNITIZATION _____

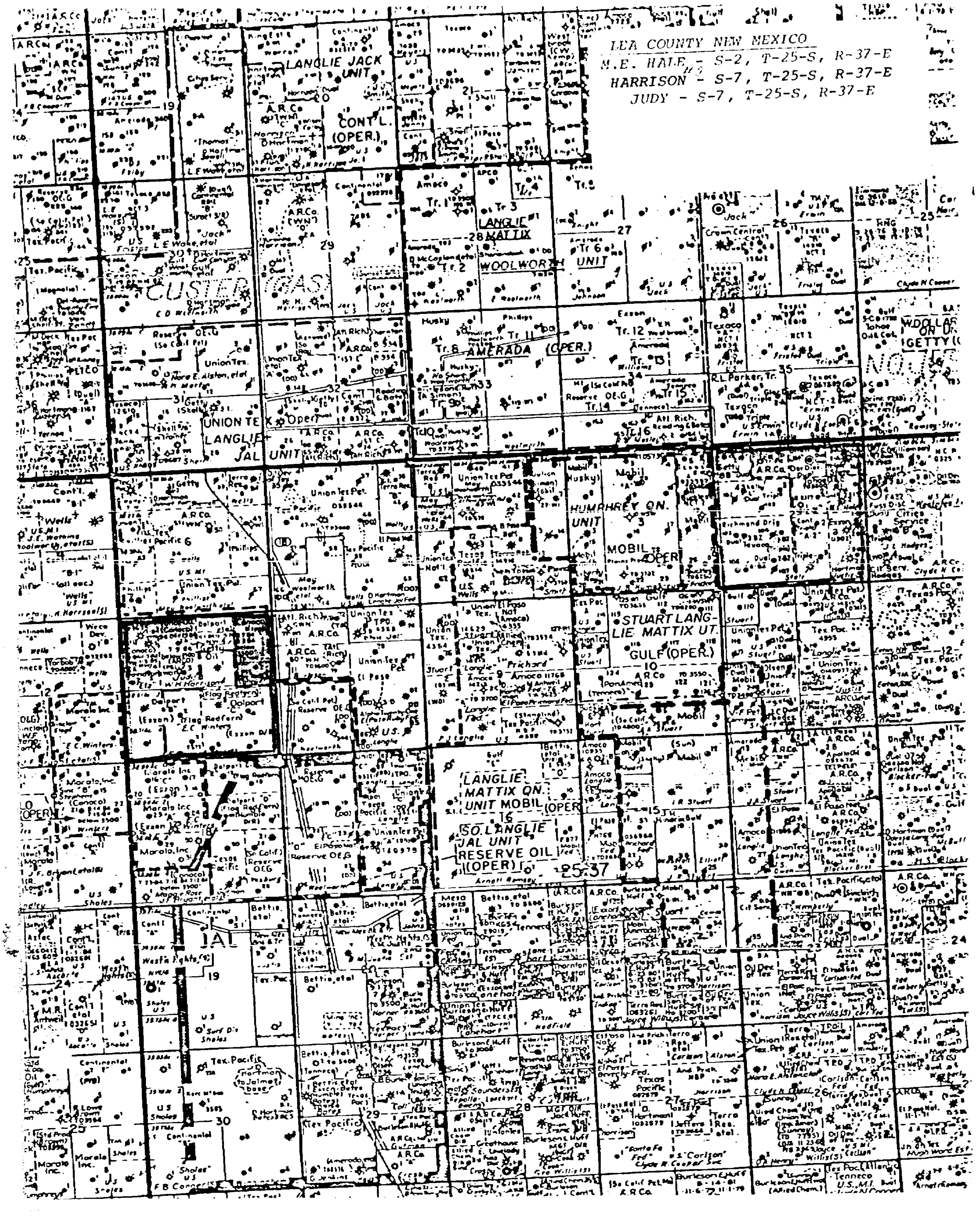
WATER INJECTION BEGAN 5-23-72

LEA COUNTY NEW MEXICO

M.E. HALE #2 - S-2, T-25-S, R-37-E

HARRISON - S-7, T-25-S, R-37-E

JUDY - S-7, T-25-S, R-37-E



COMPLETION HISTORY

Lease: Harrison, Well No. 2

Pool Name: Langlie-Mattix Seven Rivers Queen

Fee Lease

Location: Unit Letter H, 1980' FNL & 660' FEL of Section 7, Township 25-S, Range 37-E

Spud: 5-24-74

Complete: 9-15-74

T.D. 3610' P.B.T.D. 3570' Elev. 3147'

12-1/4" hole, 8-5/8" @ 335' w/175 sx.

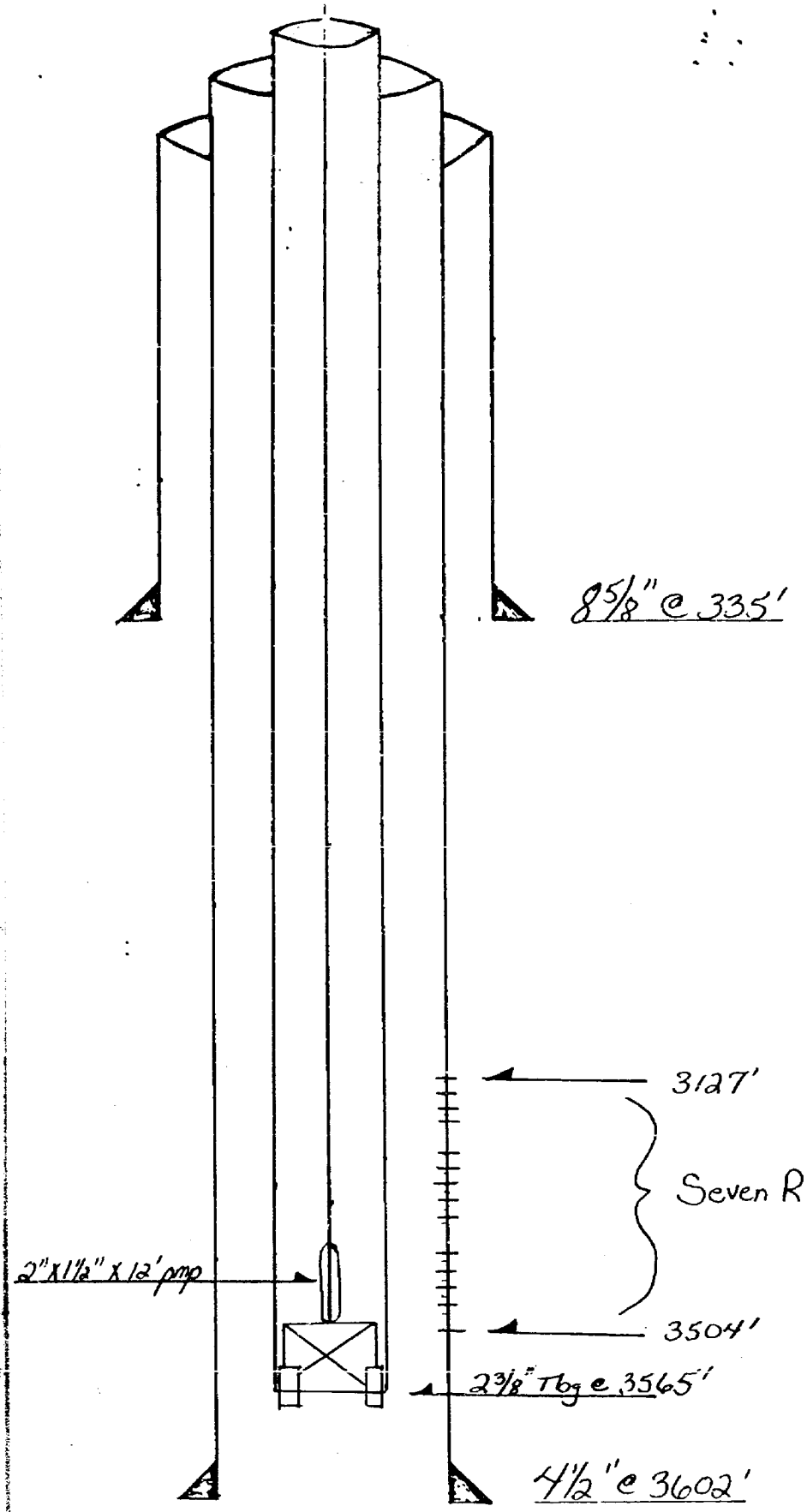
7-7/8" hole, 4-1/2" @ 3602' w/325 sx.

2-3/8" tbg. @ 3565'

Perfs: 3127' - 3504' w/14 shots (overall)

1. Perf'd Seven Rivers Queen 3127' - 3504' w/14 shots, Acidized w/ 2000 gals 15% & fracture treated w/28,000 gals gelled fresh wtr. & 40,000# sand. Ran pmp & rods & hung well on prod.

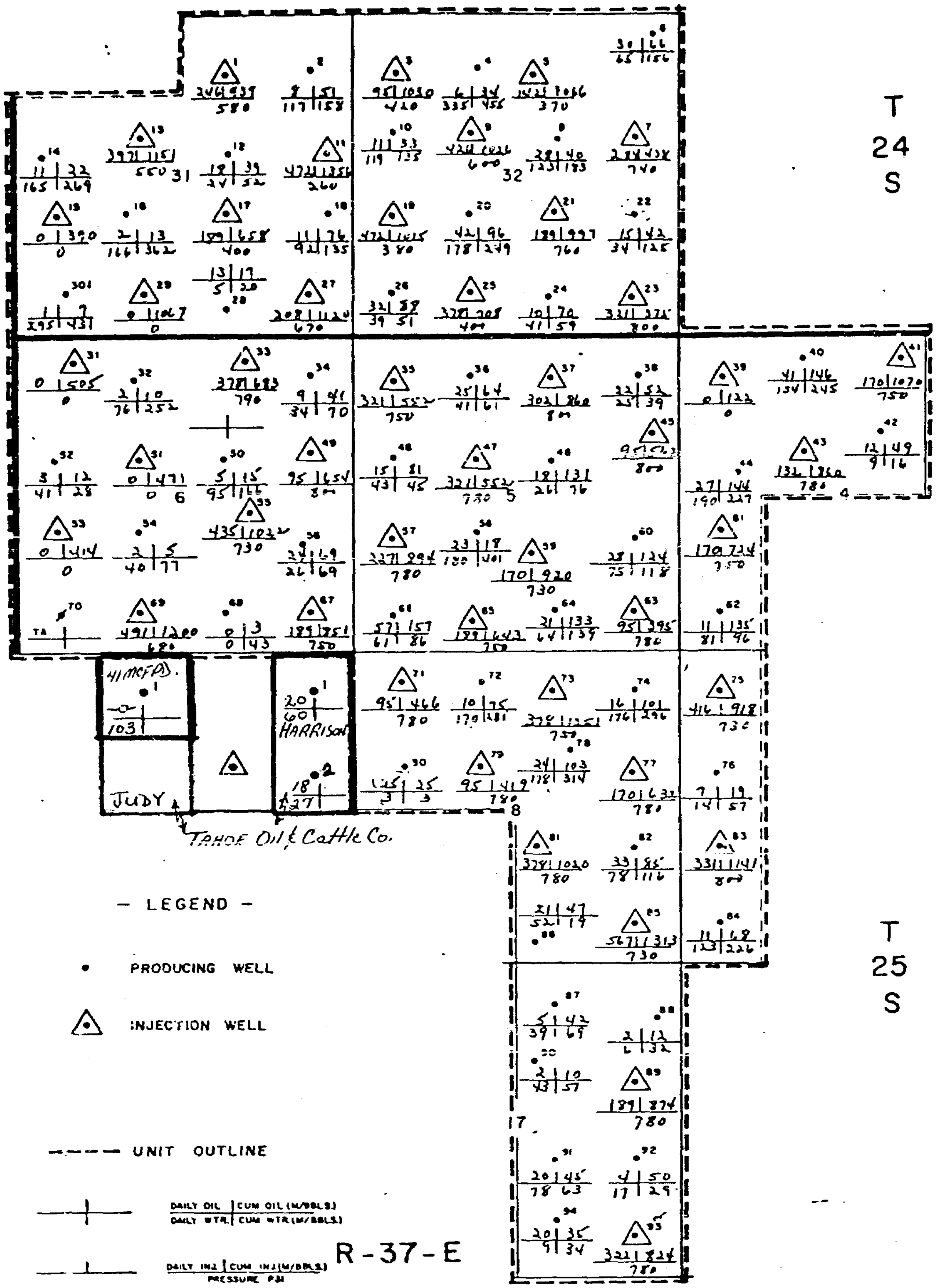
Harrison #2


8 5/8" @ 335'
3127'
Seven Rivers Queen Perfs
2" X 1 1/2" X 12' pmp
3504'
2 3/8" Tbg @ 3565'
4 1/2" @ 3602'

Harrison Well No. 2
Lea County, New Mexico
Langlie-Mattix Seven Rivers Queen
H, S-7, T-25-S, R-37-E

Production Data
Cum. to 12-31-79 30,540 Oil

1980	Oil (bbls)	Gas (MCF)	Wtr.(bbls)
January	406	323	942
February	357	291	828
March	338	277	778
April	312	276	811
May	365	266	909
June	308	261	900
July	271	249	907
August	347	270	911



– LEGEND –

• PRODUCING WELL

INJECTION WELL

UNIT OUTLINE

DAILY OIL | CUM OIL (M/BBLS)
DAILY WTR | CUM WTR (M/BBLS)

DAILY INJ | CUM INJ (M/BBLS)
PRESSURE PSI

UNION TEXAS PETROLEUM
A DIVISION OF ALLIED CHEMICAL CORPORATION

LANGLIE – JAL UNIT

LEA COUNTY, NEW MEXICO

WELL TEST DATA

MONTH July – 1980

SCALE IN FEET

2000 0 2000 4000

RLA

MIDLAND DISTRICT

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
TAHOE EXHIBIT NO. 2
CASE NO. 7058

NEW MEXICO OIL CONSERVATION COMMISSION

GAS – OIL RATIO TESTS

C-116
Revised 1-1-65

Operator	Pool	County
Tahoe Oil & Cattle Co.	Langlie Mattix Seven Rivers Queen	Lea

Address: P. O. Box 3084, Midland, Texas 79702

TYPE OF TEST – (X): Scheduled [X] Completion [ ] Special [ ]

LEASE NAME	WELL NO.	LOCATION U	S	T	R	DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST: WATER BBLS.	GRAV. OIL	OIL BBLS.	GAS M.C.F.	GAS – OIL RATIO CU.FT/BBL.
Ramsey State	1	E	36	24	37	2/29/80	P	--	20	2	24	.5	35	2	10	5,000
	2	K	36	24	37	2/25/80	P	--	20	2	24	.5	35	2	12	6,000
	3	L	36	24	37	2/28/80	P	--	20	2	24	1	35	2	15	7,500
	4	M	36	24	37	2/27/80	P	--	20	2	24	.5	35	2	9	4,500
	5	N	36	24	37	Shut in		--								
	6	D	36	24	37	2/25/80	P	--	20	8	24	6	35	7	50	7,143
Harrison	1	A	7	25	37	2/25/80	P	--	25	33	24	40	38	32	16	500
	2	H	7	25	37	2/26/80	P	--	25	20	24	32	38	17	13	765
Judy	1	C	7	25	37	2/27/80	P	--	25	0	24	97	--	--	70	--
	3	F	7	25	37	2/28/80	P	--	25	13	24	84	38	8	62	7,750
Hale State	1	G	2	25	37	2/26/80	P	--	25	1	24	1	37	2	16	8,000
	2	H	2	25	37	2/27/80	P	--	25	0	24	0	-	0	285	--

No well will be assigned an allowable greater than the amount of oil produced on the official test.

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

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

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

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

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

(Signature)

Petroleum Engineer
(Title)

March 4, 1980
(Date)

Judy Harrison
Tulsa

UNION TEXAS PETROLEUM

1300 WILCO BUILDING, MIDLAND, TEXAS 79701

MONTHLY FLUID INJECTION REPORT — YEAR 1980

LANGLIE-JAL UNIT (Project)

Seven Rivers Queen (Field/Pool)

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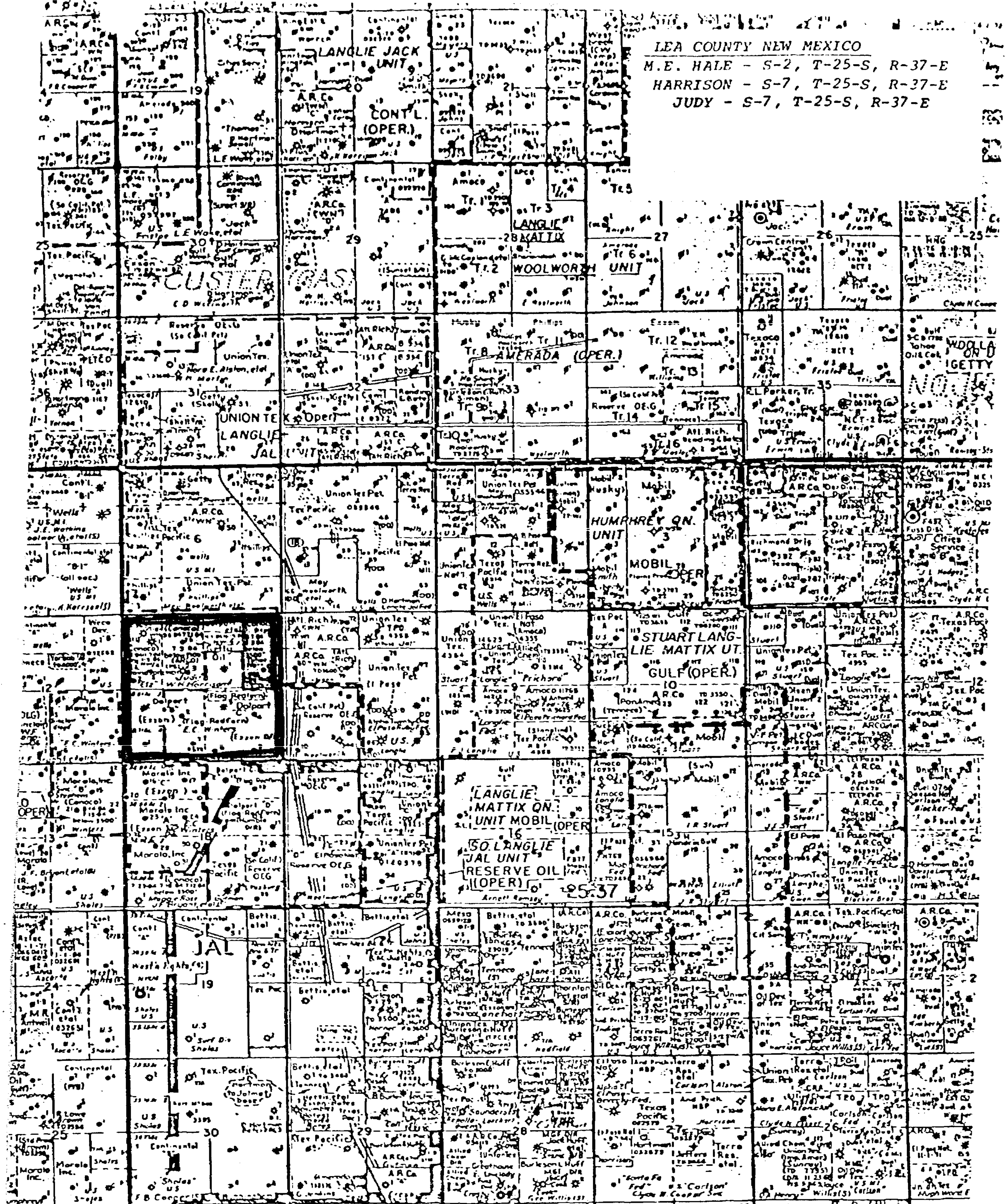
WELL STATUS												
Producing Active	48	48	48	48	48	48	48					
Producing Inactive	1	1	1	1	1	1	1					
Injection Active	39	39	39	39	39	40	39					
Injection Inactive	6	6	6	6	6	5	6					
Water Supply Active	1	1	1	1	1	1	1					
Water Supply Inactive	0	0	0	0	0	0	0					

EFFECTIVE DATE OF UNIT 3-1-71

CUMULATIVE OIL PRODUCTION TO UNITIZATION _____

WATER INJECTION BEGAN 5-23-72



LEA COUNTY NEW MEXICO
M.E. HALE - S-2, T-25-S, R-37-E
HARRISON - S-7, T-25-S, R-37-E
JUDY - S-7, T-25-S, R-37-E
LANGLIE JACK UNIT
CONT'L. (OPER.)
LANGLIE MATTIX
WOOLWORTH UNIT
CUSTER (GAS)
AMERADA (OPER.)
UNION TEX Oper.
LANGLIE JAL UNIT
HUMPHREY QN. UNIT
MOBIL OPER.
STUART LANGLIE MATTIX UT.
GULF (OPER.)
LANGLIE MATTIX QN. UNIT MOBIL (OPER)
SO. LANGLIE JAL UNIT RESERVE OIL (OPER)
25-37
JAL

COMPLETION HISTORY

Lease: Judy, Well No. 1

Poll Name: Langlie-Mattix Seven Rivers Queen

Fee Lease

Location: Unit Letter C, 990' FNL & 1980' FWL of Section 7, Township 25-S, Range 37-E, Lea County, New Mexico

Spd: 1-24-74 Comp. 4-2-74

T.D. 3617' P.B.T.D. 3600' Elev. 3158' GL

12-1/4" hole, 8-5/8" @ 348' w/175 sx.

7-7/8" hole, 4-1/2" @ 3617' w/325 sx.

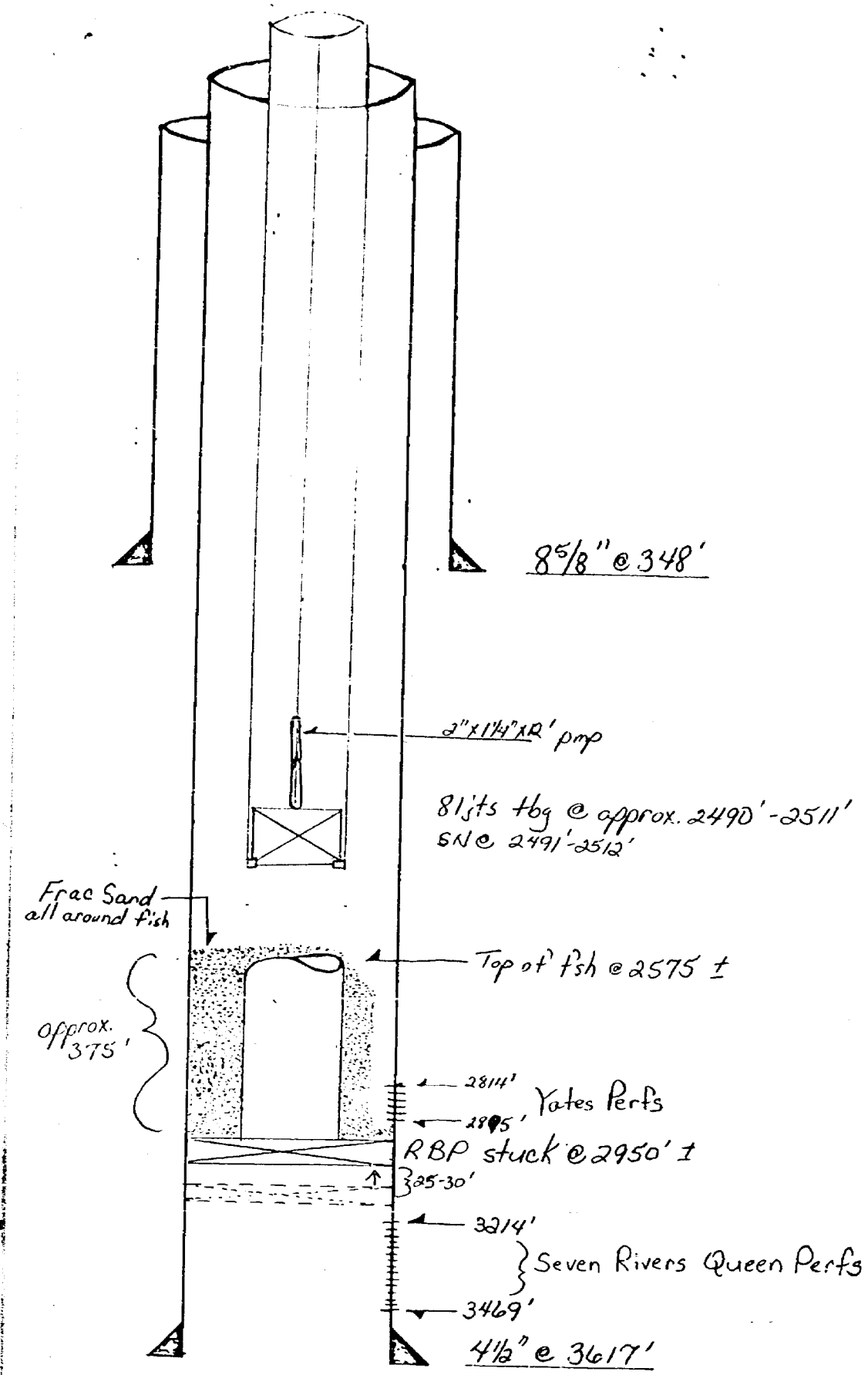
2-3/8" Tbg. 2490' - 2511'

Producing Perfs 2814' - 2895'

1. Perf (Seven Rivers Queen) 3214' - 3469' w/15 shots (overall), Acidized with 1000 gals; Fracture treated w/30,700 gals gelled fresh wtr. & 40,000 # sand, Ran pmp & rods & hung well on production.

   In 1977 well dead, Ran Gamma Ray & Collar Log 2650' - 3460'. Perf'd 2814' - 2895'. CO_2 acid & sand frac (2814'-2895') max psi 3900, SI 1000 psi Ran RBP & 94 jts. tbg., loaded tbg. to clean around BP. Picked up & unseated BP moved 25'-30' & tbg. parted. WIH with overshots & bumper sub, caught fish but couldn't jar loose, POOH. WIH & cut fish @ 2575'. WIH w/ seatnipple & 81 jts. tbg. Ran Pmp & rods & hung well on prod.

JUDY #1


8 5/8" @ 348'
2"x1¼"x12' pmp
81 jts tbg @ approx. 2490'-2511'
SN @ 2491'-2512'
Frac Sand all around fish
Top of fish @ 2575 ±
approx. 375'
2811'
2895'
Yates Perfs
RBP stuck @ 2950' ±
25-30'
3214'
Seven Rivers Queen Perfs
3469'
4½" @ 3617'

Judy No. 1
Lea County, New Mexico
Langlie-Mattix Seven Rivers Queen
C, S-7, T-25-S, R-37-E

Production Data
Cum. to 12-31-79 14,655 Oil

1980	Oil (bbls)	Gas (MCF)	Wtr.(bbls)
January	-0-	1580	3030
February	-0-	1374	4799
March	-0-	1357	3038
April	-0-	1388	3020
May	-0-	1432	3266
June	-0-	1225	3190
July	-0-	1264	3182
August	-0-	1403	3190

T 24 S

T 25 S

R-37-E

HIMCO RD.

JUDY

HARRISON

TAHOE Oil & Cattle Co.

— LEGEND —

• PRODUCING WELL

△ INJECTION WELL

—— UNIT OUTLINE

DAILY OIL | CUM OIL (M/BBLS)
DAILY WTR. | CUM WTR (M/BBLS)

DAILY INJ | CUM INJ (M/BBLS)
PRESSURE PSI

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
TAHOE EXHIBIT NO. 3
CASE NO. 7058

UNION TEXAS PETROLEUM
A DIVISION OF ALLIED CHEMICAL CORPORATION

LANGLIE - JAL UNIT
LEA COUNTY, NEW MEXICO

WELL TEST DATA

MONTH July - 1980

SCALE IN FEET
2000 0 2000 4000

MIDLAND DISTRICT

NEW MEXICO OIL CONSERVATION COMMISSION

GAS – OIL RATIO TESTS

C-116
Revised 1-1-65

Operator	Pool	County
Tahoe Oil & Cattle Co.	Langlie Mattix Seven Rivers Queen	Lea

Address	TYPE OF TEST – (X)			
P. O. Box 3084, Midland, Texas 79702	Scheduled [X]	Completion [ ]	Special [ ]	

LEASE NAME	WELL NO.	LOCATION U	S	T	R	DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST WATER BBLS.	GRAV. OIL	OIL BBLS.	GAS M.C.F.	GAS – OIL RATIO CU.FT./BBL.
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Judy	1	C	7	25	37	2/27/80	P	--	25	0	24	97	--	--	70	--
	3	F	7	25	37	2/28/80	P	--	25	13	24	84	38	8	62	7,750
Hale State	1	G	2	25	37	2/26/80	P	--	25	1	24	1	37	2	16	8,000
	2	H	2	25	37	2/27/80	P	--	25	0	24	0	-	0	285	--

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(Signature)

Petroleum Engineer
(Title)

March 4, 1980
(Date)

Judy Harrison
Toile

UNION TEXAS PETROLEUM

1300 WILCO BUILDING, MIDLAND, TEXAS 79701

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CANGLIE-JAL UNIT (Project)

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WELL STATUS												
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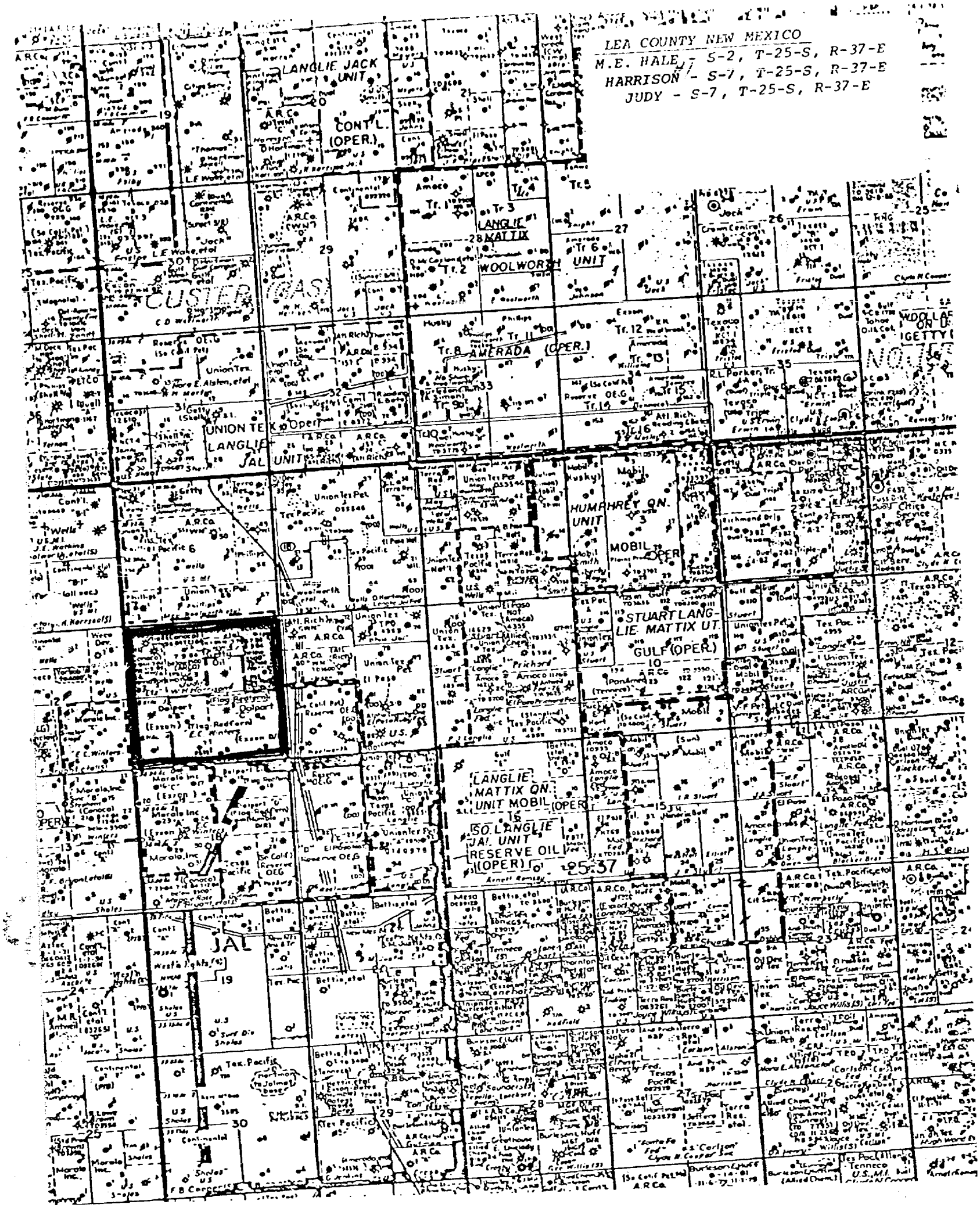
Producing Inactive	1	1	1	1	1	1	1					
Injection Active	39	39	39	39	39	40	39					
Injection Inactive	6	6	6	6	6	5	6					
Water Supply Active	1	1	1	1	1	1	1					
Water Supply Inactive	0	0	0	0	0	0	0					

EFFECTIVE DATE OF UNIT 3-1-71

CUMULATIVE OIL PRODUCTION TO UNITIZATION _____

WATER INJECTION BEGAN 5-23-72

LEA COUNTY NEW MEXICO
M.E. HALE - S-2, T-25-S, R-37-E
HARRISON - S-7, T-25-S, R-37-E
JUDY - S-7, T-25-S, R-37-E



COMPLETION HISTORY

Lease: Harrison, Well No. 1

Pool Name: Langlie-Mattix - Seven Rivers Queen

Fee Lease

Location: Unit Letter A, 660' FNL & 860' FEL of Section 7, Township 25-S, Range 37-E

Spud: 12-8-73

Complete: 3-5-74

T.D. 3642' PBTD 3600' Elev. 3174' GL

12-1/4" hole, 8-5/8" @ 357' w/175 sx.

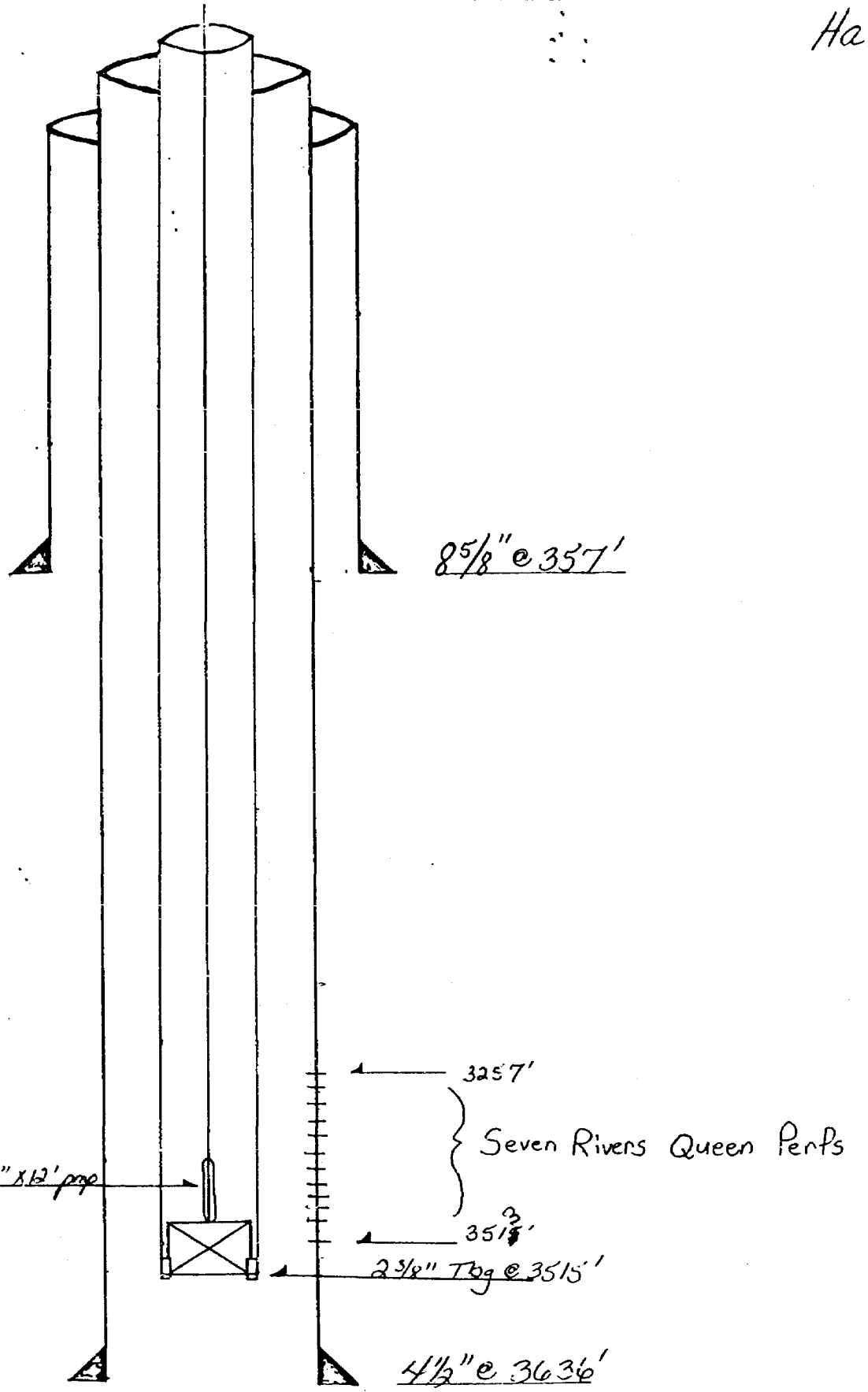
7-7/8" hole, 4-1/2" @ 3636' w/375 sx.

2-3/8" tbg. @ 3515'

Perfs: 3257' - 3513' w/12 shots (overall)

1. Perf'd Seven Rivers Queen 3257' - 3513' w/12 shots, Acidized with 1000 gals 15% & fracture treated w/30,000 gals gelled fresh wtr. & 40,000# sand. Ran pmp & rods & hung well on prod.

Harrison #1


8 5/8" @ 357'
3257'
Seven Rivers Queen Perfs
2"x1½"x12' pmp
3513'
2⅜" Tbg @ 3515'
4½" @ 3636'

Harrison Well No. 1
Lea County, New Mexico
Langlie-Mattix Seven Rivers Queen
A, S-7, T-25-S, R-37-E

Production Data
Cum. to 12-31-79 40,367 Oil

1980	Oil (bbls)	Gas (MCF)	Wtr.(bbls)
January	825	395	1151
February	726	356	1013
March	685	338	963
April	632	338	1000
May	742	326	1111
June	626	319	1100
July	550	305	1108
August	704	330	1114

T 24 S

T 25 S

R-37-E

HARRISON

JUDY

TAHOE Oil & Cattle Co.

— LEGEND —

• PRODUCING WELL

△ INJECTION WELL

———— UNIT OUTLINE

DAILY OIL | CUM OIL (M/BBLS)
DAILY WTR | CUM WTR (M/BBLS)

DAILY INJ | CUM INJ (M/BBLS)
PRESSURE PSI

N

CASE NO. 7058

UNION TEXAS PETROLEUM
A DIVISION OF ALLIED CHEMICAL CORPORATION

LANGLIE - JAL UNIT
LEA COUNTY, NEW MEXICO

WELL TEST DATA

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MIDLAND DISTRICT

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GAS – OIL RATIO TESTS

C-116
Revised 1-1-65

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Address: P. O. Box 3084, Midland, Texas 79702
TYPE OF TEST – (X): Scheduled [X] Completion [ ] Special [ ]

LEASE NAME	WELL NO.	LOCATION U	S	T	R	DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST: WATER BBLS.	GRAV. OIL	OIL BBLS.	GAS M.C.F.	GAS – OIL RATIO CU.FT/BBL
Ramsey State	1	E	36	24	37	2/29/80	P	--	20	2	24	.5	35	2	10	5,000
	2	K	36	24	37	2/25/80	P	--	20	2	24	.5	35	2	12	6,000
	3	L	36	24	37	2/28/80	P	--	20	2	24	1	35	2	15	7,500
	4	M	36	24	37	2/27/80	P	--	20	2	24	.5	35	2	9	4,500
	5	N	36	24	37	Shut in		--								
	6	D	36	24	37	2/25/80	P	--	20	8	24	6	35	7	50	7,143
Harrison	1	A	7	25	37	2/25/80	P	--	25	33	24	40	38	32	16	500
	2	H	7	25	37	2/26/80	P	--	25	20	24	32	38	17	13	765
Judy	1	C	7	25	37	2/27/80	P	--	25	0	24	97	--	--	70	--
	3	F	7	25	37	2/28/80	P	--	25	13	24	84	38	8	62	7,750
Hale State	1	G	2	25	37	2/26/80	P	--	25	1	24	1	37	2	16	8,000
	2	H	2	25	37	2/27/80	P	--	25	0	24	0	-	0	285	--

No well will be assigned an allowable greater than the amount of oil produced on the official test.

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

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

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

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

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

(Signature)

Petroleum Engineer
(Title)

March 4, 1980
(Date)

Judy Harrison
Tulsa

UNION TEXAS PETROLEUM

1300 WILCO BUILDING, MIDLAND, TEXAS 79701

MONTHLY FLUID INJECTION REPORT — YEAR 1980

LANGLIE-JAL UNIT (Project)

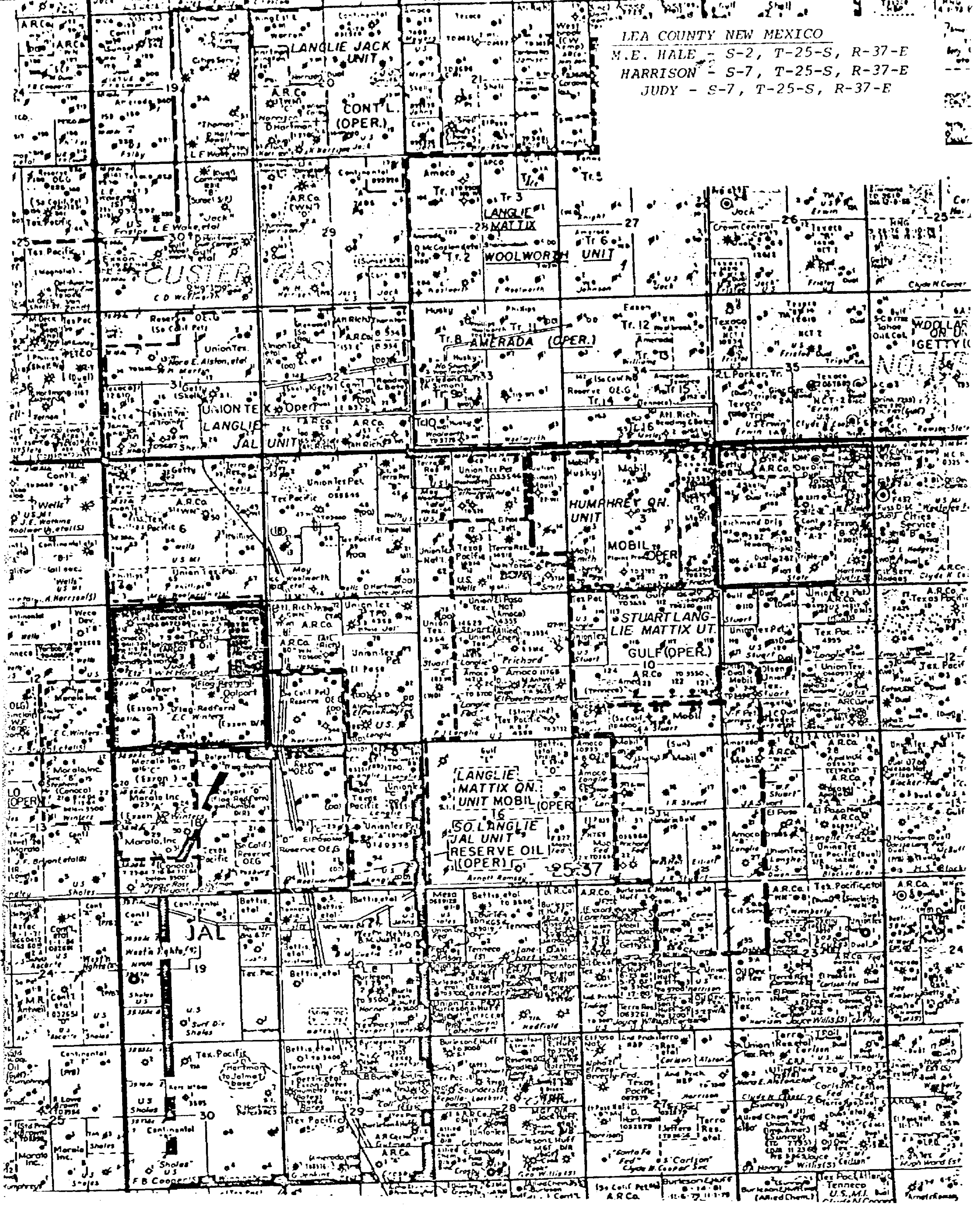
Seven Rivers Queen (Field/Pool)

	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
PRODUCTION												
OIL (BBLS.)												
Allowable	33,449	31,291	33,449	32,370	28,396	27,480	28,396					
Produced	27,208	24,801	25,352	24,174	24,998	23,253	24,005					
Daily Average	878	855	818	806	806	775	774					
Cumulative Since Unitization	2,859,876	2,884,677	2,910,029	2,934,203	2,959,201	2,982,454	3,006,459					
WATER (BBLS.)												
Produced	130,737	114,360	124,703	109,050	122,438	118,971	123,961					
Daily Average	4,217	3,943	4,023	3,635	3,950	3,966	3,999					
Percent Total Fluid	83%	82%	83%	82%	83%	84%	84%					
Cumulative Since Unitization	6,262,763	6,377,123	6,501,826	6,610,876	6,733,314	6,852,285	6,976,246					
GAS (MCF)												
Produced	28,550	27,336	28,416	28,242	30,708	31,087	32,923					
GOR	1,049	1,102	1,121	1,168	1,228	1,337	1,372					
Cumulative Since Unitization	3,057,211	3,084,547	3,112,963	3,141,205	3,171,913	3,203,000	3,235,923					
INJECTION												
WATER (BBLS.)												
Injected	324,178	288,430	325,593	275,086	282,624	265,924	326,717					
Daily Average	10,457	9,946	10,503	9,170	9,117	8,864	10,539					
Cumulative Since Unitization	34,403,665	34,692,095	35,017,688	35,292,774	35,575,398	35,841,322	36,168,039					
WELL STATUS												
Producing Active	48	48	48	48	48	48	48					
Producing Inactive	1	1	1	1	1	1	1					
Injection Active	39	39	39	39	39	40	39					
Injection Inactive	6	6	6	6	6	5	6					
Water Supply Active	1	1	1	1	1	1	1					
Water Supply Inactive	0	0	0	0	0	0	0					

EFFECTIVE DATE OF UNIT 3-1-71

CUMULATIVE OIL PRODUCTION TO UNITIZATION _____

WATER INJECTION BEGAN 5-23-72


LEA COUNTY NEW MEXICO
M.E. HALE - S-2, T-25-S, R-37-E
HARRISON - S-7, T-25-S, R-37-E
JUDY - S-7, T-25-S, R-37-E
LANGLIE JACK UNIT
CONT'L. (OPER.)
LANGLIE MATTIX WOOLWORTH UNIT
CUSTER (GAS)
AMERADA (OPER.)
UNION TEX Oper
LANGLIE JAL UNIT
HUMPHREY QN. UNIT
MOBIL OPER
STUART LANGLIE MATTIX UT.
GULF (OPER.)
LANGLIE MATTIX QN. UNIT MOBIL (OPER)
SO. LANGLIE JAL UNIT RESERVE OIL (OPER)
25-37
JAL

COMPLETION HISTORY

Lease: Harrison, Well No. 2

Pool Name: Langlie-Mattix Seven Rivers Queen

Fee Lease

Location: Unit Letter H, 1980' FNL & 660' FEL of Section 7, Township 25-S, Range 37-E

Spud: 5-24-74

Complete: 9-15-74

T.D. 3610' P.B.T.D. 3570' Elev. 3147'

12-1/4" hole, 8-5/8" @ 335' w/175 sx.

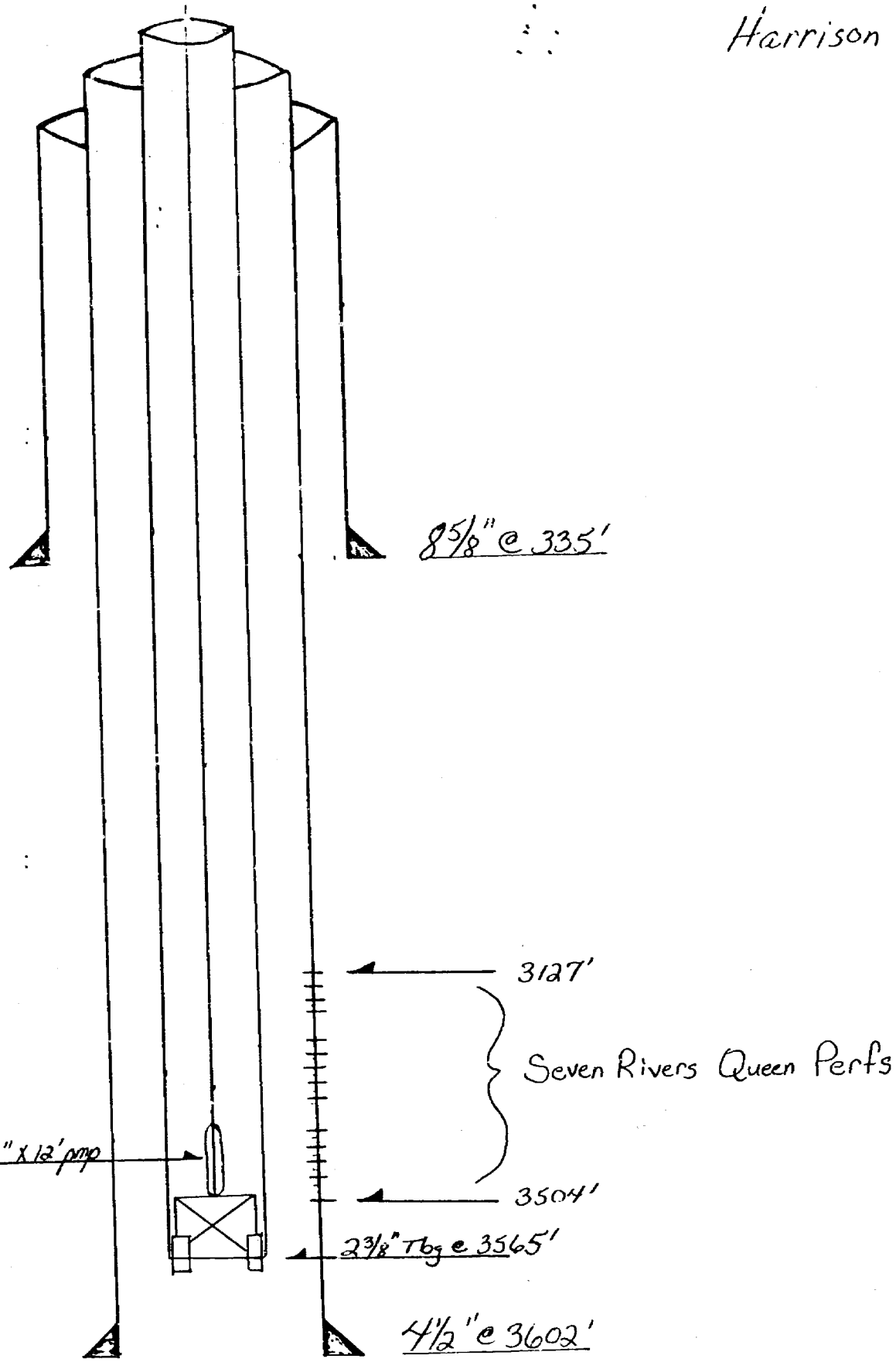
7-7/8" hole, 4-1/2" @ 3602' w/325 sx.

2-3/8" tbg. @ 3565'

Perfs: 3127' - 3504' w/14 shots (overall)

1. Perf'd Seven Rivers Queen 3127' - 3504' w/14 shots, Acidized w/ 2000 gals 15% & fracture treated w/28,000 gals gelled fresh wtr. & 40,000# sand. Ran pmp & rods & hung well on prod.

Harrison #2


8 5/8" @ 335'
3127'
Seven Rivers Queen Perfs
2" X 1 1/2" X 12' pmp
3504'
2 3/8" Tbg @ 3565'
4 1/2" @ 3602'

Harrison Well No. 2
Lea County, New Mexico
Langlie-Mattix Seven Rivers Queen
H, S-7, T-25-S, R-37-E

Production Data
Cum. to 12-31-79 30,540 Oil

1980	Oil (bbls)	Gas (MCF)	Wtr.(bbls)
January	406	323	942
February	357	291	828
March	338	277	778
April	312	276	811
May	365	266	909
June	308	261	900
July	271	249	907
August	347	270	911

T 24 S

T 25 S

R-37-E

HIMKFPD

HARRISON

JUDY

TAHOE Oil & Cattle Co.

— LEGEND —

PRODUCING WELL

INJECTION WELL

UNIT OUTLINE

DAILY OIL | CUM OIL (M/BBLS)
DAILY WTR. | CUM WTR (M/BBLS)

DAILY INJ | CUM INJ (M/BBLS)
PRESSURE PSI

UNION TEXAS PETROLEUM
A DIVISION OF ALLIED CHEMICAL CORPORATION

LANGLIE - JAL UNIT
LEA COUNTY, NEW MEXICO

WELL TEST DATA

MONTH July - 1980

SCALE IN FEET

2000 0 2000 4000

MIDLAND DISTRICT

RL4

N

CASE NO. 7058

NEW MEXICO OIL CONSERVATION COMMISSION
GAS – OIL RATIO TESTS

C-116
Revised 1-1-65

Operator: Tahoe Oil & Cattle Co.
Pool: Langlie Mattix Seven Rivers Queen
County: Lea
Address: P. O. Box 3084, Midland, Texas 79702
TYPE OF TEST – (X): Scheduled [X] Completion [ ] Special [ ]

LEASE NAME	WELL NO.	LOCATION U	S	T	R	DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST WATER BBLS.	GRAV. OIL	OIL BBLS.	GAS M.C.F.	GAS – OIL RATIO CU.FT/BBL
Ramsey State	1	E	36	24	37	2/29/80	P	--	20	2	24	.5	35	2	10	5,000
	2	K	36	24	37	2/25/80	P	--	20	2	24	.5	35	2	12	6,000
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	5	N	36	24	37	Shut in		--								
	6	D	36	24	37	2/25/80	P	--	20	8	24	6	35	7	50	7,143
Harrison	1	A	7	25	37	2/25/80	P	--	25	33	24	40	38	32	16	500
	2	H	7	25	37	2/26/80	P	--	25	20	24	32	38	17	13	765
Judy	1	C	7	25	37	2/27/80	P	--	25	0	24	97	--	--	70	--
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Hale State	1	G	2	25	37	2/26/80	P	--	25	1	24	1	37	2	16	8,000
	2	H	2	25	37	2/27/80	P	--	25	0	24	0	-	0	285	--

No well will be assigned an allowable greater than the amount of oil produced on the official test.

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

(Signature)

Petroleum Engineer
(Title)

March 4, 1980
(Date)

Judy Harrison
Tulsa

UNION TEXAS PETROLEUM

1300 WILCO BUILDING, MIDLAND, TEXAS 79701

MONTHLY FLUID INJECTION REPORT — YEAR 1980

LANGLIE-JAL UNIT (Project)

Seven Rivers Queen (Field/Pool)

	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
PRODUCTION												
OIL (BBLS.)												
Allowable	33,449	31,291	33,449	32,370	28,396	27,480	28,396					
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Daily Average	878	855	818	806	806	775	774					
Cumulative Since Unitization	2,859,876	2,884,677	2,910,029	2,934,203	2,959,201	2,982,454	3,006,459					
WATER (BBLS.)												
Produced	130,737	114,360	124,703	109,050	122,438	118,971	123,961					
Daily Average	4,217	3,943	4,023	3,635	3,950	3,966	3,999					
Percent Total Fluid	83%	82%	83%	82%	83%	84%	84%					
Cumulative Since Unitization	6,262,763	6,377,123	6,501,826	6,610,876	6,733,314	6,852,285	6,976,246					
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GOR	1,049	1,102	1,121	1,168	1,228	1,337	1,372					
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INJECTION												
WATER (BBLS.)												
Injected	324,178	288,430	325,593	275,086	282,624	265,924	326,717					
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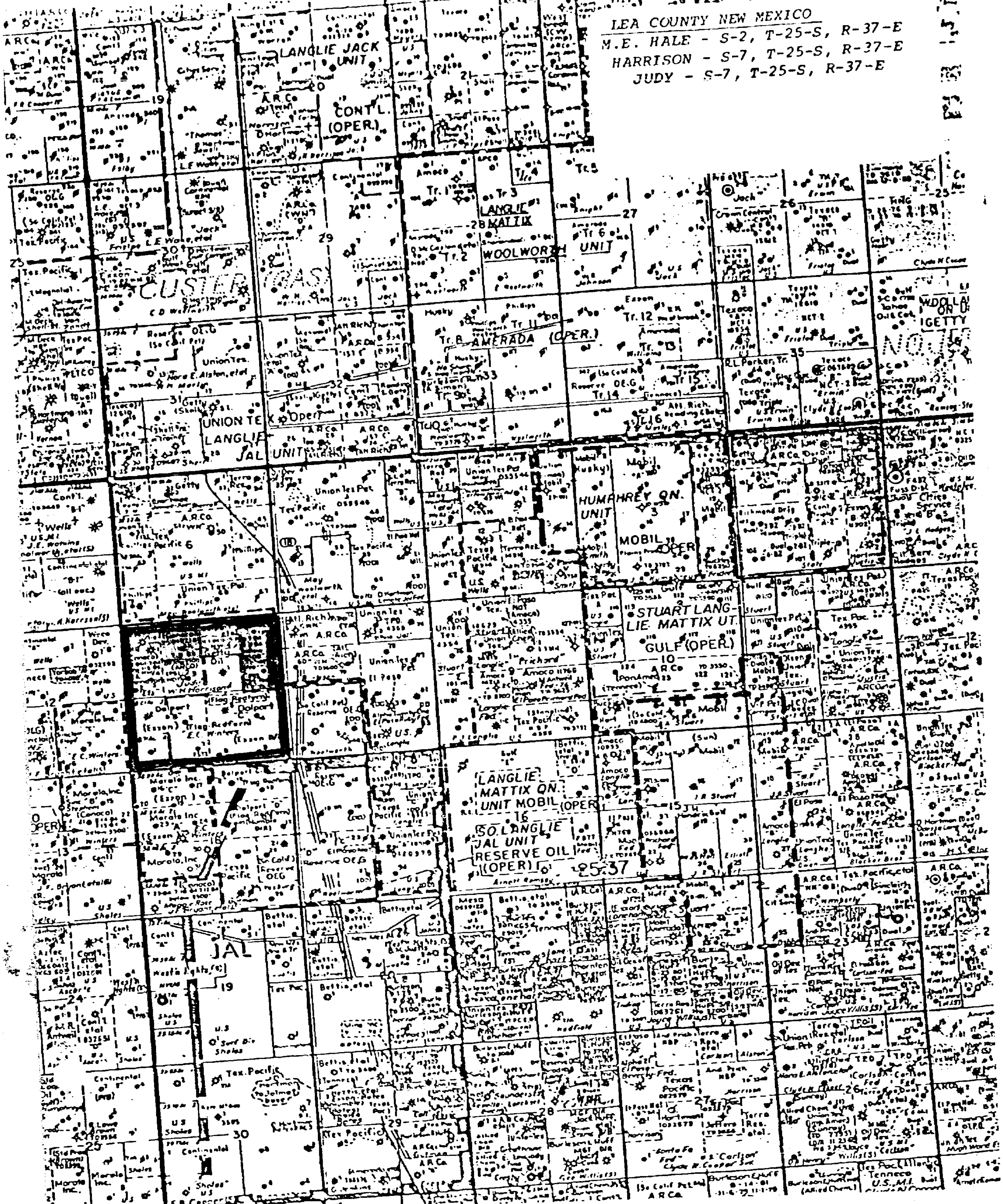
Cumulative Since Unitization	34,403,665	34,692,095	35,017,688	35,292,774	35,575,398	35,841,322	36,168,039					
WELL STATUS												
Producing Active	48	48	48	48	48	48	48					
Producing Inactive	1	1	1	1	1	1	1					
Injection Active	39	39	39	39	39	40	39					
Injection Inactive	6	6	6	6	6	5	6					
Water Supply Active	1	1	1	1	1	1	1					
Water Supply Inactive	0	0	0	0	0	0	0					

EFFECTIVE DATE OF UNIT 3-1-71

CUMULATIVE OIL PRODUCTION TO UNITIZATION _____

WATER INJECTION BEGAN 5-23-72



LEA COUNTY NEW MEXICO

M.E. HALE - S-2, T-25-S, R-37-E

HARRISON - S-7, T-25-S, R-37-E

JUDY - S-7, T-25-S, R-37-E

COMPLETION HISTORY

Lease: Judy, Well No. 1

Poll Name: Langlie-Mattix Seven Rivers Queen

Fee Lease

Location: Unit Letter C, 990' FNL & 1980' FWL of Section 7, Township 25-S, Range 37-E, Lea County, New Mexico

Spd: 1-24-74 Comp. 4-2-74

T.D. 3617' P.B.T.D. 3600' Elev. 3158' GL

12-1/4" hole, 8-5/8" @ 348' w/175 sx.

7-7/8" hole, 4-1/2" @ 3617' w/325 sx.

2-3/8" Tbg. 2490' - 2511'

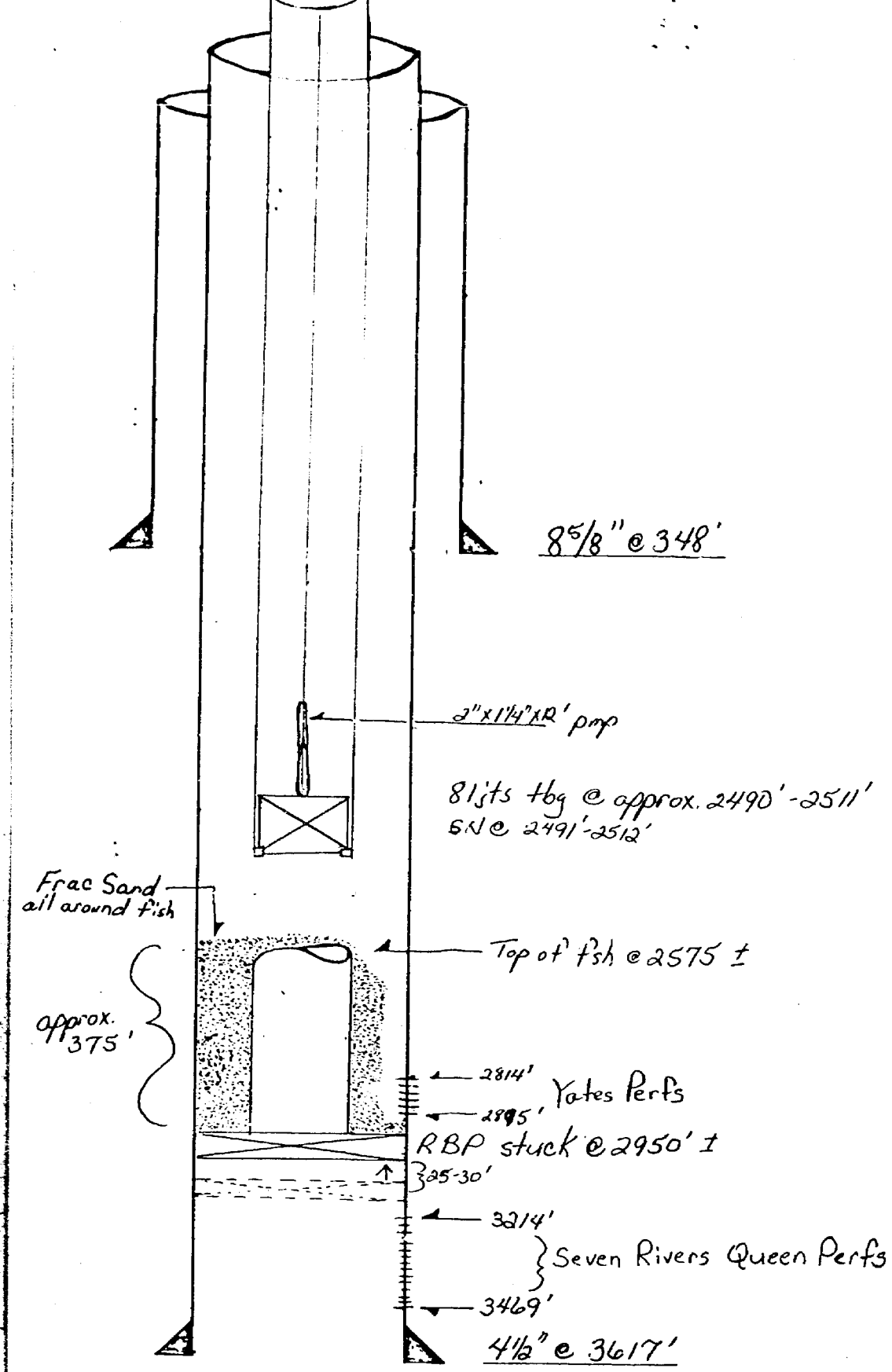
Producing Perfs 2814' - 2895'

1. Perf (Seven Rivers Queen) 3214' - 3469' w/15 shots (overall), Acidized with 1000 gals; Fracture treated w/30,700 gals gelled fresh wtr. & 40,000 # sand, Ran pmp & rods & hung well on production.

   In 1977 well dead, Ran Gamma Ray & Collar Log 2650' - 3460'. Perf'd 2814' - 2895'. CO_2 acid & sand frac (2814'-2895') max psi 3900, SI 1000 psi

   Ran RBP & 94 jts. tbg., loaded tbg. to clean around BP. Picked up & unseated BP moved 25'-30' & tbg. parted. WIH with overshotc & bumper sub, caught fish but couldn't jar loose, POOH. WIH & cut fish @ 2575'. WIH w/ seatnipple & 81 jts. tbg. Ran Pmp & rods & hung well on prod.

JUDY #1


8 5/8" @ 348'
2"x1¼"x12' pmp
81 sts tbg @ approx. 2490'-2511'
SN @ 2491'-2512'
Frac Sand all around fish
Top of fsh @ 2575 ±
approx. 375'
2814'
Yates Perfs
2895'
RBP stuck @ 2950' ±
25-30'
3214'
Seven Rivers Queen Perfs
3469'
4½" @ 3617'

Judy No. 1
Lea County, New Mexico
Langlie-Mattix Seven Rivers Queen
C, S-7, T-25-S, R-37-E

Production Data
Cum. to 12-31-79 14,655 Oil

1980	Oil (bbls)	Gas (MCF)	Wtr.(obls)
January	-0-	1580	3030
February	-0-,	1374	4799
March	-0-	1357	3038
April	-0-	1388	3020
May	-0-	1432	3266
June	-0-	1225	3190
July	-0-	1264	3182
August	-0-	1403	3190

T 24 S

T 25 S

R-37-E

HIMCFAD

JUDY

HARRISON

TAHOE Oil & Cattle Co.

— LEGEND —

PRODUCING WELL

INJECTION WELL

UNIT OUTLINE

DAILY OIL | CUM OIL (M/BBLS)
DAILY WTR. | CUM WTR (M/BBLS)

DAILY INJ | CUM INJ (M/BBLS)
PRESSURE PSI

BEFORE EXAMINER
OIL CONSERVATION
TAHOE EXHIBIT NO. 3
CASE NO. 7058

UNION TEXAS PETROLEUM
A DIVISION OF ALLIED CHEMICAL CORPORATION

LANGLIE - JAL UNIT
LEA COUNTY, NEW MEXICO

WELL TEST DATA

MONTH July - 1980

SCALE IN FEET
2000 0 2000 4000

ALA

MIDLAND DISTRICT

NEW MEXICO OIL CONSERVATION COMMISSION
GAS – OIL RATIO TESTS

C-116
Revised 1-1-65

Operator: Tahoe Oil & Cattle Co.
Pool: Langlie Mattix Seven Rivers Queen
County: Lea
Address: P. O. Box 3084, Midland, Texas 79702
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LEASE NAME	WELL NO.	LOCATION U	S	T	R	DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST WATER BBLS.	GRAV. OIL	OIL BBLS.	GAS M.C.F.	GAS – OIL RATIO CU.FT./BBL.
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(Signature)

Petroleum Engineer
(Title)

March 4, 1980
(Date)

Judy Harrison
Eula

UNION TEXAS PETROLEUM

1300 WILCO BUILDING, MIDLAND, TEXAS 79701

MONTHLY FLUID INJECTION REPORT — YEAR 1980

CANGLIE-JAL UNIT (Project)

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WELL STATUS												
Producing Active	48	48	48	48	48	48	48					
Producing Inactive	1	1	1	1	1	1	1					
Injection Active	39	39	39	39	39	40	39					
Injection Inactive	6	6	6	6	6	5	6					
Water Supply Active	1	1	1	1	1	1	1					
Water Supply Inactive	0	0	0	0	0	0	0					

EFFECTIVE DATE OF UNIT 3-1-71

CUMULATIVE OIL PRODUCTION TO UNITIZATION _____

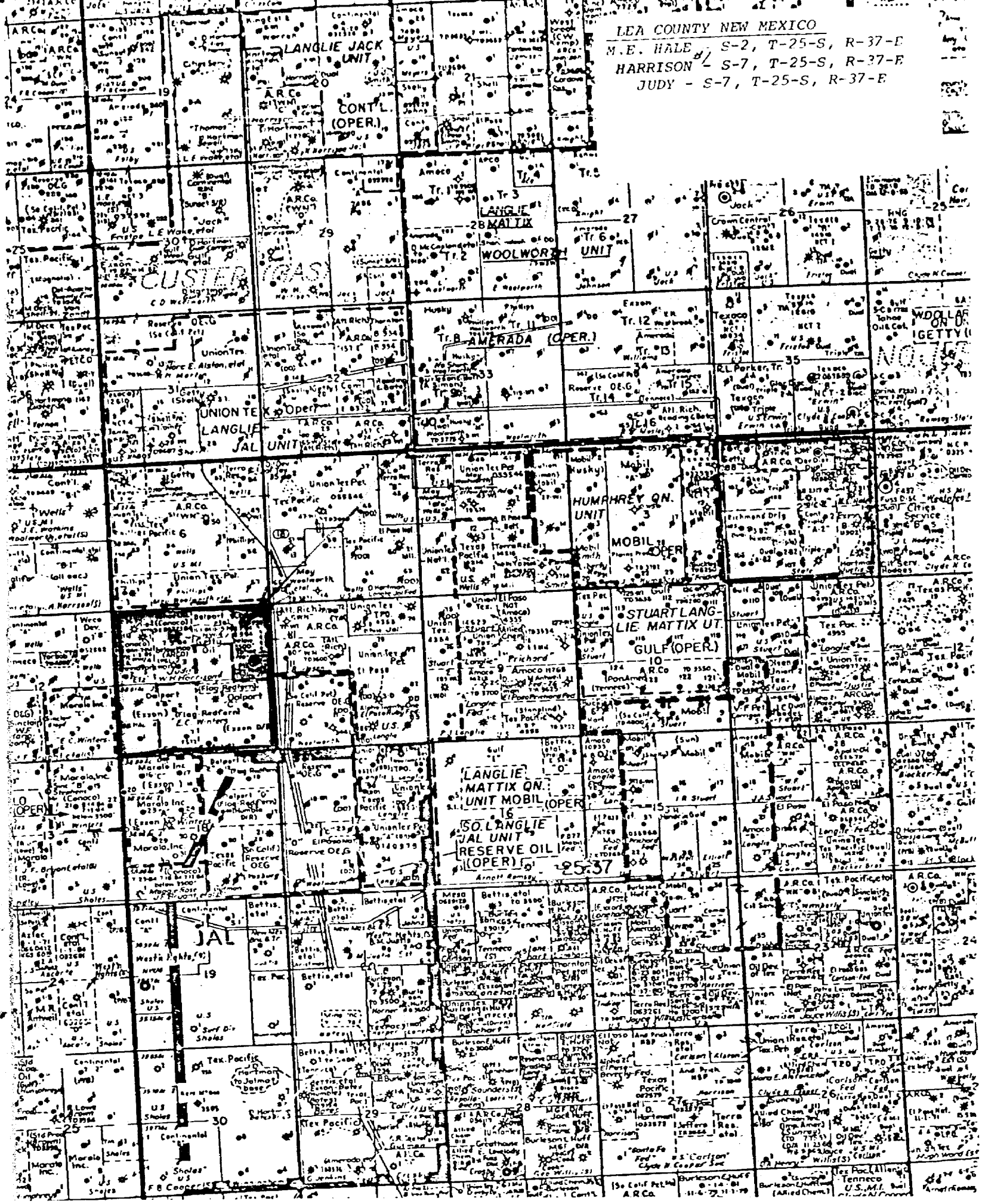
WATER INJECTION BEGAN 5-23-72

LEA COUNTY NEW MEXICO

M.E. HALE - S-2, T-25-S, R-37-E

HARRISON - S-7, T-25-S, R-37-E

JUDY - S-7, T-25-S, R-37-E



COMPLETION HISTORY

Lease: Harrison, Well No. 1

Pool Name: Langlie-Mattix - Seven Rivers Queen

Fee Lease

Location: Unit Letter A, 660' FNL & 860' FEL of Section 7, Township 25-S, Range 37-E

Spud: 12-8-73

Complete: 3-5-74

T.D. 3642' PBTD 3600' Elev. 3174' GL

12-1/4" hole, 8-5/8" @ 357' w/175 sx.

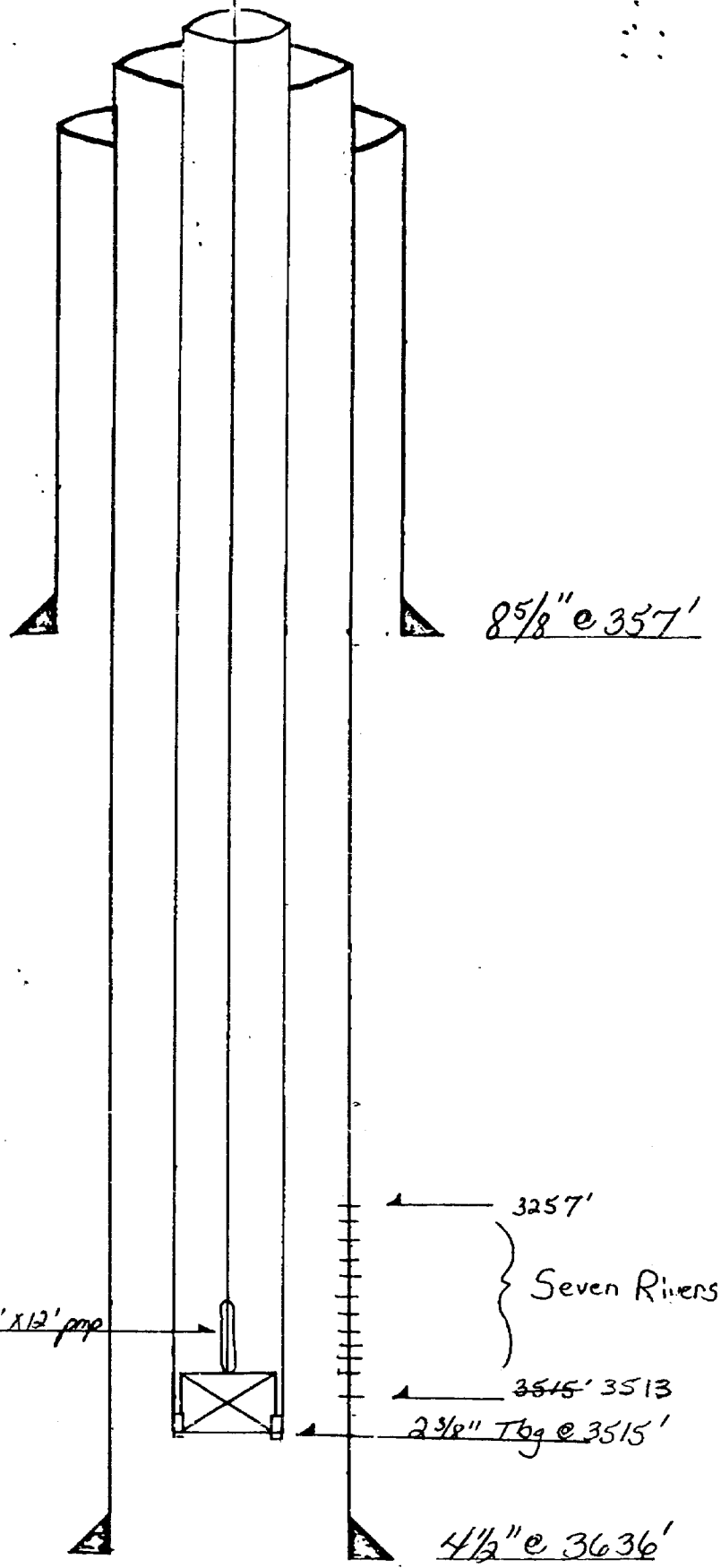
7-7/8" hole, 4-1/2" @ 3636' w/375 sx.

2-3/8" tbg. @ 3515'

Perfs: 3257' - 3513' w/12 shots (overall)

1. Perf'd Seven Rivers Queen 3257' - 3513' w/12 shots, Acidized with 1000 gals 15% & fracture treated w/30,000 gals gelled fresh wtr. & 40,000# sand. Ran pmp & rods & hung well on prod.

Harrison #1


8⅝" @ 357'
3257'
Seven Rivers Queen Perfs
2"x1½"x12' pmp
3515' 3513
2⅜" Tbg @ 3515'
4½" @ 3636'

Harrison Well No. 1
Lea County, New Mexico
Langlie-Mattix Seven Rivers Queen
A, S-7, T-25-S, R-37-E

Production Data
Cum. to 12-31-79 40,367 Oil

1980	Oil (bbls)	Gas (MCF)	Wtr.(bbls)
January	825	395	1151
February	726	356	1013
March	685	338	963
April	632	338	1000
May	742	326	1111
June	626	319	1100
July	550	305	1108
August	704	330	1114

T 24 S

T 25 S

R-37-E

HUMFORD

HARRISON

JUDY

TAHOE Oil & Cattle Co.

— LEGEND —

PRODUCING WELL

INJECTION WELL

UNIT OUTLINE

DAILY OIL | CUM OIL (M/BBLS)
DAILY WTR. | CUM WTR (M/BBLS)

DAILY INJ | CUM INJ (M/BBLS)
PRESSURE PSI

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
TAHOE EXHIBIT NO. 1
CASE NO. 7058

UNION TEXAS PETROLEUM
A DIVISION OF ALLIED CHEMICAL CORPORATION

LANGLIE - JAL UNIT
LEA COUNTY, NEW MEXICO

WELL TEST DATA
MONTH July - 1980

SCALE IN FEET
2000 0 2000 4000

MIDLAND DISTRICT

NEW MEXICO OIL CONSERVATION COMMISSION
GAS – OIL RATIO TESTS

C-116
Revised 1-1-65

Operator: Tahoe Oil & Cattle Co.
Pool: Langlie Mattix Seven Rivers Queen
County: Lea
Address: P. O. Box 3084, Midland, Texas 79702
TYPE OF TEST – (X): Scheduled [X] Completion [ ] Special [ ]

LEASE NAME	WELL NO.	LOCATION U	S	T	R	DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST: WATER BBLS.	GRAV. OIL	OIL BBLS.	GAS M.C.F.	GAS – OIL RATIO CU.FT/BBL.
Ramsey State	1	E	36	24	37	2/29/80	P	--	20	2	24	.5	35	2	10	5,000
	2	K	36	24	37	2/25/80	P	--	20	2	24	.5	35	2	12	6,000
	3	L	36	24	37	2/28/80	P	--	20	2	24	1	35	2	15	7,500
	4	M	36	24	37	2/27/80	P	--	20	2	24	.5	35	2	9	4,500
	5	N	36	24	37	Shut in		--								
	6	D	36	24	37	2/25/80	P	--	20	8	24	6	35	7	50	7,143
Harrison	1	A	7	25	37	2/25/80	P	--	25	33	24	40	38	32 ✓	16 ✓	500
	2	H	7	25	37	2/26/80	P	--	25	20	24	32	38	17 ✓	13 ✓	765
Judy	1	C	7	25	37	2/27/80	P	--	25	0	24	97	--	--	70	--
	3	F	7	25	37	2/28/80	P	--	25	13	24	84	38	8	62	7,750
Hale State	1	G	2	25	37	2/26/80	P	--	25	1	24	1	37	2	16	8,000
	2	H	2	25	37	2/27/80	P	--	25	0	24	0	-	0	285	--

No well will be assigned an allowable greater then the amount of oil produced on the official test.

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

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

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

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

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

(Signature)

Petroleum Engineer
(Title)

March 4, 1980
(Date)

Judy Harrison
Tulsa

UNION TEXAS PETROLEUM

1300 WILCO BUILDING, MIDLAND, TEXAS 79701

MONTHLY FLUID INJECTION REPORT — YEAR 1980

LANGLIE-JAL UNIT (Project)

Seven Rivers Queen (Field/Pool)

	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
PRODUCTION												
OIL (BBLS.)												
Allowable	33,449	31,291	33,449	32,370	28,396	27,480	28,396					
Produced	27,208	24,801	25,352	24,174	24,998	23,253	24,005					
Daily Average	878	855	818	806	806	775	774					
Cumulative Since Unitization	2,859,876	2,884,677	2,910,029	2,934,203	2,959,201	2,982,454	3,006,459					
WATER (BBLS.)												
Produced	130,737	114,360	124,703	109,050	122,438	118,971	123,961					
Daily Average	4,217	3,943	4,023	3,635	3,950	3,966	3,999					
Percent Total Fluid	83%	82%	83%	82%	83%	84%	84%					
Cumulative Since Unitization	6,262,763	6,377,123	6,501,826	6,610,876	6,733,314	6,852,285	6,976,246					
GAS (MCF)												
Produced	28,550	27,336	28,416	28,242	30,708	31,087	32,923					
GOR	1,049	1,102	1,121	1,168	1,228	1,337	1,372					
Cumulative Since Unitization	3,057,211	3,084,547	3,112,963	3,141,205	3,171,913	3,203,000	3,235,923					
INJECTION												
WATER (BBLS.)												
Injected	324,178	288,430	325,593	275,086	282,624	265,924	326,717					
Daily Average	10,457	9,946	10,503	9,170	9,117	8,864	10,539					
Cumulative Since Unitization	34,403,665	34,692,095	35,017,688	35,292,774	35,575,398	35,841,322	36,168,039					
WELL STATUS												
Producing Active	48	48	48	48	48	48	48					
Producing Inactive	1	1	1	1	1	1	1					
Injection Active	39	39	39	39	39	40	39					
Injection Inactive	6	6	6	6	6	5	6					
Water Supply Active	1	1	1	1	1	1	1					
Water Supply Inactive	0	0	0	0	0	0	0					

EFFECTIVE DATE OF UNIT 3-1-71

CUMULATIVE OIL PRODUCTION TO UNITIZATION _____

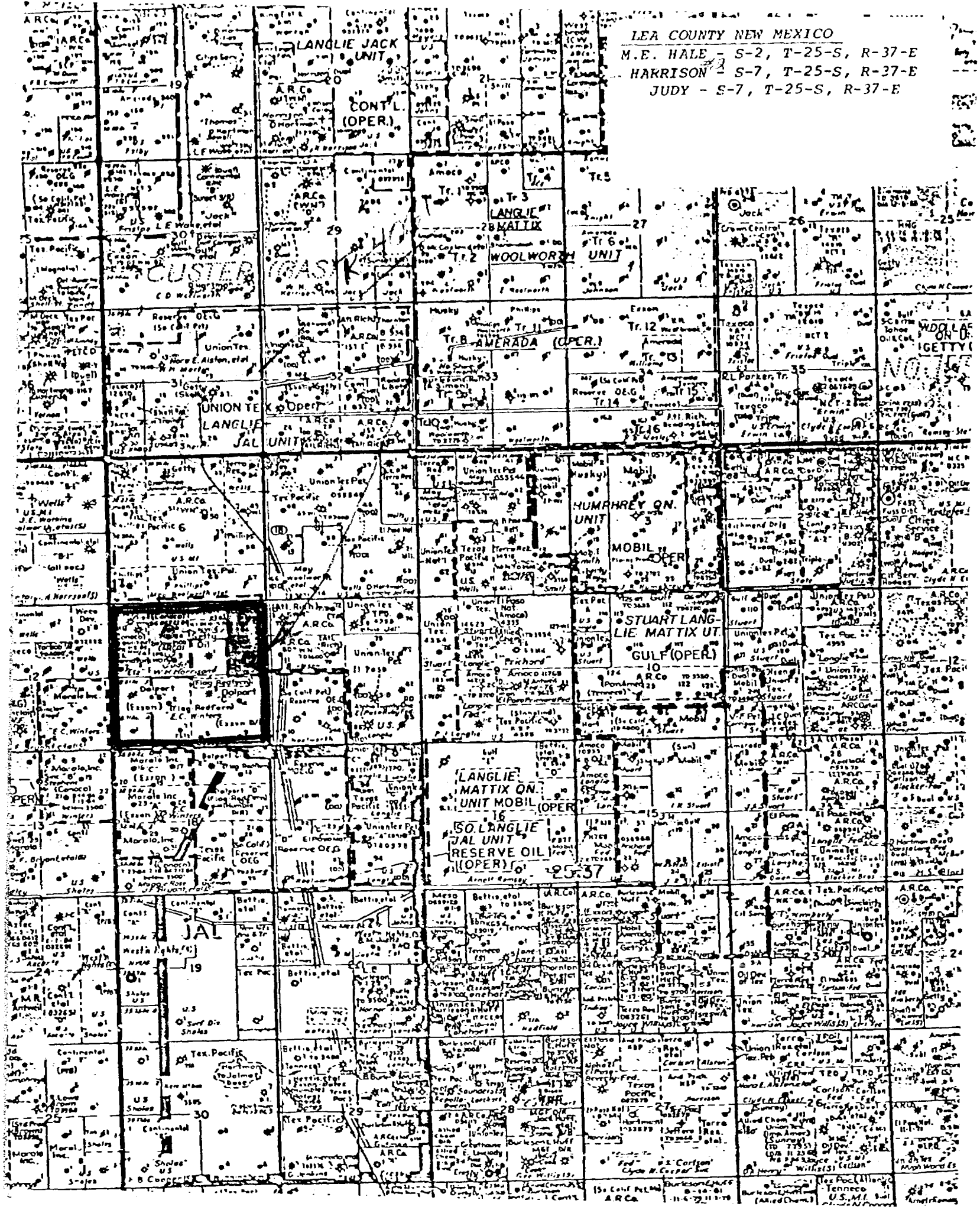
WATER INJECTION BEGAN 5-23-72

LEA COUNTY NEW MEXICO

M.E. HALE - S-2, T-25-S, R-37-E

HARRISON - S-7, T-25-S, R-37-E

JUDY - S-7, T-25-S, R-37-E



COMPLETION HISTORY

Lease: Harrison, Well No. 2

Pool Name: Langlie-Mattix Seven Rivers Queen

Fee Lease

Location: Unit Letter H, 1980' FNL & 660' FEL of Section 7, Township 25-S, Range 37-E

Spud: 5-24-74

Complete: 9-15-74

T.D. 3610' P.B.T.D. 3570' Elev. 3147'

12-1/4" hole, 8-5/8" @ 335' w/175 sx.

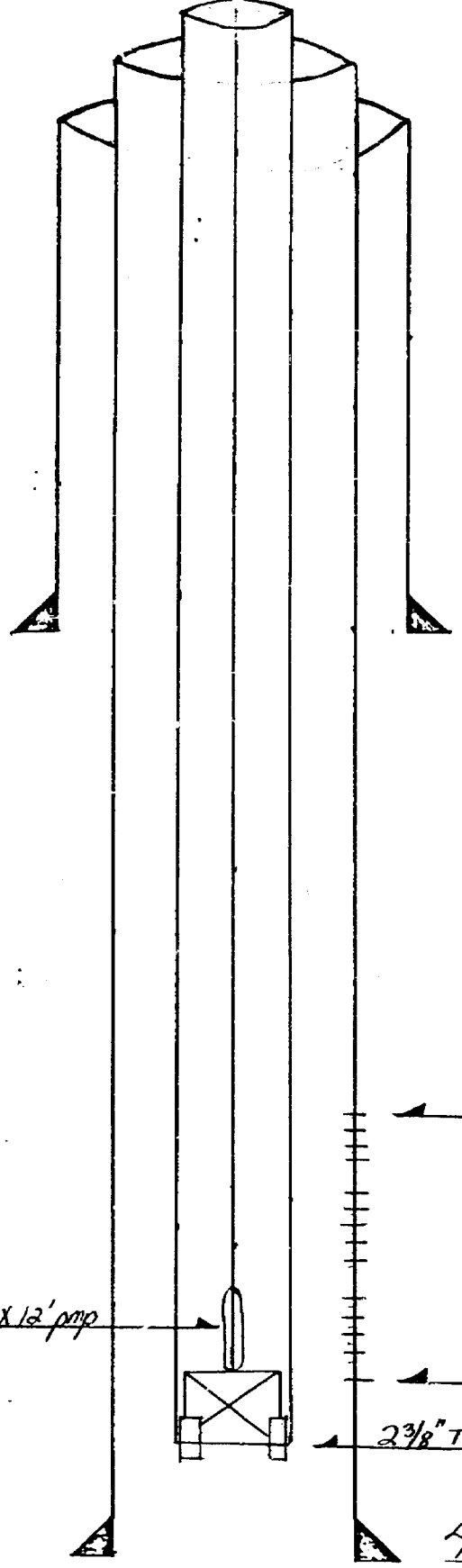
7-7/8" hole, 4-1/2" @ 3602' w/325 sx.

2-3/8" tbg. @ 3565'

Perfs: 3127' - 3504' w/14 shots (overall)

1. Perf'd Seven Rivers Queen 3127' - 3504' w/14 shots, Acidized w/ 2000 gals 15% & fracture treated w/28,000 gals gelled fresh wtr. & 40,000# sand. Ran pmp & rods & hung well on prod.

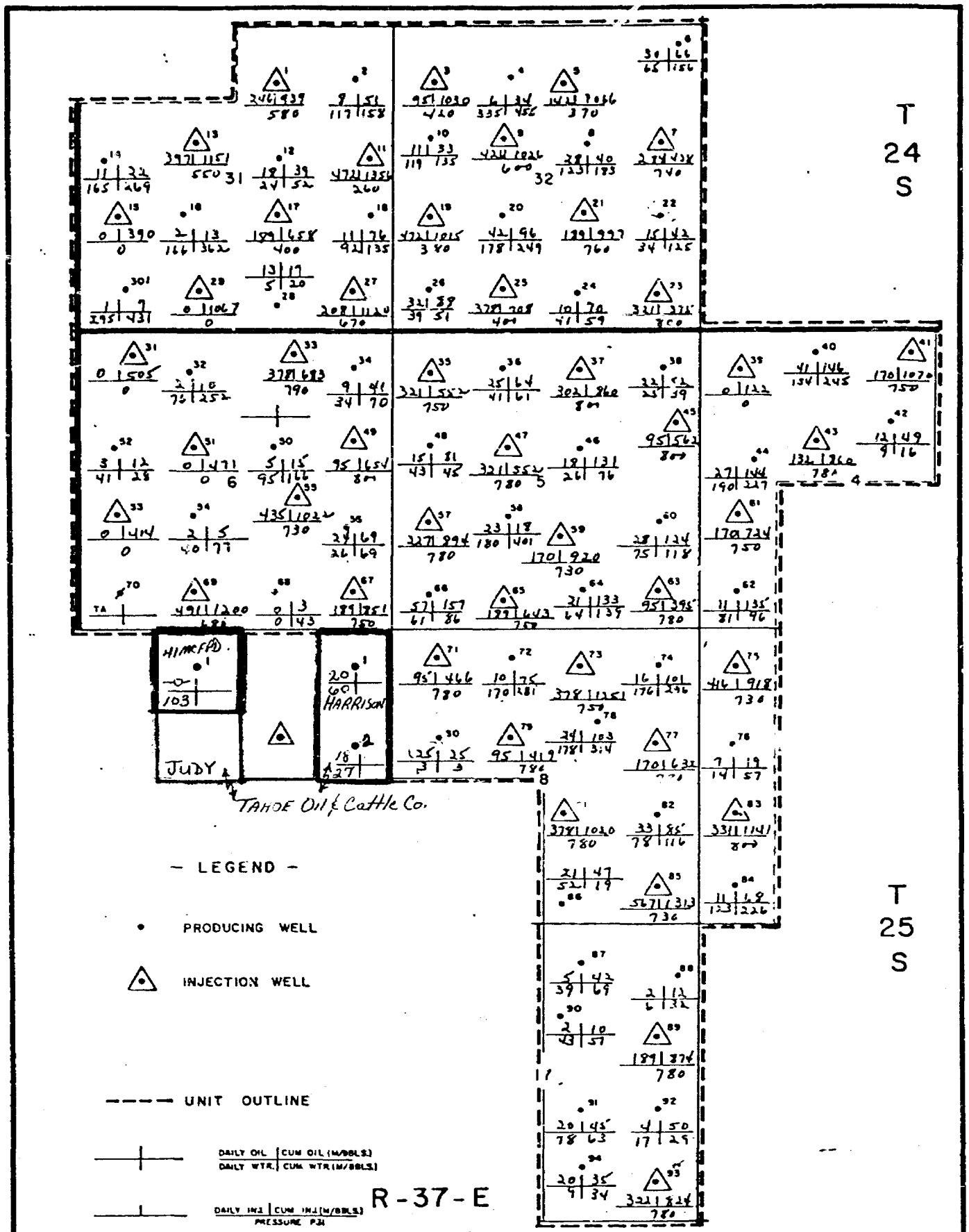
Harrison #2


8 5/8" @ 335'
3127'
Seven Rivers Queen Perfs
2"X1½"X12' pmp
3504'
2⅜" Tbg @ 3565'
4½" @ 3602'

Harrison Well No. 2
Lea County, New Mexico
Langlie-Mattix Seven Rivers Queen
H, S-7, T-25-S, R-37-E

Production Data
Cum. to 12-31-79 30,540 Oil

1980	Oil (bbls)	Gas (MCF)	Wtr.(bbls)
January	406	323	942
February	357	291	828
March	338	277	778
April	312	276	811
May	365	266	909
June	308	261	900
July	271	249	907
August	347	270	911



BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
TAHOE EXHIBIT NO. 2
CASE NO. 7058

UNION TEXAS PETROLEUM
A DIVISION OF ALLIED CHEMICAL CORPORATION

LANGLIE - JAL UNIT
LEA COUNTY, NEW MEXICO

WELL TEST DATA
MONTH July - 1980

SCALE IN FEET
2000 0 2000 4000

RLA
MIDLAND DISTRICT

NEW MEXICO OIL CONSERVATION COMMISSION
GAS – OIL RATIO TESTS

C-116
Revised 1-1-65

Operator: Tahoe Oil & Cattle Co.
Pool: Langlie Mattix Seven Rivers Queen
County: Lea
Address: P. O. Box 3084, Midland, Texas 79702
TYPE OF TEST – (X): Scheduled [X] Completion [ ] Special [ ]

LEASE NAME	WELL NO.	LOCATION U	S	T	R	DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST WATER BBLS.	GRAV. OIL	OIL BBLS.	GAS M.C.F.	GAS – OIL RATIO CU.FT/BBL
Ramsey State	1	E	36	24	37	2/29/80	P	--	20	2	24	.5	35	2	10	5,000
	2	K	36	24	37	2/25/80	P	--	20	2	24	.5	35	2	12	6,000
	3	L	36	24	37	2/28/80	P	--	20	2	24	1	35	2	15	7,500
	4	M	36	24	37	2/27/80	P	--	20	2	24	.5	35	2	9	4,500
	5	N	36	24	37	Shut in		--								
	6	D	36	24	37	2/25/80	P	--	20	8	24	6	35	7	50	7,143
Harrison	1	A	7	25	37	2/25/80	P	--	25	33	24	40	38	32	16	500
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Judy	1	C	7	25	37	2/27/80	P	--	25	0	24	97	--	--	70	--
	3	F	7	25	37	2/28/80	P	--	25	13	24	84	38	8	62	7,750
Hale State	1	G	2	25	37	2/26/80	P	--	25	1	24	1	37	2	16	8,000
	2	H	2	25	37	2/27/80	P	--	25	0	24	0	-	0	285	--

No well will be assigned an allowable greater than the amount of oil produced on the official test.

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

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

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

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

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

(Signature)

Petroleum Engineer
(Title)

March 4, 1980
(Date)

Judy Harrison
Tulsa

UNION TEXAS PETROLEUM

1300 WILCO BUILDING, MIDLAND, TEXAS 79701

MONTHLY FLUID INJECTION REPORT — YEAR 1980

LANGLIE-JAL UNIT (Project)

Seven Rivers Queen (Field/Pool)

	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
PRODUCTION												
OIL (BBLS.)												
Allowable	33,449	31,291	33,449	32,370	28,396	27,480	28,396					
Produced	27,208	24,801	25,352	24,174	24,998	23,253	24,005					
Daily Average	878	855	818	806	806	775	774					
Cumulative Since Unitization	2,859,876	2,884,677	2,910,029	2,934,203	2,959,201	2,982,454	3,006,459					
WATER (BBLS.)												
Produced	130,737	114,360	124,703	109,050	122,438	118,971	123,961					
Daily Average	4,217	3,943	4,023	3,635	3,950	3,966	3,999					
Percent Total Fluid	83%	82%	83%	82%	83%	84%	84%					
Cumulative Since Unitization	6,262,763	6,377,123	6,501,826	6,610,876	6,733,314	6,852,285	6,976,246					
GAS (MCF)												
Produced	28,550	27,336	28,416	28,242	30,708	31,087	32,923					
GOR	1,049	1,102	1,121	1,168	1,228	1,337	1,372					
Cumulative Since Unitization	3,057,211	3,084,547	3,112,963	3,141,205	3,171,913	3,203,000	3,235,923					
INJECTION												
WATER (BBLS.)												
Injected	324,178	288,430	325,593	275,086	282,624	265,924	326,717					
Daily Average	10,457	9,946	10,503	9,170	9,117	8,864	10,539					
Cumulative Since Unitization	34,403,665	34,692,095	35,017,688	35,292,774	35,575,398	35,841,322	36,168,039					
WELL STATUS												
Producing Active	48	48	48	48	48	48	48					
Producing Inactive	1	1	1	1	1	1	1					
Injection Active	39	39	39	39	39	40	39					
Injection Inactive	6	6	6	6	6	5	6					
Water Supply Active	1	1	1	1	1	1	1					
Water Supply Inactive	0	0	0	0	0	0	0					

EFFECTIVE DATE OF UNIT 3-1-71

CUMULATIVE OIL PRODUCTION TO UNITIZATION _____

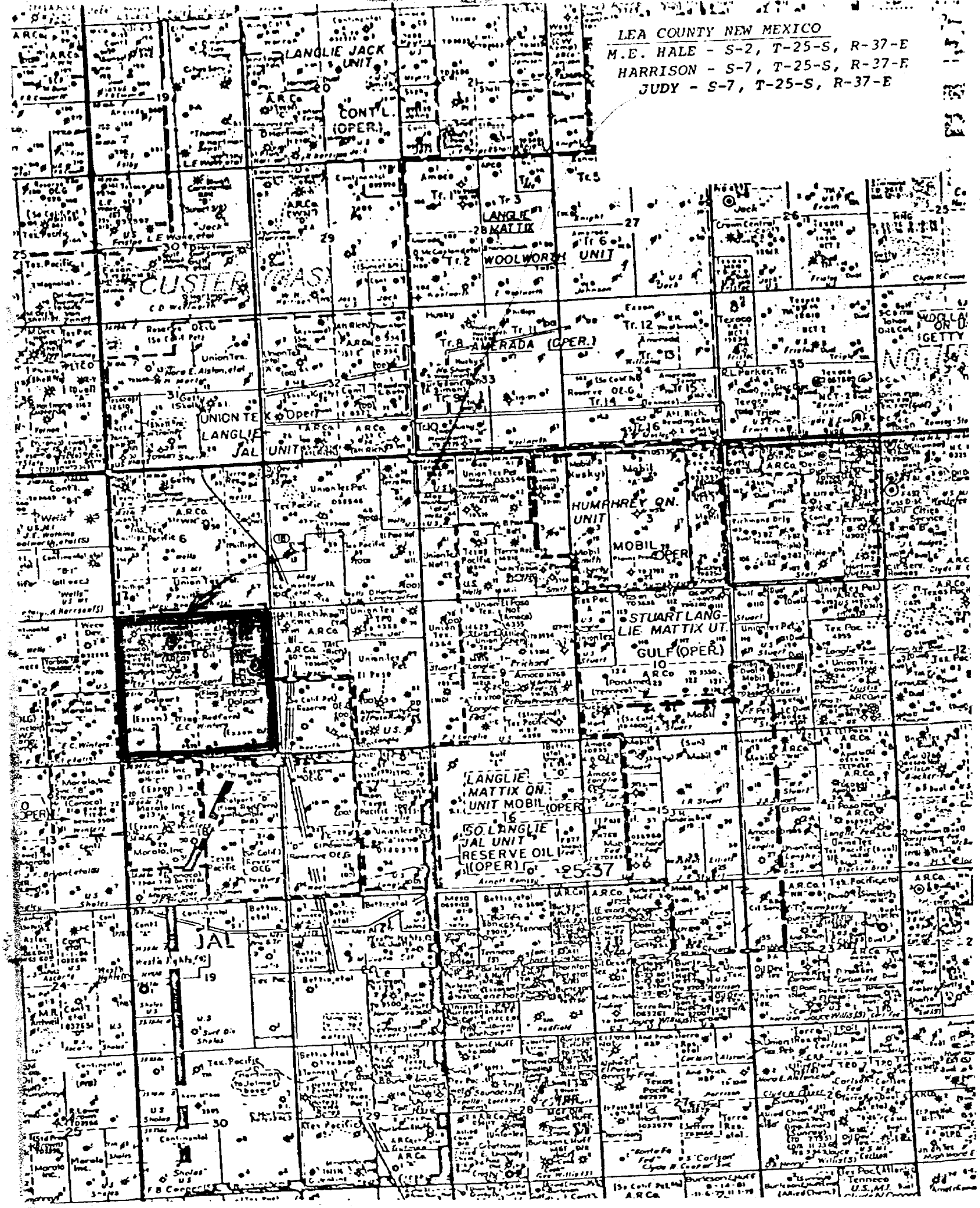
WATER INJECTION BEGAN 5-23-72

LEA COUNTY NEW MEXICO

M.E. HALE - S-2, T-25-S, R-37-E

HARRISON - S-7, T-25-S, R-37-E

JUDY - S-7, T-25-S, R-37-E



COMPLETION HISTORY

Lease: Judy, Well No. 1

Poll Name: Langlie-Mattix Seven Rivers Queen

Fee Lease

Location: Unit Letter C, 990' FNL & 1980' FWL of Section 7, Township 25-S, Range 37-E, Lea County, New Mexico

Spd: 1-24-74 Comp. 4-2-74

T.D. 3617' P.B.T.D. 3600' Elev. 3158' GL

12-1/4" hole, 8-5/8" @ 348' w/175 sx.

7-7/8" hole, 4-1/2" @ 3617' w/325 sx.

2-3/8" Tbg. 2490' - 2511'

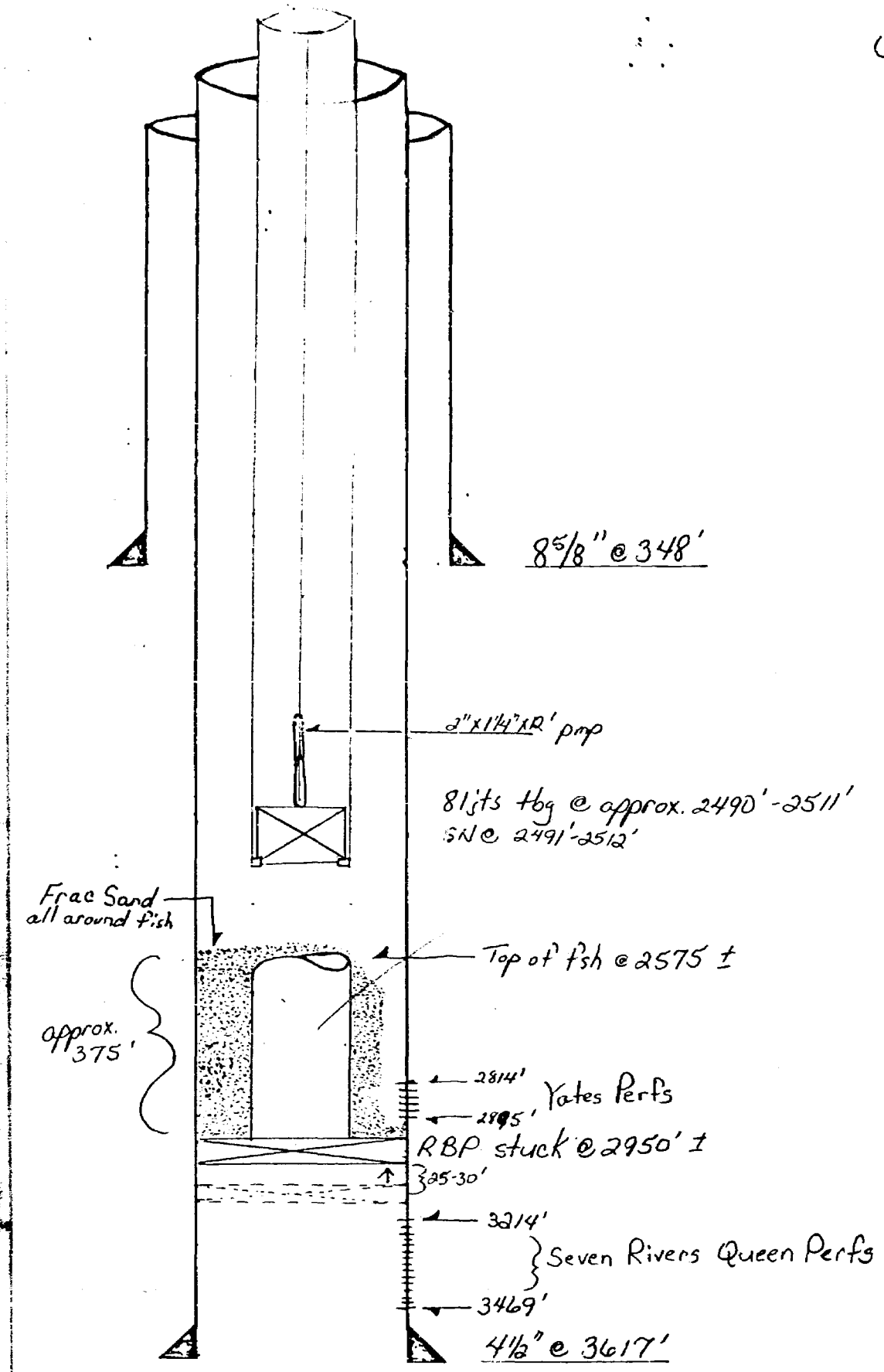
Producing Perfs 2814' - 2895' ---- 1971

1. Perf (Seven Rivers Queen) 3214' - 3469' w/15 shots (overall), Acidized with 1000 gals; Fracture treated w/30,700 gals gelled fresh wtr. & 40,000 # sand, Ran pmp & rods & hung well on production.

   In 1977 well dead, Ran Gamma Ray & Collar Log 2650' - 3460'. Perf'd 2814' - 2895'. CO_2 acid & sand frac (2814'-2895') max psi 3900, SI 1000 psi

   Ran RBP & 94 jts. tbg., loaded tbg. to clean around BP. Picked up & unseated BP moved 25'-30' & tbg. parted. WIH with overshots & bumper sub, caught fish but couldn't jar loose, POOH. WIH & cut fish @ 2575'. WIH w/ seatnipple & 81 jts. tbg. Ran Pmp & rods & hung well on prod.

JUDY #1


8 5/8" @ 348'
2"x1¼"xR' pmp
81 jts tbg @ approx. 2490'-2511'
SN @ 2491'-2512'
Frac Sand all around fish
Top of fish @ 2575 ±
approx. 375'
2814'
2895'
Yates Perfs
RBP stuck @ 2950' ±
25-30'
3214'
Seven Rivers Queen Perfs
3469'
4½" @ 3617'

Judy No. 1
Lea County, New Mexico
Langlie-Mattix Seven Rivers Queen
C, S-7, T-25-S, R-37-E

Production Data
Cum. to 12-31-79 14,655 Oil

1980	Oil (bbls)	Gas (MCF)	Wtr.(bbls)
January	-0-	1580	3030
February	-0-	1374	4799
March	-0-	1357	3038
April	-0-	1388	3020
May	-0-	1432	3266
June	-0-	1225	3190
July	-0-	1264	3182
August	-0-	1403	3190

T 24 S

T 25 S

HIMCFRD

JUDY

HARRISON

TAHOE Oil & Cattle Co.

— LEGEND —

• PRODUCING WELL

△ INJECTION WELL

———— UNIT OUTLINE

DAILY OIL | CUM OIL (M/BBLS)
DAILY WTR. | CUM WTR.(M/BBLS)

DAILY INJ | CUM INJ.(M/BBLS)
PRESSURE PSI

R-37-E

BEFORE EXAMINER
OIL CONSERVATION DIVISION
TAHOE EXHIBIT NO. 3
CASE NO. 7058

UNION TEXAS PETROLEUM
A DIVISION OF ALLIED CHEMICAL CORPORATION

LANGLIE - JAL UNIT
LEA COUNTY, NEW MEXICO

WELL TEST DATA

MONTH July - 1980

SCALE IN FEET

2000 0 2000 4000

MIDLAND DISTRICT

RLA

NEW MEXICO OIL CONSERVATION COMMISSION
GAS-OIL RATIO TESTS

C-116
Revised 1-1-65

Operator: Tahoe Oil & Cattle Co.
Pool: Langlie Mattix Seven Rivers Queen
County: Lea
Address: P. O. Box 3084, Midland, Texas 79702
TYPE OF TEST - (X): Scheduled [X] Completion [ ] Special [ ]

LEASE NAME	WELL NO.	LOCATION U	S	T	R	DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST WATER BBLS.	GRAV. OIL	OIL BBLS.	GAS M.C.F.	GAS - OIL RATIO CU.FT/BBL
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	5	N	36	24	37	Shut in		--								
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Harrison	1	A	7	25	37	2/25/80	P	--	25	33	24	40	38	32	16	500
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Hale State	1	G	2	25	37	2/26/80	P	--	25	1	24	1	37	2	16	8,000
	2	H	2	25	37	2/27/80	P	--	25	0	24	0	-	0	285	--

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(Signature)

Petroleum Engineer
(Title)

March 4, 1980
(Date)

Judy Harrison
Title

UNION TEXAS PETROLEUM

1300 WILCO BUILDING, MIDLAND, TEXAS 79701

MONTHLY FLUID INJECTION REPORT — YEAR 1980

LANGLIE-JAL UNIT (Project)

Seven Rivers Queen (Field/Pool)

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WATER (BBLS.)												
Injected	324,178	288,430	325,593	275,086	282,624	265,924	326,717					
Daily Average	10,457	9,946	10,503	9,170	9,117	8,864	10,539					
Cumulative Since Unitization	34,403,665	34,692,095	35,017,688	35,292,774	35,575,398	35,841,322	36,168,039					
WELL STATUS												
Producing Active	48	48	48	48	48	48	48					
Producing Inactive	1	1	1	1	1	1	1					
Injection Active	39	39	39	39	39	40	39					
Injection Inactive	6	6	6	6	6	5	6					
Water Supply Active	1	1	1	1	1	1	1					
Water Supply Inactive	0	0	0	0	0	0	0					

EFFECTIVE DATE OF UNIT 3-1-71

CUMULATIVE OIL PRODUCTION TO UNITIZATION _____

WATER INJECTION BEGAN 5-23-72

Dockets Nos. 36-80 and 37-80 are tentatively set for November 12 and 25, 1980. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - OCTOBER 29, 1980

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

The following cases will be heard before Daniel S. Nutter, Examiner, or Richard L. Stamets, Alternate Examiner:

CASE 7055: (This case will be continued to the November 25 hearing.)

Application of Union Oil Company of California for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the Eaves-Lea Unit Area, comprising 2209 acres, more or less, of State and Federal lands in Township 21 South, Ranges 32 and 33 East.

CASE 7056: Application of Getty Oil Company for the extension of vertical limits of the Langlie Mattix Pool, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the contraction of the vertical limits of the Jalmat Pool and the upward extension of the vertical limits of the Langlie Mattix Pool to a depth of 3540 feet, subsurface, under the NW/4 SW/4 of Section 3, Township 24 South, Range 36 East.

CASE 7057: Application of Doyle Hartman for the extension of vertical limits of the Langlie Mattix Pool, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the contraction of the vertical limits of the Jalmat Pool and the upward extension of the vertical limits of the Langlie Mattix Pool to the following depths underlying the following 40-acre tracts in Township 24 South, Range 37 East: SE/4 SE/4 of Section 30: 3364 feet; NE/4 SE/4 of Section 30: 3389 feet; and SE/4 SW/4 of Section 20: 3390 feet.

CASE 7058: Application of Tahoe Oil & Cattle Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Jalmat and Langlie Mattix production in the wellbores of its Harrison Wells Nos. 1 and 2 located in Units A and H, respectively, and its Judy Well No. 1 located in Unit C, all in Section 7, Township 25 South, Range 37 East.

CASE 7059: Application of Gulf Oil Corporation for the extension of vertical limits of the Langlie Mattix Pool, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the contraction of the vertical limits of the Jalmat Pool and the upward extension of the vertical limits of the Langlie Mattix Pool to a depth of 3406 feet under the W/2 SW/4 of Section 30, Township 24 South, Range 37 East.

CASE 7060: Application of Mobil Producing Inc. for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Jalmat and Langlie Mattix production in the wellbores of its Humphrey Queen Unit Wells Nos. 13 in Unit I of Section 4 and 16 in Unit K of Section 3 and its Langlie Mattix Queen Unit Well No. 10 in Unit C of Section 15, all in Township 25 South, Range 37 East.

CASE 7061: Application of Bettis, Boyle & Stovall for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Jalmat and Langlie Mattix production in the wellbore of its Justis B Well No. 8 located in Unit G of Section 20, Township 25 South, Range 37 East.

CASE 7062: Application of El Paso Natural Gas Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Jalmat and Langlie Mattix production in the wellbore of its Carlson Federal Well No. 2 located in Unit N of Section 23, Township 25 South, Range 37 East.

CASE 7063: Application of Lewis Burleson for the extension of vertical limits of the Langlie Mattix Pool, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the contraction of the vertical limits of the Jalmat Pool and the upward extension of the vertical limits of the Langlie Mattix Pool to a depth of 3150 feet under the SE/4 NW/4 of Section 22, Township 25 South, Range 37 East.

CASE 7041: (Continued from October 8, 1980, Commission Hearing)

Application of John Yuronka for the extension of vertical limits of the Langlie Mattix Pool, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the contraction of the vertical limits of the Jalmat Pool and the upward extension of the vertical limits of the Langlie Mattix Pool to a depth of 3,408 feet, subsurface, under the NW/4 SW/4 of Section 17, Township 24 South, Range 37 East.

CASE 7064: Application of El Paso Natural Gas Company for an unorthodox location and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the simultaneous dedication of a previously approved 440-acre proration unit comprising the S/2, S/2 NW/4, and NW/4 NW/4 of Section 33, Township 25 South, Range 37 East, Jalmat Gas Pool, to its Gregory Fed. Well No. 1 located in Unit J and its Gregory Fed. A Well No. 2, at an unorthodox location in the center of Unit L of said Section 33.

CASE 7065: Application of El Paso Natural Gas Company for twelve non-standard proration units, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the establishment of eight non-standard proration units for Pictured Cliffs wells to be drilled in the W/2 of partial Sections 6, 7, 18, 19, 30 and 31 of Township 30 North, Range 4 West, and four non-standard proration units for Pictured Cliffs wells in partial Sections 7, 8, and 9 of Township 28 North, Range 4 West.

CASE 7066: Application of Conoco Inc. for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Britt "B" Well No. 27 located in Unit G of Section 15, Township 20 South, Range 37 East, to produce oil from the Weir-Drinkard or an undesignated Blinebry pool and an undesignated Abo pool.

CASE 7067: Application of Conoco Inc. for a dual completion, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Dagger Draw Com. Well No. 4 located in Unit J of Section 25, Township 19 South, Range 24 East, to produce oil from the North Dagger Draw-Upper Penn Pool and gas from an undesignated Morrow pool.

CASE 7068: Application of Conoco Inc. for a dual completion and an unorthodox well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Penny Federal Com. Well No. 2 at an unorthodox location 1650 feet from the North line and 1980 feet from the East line of Section 23, Township 20 South, Range 24 East, to produce oil from the South Dagger Draw-Upper Penn Pool and gas from an undesignated Morrow pool.

CASE 7069: Application of Anadarko Production Company for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a Morrow test well to be drilled 660 feet from the South and East lines of Section 4, Township 19 South, Range 25 East, the S/2 of said Section 4 to be dedicated to the well.

CASE 7070: Application of Tesoro Petroleum Corporation for a pilot caustic flood project, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a one-acre pilot caustic flood project in the Hospah Field by the injection of caustic fluid into the Seven Lakes Sand of the Upper Hospah Field at an approximate depth of 300-500 feet through four injection wells in Unit K of Section 1, Township 17 North, Range 9 West.

CASE 7071: Application of Jake L. Hamon for an unorthodox well location and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the simultaneous dedication of a 640-acre proration unit comprising all of Section 17, Township 20 South, Range 36 East, North Osudo-Morrow Pool, to its Amerada Federal Well No. 2 located in Unit F and its Amerada Federal Well No. 3, to be drilled at an unorthodox location 1650 feet from the South line and 660 feet from the East line of said Section 17.

CASE 6668: (Reopened and Readvertised)

In the matter of Case 6668 being reopened pursuant to the provisions of Order No. R-6139 which order promulgated temporary special rules and regulations for the South Culebra Bluff-Bone Spring Pool in Eddy County, New Mexico, including a provision for 80-acre spacing units. Operators in said pool may appear and show cause why the pool should not be developed on 40-acre spacing units.

CASE 7005: (Continued from September 17, 1980, Examiner Hearing)

Application of Sol West III for an NGPA determination, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks a new onshore reservoir determination in the Morrow formation for his Turkey Track-Morrow Sand Well No. 1 in Unit I of Section 26, Township 18 South, Range 28 East.

CASE 7072: Application of Enserch Exploration, Inc. for pool creation and special pool rules, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Pennsylvanian oil pool for its Enserch Amoco State Well No. 1 located in Unit L of Section 16, Township 4 South, Range 33 East, and the promulgation of special pool rules therefor, including a provision for 80-acre spacing.

CASE 7073: Application of Enserch Exploration, Inc. for pool creation, temporary special pool rules, and assignment of a discovery allowable, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Fusselman oil pool for its J. G. O'Brien Well No. 1 located 1980 feet from the North line and 660 feet from the West line of Section 31, Township 7 South, Range 29 East, with special rules therefor, including provisions for 80-acre spacing, a limiting gas-oil ratio of 3000 to one and special well location requirements providing for the drilling of wells within 150 feet of the center of a quarter-quarter section. Applicant further seeks approval of a 74.24-acre proration and spacing unit and a discovery allowable for said J. G. O'Brien Well No. 1.

CASE 7074: Application of Enserch Exploration, Inc. for pool creation, an unorthodox gas well location, and non-standard proration unit, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Fusselman gas pool for its J. G. O'Brien Well No. 2 located at an unorthodox location 660 feet from the South and West lines of Section 30, Township 7 South, Range 29 East, to be dedicated to a 308.96-acre non-standard unit comprising the W/2 of said Section 30.

CASE 6822: (Continued from October 1, 1980, Examiner Hearing)

In the matter of Case 6822 being reopened pursuant to the provisons of Order No. R-6293 which order created the West Double X-Wolfcamp Gas Pool as a retrograde gas condensate pool and set special production limitations therein. Operator(s) may appear and present evidence to establish the true nature of the reservoir and proper rates of withdrawal therefrom.

CASE 6648: (Continued from October 1, 1980, Examiner Hearing)

In the matter of Case 6648 being reopened pursuant to the provisions of Order No. R-6124 which order promulgated temporary special rules and regulations for the North Caprock-Mississippian Pool in Lea County, New Mexico, including a provision for 160-acre spacing and a 4000 to one gas-oil ratio limitation. Operators in said pool may appear and show cause why the pool should not be developed on 40-acre spacing with a 2000 to one GOR.

CASE 7045: (Continued from October 15, 1980, Examiner Hearing)

Application of Texas Oil & Gas Corp. for downhole commingling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Atoka and Upper Morrow production in the wellbore of its Superior Federal Com. Well No. 1 located in Unit G of Section 8, Township 20 South, Range 29 East.

CASE 7024: (Continued from October 15, 1980, Examiner Hearing)

Application of Southland Royalty Company for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the E/2 of Section 35, Township 18 South, Range 29 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.

CASE 7038: (Continued from October 15, 1980, Examiner Hearing)

Application of Natura Energy Corporation for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the San Andres formation underlying the NE/4 NE/4 of Section 6, Township 19 South, Range 39 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.

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Docket No. 35-80

DOCKET: COMMISSION HEARING - FRIDAY - OCTOBER 31, 1980

OIL CONSERVATION COMMISSION - 9 A.M. - ROOM 205
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

CASE 7075: Application of Benson-Montin-Greer Drilling Corporation for the amendment of pool rules, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of the Special Rules and Regulations for the West Puerto Chiquito-Mancos Oil Pool as promulgated by Order No. R-2565-B and amended by Order No. R-6469, to require that the locations of wells in said pool be at least 1650 feet from the outer boundary of the spacing and proration unit, and that the drilling of wells be controlled so as to allow no more than a 330-foot horizontal deviation from the surface location. Further, that the location of wells on certain specified non-standard proration units approved by Order No. R-6469 should be no closer than 660 feet to the outer boundary of the non-standard unit nor closer than 330 feet to a quarter section line or 10 feet to a quarter-quarter section line. Said specified non-standard units are the two 640-acre units in Township 24 North, Range 1 West; the two 480-acre units in Township 24 North, Range 1 East; the four 640-acre units in Township 26 North, Range 1 West; the 640-acre unit in Township 26 North, Range 1 East; and the two 640-acre units, the three 600-acre units, and the 400-acre unit, all in Township 27 North, Range 1 West. Applicant further seeks an administrative procedure whereby unorthodox locations could be approved upon receipt of written waivers from all offsetting operators being "crowded" by the unorthodox location.

CAMPBELL AND BLACK, P.A.
LAWYERS

JACK M. CAMPBELL
BRUCE D. BLACK
MICHAEL B. CAMPBELL
WILLIAM F. CARR

POST OFFICE BOX 2208
JEFFERSON PLACE
SANTA FE, NEW MEXICO 87501
TELEPHONE (505) 988-4421

September 5, 1980

Mr. Joe D. Ramey
Division Director
Oil Conservation Division
New Mexico Department of Energy
and Minerals
Post Office Box 2088
Santa Fe, New Mexico 87501

Case 7058

Re: Application of Tahoe Oil & Cattle Company
for Downhole Commingling, Lea County, New Mexico

Dear Mr. Ramey:

Enclosed in triplicate is the application of Tahoe Oil & Cattle Company in the above-referenced matter.

The applicant requests that this matter be included on a docket for an examiner hearing at an early date.

Very truly yours,

William F. Carr

WFC:lr

Enclosures

cc: Mr. K. A. Freeman

BEFORE THE

OIL CONSERVATION DIVISION

NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS

IN THE MATTER OF THE APPLICATION OF TAHOE OIL & CATTLE COMPANY FOR DOWNHOLE COMMINGLING, LEA COUNTY, NEW MEXICO.

CASE 7058

RECEIVED
SEP 05 1980
OIL CONSERVATION DIVISION
SANTA FE

APPLICATION

Comes now TAHOE OIL & CATTLE COMPANY, by its undersigned attorneys, and hereby makes application to the Oil Conservation Division for downhole commingling and in support thereof, respectfully states:

1. Applicant is the operator of the Harrison No. 1 Well located in Unit A, the Harrison No. 2 Well located in Unit H, and the Judy No. 1 Well located in Unit C, all in Section 7, Township 25 South, Range 37 East, NMPM, Lea County, New Mexico.

2. Applicant proposes to commingle in the wellbore in each of said wells production from the Langlie-Mattix Pool and the Jalmat Gas Pool.

3. This request for downhole commingling is made to comply with the Commission's directive of August 7, 1980, to file applications to obtain Oil Conservation Commission approval for downhole commingling for certain wells which, according to Commission records, may be completed out of zone.

4. Approval of this application will permit the efficient operation of said wells, will prevent waste and will not violate correlative rights.

WHEREFORE, Applicant prays this application be set for hearing before the Commission or one of its duly appointed examiners and that, after notice and hearing, as required by law, the Commission enter its Order granting this application and making such other and further provisions as may be proper in the premises.

Respectfully submitted,

CAMPBELL AND BLACK, P.A.

By William F. Carr

William F. Carr
Post Office Box 2208
Santa Fe, New Mexico 87501
Attorneys for Applicant

BEFORE THE

OIL CONSERVATION DIVISION

NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS

IN THE MATTER OF THE APPLICATION OF TAHOE OIL & CATTLE COMPANY FOR DOWNHOLE COMMINGLING, LEA COUNTY, NEW MEXICO.

CASE 7058

APPLICATION

Comes now TAHOE OIL & CATTLE COMPANY, by its undersigned attorneys, and hereby makes application to the Oil Conservation Division for downhole commingling and in support thereof, respectfully states:

1. Applicant is the operator of the Harrison No. 1 Well located in Unit A, the Harrison No. 2 Well located in Unit H, and the Judy No. 1 Well located in Unit C, all in Section 7, Township 25 South, Range 37 East, NMPM, Lea County, New Mexico.

2. Applicant proposes to commingle in the wellbore in each of said wells production from the Langlie-Mattix Pool and the Jalmat Gas Pool.

3. This request for downhole commingling is made to comply with the Commission's directive of August 7, 1980, to file applications to obtain Oil Conservation Commission approval for downhole commingling for certain wells which, according to Commission records, may be completed out of zone.

4. Approval of this application will permit the efficient operation of said wells, will prevent waste and will not violate correlative rights.

WHEREFORE, Applicant prays this application be set for hearing before the Commission or one of its duly appointed examiners and that, after notice and hearing, as required by law, the Commission enter its Order granting this application and making such other and further provisions as may be proper in the premises.

Respectfully submitted,

CAMPBELL AND BLACK, P.A.

By s/ William F. Carr

William F. Carr
Post Office Box 2208
Santa Fe, New Mexico 87501
Attorneys for Applicant

BEFORE THE

OIL CONSERVATION DIVISION

NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS

IN THE MATTER OF THE APPLICATION OF TAHOE OIL & CATTLE COMPANY FOR DOWNHOLE COMMINGLING, LEA COUNTY, NEW MEXICO.

CASE 2058

APPLICATION

Comes now TAHOE OIL & CATTLE COMPANY, by its undersigned attorneys, and hereby makes application to the Oil Conservation Division for downhole commingling and in support thereof, respectfully states:

1. Applicant is the operator of the Harrison No. 1 Well located in Unit A, the Harrison No. 2 Well located in Unit H, and the Judy No. 1 Well located in Unit C, all in Section 7, Township 25 South, Range 37 East, NMPM, Lea County, New Mexico.

2. Applicant proposes to commingle in the wellbore in each of said wells production from the Langlie-Mattix Pool and the Jalmat Gas Pool.

3. This request for downhole commingling is made to comply with the Commission's directive of August 7, 1980, to file applications to obtain Oil Conservation Commission approval for downhole commingling for certain wells which, according to Commission records, may be completed out of zone.

4. Approval of this application will permit the efficient operation of said wells, will prevent waste and will not violate correlative rights.

WHEREFORE, Applicant prays this application be set for hearing before the Commission or one of its duly appointed examiners and that, after notice and hearing, as required by law, the Commission enter its Order granting this application and making such other and further provisions as may be proper in the premises.

Respectfully submitted,

CAMPBELL AND BLACK, P.A.

By /s/ William F. Carr

William F. Carr
Post Office Box 2208
Santa Fe, New Mexico 87501
Attorneys for Applicant

dr/

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 7058

Order No. R-6525

APPLICATION OF TAHOE OIL & CATTLE COMPANY
FOR DOWNHOLE COMMINGLING, LEA
COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on October 29, 19 80, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this ______ day of ______________, 19 80, the Division Director, 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 Division has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Tahoe Oil & Cattle Company, is the owner and operator of the Harrison Wells Nos. 1 and 2, located in Units A and H, respectively, and its Judy Well No. 1 ~~of Section~~ xxxxxxxx ~~Township~~ xxxxxxxxxxxx, located in Unit C, all in Section 7, Township 25 South, Range ~~37 East~~, NMPM, ~~Lea~~ County, New Mexico.

(3) That the applicant seeks authority to commingle Jalmat and Langlie Mattix production within the wellbore of the above-described wells.

(4) That the vertical limits of the Jalmat Pool as defined by Order No. R-520, dated August 12, 1954, include the Tansill and Yates formations and all but the lowermost 100 feet of the Seven Rivers formation.

(5) That the vertical limits of the Langlie-Mattix Pool, as defined by said Order No. R-520, include the lowermost 100 feet of the Seven Rivers formation and all of the Queen formation.

(6) That there has been some disparity among some geologists as to the actual base of the Seven Rivers formation and the top of the Queen formation and hence as to the location of the 100-foot marker separating the Jalmat and Langlie Mattix pools.

(7) That as a result of this disparity, the subject wells and certain other wells in the general area which are classified as Langlie-Mattix wells have perforations extending across the aforesaid 100-foot marker in the Seven Rivers formation.

(8) That such crossing over from one pool into the other in this case appears to be an unintentional error.

(9) That to rectify the aforesaid error would require workover operations on the subject wells which would be expensive and might endanger the productivity of the subject wells, and would actually serve no beneficial purpose, inasmuch as the production and reservoir characteristics of the perforations immediately above and below the 100-foot marker are quite similar.

(10) That a reasonable solution to the problem in this case is to ~~is to adjust the vertical limits of the Langlie-Mattix Pool upward to accommodate the present perforations in the lower Seven Rivers formation which are actually within the present Jalmat vertical limits~~ authorize the commingling of the production from the Lower Jalmat perforations and the Langlie-Mattix production in the wellbores of the subject wells.

(11) That such ~~adjustment~~ commingling will prevent waste and should not impair correlative rights and should be approved.

(12) That ~~in order~~ to allocate the commingled production to each of the commingled zones in the subject wells ~~[redacted]~~ would be impracticable in this case, and therefore ~~percent of the commingled production should be allocated to the Jalmat zone, and [redacted] percent of the commingled production to the Langlie Mattix zone.~~ all production should be attributed to the Langlie-Mattix Pool.

IT IS THEREFORE ORDERED:

(1) That the applicant, Tahoe Oil & Cattle Company, is hereby authorized to commingle Lower Jalmat and Langlie Mattix production within the wellbores of Harrison Wells No. 1 and 2 located in Units A and H, respectively, the and its Judy Well No. 1, located in Unit C, xxxx all in Section 7, Township 25 South, Range 37 East, NMPM, Lea County, New Mexico.

(2) That the applicant shall consult with the Supervisor of the Hobbs district office of the Division and determine an allocation formula for the allocation of production to each zone in each of the subject wells.

(ALTERNATE)

(2) That all of ~~the~~ the commingled ~~production~~ from the subject wells ~~shall be allocated to~~ the Jalmat zone and 50 percent of the commingled ~~production shall be allocated to the~~ Langlie Mattix ~~zone.~~ shall be attributed to the Pool.

(3) That the effective date of the aforesaid commingling ~~revision of the vertical limits of said pools~~ authorization for each of the subject wells shall be the date the Harrison Well No. 1 was perforated between 3257 feet and 3390 feet, ~~and~~

(4) Jurisdiction.

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

→ the date the Harrison Well No 2 was perforated between 3127 feet and 3377 feet, and the date the Judy Well No 1 was perforated between 3214 feet and 3335 feet, respectively