CASE 6147: DUGAN PRODUCTION CORPORATION FOR DOWNHOLE COMMINGLING, SAN JUAN COUNTY, NEW MEXICO

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Case Number

6147

Application

Transcripts.

Small Exhibits

ETC.

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825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
February 8, 1978

EXAMINER HEARING

IN THE MATTER OF:

Application of Dugan Production Corporation for downhole commingling, San Juan County, New Mexico. CASE 6147

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the New Mexico Oil Conservation Commission: Lynn Teschendorf, Esq.
Legal Counsel for the Commission
State Land Office Building
Santa Fe, New Mexico

For Dugan Production Corporation: Richard Tully, Esq.
Attorney at Law
Farmington, New Mexico

I N D E X

	Page
THOMAS A. DUGAN	
Direct Examination by Mr. Tully	3
Cross Examination by Mr. Nutter	8

EXHIBIT INDEX

	Offered	Admitted
Applicant Exhibit One, Map	4	8
Applicant Exhibit Two, Daily Drilling Report	4	8
Applicant Exhibit Three, Map	4	8
Applicant Exhibit Four, Map	5	8
Applicant Exhibit Five, Map	5	8
Applicant Exhibit Six, Density Log	5	8
Applicant Exhibit Six-A, IES Log	5	8
Applicant Exhibit Seven, Density Log	6	8
Applicant Exhibit Seven-A, IES Log	6	8
Applicant Exhibit Eight, Diagrammatic Sketch	7	8

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MR. NUTTER: We will call next Case 6147.

MS. TESCHENDORF: Case 6147, application of Dugan Production Corporation for downhole commingling, San Juan County, New Mexico.

MR. TULLY: My name is Richard Tully, I'm general counsel for Dugan Production Corporation with one witness, Thomas A. Dugan who has previously been sworn and his qualifications, I think, have been accepted.

MR. NUTTER: Yes, sir, Mr. Dugan is still under oath and his qualifications are accepted.

THOMAS A. DUGAN

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

DIRECT EXAMINATION

BY MR. TULLY:

Q Handing you an instrument entitled application, would you describe this for us, please?

A This is an application to do downhole commingling of the production from the Big 8 No. 1 Well located in Section 8, Township 24 North, Range 9 West, San Juan County, New Mexico and we propose to commingle the production from the Dakota, Greenhorn, and Gallup zones in this well.

Q Is the ownership of these three zones common?

A Yes, Dugan Production owns all of the working interest

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and overrides and the Federal lease.

Q I'm handing you what has been marked as Exhibit One, would you describe this exhibit for us, please?

A This is the location of the Big 8 1 Well as indicated by the arrow. It also shows the adjacent lease owners, Texaco in green, unleased in purple, and Texaco again in yellow, Amoco and Dugan Production.

It also shows that the well is located in the southeast end of the old Bisti-Gallup Pool and most of the wells in that general area have been plugged out in the Gallup zone.

Q This well is located in the south half of Section 8, Township 24 North, Range 9 West?

A Yes, sir.

Q I now hand you what has been marked as Exhibit Two, would you describe this exhibit for us, please?

A This is our daily drilling report on the Big 8 No. 1 Well and will indicate how the well was drilled and completed up to this point. Up to this point we have perforated the Dakota zone and tested it and we have perforated the Greenhorn zone and have tested it, a limited amount, but we have not as yet completed the well in the Gallup zone.

Q I hand you what has been marked as Exhibit Number Three, would you describe this exhibit for us, please?

A Here again this is showing the location of the Big 8 Well and the location of other Gallup wells in its immediate

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vicinity. It would also show the proposed proration unit for the Gallup zone. As you can see, most of the wells have been plugged and abandoned in this immediate area with the exception of a well to the northwest in Section 1 and three wells to the southeast in Sections 15 and 22. There is also a new completion in Section 7 which was a Dugan Production Corporation well and this well has only been on production approximately one year.

Q I am now handing you what has been marked as Exhibit Number Four, would you describe this exhibit for us, please?

A Okay, this would show the location of the Greenhorn wells in the vicinity of the Big 8 Well and would indicate that it is the only Greenhorn completion in the immediate area.

Q I am now handing you what has been marked as Exhibit Number Five, would you describe this exhibit for us, please?

A This shows the location of the Big 8 Well and the total proration unit and other Dakota wells in the vicinity of the Big 8. The only wells are three miles to the north.

Q I am now handing you what has been marked as Exhibit Number Six, would you describe this exhibit for us--Exhibit Six and Six-A, would you describe these two exhibits for us, please?

A Okay, this is a xerox copy of the density log on the Big 8 Well showing the Gallup zone, also Six-A shows the--is

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IES log showing--also showing the Gallup zone. This log indicates that the Gallup zone is a relatively good zone or has good sand development but the wells in the old Bisti-Gallup Pool and it has been at least partially depleted.

Q And you have not presently tried to complete the Gallup zone?

A No, we haven't, we propose to do that.

Q I am now handing you what has been marked as Exhibit Seven as well as Seven-A and would you describe these two exhibits for us, please?

A This is again a xerox copy of the log of the Big 8 No. 1 Well, showing the density log of the Dakota and the Greenhorn zones and the Seven-A is the IES log showing the Dakota and Greenhorn zones.

Q And what do these logs show you?

A Well, that the Dakota is fairly well developed in this area and, however, the Dakota zone does make some gas and oil, it also makes some water and it has been unable to flow by itself at this point.

The Greenhorn is not a very well developed zone but when drilling the well we had a mud log on the hole and we did get an indication of hydrocarbon developments in the Greenhorn zone so we attempted completion in it and our limited testing has indicated that it will make a little oil, maybe, well, two to ten barrels of oil a day.

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Q I am now handing you what has been marked as Exhibit Number Eight, would you describe this exhibit for us, please?

A This is a diagrammatic sketch of the well and shows the manner in which the well is now completed. We have a Model D packer set at sixty-two hundred. When we completed it in this manner we were in hopes that we could get the Dakota zone to produce, to flow by itself, and we would produce it by itself for a time and see what kind of results we would get. However, after a lot of swabbing we decided that the well won't flow by itself so this is why we are here asking for permission to commingle in the wellbore.

Q How did you come up with the name, Big 8, for this well?

A Well, you don't want to go into that story.

Q Just briefly summarize.

A Well, you know, the football teams and the girls, they are better and the girls are prettier in the Big Eight Conference so naturally I thought the oil and gas leases that were named Big 8 would be better but undoubtedly that analogy is not quite the same.

Q Were these exhibits prepared by you or under your supervision?

A Yes.

MR. TULLY: I now move for the introduction of Exhibits One through Eight and that includes Six-A and Seven-

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A, into evidence.

MR. NUTTER: Applicant's Exhibits One through Five, Six, Six-A, Seven, Seven-A, and Eight will be admitted into evidence.

(THEREUPON, Applicant Exhibits One through Eight were admitted into evidence.)

Q (Mr. Tully continuing.) In your opinion will this proposed commingling result in the recovery of additional hydrocarbons, thereby preventing waste and also will not violate correlative rights?

A Yes.

MR. TULLY: Has the Commission received waiver of objections from Texaco as well as Amoco?

MR. NUTTER: We have received one from Supron and Texaco and Amoco.

MR. TULLY: I have nothing further.

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Dugan, what about allocation of production here?

A Well, that's a little hard, what we propose to do at this time is pull the tubing and rig the well up to pump as it is now so that we would be pumping both the Greenhorn and the Dakota formations together and we would propose to produce it in that manner for a month or two and at that time we would have an idea of how those two zones were going to

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perform by themselves and then after this initial production period from these two zones, we would propose to go in and complete the well in the Gallup formation and then commingle all of the zones together and pump the well, so at that point we would at least have a good idea of what Greenhorn and Dakota would be capable of producing and could make an allocation at that point between the zones.

Q What is actually open in the well at the present time?

A The Dakota and Greenhorn.

Q And the Gallup then has never been produced?

A No, we haven't attempted a completion in the Gallup at this time.

Q I didn't understand at one point there in your testimony whether you intended to perforate both zones in the Gallup?

A Yes, we do.

Q I kind of understood that one zone had been perforated and you were going to perforate the other?

A Oh, no, sir, one zone is pretty good, well, they are both fairly good sand developments but we haven't attempted a completion.

Q Was any test made of the Gallup sand when you drilled through it?

A No, sir, no, we didn't run a DST. We did have a mud logger on the hole and there were indications of hydro-

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carbons and, of course, it is within the old Bisti Pool boundary so there is undoubtedly some oil left in the ground there but it is undoubtedly also partially depleted.

Q And what about the two zones now, what is the ratio of production between the two zones now, the Greenhorn and the Dakota?

A Neither one is producing presently. The Greenhorn, we have only had a short swab test on it and it is capable of making a small amount of oil and a small amount of gas. The Dakota will make approximately three hundred MCF of gas a day and about five barrels of oil a day and about forty barrels of water per day and it won't flow in the manner in which it is completed, so we want to pump it.

Q So as long as you would be pumping you would prefer to open up all three zones and pump all three simultaneously?

A Yes.

Q There is really no way of telling what the well will make now between the two zones that are perforated?

A No.

Q Then we've got a third unknown zone that we don't know what is coming up?

A That is correct. Actually there is oil and gas in the ground if we can get it out in economic quantities.

Q Has this portion of the Bisti-Gallup Pool been flooded?

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A It was in the old Southeast Bisti Unit that Skelly operated and there were some injection wells to the north and west about a mile but it wasn't completely flooded, no.

Q How does the picture look for this well as compared with your other wells that you completed in the Gallup about a mile to the west I think it was?

A Well, log-wise they look about the same. The 16 G Well which is the one to the west is currently producing about ten barrels of oil per day from the Gallup alone.

Q I see. So do you think it is unreasonable to expect that kind of production from the Gallup in this particular well?

A Well, I'm expecting more but--I imagine it will be about the same.

Q Since this is the Big 8?

A Yes.

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

(THEREUPON, the witness was excused.)

MR. NUTTER: Is there anything further, Mr. Tully?

MR. TULLY: No.

MR. NUTTER: Does anyone have anything they wish to offer in Case 6147? We will recess the hearing until one thirty. I do have a waiver from Supron, Texaco and Amoco.

(THEREUPON, the hearing was in recess.)

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REPORTER'S CERTIFICATE

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

Sidney F. Morrish, C.S.R.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 6147, heard by me on 2/8, 1978.

..... Examiner
New Mexico Oil Conservation Commission

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dugan production corp.

File

Case 6147
Nutter

May 22, 1978

Al R. Kendrick
Supervisor, District III
New Mexico Oil Conservation Commission
1000 Rio Brazos Road
Aztec, NM 87410

RECEIVED
MAY 23 1978
OIL CON. COM.
DIST. 3

Re: Big 8 Lease
Big 8 #1 Well
San Juan County, New Mexico

8-24N-9W

Dear Al:

As you are aware, we have made an NMOCC application and had a hearing in Santa Fe on the triple commingling of the captioned well from the Bisti Lower Gallup, Undesignated Greenhorn, and Basin Dakota formations. The order issued after the hearing stated that we should contact you after completing this well in the Gallup formation to arrive at an allocation formula for attributing production to each of these three formations.

We have not completed the Big 8 #1 Well in the Gallup formation at this time, but there is oil and gas production from this well. Prior to completing the well in the Gallup formation it is necessary to allocate this production to the Undesignated Greenhorn and Basin Dakota formations.

It is the professional opinion of Thomas A. Dugan after reviewing the well completion and current production histories that the allocation of the production from these two formations should be as follows:

Gas Production

Undesignated Greenhorn	2%
Basin Dakota	98%

Oil Production

Undesignated Greenhorn	10%
Basin Dakota	90%

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Accordingly, we wish to propose the above allocation for the oil and gas production from this well until such time as we complete the Gallup formation.

Thank you for your assistance in this matter. Please advise if you need further information.

Respectfully submitted,

Rick Tully

Richard Tully
Landman

vs

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 · SANTA FE
87501

DIRECTOR
JOE D. RAMEY

LAND COMMISSIONER
PHIL R. LUCERO

STATE GEOLOGIST
EMERY C. ARNOLD

March 9, 1978

Re: CASE NO. 6147
ORDER NO. R-5666

Mr. Richard Tully
Attorney
Dugan Production Corporation
P. O. Box 234
Farmington, New Mexico 87401

Applicant:

Dugan Production Corporation

Dear Sir:

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

Yours very truly,

JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCC x
Artesia OCC x
Aztec OCC x

Other _____

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 6147
Order No. R-5666

APPLICATION OF DUGAN PRODUCTION
CORPORATION FOR DOWNHOLE COMMINGLING,
SAN JUAN COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 8, 1978, at Santa Fe, New Mexico, before Examiner, Daniel S. Nutter.

NOW, on this 8th day of March, 1978, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Dugan Production Corporation, is the owner and operator of the Big 8 Well No. 1, located in Unit L of Section 8, Township 24 North, Range 9 West, NMPM, San Juan County, New Mexico.

(3) That the applicant seeks authority to commingle Bisti-Lower Gallup, Undesignated Greenhorn, and Basin Dakota production within the wellbore of the above-described well.

(4) That from the Bisti-Lower Gallup zone, the subject well is expected to be capable of low marginal production only.

(5) That from the Undesignated Greenhorn zone, the subject well is capable of low marginal production only.

(6) That from the Basin Dakota zone, the subject well is capable of low marginal production only.

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

(8) That the reservoir characteristics of each of the subject zones are such that underground waste would not be caused by the proposed commingling provided that the well is not shut-in for an extended period.

(9) That to afford the Commission the opportunity to assess the potential for waste and to expeditiously order appropriate remedial action, the operator should notify the Aztec district office of the Commission any time the subject well is shut-in for 7 consecutive days.

(10) That in order to allocate the commingled production to each of the commingled zones in the subject well, the operator should consult with the Supervisor of the Commission's Aztec District Office after completion of the well in the Gallup formation.

IT IS THEREFORE ORDERED:

(1) That the applicant, Dugan Production Corporation, is hereby authorized to commingle Bisti-Lower Gallup, Undesignated Greenhorn, and Basin Dakota production within the wellbore of its Big 8 Well No. 1, located in Unit L of Section 8, Township 24 North, Range 9 West, NMPM, San Juan County, New Mexico.

(2) That upon completion of the subject well in the Gallup formation, operator shall consult with the Supervisor of the Commission's Aztec District Office to arrive at an allocation formula for attributing production to each of the commingled zones in the well.

(3) That the operator of the subject well shall immediately notify the Commission's Aztec district office any time the well has been shut-in for 7 consecutive days and shall concurrently present, to the Commission, a plan for remedial action.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

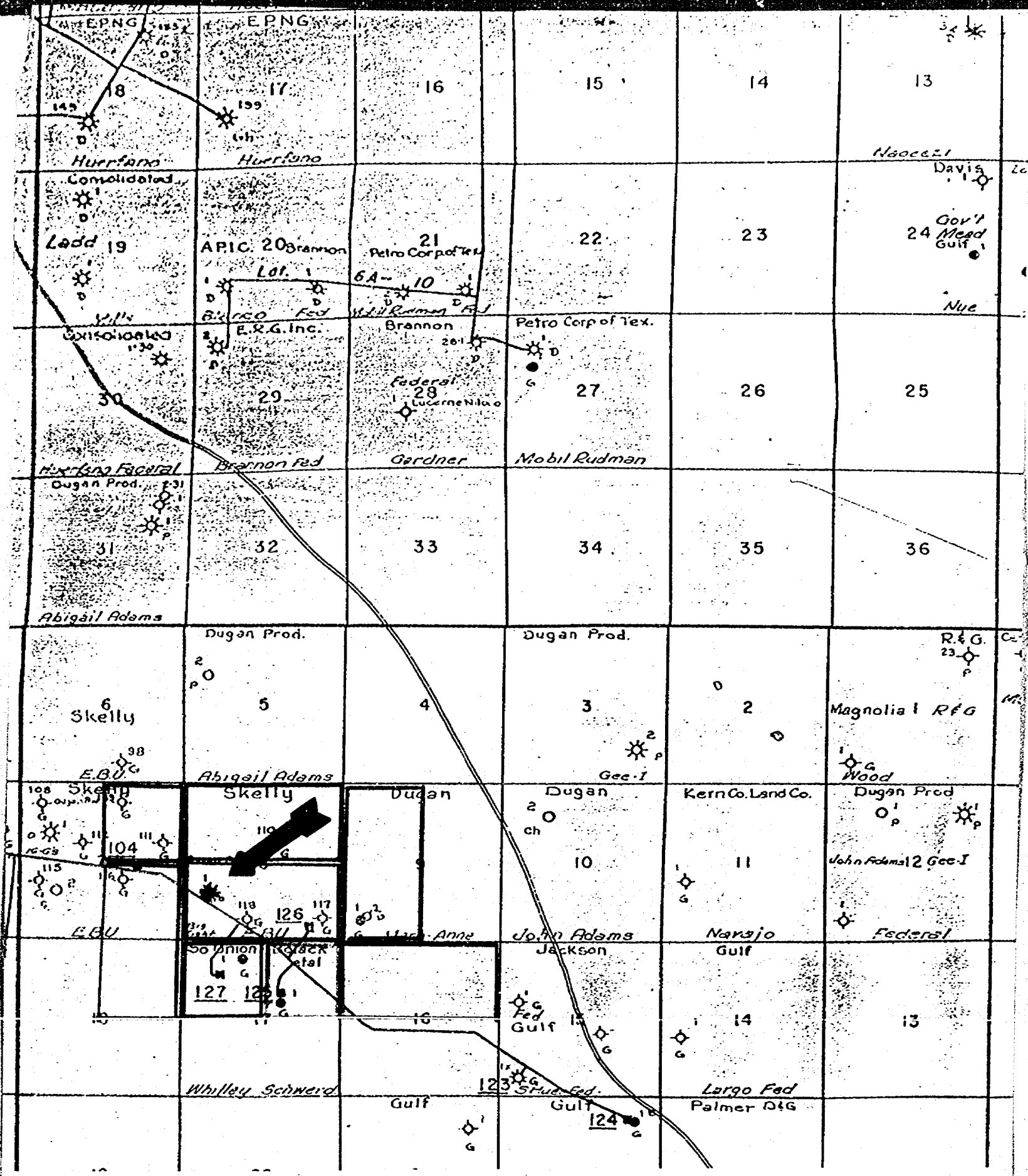
PHIL R. LUCERO, Chairman

EMERY C. ARNOLD, Member

JOE D. RAMEY, Member & Secretary

S E A L

jr/



Township 24 North, Range 9 West, NMPM

Big Eight #1
Well

Offsetting Leases and Operators

A. USA NM 25540
Dugan Production Corp.

B. USA NM 25433
Dugan Production Corp.

C. USA NM 25441
Texaco Inc.

D. Unleased Federal Acreage
U. S. Geological Survey

E. ~~USA NM 25432~~
Texaco Inc.

F. State of NM E-6644-12
Amoco Production Co.

G. USA NM 10089
Dugan Production Corp.

Well Location

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
appl EXHIBIT NO. 1
CASE NO. 6147

T-24-N, R-9-W

RESUME OF WELL COMPLETION HISTORY

1-Northwest Pipeline 1-File

dugan production corp.

Dugan Production Corp.
Big 8 #1
1530' FSL - 840' FWL
Sec 8, T24N, R9W
San Juan County, New Mexico
Elevation - 6771' GR

MORNING REPORT

1-19-76 Moved in L & B Speed Drill and spudded 12-1/4" hole, drilled to 90'.

1-20-76 Finished drilling 12-1/4" hole to 190' GR. Ran 6 jts 8-5/8" OD 24# 8R ST&C csg, TE 188' set @ 199' RKB, cemented by Woodco w/115 sx Class "B" w/2% CaCl. POB 3:30 PM 2-19-76.

WAITING ON ROTARY TOOLS

3-7-76 Moved in and rigged up Young Drilling Company. Drilled to 15--something feet (report by Herman Walters).

3-8-76 Trip for Bit #3 @ 2633'.
WT 9.0 VIS 36 WL 7.0

3-9-76 Drilling @ 3322' w/Bit #5
WT 8.9+ VIS 36 WL 6.0 PH 9.5

3-10-76 Trip @ 3833' for Bit #6
WT 9.0+ VIS 40 WL 6.0 PH 9.5

3-11-76 Drilling @ 4370' w/Bit #8
WT 9.1 VIS 37 WL 7.0 DEV 1-3/4° @ 4274'

3-12-76 Trip @ 4775' for Bit #8.
WT 9.2 VIS 34 WL 8 PH 9.5 DEV 1-3/4° @ 4719'

3-13-76 Trip @ 5075 for Bit #10
WT 9.1 VIS 37 WL 6.0 PH 9.5

3-14-76 Drilling @ 5412' w/Bit #11
WT 9.2 VIS 38 WL 6.6 PH 9.0 DEV 1-1/2° @ 5393'

3-15-76 Drilling @ 5745' w/Bit #12
WT 9.2 VIS 38 WL 5.6 PH 8.8 DEV 2-1/4° @ 5680'

3-16-76 Drilling @ 6170' w/Bit #13
WT 9.2 VIS 38 WL 5.2 PH 8.5 DEV 2° @ 6084'

709 BLOOMFIELD RD. • P. O. BOX 234 • FARMINGT

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. 2
CASE NO. 6147

APPLICATION FOR DOWNHOLE COMMINGLING
by DUGAN PRODUCTION CORP. for
Big Eight #1 Well
San Juan County, New Mexico
CASE NO. 6147
EXHIBIT NO. 2

MORNING REPORT (Cont'd)

3-17-76 Drilling @ 6372'
WT 9.2 VIS 38 WL 5.4 PH 9

3-18-76 TD 6392'. Conditioned hole, made short trip, attempted to run logs, hit bridge @ 265'. Made short trip - 30 stands, circulated hole, attempted to log, hit bridge @ 310'. Ran 6 stands, drilled out bridges. Go International ran IES and density-gamma ray logs.

3-19-76 TD 6392'. Laid down drill pipe. Ran 204 jts 4-1/2" OD 10.5# K-55 8R ST&C CF&I csg set @ 6392'. Had trouble breaking circulation. Cemented first stage w/300 sx 4% gel (456 cu ft) 1/4# cello-flake/sk, good mud returns while cementing. Max cementing press 600 psi, worked csg while cementing. POB 10:30 PM 3-18-76. Opened Baker stage tool @ 4430', circulated hole 4 hrs thru stage tool. Cemented second stage w/525 sx 65-35 plus 12% gel plus 1/2# cello-flake/sk (slurry volume 1328 cu ft). Good mud returns while cementing. Max cementing press 1000 psi. POB 3:15 AM 3-18-76. Had approx one bbl cement to surface. Released rig.

WAITING ON COMPLETION RIG

DAILY REPORT

4-16-76 Moved in Farmington Well Service Rig #6. Set csg pack off, welder trimmed and bevelled csg, installed tbg head and BOP. Went in hole with 3-7/8" bit on 2-3/8" OD tbg. Tagged stage collar @ 4430'.

4-17-76 Drilled stage collar, cleaned out 18' cement above float collar, cleaned out to 6375', circulated hole clean.

4-18-76 Shut down - Easter Sunday.

4-19-76 Western Company pressure tested csg and BOP to 4000 psi - held OK. Circulated hole. Spotted 300 gal 15% HCl. Pulled tbg. Go International ran gamma-ray correlation log, hit btm @ 6362'. Ran perf gun, unable to spud past 6362'. Ran bond log. Went in hole with 2-3/8" tbg, circulated out 13' of frac sand.

4-20-76 PBTD 6375'. Pressure tested csg and BOP to 4000 psi - held OK. Spotted 300 gal 15% HCl. Pulled tbg, went in hole w/perf gun, tagged up @ 6370'. Perforated one jet/ft 6353-69'. Broke down perf, pumped 100 bbls wtr, IR 32 B/M @ 3600 psi, ISDP 1800 psi. Perforated one jet/ft 6255-69' and 6278-90'. Western Company frac Dakota fm using 1628 bbls wtr, 58,700 lbs 20-40 sd, 2979 hp, 2½# FR-2/1000 gal wtr, shut down after 50 bbls pad ISDP 1400 psi, IF 3000 psi, Max 3800 psi, Avg 3260 psi, Min 2900 psi, Final 3700 psi, Avg IR 37.4 B/M, ISDP 2200 psi. Made 2 ball drops of 15 balls each: first drop 200 psi increase; second drop w/300 gal 15% HCl 100 psi press increase. Shut well in 8 hrs. Opened well to pit overnight.

APPLICATION FOR DOWNHOLE COMMINGLING

by DUGAN PRODUCTION CORP. for

Big Eight #1 Well
San Juan County, New Mexico

CASE NO. 6147

EXHIBIT NO. 2

DAILY REPORT (Cont'd)

4-21-76 Well flowing by head w/small amount of flammable gas, wtr slightly salty. Went in hole w/tbg, had 5' sand fill. Swabbed well 8 hrs, swabbing est 80 bbls wtr/hr. Wtr gas cut. Csg press 100 psi, fluid level 500'. Left tbg open overnight.

4-22-76 SI csg press 500 psi. Well had not flowed thru tbg overnight. Fluid level 500'. Made 2 swab runs. Checked sand fill-up, had 12' of sand in well bore. Circulated sand out of hole. Pulled tbg. Ran Baker Model "R" packer set @ 6330'. Swabbed perfs 6353-69' thru tbg, swabbed 5 hrs, well making enough gas to blow wtr off swab but will not flow. Left tbg open overnight.

4-23-76 Well kicked off during night, flowing by heads, show of oil, est 500 MCFGPD (oil golden color). Moved packer up hole, set @ 6230'. All Dakota perfs open below packer. Swabbed well, well kicked off making est 1000 MCFGPD w/heavy spray of wtr. Left well open overnight.

4-24-76 Well flowing est 1500 MCF w/heavy spray of oil and wtr (oil from all zones dark green color). Killed well, pulled tbg and packer, set Baker Model "D" packer on wire line @ 6200'. Perforated one jet/ft 6125-40' and 6154-66'. Ran Baker Model "R" packer on 2-3/8" OD tbg set @ 6077'. Swabbed tbg dry, no fluid entry, filled back side of tbg, pressured to 500 psi. Acidized Greenhorn fm using 1000 gal 15% HCl. Dropped 25 balls in acid. IF 3725 psi, Max 3725 psi, broke from 3600-3325' when acid hit, Avg 3300 psi, Final 3500 psi, Avg IR 2.2 B/M, Max IR 2.8 B/M. Small press increase when balls hit. ISDP 3000 psi, 5-Min SI 2975 psi. Swabbed well, recovered approx 1/4 of acid, well making est 50 MCF w/some light oil. Shut well in.

4-25-76 Sunday - did not work

4-26-76 Shut-in tbg press 200 psi. Swabbed well, had 1500' of oil, no wtr. Second run recovered 200' of oil, no wtr. Well making est 50 MCF. Loaded 2-3/8" tbg w/wtr, pulled Baker Model "R" packer. Ran 5 jts 1-1/4" OD 2.3# J-55 10R IJ tbg below seal assy and Baker Model "F" nipple above seal assy. 196 jts 2-3/8" OD 4.7# J-55 8R EUE tbg plus one 4' tbg sub placed first under donut. TE 6353.86' set @ 6365' RKB. Tbg stung into Baker Model "D" packer @ 6200'. Kicked well off with three swab runs. Well flowing to pit making est 1800 MCF w/heavy spray of wtr and oil. Let well flow to pit over night.

4-27-76 After flowing to pit 16 hrs well making est 1200 MCF w/heavy spray of oil and wtr, some slugs of wtr. Shut well in.

4-28-76 Blew well one hr, unloaded slug of oil and wtr, flowing strong and steady after one hr. Shut well in for test.

SHUT-IN FOR INITIAL POTENTIAL TEST

APPLICATION FOR DOWNHOLE COMMINGLING

by DUGAN PRODUCTION CORP. for

Big Eight #1 Well
San Juan County, New Mexico

CASE NO. 6147

EXHIBIT NO. 2

APPLICATION FOR DOWNHOLE COMMINGLING

by DUGAN PRODUCTION CORP. for

Big Eight #1 Well
San Juan County, New Mexico

CASE NO. 6147

EXHIBIT NO. 1

DAILY REPORT (Cont'd)

5-14-76	Opened well to atmosphere, did not unload after 5 hrs. Rigged up Farmington Well Service swabbing unit. Made 2 swab runs to 2500' and well kicked off. Left flowing to pit (fluid level @ 400' below surface on first swab run).

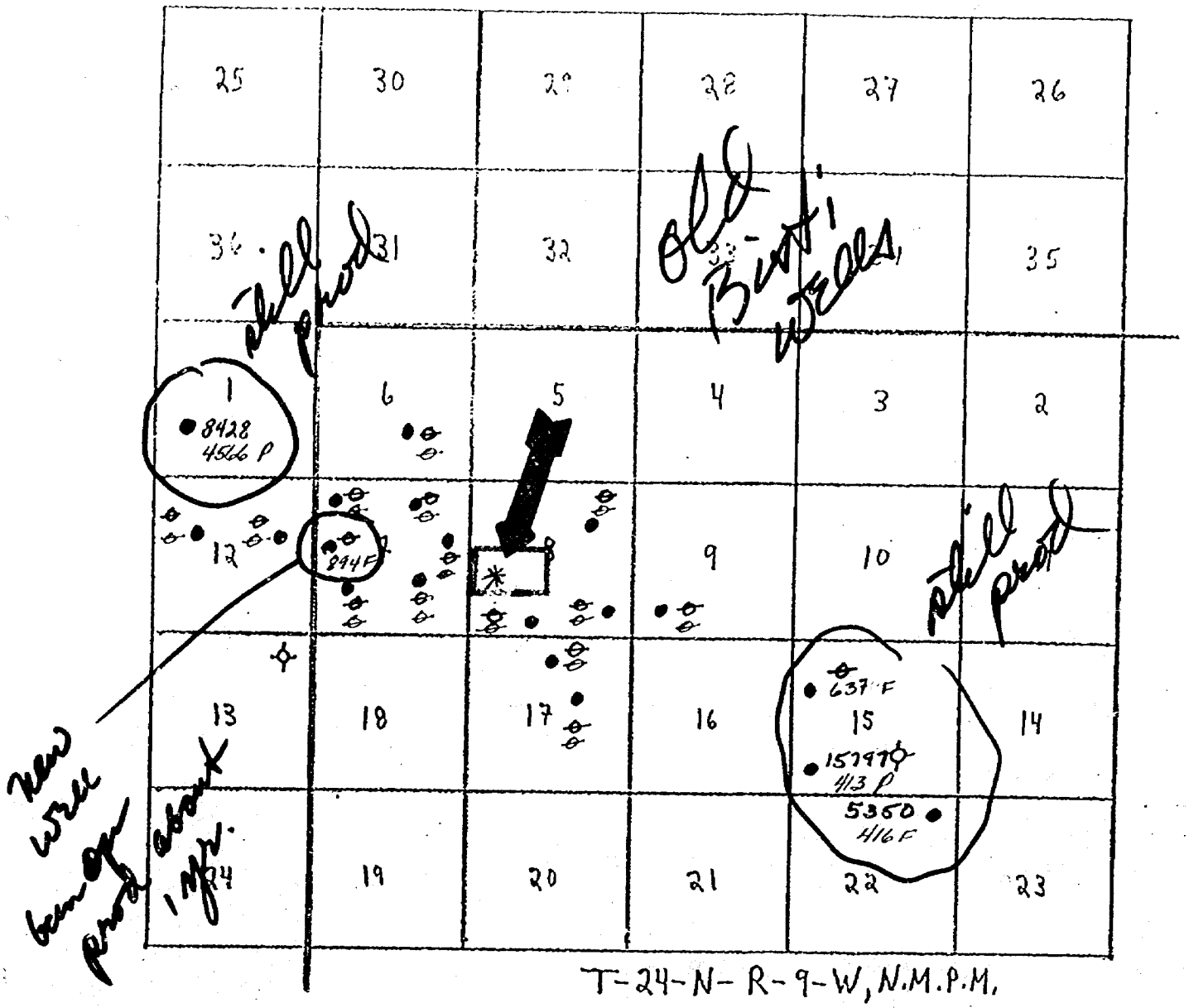
APPLICATION FOR DOWNHOLE COMMINGLING

by DUGAN PRODUCTION CORP. for

Big Eight #1 Well
San Juan County, New Mexico

CASE NO. 6147

EXHIBIT NO. 2



1976 PRODUCTION

Bisti Lower Gallup Pool Wells

Well Location

Gas Production

Oil Production

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
Appl EXHIBIT NO. 3
CASE NO. 6147

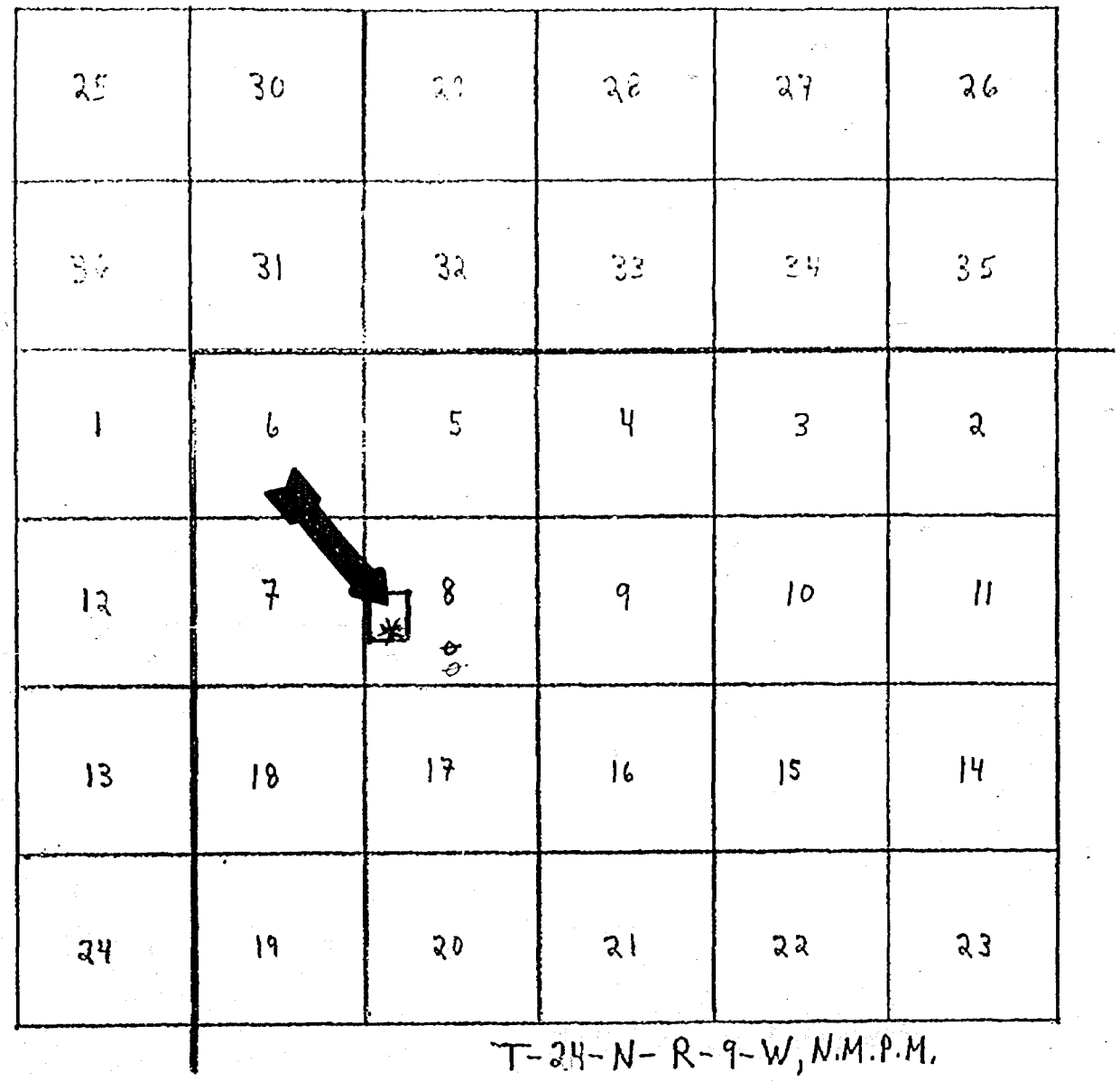
APPLICATION FOR DOWNHOLE COMMINGLING

by DUGAN PRODUCTION CORP. for

Big Eight #1 Well
San Juan County, New Mexico

CASE NO. 6147

EXHIBIT NO. 3



1976 PRODUCTION

Undesignated Greenhorn Pool Wells

✳ Well Location

— Gas Production

— Oil Production

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
Gppl EXHIBIT NO. 4
CASE NO. 6147

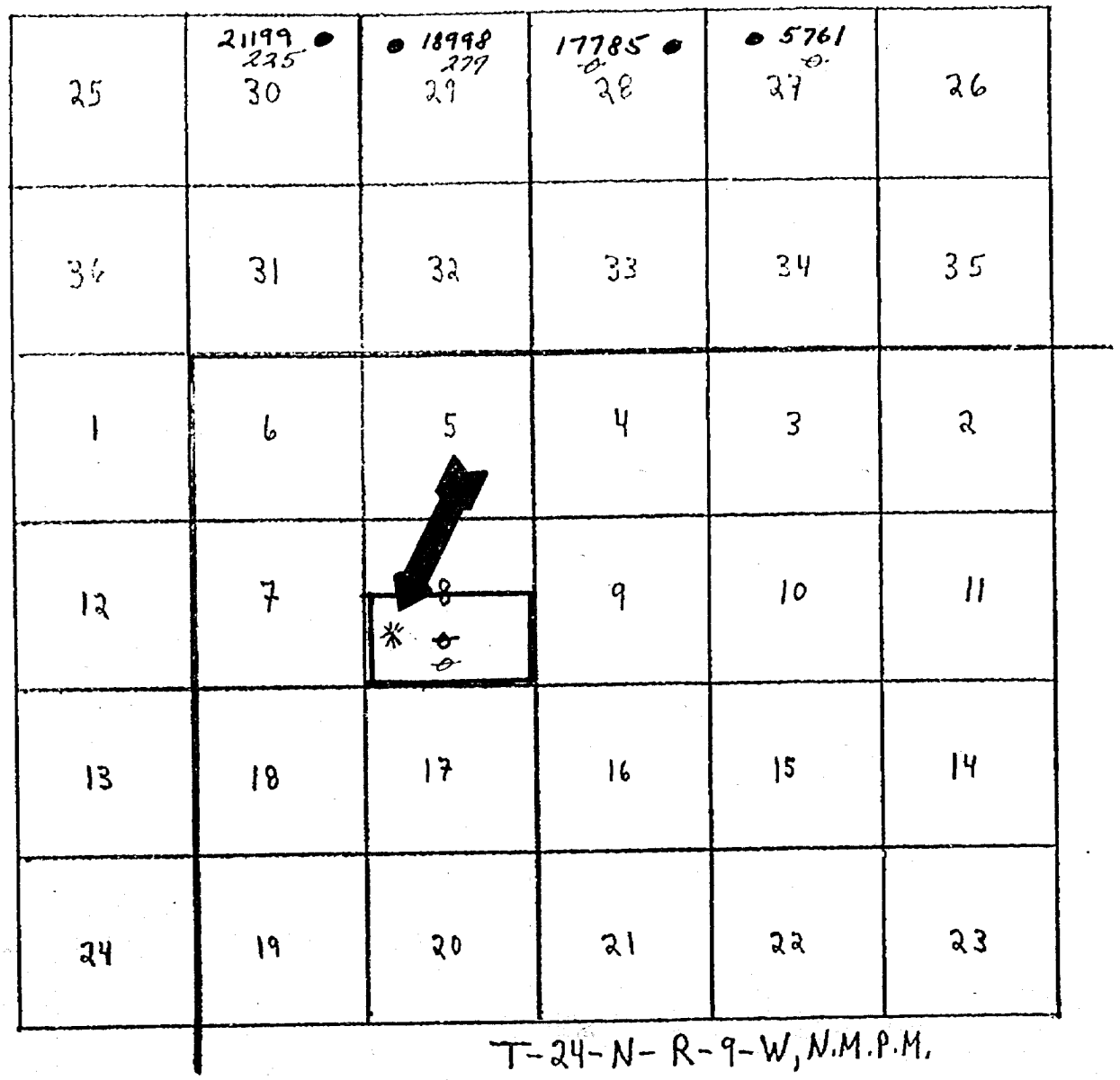
APPLICATION FOR DOWNHOLE COMMINGLING

by DUGAN PRODUCTION CORP. for

Big Eight #1 Well
San Juan County, New Mexico

CASE NO. 6147

EXHIBIT NO. 4



1976 PRODUCTION

Basin Dakota Pool Wells

* Well Location

Gas Production

Oil Production

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. 5
CASE NO. 6147

APPLICATION FOR DOWNHOLE COMMINGLING

by DUGAN PRODUCTION CORP. for

Big Eight #1 Well
San Juan County, New Mexico

CASE NO. 6147

EXHIBIT NO. 5

APPLICATION FOR DOWNHOLE COMMINGLING

by DUGAN PRODUCTION CORP. for

Big Eight #1 Well
San Juan County, New Mexico

CASE NO. 6147

EXHIBIT NO. 6

GO INTERNATIONAL

COMPENSATED DENSITY LOG

FILING NO.

Perf'd 4" Lnr

COMPANY DUGAN PRODUCTION CORP

WELL BIG EIGHT No. 1

FIELD WILDCAT

COUNTY SAN JUAN STATE NEW MEXICO

Location: 1530 FSL & 840 FWL

Sec. 8 Twp. 24N Rge. 9W

Other Services: IEC

Permanent Datum: GROUND LEVEL ; Elev.: 6771

Log Measured From KB 11 Ft. Above Perm. Datum

Drilling Measured From KB

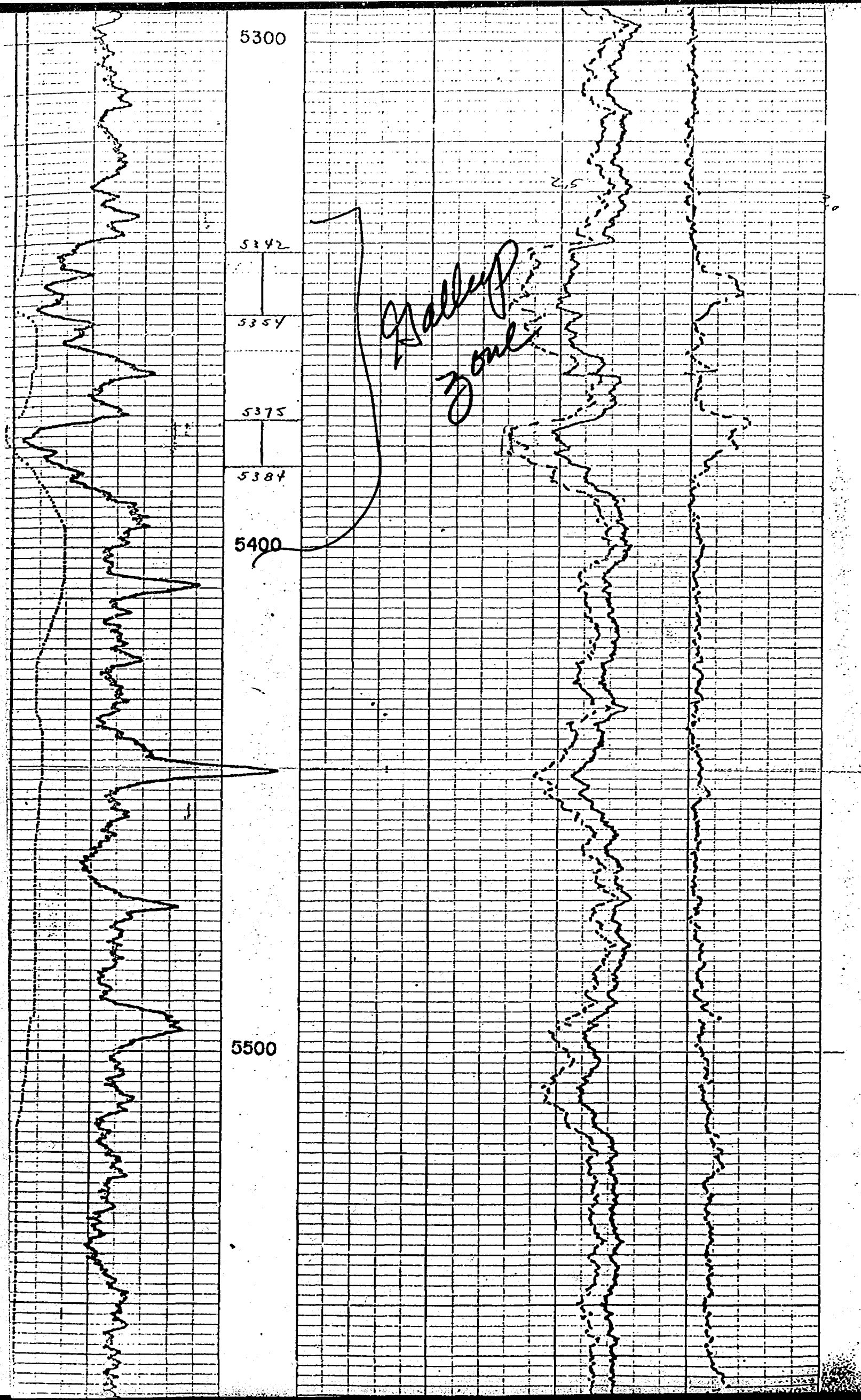
Elev.: K.B. 6782
D.F. 6781
G.L. 6771

Date	18 MARCH 1976
Run No.	ONE
Type Log	GAMMA-GAMMA
Depth—Driller	6392
Depth—Logger	6379
Bottom logged interval	6378
Top logged interval	*
Type fluid in hole	GEL
Salinity, ~~PPM~~ Cl. Rm	3.1 @ 79°
Density	9.2
Level	FULL
Max rec. temp., deg F.	156
Operating rig time	4 Hours
Recorded by	DENTON-HAMILTON
Witnessed by	DUGAN

FIELD PRINT

Run No.	Bore-Hole Record Bit	From	To	Casing Record Size	Wgt.	From	To
	7 7/8	191	6392	8 5/8	24	SURF	191

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. 6
CASE NO. 6147


5300
5342
5354
5375
5384
5400
5500
Gallup Zone

APPLICATION FOR DOWNHOLE COMMINGLING

by DUGAN PRODUCTION CORP. for

Big Eight #1 Well
San Juan County, New Mexico

CASE NO. 6147

EXHIBIT NO. 6A

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
6147 6A

INDUCTION ELECTRICAL LOG

INTERNATIONAL

FILING NO.

COMPANY DUGAN PRODUCTION CORP.

WELL BIG EIGHT No. 1

FIELD WILDCAT

COUNTY SAN JUAN STATE NEW MEXICO

LOCATION: 1500 FSL & 840 FWL

SEC 8 TWP 24N RGE 9W

Other Services: CDL/GR

Permanent Datum GROUND LEVEL Elev. 6771

Log Measured from KB, 11 Ft. Above Permanent Datum

Drilling Measured from KB

Elevations: KB 6782 DF 6781 GL 6771

Date	17 MARCH	1976			
Run No.	ONE				
Depth—Driller	6392				
Depth—Logger	6381				
Bottom Logged Interval	6380				
Top Logged Interval	197				
Casing—Driller	8 5/8 @ 191	@	@	@	@
Casing—Logger	197				
Bit Size	7 7/8				
Type Fluid in Hole	GEL				
Density and Viscosity	9.2 | 180	@	@	@	@
pH and Fluid Loss	11 | 4 cc	cc	cc	cc	cc
Source of Sample	PIT				
Rm @ Meas. Temp.	3.1 @ 77 °F	@ °F	@ °F	@ °F	@ °F
Rmf @ Meas. Temp.	3.9 @ 73 °F	@ °F	@ °F	@ °F	@ °F
Rmc @ Meas. Temp.	3.0 @ 72 °F	@ °F	@ °F	@ °F	@ °F
Source of Rmf and Rmc	M | M				
Rm @ BHT	1.6 @ 154 °F	@ °F	@ °F	@ °F	@ °F
Time Since Circ.	6 HOURS				
Max. Rec. Temp. Deg. F.	154 °F	°F	°F	°F	°F
Equip. No. and Location	7008 FARM				
Recorded By	DENTON -	HAMILTON			
Witnessed By	DUGAN				

FIELD PRINT

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
CASE NO. 6147 EXHIBIT NO. 6A

5300

5342

1

2

Pebble

5354

0 10 20 30 40 50 60 70 80 90 100

5375

MOVEABLE

SW 30%

5384

Gallup Zone

5400

5500

APPLICATION FOR DOWNHOLE COMMINGLING

by DUGAN PRODUCTION CORP. for

Big Eight #1 Well
San Juan County, New Mexico

CASE NO. 6147

EXHIBIT NO. 7

GO INTERNATIONAL

COMPENSATED DENSITY LOG

FILING NO.

Pulled 5" Mar-Log

COMPANY DUGAN PRODUCTION CORP

WELL BIG EIGHT No. 1

FIELD WILDCAT

COUNTY SAN JUAN STATE NEW MEXICO

Location: 1530 FSL & 840 FWL

Sec. 8 Twp. 24N Rge. 9W

Other Services: IEC

Permanent Datum: GROUND LEVEL ; Elev.: 6771

Log Measured From KB 11 Ft. Above Perm. Datum

Drilling Measured From KB

Elev.: K.B. 6782
D.F. 6781
G.L. 6771

Date	18 MARCH 1976
Run No.	ONE
Type Log	GAMMA-GAMMA
Depth—Driller	6392
Depth—Logger	6379
Bottom logged interval	6375
Top logged interval	*
Type fluid in hole	GEL
Salinity, ~~PPM~~ Cl. Rm	3.1 Ω-m @ 79°
Density	9.2
Level	FULL
Max rec. temp., deg F.	156
Operating rig time	4 Hours
Recorded by	DENTON-HAMILTON
Witnessed by	DUGAN

FIELD PRINT

Run No.	Bore-Hole Record Bit	From	To	Casing Record Size	Wgt.	From	To
	7 7/8	191	6392	8 5/8	24	SURF	191

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
Dugan EXHIBIT NO. 7
CASE NO. 6147

6100

6125

6140

6154

6166

6200

Baker Model "D"

6255

6269

6278

20

15

6145

6151

6166

6200

Baker Model "D"

6255

6269

6278

6290

6300

53

69

6400

Dakota Formation

20

APPLICATION FOR DOWNHOLE COMMINGLING

by DUGAN PRODUCTION CORP. for

Big Eight #1 Well
San Juan County, New Mexico

CASE NO. 6147 Appl

EXHIBIT NO. 7A

EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. 7-A
CASE NO. 6147

INTERNATIONAL

INDUCTION ELECTRICAL LOG

FILING NO.

Perf's March 5
6782
6166
616

COMPANY DUGAN PRODUCTION CORP.

WELL BIG EIGHT No. 1

FIELD WILDCAT

COUNTY SAN JUAN STATE NEW MEXICO

LOCATION: 1530 FSL & 840 FWL

SEC 8 TWP 24N RGE 9W

Other Services: CDL/GR

Permanent Datum GROUND LEVEL Elev. 6771

Log Measured from KB, 11 Ft. Above Permanent Datum

Drilling Measured from KB

Elevations: KB 6782 DF 6781 GL 6771

Date	17 MARCH	1976					
Run No.	ONE						
Depth—Driller	6392						
Depth—Logger	6381						
Bottom Logged Interval	6380						
Top Logged Interval	197						
Casing—Driller	8 5/8 @ 191	@		@		@	
Casing—Logger	197						
Bit Size	7 7/8						
Type Fluid in Hole	GEL						
	@	@		@		@	
Density and Viscosity	9.2 | 130						
pH and Fluid loss	11 | 4 cc		cc		cc		cc
Source of Sample	PIT						
Rm @ Meas. Temp.	3.1 @ 77 °F	@	°F	@	°F	@	°F
Rmf @ Meas. Temp.	3.9 @ 73 °F	@	°F	@	°F	@	°F
Rmc @ Meas. Temp.	3.0 @ 72 °F	@	°F	@	°F	@	°F
Source of Rmf and Rmc	M | M						
Rm @ BHT	1.6 @ 154 °F	@	°F	@	°F	@	°F
Time Since Circ.	6 HOURS						
Max. Rec. Temp. Deg. F.	154 °F		°F		°F		°F
Equip. No. and Location	7008 FARM						
Recorded By	DENTON -	HAMILTON					
Witnessed By	DUGAN						

FIELD PRINT

EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. 7A
CASE NO. 6147 Appl

6000

6100

6125

4

5

6140

6154

6

7

6166

Dark Brown Lime

6200

Baker Model "D" 6200

71

6166

6200

Baker
Model "D" 6200

6255

8 | 100%

9 | 50%

6269

6278

10 | 68%

6290

6300

Dakota
Sandstone

50 MV.

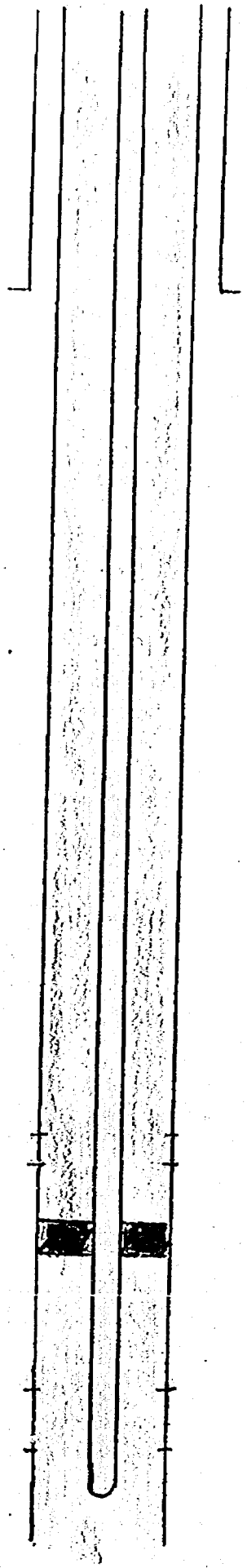
11 | 40%

6400

DIAGRAMATIC SKETCH OF

OIL AND GAS COMPLETION

Big Eight #1 Well



8-5/8" OD Casing @ 199'
Cemented to surface w/115 sx

Baker Stage Tool @4430'
Cemented: First stage 300 sx
Second stage 525 sx

Greenhorn Perfs
6125'
6166'

Dakota Perfs
6252'

6369'

Baker Model "D" Packer
@ 6200'

2-3/8" Tbg @ 6365'
5375 PBTD
4-1/2" Csg @ 6392'
TD 6392'

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. 8
CASE NO. 6147

APPLICATION FOR DOWNHOLE COMMINGLING

by DUGAN PRODUCTION CORP. for

Big Eight #1 Well
San Juan County, New Mexico

CASE NO. 6147

EXHIBIT NO. 8

Case 6147

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

In The Matter Of The Application Of
Dugan Production Corp. For Downhole
Commingling Of
The Big 8 #1 Well
In San Juan County, New Mexico

APPLICATION

Pursuant to Rule 303 C of the Rules and Regulations of the State of New Mexico Oil Conservation Commission, the Applicant, Dugan Production Corp., by and through its attorney, Richard T. C. Tully, hereby makes application for approval of downhole commingling in the well bore of the Big 8 #1 Well in San Juan County, New Mexico.

The Applicant further states:

1. The Operator of the Big 8 #1 Well is the Applicant Dugan Production Corp.

2. The Big 8 #1 Well is located on federal lease NM 25540 insofar as it covers the following described lands:

Township 24 North, Range 9 West, N.M.P.M.
Section 8: NW/4 SW/4 (Undesignated Greenhorn)
Section 8: N/2 SW/4 (Bisti Lower Gallup)
Section 8: S/2 (Dakota)
San Juan County, New Mexico

3. The legal location of the well is as follows:

Township 24 North, Range 9 West, N.M.P.M.
Section 8: 1530' FSL - 840' FWL (Unit Letter L)
San Juan County, New Mexico

4. The Big 8 #1 Well is not currently dually completed in the Undesignated Greenhorn Pool, the Bisti Lower Gallup Pool, and the Basin Dakota Pool.

5. The Big 8 #1 Well is capable of only low marginal production from the Undesignated Greenhorn Pool, and the well is capable of only marginal production from the Bisti Lower Gallup Pool, and the well is also only capable of low marginal production from the Basin Dakota Pool.

6. The ownership of the above mentioned Pools is common.

7. The proposed commingling from the above Pools will result in the recovery of additional hydrocarbons from each of these Pools, thereby preventing waste, and the commingling will not violate correlative rights.

WHEREFORE, The Applicant requests this Application be set for hearing on February 8, 1978, and after this hearing the New Mexico Oil Conservation Commission grant this Application by giving approval to the downhole commingling of the Big 8 #1 Well in San Juan County, New Mexico.

Respectfully submitted,

Richard T. C. Tully

Richard T. C. Tully
Attorney for Applicant
P. O. Box 234
Farmington, NM 87401

CERTIFICATE OF MAILING

I certify that I mailed a copy of the Application for Downhole Commingling for the Big 8 #1 Well in San Juan County, New Mexico to all operators of leases offsetting the dedicated acreage for this well, the U. S. Geological Survey, and the Supervisor of the District III Office of the New Mexico Oil Conservation Commission.

Richard T. C. Tully

Richard T. C. Tully
Attorney for Applicant
P. O. Box 234
Farmington, NM 87401

DISTRIBUTION

1. Phil McGrath
   District Engineer
   U. S. Geological Survey
   Box 959
   Farmington, NM 87401

2. Al R. Kendrick
   Supervisor, District III Office
   New Mexico Oil Conservation Commission
   1000 Rio Brazos Road
   Aztec, NM 87410

3. T. S. Yancey
   Amoco Division Landman
   Security Life Building
   Denver, CO 80202

4. J. C. Mencin, Jr.
   Division Landman
   Texaco Inc.
   Box 2100
   Denver, CO 80201

5. Bill Curtis
   Manager, Land
   Southern Union Production Co.
   Suite 1700
   8350 North Central Expressway
   Dallas, TX 75206

WAIVER OF OBJECTION AND CONSENT

TO THE DOWNHOLE COMMINGLING OF

THE BIG 8 #1 WELL

The undersigned, as an operator of a lease offsetting the S/2 of Section 8, Township 24 North, Range 9 West, N.M.P.M., San Juan County, New Mexico, does hereby acknowledge receipt of the Application for Downhole Commingling of the Big 8 #1 Well.

The undersigned states that it waives any objection that it may have to this Application, and voluntarily consents to the commingling of the Big 8 #1 Well as stated in the above mentioned Application.

Dated this 30th day of January, 1978.

SUPRON ENERGY CORPORATION
Company Name

By: [signature]

Title: Executive Vice President

Address Suite 1700, 8350 N. Central Expwy

Dallas, Texas 75206

Please send one executed copy to Joe D. Ramey, Secretary-Director, New Mexico Oil Conservation Commission, P. O. Box 2088, Santa Fe, NM 87501, and return one executed copy to the Applicant. The remaining copy is for your files.

CASE 6145: Application of Jerome P. McHugh for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Gavilan-Pictured Cliffs and Blanco-Mesaverde production within the wellbore of his June Well No. 1 located in Unit B of Section 28, Township 28 North, Range 3 West, Rio Arriba County, New Mexico.

CASE 6146: Application of Jerome P. McHugh for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Tapacito-Gallup and Basin-Dakota production within the wellbore of his Jicarilla Well No. 5 located in Unit D of Section 29, Township 26 North, Range 4 West, Rio Arriba County, New Mexico.

CASE 6147: Application of Dugan Production Corporation for downhole commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Undesignated Greenhorn, Bisti-Lower Gallup, and Basin Dakota production within the wellbore of its Big 8 Well No. 1 located in Unit L of Section 8, Township 24 North, Range 9 West, San Juan County, New Mexico.

CASE 6148: Application of Coquina Oil Corporation for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its Vivian Well No. 1 located in Unit F of Section 30, Township 22 South, Range 38 East, Lea County, New Mexico, in such a manner as to produce oil from the Drinkard and Granite Wash formations thru the casing-tubing annulus and the tubing, respectively.

CASE 6134: (Readvertised)

Application of Burleson & Huff for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests from the surface of the ground to the base of the Queen formation underlying the SE/4 NW/4 of Section 22, Township 25 South, Range 37 East, Lea County, New Mexico, to form a 40-acre Langlie Mattix oil proration unit or underlying the N/2 NE/4, NE/4 NW/4, and SE/4 NW/4 of said Section 22 to form a non-standard 160-acre Jalmat gas proration unit. 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6096: (Continued from January 18, 1978 Examiner Hearing)

Application of Texas Oil & Gas Corporation for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp and Pennsylvanian formations underlying the S/2 of Section 14, Township 21 South, Range 34 East, Lea County, New Mexico, to be dedicated to applicant's South Wilson State Well No. 1 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6133: (Continued from January 18, 1978 Examiner Hearing)

Application of Doyle Hartman for compulsory pooling and a non-standard proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the SE/4 of Section 8, Township 19 South, Range 37 East, Eumont Gas Pool, Lea County, New Mexico, to form a non-standard unit 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

****

Docket No. 5-78

DOCKET: EXAMINER HEARING - WEDNESDAY - FEBRUARY 15, 1978

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

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

ALLOWABLE: (1) Consideration of the allowable production of gas for March, 1978, from fifteen prorated pools in Lea, Eddy and Chaves Counties, New Mexico.

(2) Consideration of the allowable production of gas for March, 1978, from four prorated pools in San Juan, Rio Arriba and Sandoval Counties, New Mexico.

(3) Consideration of purchaser's nominations for the one year period beginning April 1, 1978, for both of the above areas.

Dockets Nos. 7-78 and 9-78 are tentatively set for hearing on February 22 and March 8, 1977. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - FEBRUARY 8, 1978

9 A.M. - OIL CONSERVATION COMMISSION 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 6137: Application of Amoco Production Company for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Nellis Federal Well No. 3 to be located 1980 feet from the North line and 660 feet from the West line of Section 8, Township 19 South, Range 33 East, West Tonto-Pennsylvanian Gas Pool, Lea County, New Mexico, the N/2 of said Section 8 to be dedicated to the well.

CASE 6138: Application of Amoco Production Company for a non-standard proration unit, simultaneous dedication, and an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 480-acre non-standard gas proration unit comprising the E/2 and NW/4 of Section 24, Township 20 South, Range 36 East, Eumont Gas Pool, Lea County, New Mexico, to be simultaneously dedicated to its Gillully Federal Gas Com Wells Nos. 4, 7 and 15 located in Units B, O, and E, respectively, of Section 24. Applicant also seeks approval for the unorthodox location of said Well No. 15 located 1650 feet from the North line and 990 feet from the West line of said Section 24.

CASE 6139: Application of Petro-Lewis Corporation for an unorthodox oil well location, Sandoval County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Boling Federal Well No. 8-22 to be drilled at a point 990 feet from the North line and 2160 feet from the West line of Section 22, Township 19 North, Range 3 West, Southwest Media-Entrada Oil Pool, Sandoval County, New Mexico.

CASE 6140: Application of Burleson & Huff for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests from 3,000 feet below the surface to the base of the Queen formation underlying the SE/4 NW/4 of Section 21, Township 25 South, Range 37 East, Langlie-Mattix Pool, Lea County, New Mexico, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6141: Application of Paul Slayton for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Seven Rivers formation thru the open-hole interval from 528 feet to 547 feet in his Hastie Well No. 7 located in Unit L of Section 18, Township 17 South, Range 28 East, Empire Field, Eddy County, New Mexico.

CASE 6142: Application of Atlantic Richfield Company for compulsory pooling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Dakota formation underlying the E/2 of Section 29, Township 24 North, Range 3 West, Rio Arriba County, New Mexico, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6143: Application of Atlantic Richfield Company for compulsory pooling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Dakota formation underlying the W/2 of Section 33, Township 24 North, Range 3 West, Rio Arriba County, New Mexico, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6144: Application of Southland Royalty Company for two unorthodox locations and two non-standard gas proration units, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for two 120-acre non-standard gas proration units comprising the S/2 SE/4 of Section 10 and the SW/4 SW/4 of Section 11, and comprising the SE/4 SW/4 and the S/2 SE/4 of Section 11, all in Township 29 North, Range 11 West, Fulcher Kutz-Pictured Cliffs Pool, San Juan County, New Mexico, each of said units to be dedicated to a well drilled at an unorthodox location thereon.

WAIVER OF OBJECTION AND CONSENT

TO THE DOWNHOLE COMMINGLING OF

THE BIG 8 #1 WELL

The undersigned, as an operator of a lease offsetting the S/2 of Section 8, Township 24 North, Range 9 West, N.M.P.M., San Juan County, New Mexico, does hereby acknowledge receipt of the Application for Downhole Commingling of the Big 8 #1 Well.

The undersigned states that it waives any objection that it may have to this Application, and voluntarily consents to the commingling of the Big 8 #1 Well as stated in the above mentioned Application.

Dated this 27th day of January, 1978.

TEXACO Inc.
Company Name

By: J. C. Arlitt

Title: Ass't. Div. Manager

Address P.O. Box 2100
Denver, Colo. 80201

Please send one executed copy to Joe D. Ramey, Secretary-Director, New Mexico Oil Conservation Commission, P. O. Box 2088, Santa Fe, NM 87501, and return one executed copy to the Applicant. The remaining copy is for your files.

Case 6147

WAIVER OF OBJECTION AND CONSENT

TO THE DOWNHOLE COMMINGLING OF

THE BIG 8 #1 WELL

The undersigned, as an operator of a lease offsetting the S/2 of Section 8, Township 24 North, Range 9 West, N.M.P.M., San Juan County, New Mexico, does hereby acknowledge receipt of the Application for Downhole Commingling of the Big 8 #1 Well.

The undersigned states that it waives any objection that it may have to this Application, and voluntarily consents to the commingling of the Big 8 #1 Well as stated in the above mentioned Application.

Dated this 20th day of January, 1978.

Amoco Production Company
Company Name

By: R B Giles

Title: Sr Staff Engineer

Address Security Life Bldg
Denver, Colorado 80202

Please send one executed copy to Joe D. Ramey, Secretary-Director, New Mexico Oil Conservation Commission, P. O. Box 2088, Santa Fe, NM 87501, and return one executed copy to the Applicant. The remaining copy is for your files.

Case 6147

dugan production corp.

JAN 17 1978
OIL CONSERVATION COM.
SANTA FE

January 16, 1978

Joe D. Ramey
Secretary-Director
New Mexico Oil Conservation Commission
Box 2088
Santa Fe, NM 87501

Re: Application for Approval of Downhole Commingling of the Big 8 #1 Well (Greenhorn, Gallup, Dakota) in San Juan County, New Mexico.

Dear Mr. Ramey:

Enclosed are the following instruments concerning the Application for Approval of Downhole Commingling by Dugan Production Corp. for the Big 8 #1 Well located in the S/2 of Section 8, Township 24 North, Range 9 West, N.M.P.M., San Juan County, New Mexico.

1. Three copies of the Application.

2. Three copies of a Certificate of Mailing stating that all operators of leases offsetting the dedicated acreage for this well, the U. S. Geological Survey, and the Supervisor of the District III Office of the New Mexico Oil Conservation Commission have been notified of this Application.

We would appreciate it if you would place this Application for hearing on February 8, 1978.

Thank you for your assistance and cooperation in this matter. Please advise if you need further information.

Sincerely,

Richard T. C. Tully

Richard T. C. Tully
General Counsel

ps

Enclosures

709 BLOOMFIELD RD. • P. O. BOX 234 • FARMINGTON, NEW MEXICO 87401 • PHONE 505-325-0238

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 6147

Order No. R- 5666

APPLICATION OF DUGAN PRODUCTION CORPORATION
FOR DOWNHOLE COMMINGLING, SAN JUAN
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 8, 19 78, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this _____ day of February, 19 78, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Dugan Production Corporation, is the owner and operator of the Big 8 Well No. 1, located in Unit L of Section 8, Township 24 North, Range 9 West, NMPM, San Juan County, New Mexico.

(3) That the applicant seeks authority to commingle Undesignated Bisti-Lower Gallup, Greenhorn, ~~Bisti-Lower Gallup~~ and Basin Dakota production within the wellbore of the above-described well.

(5) That from the Undesignated Greenhorn zone, the subject well is capable of low marginal production only.

(4) That from the Bisti-Lower Gallup zone, the subject well is expected to be capable of low marginal production only.

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

(6) That from the Basin Dakota zone, the subject well is capable of low marginal production only.

(8) That the reservoir characteristics of each of the subject zones are such that underground waste would not be caused by the proposed commingling provided that the well is not shut-in for an extended period.

(9) That to afford the Commission the opportunity to assess the potential for waste and to expeditiously order appropriate remedial action, the operator should notify the Aztec district office of the Commission any time the subject well is shut-in for 7 consecutive days.

(10) That in order to allocate the commingled production to each of the commingled zones in the subject well, the operator should consult with the Supervisor of the Commission's Aztec District Office after completion of ~~the~~ operations on ~~the~~ Gallup ~~percent of the commingled production should be allocated to the Undesignated Greenhorn zone, and~~ _____ percent of the ~~the~~ well in the Gallup formation. ~~commingled~~ _____ production to the ~~Bisti-Lower Gallup zone, and~~ _____ percent of the commingled _____ ~~production to the Basin Dakota zone.~~

IT IS THEREFORE ORDERED:

(1) That the applicant, Dugan Production Corporation, is hereby authorized to commingle Undesignated Greenhorn, ~~Bisti-Lower Gallup,~~ (Bisti-Lower Gallup) and Basin Dakota production within the wellbore of ~~the~~ its Big 8 Well No. 1, located in Unit L of Section 8, Township 24 North, Range 9 West, NMPM, San Juan County, New Mexico.

(2) That upon completion of the subject well in the Gallup formation, operator shall consult with the Supervisor of ~~percent of the commingled production shall be allocated to the Undesignated Greenhorn zone and~~ _____ ~~percent of the commingled production shall be allocated to the Basin Dakota zone.~~ the Commission's ~~Dist~~ Aztec District Office to arrive at an allocation formula for attributing production to each of the commingled zones in the well.

(3) That the operator of the subject well shall immediately notify the Commission's Aztec district office any time the well has been shut-in for 7 consecutive days and shall concurrently present, to the Commission, a plan for remedial action.

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

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

CASE 6148: COQUINA OIL CORP.
FOR A DUAL COMPLETION, LEA COUNTY,
NEW MEXICO

Case Number

6148

Application

Transcripts.

Small Exhibits

ETC.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

JERRY APODACA
GOVERNOR

NICK FRANKLIN
SECRETARY

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

August 14, 1978

Coquina Oil Corporation
P. O. Drawer 2960
Midland, Texas 79702

Attention: J. C. Solari

Administrative Order No. DHC-255
Vivian Well No. 1, Unit F,
Section 30, Township 22 South,
Range 38 East, NMPM, Lea County,
New Mexico, Drinkard and Wantz-
Granite Wash Pools

Gentlemen:

Reference is made to your recent application for an exception to Rule 303-A of the Division Rules and Regulations for the subject well to permit the commingling of the production from both pools in the well-bore.

It appearing that the subject well qualifies for approval for such exception pursuant to the provisions of Rule 303-C, and that reservoir damage or waste will not result from such downhole commingling, and correlative rights will not be violated thereby, you are hereby authorized to commingle the production as described above.

In accordance with the provisions of Rule 303-C, total commingled oil production from the subject well shall not exceed 50 barrels per day, and total water production from the well shall not exceed 100 barrels per day. The maximum amount of gas which may be produced daily from the well shall be determined by multiplying 2000 by top unit allowable for the Wantz-Granite Wash Pool.

Assignment of allowable to the well and allocation of production from the well shall be on the following basis:

Upper Pool: Oil 41%, Gas 62%
Lower Pool: Oil 59%, Gas 38%

Pursuant to Rule 303-C 5, the commingling authority granted by this order may be rescinded by the Division Director if, in his opinion, conservation is not being best served by such commingling.

Very truly yours,

JOE D. RAMEY
Division Director

JDR/CU/og

cc: Oil Conservation Division
Box 1980
Hobbs, New Mexico

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 · SANTA FE
87501

DIRECTOR
JOE D. RAMEY

LAND COMMISSIONER
PHIL R. LUCERO

STATE GEOLOGIST
EMERY C. ARNOLD

July 20, 1978

Re: CASE NO. 6148
ORDER NO. R-5661

Mr. Jason Kellahin
Kellahin & Fox
Attorneys at Law
Post Office Box 1769
Santa Fe, New Mexico

Applicant:

Coquina Oil Corporation

Dear Sir:

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

Yours very truly,

JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCC x
Artesia OCC x
Aztec OCC

Other

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 6148
Order No. R-5661

APPLICATION OF COQUINA OIL CORPORATION
FOR A DUAL COMPLETION, LEA COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 8, 1978, at Santa Fe, New Mexico, before Examiner, Daniel S. Nutter.

NOW, on this 20th day of July, 1978, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Coquina Oil Corporation, seeks authority to complete its Vivian Well No. 1, located in Unit F of Section 30, Township 22 South, Range 38 East, NMPM, Lea County, New Mexico, as a dual completion (conventional) to produce oil from the Drinkard and Granite Wash formations thru the casing-tubing annulus and the tubing, respectively.

(3) That the Commission has heretofore determined that the production of oil through the casing-tubing annulus is inefficient, requires an excessive amount of reservoir energy, and causes waste.

(4) That the Commission has a long-established policy of prohibiting the annular flow of oil in the absence of evidence disproving those determinations cited in Finding No. (3) above.

(5) That the applicant in this case offered no evidence to disprove said determinations.

(6) That the application of Coquina Oil Corporation in the instant case, if approved, would result in inefficient flow causing the excessive dissipation of reservoir energy, thereby causing waste.

(7) That the application should be denied.

(8) That there is a possibility that the subject well after being placed on production will have a sufficiently high gas-oil ratio that it will be classified as a gas well in the Drinkard formation.

(9) That should said well be classified as a gas well in the Drinkard formation, the annular flow would not be inefficient inasmuch as there would be more gas available to lift a given amount of fluid in the annulus.

(10) That the applicant should be permitted to test said well to determine if it is an oil well or a gas well in the Drinkard formation.

(11) That any such test and determination of gas-oil ratio should be through the tubing, with the tubing below the packer plugged and the sliding sleeve above the packer open.

(12) That said test should be the final 24 hours of a 72-hour flow at a constant rate, and should be witnessed by a representative of the Commission.

(13) That upon determination by the Supervisor of the Hobbs District Office of the Commission that said well is indeed a gas well in the Drinkard formation rather than an oil well, a supplemental order to this order should be entered, approving the dual completion of the well.

(14) That the subject well should not be produced through the casing-tubing annulus until such time as it has been determined that it is a gas well in the Drinkard formation.

IT IS THEREFORE ORDERED:

(1) That the application of Coquina Oil Corporation for approval of the dual completion of its Vivian Well No. 1 located in Unit F of Section 30, Township 22 South, Range 38 East, NMPM, Lea County, New Mexico, in such a manner as to produce the Granite-Wash formation through tubing and the Drinkard formation through the casing-tubing annulus is hereby denied.

(2) That the applicant is hereby authorized to test said well to determine the gas-oil ratio, and to ascertain whether said well should be classified as a gas well rather than an oil well in the Drinkard formation, provided that the test of said well shall be conducted in the following manner:

A. The tubing below the packer shall be plugged to isolate the Granite Wash producing interval.

B. The sliding sleeve in the tubing string above the packer shall be open.

C. The well shall be produced at a constant rate for 72 hours, and the gas-oil ratio shall be based on gas and oil produced during the final 24 hours of said 72-hour flow.

D. The applicant shall notify the Hobbs District Office of the Commission of the date and hour the well is to be prepared for the test, and the date and hour the 72-hour flow is to be commenced.

(3) That should the aforesaid gas-oil ratio test result in reclassification of the subject well in the Drinkard formation, as a gas well, the Secretary-Director of the Commission shall enter a supplemental order approving the dual completion (conventional) of said well to produce gas from the Drinkard formation and oil from the Granite Wash formation through the casing-tubing annulus and through tubing, respectively.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

PHIL R. LUCERO, Chairman

EMERY C. ARNOLD, Member

JOE D. RAMEY, Member & Secretary

S E A L

jr/

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
February 8, 1978

EXAMINER HEARING

IN THE MATTER OF:

The application of Coquina Oil Corporation for a dual completion, Lea County, New Mexico.

CASE 6148

BEFORE: Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the New Mexico Oil Conservation Commission: Lynn Teschendorf, Esq.
Legal Counsel for the Commission
State Land Office Building
Santa Fe, New Mexico

For the Applicant: Jason W. Kellahin, Esq.
KELLAHIN & FOX
Attorneys at Law
500 Don Gaspar
Santa Fe, New Mexico

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General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

I N D E X

		Page
1.	Appearances	1
2.	The Witness, Mr. John Peters	
	Direct Examination by Mr. Kellahin	3
	Cross Examination by Mr. Nutter	15
	Witness Excused	25
3.	Reporter's Certificate	26

EXHIBIT INDEX

Exhibit No. 1, Plat	5
Exhibit No. 2, History	6
Exhibit No. 3, Bottom Hole Pressures	8
Exhibit No. 4, Production History	8
Exhibit No. 5, Completion Record	10
Exhibit No. 6, Schematic Diagram	10
Exhibit No. 7, Log	14
Exhibit No. 8, Form C 104	14
Exhibits No. 1 thru No. 8 Admitted	15

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MR. NUTTER: The hearing will come to order. The first case this afternoon will be Case Number 6148.

MS. TESCHENDORF: Case 6148, application of Coquina Oil Corporation for a dual completion, Lea County, New Mexico.

MR. KELLAHIN: If the Examiner please, Jason Kellahin, Kellahin and Fox, Santa Fe, appearing for the applicant and we have one witness to be sworn.

(THEREUPON, the witness was sworn.)

JOHN PETERS

was called as a witness by the applicant, and having been first duly sworn, testified upon his oath as follows, to-wit:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q. Would you state your name, please?

A. John Peters.

Q. By whom are you employed and in what position, Mr. Peters?

A. Coquina Oil Corporation, Midland, Texas, as an Assistant Production Manager.

Q. Are you an engineer?

A. Yes, I am.

Q. Have you ever testified before the Oil Conservation

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Commission or one of its Examiners?

A. No, I have not.

Q. For the benefit of the Examiner would you briefly outline your education and experience as an engineer?

A. I graduated from the United States Military Academy with a Bachelor of Science Degree in Engineering and following five years in the military service I joined Texaco in the Midland District where I performed various duties beginning as a Field Engineer and being promoted to an Area Engineer and was responsible for field production in what was then known as the Navy Area.

I, then, performed duties as the District Equipment Engineer and I joined Coquina Oil Corporation in August of 1976.

Since that time I have been performing duties relating to gas contracts and their administration in addition to engineering responsibilities.

Q. And does the area involved in the application before the Commission at this time fall under your jurisdiction?

A. Yes, sir, it does.

Q. Are you familiar with the application of Coquina Oil Corporation in this case?

A. Yes, sir, I am.

MR. KELLAHIN: Are the witness' qualificaitons acceptable?

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Phone: (505) 982-9212

MR. NUTTER: Yes, they are.

Q. (Mr. Kellahin continuing.) Mr. Peters, briefly what does the applicant propose in Case 6148?

A. We propose to -- we recently recompleted a well in the Granite Wash formation which was prior to this time producing from the Drinkard formation.

We propose to dually complete this well by producing the Granite Wash through the tubing and the Drinkard formation through the tubing casing annulus.

Q. Now, this is your Vivian Well No. 1?

A. Yes, sir, and it is located in Section 30, Township 22 South, Range 38 East.

Q. Now, referring to what has been marked as Applicant's Exhibit Number One, would you identify that exhibit, please?

A. This is a plat showing the physical location of the well, the Vivian No. 1, in Section 30, Township 22 South, Range 38 East, Lea County.

Q. In the exhibit that I have there appears to be some dark lines underneath some of the wells. Could you say what that indicates?

A. Yes, sir. Those represent dual completions in this general area here.

MR. NUTTER: Between these two same zones?

A. Sir, some of them are in the same zone and some of them are not.

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MR. NUTTER: But they are dual completions?

A. Yes, sir. The Texaco Blindbry No. 39, has previously received permission to dually complete the same two zones.

Q. (Mr. Kellahin continuing.) Where is it located?

A. It's in Section 19, 22 South, 38 East.

Q. So, that would be north of your proposed location?

A. Yes, it's the A. H. Blindbry Federal CE-39.

MR. NUTTER: And that's the well there on Exhibit One that's in the northwest-southeast of 19?

A. Yes, sir.

Q. (Mr. Kellahin continuing.) Now, refer to what has been marked as Exhibit Number Two, and would you identify that exhibit?

A. Number Two is a brief history of our recompletion process in the Granite Wash zone. This well was originally drilled to the Granite Wash formation which is from seventy-two fifty-six to sixty; and seventy-two sixty-five to sixty-six and seventy-two eighty-three to eighty-four and at the time of drilling it was found to be non-commercial at that time and a bridge plug was set and the well was recompleted in the Drinkard formation.

Recently, offset production, other operators found by fracking the Granite Wash formation it was found that production could be realized.

Based on that experience we did recomplete the Granite

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Wash section by fracking.

Q. What is the present status of the well?

A. The present status of the well is that the Granite Wash secion is producing through the tubing and the Drinkard formation is shut-in.

Q. When was the well first completed in the Drinkard?

A. The well -- the initial completion procedures started at the end of November of 1977, and the actual first test of the well was completed --

Q. That's in the Granite Wash portion, isn't it?

A. In the Granite Wash.

MR. NUTTER: When was the well originally drilled to the Drinkard?

A. The well was originally drilled in 1971 and the date of first production from the Drinkard formation was on December 15th, 1971.

Q. Now, referring to what has been marked as Exhibit Number Three, would you identify that exhibit, please?

A. Number Three is a bottom hole pressure survey in the recently completed Granite Wash formation and it shows the bottom hole pressure at the depth of seventy-two fifty-nine as twelve forty-six.

Also included in this same exhibit is bottom hole pressure information when the well was completed in the Drinkard formation and the test on the No. 1 Well showed bottom

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hole pressure of six fifty-two and on October 12, 1976, it showed five seventy.

Q. These are Drinkard pressures?

A. Those are Drinkard pressures. The first one is the Granite Wash and the next two are Drinkard.

Q. Now, referring to what has been marked as Exhibit Number Four, would you identify that exhibit?

A. Exhibit Four is a tabular presentation and also a graphical presentation of the production history of all three wells that we have on the lease, Vivian 1, 2 and 3, showing their monthly and yearly cumulative total oil and gas production.

Q. On Exhibit Four it would appear that your production from the Drinkard has declined sharply in November of '77, could you explain what happned there?

A. In November of '77, is when we shut in the No. 1 Drinkard formation and started to work for recompletion in the Granite Wash.

Q. Then, what was the classification of the well at that time, do you know?

A. The classification at that time was -- the well was classified as a gas well.

Q. What is its present classification?

A. Present classification is an oil well. Recent tests indicated that the G.O.R. was below a hundred thousand

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and it was reclassified as an oil well and I believe currently on the January proration schedule it was classified as an oil well.

Q. Now, as I understand your Exhibit Number Four that is the combined production of the Vivian 1, 2 and 3 Wells, is that correct?

A. That's correct.

Q. Could you give us some idea of what the production from the Vivian 1 Well was?

A. Prior to shutting the well in in the Drinkard formation it was producing approximately fourteen to sixteen barrels of oil per day and making, on the latest tests, about one thousand one hundred seventy-one M.C.F.

Q. Now, has there been any pumping of the zone or any artificial lift at all?

A. Since the wells were completed in '71, they have flowed and in the latter part of '74, that's when the wells were reclassified from oil to gas wells and there has never been any artificial lift equipment used on the wells.

Q. Now, they were reclassified as gas wells in 1974, you say?

A. That's correct.

Q. What was their status -- how long were they classified as gas wells?

Was it a situation where they went from gas to oil

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and back to gas?

A. No, they were originally classified as oil and in '74, they were reclassified as gas and remained reclassified as gas wells until I guess it was the end of 1977, when the No. 1 and No. 3 Wells were reclassified as oil wells.

Since that time, beginning in January, the No. 3 Well has been retested and has been reclassified as a gas well.

Q. But you have not been able to retest the No. 1 Well have you?

A. No, sir, it has been shut-in.

Q. In your opinion and based on your experience of that well, will it be reclassified as a gas well once it is put back on production?

A. We anticipate that once we test the well that the G.O.R. will be over one hundred thousand and it will be classified as a gas well.

Q. Now, referring to what has been marked as Exhibit Number Five, would you identify that exhibit?

A. Number Five is the original completion record from the Vivian No. 1 Well in the Drinkard formation and shows production starting December 15, 1971, when the well was flowing.

Q. Exhibit Number Six, would you identify that?

A. Exhibit Six is a schematic diagram of our proposed

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completion procedure where we propose to produce the Granite Wash through the two and three-eighths inch tubing and the Drinkard formation through the tubing casing annulus.

Q. Now, what is the diameter of your casing set to the Drinkard?

A. We have a five and a half inch casing set at approximately seventy-three nineteen feet.

Q. And that penetrates to the Granite Wash?

A. Yes, sir.

Q. Would it be possible to complete this well with two strings of tubing?

A. In five and a half inch casing the clearances allowed for running two strings of tubing would be very mechanically difficult considering that you would have to use a dual packer and a single packer and with the clearances involved, mechanically, it would be very difficult.

Q. Now, what is the purpose of the sliding sleeve on your tubing?

A. Since both zones are flowing and we anticipate that they will flow, the sliding sleeve is used should the Drinkard formation log off and the hydrostatic head restrict the flow of gas and that particular zone is not able to produce the fluid a plug can be set in the two and three-eighths tubing below the sliding sleeve.

The sliding sleeve can then be opened and the well

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can be swabbed through the two and three eighths tubing allowing the removal of fluid at which time the sliding sleeve would be closed and the plug would be retrieved and by removing the fluid hydrostatic head it should begin to flow again.

Q. Do you anticipate that that would be an operation that would be called for frequently?

A. No, sir, we do not anticipate that that would happen very frequently at all based on the history of the well that they have flowed and have been flowing for approximately three years, now.

Q. Although it is classified as an oil well at the present time, as a gas well do you feel that it would unload through its own through the annulus?

A. Yes, sir.

Q. Okay.

A. There will be times when it will log off and we will have to do that procedure and that is the reason for having the sliding sleeve in there.

Q. Now, the Granite Wash, of course, will be produced through the tubing and you would anticipate no problems with it would you?

A. No, sir, not at the present time.

Q. Would you consider production of the Drinkard formation through the annulus an efficient method of producing in this particular well?

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Phone (505) 982-9212

A. Yes, sir.

Q. Could you go back over the history of this well and give us some indication what the G.O.R. has been over its life?

A. Okay.

Q. Do you have that information?

A. On February 15, 1974, -- well, let me back up and get the original here -- December 15, '71, was when the well originally came on the Drinkard formation and the G.O.R. was three nine one four and the gas production steadily increased and the oil production dropped off and on February 15, 1974, the G.O.R. on the No. 1 Well was one hundred eight thousand four hundred and forty-four.

Q. So, at that point it was classified as a gas well?

A. Yes, during that period. Since that time, the G.O.R. on the test made in May of 1975, on the No. 1 Well was one hundred and five thousand five hundred.

Q. Then, more recently the G.O.R. did decline, at least as far as --

A. We have one test that was taken in September of 1977, where the well apparently was loaded up, apparently, with quite a bit of oil and it showed gas volume of one hundred -- let's see -- one thousand one hundred seventy-one M.C.F. and fifteen barrels of oil.

Q. Now, had the fluid been removed prior to the testing would you have had a different result?

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A. Yes, sir, if the well had been able to produce substantially more gas and having the fluids removed would have produced less oil.

Q. Referring to what has been marked as Exhibit Number Seven, would you identify that exhibit, please?

A. Exhibit Seven is a sidewall neutron log and this shows the interval that we are talking about on the third page, the Drinkard perfs from sixty-three forty-one to four-four eight; and on the fourth page the Granite Wash section the top of which is at seventy-two fifty-two.

Q. Exhibit Number Eight, would you identify that, please?

A. Exhibit Eight is a form C-104 submitted for a test completed on the Granite Wash zone on January 10, 1978, showing oil production at two hundred and thirty-three barrels and gas production at five hundred six M.C.F.

Q. Now, Mr. Peters, assuming that this application is not approved and it is not feasible to complete this well with dual strings of tubing, what alternatives do you have to produce these two zones?

A. To produce these two zones, at that time the only alternative that we would have would be to request for a hearing to allow downhole commingling of these two zones.

Q. Or to produce them separately?

A. Or produce them separately.

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Q. In your opinion is the approval of this application for the dual completion in the interest of conservation and will result in the production of hydrocarbons that would otherwise would not be recovered?

A. Yes, sir.

Q. In your opinion is it an efficient and economical method of completing this well?

A. In this well, it is, yes.

Q. Were Exhibits One through Eight either prepared by you or under your supervision except as to the particular forms that have been submitted here and were they taken from your records?

A. Yes, sir, they were.

MR. KELLAHIN: At this time we would offer Exhibits One through Eight, inclusive.

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

CROSS EXAMINATION

BY MR. NUTTER:

Q. Mr. Peters, you have given us Exhibit Number Four which shows the monthly production of oil and gas from the three wells. You have also given us the decline curve which is attached to Exhibit Number Four which shows the production from all three wells in the Drinkard on this lease but you

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haven't given us any production figures for the individual wells, particularly the No. 1 Vivian.

Could you furnish us with the production figures for the No. 1 Well when you get home and send it to us?

A. This particular lease configuration, sir, it is difficult for us on a monthly basis. We have three wells producing through one separator and one sales line and one gas meter and the production is not monitored separately.

Q. How often do you test the wells?

A. We test them on a six-month basis.

Q. For reporting to the Commission --

A. For reporting to the Commission we breakout based on those tests the oil and gas production.

Q. So, it is an estimate based on the prorated figure based on the most recent test that you have available?

A. Yes.

Q. Well, could you use that method and give us the production from the No. 1 Well?

A. Yes, sir, I can.

Q. Of gas and oil since its completion back in 1971. I think it is kind of important to us here.

Now, in September of 1977, you had a figure there made fifteen barrels of oil and eleven seventy-one M.C.F. of gas. That wasn't an individual well test was it?

A. Yes, sir, it was.

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Q. And that gives us a G.O.R. somewhere in the neighborhood of seventy-eight thousand?

A. I believe so.

Q. Now, the --

A. The date of that test was September 9th.

Q. Okay. Now, we have a letter, Mr. Peters, from Paul White with Summit Energy in which he states that he is in receipt of a copy of the application for the dual completion and stating that as an offset operator Summit has not objection to the dual completion, "However, we feel that the lower perforations need to be reviewed since it appears that these perforations might possibly be lower Drinkard and not the Granite Wash."

Have you given any thought to Mr. White's statement or have you heard it before?

A. I have not received a copy of that correspondence. I am not familiar with the classification that he is making at all. I cannot respond to that.

MR. NUTTER: Mr. Kellahin, I think we will have our geologist take a look at the logs on this and try to make a determination for the Commission's information whether Mr. White's statement is realistic or not.

MR. KELLAHIN: Exhibit Number Seven, of course, has the log with it, on it, and then the perforations.

MR. NUTTER: There is a lot of difference as far as

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the depth is concerned. The Drinkard perfs are here at sixty-three hundred and something and the Granite Wash perforations, the top of the Granite Wash, is shown to be at seventy-two fifty.

So, there is nine hundred feet difference. I don't know if the lower Drinkard is that far down or not. That's why I say that I would like for our geologist to look at the logs of the well.

A. I have Texaco's original application here where they received approval for this thing.

Texaco's application of October 16, 1975, requesting administrative approval to dually complete from the Drinkard and the Granite Wash indicates in their application that the Drinkard is producing from sixty-three sixteen to seventy-one ten.

The Granite formation is producing from seventy-three eighty-three to seventy-four fifty. Also, December 4, 1975, their request for administrative approval to recomplete in the same two zones.

They are showing the Drinkard at sixty-three ten to seventy-one ten and the Granite Wash from seventy-three eighty to seventy-four fifty.

Q. Well, their Drinkard is a little higher than your Drinkard and their Granite Wash is a little lower than your Granite Wash.

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In the event our geologist, who is in our Hobbs office, does not have a log of this well, I think he probably would, but would you be willing to purchase him a log if he doesn't?

A. Yes, sir, I have a copy of the log that I can give him.

Q. Now, you say that these wells were reclassified in December of 1977. What was that based on, Mr. Peters?

A. That was based on the G.O.R. tests.

Q. That were taken in September?

A. I believe so, yes. In this process we also had to file with the Federal Power Commission for abandonment approval from the casing head sales that we were into at that time and we did, in fact, receive abandonment from the Federal Power Commission as applied to the casing head gas and received approval to sell the gas well gas.

Q. Then, you stated that the No. 3 has since December 1977, has been reclassified back as a gas well and what was that based on?

A. That was based on a test, sir.

Q. When was that test taken?

A. That was taken in January. I don't have the No. 3 file with me.

Q. Was that a regular test or a special test that you all took so that you could get the well reclassified?

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A. That was a special test that we took so that we could see what the G.O.R. was and see what it should be classified as.

Q. Do you know when the regular test season is for the Drinkard Pool?

A. Yes, it is on right now. We are due to have a test in January, February or March, is the test period.

Q. Now, when the wells were classified as gas wells in 1974, what was that based on?

A. That was based on the G.O.R. test, twenty-four hour test.

Q. I was wondering -- I don't recall the exact time when the Commission revised the definition of a gas well in an oil pool, but I think it might have been back about then and you may have taken those tests, then, coincidental to this reclassification because it did become possible to have a gas well in an oil pool after that definition was revised. Prior to that all you could have was a high ratio oil well.

A. That's right.

Q. Mr. Peters, I am kind of at a loss here. We don't have a whole lot of history here on this particular well. We have got one recent test on it which makes it an oil well and, of course, we were discussing this morning prior to the time of the hearing, the Commission's long-standing policy which has not been to approve the completion, the dual

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completion, of oil wells to produce through the annulus.

Now, have you made any study as to the efficiency as to the flow through the annulus as compared to the efficiency of flow through the tube for an oil well?

A. I have not, personally, done any study, only in correspondence that I have had and the conversations that I have had with the field people and as they relate to me the feasibility of producing it this way in that it will be mechanically possible and efficient to produce a well in this manner.

Q. This well?

A. Yes, sir.

Q. Why is that, because it has a high G.O.R.?

A. Yes, sir.

Q. But you did mention that you did have a sliding sleeve there in the event that it loaded up with liquid. Has the well ever been produced through the annulus?

A. No.

Q. It has always been through the tubing?

A. Yes, sir.

Q. And did you have any problems with it loading up through the tubing?

A. We don't really know whether we can anticipate having that problem or not, sir. But if we get approval for this and pass all of the appropriate tests as far as a packer

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leakage test, that we would like to have this apparatus in there should it happen that it would log off that we would have the mechanical ability to return it to production without removing all of the equipment out of the hole and commingle at that time.

Q. Is it possible with the set up that you have shown on here on your Exhibit Six, artificially lift the Drinkard zone in the event that it becomes necessary?

A. Yes, sir.

Q. How would you do that?

A. If we had to artificially lift we could install a rod pump in the two and three eighths tubing when that would happen. We might have to pump it higher or pump it lower in the tubing but it is physically possible to pump -- you say the Drinkard?

Q. The Drinkard?

A. Okay, right now there is no mechanical method that we could produce the Drinkard through the casing annulus.

Q. Now, you also mentioned that the size of the casing prohibited the running of two strings of tubing here. I grant you it would prohibit the running of two and three eighths inch tubing. Have you looked at the two and one sixteenths high drill tubing?

A. Two and one sixteenths is mechanically possible to run two strings of two and one sixteenths inch tubing. But

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the clearances involved and the packer configurations, the dual packer and the single packer that would have to be run, would lend themselves to mechanical difficulties.

Q. Why would you have to have the dual packer?

A. We would have to have the dual packer at the top zone and the single packer at the bottom zone to separate the two zones.

Q. Why would you need the upper packer?

A. I see what you are saying, just run the single packer down at the bottom and hang the other --

Q. One packer separating the two zones?

A. That's right.

Q. And the well is currently producing from the Granite Wash?

A. Yes.

Q. Now, the original test on that in January was two hundred thirty-three barrels of oil?

A. Yes, sir.

Q. And five hundred and six M.C.F. of gas. How is that well holding up with respect to the Granite Wash?

A. Current production, the latest test figures this last week, indicated it is making about sixty barrels of oil and about the same amount of gas.

MR. NUTTER: Are there any other questions of the witness?

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The witness may be excused.

(THEREUPON, the witness was excused.)

MR. NUTTER: Do you have anything further, Mr. Kellahin?

MR. KELLAHIN: No, I don't, Mr. Nutter, except to point out that basically it is the feeling of Coquina that the Drinkard is actually a gas zone and not an oil -- should not have been classified as an oil well. The test, admittedly classified it as an oil well but with a new test it would obviously show a higher G.O.R. and would be a gas well.

Do you know when you are going to make that test?

THE WITNESS: It depends on the outcome of the hearing if we are allowed to produce it.

MR. NUTTER: Well, Mr. Peters, when you took that test on 9/9/77, you mentioned the reason that the test was low was because there was quite a bit of fluid in the well bore and that the gas didn't come out. Now, that had been while you had been producing it through the tubing, wasn't it?

A. Yes, sir, but on the surface we had some mechnical problems with our flow lines that paraffined out and some additional restrictions involved as to why that actually took place.

Now that we are aware of that problem we are able to handle it and as a matter of fact we have to hot-oil our

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lines on a frequent basis.

MR. NUTTER: Now, is the casing head gas allowable for these three Drinkard wells that you have got here high enough that you can produce the gas under-restricted?

THE WITNESS: Yes, sir.

MR. NUTTER: Is the limit on gas effective on the wells or are they producing at capacity?

THE WITNESS: They are producing at capacity.

MR. NUTTER: The allowables are high enough?

THE WITNESS: Originally, that was not the case and that was the reason that they were reclassified to gas wells because they were producing more gas than they had allowable for.

MR. NUTTER: You don't have anything further, Mr. Kellahin?

MR. KELLAHIN: That's all, Mr. Nutter.

MR. NUTTER: Does anyone have anything they wish to offer in Case Number 6148? We will take the case under advisement.

(THEREUPON, the hearing on Case Number 6148 was concluded.)

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REPORTER'S CERTIFICATE

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

Sidney F. Morrish, C.S.R.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 6148, heard by me on 8/8, 1978.

....., Examiner
New Mexico Oil Conservation Commission

sid morrish reporting service
General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 6148
Order No. R-5661

APPLICATION OF COQUINA OIL CORPORATION
FOR A DUAL COMPLETION, LEA COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 8, 1978, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this _____ day of _____, 1978, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Coquina Oil Corporation, seeks authority to complete its Vivian Well No. 1, located in Unit F of Section 30, Township 22 South, Range 38 East, NMPM, Lea County, New Mexico, as a dual completion (conventional) to produce oil from the Drinkard and Granite Wash formations thru the casing-tubing annulus and the tubing, respectively.

(3) That the Commission has heretofore determined that the production of oil through the casing-tubing annulus is inefficient, requires an excessive amount of reservoir energy, and causes waste.

(4) That the Commission has a long-established policy of prohibiting the annular flow of oil in the absence of evidence disproving those determinations cited in Finding No. (3) above.

(5) That the applicant in this case offered no evidence to disprove said determinations.

(6) That the application of Coquina Oil Corporation in the instant case, if approved, would result in inefficient flow causing the excessive dissipation of reservoir energy, thereby causing waste, ~~and should be denied~~.

(7) That the application should be denied.

(8) That there is a possibility that the subject well after being placed on production will have a sufficiently high gas-oil ratio that it will be classified as a gas well in the Drinkard formation.

(8) That should said well be classified as a gas well in the Drinkard formation, the annular flow would not be inefficient inasmuch as there would be more gas available to lift a given amount of fluid in the annulus.

(9) That the applicant should be permitted to test said well to determine if it is an oil well or a gas well in the Drinkard formation.

(10) That any such test and determination of gas-oil ratio should be through the tubing, with the tubing below the packer plugged and the sliding sleeve above the packer open.

(11) That said test should be the final 24 hours of a 72-hour flow at a constant rate, and should be witnessed by a representative of the Commission.

(12) That upon determination by the Supervisor of the Hobbs District Office of the Commission that said well is indeed a gas well in the Drinkard formation rather than an oil well, a supplemental order to this order should be entered, approving the dual completion of the well.

(13) That the subject well should not be produced through the casing-tubing annulus until such time as it has been

determined that it is a gas well in the Drinkard formation.

IT IS THEREFORE ORDERED:

(1) That the application of Coquina Oil Corporation for approval of the dual completion of its Vivian Well No. 1 located in Unit F of Section 30, Township 22 South, Range 38 East, NMPM, Lea County, New Mexico, in such a manner as to produce the Granite-Wash formation through tubing and the Drinkard formation through the casing-tubing annulus, is hereby denied.

(2) That the applicant is hereby authorized to test said well to determine the gas-oil ratio, and to ascertain whether said well should be classified as a gas well rather than an oil well in the Drinkard formation, provided that the test of said well shall be conducted in the following manner:

A. The tubing below the packer shall be plugged to isolate the Granite Wash producing interval.

B. The sliding sleeve in the tubing string above the packer shall be open.

C. The well shall be produced at a constant rate for 72 hours, and the gas-oil ratio shall be based on gas and oil produced during the final 24 hours of said 72-hour flow.

D. The applicant shall notify the Hobbs District Office of the Commission of the date and hour the well is to be prepared for the test, and the date and hour the 72-hour flow is to be commenced.

(3) That should the aforesaid gas-oil ratio test result in reclassification of the subject well in the Drinkard formation, as a gas well, the Secretary-Director of the Commission shall

enter a supplemental order approving the dual completion (conventional) of said well to produce ~~oil~~ gas from the Drinkard formation and oil from the Granite Wash formation through the casing-tubing annulus and through tubing, respectively.

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

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

COQUINA OIL CORPORATION
P. O. DRAWER 2960
MIDLAND, TEXAS 79702
(915) 682-6271

January 26, 1978

Case 6148

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

RE: Request for Hearing to Consider Multiple Completion
Drinkard and Granite Wash
Vivian, Well No. 1
Section 30, T22S, R38E
Lea County, New Mexico

Gentlemen:

Enclosed is a corrected copy of the diagrammatic sketch of the proposed multiple completion for the referenced well. The diagram previously submitted had shown the sliding sleeve in the open position. This was in error since the sliding sleeve was run in the closed position and has not been opened.

Please correct the original application submitted on January 12, 1978.

Thank you for your assistance in this matter.

Sincerely,

COQUINA OIL CORPORATION

John Peters

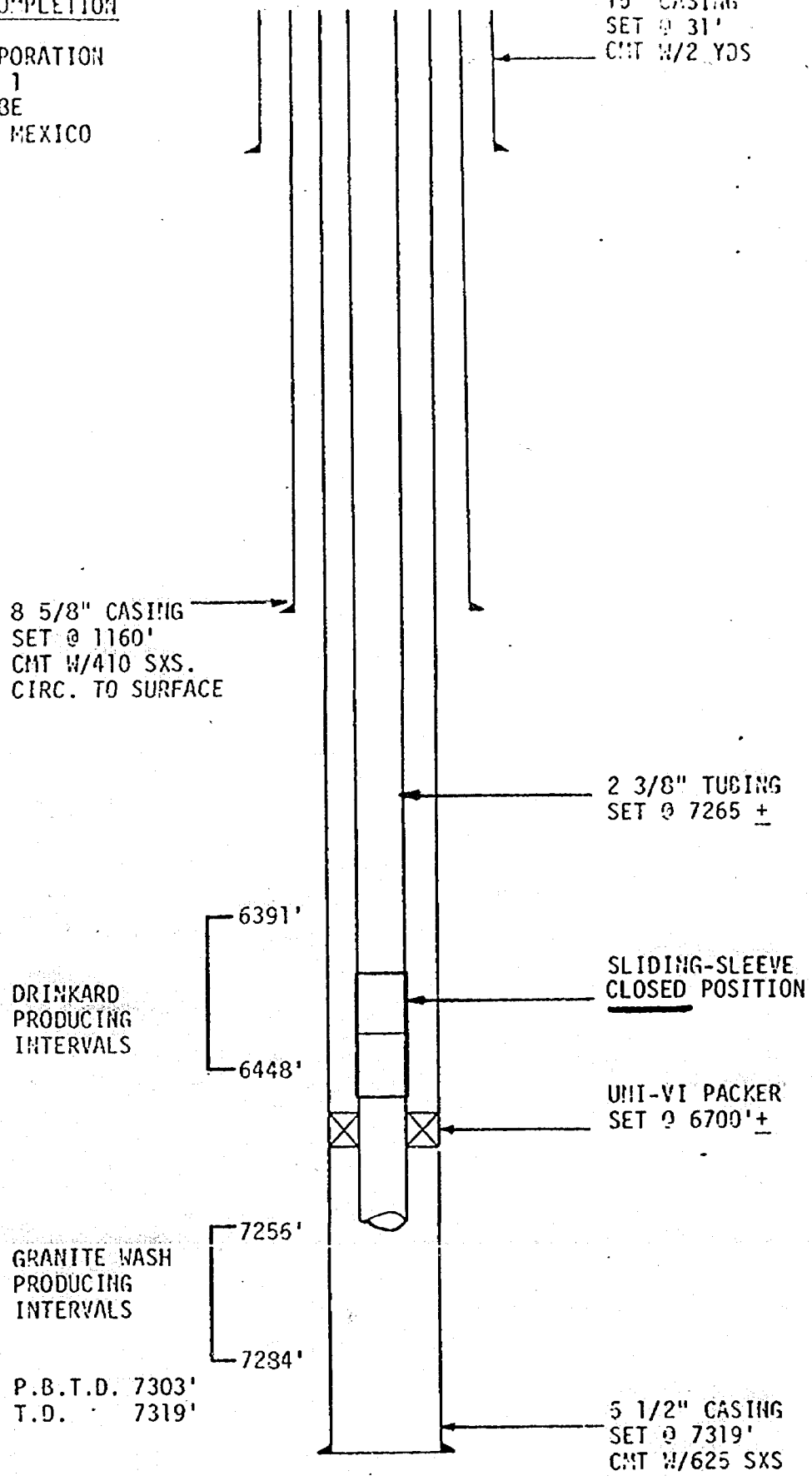
JP/jdc
Enclosure

cc: Oil Conservation Commission - Hobbs
Offset operators

AMENDED COPY
1-25-78

PROPOSED DUAL COMPLETION

COQUINA OIL CORPORATION
VIVIAN WELL NO. 1
SEC. 30, 22S, 33E
LEA COUNTY, NEW MEXICO



DIAGRAMMATIC SKETCH

Case 6148

COQUINA OIL CORPORATION
P. O. DRAWER 2960
MIDLAND, TEXAS 79701
(915) 682-6271

JAN 16 1978
OIL CONSERVATION COM.
SANTA FE

January 12, 1978

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

RE: Request For Hearing To Consider
Multiple Completion
Drinkard and Granite Wash
Vivian Well No. 1
Section 30, 22S, 38E
Lea County, New Mexico

no hrg necessary except that this is in an area of annular flow

Gentlemen:

Coquina Oil Corporation respectfully request that a hearing be scheduled for the purpose of dual completion of the Vivian Well No. 1 in the Drinkard and Granite Wash Zones.

Please find attached in duplicate Form C-107, diagrammatic sketch of the proposed multiple completion, and location plat indication the subject lease and well with all offset leases. Also, note that wells which have already been multiple completed are dipicted in yellow on the area map. A copy of this application is being mailed to the Hobbs office of the New Mexico Oil Conservation Commission and, by copy of this letter, all offset operators have been notified of our request.

Your prompt attention in approving our request will be appreciated.

Sincerely yours,

COQUINA OIL CORPORATION

J. T. Berry
Drilling Manager

JTB/dw

cc: NMOCC-Hobbs
Offset operators

Case 6148

NEW MEXICO OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
APPLICATION FOR MULTIPLE COMPLETION

Form C-107
5-1-61

Operator			County	Date
Coquina Oil Corporation			Lea	1/12/78
Address			Lease	Well No.
P.O. Drawer 2960 Midland, Texas 79702			Vivian	1
Location of Well	Unit	Section	Township	Range
	F	30	22S	38E

1. Has the New Mexico Oil Conservation Commission heretofore authorized the multiple completion of a well in these same pools or in the same zones within one mile of the subject well? YES XX NO _____

2. If answer is yes, identify one such instance: Order No. See back ; Operator Lease, and Well No.: _____

3. The following facts are submitted:	Upper Zone	Intermediate Zone	Lower Zone
a. Name of Pool and Formation	Drinkard		Granite Wash
b. Top and Bottom of Pay Section (Perforations)	6391-6448		7256-7284
c. Type of production (Oil or Gas)	Oil		Oil
d. Method of Production (Flowing or Artificial Lift)	Flow		Flow

4. The following are attached. (Please check YES or NO)

Yes	No	
X		a. Diagrammatic Sketch of the Multiple Completion, showing all casing strings, including diameters and setting depths, centralizers and/or turbolizers and location thereof, quantities used and top of cement, perforated intervals, tubing strings, including diameters and setting depth, location and type of packers and side door chokes, and such other information as may be pertinent.
X		b. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease.
X		c. Waivers consenting to such multiple completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application.*
X		d. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed it shall be submitted as provided by Rule 112-A.)

5. List all offset operators to the lease on which this well is located together with their correct mailing address.

Texaco Inc. - P.O. Box 728 Hobbs, New Mexico 88240

Gulf Oil Co. - U.S. - P. O. Box 670 Hobbs, New Mexico 88240

Hanson Oil Corp. - P. O. Box 1515 Roswell, New Mexico 88201

Summit Energy, Inc. - 1925 Mercantile Dallas Bldg., Dallas, Tx. 72501

6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES XX NO _____. If answer is yes, give date of such notification January 12, 1978.

CERTIFICATE: I, the undersigned, state that I am the Drilling Manager of the Coquina Oil Corporation (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

J. T. Berry
Signature

Should waivers from all offset operators not accompany an application for administrative approval, the New Mexico Oil Conservation Commission will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If, after said twenty-day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed.

NOTE: If the proposed multiple completion will result in an unorthodox well location and/or a non-standard proration unit in one or more of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

TEXACO INC. HAS A DUAL-COMPLETION IN SECTION 19, 22S, 38E.
A.H. BLINEBRY FED. NCE - NO. 39, LEA COUNTY, NEW MEXICO

Case 6148

NEW MEXICO OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
APPLICATION FOR MULTIPLE COMPLETION

Form C-107
5-1-61

Operator			County	Date
Coquina Oil Corporation			Lea	1/12/78
Address			Lease	Well No.
P.O. Drawer 2960 Midland, Texas 79702			Vivian	1
Location of Well	Unit	Section	Township	Range
	F	30	22S	38E

1. Has the New Mexico Oil Conservation Commission heretofore authorized the multiple completion of a well in these same pools or in the same zones within one mile of the subject well? YES XX NO _____

2. If answer is yes, identify one such instance: Order No. See back ; Operator Lease, and Well No.: _____

3. The following facts are submitted:	Upper Zone	Intermediate Zone	Lower Zone
a. Name of Pool and Formation	Drinkard		Granite Wash
b. Top and Bottom of Pay Section (Perforations)	6391-6448		7256-7284
c. Type of production (Oil or Gas)	Oil		Oil
d. Method of Production (Flowing or Artificial Lift)	Flow		Flow

4. The following are attached. (Please check YES or NO)

Yes	No	
[X]	[ ]	a. Diagrammatic Sketch of the Multiple Completion, showing all casing strings, including diameters and setting depths, centralizers and/or turbolizers and location thereof, quantities used and top of cement, perforated intervals, tubing strings, including diameters and setting depth, location and type of packers and side door chokes, and such other information as may be pertinent.
[X]	[ ]	b. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease.
[X]	[ ]	c. Waivers consenting to such multiple completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application.*
[X]	[ ]	d. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed it shall be submitted as provided by Rule 112-A.)

5. List all offset operators to the lease on which this well is located together with their correct mailing address.

Texaco Inc. - P.O. Box 728 Hobbs, New Mexico 88240

Gulf Oil Co. - U.S. - P. O. Box 670 Hobbs, New Mexico 88240

Hanson Oil Corp. - P. O. Box 1515 Roswell, New Mexico 88201

Summit Energy, Inc. - 1925 Mercantile Dallas Bldg., Dallas, Tx. 72501

6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES XX NO _____. If answer is yes, give date of such notification January 12, 1978.

CERTIFICATE: I, the undersigned, state that I am the Drilling Manager of the Coquina Oil Corporation (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

J. T. Berry
Signature

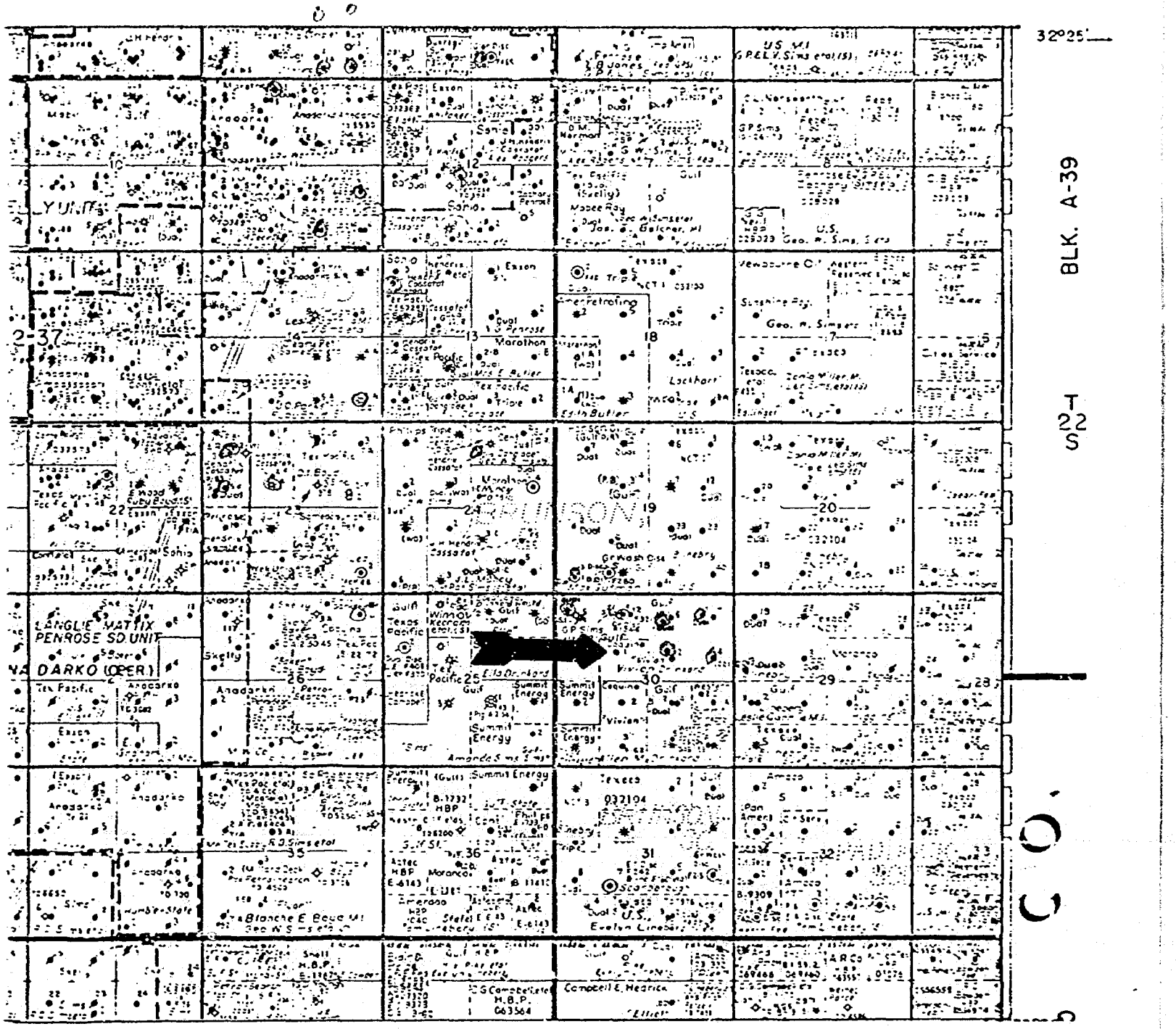
Should waivers from all offset operators not accompany an application for administrative approval, the New Mexico Oil Conservation Commission will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If, after said twenty-day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed.

NOTE: If the proposed multiple completion will result in an unorthodox well location and/or a non-standard proration unit in one or more of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

TEXACO INC. HAS A DUAL-COMPLETION IN SECTION 19, 22S, 38E.
A.H. BLINEBRY FED. NCE - NO. 39, LEA COUNTY, NEW MEXICO

Case 6148

COQUINA OIL CORPORATION
VIVIAN WELL NO. 1
SEC. 30, 22S, 38E
LEA COUNTY, NEW MEXICO

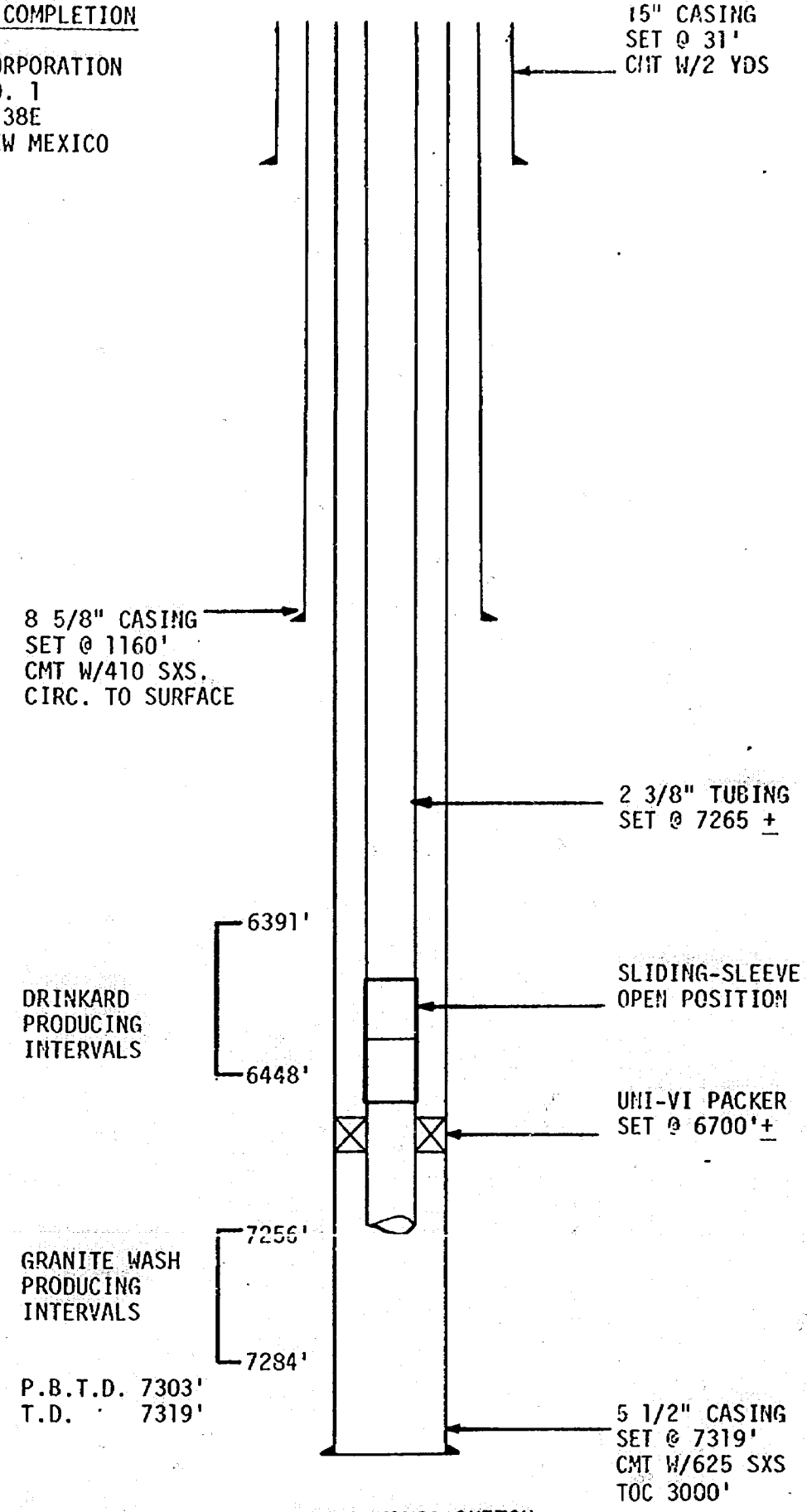


o = Dr - Water Gr. Wash Ducks

Case 6148

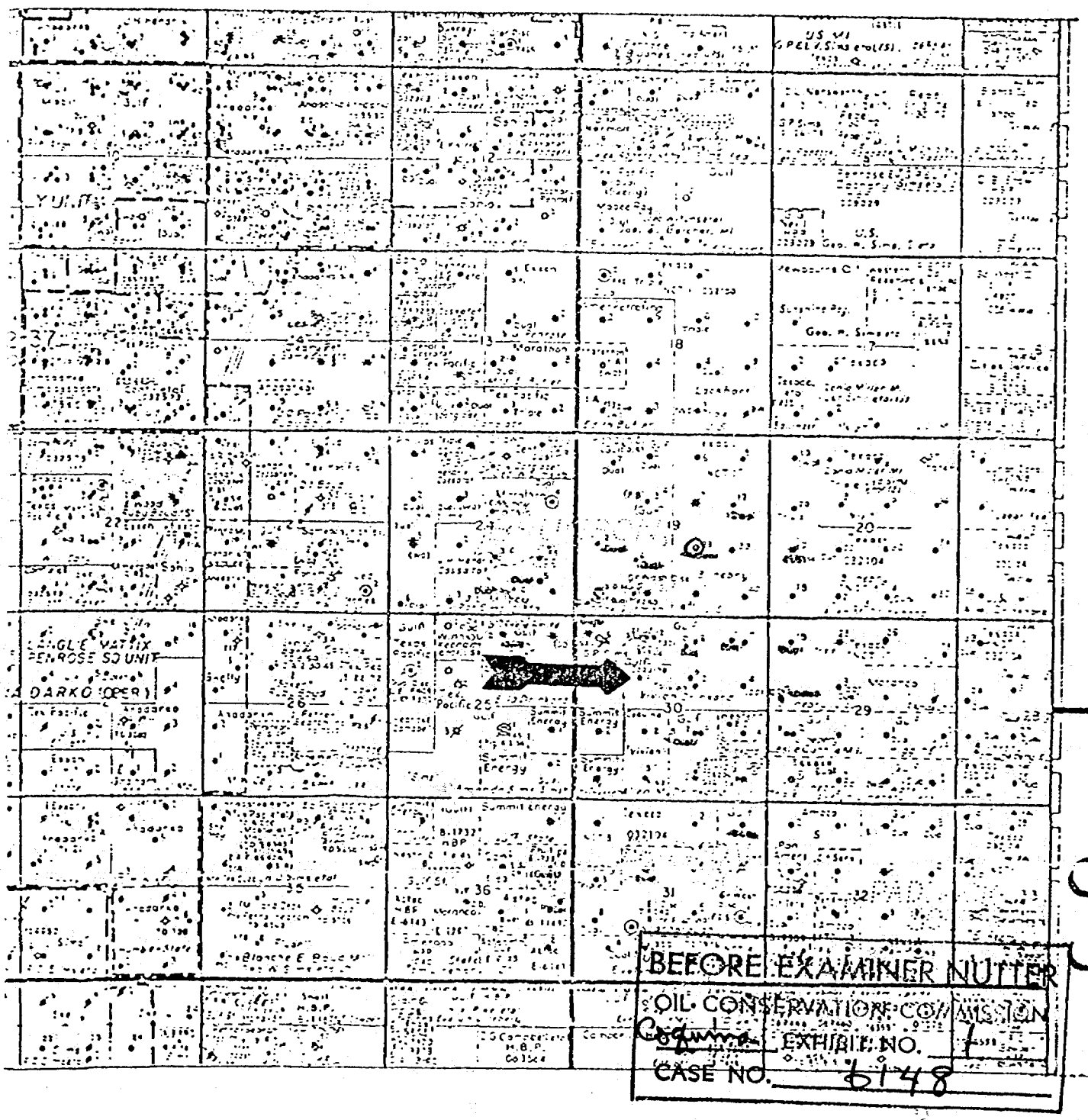
PROPOSED DUAL COMPLETION

COQUINA OIL CORPORATION
VIVIAN WELL NO. 1
SEC. 30, 22S, 38E
LEA COUNTY, NEW MEXICO



DIAGRAMMATIC SKETCH

COQUINA OIL CORPORATION
VIVIAN WELL NO. 1
SEC. 30, 22S, 38E
LEA COUNTY, NEW MEXICO



BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
Coquina EXHIBIT NO. 1
CASE NO. 6148

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STATE		
FILE		
U.S.G.S.		
LAND OFFICE		
OPERATOR		

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103
Supersedes Old C-102 and C-103
Effective 1-1-65

5a. Indicate Type of Lease: State ☐ Fee ☒

5. State Oil & Gas Lease No.: N/A

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT —" (FORM C-101) FOR SUCH PROPOSALS.)

OIL WELL ☒ GAS WELL ☐ OTHER-

7. Unit Agreement Name:

Name of Operator: Coquina Oil Corporation

8. Farm or Lease Name: Vivian

Address of Operator: P.O. Drawer 2960 Midland, Tx. 79702

9. Well No.: 1

Location of Well: UNIT LETTER F, 1787 FEET FROM THE North LINE AND 1787 FEET FROM THE West LINE, SECTION 30 TOWNSHIP 22S RANGE 38E NMPM.

10. Field and Pool, or Wildcat: Wantz

15. Elevation (Show whether DF, RT, GR, etc.): 3329GR

12. County: Lea

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐		COMMENCE DRILLING OPNS. ☐	PLUG AND ABANDONMENT ☐
PULL OR ALTER CASING ☐	CHANGE PLANS ☐	CASING TEST AND CEMENT JOB ☐	
OTHER ☐		OTHER Acidize Granite Wash ☒	

17. Describe Proposed or Completed Operations *(Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work)* SEE RULE 1103.

Please be advised that we are anticipating fracing the Granite Wash Zone with MY-T-II. Proposed date 12-27-77.

orig drld in 1971 Dec 15, 71 1st prod

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
Coquina EXHIBIT NO. 2
CASE NO. 5148

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

SIGNED C Alan Bump TITLE Engineering Assistant DATE 12-21-77

APPROVED BY Orig. Signed by Jerry Sexton TITLE Dist. I, Supv. DATE DEC 27 1977

CONDITIONS OF APPROVAL, IF ANY:

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NTA FE		
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S.G.S.		
AND OFFICE		
PERATOR		

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103
Supersedes Old C-102 and C-103
Effective 1-1-65

5a. Indicate Type of Lease: State [ ] Fee [X]

5. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT —" (FORM C-101) FOR SUCH PROPOSALS.)

7. Unit Agreement Name

OIL WELL [X] GAS WELL [ ] OTHER-

Name of Operator
Coquina Oil Corporation

8. Farm or Lease Name
Vivian D&E

Address of Operator
P.O. Drawer 2960 Midland, Texas 79702

9. Well No.
1

Location of Well
UNIT LETTER F, 1787 FEET FROM THE North LINE AND 1787 FEET FROM THE West LINE, SECTION 30 TOWNSHIP 22S RANGE 38E NMPM.

10. Field and Pool, or Wildcat
Wantz Granite Wash

15. Elevation (Show whether DF, RT, GR, etc.)
GR 3329 KB 3338

12. County
Lea

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK [ ]	PLUG AND ABANDON [ ]	REMEDIAL WORK [X]	ALTERING CASING [ ]
TEMPORARILY ABANDON [ ]		COMMENCE DRILLING OPNS. [ ]	PLUG AND ABANDONMENT [ ]
PULL OR ALTER CASING [ ]	CHANGE PLANS [ ]	CASING TEST AND CEMENT JOB [ ]	
OTHER [ ]		OTHER [ ]	

Describe Proposed or Completed Operations (*Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work*) SEE RULE 1103.

This well was originally drilled through the Granite Wash formation and the Granite Wash was perforated 7256-60,7265-66, & 7283-84 and acidized. Commercial production was not obtained. The Granite Wash was isolated by a bridge plug and completion was made in the Drinkard formation. On December 30, 1977, the Granite Wash was acidized w/5000 gal 15% HCl & fractured w/20,000 gal My-T-Gel carrying 23,000# 20/40 sand. The 3 1/2" frac tubing was pulled and 2 3/8" production tubing was run with the packer set at 7199', separating the Drinkard from the Granite Wash. A hearing has been requested to approve a dual completion Drinkard annulus, Granite Wash tubing. The Drinkard will continue to be shut in until such approval is granted. A request for allowable has been submitted on form C-104 for the Granite Wash.

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

SIGNED J.T. Berry TITLE Drilling Manager DATE 1-17-78

APPROVED BY Orig. Signed by Jerry Sexton Dist. I Supv. TITLE DATE JAN 19 1978

CONDITIONS OF APPROVAL, IF ANY:

JOHN KUYKENDALL WIRELINE SERVICE CO., INC.
P. O. Box 184 / A/C 915 337-5241 / ODESSA, TEXAS 79760

BOTTOM HOLE PRESSURE REPORT

Operator Coquina Oil Co. Lease Vivian Well No. 1

Field Brunson Reservoir Granit Wash Datum 7269 M.P.

Test Date 1-16-78 Well Status S.I. Hours Shut In 99

Tubing 2 3/8 Depth _____ End open Packer 7205 S. N. _____

Casing _____ Depth _____ Perf. 7256-7282 Total Depth _____

Tubing Press. 1003
Casing Press. _____
Top of Fluid none
Top of Water _____
Temp. @ 7259 °F 144°
Elev. KB _____ GL _____
Last Test Date Initial
Press. Last Test _____
Change _____ Per Day _____
Inst. No. 15317 Cal. _____
Tested By Richburg
Calcu. By Richburg
Prod. Index _____ Bbls/day/lb. _____
Drop _____
Cumulative prod. _____

Depth	Press. Lbs/Sq. In.	Δ Press.	Gradient Lbs/Ft.
0	1003		
1000	1022	19	.019
3000	1100	78	.039
5000	1167	67	.034
6869	1231	64	.034
7069	1238	7	.035
7259	1246	8	.042

Remarks: Note: During time instrument on bottom, 2½ hrs.
Pressure increased 2#

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
Coquina EXHIBIT NO. 3
CASE NO. 6148

Operator	Address	Pool	County
COQUINA OIL CORPORATION	Box 2690 - Midland, Texas	Drinkard	Lea

LEASE	WELL NO.	LOCATION				DATE PRESS. RUN	TIME S.I. HRS./MIN.	S.I. PRESSURE PSIG (DWT)	S.I. PRESSURE PSIA	PREV. TEST DATE
		UNIT	SEC.	TWP.	RGE.					
Vivian DGE	1	F	30	22	38	5-5-77	72	637	650.2	

I hereby certify that the above information is true and complete to the best of my knowledge and belief. SEE RULE 402

Name _____ Title _____ Date _____

NEW MEXICO OIL CONSERVATION COMMISSION
GAS WELL SHUT-IN PRESSURE REPORT

Form C-125
Revised 1-1-65

Operator	Address	Pool	County
Coquina Oil Corporation	P. O. Drawer 2960 Midland, Texas 79701	Drinkard	Lea

LEASE	WELL NO.	LOCATION UNIT	SEC.	TWP.	RGE.	DATE PRESS. RUN	TIME S.I. HRS./MIN.	S.I. PRESSURE PSIG (DWT)	S.I. PRESSURE PSIA	PREV. TEST DATE
Vivian	1	F	30	22S	38E	7-16-76	24	570		
	2	K	30	22S	38E	7-19-76	24	725		
	3	N	30	22S	38E	7-29-76	24	750		

I hereby certify that the above information is true and complete to the best of my knowledge and belief. SEE RULE 402.

Signature C. Alan Bump Title Engineering Assistant Date October 12, 1976

Operator Coquina Lease Vivian "A"

Field Drinkard County Lea Co. State N.M.

Date	Oil or Condensate - Bbls.			Gas - MCF			Water Prod.	GOR or Yield	Remarks
	Monthly	Year to Date	Cumulative	Monthly	Year to Date	Cumulative	Bbls.		
1/76	1013		33525	76369		3538378			
2	948			60767					
3	933			57053					
4	856			52620					
5	764			34236					
6	775			46385					
7	1030			64454					
8	966			64295					
9	874			52057					
10	1089			59956					STRIPPER PROD.
11	987			50614					
12	916			49462					
Total	11 111		76461	668418		4207011			
1/77	968			48289					
2	876			44002					
3	910			47889					
4	705			43321					
5	698			35447					
6	935			41437					
7	758			42800					
8	747			41454					
9	692			36080					
10	780			40034					
11	307			36312					
12									
Total									
1/									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
Total									

Dr wells were reclassified as gas wells in 1974 pursuant to Rule 70 & completed in the Drinkard Pool as gas wells since Dec 77 # 1 & 3 were dually completed as oil & gas wells respectively

Decline in Nov due to shutting in the #1 to complete in the Gr Wash

Dr GOR less than 100,000 : it is classified as an oil well in #1

Rot test on #1 in Dr 14-16 bopd 1170 MCF

WORKOVER: AFTER RE-COMP GRAN WASH.

GRAN WASH POTENTIAL F. 333 BO, 0 BW.

APPL. FOR DUAL COM.

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. 4
CASE NO. 6148

COGHLAN

LEASE VIVIAN (N1, 2+3)

FIELD DRINKARD

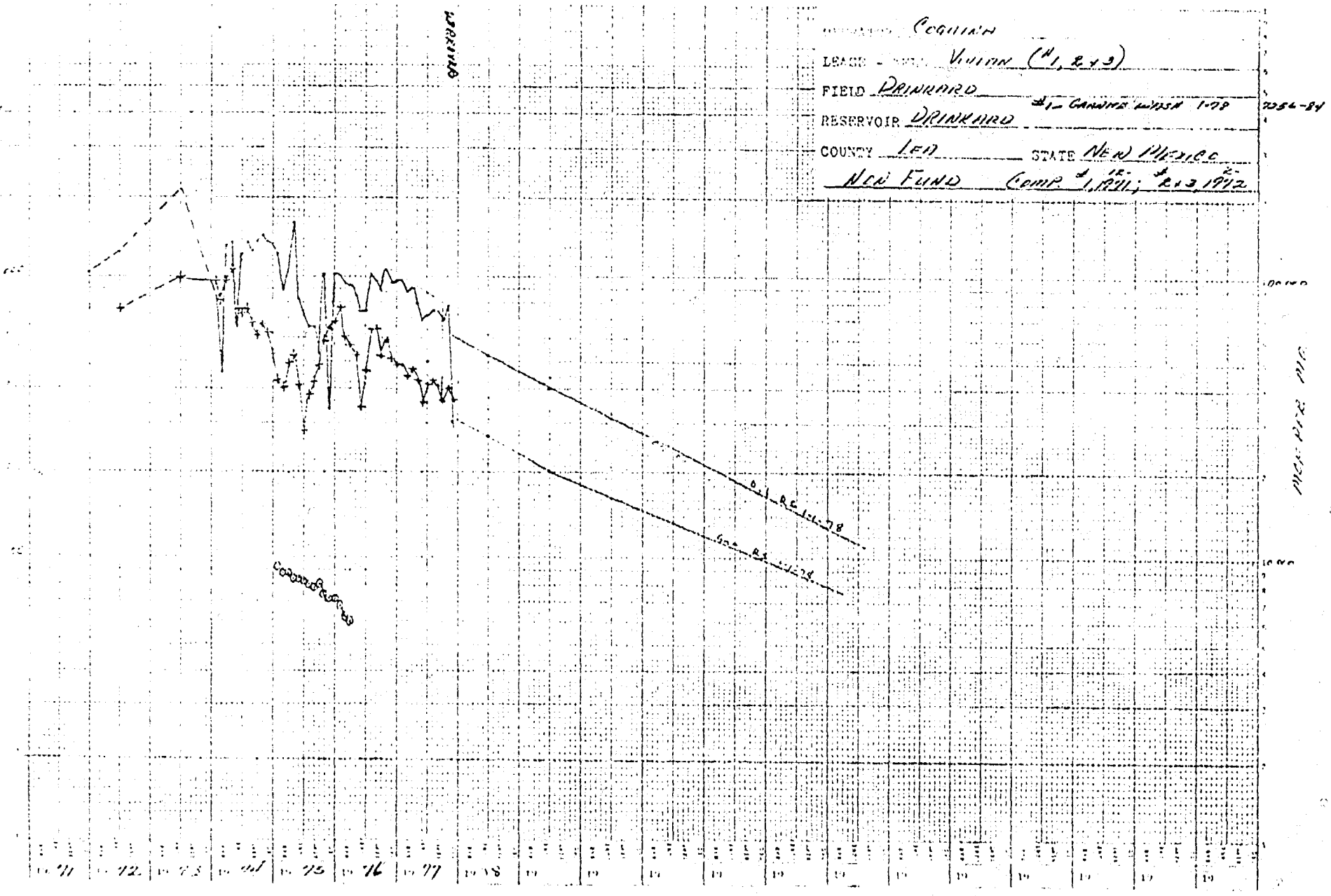
RESERVOIR DRINKARD

COUNTY LEA STATE NEW MEXICO

NEW FUND COMP'D 1, 1911; 2+3, 1942

#1 - GANNAWAY 1-78

7054-84



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OPERATOR	

Form C-105
Revised 1-1-65

NEW MEXICO OIL CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5a. Indicate Type of Lease: State ☐ Fee ☒
5. State Oil & Gas Lease No.: --

1a. TYPE OF WELL: OIL WELL ☒ GAS WELL ☐ DRY ☐ OTHER
b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ OTHER

7. Unit Agreement Name: --
8. Farm or Lease Name: Vivian DKF
9. Well No.: 1
2. Name of Operator: Coquina Oil Corporation
10. Field and Pool, or Wildcat: Drinkard
3. Address of Operator: 418 Building of the Southwest, Midland, Texas 79701
4. Location of Well: UNIT LETTER F LOCATED 1787 FEET FROM THE N LINE AND 1787 FEET FROM
12. County: Lea
THE W LINE OF SEC. 30 TWP. 22-S RGE. 38-E NMPM

15. Date Spudded	16. Date T.D. Reached	17. Date Compl. (Ready to Prod.)	18. Elevations (DF, RKB, RT, GR, etc.)	19. Elev. Cas. Head.
10-19-71	11-9-71	12-15-71	GL 3339, KB 3338	--

20. Total Depth	21. Plug Back T.D.	22. If Multiple Compl., How Many	23. Intervals Drilled By	Rotary Tools	Cable Tools
7319	7303	--	→	All	None

24. Producing Interval(s), of this completion — Top, Bottom, Name: 6391-6448 Drinkard
25. Was Directional Survey Made: No
26. Type Electric and Other Logs Run: GR-SNP, Guard, Forxo
27. Was Well Cored: No

CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB. FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13"	7	31	18"	2 yards	-0-
8 5/8"	23	1160	11"	410 sacks	-0-
5 1/2"	15.5, 17	7319	7 7/8"	625 sacks	-0-

28. LINER RECORD					30. TUBING RECORD		
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET
None					2 3/8	6351	No

29. Perforation Record (Interval, size and number): 6391-6448 20 Holes

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
6391-6448	Acid 2500
	Acid 12,000

PRODUCTION

33. Date First Production	Production Method (Flowing, gas lift, pumping — Size and type pump)	Well Status (Prod. or Shut-in)
12-15-71	Flow	Producing

Date of Test	Hours Tested	Choke Size	Prod'n. For Test Period →	Oil — Bbl.	Gas — MCF	Water — Bbl.	Gas — Oil Ratio
12-16-71	24	1/2		79.5	311	0	3914

Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate →	Oil — Bbl.	Gas — MCF	Water — Bbl.	Oil Gravity — API (Corr.)
50	200		79.5			36.7

34. Disposition of Gas (Sold, used for fuel, vented, etc.): Will be sold as soon as gas sales line connected.
Test Witnessed By: A. Patton

35. List of Attachments: Log, Deviation

36. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.

Superintendent — December 22, 1971

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. 5
CASE NO. 6145

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Commission not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 30 through 34 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico				Northwestern New Mexico			
T. Anhy	1140	T. Canyon		T. Ojo Alamo		T. Penn. "B"	
T. Salt	1225	T. Strawn		T. Kirtland-Fruitland		T. Penn. "C"	
B. Salt	2390	T. Atoka		T. Pictured Cliffs		T. Penn. "D"	
T. Yates	2530	T. Miss		T. Cliff House		T. Leadville	
T. 7 Rivers	2800	T. Devonian		T. Menefee		T. Madison	
T. Queen	3240	T. Silurian		T. Point Lookout		T. Elbert	
T. Grayburg		T. Montoya		T. Mancos		T. McCracken	
T. San Andres	3707	T. Simpson		T. Gallup		T. Ignacio Qtzte	
T. Glorieta	5074	T. McKee		Base Greenhorn		T. Granite	
T. Paddock		T. Ellenburger		T. Dakota		T.	
T. Blinebry	5460	T. Gr. Wash	7250	T. Morrison		T.	
T. Tubb	6020	T. Granite		T. Todilto		T.	
T. Drinkard	6260	T. Delaware Sand		T. Entrada		T.	
T. Abo		T. Bone Springs		T. Wingate		T.	
T. Wolfcamp		T.		T. Chinle		T.	
T. Penn.		T.		T. Permian		T.	
T Cisco (Bough C)		T.		T. Penn. "A"		T.	

FORMATION RECORD (Attach additional sheets if necessary)

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
0	1140	1140	Red Beds				
1140	1225	85	Anhy.				
1225	2390	1165	Salt				
2390	3707	1317	Anhy. & Dolo. w/interbedded sand stones				
3707	5074	1367	Dolo & Anhy.				
5074	7250	2176	Anhydritic Dol., limestone all with interbedded siltstones & sandstones.				
7250	7319	69	Granite Wash				

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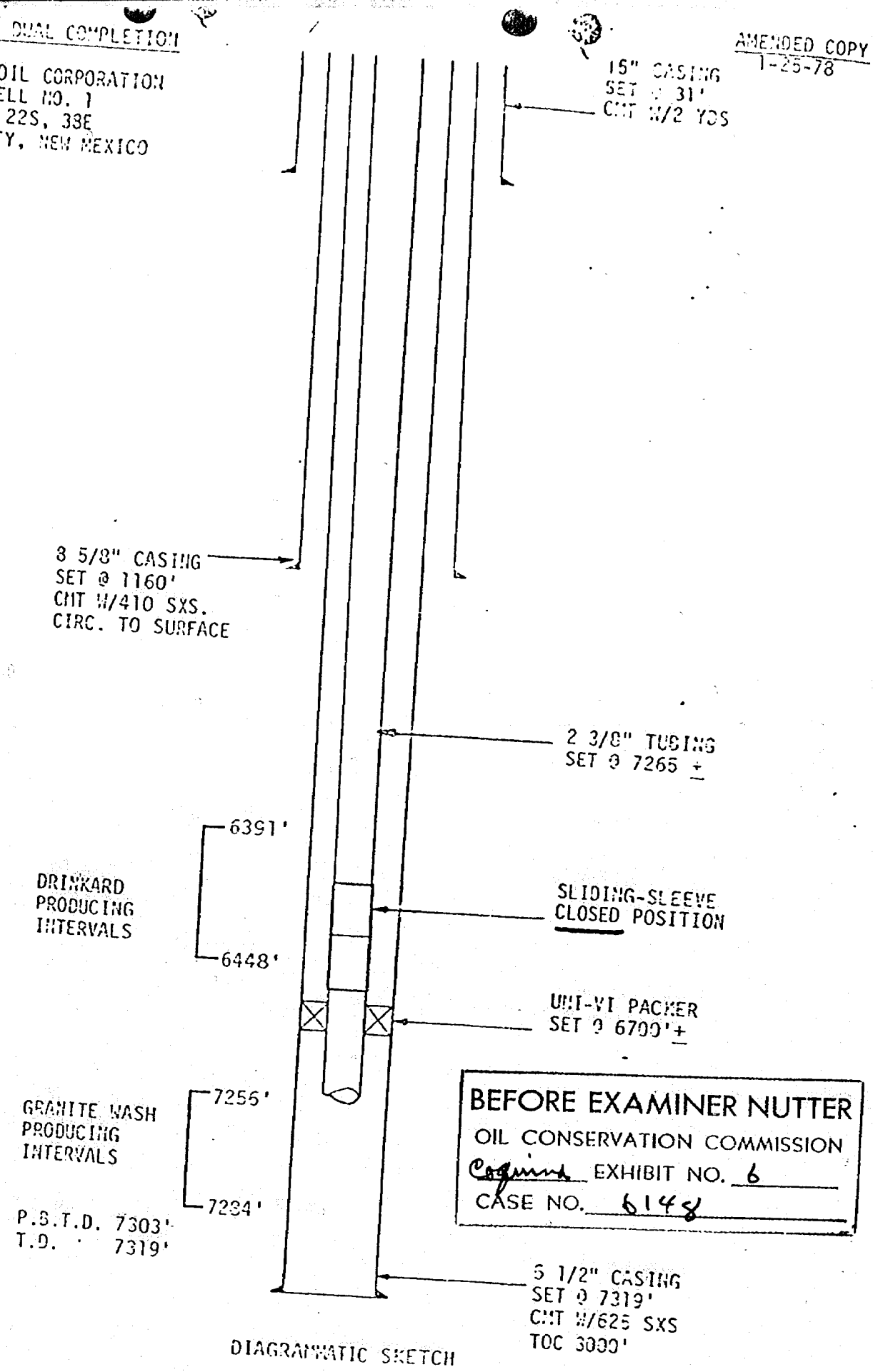
OIL CONSERVATION COMM.
HOBBS, N. M.

PROPOSED DUAL COMPLETION

AMENDED COPY
1-25-78

COQUINA OIL CORPORATION
VIVIAN WELL NO. 1
SEC. 30, 22S, 33E
LEA COUNTY, NEW MEXICO



BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
Coquina EXHIBIT NO. 6
CASE NO. 6148

DIAGRAMMATIC SKETCH

Welex

SIDEWALL NEUTRON Log

COMPANY COQUINA OIL CORPORATION

WELL VIVIAN #1

FIELD BRUNSON, GRANITE WASH

COUNTY LEA STATE NEW MEXICO

COMPANY / WELL / FIELD / County / State

Location 1787 'FNL & 1787 'FWL

Sec. 30 Twp 22-S Rge 38-S

Other Services:
GRD
FORXO
MOP

Permanent Datum GL Elev. 3329
Log Measured from KB 9 Ft. Above Perm. Datum
Drilling Measured From KB

Elev.: K.B. 3338
D.F. 3337
G.L. 3329

Date	9 Nov 71
Run No.	ONE
Type Log	EPITHERMAL
Depth—Driller	7319
Depth—Welex	7312
Bottom Logged Interval	7311
Top Logged Interval	SURFACE
Type Fluid in Hole	MUD
Salinity, PPM Cl.	
Density	9.6
Level	FULL
Max. rec. temp., deg. F.	
Operating Rig Time	
Recorded By	J.S. CAUBLE
Witnessed by	MR. HIRSCH

RUN No.	BORE-HOLE RECORD Bit	From	To	CASING RECORD Size	Wgt.	From	To
1	11	SURF.	1160	8 5/8		SURF	1160
2	7 7/8	1160	7319				

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. 2
CASE NO. 4548

EQUIPMENT DATA

	GAMMA RAY	NEUTRON
Run No.	ONE	ONE
Log Type		EPITHERMAL
Tool Model No.		166
Diameter		4"
Detector Model No.		-
Type		P.C.
Length		-
Source Model No.		5CU
Serial No.		N-27
Spacing		-
Type		DUBE
Strength		8.5 X 10⁶ NEUTRONS/SEC

LOGGING DATA

	GAMMA RAY API G.R. Units per Log Div.	Zero Div. L or R	Sens. Settings	T.C. Sec.	Speed Ft./Min	To	From	NEUTRON T.C. Sec.	Sens. Settings	Zero Div. L or R	API N. Units per Log Div.
No.	ONE										
Model No.	121										
Diameter	3 5/8										
Detector Model No.	102										
Type	SCINT										
Length	4"										
Source to N. Source	188"										

GENERAL

Truck No.	8443	0	100	2				1	2966	1.37 L	171.7
Equipment Truck No.	8443	0	100	2				1	3318	1.58 L	196.6
Serial No.	15128										

GENERAL

Depths From	To

· CARBONATE
E = DOLOMITE

Recorded Here

Sidewall Neutron Log

Length	4"			Type	P.C.		
Distance to N. Source	188"			Length	—		
				Source Model No.	5 Cu		
GENERAL				Serial No.	N-27		
Hoist Truck No.	8443			Spacing	—		
Instrument Truck No.	8443			Type	PuBe		
ol Serial No.	15128			Strength	8.5×10⁶ NEU/SEC		

LOGGING DATA

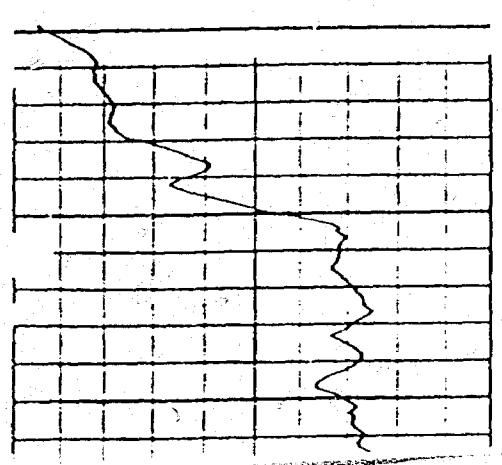
GENERAL				GAMMA RAY				NEUTRON			
Run No.	Depths From	To	Speed Ft/Min	T.C. Sec.	Sens. Settings	Zero Div. L or R	API G.R. Units per Log Div.	T.C. Sec.	Sens. Settings	Zero Div. L or R	API N. per Lo
-1-	F=CARBONATE			2	100	0	10	1	2966	1.37 L	171.
-1-	F=DOLOMITE			2	100	0	10	1	3318	1.58L	196.

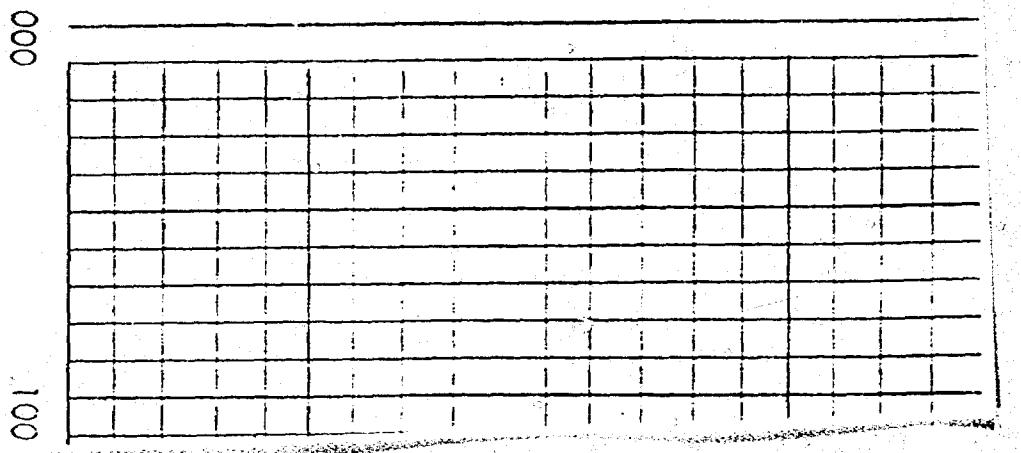
Reference Literature:

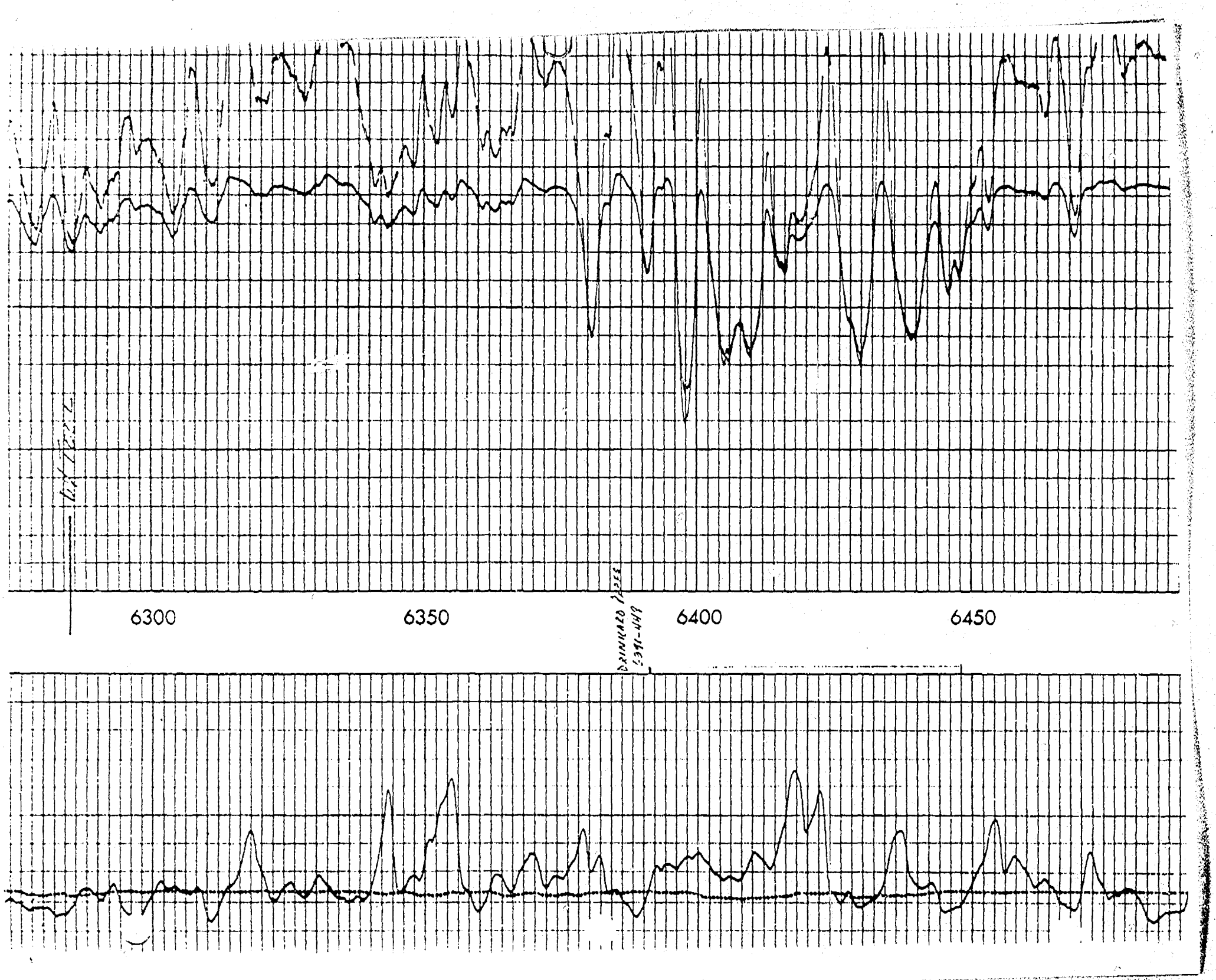
Service Ticket No. 53641 Remarks:

2" = 100'

GAMMA		NEUTRON		
API Gamma Ray Units		API Neutron Units		
0	100	-234	CARBONATE	3
100	200	-312	DOLOMITE	3
6"	16"			



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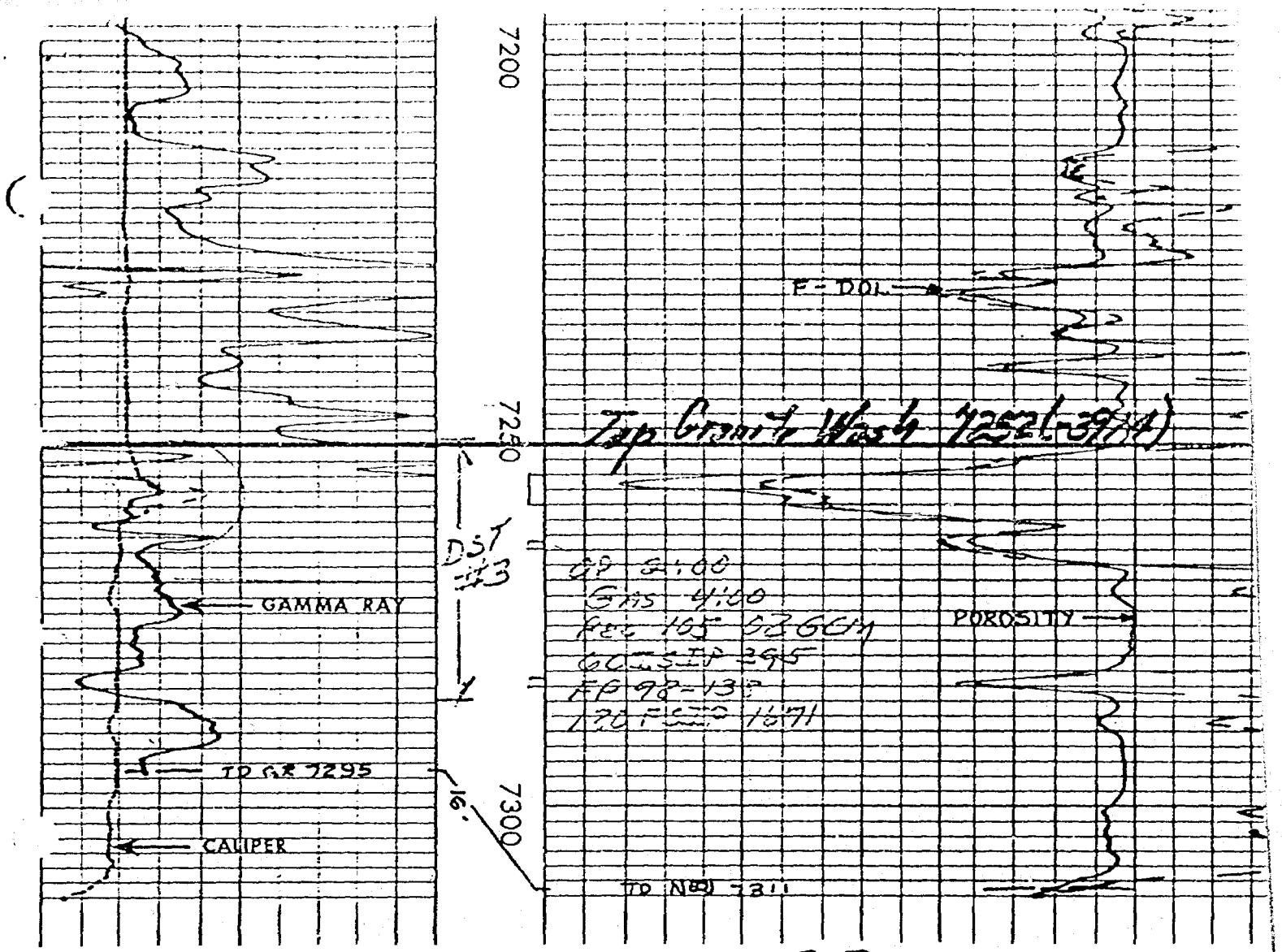


Dolomite* Use for Permian dolomites associated with small quantities of anhydrite (and/or) silica.

LATSNPWTAA PART No. .16594

REPEAT

DISTRIBUTION		
SANTA FE		
FILE		
U.S.G.S.		
LAND OFFICE		
TRANSPORTER	OIL	
	GAS	
OPERATOR		
PRORATION OFFICE		

NEW MEXICO OIL CONSERVATION COMMISSION
REQUEST FOR ALLOWABLE
AND
AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

Form C-104
Supersedes Old C-104 and C-
Effective 1-1-65

I. Operator: Coquina Oil Corporation

Address: P.O. Drawer 2960 Midland, Texas 79702

Reason(s) for filing (Check proper box)
- New Well [ ]
- Recompletion [X]
- Change in Ownership [ ]
- Change in Transporter of: Oil [ ] Dry Gas [ ] Casinghead Gas [ ] Condensate [ ]

Other (Please explain)

If change of ownership give name and address of previous owner _____

II. DESCRIPTION OF WELL AND LEASE

Lease Name	Well No.	Pool Name, Including Formation	Kind of Lease	Lease No.
Vivian	1	Wantz Granite Wash	State, Federal or Fee Fee	

Location: Unit Letter F : 1787 Feet From The North Line and 1787 Feet From The West

Line of Section 30 Township 22S Range 38E , NMPM, Lea County

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil X or Condensate	Address (Give address to which approved copy of this form is to be sent)
Texas-New Mexico Pipeline Co.	Box 1510 Midland, Tx. 79701
Name of Authorized Transporter of Casinghead Gas X or Dry Gas	Address (Give address to which approved copy of this form is to be sent)
El Paso Natural Gas Co.	El Paso, Texas 79978

If well produces oil or liquids, give location of tanks.	Unit	Sec.	Twp.	Rge.	Is gas actually connected?	When
	F	30	22S	38E	yes	May 14, 1974

If this production is commingled with that from any other lease or pool, give commingling order number: _____

IV. COMPLETION DATA

Designate Type of Completion – (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v.	Diff. Res'v.
	X			X				X

Date Spudded	Date Compl. Ready to Prod.	Total Depth	P.B.T.D.
10-19-71	1-9-78	7319	7303
Elevations (DF, RKB, RT, GR, etc.)	**Name of Producing Formation**	**Top Oil/Gas Pay**	**Tubing Depth**
GL 3329 KB 3338	Granite Wash	7252	7199
Perforations			**Depth Casing Shoe**
7256-60; 7265-66; 7283-84			

TUBING, CASING, AND CEMENTING RECORD

HOLE SIZE	CASING & TUBING SIZE	DEPTH SET	SACKS CEMENT
18"	15"	30'	2 yds
11"	8 5/8"	1160'	625 sxs
7 7/8"	5 1/2"	7319'	625 sxs

V. TEST DATA AND REQUEST FOR ALLOWABLE (Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours)

OIL WELL

Date First New Oil Run To Tanks	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
1-9-78	1-10-78	Flow	
Length of Test	**Tubing Pressure**	**Casing Pressure**	**Choke Size**
24 hrs	530 psi	560 psi	18/64"
Actual Prod. During Test	**Oil - Bbls.**	**Water - Bbls.**	**Gas - MCF**
233 bbl fluid	233	0	506

Recommended upon Gas 60 MCF in 2 Hours

GAS WELL

Actual Prod. Test - MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
	Amount of gas		
Testing Method (pitot, back pr.)	**Tubing Pressure (Shut-in)**	**Casing Pressure (Shut-in)**	**Choke Size**

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
Coquina EXHIBIT NO. 8
CASE NO. 6148

VI. CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Commission have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

J. T. Berry
(Signature)

Drilling Manager
(Title)

OIL CONSERVATION COMMISSION

APPROVED JAN 16 1978, 19____

BY _____

TITLE SUPERVISOR DISTRICT I

This form is to be filed in compliance with RULE 1104.

If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviation tests taken on the well in accordance with RULE 111.

All sections of this form must be filled out completely for allowable on new and recompleted wells.

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 1980 · HOBBS

February 28, 1974

I. R. TRUJILLO
CHAIRMAN

LAND COMMISSIONER
ALEX J. ARMIJO
MEMBER

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

Vivian #1
DGE

Coquina Oil Corp.
200 Bldg. of Southwest
Midland, Texas 79701

Gentlemen:

This is to advise that effective March 1, 1974, your Vivian No. 1-F, No. 2-K, and No. 3-N, all located in Section 30, T-22-S, R-38-E, will be reclassified as gas wells in the Drinkard Oil Pool. The reclassification is due to gas-oil ratios in excess of 100,000 to 1 as indicated on your recently submitted Form C-116.

The wells will appear as gas wells on the next Oil Proration Schedule, which is due to be published May 1, 1974.

Yours very truly,

OIL CONSERVATION COMMISSION

Joe D. Ramey
Supervisor, District 1

mc

COQUINA OIL CORPORATION
P. O. DRAWER 2960
MIDLAND, TEXAS 79702
(915) 682-6271

DEC - 5 1977
OIL CONSERVATION COMM.

December 2, 1977

Case 6148

2/8/78

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

RE: Request for Multiple Completion
Drinkard and Granite Wash
Vivian Well No. 1
Section 30, 22S, 38E
Lea County, New Mexico

Gentlemen:

Coquina Oil Corporation respectfully request administrative approval to dually complete the Vivian Well No. 1 in the Drinkard and Granite Wash Zones.

Please find attached in duplicate Form C-107, diagrammatic sketch of the proposed multiple completion, and location plat indication the subject lease and well with all offset leases. Also, note that wells which have already been multiple completed are dipicted in yellow on the area map. A copy of this application is being mailed to the Hobbs office of the New Mexico Oil Conservation Commission and, by copy of this letter, all offset operators have been notified of our request.

Your prompt attention in approving our request will be appreciated.

Sincerely yours,

COQUINA OIL CORPORATION

C. Alan Bump

C Alan Bump

CAB/dw

cc: NMOCC-Hobbs
Offset operators

12/6: Called. Can't approve Drinkard oil thru csg.-tbg annulus

NEW MEXICO OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
APPLICATION FOR MULTIPLE COMPLETION

Form C-107
5-1-61

DEC - 5 1977

O. C. C.

Operator			County	Date
Coquina Oil Corporation			Lea	December 2, 1977
Address			Lease	Well No.
P. O. Drawer 2960 Midland, Tx. 79702			Vivian	1
Location of Well	Unit	Section	Township	Range
	F	30	22S	38E

1. Has the New Mexico Oil Conservation Commission heretofore authorized the multiple completion of a well in these same pools or in the same zones within one mile of the subject well? YES XX NO _____

2. If answer is yes, identify one such instance: Order No. See Back ; Operator Lease, and Well No.: _____

3. The following facts are submitted:	√ Upper Zone	Intermediate Zone	Lower Zone
a. Name of Pool and Formation	Drinkard		Granite Wash
b. Top and Bottom of Pay Section (Perforations)	6391-6448		7256-7284
c. Type of production (Oil or Gas)	Oil		Oil
d. Method of Production (Flowing or Artificial Lift)	Flow		Flow

4. The following are attached. (Please check YES or NO)

Yes	No	
[X]	[ ]	a. Diagrammatic Sketch of the Multiple Completion, showing all casing strings, including diameters and setting depths, centralizers and/or turbolizers and location thereof, quantities used and top of cement, perforated intervals, tubing strings, including diameters and setting depth, location and type of packers and side door chokes, and such other information as may be pertinent.
[X]	[ ]	b. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease.
[X]	[ ]	c. Waivers consenting to such multiple completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application.*
[X]	[ ]	d. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed it shall be submitted as provided by Rule 112-A.)

5. List all offset operators to the lease on which this well is located together with their correct mailing address.

Texaco Inc. - P. O. Box 728, Hobbs, New Mexico 88240

Gulf Oil Co.- U.S. - P. O. Box 670, Hobbs, New Mexico 88240

Hanson Oil Corp. - P. O. Box 1515, Roswell, New Mexico 88201

Summit Energy, Inc. - 1925 Mercantile Dallas Bldg., Dallas, Tx. 72501

6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES XX NO _____. If answer is yes, give date of such notification December 2, 1977 .

CERTIFICATE: I, the undersigned, state that I am the Engineering Assistant of the Coquina Oil Corporation (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

C. Alan Bump
Signature

C Alan Bump

*Should waivers from all offset operators not accompany an application for administrative approval, the New Mexico Oil Conservation Commission will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If, after said twenty-day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed.

NOTE: If the proposed multiple completion will result in an unorthodox well location and/or a non-standard proration unit in one or more of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

TEXACO INC. HAS A DUAL-COMPLETION IN SECTION 19, 22S, 38E.
A.H. BLINEBRY FED. NCT - 1 NO. 39, LEA COUNTY, NEW MEXICO

NEW MEXICO OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

APPLICATION FOR MULTIPLE COMPLETION

D & E

Operator	County	Date
Coquina Oil Corporation	Lea	1/12/78
Address	**Lease**	**Well No.**
P.O. Drawer 2960 Midland, Texas 79702	Vivian	1

Location of Well	Unit	Section	Township	Range
	F	30	22S	38E

1. Has the New Mexico Oil Conservation Commission heretofore authorized the multiple completion of a well in these same pools or in the same zones within one mile of the subject well? YES XX NO _____
2. If answer is yes, identify one such instance: Order No. See back ; Operator Lease, and Well No.: _____

3. The following facts are submitted:	Upper Zone	Intermediate Zone	Lower Zone
a. Name of Pool and Formation	Drinkard		Granite Wash
b. Top and Bottom of Pay Section (Perforations)	6391-6448		7256-7284
c. Type of production (Oil or Gas)	Oil		Oil
d. Method of Production (Flowing or Artificial Lift)	Flow		Flow

4. The following are attached. (Please check YES or NO)

Yes	No	
[X]	[ ]	a. Diagrammatic Sketch of the Multiple Completion, showing all casing strings, including diameters and setting depths, centralizers and/or turbolizers and location thereof, quantities used and top of cement, perforated intervals, tubing strings, including diameters and setting depth, location and type of packers and side door chokes, and such other information as may be pertinent.
[X]	[ ]	b. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease.
[X]	[ ]	c. Waivers consenting to such multiple completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application.*
[X]	[ ]	d. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed it shall be submitted as provided by Rule 112-A.)

5. List all offset operators to the lease on which this well is located together with their correct mailing address.

Texaco Inc. - P.O. Box 728 Hobbs, New Mexico 88240

Gulf Oil Co. - U.S. - P. O. Box 670 Hobbs, New Mexico 88240

Hanson Oil Corp. - P. O. Box 1515 Roswell, New Mexico 88201

Summit Energy, Inc. - 1925 Mercantile Dallas Bldg., Dallas, Tx. 72501

6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES XX NO _____. If answer is yes, give date of such notification January 12, 1978 .

CERTIFICATE: I, the undersigned, state that I am the Drilling Manager of the Coquina Oil Corporation (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

J. T. Berry
Signature

*Should waivers from all offset operators not accompany an application for administrative approval, the New Mexico Oil Conservation Commission will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If, after said twenty-day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed.

NOTE: If the proposed multiple completion will result in an unorthodox well location and/or a non-standard proration unit in one or more of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

NEW MEXICO OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

APPLICATION FOR MULTIPLE COMPLETION

Operator: Coquina Oil Corporation		County: Lea	Date: 1/12/78
Address: P.O. Drawer 2960 Midland, Texas 79702		Lease: Vivian	Well No.: 1
Location of Well: Unit F	Section 30	Township 22S	Range 38E

1. Has the New Mexico Oil Conservation Commission heretofore authorized the multiple completion of a well in these same pools or in the same zones within one mile of the subject well? YES XX NO _____
2. If answer is yes, identify one such instance: Order No. See back ; Operator Lease, and Well No.: _____

3. The following facts are submitted:	Upper Zone	Intermediate Zone	Lower Zone
a. Name of Pool and Formation	Drinkard		Granite Wash
b. Top and Bottom of Pay Section (Perforations)	6391-6448		7256-7284
c. Type of production (Oil or Gas)	Oil		Oil
d. Method of Production (Flowing or Artificial Lift)	Flow		Flow

4. The following are attached. (Please check YES or NO)

Yes	No	
[X]	[ ]	a. Diagrammatic Sketch of the Multiple Completion, showing all casing strings, including diameters and setting depths, centralizers and/or turbolizers and location thereof, quantities used and top of cement, perforated intervals, tubing strings, including diameters and setting depth, location and type of packers and side door chokes, and such other information as may be pertinent.
[X]	[ ]	b. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease.
[X]	[ ]	c. Waivers consenting to such multiple completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application.*
[X]	[ ]	d. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed it shall be submitted as provided by Rule 112-A.)

5. List all offset operators to the lease on which this well is located together with their correct mailing address.

Texaco Inc. - P.O. Box 728 Hobbs, New Mexico 88240

Gulf Oil Co. - U.S. - P. O. Box 670 Hobbs, New Mexico 88240

Hanson Oil Corp. - P. O. Box 1515 Roswell, New Mexico 88201

Summit Energy, Inc. - 1925 Mercantile Dallas Bldg., Dallas, Tx. 72501

6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES XX NO _____. If answer is yes, give date of such notification January 12, 1978.

CERTIFICATE: I, the undersigned, state that I am the Drilling Manager of the Coquina Oil Corporation (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

J. T. Berry
Signature

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. _____
CASE NO. _____

*Should waivers from all offset operators not accompany an application for administrative approval, the New Mexico Oil Conservation Commission will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If, after said twenty-day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed.

NOTE: If the proposed multiple completion will result in an unorthodox well location and/or a non-standard proration unit in one or more of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

Summit Energy, Inc.
112 North First
Artesia, New Mexico 88210

DEC 13 1977

December 9, 1977

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

Gentlemen:

Summit Energy, Inc. is in receipt of a copy of an application for administrative approval submitted to you by Coquina Oil Corporation. The application regards the dual completion of the Vivian No. 1 well, located in Section 30, 225, 38E, La County, New Mexico. The application is dated December 2, 1977.

As an offset operator, Summit has no objection to the dual completion. However, we feel that the lower perforations (Granite Wash) need to be reviewed since it appears these perforations might possibly by Lower Drinkard and not Granite Wash.

If the zone is geologically Lower Drinkard, then the well would have to produce with one oil allowable and one gas allowable and not with two prorated allowables.

Sincerely,

Paul G. White
Summit Energy, Inc.

tj

cc: Mr. Jack Knox - President

COQUINA OIL CORPORATION
P. O. Drawer 2960 Midland, Texas 79702 Telephone (915) 682-6273

FEB 15 1978
CONSERVATION COMM.
Santa Fe

February 13, 1978

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

Attn: Mr. Daniel S. Nutter

Re: Case 6148
Application of Coquina Oil Corporation
for a Dual Completion on the Vivian
Well No. 1, Lea County, New Mexico.

Gentlemen:

Pursuant to your request, a report of the Production History and a Decline Curve for the Vivian Well No. 1 located in Section 30, T22S, R38E, Lea County, New Mexico are enclosed. The information was taken from the monthly C-115 reports submitted to the NMOCC as determined by previous well tests. Please note that workover operations started in December and not in November, 1977 as previously reported.

This information indicates that the well was reclassified based on a 24 hour well test submitted on Form C-116 and not based on monthly Cumulative Production Reports. (Copy of letter enclosed). Therefore, Coquina Oil Corporation requests permission to produce the Drinkard Formation through the tubing-casing annulus for a 24 or 48 hour test in order to determine the current well production and classification.

If you need any additional information, please contact me.

Sincerely,

COQUINA OIL CORPORATION

John V. Peters
Ass't Production Manager

JVP/mm

enclosures:
cc: Mr. Jason Kellihan, P. O. Box 1769, Santa Fe, New Mexico 87501

Operator Coquina Lease Vivian #1

Field _____ County Lea State New Mexico

Date	Oil or Condensate - Bbls.			Gas - MCF			Water Prod.		GOR or Yield	Remarks
	Monthly	Year to Date	Cumulative	Monthly	Year to Date	Cumulative	Bbls.			
1/71										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12	1084			3						
Total	1034		1034	3		3				
1/72	204			7960						
2	309			10062						
3	403			33935						
4	581			40121						
5	551			38285						
6	110			23785						
7	530			19554						
8	80			15616						
9	215			15897						
10	808			30169						
11	809			25229						
12	950			27980						
Total	5540		6574	297593		297596				
1/73	1069			31311						
2	929			28212						
3	967			36430						
4	916			25287						
5	1020			26545						
6	978			25670						
7	1153			28861						
8	1221			31989						
9	1067			34025						
10	949			40472						
11	934			28951						
12	926			29902						
Total	12134		18705	367455		665251				

Operator [illegible] Lease [illegible]

Field [illegible] County [illegible] State [illegible]

Date	Oil or Condensate - Bbls.			Gas - MCF			Water Prod.		GOR or Yield	Remarks
	Monthly	Year to Date	Cumulative	Monthly	Year to Date	Cumulative	Bbls.			
1/-11	403		[illegible]	29729		652,251				
2	385			24685						
3	444			32557						
4	461			35706						
5	318			25564						
6	411			24545						
7	462			25226						
8	423			22601						
9	461			20099						
10	455			22.315						
11	462			20775						
12	447			17720						
Total	4969		23674	301,725		956,976				

1/-15	400			11508						
2	295			13414						
3	368			16583						
4	341			17563						
5	379			13649						
6	237			9459						
7	314			12772						
8	318			14122						
9	378			16317						
10	343			19446						
11	113			3192.5						
12	343			22862						
Total	3334		27008	192,620		1,149,596				

1/-1	337			25460						
2	316			20259						
3	311			19021						
4	285			17545						
5	234			11412						
6	259			15524						
7	344			21,489						
8	323			31436						
9	271			17,357						
10	363			19,990						
11	319			16,586						
12	329			16,492						
Total	3703		30711	222,871		1,372,467				

Operator [illegible] Lease [illegible]

Field [illegible] County Lea State [illegible]

Date	Oil or Condensate - Bbls.			Gas - MCF			Water Prod.		GOR or Yield	Remarks
	Monthly	Year to Date	Cumulative	Monthly	Year to Date	Cumulative	Bbls.			
1/77	410		30711	14,491		1,372,467				
2	552			13,205						
3	577			14371						
4	262			14,445						
5	440			10,639						
6	457			12,436						
7	478			12,845						
8	471			13,441						
9	436			10,838						
10	491			13,015						
11	246			10,877						
12	714			7877						W/O STARTED 12-2
Total	5732		36443	148,489		1,520,956				

1/78										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
Total										

1/										
2										
3										
4										
5										
6										
7										
8										
9										
0										
1										
2										
otal										

COMPANY

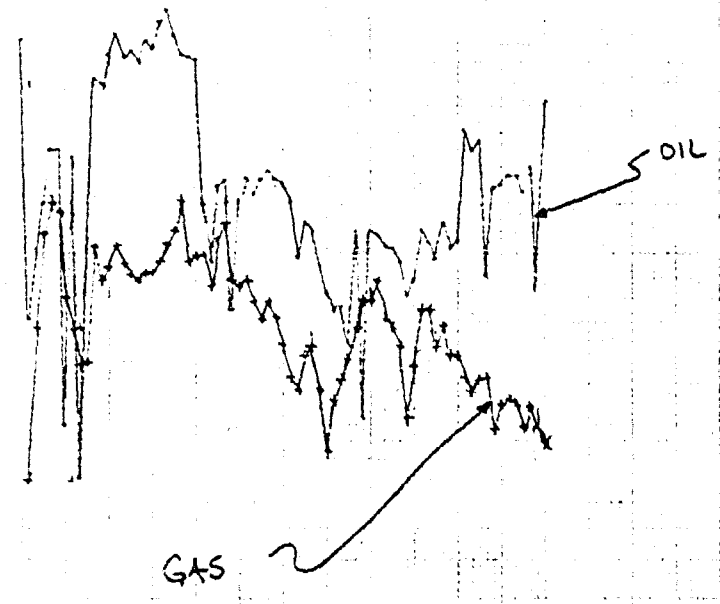
OPERATOR Conuina

WELL Vivian "1

FIELD

PROVINCE

COUNTY Lea STATE New Mexico



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BOPM

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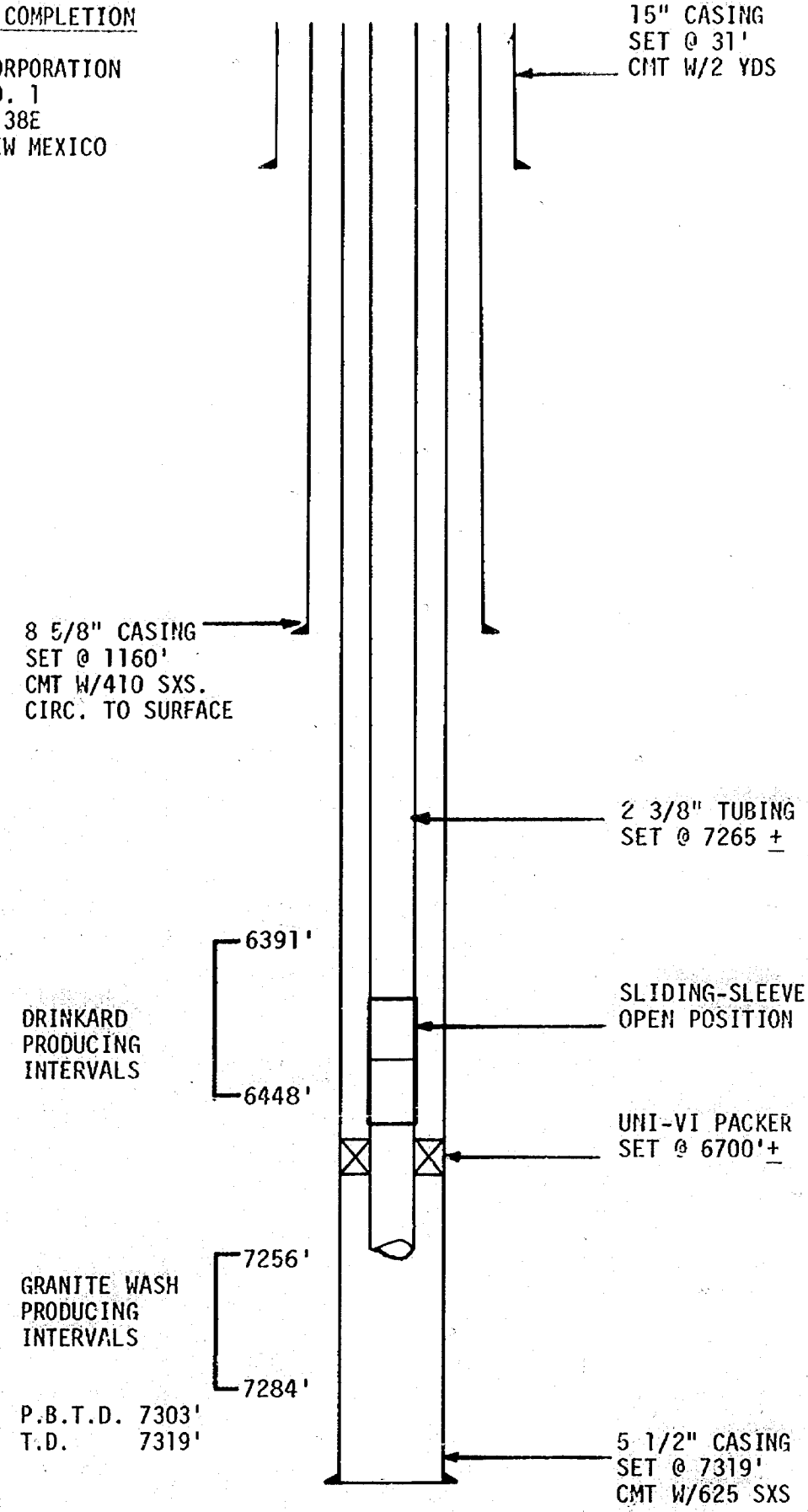
71 1972 73 1974 1975 1976 1977 19 19 19 19 19 19 19 19 19 19 19 19 19 19

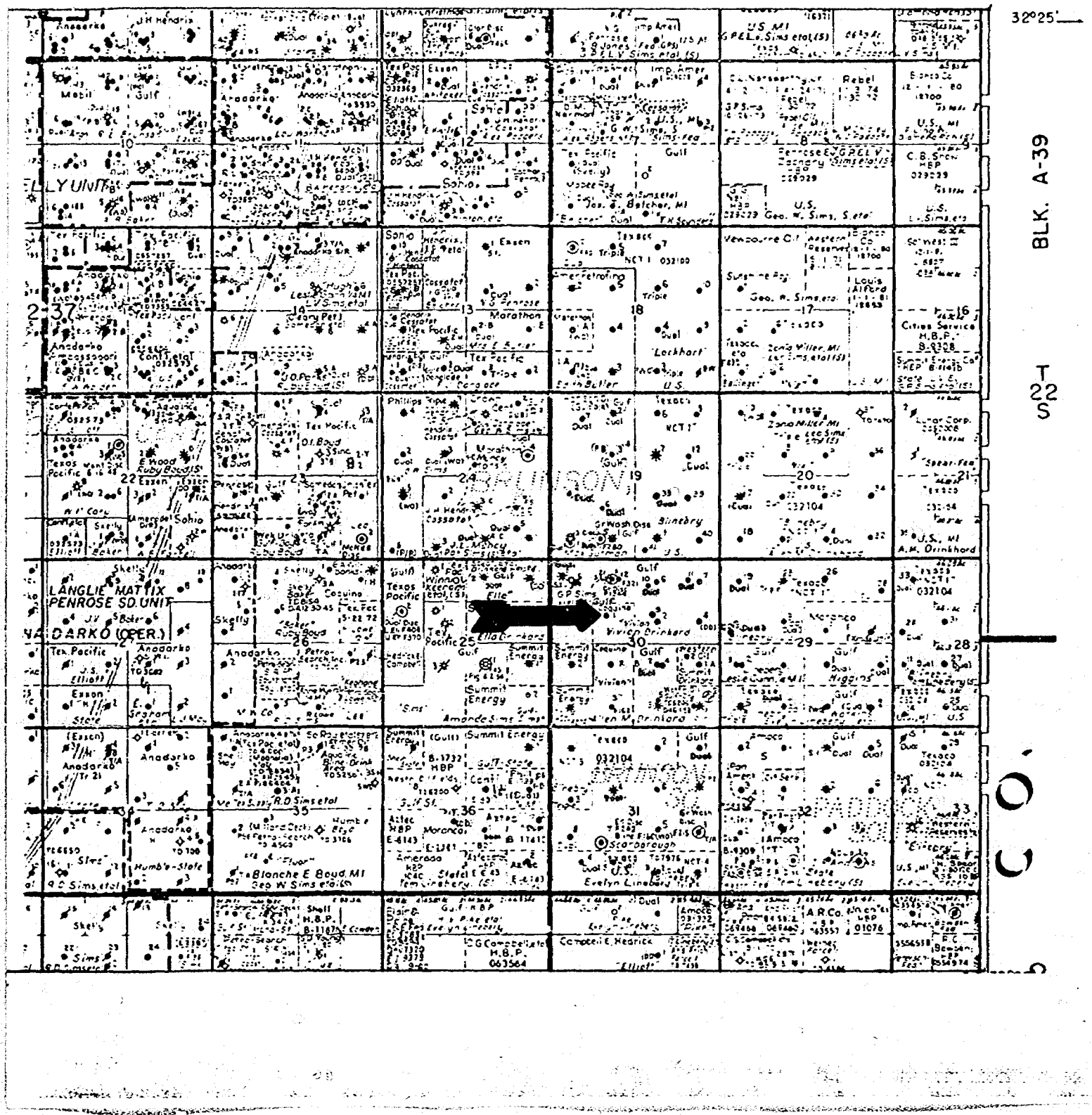
PROPOSED DUAL COMPLETION

COQUINA OIL CORPORATION
VIVIAN WELL NO. 1
SEC. 30, 22S, 38E
LEA COUNTY, NEW MEXICO



DIAGRAMMATIC SKETCH

COQUINA OIL CORPORATION
VIVIAN WELL NO. 1
SEC. 30, 22S, 38E
LEA COUNTY, NEW MEXICO



COQUINA OIL CORPORATION
P. O. DRAWER 2960
MIDLAND, TEXAS 79702
(915) 682-6271

DEC -6 1977

December 2, 1977

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

RE: Request for Multiple Completion
Drinkard and Granite Wash
Vivian Well No. 1
Section 30, 22S, 38E
Lea County, New Mexico

Gentlemen:

Coquina Oil Corporation respectfully request administrative approval to dually complete the Vivian Well No. 1 in the Drinkard and Granite Wash Zones.

Please find attached in duplicate Form C-107, diagrammatic sketch of the proposed multiple completion, and location plat indication the subject lease and well with all offset leases. Also, note that wells which have already been multiple completed are dipicted in yellow on the area map. A copy of this application is being mailed to the Hobbs office of the New Mexico Oil Conservation Commission and, by copy of this letter, all offset operators have been notified of our request.

Your prompt attention in approving our request will be appreciated.

Sincerely yours,

COQUINA OIL CORPORATION

C. Alan Bump

C Alan Bump

CAB/dw

cc: NMOCC-Hobbs
Offset operators

NEW MEXICO OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
APPLICATION FOR MULTIPLE COMPLETION

Form C-107
5-1-61

DEC - 3 1977

Operator	County	Date
Coquina Oil Corporation	Lea	December 2, 1977
Address	**Lease**	**Well No.**
P. O. Drawer 2960 Midland, Tx. 79702	Vivian	1

Location of Well	Unit	Section	Township	Range
	F	30	22S	38E

1. Has the New Mexico Oil Conservation Commission heretofore authorized the multiple completion of a well in these same pools or in the same zones within one mile of the subject well? YES XX NO _____

2. If answer is yes, identify one such instance: Order No. See Back ; Operator Lease, and Well No.: _____

3. The following facts are submitted:	Upper Zone	Intermediate Zone	Lower Zone
a. Name of Pool and Formation	Drinkard		Granite Wash
b. Top and Bottom of Pay Section (Perforations)	6391-6448		7256-7284
c. Type of production (Oil or Gas)	Oil		Oil
d. Method of Production (Flowing or Artificial Lift)	Flow		Flow

4. The following are attached. (Please check YES or NO)

Yes	No	
[X]	[ ]	a. Diagrammatic Sketch of the Multiple Completion, showing all casing strings, including diameters and setting depths, centralizers and/or turbolizers and location thereof, quantities used and top of cement, perforated intervals, tubing strings, including diameters and setting depth, location and type of packers and side door chokes, and such other information as may be pertinent.
[X]	[ ]	b. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease.
[X]	[ ]	c. Waivers consenting to such multiple completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application.*
[X]	[ ]	d. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed it shall be submitted as provided by Rule 112-A.)

5. List all offset operators to the lease on which this well is located together with their correct mailing address.

Texaco Inc. - P. O. Box 728, Hobbs, New Mexico 88240

Gulf Oil Co.- U.S. - P. O. Box 670, Hobbs, New Mexico 88240

Hanson Oil Corp. - P. O. Box 1515, Roswell, New Mexico 88201

Summit Energy, Inc. - 1925 Mercantile Dallas Bldg., Dallas, Tx. 72501

6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES XX NO _____. If answer is yes, give date of such notification December 2, 1977 .

CERTIFICATE: I, the undersigned, state that I am the Engineering Assistant of the Coquina Oil Corporation (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

C. Alan Bump
Signature

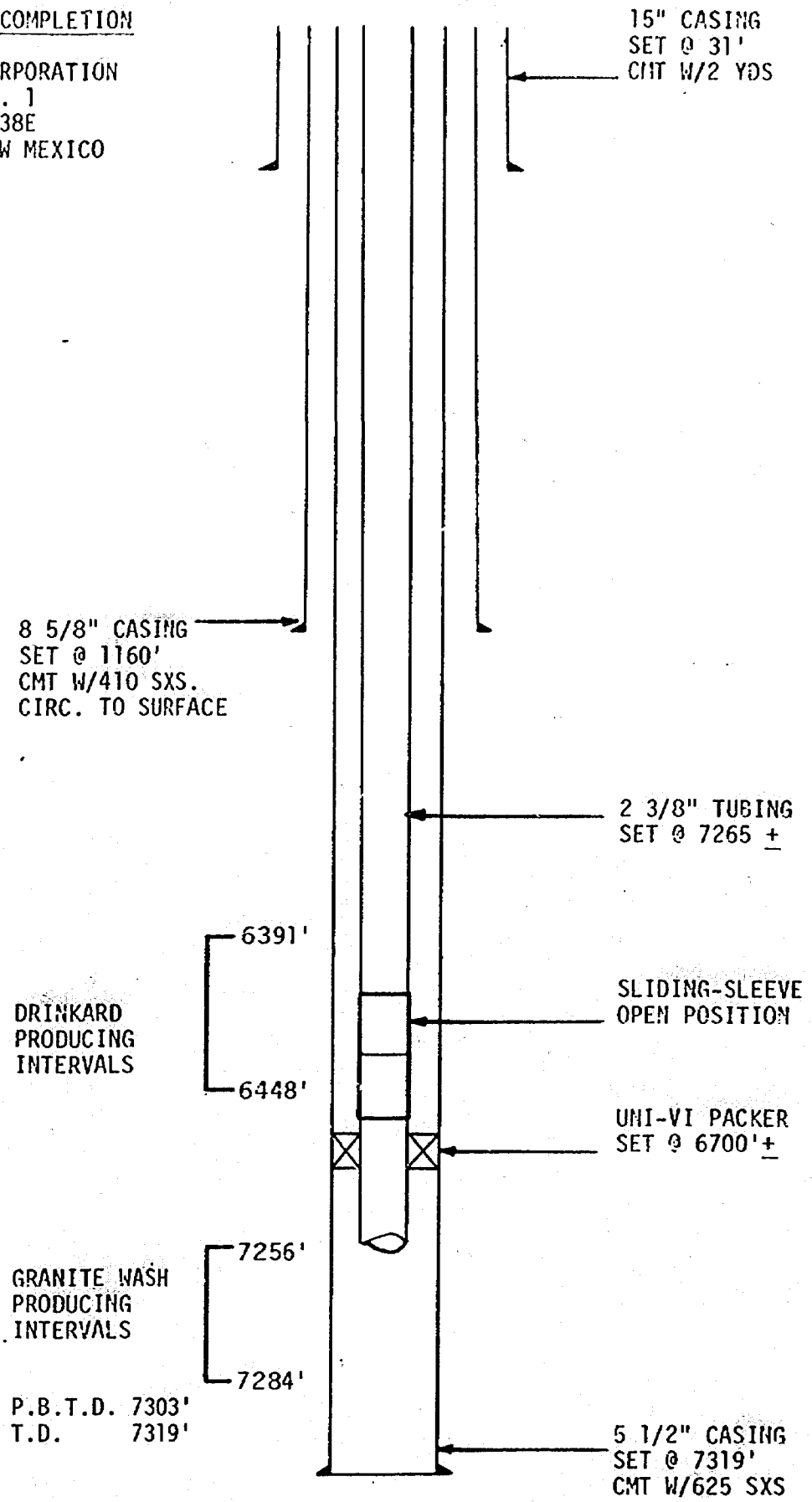
C Alan Bump

*Should waivers from all offset operators not accompany an application for administrative approval, the New Mexico Oil Conservation Commission will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If, after said twenty-day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed.

NOTE: If the proposed multiple completion will result in an unorthodox well location and/or a non-standard proration unit in one or more of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

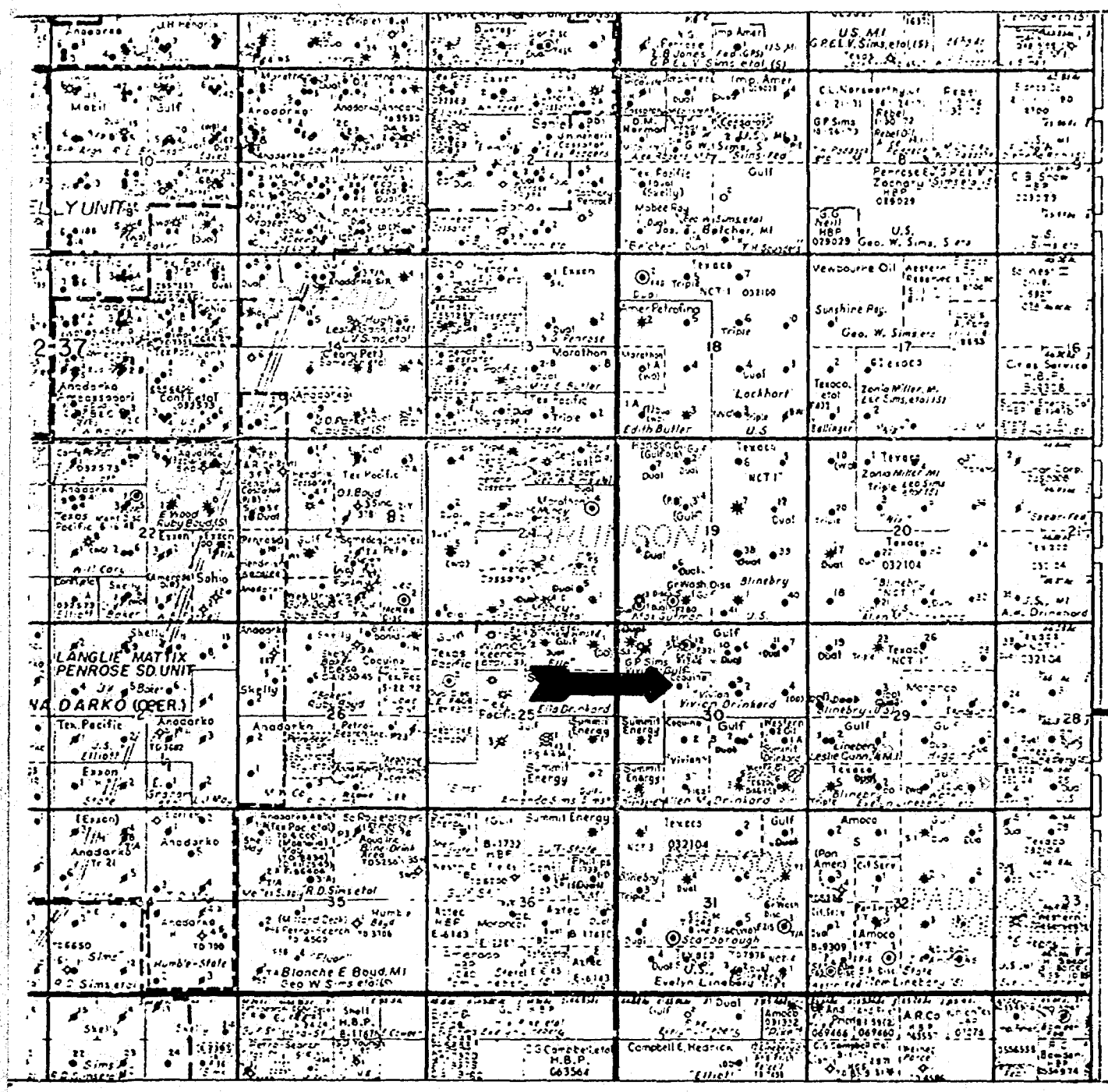
PROPOSED DUAL COMPLETION

COQUINA OIL CORPORATION
VIVIAN WELL NO. 1
SEC. 30, 22S, 38E
LEA COUNTY, NEW MEXICO



DIAGRAMMATIC SKETCH

COQUINA OIL CORPORATION
VIVIAN WELL NO. 1
SEC. 30, 22S, 38E
LEA COUNTY, NEW MEXICO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Summit Energy
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Queen
Grayburg
San Andres
Glorieta
Paddock
Blinebry
Tubb
Drinkard
Abo
Warren
Wolfcamp
Penn
Devonian
Ellenburger
Fusselman
Montoya
Simpson
McKee
Waddell
Connell
Upper Penn
Lower Penn
Strawn
Atoka
Morrow
Chester
Miss.
Woodford
Devonian
Silur

OIL CONSERVATION COMMISSION
Hobbs DISTRICT

OIL CONSERVATION COMMISSION
BOX 2088
SANTA FE, NEW MEXICO

DATE December 8, 1977

RE: Proposed MC X
Proposed DHC ____
Proposed NSL ____
Proposed SWD ____
Proposed WFX ____
Proposed PMX ____

DEC 12 1977

Gentlemen:

I have examined the application dated ____

for the Coquina Oil Corp. Vivian #1-F 30-22-38
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

O.K. w/Drinkard gas---J.S.

Yours very truly,

Jerry Sexton

CASE 6145: Application of Jerome P. McHugh for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Gavilan-Pictured Cliffs and Blanco-Mesaverde production within the wellbore of his June Well No. 1 located in Unit B of Section 28, Township 28 North, Range 3 West, Rio Arriba County, New Mexico.

CASE 6146: Application of Jerome P. McHugh for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Tapacito-Gallup and Basin-Dakota production within the wellbore of his Jicarilla Well No. 5 located in Unit D of Section 29, Township 26 North, Range 4 West, Rio Arriba County, New Mexico.

CASE 6147: Application of Dugan Production Corporation for downhole commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Undesignated Greenhorn, Bisti-Lower Gallup, and Basin Dakota production within the wellbore of its Big 8 Well No. 1 located in Unit L of Section 8, Township 24 North, Range 9 West, San Juan County, New Mexico.

CASE 6148: Application of Coquina Oil Corporation for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its Vivian Well No. 1 located in Unit F of Section 30, Township 22 South, Range 38 East, Lea County, New Mexico, in such a manner as to produce oil from the Drinkard and Granite Wash formations thru the casing-tubing annulus and the tubing, respectively.

CASE 6134: (Readvertised)

Application of Burleson & Huff for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests from the surface of the ground to the base of the Queen formation underlying the SE/4 NW/4 of Section 22, Township 25 South, Range 37 East, Lea County, New Mexico, to form a 40-acre Langlie Mattix oil proration unit or underlying the N/2 NE/4, NE/4 NW/4, and SE/4 NW/4 of said Section 22 to form a non-standard 160-acre Jalmat gas proration unit. 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6096: (Continued from January 18, 1978 Examiner Hearing)

Application of Texas Oil & Gas Corporation for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp and Pennsylvanian formations underlying the S/2 of Section 14, Township 21 South, Range 34 East, Lea County, New Mexico, to be dedicated to applicant's South Wilson State Well No. 1 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6133: (Continued from January 18, 1978 Examiner Hearing)

Application of Doyle Hartman for compulsory pooling and a non-standard proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the SE/4 of Section 8, Township 19 South, Range 37 East, Eumont Gas Pool, Lea County, New Mexico, to form a non-standard unit 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

****

Docket No. 5-78

DOCKET: EXAMINER HEARING - WEDNESDAY - FEBRUARY 15, 1978

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

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

ALLOWABLE: (1) Consideration of the allowable production of gas for March, 1978, from fifteen prorated pools in Lea, Eddy and Chaves Counties, New Mexico.

(2) Consideration of the allowable production of gas for March, 1978, from four prorated pools in San Juan, Rio Arriba and Sandoval Counties, New Mexico.

(3) Consideration of purchaser's nominations for the one year period beginning April 1, 1978, for both of the above areas.

Dockets Nos. 7-78 and 9-78 are tentatively set for hearing on February 22 and March 8, 1977. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - FEBRUARY 8, 1978

9 A.M. - OIL CONSERVATION COMMISSION 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 6137: Application of Amoco Production Company for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Nellis Federal Well No. 3 to be located 1980 feet from the North line and 660 feet from the West line of Section 8, Township 19 South, Range 33 East, West Tonto-Pennsylvanian Gas Pool, Lea County, New Mexico, the N/2 of said Section 8 to be dedicated to the well.

CASE 6138: Application of Amoco Production Company for a non-standard proration unit, simultaneous dedication, and an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 480-acre non-standard gas proration unit comprising the E/2 and NW/4 of Section 24, Township 20 South, Range 36 East, Eumont Gas Pool, Lea County, New Mexico, to be simultaneously dedicated to its Gillully Federal Gas Com Wells Nos. 4, 7 and 15 located in Units B, O, and E, respectively, of Section 24. Applicant also seeks approval for the unorthodox location of said Well No. 15 located 1650 feet from the North line and 990 feet from the West line of said Section 24.

CASE 6139: Application of Petro-Lewis Corporation for an unorthodox oil well location, Sandoval County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Boling Federal Well No. 8-22 to be drilled at a point 990 feet from the North line and 2160 feet from the West line of Section 22, Township 19 North, Range 3 West, Southwest Media-Entrada Oil Pool, Sandoval County, New Mexico.

CASE 6140: Application of Burleson & Huff for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests from 3,000 feet below the surface to the base of the Queen formation underlying the SE/4 NW/4 of Section 21, Township 25 South, Range 37 East, Langlie-Mattix Pool, Lea County, New Mexico, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6141: Application of Paul Slayton for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Seven Rivers formation thru the open-hole interval from 528 feet to 547 feet in his Hastie Well No. 7 located in Unit L of Section 18, Township 17 South, Range 28 East, Empire Field, Eddy County, New Mexico.

CASE 6142: Application of Atlantic Richfield Company for compulsory pooling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Dakota formation underlying the E/2 of Section 29, Township 24 North, Range 3 West, Rio Arriba County, New Mexico, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for rick involved in drilling said well.

CASE 6143: Application of Atlantic Richfield Company for compulsory pooling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Dakota formation underlying the W/2 of Section 33, Township 24 North, Range 3 West, Rio Arriba County, New Mexico, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6144: Application of Southland Royalty Company for two unorthodox locations and two non-standard gas proration units, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for two 120-acre non-standard gas proration units comprising the S/2 SE/4 of Section 10 and the SW/4 SW/4 of Section 11, and comprising the SE/4 SW/4 and the S/2 SE/4 of Section 11, all in Township 29 North, Range 11 West, Fulcher Kutz-Pictured Cliffs Pool, San Juan County, New Mexico, each of said units to be dedicated to a well drilled at an unorthodox location thereon.

CASE 6149: THE PERMIAN CORPORATION FOR AMENDMENT OF ORDER NO. R-5208, EDDY COUNTY, NEW MEXICO

Continued to April 12

Case Number

6149

Application

Transcripts.

Small Exhibits

ETC.

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 - SANTA FE
87501

DIRECTOR
JOE D. RAMEY

LAND COMMISSIONER
PHIL R. LUCERO

STATE GEOLOGIST
EMERY C. ARNOLD

October 17, 1978

Re: CASE NO. 6149
ORDER NO. R-5208-B

Mr. James E. Snead
Jones, Gallegos, Snead
& Wertheim
Attorneys at Law
215 Lincoln Avenue
Santa Fe, New Mexico 87501

Applicant:

The Permian Corporation

Dear Sir:

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

Yours very truly,

JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCC x
Artesia OCC x
Aztec OCC

Other

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

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

CASE NO. 6149
Order No. R-5208-B

APPLICATION OF THE PERMIAN
CORPORATION FOR AMENDMENT OF
ORDER NO. R-5208, EDDY COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on April 12, 1978, at Santa Fe, New Mexico, before the New Mexico Oil Conservation Commission, hereinafter referred to as the "Commission."

NOW, on this 17th day of October, 1978, the Commission, a quorum being present, having considered the testimony, the record, and being fully advised in the premises,

FINDS:

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

(2) That on April 27, 1976, Commission Order No. R-5208 was entered, which order authorized the applicant, Howard Boatright Company, to utilize its State CS Well No. 1, located in Unit L of Section 17, Township 21 South, Range 27 East, NMPM, Burton Flats Field, Eddy County, New Mexico, to dispose of produced salt water into the Delaware formation, injection to be accomplished through 2 7/8-inch tubing installed in a packer set at approximately 2975 feet, with injection into the open-hole interval from approximately 2979 feet to 3180 feet and subject to a provision that the wellhead injection pressure should not exceed 400 psi.

(3) That Howard Boatright Company, on August 18, 1976, obtained Commission Order No. R-5208-A, which order authorized an increase in the wellhead injection pressure from 400 psi to 600 psi in said State CS Well No. 1.

(4) That the applicant, The Permian Corporation, has assumed operation of said State CS Well No. 1 and now seeks the amendment of said Order No. R-5208-A to increase the maximum wellhead injection pressure above the 600 psi limitation.

(5) That the evidence presented at the hearing did not establish that fluids could be safely injected into the Delaware formation in said State CS Well No. 1 at pressures in excess of 600 psi.

(6) That the applicant was granted permission to conduct a step-rate injection test on said well subsequent to the hearing to determine the fracture pressure of the Delaware formation.

(7) That the test conducted was inconclusive as to the fracture pressure of the Delaware formation.

(8) That the test failed to establish that fluids could be safely injected into the Delaware formation in said State CS Well No. 1 at pressures in excess of 600 psi.

(9) That the application should be denied.

IT IS THEREFORE ORDERED:

(1) That the application of The Permian Corporation for Amendment of Order No. R-5208, as amended, is hereby denied.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

Phil R. Lucero

PHIL R. LUCERO, Chairman

Emery C. Arnold

EMERY C. ARNOLD, Member

Joe D. Ramey

JOE D. RAMEY, Member & Secretary

S E A L

fd/

THE PERMIAN CORPORATION
1509 W. WALL P. O. BOX 3119
MIDLAND, TEXAS 79702

915-683-4711

May 26, 1978

Mr. Joe Ramey
Director & Chief Administrative Officer
Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

Dear Joe:

We have attempted to contact you on several occasions and you have been out of your office. Enclosed is a pressure log that we ran on the State CS SWD well in Eddy County. We are having an engineer's report prepared on the result of this pressure test and we would like to keep the final disposition of our request for increased pressure allowance open until we can get the final report to you.

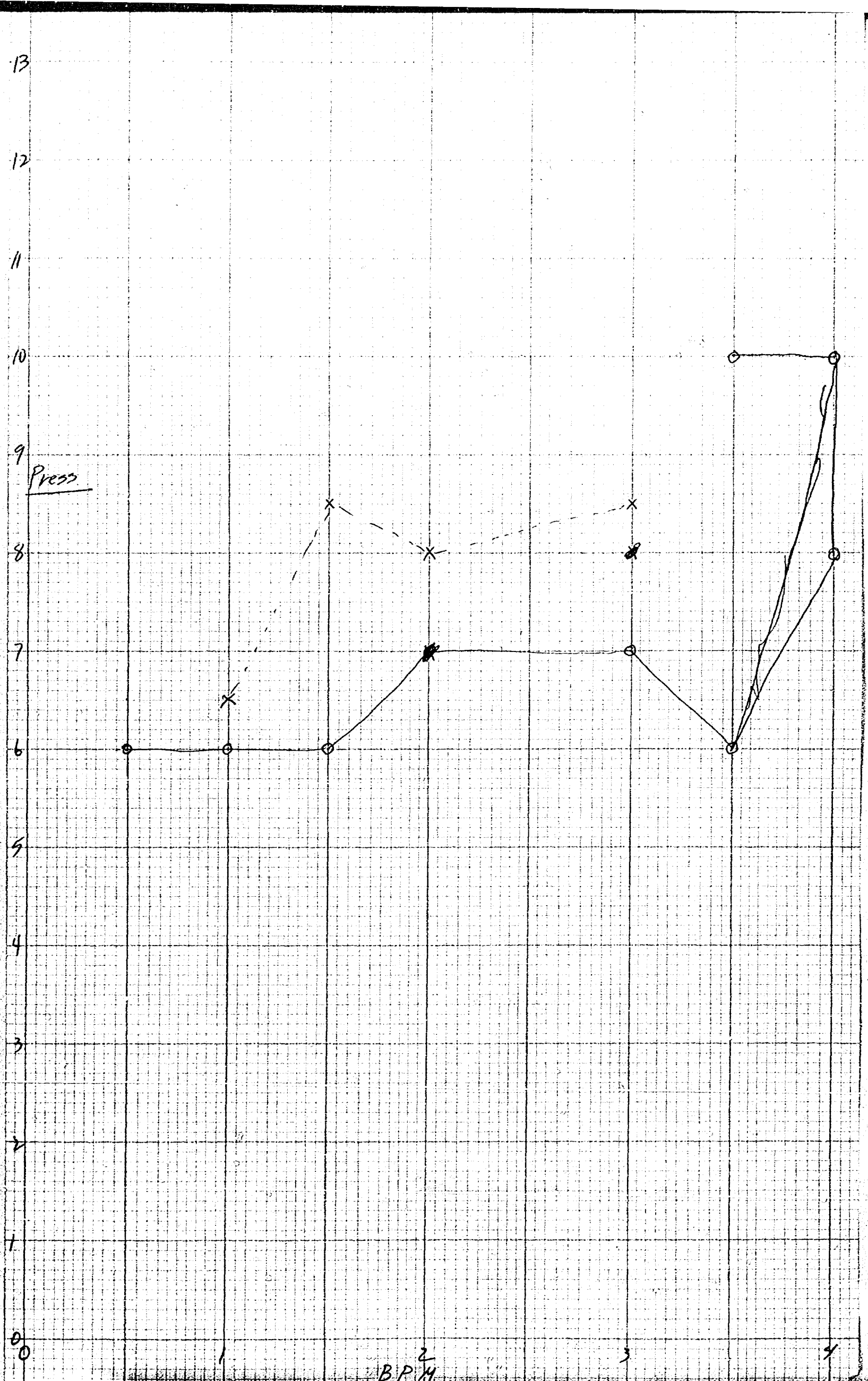
At any rate we thought we would send this to you on an interim basis and you should get the full report the later part of next week. Your assistance in this matter is appreciated.

Yours very truly,

THE PERMIAN CORPORATION

George E. Eng

gEElm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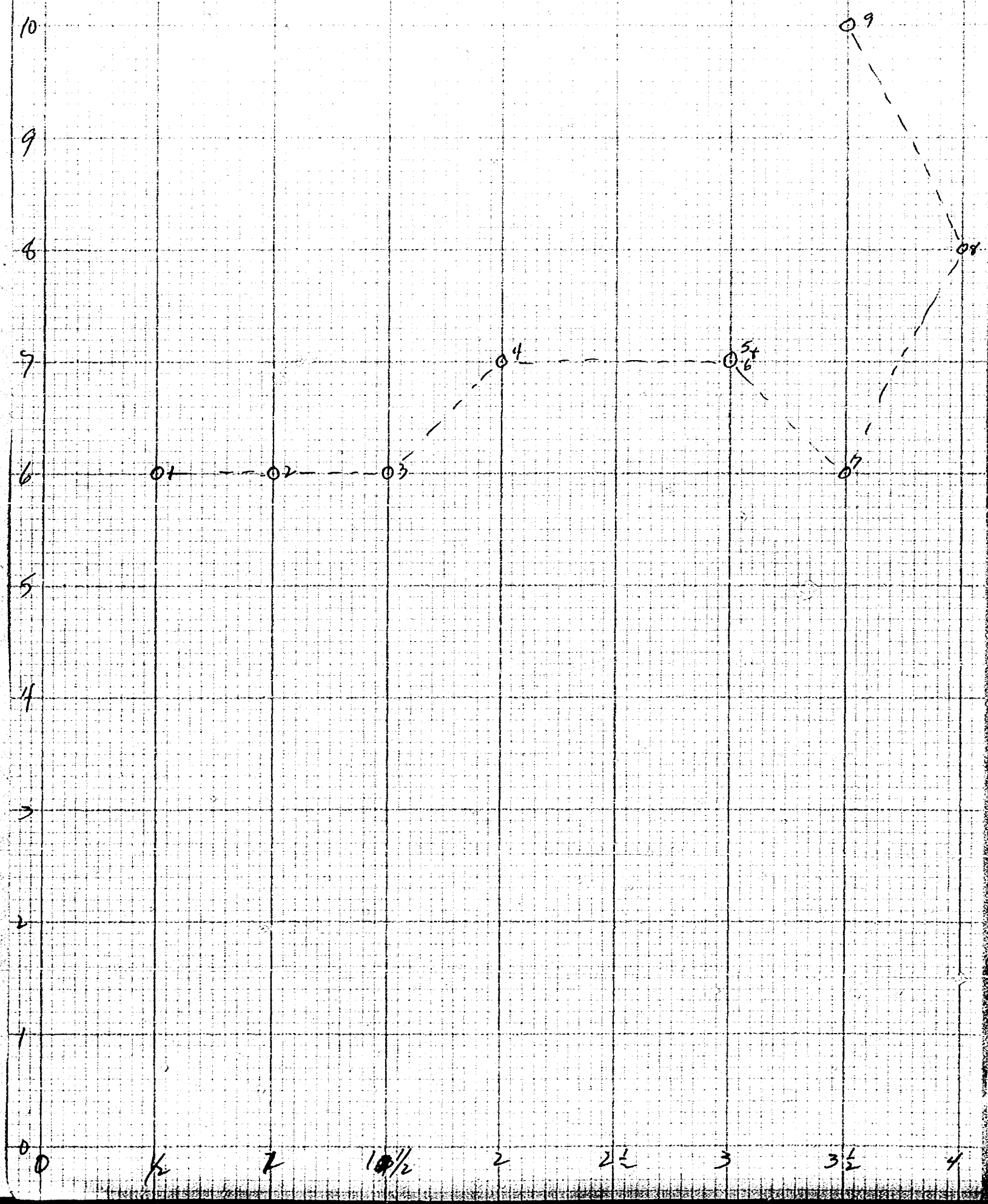
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THE PERMIAN CORPORATION
1509 W. WALL P. O. BOX 3119
MIDLAND, TEXAS 79702
915-683-4711

April 13, 1978

Mr. Joe D. Ramey
Director
Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico

Dear Mr. Ramey:

Attached is a report and resume from Mr. W. W. Griffith, the Petroleum Consultant that testified on The Permian Corporation's behalf with regard to our State CS # 1 SWD in Eddy County, New Mexico.

We believe you will find all the pertinent information sumuraized and please note copies of the acid and fracture as well as charts on the injectivity.

Should you or any one on your staff have any questions please do not hesitate to call Mr. W. W. Griffith or myself here in Midland.

We appreciate the Commission hearing our case again and all the fine courtesies that were extended to us.

Yours very truly,

THE PERMIAN CORPORATION

George E. Eng

GEElm

811 FIRST NATIONAL BANK BLDG.

WM. W. GRIFFITH
PETROLEUM CONSULTANT
MIDLAND, TEXAS 79701

(915) 682-3381

April 13, 1978

Dear George,

A summary of all of the injectivity tests is attached. You probably should make copies of the charts and send the originals to Mr. Ramey. I think that this is sufficient verification for the pressure increase. I will be glad to discuss the data with the Commission people if necessary.

W.W.G.

The Permian Corporation. State "CS" #1.

Acidize Open-hole Section 2989-3210 w/5,000 gals. 15% on 6-30-76.

2-7/8" tubing set @ 3129'.
9-5/9" casing @ 2989'.
No Packer.

Treated w/5000 gals. 15% acid down 2-7/8" tubing. Flushed down tubing. Overflushed w/300 bbls. of 10# brine down casing-tubing annulus.

Did not spot acid over open hole section - pumped in tubing load ahead of acid. There was no break or any decrease in pressure when acid reached the open hole. Treated down tubing @ 7 bpm. & 1500#.

Overflushed w/300 bbls. of 10# brine down annulus @ 12½ bpm. & 650#. ISDP was 400#.

Fraced Open-hole Section w/ 50,000 gals. jelled brine & 100,000# of 20/40 mesh sand. Flushed & overflushed w/400 bbls. 9# brine, 7-19-76.

Treated down the 9-5/8" casing -- no tubing in hole.

Treated @ 50 bpm. & 600# with frac fluid & sand. Flushed & overflushed w/400 bbls. of 9# brine @ 50 bpm. & 550#. ISDP was 400#. 10 min SIP was 350#. No breaks evident during treatment. Any change in injection pressure due to change in fluid density.

The 20 hour shut-in pressure was 200#.

Results of Injectivity Test Run The Day After Completion of Frac Operations

Injectivity Test. 7-20-76. Pumped two loads, 150 bbls. each, of 8.4# per gal. injection water down 2-7/8" tubing set in Baker Model "D" packer @ 2585'.

Test #1.

Initial well head pressure was 200#. Tubing loaded with 9# brine. Initial pump rate was 3 bpm. Final pump rate was 2½ bpm. @ 600#. Average rate was 2.6 bpm. @ 450#. ISDP was 500#. One hour shut-down pressure was 350#.

Test #2.

Pumped 150 bbls. at steady rate of 1½ bpm. Initial pressure was 400#. Final pump pressure was 550#.

The well was fraced with fluid of approximately the same density as that of Delaware formation water. The treating pressure was 600# at 50 bpm. down the 9-5/8" casing. ISDP was 400#. The 20 hr. SIP was 200#.

Within 24 hours after completion of frac operations, two injectivity tests were conducted down the 2-7/8" tubing string. These tests show that using normal injection water with a density of 8.4# per gallon, it was possible to obtain an injection rate of only 2 bpm. at 600#. Friction was not a factor at this low rate down the 2½" tubing, yet the rate was only 4% of the frac rate with the same surface injection pressure. Our conclusion is that the 600# pressure limitation is so near to the pressure required to pump into the formation that an impression of low premeability is indicated. We do not believe this to be true, however, as proved by the rate obtained on the frac. Reducing the density of the frac fluid to that of normal injection water would have increased pump pressure by only 200-300# for the 50 bpm. rate.

We do not expect any dramatic increase in injection pressure for this well for many years to come. For the present, we expect to be able to handle 30,000 bbls. of water a month with pressure in the range of 600 to 800#. A maximum pressure limitation of 1100# should be sufficient for the projected life of the well.

Test #3. This test was begun 7 minutes after Test #2. It serves as additional verification of the 600# critical pressure required for any reasonable injection rate with the 8.4# water.

Initial pump pressure was 550# at 1.5 bpm.
Increased rate to 2½ bpm. Pressure increased to 600#.
Cut rate to 2 bpm. Pressure declined to 550#.
Increased rate to 4.5 bpm. Pressure increased to 800#.
Cut rate to ½ bpm. Pressure immediately fell to 600# - then to 550# in 5 min.
Resumed rate of 1½ bpm. and pressure returned to 550# within 15 minutes.

During the 14 months that this system has been in operation, a total of 170,000 bbls. of water has been injected into the disposal well. This has been an average of 12,000 bbls. per month at 600# surface injection pressure. The attached summary shows a fairly steady rate for each month. The injection pump has a capacity of 60 gpm., and the by-pass is set at 600#. When the pressure reaches 600#, the majority of the water is circulated. Because injection pressure has been controlled in this manner from the beginning, the steady monthly injection rate would indicate an equally steady injection pressure.

INTER-COMPANY COMMUNICATION

TO George E. Eng DATE April 3, 1978

FROM Lonene Miller

SUBJECT : State CS SWD, Eddy County, New Mexico

George:

The following are figures showing amcunt of disposal water injected into the captioned lease since it began receiving disposal water:

DATE	BARRELS	
1-77	568	
2-77	10,641	
3-77	11,428	
4-77	17,362	
5-77	15, 334	
6-77	13,718	
7-77	8,092	
8-77	9,905	
9-77	10,930	
10-77	10,425	
11-77	11,469	
12-77	13,721.	
Total 77	133,593	(Average 11,132.75 bbls per mo)
1-78	13,124	
2-78	12,489	
	25,613	(Average 12,806.50 per mo.)

TRUCK NO.

LEASE

WELL NO.

KIND OF JOB

DATE

TICKET NUMBER

COMPANY

OPERATOR

1 HR.

1 HR.

1 HR.

1 HR.

1 HR. FIELD

MARTIN – DECKER COMPANY
SANTA ANA, CALIF.
MADE IN U.S.A.

CHART
200 LB. SUBDIVISIONS
PSI

V36A

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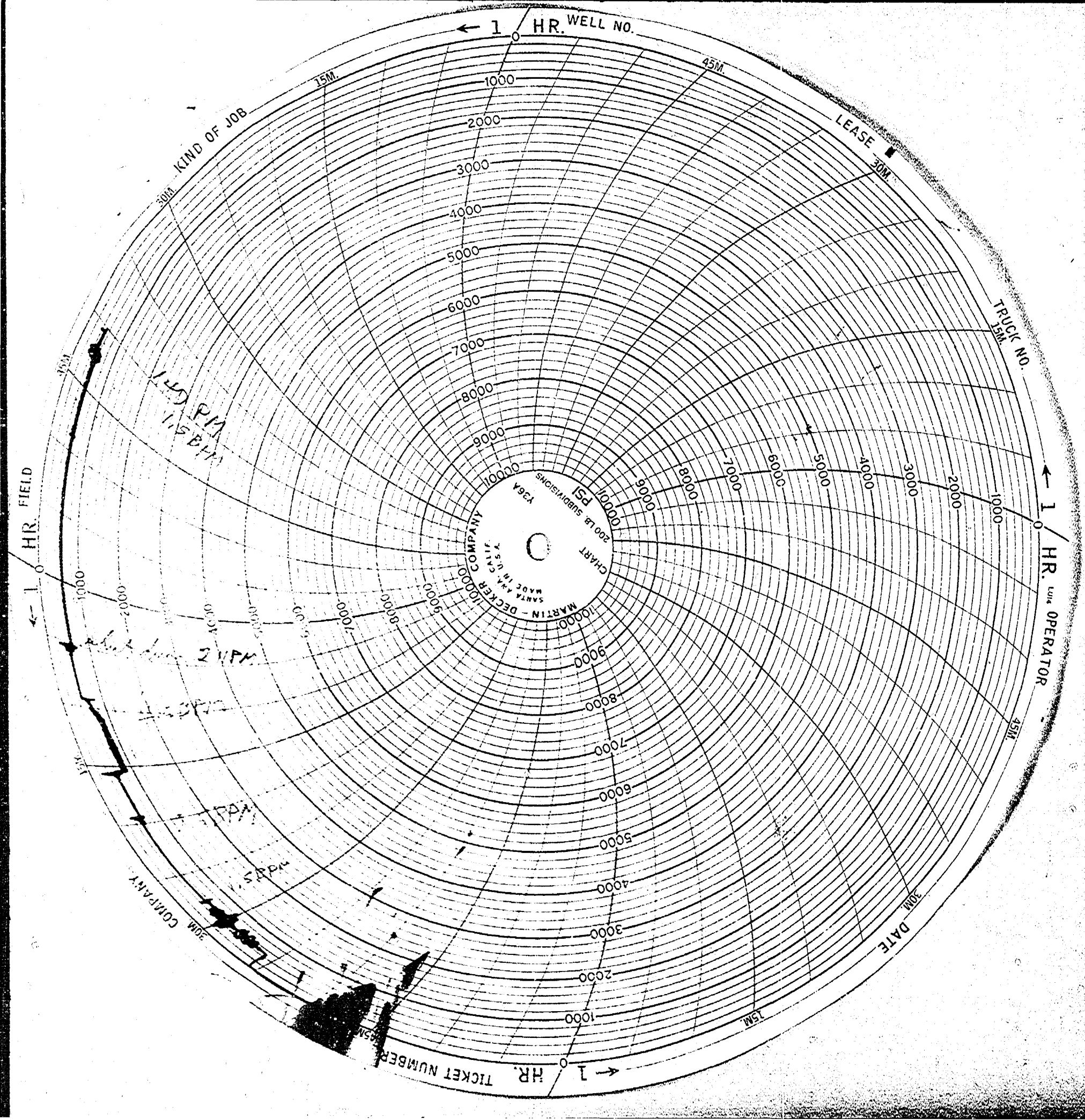
15M 30M 45M


1 HR.
WELL NO.
KIND OF JOB
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TRUCK NO.
DATE
TICKET NUMBER
HR.
OPERATOR
FIELD
COMPANY
MARTIN - DECKER COMPANY
SANTA ANA, CALIF. U.S.A.
MADE IN
CHART
200 LB. SUBDIVISIONS
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10000

Case 6149 –

James E. Sneed

W. W. Griffith Petroleum Consultant

Top inj. interval 2989

300 bbls/day @ 600#
1000 " " demand

Vertical Fracturing press @ surface
1925#

Seek 1100#

Prod. well 1/2 mile west
Yates – Not ~~cased~~ cemented over
injection zone

SDP – 400+#

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
APRIL 12, 1978

COMMISSION HEARING

IN THE MATTER OF: Application of The Permian Corporation for amendment of Order No. R-5208, Eddy County, New Mexico.	Case 6149

Before: Joe Ramey, Chairman.

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the New Mexico Oil Conservation Commission:

Joe Ramey, Chairman
Emery Arnold, Commissioner
Phil Lucero, Commissioner (absent)
Richard L. Stamets, Staff Member

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

For the Applicant, The Permian Corporation:

JONES, GALLEGOS, SNEAD & WERTHEIM, P.A.
Attorneys at Law
215 Lincoln Ave.
Santa Fe, New Mexico
By: James E. Snead, Esq.

I N D E X

	Page
1. Appearances	2
2. The Witness - W. W. GRIFFITH	
Direct Examination by Mr. Snead	5
Cross-Examination by Mr. Stamets	15
3. Reporter's Certificate	21

* * * * *

E X H I B I T S

Applicant's Exhibit No. 1, Diagrammatic sketch	7
Applicant's Exhibit No. 2, Summary	8
Applicant's Exhibit No. 3, letter of 3-29-78	10
Applicant's Exhibit Nos. 1, 2, 3 admitted	15

* * * * *

MR. RAMEY: The hearing will come to order. Call the first case on the docket.

MS. TESCHENDORF: Case 6149. Application of The Permian Corporation for amendment of Order No. R-5208, Eddy County, New Mexico.

MR. RAMEY: Ask for appearances.

MR. SNEAD: My name is James E. Snead, P. O. Box 2228, Santa Fe, New Mexico. I am an attorney licensed to practice in the State of New Mexico and I appear for the Applicant, The Permian Corporation. We will have one witness today which will be W. W. Griffith.

MR. RAMEY: Any other appearances?

(No other appearances.)

MR. SNEAD: We have previously marked three exhibits which we intend to refer to during the course of this proceeding. I would like to pass out copies to the Commission staff and one for the reporter.

W. W. GRIFFITH

the witness herein, having been duly sworn upon his oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. SNEAD:

Q Would you state your name, sir?

A My name is W. W. Griffith.

Q What is your location, Mr. Griffith, business location?

A Midland, Texas.

Q What is your business?

A Petroleum Consultant.

Q In connection with this particular application, Mr. Griffith, have you done any professional work?

A Yes, that's right.

Q What has been the nature of that work?

A Primarily completion and installation of these facilities for Permian Corporation and just to follow up of the operations of the system.

Q What is the system intended to do?

A It's a disposal well into the Delaware formation and system is designed to dispose--produce water in an area about 80 square miles around this particular disposal system.

Q That well is located in Eddy County, New Mexico?

A That's correct.

Q What is the name designation of the well,

State CS No. 1?

A State CS No. 1, yes.

Q How long have you been a consulting geologist, Mr. Griffith?

A I'm an engineer.

Q Consulting engineer?

A Yes, 21 years.

Q Can you tell us whether the type of work that you have described having done for Permian Corporation in this proceeding is within the normal scope of your regular business?

A That's correct.

Q Indeed, Mr. Griffith, you have followed this matter from the beginning, have you not?

A That's true.

Q Now we have heretofore marked a number of exhibits, Mr. Griffith, three to be exact. I wonder if you could take before you Exhibit No. 1 and tell the Commission what that is, sir?

A The Exhibit No. 1 is just a diagrammatic sketch of the well and the injection system downhole injection system.

Q Could you point out to the Commission what

the, where the area of injection is in this particular well?

A We have an open hole section from 2989 to 3180. It's completely isolated and it's the Delaware formation.

Q Can you tell us whether Permian Corporation has been injecting salt water into that well now for a period of years?

A Approximately two years.

Q So that it has accumulated some experience in injecting or disposing salt water into that well, is that right?

A Right.

Q Now take before you Exhibit No. 2 and tell the Commission what that is, sir?

A The Exhibit No. 2 is just a summary of the reservoir characteristics of the Delaware formation in this particular well and what we are trying to show here is the volume available in the well for water injections.

Q Can you tell the Commission, sir, you have given anindication of the porosity of the zone. Can you tell the Commission what the situation is with regard

to the permeability of the zone that you intend to inject salt water into?

A Well, the permeability of the Delaware formation is not excessive, that's all I can say. We don't have any real information reservoir information on it.

This well originally was acidized and then it was fraced and our shut-in surface pressure on this well is 200 pounds and it requires 400 pounds to inject any volume of water into the well at all and of course, in the initial stages of injectivity we had the benefit of the frac job. And I think at this point we have injected something in the range of 200,000 barrels in the well and our surface injection pressure now is approximately 600 pounds. And we have reached probably the limits of the permeability created by the frac job. So we're now injecting effectively into a less permeable area which is back from the well.

Q Can you tell us whether that's causing any difficulty with injecting salt water into this disposal well?

A Yes, it is. We can--

Q At the pressure now authorized?

A We can now only inject about 300 barrels

a day into the well with the 600 pound surface pressure limitation.

Q What is the demand for injection into the well?

A Thousand barrels a day.

Q Can you tell us whether the ability of Permian Corporation to inject a thousand barrels of water per day has caused them any problems, caused that corporation any problems in regard to disposing of salt water?

A Well it has. In order to satisfy the market that exist in the area of Permian Corporation finds it necessary to transport the produced water in the area a considerable distance which, of course, is costly to the operator.

Q Have you prepared, sir, a report to the Commission indicating what the vertical fracturing pressure would be in comparing that to the requested injection pressure?

A That's correct.

Q Would you take before you Exhibit No. 3 and tell us, sir, whether that is the report that has heretofore been filed with the Commission?

A Yes, that's true.

Q Was that a part of this application that resulted in this hearing today?

A Correct.

Q Just in summary, Mr. Griffith, would you tell the Commission first what the surface pressure, injection pressure that would be required to--result in vertical fracturing of the formation?

A In my opinion it would be 1925 pounds.

Q What is the injection pressure that you, in your opinion, is necessary to inject a thousand barrels of water per day into the formation?

A Well at this particular point it would be something in excess of 600 pounds. We are requesting an increase in that limitation to 1100 pounds.

Q At 600 pounds injection pressure at the present time can you inject a thousand barrels of water per day?

A No, we can only inject 300 barrels per day.

Q Can you tell us whether the 1100 pounds requested would be sufficient to enable you to inject a thousand barrels per day in the formation?

A That's correct.

Q Can you tell the Commission, Mr. Griffith,

as you continue, as the Permian Corporation continues to inject salt water into the formation whether the injection pressure requirement will increase?

A Of course it will increase but we don't have sufficient data at this point to extrapolate at what point it will reach the 1100 pounds.

Q Can you tell us where the closest producing well is located?

A The closest producing well is located one-half mile west.

Q What is the name of that well, sir?

A It's the Yates Drilling Company Avalon Federal.

Q From what zone is that particular well producing, what formation.

A From Morrow.

Q What is the depth of that production zone?

A It's approximately 11,500.

Q In previous hearings, Mr. Griffith, there has been some concern expressed regarding the, any vertical fracturing of the Delaware formation or any damage to the casing of the Yates well. Can you tell us whether during the two years that Permian Corporation has

been injecting this well, has it received any reports or any requests from Yates that the injection has caused any problem with the Yates well?

A No.

Q And can you tell us, sir, how long a period of time in your opinion would be required to fully saturate the zone involved in the present Delaware formation with salt water?

A No, it would be any number of years from this point.

Q Going back, sir, to Exhibit No. 2 I would like you to point out the last paragraph, do you have that exhibit?

A Yes.

Q And ask you whether at that time you made any predictions assuming certain injection rates and so forth, as to how long it would take to displace the water in the 40 acre unit around the injection well?

A That would take five and a half years to displace the water but that's at a rate of 40,000 barrels a month, in excess of what we expect to inject.

Q Would it be your opinion it would require in excess of five and a half years to fully displace the

water from the 40 acre unit?

A That's correct.

Q Now, sir, can you tell us whether or not in your opinion the increase of the injection pressure from 800 pounds to 1100 pounds would pose any reasonable danger of either vertical fracturing of the formation or damage to the Yates well that you have previously described?

A No reasonable threat.

Q Can you tell us whether Permian Corporation is ready, willing and able to take any preventive action the Commission might require to avoid any chance of damage to that particular formation or well?

A Yes, they are.

Q Can you tell us whether the 100 pounds injection pressure, in your opinion, necessary in order to maintain that particular well as a salt water disposal well and inject sufficient water to take care of the need?

A That's correct.

MR. SNEAD: I have no further questions. We tender the witness for cross-examination and move the admission of Exhibits 1 through 3.

MR. RAMEY: Exhibits 1 through 3 will be

admitted.

(WHEREUPON, The Permian Corporation's Exhibits Nos. 1, 2, and 3 admitted into the evidence.)

MR. RAMEY: Any questions of the witness? Mr. Stamets?

CROSS-EXAMINATION

BY MR. STAMETS:

Q Mr. Griffith, how did you arrive at this 1925 pounds that's necessary to create vertical fractures in this well?

A That's the equivalent of one pound per foot of depth, which historically is what is assumed to be required to lift the overburden.

Q Do you have any evidence specific to the Delaware formation?

A No, I do not.

Q Is it possible that the figure could be something else?

A Yes, it's possible.

Q It could be lower?

A It could be higher, it could be lower.

Q Now you indicated this well had been

fractured?

A That's correct.

Q Initially. Do you have the information relative to that original fracture treatment?

A Yes, we did.

Q Would you please tell us what the break-down pressure was and what the initial shut-in after frac was?

A Okay. The average pressure during the frac was roughly 650 pounds and the shut down pressure was a little in excess of 400 pounds on the original fracture.

Q What pressure did it take to break the formation?

A Well, actually I don't think there was a break as such. No, there wasn't a break. We just--it's the Western companies treatment chart of the frac. But formation started taking fluid 400 pounds and there was absolutely no positive break, just pumping in is all that this shows.

Q Reviewing the material there do you feel that the formation was fractured?

A Well, fracturing is a term "fracing" is a sort of catch-all. I don't think that in effect the thing

fraced, no. It doesn't indicate. We were just pumping in at a very high rate.

Q Do you feel that conducting a step rate test on this well would be more indicative of the wells true fracture pressure?

A Would you explain that to me?

Q Step rate test involves pumping in at specific pressures for uniform periods of time.

A Right.

Q Or specific volumes, saying when you get a break in the line, the slope with the line so many barrels per so many pounds of pressure?

A Right. Certainly that information has not been obtained. It possibly would be worthwhile.

Q To your knowledge would the Applicant be willing to conduct such a test if that were required in order to determine the frac pressure?

A Yes, it would be no problem.

MR. STAMETS: That's all the questions I have.

A At this point none of the indications are that we have ever seen a true fracturing of the formation.

MR. STAMETS: I have no further questions.

MR. RAMEY: Mr. Griffith, on your Exhibit 3 when you started injecting in this well did you have a full column of water in the well?

MR. GRIFFITH: Yes. As I said the well will support a full column of formation water without pressure. It's right to the surface and the well was full of Delaware water when we started.

MR. RAMEY: So any injection of additional water will, I assume, move water in the formation at various points?

MR. GRIFFITH: True, right.

MR. RAMEY: Now the Yates well, as I remember, is not cemented over the injection zone?

MR. GRIFFITH: No. The intermediate casing string is similarly set to inject string in this well so that it's set above the injection formation.

MR. RAMEY: And the cement on the oil string--

MR. GRIFFITH: Does not come up to that point.

MR. RAMEY: --does not come up to that point. So then the effect of your putting water into the Delaware at your well might have the effect of increasing

a pressure on the casing in the Yates well?

MR. GRIFFITH: At some point, yes.

MR. RAMEY: Any other questions of the witness? He may be excused. Mr. Snead, do you have anything further?

MR. SNEAD: The Applicant has nothing further, we rest at this point.

MR. RAMEY: The Commission will take the case under advisement.

MR. SNEAD: I might state to the Commission that the Applicant would be willing to conduct the step test if the Commission felt that to be necessary or desirable.

MR. RAMEY: I think I would like to have the information from the Applicant, could do this.

MR. SNEAD: Could we conduct the test and report to the Commission back on that?

MR. RAMEY: Yes.

MR. SNEAD: There is some indication that Permian may have already done that.

MR. STAMETS: It might be well when you do that let our District office in Artesia know so that they can send somebody down there to witness it.

MR. SNEAD: Thank you very much.

(WHEREUPON, the hearing was concluded.)

REPORTER'S CERTIFICATE

I, BETTY J. LANPHERE, CSR-RPR, with offices in Santa Fe, New Mexico, do hereby certify that the foregoing transcript is a complete and accurate record of said proceedings as the same were recorded by me stenographically and reduced to typewritten transcript by me or under my supervision.

DATED at Santa Fe, New Mexico, this eighteenth day of April, 1978.

Betty J. Lanphere, Court Reporter

LANPHERE REPORTING SERVICE
P.O. BOX 449
58 SOUTH FEDERAL PLACE
SANTA FE, NEW MEXICO 87501

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
February 21, 1978

COMMISSION HEARING

IN THE MATTER OF:

Application of The Permian Corporation for amendment of Order No. R-5208, Eddy County, New Mexico. CASE 6149

BEFORE: Joe D. Ramey, Secretary-Director
Emery C. Arnold, Commissioner
Phil R. Lucero, Commissioner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the New Mexico Oil Conservation Commission: Lynn Teschendorf, Esq.
Legal Counsel for the Commission
State Land Office Building
Santa Fe, New Mexico

sid morrish reporting service
General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

MR. RAMEY: The hearing will come to order. We will call the first case on the docket.

MS. TESCHENDORF: Case 6149, application of The Permian Corporation for amendment of Order No. R-5208, Eddy County, New Mexico.

MR. RAMEY: We have had a request from the applicant for a continuance to the next Commission Hearing which will be sometime in April. I don't have that date but the case will be continued to the next Commission Hearing in April.

sid morrish reporting service
General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

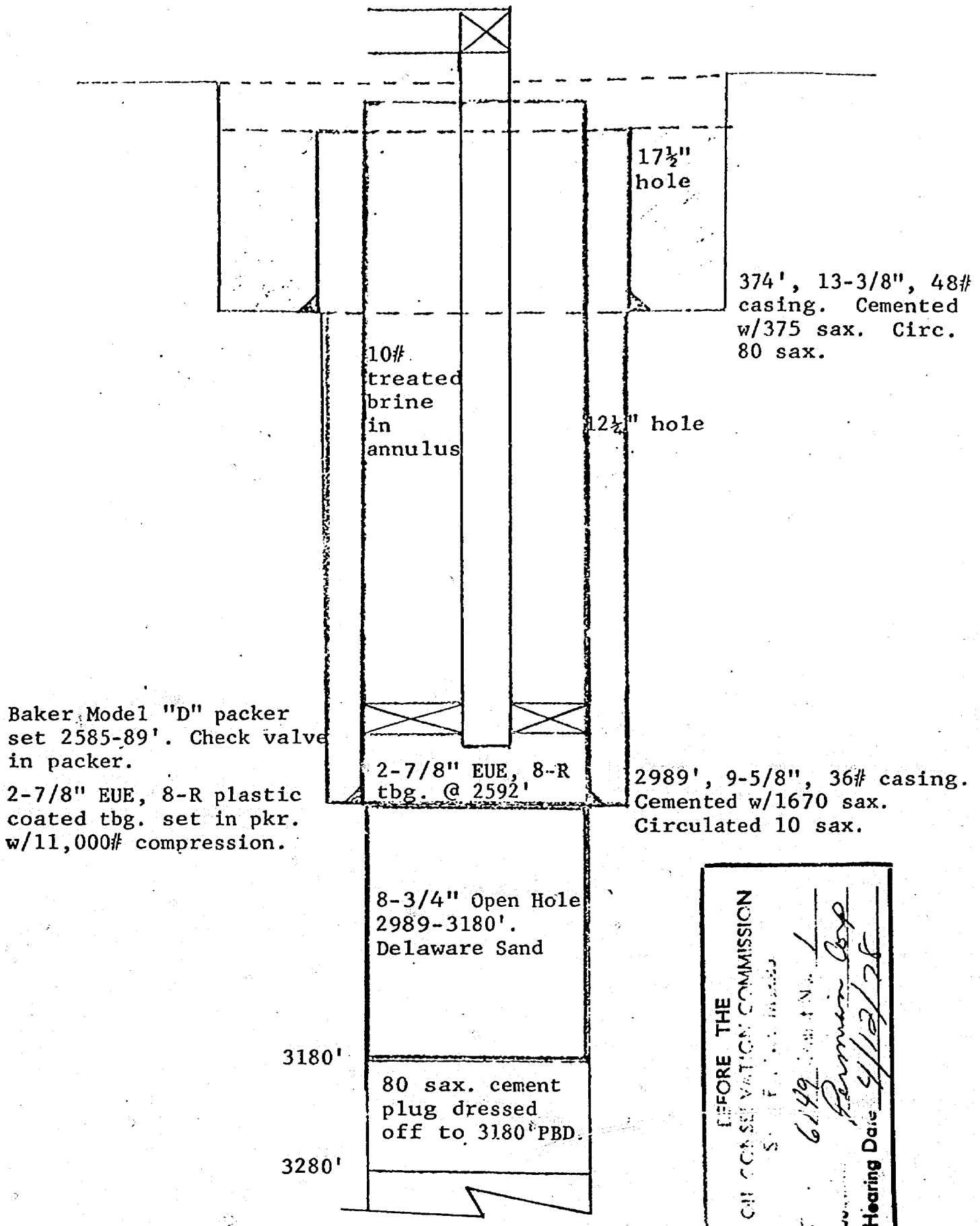
REPORTER'S CERTIFICATE

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

Sidney F. Morrish, C. S. R.

sid morrish reporting service
General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

STATE "CS" #1
CASING, TUBING & PACKER INSTALLATION FOR SWD.



BEFORE THE
OIL CONSERVATION COMMISSION
Case No. 6149
Exhibit No. 1
Hearing Date 4/12/78

State "CS" #1 - SWD Injection Zone.

Zone #1. 3018-52. 34' Net. Ave. porosity 15.5%.
#2. 3081-3104. 23' Net. Ave. porosity 17%.

43,560 cu. ft. per ac. ft.
7.481 gals. per cu. ft.
5.614 cu. ft. per 42 gal. bbl.
7758 bbls. per ac. ft.

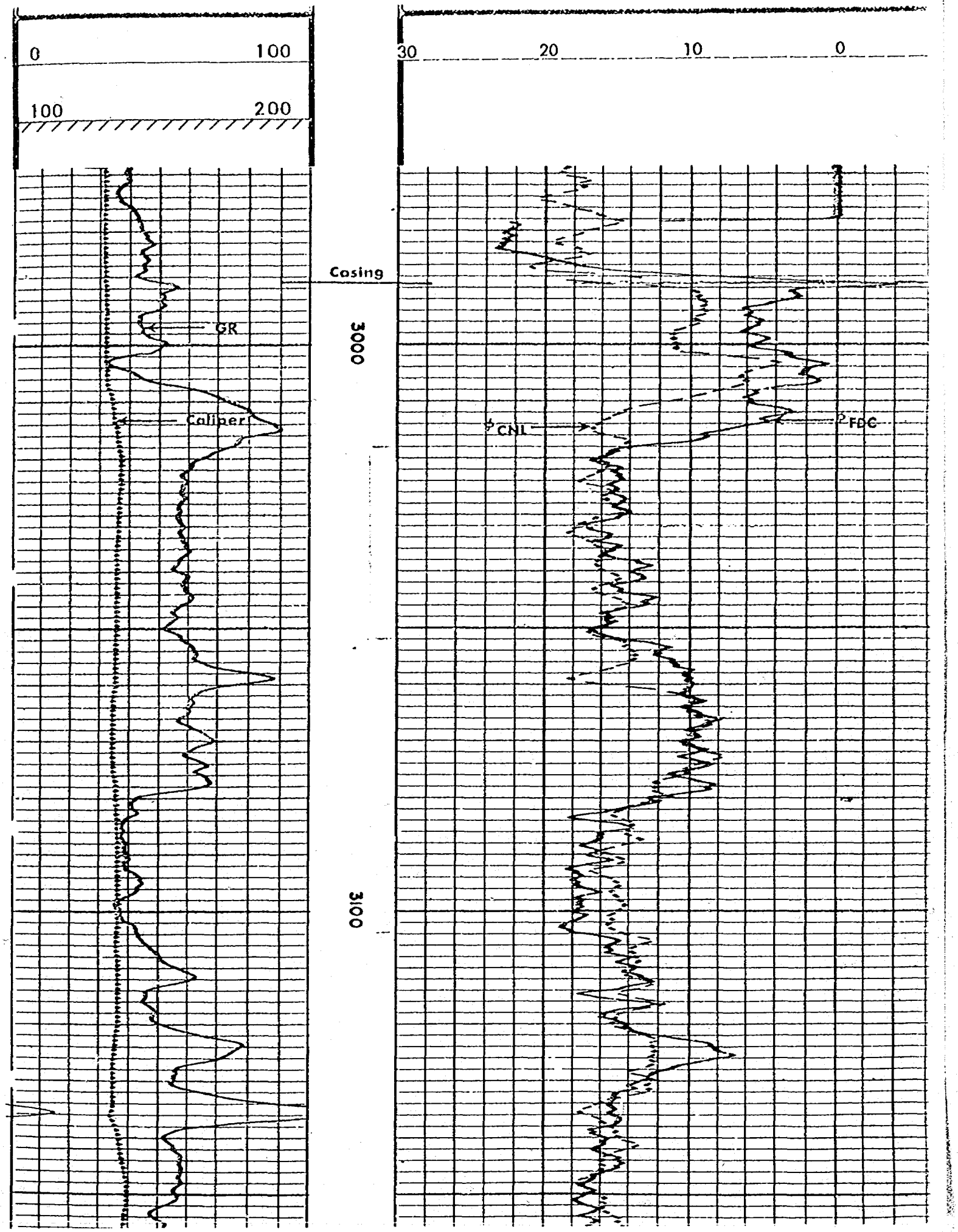
FVF = 1.05.

Zone #1. 7758 (15.5)/1.05 = 1145 bbls./ac. ft. x 34 = 38,930 bbls./ac.
Zone #2. 7758 (17.0)/1.05 = 1256 bbls./ac. ft. x 23 = 28,888 bbls./ac.

Each surface acre contains 67,818 bbls. of water in the Delaware zone from 2989-3180' plus gas in the estimated ratio of 20 cu. ft. per bbl., or 135,636 cu. ft.

Discounting the compressibility of the gas volume, and assuming that our average monthly injection rate will be 40,000 bbls. of water, it would take us 67.8 months -- 5½ years, to displace the water from a 40 acre unit around the injection well -- a distance of 660'.

BEFCRE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
Case No. 6519 Exhibit No. 2
Submitted by Pennzoil Co.
Hearing Date 4/12/78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ρFDC

811 FIRST NATIONAL BANK BLDG.

WM. W. GRIFFITH
PETROLEUM CONSULTANT
MIDLAND, TEXAS 79701

(915) 682-3381

March 29, 1978

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
Case No. 6149 Exhibit No. 3
Submitted by Permian Corp
Hearing Date 4/12/78

Mr. Joe D. Ramey, Director
Oil Conservation Commission
State of New Mexico
Santa Fe, New Mexico 87501

Re: Case No. 6149
The Permian Corporation
State CS #1, Eddy County

Dear Mr. Ramey:

The subject well is completed in the Delaware zone for use as a salt water disposal well. This facility services an area of 80 square miles with a total demand in excess of 1,000 bbls. per day.

The completion interval is in open hole from 2989-3180' -- average injection depth of 3080'. At the present time, surface injection pressure is limited to 600#. With this restriction, injectivity is only 300 bbls. per day, or less than one-third of demand.

Original bottom-hole-pressure in the zone of injection was 1355#, or 0.44 pounds per ft. of depth. This B.H.P. was sufficient to support a full column of Delaware formation water which has a chloride content of 130,000 ppm. With the hole loaded with injection water, which is less heavy -- having an average chloride content of 60,000 ppm., shut-in surface pressure was 200 pounds. Therefore, at the beginning of the operation of this disposal system, a surface pressure of 400# was required to inject at the rate of 1,000 bbls. of water per day. Under these conditions of fluid column and surface pressure, the total gradient was 0.50 pounds per ft. of depth, or one-half that required to create vertical fracturing.

In order to provide adequate service to the oil and gas producers in the area, it is requested that this gradient be increased to a top limit of 0.80 pounds per ft. of depth, which will allow a maximum surface injection pressure of 1100#. To create a vertical fracture and to divert injection water from containment in the Delaware formation would require a gradient increase above 1.00 pound per ft. of depth. This would translate into a surface injection pressure of 1925#. The request for 1100# is felt to be in line with similar disposal wells in the State of New Mexico, and will allow sufficient margin of safety to prevent fracturing outside the Delaware zone.

Very truly yours,

W. W. Griffith

811 FIRST NATIONAL BANK BLDG.

WM. W. GRIFFITH
PETROLEUM CONSULTANT
MIDLAND, TEXAS 79701

(915) 682-3381

March 29, 1978

0 3 1978

Mr. Joe D. Ramey, Director
Oil Conservation Commission
State of New Mexico
Santa Fe, New Mexico 87501

Re: Case No. 6149
The Permian Corporation
State CS #1, Eddy County

Dear Mr. Ramey:

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Very truly yours,

W. W. Griffith

CASE 6197: Application of Amerada Hess Corporation for a non-standard gas proration unit, an unorthodox location and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 320-acre non-standard gas proration unit comprising the N/2 of Section 36, Township 23 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico, to be simultaneously dedicated to its State LMT Well No. 5 at an unorthodox location in Unit A of said Section 36 and its Well No. 2 in Unit F.

CASE 6170: (Continued from March 22, 1978, Examiner Hearing)

Application of Aminoil USA, Inc., for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for its Westlake Unit Area comprising 1920 acres, more or less, of State lands in Township 24 South, Range 33 East, Lea County, New Mexico.

CASE 6189: (Continued from March 22, 1978, Examiner Hearing)

Application of Merrion & Bayless for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle Pictured Cliffs and Mesaverde production in the wellbore of its North Lindrith Com Well No. 2, to be drilled in the NW/4 of Section 20, Township 26 North, Range 2 West, Rio Arriba County, New Mexico.

CASE 6137: (Continued from March 22, 1978, Examiner Hearing)

Application of Amoco Production Company for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Nellis Federal Well No. 3 to be located 1980 feet from the North line and 660 feet from the West line of Section 8, Township 19 South, Range 33 East, West Tonto-Pennsylvanian Gas Pool, Lea County, New Mexico, the N/2 of said Section 8 to be dedicated to the well.

****

Docket No. 13-78

DOCKET: COMMISSION HEARING - WEDNESDAY - APRIL 12, 1978

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

CASE 6149: (Continued from February 21, 1978, Commission Hearing)

Application of The Permian Corporation for amendment of Order No. R-5208, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-5208 which, as amended by R-5208-A, authorizes salt water disposal into the Delaware formation through applicant's State CS Well No. 1 located in Unit L of Section 17, Township 21 South, Range 27 East, Eddy County, New Mexico, with a maximum wellhead surface pressure of 600 psi. Applicant seeks to have the aforesaid pressure limitation increased or removed.

CASE 6077: (Continued from February 23, 1978, Commission Hearing)

Application of Bass Enterprises Production Company for a drilling permit in the Potash-Oil Area, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill its Big Eddy Unit Well No. 52 and its Rodke Federal Well No. 3 located, respectively, in Units I and F of Section 27, Township 20 South, Range 31 East, Eddy County, New Mexico, said location being within the boundaries of the Potash-Oil Area as defined by Commission Order No. R-111-A and having been objected to by the owners of potash leases in the area.

Dockets Nos. 14-78 and 15-78 are tentatively set for hearing on April 19 and May 3, 1978. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - APRIL 5, 1978

9 A.M. - OIL CONSERVATION COMMISSION 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 6190: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Peter Siemens, Fidelity & Casualty Co. of New York, and all other interested parties to appear and show cause why the Wright Well No. 1 located in Unit F of Section 12, Township 10 North, Range 5 East, Bernalillo County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6191: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Daryl Davis and all other interested parties to appear and show cause why the State Well No. 1 located in Unit K of Section 1, Township 4 South, Range 26 East, Chaves County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6177: (Continued & Readvertised)

Application of Texas International Corporation for directional drilling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the directional drilling of a proposed gas well, the surface location of which would be 1650 feet from the South line and 1800 feet from the East line of Section 29, Township 20 South, Range 30 East, Eddy County, New Mexico, in such a manner as to penetrate the Strawn formation within 100 feet of a point 1980 feet from the North line and 1985 feet from the West line of said Section 29, and to bottom said well in the Morrow formation within 100 feet of a point 1501 feet from the North line and 1552 feet from the West line of said Section 29. The N/2 of the section would be dedicated to the Strawn formation, Golden Lane-Strawn Gas Pool, and all of Section 29 would be dedicated to the Morrow formation, Dos Hermanos-Morrow Gas Pool.

CASE 6192: Application of Yates Petroleum Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Federal "DC" Well No. 1 to be located 1980 feet from the South line and 660 feet from the West line of Section 29, Township 20 South, Range 28 East, Eddy County, New Mexico, the S/2 of said Section 29 to be dedicated to the well.

CASE 6193: Application of Zia Energy, Inc., for an unorthodox gas well location and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Elliott Federal Well No. 1 located 2310 feet from the South line and 330 feet from the East line of Section 26, Township 20 South, Range 36 East, Eumont Gas Pool, Lea County, New Mexico, the N/2 SE/4 and W/2 NE/4 of said Section 26 to be simultaneously dedicated to the aforesaid well and to Well No. 2 in Unit J.

CASE 6194: Application of Tenneco Oil Company for an unorthodox location, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Jicarilla "A" Well No. 10 to be located 1190 feet from the South line and 1590 feet from the East line of Section 18, Township 26 North, Range 5 West, Tapacito-Gallup Associated Pool, Rio Arriba County, New Mexico, the SE/4 of said Section 18 to be dedicated to the well.

CASE 6195: Application of Tenneco Oil Company for an unorthodox location, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Jicarilla "A" Well No. 9 to be located 1850 feet from the North line and 1450 feet from the West line of Section 20, Township 26 North, Range 5 West, Tapacito-Gallup Associated Pool, Rio Arriba County, New Mexico, the NW/4 of said Section 20 to be dedicated to the well.

CASE 6196: Application of Sun Oil Company for an unorthodox gas well location and a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 280-acre non-standard gas proration unit comprising the NE/4, W/2 NW/4 and the SE/4 NW/4 of Section 24, Township 20 South, Range 33 East, to be dedicated to applicant's Teas Federal Well No. 1, a wild-cat Pennsylvanian well to be drilled at an unorthodox location 2180 feet from the North and West lines of said Section 24.

THE PERMIAN CORPORATION
1509 W. WALL P. O. BOX 3119
MIDLAND, TEXAS 79701
915-683-4711

- 1 1978
CONSERVATION COMM.
Santa Fe

February 13, 1978

Mr. Joe Ramey
Director
New Mexico Conservation Commission
Santa Fe, New Mexico 87501

Dear Mr. Ramey:

We received notice today of our hearing to be on the Docket for Tuesday February 21, 1978. With the Commission's permission we would like to request that this Case No. 6149 be continued until the March 8 hearing. This would give us additional time to develope more data and be better prepared for this hearing. We would certainly appreciate anything you could do for us in this matter and will be waiting to hear from you at your convenience.

Yours very truly,

THE PERMIAN CORPORATION

George E. Eng

GEElm

Cont. to April 12th

Docket No. 6-78

Dockets Nos. 9-78 and 11-78 are tentatively set for hearing on March 8 and March 22, 1978. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: COMMISSION HEARING - TUESDAY - FEBRUARY 21, 1978

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

CASE 6149: Application of The Permian Corporation for amendment of Order No. R-5208, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-5208 which, as amended by R-5208-A, authorizes salt water disposal into the Delaware formation thru applicant's State CS Well No. 1 located in Unit L of Section 17, Township 21 South, Range 27 East, Eddy County, New Mexico, with a maximum wellhead surface pressure of 600 psi. Applicant seeks to have the aforesaid pressure limitation increased or removed.

CASE 6069 and 6070: (Rehearing)

Application of Atlantic Richfield Company for two statutory unitizations, Lea County, New Mexico. Upon application of Texaco Inc., there will be a rehearing of Cases Nos. 6069 and 6070, Orders Nos. R-5593 and R-5594. These cases involve statutory unitization of the East Blinebry and East Drinkard Unit Area in Township 21 South, Range 37 East, Lea County, New Mexico. Pursuant to Commission Order No. R-5593-B and R-5594-B, evidence at said rehearing shall be limited to evidence relating to the unitization of the following tract in said unit areas:

Tract No. 13 comprising the SW/4 of Section 14, Township 21 South, Range 37 East.

CASE 5998, 6000, 6069, and 6070: (Rehearing)

Application of Atlantic Richfield Company for two statutory unitizations and two waterflood projects, Lea County, New Mexico. Upon application of J. R. Cone and Summit Energy Inc., there will be a rehearing of Cases Nos. 5998, 6000, 6069, and 6070, Orders Nos. R-5592, R-5591, R-5593, and R-5594. These cases involve statutory unitization of the East Blinebry and East Drinkard Unit Areas in Township 21 South, Range 37 East, Lea County, New Mexico, and waterflood operations thereon. Pursuant to Commission Order No. R-5592-A, R-5591-A, R-5593-A, and R-5594-A, evidence at said rehearing shall be limited to evidence relating to unitization of and waterflood operations on the following tracts in said unit areas:

Tract No. 13 comprising the SW/4 of Section 14 and Tract No. 15 comprising the N/2 NW/4 and NW/4 NE/4 of Section 13 all in Township 21 South, Range 37 East.

****

Docket No. 8-78

DOCKET: COMMISSION HEARING - THURSDAY - FEBRUARY 23, 1978

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

CASE 6077: (Continued from November 9, 1977, Examiner Hearing)

Application of Bass Enterprises Production Company for a drilling permit in the Potash-Oil Area, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill its Big Eddy Unit Well No. 52 and its Rodke Federal Well No. 3 located, respectively, in Units I and F of Section 27, Township 20 South, Range 31 East, Eddy County, New Mexico, said location being within the boundaries of the Potash-Oil Area as defined by Commission Order No. R-111-A and having been objected to by the owners of potash leases in the area.

Case 6149

THE PERMIAN CORPORATION
1509 W. WALL P. O. BOX 3119
MIDLAND, TEXAS 79701
915-683-4711

January 17, 1978

Commission Hearing 2/21

Mr. Joe D. Ramey
Chief Administrative Officer
Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

Dear Mr. Ramey:

As you know, The Permian Corporation operates a Salt Water Disposal facility north of Carlsbad in Eddy County, New Mexico. The present limitations that have been set on this disposal facility limits the amount of disposal water that we can effectively inject into this well. We are interested in finding out what steps are presently necessary to have another hearing with the Commission in hopes that we can prove we should be allowed some relief as far as injection pressures are concerned without damaging any other wells or anyone else's properties in the area.

Your assistance in arranging such a hearing would certainly be appreciated.

Yours very truly,

THE PERMIAN CORPORATION

George E. Eng

GEElm

Case 6149
Order R-5208-B

APPLICATION OF THE PERMIAN CORPORATION FOR AMENDMENT OF ORDER NO. R-5208, EDDY COUNTY, NEW MEXICO.

ORDER OF TH COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9~~00~~ a.m. on April 12, 1978, at Santa Fe, New Mexico, before the New Mexico Oil Conservation Commission, hereinafter referred to as the "Commission."

Now on this ___ day of October, 19~~7~~8 The Commission, a quorum being present, having considered the testimony, the record, & being fully advised in the premises,

FINDS

having been given

(1) That due public notice as required by law, the Commission has jurisdiction of this cause & the subject matter there of.

(2) That ~~the applicant~~ Howard Boatright Company, was entered on April 27, 1976, ~~obtained~~ Commission Order No. R-5208, which order authorized ~~applicant~~ to utilize its State CS Well No. 1, located in Unit L of Section 17, Township 21 South, Range 27 East, NMPM, Burton Flats Field, Eddy County, New Mexico, to dispose of produced salt water into the Delaware formation, injection to be accomplished through 2 7/8-inch tubing installed in a packer set at approximately 2975 feet, with injection into the open-hole interval from approximately 2979 feet to 3180 feet and subject to ~~the~~ a provision that the wellhead injection pressure ~~shall~~ not exceed 400 psi.

(3) That Howard Boatright Company, on August 18, 1976, obtained Commission Order No. ~~R~~-5208-A, which order authorized an increase in the wellhead injection pressure from 400psi to 600 psi in said State CS well No. 1.

(4) That ~~the applicant~~ The Permian Corporation, ~~has assumed operation of said State CS, well No. 1 and now~~ seeks the amendment of said order No R-5208-A to increase the maximum wellhead injection pressure above ~~the from~~ 600 psi ~~to a higher pressure~~ limitation.

(5) That the ~~applicant, The Permian Corporation, failed to~~ evidence presented at the hearing ~~failed~~ did not establish ~~to prove~~ that ~~injection pressure~~ fluids ~~will be safely~~ injected into the Delaware formation in said State CS well No. 1 ~~No. 1 would be contained in the injection formation at a higher~~ at ~~injection~~ pressures ~~without~~ in excess of 600 psi.

(6) That the applicant ~~requested~~ was granted permission to conduct a step-rate injection test on said well subsequent to the hearing to determine the fracture pressure of the Delaware formation.

(7) That the test conducted was inconclusive as to ~~fracture~~ the fracture pressure of the Delaware formation.

(8) That the test failed to establish that fluids could be safely injected into the Delaware formation in said State CS Well at pressures in excess of 600 psi.

(9) That the application should be denied.

IT IS THEREFORE ORDERED:

(1) That the application ~~is denied~~

(2) Juris.

of The Permian Corporation for Amendment of Order No. R-5208, as amended, is hereby denied

CASE 6150: OCC TO CONSIDER THE AMENDMENT OF RULES 311, 312, 1117, AND 1118 AND REVISION OF FORMS C-117-A and C-117-B

Case Number

6/50

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

December 22, 1982

Mr. Don Maddox
Attorney at Law
Broadmoor Building
Hobbs, New Mexico 88240

Re: CASE NO. 6150
ORDER NO. R-7161

Applicant:

OCD

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 x

Other _____

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

CASE NO. 6150
Order No. R-7161

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION ON ITS OWN MOTION TO CONSIDER THE AMENDMENT OF RULES 311, 312, 1117, AND 1118 OF THE RULES AND REGULATIONS, AND FOR THE REVISION OF FORMS C-117-A AND C-117-B.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on February 22, 1978, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 22nd day of December, 1982, 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 Case No. 6150 should be dismissed.

IT IS THEREFORE ORDERED:

(1) That Case No. 6150 is hereby dismissed.

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
fd/

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General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
22 February 1978

EXAMINER HEARING

IN THE MATTER OF:

The hearing called by the Oil Conservation Commission on its own motion to consider the amendment of Rules 311, 312, 1117, and 1118 of the Commission Rules and the revision of Forms C-117-A and C-117-B, all for the purpose of regulating the handling and reporting of tank bottoms, sediment oil, miscellaneous hydrocarbons, and the operation of treating plants.

CASE 6150

BEFORE: Daniel S. Nutter

Hearing Register in this Transcript

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Commission:

Lynn Teschendorf, Esq.
Legal Counsel for the Commission
State Land Office Building
Santa Fe, New Mexico 87501

For the Petro-Thermo Corporation:

Don Maddox, Esq.
MADDOX, MADDOX & COX
P. O. BOX 2508
Hobbs, New Mexico 88240

Case 6150

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE, NEW MEXICO

Hearing Date FEBRUARY 22, 1978 TIME: 9:00 A.M.

NAME	REPRESENTING	LOCATION
A R Kendrick	aec	Aztec
Jerome Daniel	Bass Enterprises Production Co.	Midland, Texas
William F. Carr	Carton, Carton & Sanders	Santa Fe.
Wes Hayworth	Texaco, Inc.	Hobbs
Cecil Strawn	Shamrock Field & Lease	Eunice
A D Ritchard	Ann Reed Oil Co	Hobbs
Les Clements	N.M.O.C.C.	Hobbs.
JEFF SHRADER	GULF OIL CORP	MIDLAND, TX
TERRY I. CROSS	Gulf Oil Corp	MIDLAND, TX
C.D. Stenberg	Gulf Oil Corp.	Midland, Tx
L.O. Van Ryan	Southland Royalty Co.	Farmington, NM
R. M. Richardson	Read & Stern, Inc.	Roswell, N.M.
C.F. KALTEYER	GULF OIL CORP	Midland Tx
John J. Strojek	Odessa Natural Corp.	Odessa, Texas
W.C Abbott	PETRO-THERMO Corp	Hobbs
Ewell N. Walker	Odessa Natural Corp	Farmington NM
S. H. Rowland	Bass Enterprises	Midland, Tx
E. L. Wallace	Bass Enterprises	Midland, Tx
L. J. Gow	Atlantic Richfield	Denver, Co.

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE, NEW MEXICO

Hearing Date FEBRUARY 22, 1978 TIME: 9:00 A.M.

NAME	REPRESENTING	LOCATION
LINDA MASSEY	ATLANTIC RICHFIELD CO.	DENVER, COLO.
DON MADDOX	~~EL~~ PETRO HERMO	HOBBS NM
V. T. LYON	CONOCO	HOBBS
Lowell B. Deckert	"	"
Jan M. Jennings	Jennings Phirk & Copple	Roswell
H. R. Reinbuch	El Paso Natural Gas Co	El Paso TX
Owen Hopper	Montgomery Law Firm	Santa Fe
Bill Burt	Shell Oil	Houston
A.L. Bingham	Shell Oil	Houston
James Hall	Shell Oil	Midland
Max Rombach Jr.	SHELL OIL	HOUSTON
Mary O'Neill	NMOGA	Santa Fe
Robert Dalcher	Superior Energy	Dallas
Bobby Kelly	Texaco Inc.	SF
Paul Eaton	Hanble Jenin	Roswell
W McGILLWRY	Ind. OIL + GAS	FARMINGTON
W Thomas Kellahin	Kellahin & Fox	Santa Fe
O.H. Bunney	Self	Midland

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I N D E X

The Witness, Richard L. Stamets

Direct Examination by Ms. Teschendorf 4

The Witness, Les Clements

Direct Examination by Ms. Teschendorf 8

Cross Examination by Mr. Maddox 11

The Witness, Jerry Sexton

Direct Examination by Ms. Teschendorf 14

Cross Examination by Mr. Nutter 18

Cross Examination by Mr. Maddox 20

Cross Examination by Mr. Ramey 21

The Witness, Richard L. Stamets, recalled

Direct Examination by Ms. Teschendorf 23

Cross Examination by Mr. Maddox 34

Cross Examination by Mr. Ramey 40

The Witness, W. G. Abbott

Direct Examination by Mr. Maddox 46

Cross Examination by Mr. Nutter 58

Cross Examination by Mr. Sexton 62

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MR. NUTTER: Call Case 6150 now, which is the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the amendment of Rules 311, 312, 1117, and 1118, of Commission Rules and Regulations and the revision of Forms C-117-A and C-117-B, all for the purpose of regulating the handling and reporting of tank bottoms, sediment oil, miscellaneous hydrocarbons, and the operation of treating plants.

I'll call for appearances at this time.

MS. TESCHENDORF: Lynn Teschendorf, appearing on behalf of the Commission. I have three witnesses.

MR. NUTTER: Would your witnesses stand and be sworn, please?

MR. MADDOX: Don Maddox, Maddow, Maddox, and Cox, Hobbs, New Mexico, appearing on behalf of Petro-Thermo Corporation; one witness, William G. Abbott.

MR. NUTTER: Any other?

(Witnesses sworn.)

MR. NUTTER: Ms. Teschendorf, would you proceed?

MS. TESCHENDORF: I'd like to call my first witness, Mr. R. L. Stamets, and if it's all right with the Examiner, I would like to split his testimony in half and put on half and call the other two witnesses and then have him put on the rest.

MR. NUTTER: That will be fine.

RICHARD L. STAMETS

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

DIRECT EXAMINATION

BY MS. TESCHENDORF:

Q. Would you state your name and place of employment and capacity?

A. I'm R. L. Stamets, Technical Support Chief of the Oil Conservation Commission in Santa Fe, New Mexico.

Q. And have you testified before the Commission previously and had your credentials made a matter of record?

A. I have.

Q. Are you familiar with Case 6150?

A. I am.

MS. TESCHENDORF: Is the witness considered qualified?

MR. NUTTER: Yes, he's qualified.

Q. Mr. Stamets, would you give the background behind this case, please?

A. Yes. The Commission first adopted rules con-

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cerning sediment oil in 1948 and over the years sediment oil seems to have been a problem in many ways. Oftentimes we've had treating plant operators come in either personally or before the Commission to try and make it easier for them to collect sediment oil. We've had operators, on the other hand, being quite concerned about such ease because of the potential loss of good oil during a cleaning operation. The bookkeeping hassle, accounting for such sediment oil, paying taxes and royalties, et cetera, on the recovery oil, and this oil, of course, doesn't bring them as much money as good oil does; also, elimination of pits at many leases resulting from an over-zealous response to our no pit order in southeast, Order R-3221, has resulted in some leases having no place to put tank bottoms on the lease, and it's my understanding that what often happens is that a company will come in and clean a tank and just have to haul the bottoms off, without any paperwork being filed.

For whatever reason, industry personnel have been somewhat reluctant to sign the current Form C-117-B we have, the sediment oil recovery permit.

Q. What problems have resulted from this situation?

A. Well, tank bottoms are found being dumped at the Loco Hills and Artesia city dumps; the pollution control Lea County facility; have been found in caliche pits;

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dumped along the road in ditches.

Q. What's wrong with that?

A. Well, besides being a potential pollution problem, the good oil in the sediment oil that's dumped like that, can be wasted, and of course, the Commission is required by rules and regulations to prevent waste of oil, and I think our national hydrocarbon shortage calls for saving all possible oil that we can.

Q. Has the Commission taken any recognition of the problem?

A. Yes. This is a situation that I think all the staff has recognized for a number of years and we've worked with it from time to time informally and together, trying to come up with some solution of the problem, and the proposal that we have here today is one that was formulated back in February, 1975.

Since that time we have circulated drafts of the proposal to our district offices and to interested parties. We had a meeting with industry people in Hobbs in September of 1977, and as a result of that meeting we incorporated some changes in our proposal, including consolidating the tank cleaning, transportation, and disposal permit into a single form, and incorporating a provision for emergency movement of what we propose to call miscellaneous hydrocarbons.

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Q. What else has occurred recently that has triggered calling for this hearing?

A. Of course, we've been moderately busy this last year and this had kind of gotten on the back burner, and I received a call from a district supervisor in late January, saying that he thought it was time we ought to do something with it.

So we did include our proposal with the February 8th docket, which was distributed to everyone on our docket list, and advertised it for this hearing today; with only some very minor changes that is what we will propose today.

However, before we actually get to the propossal of regulations and the forms themselves, I think perhaps we ought to have some testimony as to what is actually occurring in the field with our current rules and regulations.

MS TESCHENDORF: If it please the Examiner, I'd like to call my second witness at this time, and Mr. Stamets will be available for cross examination at the close of his own testimony.

MR. NUTTER: Mr. Stamets is excused from the stand at this time to be recalled later.

MS. TESCHENDORF: I'll call Mr. Les Clements, please.

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LES CLEMENTS

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

DIRECT EXAMINATION

BY MS. TESCHENDORF:

Q. Mr. Clements, would you state your name and place of employment for the record, please?

A. Yes. I'm Leslie A. Clements, and I'm Deputy Oil and Gas Inspector, District One, Hobbs, New Mexico.

Q. And have you testified before the Commission?

A. Yes, I have.

Q. And your credentials are a matter of record?

A. Yes, ma'am.

Q. And are you familiar with the subject matter of this case?

A. Yes, ma'am.

MS. TESCHENDORF: Is the witness considered qualified?

MR. NUTTER: Yes, he is.

Q. Mr. Clements, what has been your experience in the field concerning the movement of tank bottoms and sediment oil?

A. Well, under the present rules, and this is

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from past experience in the field only, it is an impossibility to keep track of movements of bottoms or sediment oil for the particular reason that if you stop and question, and I want to make this clear, some drivers of some haulers, not all in each case, the stock answer seems to be that I just work for these people and they told me, meaning the company, that they work for, whoever they're employed by, and also the producer whom they're hauling for, to come and get it and to get rid of it, and if I didn't want to do it we'll find somebody else.

And it's just -- it's just impossible to keep track of this type of situation in the field.

Q. What about the producers themselves?

A. Well, this is another thing. You can go to the producer, you visit with him on the same truck, and you say -- ask him about his paperwork. He says, well now, look, we don't have time here in the field, and this type paperwork is usually initiated on the lower level of the field personnel. I'm talking about foremen. It's not usually started in any district office or higher up.

And they say we can't fool with the thing because if we start turning in this kind of stuff the district office or Midland or Houston or some other abstract place, will jump all over us about this kind of paperwork. And just for a few barrels of sediment oil, it's just not worth

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fooling with.

Q. How do the trucks in the field operate in picking up these tank bottoms?

A. This is a problem because some operators will have a small volume of oil in several different places and they send someone out to pick up the oil, and a small amount picked up at a certain amount here, and a field out over here at another place, a pit is sumped out, there's no way of knowing what is to be charged back to any particular battery or lease, in some cases.

And in the area of Hobbs, Eunice, and Jal alone, there's over twenty-five people that are equipped to haul bottoms of some sort, or hydrocarbon products. From roustabout services that's just got an old broken down bobtail truck to people who are in the reclamation business that has very nice vacuum trucks and these things.

So it's just an impossibility with the personnel problems to keep track of this; there's no way.

Q. In your experience, what usually happens to the tank bottoms after the trucks pick them up?

A. Well, there are many cases where these bottoms are -- or this sediment oil, has been hauled to other operators' pits. I've had them to call me and say somebody done it again to us last night; they come by and throwed their hose over in our pit and it's running over full of these

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bottoms. Or they hauled it off to closed disposal systems that belongs to private companies; they're not supposed to do this, and this presents a problem. They're scattered throughout the oil field, and there are many caliche pits -- or many, not all of them, many caliche pits that they're just throwed into and left.

As Mr. Stamets pointed out, beside a road, and then on earth, operators' roads, and it's easy to pick it up from Company X and then run over and dump it on Company Y's road and let him worry about it.

Q. Do you have anything further you wish to offer?

A. No.

MS. TESCHENDORF: That's all I have of this witness.

MR. NUTTER: Are there any questions of this witness?

MR. MADDOX: Yes, I'd like to ask a few questions, if I could.

MR. NUTTER: Mr. Maddox.

CROSS EXAMINATION

BY MR. MADDOX:

Q. Now evidently you're primarily concerned with the abuses that have taken place?

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A. True.

Q. Now what do you think about these new proposal forms that will correct those abuses?

A. Well, I feel -- I feel that this way, it's likes some other rules that we have adapted in the past, that what it may not stop some of it, if you find someone who is doing this, then he done it deliberately, and this is going to be a lever to stop.

Q. The form is not going to stop him from doing it, is it?

A. No, but if we catch him and he's, as I pointed out, I feel like he would have deliberately circumvented the order.

Q. Well, now, in the existing order, though, all of the abuses that you've described are prohibited now, are they not?

A. Evidently they're not. What I say, I'm just giving the field viewpoint now, I'm not giving an administrative.

MS. TESCHENDORF: Mr. Maddox.

MR. MADDOX: Yes.

MS. TESCHENDORF: We haven't really covered the forms or the revisions. Now, Mr. Stamets will go into that, if you want to wait and question him.

MR. MADDOX: Fine.

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Q. (Mr. Maddox continuing.) Of the twenty-five persons that are equipped to deal with tank bottoms, do you know which of that number are probably licensed and certificated and so forth?

A. No, I don't. That's not our function.

Q. But you do inspect?

A. Not their equipment, no sir, it's not our function.

Q. No, I mean you inspect to determine whether or not they've got any sort of a license or a permit?

A. No, sir, that's not our function.

Q. As to the treating plants, do you inspect those treating plants?

A. Yes, sir.

Q. How many treating plant operators do you deal with?

A. I don't know offhand. What, five, I think, in our district, I believe.

Q. Now, the treating plant operators, are you familiar with their current practices as to tank bottoms?

A. Yes, sir, I am.

Q. And how would you describe that, briefly?

A. I just -- what I'm trying to bring out here, Mr. Maddox, is just Rule 311, which I haven't even touched on the treating plants. I'm just talking about the prob-

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lems that does not end up in the treating plants.

Q. Those are the things that don't belong in the road, and so forth?

A. Right.

MR. MADDOX: That's all I have.

MR. NUTTER: Are there any further questions of the witness? He may be excused.

MS. TESCHENDORF: Call my next witness, Mr. Jerry Sexton, please.

JERRY SEXTON

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

DIRECT EXAMINATION

BY MS TESCHENDORF:

Q. Mr. Sexton, you would please state your name and position for the record?

A. Jerry Sexton. Supervisor of District One for the Oil Commission.

Q. What counties does District One include?

A. Lea and Roosevelt, part of Chaves, Curry.

Q. Have you previously testified before the Commission?

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A. Yes.

Q. And your credentials are a matter of record?

A. Yes.

Q. Are you familiar with the case we're now discussing?

A. Yes.

MS. TESCHENDORF: Is the witness considered qualified?

MR. NUTTER: Yes.

Q. Mr. Sexton, what problems have you experienced with current Form C-117-B?

A. Well, the rules, as we now have them in operation, are not working. I've got numerous complaints on the existing rules as they are enforced.

One of the plant operators used to monthly -- treating plant operators, used to monthly come in and check C-117's to see who was sending them in, and complained that they weren't being sent in.

And the way it's been worked, it's been up to an honor system, because unless they have a permit in the truck, we can't check and see whether they had the rights or were being taken to a proper place.

With permits in the truck, you could, but enforcement of the rules the way we were operating could not be done by our field people at this time.

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Q. Do you have a copy of Exhibit One?

A. Yes.

Q. Would you please describe that?

A. Well, this is -- we went back through our files from January of '77 to January of '78 and pulled out the C-117-B's that were submitted to the Oil Commission and approved, and it was for eighteen major oil companies, and a total of two hundred and eighty-six sediment oil permits had been issued and we have five oil treating plants, and that's less than one tank a day in District One being cleaned, as per record. And of these two hundred and eighty-six, two companies submitted over half of it, and in my own opinion, I don't believe these companies operate that much different. To me it means many of the companies weren't submitting the permits when the tanks were cleaned.

There were two companies that didn't submit any sediment recovery permits and five companies submitted one during this period.

And this is where I feel the problem lies.

Q. What do you feel is the reason for having this Form C-117-B?

A. Well, I think the reason is that to assure everybody that the oil was being taken care of in a proper manner and that the State knows how much oil is involved and the royalty owners know how much oil is involved, as

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well as the producers. Right now the producers may know, but the Commission and the royalty owners, I'm sure would come to us for records, and as Exhibit One shows, I don't believe the Oil Commission right now knows the amount of oil which is involved.

Q. How would the proposed rules take care of this?

A. Well, we've got a limited number of people. If all trucks that were hauling oil had to have a permit in their truck, then it would be very east to monitor it. We could, say, check treating plants one day a month and all trucks coming in would have to have permits, the same way disposal wells, if they were using this for tank bottoms, why, they would have to have a permit to show where it came from. And if they didn't, then both the treating plant and the producer, we could take steps against.

But the way it is now, if you go to a treating plant with no permit, why, it's obvious to say, well, we'll get the permit in in several days, and it's really no way that we can enforce them at this time.

Q. Is there anything further you want to add?

A. I do think the rules are flexible enough to take care of the companies' needs, lease shutdowns, and take care of its emergencies. I would consider having to shut down a lease to obtain a permit an emergency, and we,

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I'm sure, could get exception by a telephone call, and then we could check it if we wanted, but most of the time, talking to the producers, they do have time to do the paperwork, but there would be a few leases where maybe they just had one tank and shutdown for one day and I can see where they don't want to take three or four days to get a permit.

But in the majority of the cases, I think they will have time to get a permit first, and those that don't, then it's just a telephone call to get approval. So I feel like the flexibility is written into the rule to allow good operations to occur.

Q. Was Exhibit One prepared by you?

A. Yes.

MS. TESCHENDORF: I have nothing further of this witness.

CROSS EXAMINATION

BY MR. NUTTER:

Q. Mr. Sexton, apparently you feel that some of these companies which are on your Exhibit Number One here, that are major operating companies, must have had some sediment to dispose of during the year.

A. Yes.

Q. But they've done it by some other means than obtaining permit for disposal, is that right?

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A. Yes, and I think this is possibly just the way it's been through -- like I say, it's been an honor system and we haven't been out checking them, and there's no way we can check them under the present system, where you submit them afterwards. But I do think this does indicate that much has been moved without any records; whether there was any recoverable oil, I don't know, but --

Q. Now, with reference to a couple of statements that you made during your testimony there, we haven't gotten into the rule or the forms or anything, but I presume that what's coming up is going to be a system whereby a trucker would have to have some sort of a permit or ticket or form or something in this truck when he's hauling these products, is that it?

A. Yes, in advance, or have approval by telephone, which would also be fine; there would only be a limited number, I'm sure, having emergencies, and our field people would not take any steps against anybody that had verbal permission.

Q. And this would be sort of in the same condition of the tendering system of our neighboring state to the east?

A. Yes, somewhat.

Q. Where they have tenders for the movements of products.

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A. It will -- this rule will let us take in most hydrocarbons on the road, and everyone carrying hydrocarbons, except for a few exceptions, which can be checked out, can be done so either by us or the Highway Patrol, or whoever is involved. We hear some reports of oil being stolen and, of course, when you steal oil you've got to have a way to get rid of it. I don't think it's been a major concern in our part of the country, but I think a lot of it that has been done hasn't been reported to the Oil Commission.

Q. So you think this may be an aid to the deterrence of the theft of oil, too, as well as control of sediments and tank bottoms?

A. As long as you don't have to have a permit to be carrying hydrocarbons or oil on the road, why, there's really not anything you can check for if you stop a truck, and I don't think it's a major problem, but I think this will prevent any major problem from occurring.

Q. I see.

MR. NUTTER: Are there any further questions of the witness?

MR. MADDOX: A few brief questions, please.

MR. NUTTER: Mr. Maddox.

CROSS EXAMINATION

BY MR. MADDOX:

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Q. Exhibit One, then, according to your testimony, tends to show that there's been, I guess, wholesale disregard of the existing rule.

A. That, to me, I think is what everyone feels in the industry and in the Commission, that this is true.

Q. And you believe, then, that the passage of new rules will cause folks to start conforming to the rules.

A. I think it's not that much different from the previous rules, but I think going with the new rules and enforcing them, that -- which we do have the personnel, I feel, to enforce them at the treater plants and wherever they can take the oil.

Q. You're talking about spot inspections at treater pants --

A. Right.

Q. -- and then spot inspections on the highway?

A. Right. I think this will take care of it.

MR. MADDOX: That's all I have.

MR. NUTTER: Are there any other questions of the witness?

MR. RAMEY: Yes.

MR. NUTTER: Mr. Ramey.

CROSS EXAMINATION

BY MR. RAMEY:

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Q. Mr. Sexton, do you have any idea approximately how many tanks you have in your district?

A. No.

Q. Would the number be in the thousands?

A. Yes, I'm sure.

Q. And do you have any idea how often a tank has to be cleaned?

A. It -- I would say probably the average lease, once a year, maybe, or every other year. I don't suppose if you're running much oil you could go much over that. I'm really not qualified as -- as some people here to answer that.

Q. So this number on your Exhibit One should be several thousand instead of two hundred and eighty-six?

A. I would think so, if the -- if you consider one operator fairly standard, why, it would then extrapolate where it would probably be closer to a couple thousand than the two hundred and eighty-six we saw.

Q. Do you have any magnitude, let's say, of the pollution control pits? What's the magnitude of bottoms that are being moved into that area, do you have any idea of the magnitude?

A. This varies a lot, but I do think that six thousand barrels were moved out in one month. Whether this was accumulated in one month or more than one, but it de-

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pends on the weather. It could build up, I'm sure, but six thousand is a, to me is a substantial amount of oil being taken out of there that -- that the Hobbs District doesn't know where it came from.

Q. And this is -- this is oil that should be reported to the -- to the Oil Commission?

A. Right. I don't --

Q. Or certain portions of it.

A. There's nothing wrong with having these, but I just think they should be on record somewhere, so people who have an interest in it can come in and check it.

MR. RAMEY: Thank you.

MR. NUTTER: Are there any other questions of the witness? He may be excused. Let's call the next witness, or I guess that will be Mr. Stamets recalled.

MS. TESCHENDORF: I'd like to recall Mr. Stamets.

RICHARD L. STAMETS

being recalled to the witness chair, testified as follows, to-wit:

DIRECT EXAMINATION

BY MS. TESCHENDORF CONTINUED:

Q. Mr. Stamets, referring to the specific proposal

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the Commission has, I think the first thing to do would be to look at Exhibit Two. Would you find that, please and describe it.

A. You've heard from the other two witnesses here some of the problems that have been experienced at the District level. I mentioned some of the problems that the people in the tank cleaning business themselves were having. We tried to structure these new rules to overcome the problems that we've had and still provide for a minimum of a hassle to the operating industry.

In Rule 311, paragraph (a) there is no change whatsoever.

In paragraph (b) this is a new section which provides that no tank shall be cleaned of sediment oil, nor shall sediment oil be removed from any lease, without prior approval of the Commission. Authorization for tank cleaning may be received by the operator of the lease or by the company contracted or otherwise authorized to perform the tank cleaning by obtaining Commission approval of Form C-117-A, Tank Cleaning, Sediment Oil Removal, Transportation of Miscellaneous Hydrocarbons and Disposal Permit. No operator, contractor, or other party shall engage in the cleaning of any tank of sediment oil or the removal of sediment oil from any lease without an approved copy of Form C-117-A at the site.

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We'll get into the form in a little bit, but what this simply means is that we've got a field inspector out there and he sees somebody cleaning a tank, all he's got to do is go over and say, let me see your C-117-A, and that form must be at that site and if it's not, that company is in violation of our rules and regulations and we don't have to worry about whether somebody was supposed to have filed this or not. We can take that person to the courthouse.

Paragraph (c) is basically the same as our current rule, except that now lease use -- use of the sediment on lease roads would be considered as destruction, and that's covered on Form C-117-A.

Paragraph (d) is a new section and it requires that any operator, contractor, or other party which cleans any tank of sediment oil or removes sediment oil from any lease shall file Form C-117-B, Montly Sediment Oil Disposal Statement, setting out all information required thereon. We'll cover that form in a little bit.

Paragraph (e) is almost the same as our current paragraph in Rule 312-C and provides that when oils from different leases are mixed prior to delivery to a treating plant, that they shall be tested by the standard centrifugal test, and this is the old API code and this is the one that was originally set up back in 1948 and that code has now

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been changed, and that will be submitted as Exhibit Number Three.

Q. I believe it's Exhibit Number Four.

A. It's Exhibit Number Four, and that should be substituted -- the new code should be substituted for the old code.

Paragraph (f) is the same as the old Rule 311-C.

Paragraph (g) is a new paragraph which is designed to define non-lease liquid hydrocarbons for the purposes of these rules, and it states: Miscellaneous hydrocarbons are defined as tank bottoms occurring at pipeline stations, crude oil storage terminals, or refineries, pipeline break oil, catching collected in traps, drips, or scrubbers by operators of gasoline plants in such plants, or in the gathering lines serving such plants, the catchings collected in community salt water disposal systems, or any other liquid hydrocarbon which is not lease crude or condensate.

Paragraph (h) is new and states: Except in case of emergency, no miscellaneous hydrocarbons shall be delivered to a treating plant until Commission approval shall be obtained on Form C-117-A, Tank Cleaning, et cetera.

The second paragraph states: Whenever an emergency shall exist which requires delivery of miscel-

celaneous hydrocarbons to a treating plant prior to approval of Form C-117-A, the transporter of such hydrocarbons shall notify the supervisor of the appropriate Commission District office of the nature and extent of such emergency on the first working day following the emergency and shall file Form C-117-A within two working days following the emergency. For extended emergencies the district supervisor may authorize the unlimited movement of miscellaneous hydrocarbons to a treating plant and during the period of the emergency shall approve a Form C-117-A filed subsequent to the conclusion of such emergency and covering the entire volume of miscellaneous hydrocarbons transported.

Now, Rule 312 has the following changes in it. The opening paragraph is the same.

Paragraph (a) is the same as the current rule except we simply removed the thirty-day limitation on the Commission setting a hearing for proposed new plant. We don't delay any settings for hearings so I really don't see that that's a necessity.

Paragraph (b) is new and it states: Such permit shall entitle the treating plant operator -- that would be the permit authorized by the Commission -- to an approved C-104, Request for Allowable and Authorization to Transport Oil and Natural Gas, for the total amount of products secured from sediment oil -- we've added this

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from the one that was mailed out on the 8th -- and miscellaneous hydrocarbons processed by the operator. All permits shall be revocable after notice and hearing upon showing of good cause.

Paragraph (c) is new and states: No treating plant operator may accept sediment oil at or into the treating facility unless the same is accompanied by an approved Form C-117-A, and the title.

Paragraph (d) is new and states: Except as provided in Rule 311(h), which is the emergengy provision, no treating plant operator may accept tank bottoms from pipeline stations, crude oil storage terminals, or refineries, pipeline break oil, or other miscellaneous hydrocarbons for processing or mixing with recovered pipeline oil unless the same is accompanied by an approved Form C-117-A.

Paragraph (e) is basically the same as the current paragraph (c). The second paragraph of that section needs to have the API Code amended to their new standard.

Rule 1117 is new altogether because the forms are now new. The title of this is Tank Cleaning, Sediment Oil Removal, Transportation of Miscellaneous Hydrocarbons and Disposal Permit (Form C-117-A), and Monthly Sediment Oil Disposal Statement (Form C-117-B).

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Paragraph (a) states: Form C-117-A, Tank Cleaning, Sediment Oil Removal, Transportation of Miscellaneous Hydrocarbons and Disposal Permit, shall be submitted to the appropriate District Office of the Commission in quintuplicate and in accordance with Rule 311(b), (c), and (h).

Paragraph (b) Form C-117-A, Monthly Sediment Oil Disposal Statement shall be submitted both to the Santa Fe office and the appropriate District Offices of the Commission in accordance with Rule 311 (d).

Rule 1118 on Treating Plant Operator's Monthly Report (Form C-118) has only been revised to account for the new forms covered under Rule 1117; no other change was made.

Now, if we go on to the forms, we have Form C-117-A, probably start at the bottom first. You'll notice that this form may be submitted to the Commission by either the owner of the lease or the owner of the facility, or the transporter. With five copies being submitted we would make distribution, one to our Santa Fe office, one to the identified owner of the oil, and two copies going to the transporter; one copy of that, then, would be going to the sediment oil plant when the oil was delivered.

Going back up to the top of the form, we have the operator or owner, depending on if this is a lease or

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some non-lease facility, the address, the location, lease is identified, if it is a lease, tells what type of operation is to be performed, identifies who authorized the work, eithe r the operator or owner representative, and the date that the work is to be performed, the tank cleaning data, the tank number, the volume, tank type, volume below the load line, the sediment oil or myscellaneous hydrocarbon data provides spaces for identifying it as pit oil or oil from cellar, other oil. Miscellaneous oil from tank bottoms, from pipeline station, crude terminal, oil from refinery, other. Catchings from gasoline plant, gathering lines, salt water disposal system, other. Pipeline break oil or spill.

And then there's a place to identify the other that is referenced to above.

The middle part of the form is to identify the volume expected volume of oil to be recovered and then provides a line for the identification of the treating plant that the oil is to be delivered to. If the oil is not to be delivered to a treating plant, we have a space for the destruction below that, destruction identified by burning, pit disposal, unse on roads or firewalls or other, and then the location of the destruction is put on there so that we can know where the oil is going to be put, and if it's not to go to a treating plant, the justification for such de-

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struction.

And on the lefthand side of the form you can see that it states: A copy of this form must be on location during tank cleaning, removal of sediment oil and miscellaneous hydrocarbons, and must be presented with tank bottoms, sediment oil, miscellaneous hydrocarbons at the treating plant to which it is delivered.

And the very bottom line of the form is the approval of the Commission.

The second form is C-117-B. This is a Monthly Sediment Oil Disposal Statement. It would be filed by the tank cleaner, showing their name on the top line, for what month and year this is to be filed.

The lefthand column would be the permit number, which would be obtained from Form C-117-A, the date that the work was actually performed, the volume of sediment oil recovered, and then what was done with it, that oil. There is a space for the certification by the company at the bottom, and distribution is the last line.

Q. Do you have anything else concerning the rules and forms?

A. No, I do not.

Q. Would you now refer to what has been marked as Exhibit Three and describe that, please?

A. Yes. Exhibit Number Three are copies of seven

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treating plant operators monthly reports for December, 1977, and these tend to show what is going on in the field at this time. I believe they show what's going on in the field at this time.

Some of the things that might be interesting to note, the very top one, Petro-Thermo Corporation picked up 991 barrels of gross sediment oil and recovered about 190 barrels. Some of the others seem to have a better class of oil going into them, like Ambet got 703 barrels out of 1119; Gandy, which is down toward the bottom, got 6,667 barrels of pipeline oil out of 6,963 barrels of gross sediment oil.

Some of the things that show up on these forms is that some people don't know how to fill them out.

Tank Service report shows they picked up 500 barrels of sediment oil at the Loco Hills Dump and got 250 barrels of pipeline oil out of it, so I think that tends to confirm earlier reports to the Examiner about what's actually happening in the field.

Some of the reports show no permit number but yet they show an operating name and a lease name, so I would only assume that that means that that sediment oil was delivered to that treating plant without benefit of a Form C-117-B.

That's all I have on that exhibit.

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Q. Would you please refer to Exhibit Four and describe that?

A. Yes. Exhibit Number Four is the new API Code for determining basic sediment. This is entitled Standard Methods of Tests for Water and Sediment and Crude Oils, Chapter Ten, Section Four, from the manual of Petroleum Measurement Standards. And I believe this is the new code which we should adopt in our rules and regulations regardless of whether or not we make a change in rules and regulations.

Q. Do you have anything further to add to your testimony?

A. No.

Q. Were Exhibits Two through Four prepared -- well, two and three prepared by you?

A. Yes, I prepared Exhibit Number Two and Three and Exhibit Number Four was mailed to me at my request from the Washington office of the American Petroleum Institute.

MS. TESCHENDORF: At this time we'll offer Exhibits One through Four in evidence.

MR. NUTTER: Commission Exhibits One through Four will be entered in evidence.

MS. TESCHENDORF: That's all I have.

MR. NUTTER: Are there any questions of this witness?

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MR. MADDOX: Yes, sir.

MR. NUTTER: Mr. Maddox.

CROSS EXAMINATION

BY MR. MADDOX:

Q. Well, referring to Exhibit Three, the C-118s that are attached in there, do you attach significance to the fact that the permit number is not included by certain leases and so forth?

A. I think I said we could assume that perhaps the situation is that these arrived there without benefit of -- it tends to confirm the rest of the testimony in this case, although I have not gone out and made a thorough examination of this.

Q. Could you also assume that they have not been received back at the time this report was filed?

A. Back by who?

Q. Back from the operator?

A. That's possible.

Q. Under your proposed rules, do you consider there to be an unnecessary duplication between C-117-B and current C-118?

A. Perhaps. If the company that cleans the tank and removes the sediment oil is the same one that is treating the sediment oil, then it very well may be a dup-

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lication; however, it appears as though there are others in the business of removing sediment oil from leases other than those who operate treating plants. Therefore, we would not have benefit -- we wouldn't know what happened to those tank bottoms unless they file that information with us.

Q. Isn't it your impression from your Field Offices that very few of these forms are being filed on a routine tank bottom cleaning?

A. That appears to be the case.

Q. And isn't it further the impression that these bottoms that are being cleaned without benefit of permit are being arbitrarily dumped on roads or somebody else's pit, or whatever?

A. Well, we've seen them in those locations. We don't know what else is happening to them.

Q. What I'm trying to get at is, these people are not going to start filing a permit now, are they?

A. If I were in the business of tank cleaning, I would not wish to be caught out there without one of these forms in the truck, because my personal feeling is that the Commission will take action.

Q. Well, I'm sure of that, but what I'm saying is that apparently you've got certain operators that are filing these and certain that are not, and I don't see that

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the revision of the rules and additional forms is going to cause those that are now not conforming to start conforming.

A. Well, in this case the person who does the cleaning can file Form C-117-A without benefit of anyone from the company having to sign that form or actually having to do the work, and a copy will go back to the company so they will have the benefit of knowing what is happening out there. Nobody is being left out of this thing but we short-circuited the necessity of having to contact Houston or Midland or any of these people in order to get this form signed and to the Commission.

Q. Under your proposed rules the truck driver is going to be charged with the responsibility, in effect, of running samples of various kinds.

A. Yes, sir.

Q. Now, typically in an area like Lea County, which is probably more than 4,000 square miles of concentrated oil and gas activity, a driver may be faced with picking up oil on more than one lease, and you made provision for that, also, in your rule.

A. Yes.

Q. Under the new testing procedures, though, you're talking about thirty or forty-five minutes of testing each time.

Is it contemplated, then, under the rules that

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these tests be run at each time and that, if you're dealing with different leases, that you run them on each lease?

A. This is a difficult situation and I don't know that I could make a firm recommendation at this time, but I think that is the type of thing which could be worked out in a meeting between the people actually doing the work and Commission personnel. We could come up with some system that would allow us to comply with our own rules and regulations while not unnecessarily burdening the people in the business of cleaning tanks and removing sediment oil.

Q. As a practical matter, when a company has been hired to clean a tank bottom, which you understand, I believe, that a lot of this information is requiring on your C-117-A, is not available at the time that application is made.

A. I would not be surprised because I'm sure that in many cases it's been a very simple operation. They haven't told the person- that they call, they tell them to send a truck out there and clean that tank, but if the requirements are that this information is available before a tank is cleaned, I think it will be made available before a tank is cleaned.

Q. Are you giving much consideration to the accuracy of these figures on Form C-117-A?

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A. 117-A is a prospective form in itself, saying we expect to do these things out there; that's another reason for the C-117-B, it reports what actually happened. They may go out expecting to pick up twenty-five barrels of bottoms and bring in forty.

Q. What should they do under those circumstances?

A. Then they file Form 117-B and show what actually happened.

Q. But you're not expecting them to come and apply on a new form just because they found a different set of circumstances?

A. No. Excuse me, if they got out there and if they'd reported to us that they were going to take this oil to a treating plant and the foreman said take it over and dump it on that road, then I'd expect somebody to file a new 117-B -- or A with us.

Q. You're talking about a material deviation of purpose?

A. Yes.

Q. What do you think would constitute an emergency under Section (h) on 311?

A. Oh, a major pipeline break or something where there was no logical way of saying that it's going to be so many barrels in so many hours, or we need to pick this up now and it's a Sunday afternoon, you can't get a 117-A;

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an emergency situation needs action immediately.

Q. So when your inspector catches a truck on the road, then all he's got to say is he's got an emergency circumstance.

A. Certainly he's going to have to say where the emergency circumstance is and if it's in daylight hours, somebody should have called into our district office, if it's a normal working day.

Q. There's been quite a bit of discussion previously concerning the definitions of the various terms, what's a tank bottom and what's sediment oil. Have you given consideration to alternate definitions of those terms? Other than that which is in the proposed rules?

A. No, not really, I don't personally feel it serves any purpose. Sediment oil defines all kinds of lease hydrocarbons that can't be marketed under normal circumstances.

Q. What I'm getting at is that you could end up with sediment oil that might not be merchantable oil under your current definition, and then you're faced with sort of a logical impossibility, aren't you?

A. Well, --

Q. The implication under the form being that sediment oil is merchantable.

A. Now, the rule says hydrocarbons not merchantable

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through normal channels. I guess not merchantable at all would be not merchantable through normal channels.

Q. I think the Commission is clear, though, in its understanding that sediment oil will not necessarily be merchantable.

A. I think that C-117-A takes that into account because the fact that oil may -- sediment may not have any value, could be used for justification for its destruction.

Q. Back to my point, though, earlier on the C-117-B duplicating C-118, when you're dealing with a circumstance where the person cleaning the bottom and operating the tank -- the treating plant is the same person, well, you've got a situation there where you quadruple their paperwork and with entirely duplicate information being on it.

A. Well, to a degree I'm sure that's true. It depends on how long after the sediment oil is removed till the time it's processed.

Q. Through the treating plant, you mean?

A. Yes.

MR. MADDOX: That's all I have. Thank you.

CROSS EXAMINATION

BY MR. RAMEY:

Q. Mr. Stamets, if a person filling out, say, a

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117-B and 118 are one and the same, couldn't they perhaps on the 117-B say see Form 118, rather than filling out -- going through the duplication?

A. That's a possibility. Given a little bit of thought, it may well be that the rule could be amended to provide -- the proposed rule could be amended to provide where the tank cleaner or transporter is the treating plant operator, then he would only have to file Form C-118.

MR. NUTTER: It could simply be amended to say that if a 118 is filed covering this operator's operations, that a 117-B isn't necessary, if it's covered by a 118.

A. Yeah. I think we'd want to guard against somebody thinking that if transporter A delivered to treating plant operator B, that treating plant operator B's filing would take care of transporter A.

MR. NUTTER: Well, now, one thing you have, Mr. Stamets, on C-117-B, you have the volume of sediment oil recovered. We don't have the volume of pipeline oil that's recovered, however, do we?

A. That's correct. That would be the gross sediment.

MR. NUTTER: So that's the first column on the 118 and not the second column.

Now, with respect to Rule 311 (e), where it says tank bottoms and/or pit oil from separate leases shall

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not be commingled prior to delivery to a treating plant unless they've been centrifuged and the amount of pipeline oil determined.

Now, does that mean also that this -- these tank bottoms from separate leases or from a lease could not be commingled with miscellaneous hydrocarbons?

A. That's what it should mean. Let me see what it says. It doesn't say that but I think perhaps --

MR. NUTTER: I think the intent would be that sediment oil from a given lease would not be commingled with any other oil, be it sediment oil from another lease, or miscellaneous hydrocarbons --

A. Right.

MR. NUTTER: -- without a centrifuge being run on it.

A. Right.

MR. NUTTER: Okay. Now, there's no place for that centrifuge data to be placed on this 117-A.

A. Well, again, this is a prospective form only, in that when this is filed they have not actually been there; they're not sure what they're going to find. The -- it might be something they do within four or five days, so that that date would not be available.

MR. NUTTER: It would appear to me that if you're going to have control on it that there should be a

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prospective portion of the 117-A and also an after the fact portion where they would report what they actually did pick up and what the centrifuge showed would be the pipeline oil in that sediment.

A. What you're suggesting then is sort of a delivery data to the treating plant, delivered so many barrels of gross sediment oil with this --

MR. NUTTER: That's right, because -- because now you're saying that they shouldn't commingle this from another -- this sediment oil from another lease, but he doesn't say what he actually picked up on a lease before he gets to the second lease, and then you have no way of knowing what he actually picked up from either lease, if he hasn't filled out that ticket prior to going to the second lease.

A. That's true. I'm not sure if this is the more common circumstance or it's more common for them to deliver sediment from a single lease.

MR. NUTTER: Oh, I think, if I can testify here a minute, I think when a truck goes out he visits a lot of leases before he comes back home. Isn't that the normal circumstance, Mr. --

(UNIDENTIFIED) In a lot of cases, yes, sir.

MR. NUTTER: If you look at the -- if you look at the 118s that you have here, you'll find that the

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volume of sediment oil picked up from these various leases runs from ten or fifteen barrels on up to a hundred or more barrels, and you can see that a lot of the leases -- here's one with only eight barrels they picked up, and so a lot of these pickups are from multiple leases during one day, due to the smallness of them.

A. Perhaps that would be an improvement on the form, be of value to the treating plant operator if he is not the same as the tank cleaner.

MR. NUTTER: And you would favor that this emergency matter would have to be an emergency that could be substantiated, then, on -- on filing the forms later.

A. I'm sure that's true, and you will note, too, that the emergency only applies to miscellaneous hydrocarbons. It does not apply to lease operations.

MR. NUTTER: I see.

Are there any further questions of the witness? Mr. Kendrick.

MR. KENDRICK: May I ask one question for clarification under your 311 (g), and miscellaneous hydrocarbons.

May the words say that this is non-merchantable oil as tank bottoms that are in gathering lines serving gasoline plants, rather than condensate that might be in a gas gathering pipeline.

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A. Would you ask that question one more time, please?

MR. KENDRICK: I'm not sure that I can.

At the 311 (g) may it state for miscellaneous hydrocarbons are defined as tank bottoms occurring at various places, which includes gathering lines serving such plants, and included in those are gasoline plants. This means by your definition, or by the definition here, as non-merchantable oil rather than condensate, as not being collected from drips, scrubbers, gasoline plants, as condensate from gas gathering systems.

A. The -- the only -- I don't know that this definition excludes that. And I believe that it would cover such oils if those oils were to be delivered to a treating plant, but if such oils were not delivered to a treating plant, they would not be covered under miscellaneous hydrocarbons. This definition is only within Rule 311 and would not apply in the general rules and regulations.

MR. NUTTER: Well, now, Mr. Stamets, if we're talking about tank bottoms, the first category there, being the tank bottoms occurring at pipeline stations, crude oil storage terminals, or refineries, that could well be non-merchantable oil.

A. It certainly could be.

MR. NUTTER: Catchings collected in traps,

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drips, or scrubbers could very well be merchantable oil.

A. That's correct.

MR. NUTTER: So I think your overall definition here includes merchantable and non-merchantable.

A. That's correct.

MR. NUTTER: That's correct.

A. I was trying to point out to Mr. Kendrick, the definition is not as important as -- in itself as to where you deliver, where it's going.

MR. NUTTER: Where it's going.

A. That's correct.

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

MR. MADDOX: Call Mr. Abbott at this time.

W. G. ABBOTT

being called as a witness on behalf of Petro-Thermo, and having been duly sworn ypon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. MADDOX:

Q. Mr. Abbott, would you state your name and your current address, sir?

A. Yes, sir. My name is W. G. Abbott. I'm living

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in Hobbs, New Mexico.

Q. And what is your business affiliation, sir?

A. I'm manager of Petro-Thermo Corporation.

Q. What is the business of Petro-Thermo Corporation?

A. This is a New Mexico corporation, incorporated in 1970, and we are in the business of cleaning tanks and also operating a treating plant.

Q. And does that system operate in Lea County, New Mexico, primarily?

A. Yes, sir. We also have permits to operate in Chaves, Eddy, and Roosevelt Counties.

Q. With the thrust of your operations primarily in Lea County?

A. Yes, sir.

Q. And what is your educational background, sir?

A. I'm a graduate mechanical engineer from the University of Texas.

Q. And what professional associations are you involved with?

A. I'm -- I belong to the Professional Engineering Chapter at Hobbs, the AIME at Hobbs, and API.

Q. And are you also affiliated with the New Mexico Oil and Gas Association?

A. Yes, sir.

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Q. And do you hold an office therein?

A. I'm president this year.

MR. MADDOX: Is the witness considered qualified?

MR. NUTTER: Yes, he is.

Q. (Mr. Maddox continuing.) Would you describe in general detail the mechanics that your company is involved with in the cleaning of bottoms, and start, if you would, sir, when you first are contacted and give us an idea of a typical transaction?

A. Well, usually, a company, an oil company, will call us up and they'll want us to clean tank number so-and-so on lease so-and-so and give us general directions. They'll also give us general instructions in that quite a few of our tanks to be cleaned are cleaned for repair, so they'll instruct us to leave the clean-out plate off and clean the tank so that they can repair it.

Q. All right, sir, and then what is your internal function at that point in time? What happens next with the company?

A. We, of course we make out the form C-117-B, I think it is now, and submit that to the company for their signature and when we get that back, then we submit it to the Oil Conservation Commission.

Q. All right, sir, now when your representative,

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I guess it would be a truck driver, goes out to the lease, what are his instructions as to how to function at that time?

A. To clean the tank the best he can and he has to observe all safety rules. He's equipped with fresh air masks and compressor and a harness and so on. We instruct our tank cleaners not to enter the tank unless they have three men on location, and generally to be equipped for any emergencies.

Q. Are any tests conducted at that time? I'm talking about through a centrifuge?

A. No, sir.

Q. When you -- when he finishes cleaning the tank what's done with that residue?

A. Well, unless he has another tank to clean in the area, all our trucks are equipped with radio contact, we may send them to another tank to be cleaned, and he'll load that on the same truck, and then he will bring the tank bottoms back to our treating plant and pump them into a receiving tank filled with treated water and then it's a series of settling tanks to try to recover any pipeline oil.

Q. Now, on the C-118s you have been filing, and one of them showed up on Commission Exhibit Number Three, gross volumes of sediment oil are indicated in a column. How is that figure determined?

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A. That's -- that's figured by the number of inches in the tank and also by a tank table, which our tank cleaners are equipped with. If it's a two hundred barrel tank a certain diameter, they know that -- well, it has three inches, then it will be so many barrels.

Q. And then also on the C-118 it shows net barrels pipeline oil recovered.

A. Yes.

Q. Now, how is that determination made?

A. Well, we don't run any tests at that time. The proof is in the pudding, if we recover any oil it's after it's run through the treating plant.

Q. It was pointed out that on this C-118 for December, '77, that you had a gross volume of 99130 and the net was 19063. Is that in keeping with what you normally expect? Is it high, low, or is there a pattern?

A. No, I think that's about right. The rest of the tank bottoms are settling in the settling tanks and we're treating them, running them through treaters and applying various emulsion breakers and soap and so on, to try to break out any saleable oil.

Q. All right, sir, at the time you file your C-118, do you have all of the reports back from the various operators that you sent them to?

A. No, some of them are in the process of being

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mailed back or the operator may not sign them and send them back. Now, some operators don't like to sign the forms and send them back.

Q. You represent and deal with as customers most of the major oil companies in southeastern New Mexico, is that correct?

A. Yes, sir.

Q. You've had a chance to go through all of the proposed new rules.

A. Right.

Q. Have you made any determination as to a representative month as to the effect this would have if the new rules were applied uniformly to the work performed by your office in connection with those rules?

A. Yes, we took the month of January, 1978, and ran through all the various invoices and checked on all the forms that we submitted.

I'd like to, at this time, point out some of -- I mean all of our jobs for that month of January.

Q. All right, go ahead.

A. We cleaned forty tank bottoms, were cleaned; one pit was cleaned; two heater-treaters; one prewater knockout; eight spills; two horizontal tanks; one frac tank; four cellars were pumped out; those were multiple cellars on some leases; one hot oil tank was cleaned; one separator;

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two mud pits; two water tanks, and one sump, for a total of sixty-six different operations for the month of January.

Q. Under present circumstances how many forms would need to be filled out relative to your operation during the month of January, 1978?

A. We would have to fill out two hundred and fifty-five C-117-Bs; five 117-As; and three C-118.

MR. NUTTER: What you're including there would be if a form had to be filled out in duplicate or triplicate or quintuplicate.

A. Right. Now, all these jobs, we wouldn't have to fill out a form in that the -- we just fill out the C-117-B whenever any measureable amount of BS and/or water -- and/or oil is removed from a vessel or a cellar or spill, and then we do execute the sediment oil recovery permit.

Q. Under the proposed new rules, what number of forms would you need to fill out?

A. Well, on this particular month it would be -- it would run it up to three hundred and ninety-six C-117-As and the same amount of C-118s and this new proposed C-117-B, I guess it is.

Q. For a total of how many forms under the new proposed --

A. Well, that would be three hundred and ninety-six and for twelve months that would be four thousand seven

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hundred and fifty-two pieces of paper.

Q. Now, is your work done based on the amount of recoverable oil or by the hour or how do you charge for your tank cleaning related services?

A. No, our work is done strictly by the hour, and of course, the hourly rates on the various pieces of equipment we use.

Q. Now, have you had a chance to examine Exhibit Four submitted by the Commission, showing the suggested standards for this ground out there?

A. Yes, sir, I looked at them briefly.

Q. Now that test is not being run now, is that correct?

A. That's right.

Q. And so if this test were to be run, how many times would you have had to run it during the month of January?

A. Well, we'd have to probably run it at least maybe fifty-one or sixty times at the site and maybe that many more at the treating plants.

Q. You did not have access to this new standard at the time you prepared your testimony in this case, did you?

A. No, sir.

Q. Would you have a rough idea as to the cost of

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running these tests just during the month of January?

A. Well, it would be in the thousands of dollars in lost time.

Q. And that time is charged and passed through to your customer, is it not?

A. Yes, sir.

Q. And ultimately, I presume it's passed on to the consumer.

A. That's right.

Q. Now, have you also run through the rules and prepared some brief comments on some of the areas that you consider to be problem areas in the practical application of rules to actual operations in the field?

A. Yes. I -- starting with Rule 311 (a), I don't think the definition of sediment oil is particularly good. It says it's defined as tank bottoms and other liquid hydrocarbons. I think a better definition would be tank bottoms are composed of BS, water, hydrocarbons, paraffin, sediment oil, scale, mud, dirt, rock, and chemicals. And then sediment oil is recovered from tank bottoms, processed through a treating plant, and sediment oil may or may not be merchantable.

We are bothered with Rule 311 (b), this prior approval. I think that would slow down the whole oil patch in that when we get a call to go out and clean a tank, an

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operator is limited as to how long he can keep that tank down; notwithstanding, you know, a hole in the tank or something like that. But he wants the tank cleaned immediately so he can start the -- running some oil in it.

Q. The facility is not useable while it's being cleaned, is it?

A. That's right.

Then this Rule 311 (e), a representative sample, this is proposed to grind out the oil at the -- at the location when you're cleaning a tank, and we think that that's more academic than factual because a tank bottom is a tank bottom and I just can't visualize one of our tank cleaners catching the sample of that tank bottom and then using this procedure and grind out this oil and it doesn't mean anything. I mean, your end product is the oil you sell, and that's reported on a C-118 after it goes through the treating plant.

Q. Based on your experience and educational background, if you took two samples within a foot or two of each other out of a tank bottom, could you expect the same result from a grinding test?

A. No, sir. And it isn't practical. Where would you get the sample? Do you reach in the tank and get the sample of the bottom or do you suck it into your vacuum truck and then reach into your truck and get a sample? I

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mean it just isn't workable.

Q. Now, the proposed standards would require a certain temperature circumstances along with time periods by which the sample is ground out.

A. Yes, sir.

Q. Are any of your trucks presently equipped to conduct such a test?

A. No, sir, not -- none of our vacuum trucks are equipped that way.

Q. And how many trucks do you operate?

A. We operate four vacuum trucks, three transports, and a bobtail tank truck.

Q. All right, sir. Did you have any other comments on either 311 (e) or 312 (d)?

A. 312 (e), again, is where you grind it out at the treating plant and I don't think you could ever duplicate, if you did grind it out at the site, when you clean the tank, you couldn't duplicate that at the treating plant, and it wouldn't mean anything.

And then I believe that this form C-117-B, that's under Rule 1117-B, duplicated the form on C-118, and I think -- I think we could eliminate the proposed C-1117 and use the other form. If you could do away with one form that's -- that's money.

And I might point out that it's impossible to

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accurately predict the merchantable oil to be derived from sediment oil going through a treating plant.

There's another thing that hasn't been covered in the rules. We sell quite a lot of mud oil, which isn't reported on any form, because it isn't pipeline oil and it's taken from a treating plant and goes directly into a mud system of a drilling well.

Q. Do you actually buy oil in your treating plant function?

A. Yes. After this tank bottom is run through a treating plant, they're tied up pretty good, emulsions and the gravity is usually low, so we actually have to buy some high gravity condensate to treat those tank bottoms so that they'll -- emulsions will drop out and they will be salable at less than two percent.

Q. This maximizes your recovery and prohibits waste.

A. That's right.

Q. Based on your experience over a long period of time in Lea County and in your own operations in this area, have you found that there is a general tendency in the industry to fill out all of the necessary forms relative to tank cleaning?

A. Well, it ends up that we fill the forms out.

Q. The operators, such as yourself, who operates

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the cleaning systems and treating plants, are the ones that are filling out the forms now.

A. That's right.

Q. And the other operators that perhaps are dumping along the side of the road, or whatever, they are not filling out any forms now, anyway, are they?

A. That's right, and I believe there's quite a few trucks operating in the cleaning operations in southeast New Mexico that -- that have no treating plants and they're actually selling oil and probably not even reporting it. We don't have any knowledge they're not reporting it.

Now, the oil buyer should fill out a form where they bought the oil, and I think that's a good control for the Commission.

Q. So it's the responsible operator who is operating responsibly and filling out the forms who is going to be penalized by the new regulations.

A. I believe so.

Q. Yes, sir.

MR. MADDOX: That's all I have.

CROSS EXAMINATION

BY MR. NUTTER:

Q. Mr. Abbott, you were stating that you didn't

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believe that the provision in the Rule 311 (e) for the centrifuge test should be enacted because it requires temperature analysis of the bottoms, you don't know where to pick up the samples, whether in the tank or whether in the tank truck, and a number of other criticisms you had of it, and yet that is not a new provision at all. That's been in Rule 312 for years.

A. That's right.

Q. And you state that you have not been running centrifuge tests on the --

A. No, it's unworkable in the present rules.

Q. I see. So you're not attacking necessarily the amendment, you're attacking the old rule.

A. Right.

Q. Because you haven't been observing it, anyway.

A. That's right, and it doesn't -- it doesn't show you anything.

Q. Well, if you're not observing it and you don't run the centrifuge on the tank bottoms, how do you determine, as taken from your C-118 for the month of January -- December, that from the Atlantic State lease you gathered 23.46 barrels of sediment and recovered 3 barrels of pipeline oil; from the State "J" lease you took in 34.5 barrels of sediment oil and recovered five barrels of pipeline oil; and on down the list there. How do you determine it?

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A. That is strictly an estimate off the strap of the tank and --

Q. Well, that's -- the gross volume is?

A. Right. But the number of barrels of pipeline oil is just observed to be floating on the tank bottoms in the tank, and --

Q. So that's the oil that's on top of the sediment. You're not giving any credit, then, at all for the bottoms?

A. No, bottoms are bottoms.

Q. And that's why you have all these other leases here that show no recovery?

A. Right.

Q. Because those are semi-solid or really heavy bottoms there that are not liquids.

A. Yes. And we have some prudent oil operators in Lea County that they are very careful not to leave any merchantable oil in the bottom of the tank. They try to suck all the oil they can and put it through their treater and leave the tank bottoms.

Q. Well now, you don't think that when you put this -- these bottoms, like here's a lease you picked up 80 barrels from and you reported no recovery, you don't think that by the time you'd taken that 80 barrels of sediments and passed them through your receiving tank and

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treated them with water and chemicals and passed them through all these settling tanks, and so forth, that you recovered any oil from them?

A. Yes, we did.

Q. But you didn't put any down.

A. Well, we did, we put them down, on that C-118, where we sold, what was it, 175 barrels to Navajo; that's the only merchantable oil that we recovered. We may have recovered more but it's still in the -- in storage.

Q. Well, for this particular lease I was talking about, where you picked up 80 barrels of sediment, you showed no recovery of pipeline oil from that.

A. That's right.

Q. Well, I grant you it would be hard to centrifuge a solid mass of sludge, or where to sample the solid mass of sludge, but if they contained liquids, I think you would recover some pipeline oil, and how you're going to determine the quantity, I don't know.

A. No, I think -- I think tank bottoms are tank bottoms, and they should be hauled to a treating plant or put to beneficial use in -- out of the treating plant they could be sold to -- as mud oil, or they can be used on roads. In fact, I think the county, Lea County commissioners should use the tank bottoms on some of the roads they build. It would cut down a lot of dust pollution. But

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that's, you know, we can't get together on that.

MR. NUTTER: Are there any other questions of the witness?

CROSS EXAMINATION

BY MR. SEXTON:

Q. Mr. Abbott, I've got one along the same line. In December you ran 26 tanks. You treated 651 barrels of tank bottoms and recovered 14 barrels of oil, which I'm sure is uneconomical to have treated the tank bottoms for 14 barrels. Don't you think using a centrifuge would have cut down your treating plant operations almost entirely?

A. What would you do with the bottoms?

Q. If you don't recover anything out of them what are you doing with them now?

A. Yes, we're recovering pipeline oil. That's shown on that C-118 one A.

Q. From what you show, from this 651 barrels, you got a total of 14 barrels of oil; this is what came off those.

A. That's right; that was pipeline oil.

Q. Right, which is -- it seems to me like if you ran a centrifuge on each one of those tank bottoms, it wouldn't have been necessary to keep your treating plant going to recover the 14 barrels.

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A. Yeah, but it isn't practical. When you get a tank bottom the best thing you can do is pump into your receiving tank through a water bath and try to float any good oil off that, and in the end it is sold and the taxes are paid, I assume, by the refiner, and of course, the four percent sales tax on all the trucks and the labor has been paid, and the income tax, and both Federal and State. I mean there's a lot of taxes that are paid because of the operation of our cleaning tanks and operating the treating plant.

Q. So, really what you're saying by your report is that there's not enough oil to be recovered out of tank bottoms to worry about.

A. Well, yeah, I'd like to worry about them, but if they've lost their identity and how you would -- how you would assign that back to a lease I have no idea. It's just not practical.

Q. 14 barrels out of every 651 barrels, if that is an average month, we shouldn't worry about those centrifuges.

A. That's right.

Q. Do you feel like this is normal?

A. I think so. Of course, I don't know if that particular month we sold any mud oil, which wouldn't show up, I mean, and that is more or less tank bottoms.

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Q. What price do you get for mud oil? Does it have an economic value?

A. Yes, it's according to how good it is. The lowest quality we sell for, I think it's a little over Six Dollars, plus four percent tax.

Q. So really it's merchantable oil. It saves --

A. For a --

Q. Saves you treating it, right?

A. Yes. It's the bottom of the barrel. It's the squeal, you know.

Q. But it could be treated out as pipeline oil if --

A. Well, if you had enough time and patience.

Q. Right.

A. But it has a lot of solids. I mean not dirt solids but solids such as paraffin, which can be used in a mud system at 140 or 50 degrees down in the hole it serves its purpose in a mud system.

Q. And it is marketable to pipelines.

A. No, not till you treat it out and get pipeline oil.

Q. At that temperature it will go into solution and be sold.

A. No. No way. There are too many emulsions and waxes, and so on, that even if you heat them to 140 de-

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grees, you don't put that back in solution. 150 degrees they'll go back in solution but the pipeline doesn't buy oil at 150 degrees. I mean when they shake out the oil to buy from a sale tank you're very lucky if they'll heat it to 140 degrees.

MR. SEXTON: I have no further questions.

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

Did you have anything further, Mr. Maddox?

MR. MADDOX: No, sir, thank you.

MR. NUTTER: Did you have anything further, Ms. Teschendorf?

MS. TESCHENDORF: No, sir.

MR. NUTTER: Does anyone have anything they wish to offer in Case 6150?

MR. STAMETS: Mr. Nutter, I see we've got some people in the business of tank cleaning and treating plant operations over there. I'd appreciate it, and think the Commission would as well, if they'd just express whether they're generally in favor of the Commission's proposal or against the Commission's proposal.

MR. NUTTER: Mr. Hodges, I see you're one of the people he was mentioning.

Do you have any statements regarding this case?

MR. HODGES: The only thing that I'd kind of

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like --

MR. NUTTER: Would you state your name for the record, please?

MR. HODGES: Oh, I'm Bobby Hodges, Tank Service Company. The only thing that I'd be concerned with in these new regulations and in the old regulations at the same time, was that shake out on that oil, and in my past experience in the treating plant area is that you can shake a tank bottom out when you bring it in before it's treated and it will never come out with what you reclaim out of the oil.

MR. NUTTER: Does a shake out usually run higher or lower than what you actually get?

MR. HODGES: It will usually shake out lower than what you have in recovery, and at times it could vary there, depending on how thin the oil was or how thick the oil was that you brought in.

MR. NUTTER: I suppose a lot would depend on how good a sample you got for your grind out.

MR. HODGES: That's right, and thinner -- thinner, better oil, your heavier stuff wouldn't sell, you know, and you'd maybe have -- if you caught it on the bottom you'd have a sorry shake out; if you caught it on the top you'd have a good shake out, so really the only way that -- to tell how much you got is at the end, and of

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course treater plants, where you're involved in tank cleaning yourself, you can maybe estimate.

When you have a good tank bottom come in here and you have a bad tank bottom come in here off this lease, and when you treat it out, that's usually the way that I've always had to do, is to estimate and put what you take from each lease.

MR. NUTTER: In other words, if you've got a good eye, you can tell how much oil you're going to get out of that tank bottom.

MR. HODGES: No, you can't tell how much oil you're going to get but you can tell whether -- if you're going to get more out of this tank than you can get out of this tank, because one of them may have thin oil in it and one of them will have thick, heavy, heavy oil. But you shake them out and they'll be the same weight, your shake out will be better on these bottoms than they will be on this one over here, but they won't be accurate.

At the end of the month whatever you shake out and if you had to mail it right back to the operator at the time you shook it out, then you made your report to the Commission, they would not balance.

MR. NUTTER: I guess the only real way to find out how much oil came from any given lease would be to have every tank bottom picked up separately and completely

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treated separately with no mixing with any other oil.

MR. HODGES: That's the only way that you could possibly do it.

MR. NUTTER: And that's not a practical way to operate.

MR. HODGES: That's not a practical way to do it. So I'd say in my estimation if you -- if you divided it out amongst whatever you cleaned, however many barrels you picked up off this lease, if you divided it out equally amongst all of them, in a year's run you'd probably come out equal to what you've taken from the lease.

MR. NUTTER: Thank you, Mr. Hodges. Does anyone else have any comments on this subject?

MR. LYON: I'd like to make a statement, if I may.

MR. NUTTER: Go ahead.

MR. LYON: I'm V. T. Lyon with Continental Oil Company, and I've tried to evaluate these proposed rules by discussing our operations with our field people, our production superintendent and our production and maintenance foreman, to try to get some idea of the magnitude of the impact, if any, on our operations.

And one of the things that they emphasized to me was that we try by every means available to us to avoid having any merchantable oil moved off our property, either

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by transferring to another tank or going through the heater-treater or whatever, what other means may be available to us.

And so I've drawn the following conclusions, which I'd like to list for you.

First, the frequency of our tank cleaning is in the order of two to three tanks per month, and perhaps one treater per week on the average, but the volume of oil recovery from our tank bottoms and treater bottom is estimated at one barrel of oil per tank and perhaps one-half barrel of oil per treater.

And although the tank cleaning contractor will probably prepare the papers, I feel that the new rules will probably require that we maintain files on the forms which are filed with the Commission, which is a little bit added administrative burden.

The volume of oil that is recovered from tank and treater bottoms will not change with the issuance of the new rules. I don't think that this is going to change anything as far as the oil that's removed. It might, perhaps, give the Commission a better idea of -- of the volume that is being gotten right now.

The volume of oil that's reported in a year from our operations is really inconsequential, but the requirement to report this on C-118s would be a considerable

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burden to our administrative personnel because of the problems that Mr. Abbott has described, and these other gentlemen, and in determining what volumes of oil may be included in actual tank bottoms.

And also the estimates required to determine what properties these should be charged to.

MR. NUTTER: Well, now, right there, Mr. Lyon, the present Rule 311 requires that any recovered oil has to be reported by the operators of the lease on the Form C-115 monthly, anyway, so that's not going to --

MR. LYON: Well, that's true. That's true, but where does this information come from. We don't treat it ourselves, and so if the information is not reported to us, well, there's nothing that we have to report.

And we feel that while the intent may be to tighten control of illegal oil, as far as our operations are concerned, the proposed rules will be of no benefit and will create an added paperwork burden, even under the best conditions. The very low oil content of tank treater tank bottoms makes it virtually impossible to estimate the amount of oil that is recovered in each cleaning operation, and based on our investigation it appears that the volume of oil recovered from sediment oil treating is very small compared to the piracy of oil, or the theft of oil, directly from stock tanks that are being filled for sale, and we've

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had a number of such thefts involving several hundreds of barrels of oil, and if the proposed rules are intended to tighten the security of oil being removed from the leases and to protect the interests of the producer, the objectives are not being met, we believe, and instead are placing a further burden on the producer. And also our people estimate that probably seventy-five percent of our cleaning operations are what would be considered emergency situations, where a tank has developed a leak or perhaps if the pipeline has requested that the tank be cleaned, we would have time to process the papers, and so forth, but they tell me that the majority of the situations are what they consider to be emergency. They get on the telephone and call a tank cleaning outfit to come out and clean the tank and they need it done right now.

And I think that I foresee a possible jurisdictional problem here, in that I don't believe that these tank trucks are licensed by the Commission, and I'm not sure, really, what control the Commission has over these trucks, and I'm very ignorant about this particular aspect of it, but it seems to me there may be a problem.

And this concludes my statement.

MR. NUTTER: With respect to that, the Commission does not license the tank trucks, Mr. Lyon, that's very true, but the Commission does have regulation over the

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removal of oil from leases without a permit, and this is only to provide that there would be some ticket or some authorization for removal of that oil from the lease, the same as a transporter with a pipeline has to have a certificate in the form of the C-104.

A. Right, and I think, if I understand this correctly, I think that your control there would come through the operator rather than the tank truck, unless, you know, if he has -- if he has a license to do business in the state and he's been called out by an operator to come out and clean the tanks or drain the pit, or something like that, I'm not sure the Commission has authority to interfere with that. I just feel that there might be some tightening necessary to improve it.

MR. NUTTER: Well, now, also, Mr. Lyon, when you mentioned your lease foremen state that seventy-five percent of the cleaning jobs are what they consider to be emergencies, this proposed rule 311 (b), I notice, says authorization for tank cleaning, and now this is on the Form C-117-A, may be received by the operator of the lease or by the tank -- or by the company contractor, or otherwise authorized to perform the tank cleaning, so that -- the way the form is designed at the present time, I believe, Mr. Stamets, could be filled out either by the trucker or by the lease foreman.

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MR. STAMETS: That's correct.

MR. NUTTER: Someone has to have signed that saying this truck has authority to be on this lease taking this oil off, so that either the trucker or your lease foreman could sign it.

MR. LYON: Yeah, that's right.

MR. NUTTER: The trucker's going to be there or the lease foreman is going to be there when the oil is being moved, you know that.

MR. LYON: Yeah. I think probably the way this will work is our foreman will call one of these tank trucks out there and say we need to have a tank cleaned, or whatever, and you fill out the paper, you know, because our foreman are allergic to paper.

MR. NUTTER: Sir, I think you have a statement?

MR. STRASNER: I'm Cecil Strasner with Shamrock Field and Lease in Eunice.

Mr. Lyon said his foremen had already told him that they were going to leave it to the tank cleaners to get the permit.

The first thing that a tank cleaner will have to do is go supposedly gauge the tank and run a test on it. In our case we'll have to go to Hobbs to get a permit. My thinking on it, it's going to put everybody in an awkward position.

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MR. NUTTER: I think again there's been possibly a misunderstanding here. I believe that you would, if Continental Oil Company calls you and tells you they want a truck to remove the oil from Tank Number Three on their Bixbee lease.

MR. STRASNER: Okay.

MR. NUTTER: All right, you fill out the paper, give it to your trucker, and you don't go to Hobbs to get a --

MR. STRASNER: No, it has to be approved.

MR. LYON: No, that's not right.

MR. NUTTER: It has to be approved before it --

MR. STRASNER: That's the whole problem when you've got an area like Hobbs.

MR. MADDOX: In Lea County you've got geographic 4000 square miles to be covered and in his situation, Shamrock is based in Eunice and he has to go to a job in Jal, then he's got to drive forty miles to get a permit and go to Jal, which is another forty miles.

MR. STRASNER: We're out three hours before we ever start to make a penny on a two-hour job.

MR. ABBOTT: Another situation, also, if an operator from Loco Hills calls up and wants a tank cleaned the form will have to be mailed to the Artesia office for approval. They'll have to mail it back. You may have to

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think ahead about ten days to get a tank cleaned. You see, it isn't workable.

MR. NUTTER: Well, you've seen that sign that says plan ahead.

MR. ABBOTT: And just because they do it that way in Texas doesn't make it right.

MR. NUTTER: Well, you're the first one that's even mentioned the word.

MR. ABBOTT: I want to apologize here to all the Texans.

MR. NUTTER: Does anyone else have anything to offer in this case?

We'll take the case under advisement.

(Hearing concluded.)

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REPORTER'S CERTIFICATE

I, SALLY WALTON BOYD, a Certified Shorthand Reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and the same is a true and correct record of the said proceedings to the best of my knowledge, skill, and ability.

Sally Walton Boyd
Sally Walton 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. 6150, heard by me on Feb 22, 1978.

..... Examiner
New Mexico Oil Conservation Commission

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Selected Companies	Number of C-117-B's Approved District I January 1977 thru January 1978
Amerada	0
Cities Service	1
Skelly	1
Marathon	0
Tenneco	4
Sun	13
Shell	5
Exxon	6
Mobil	1
Chevron	4
Continental	26
Amoco	65
Arco	94
Phillips	23
Getty	16
Union of Texas	1
Union of Cal	1
Texaco	25
TOTAL	286

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
OCC EXHIBIT NO. 1
CASE NO. 6150

PROPOSED REVISIONS OF RULES 311, 312, 1117, AND 1118
OF COMMISSION RULES AND REGULATIONS TO BE CONSIDERED AT AN EXAMINER HEARING
FEBRUARY 22, 1978

RULE 311. SEDIMENT OIL, TANK CLEANING, AND TRANSPORTATION OF MISCELLANEOUS HYDROCARBONS

(a) Sediment Oil" is defined as tank bottoms and any other accumulations of liquid hydrocarbons on an oil and gas lease, which hydrocarbons are not merchantable through normal channels.

(b) No tank shall be cleaned of sediment oil nor shall sediment oil be removed from any lease without prior approval of the Commission. Authorization for tank cleaning may be received by the operator of the lease or by the company contracted or otherwise authorized to perform the tank cleaning by obtaining Commission approval on Form C-117-A (Tank Cleaning, Sediment Oil Removal, Transportation Of Miscellaneous Hydrocarbons and Disposal Permit). No operator, contractor, or other party shall engage in the cleaning of any tank of sediment oil or the removal of sediment oil from any lease without an approved copy of Form C-117-A at the site.

(c) No sediment oil shall be destroyed unless and until the Commission has approved an application to destroy the same on Form C-117-A (Tank Cleaning, Sediment Oil Removal, Transportation of Miscellaneous Hydrocarbons and Disposal Permit). Unless the authorization to destroy sediment oil is utilized within ten (10) days after approval of the Form C-117-A such authorization is automatically revoked. However, the District Supervisor may approve one ten (10) day extension for good cause shown.

(d) Any operator, contractor, or other party which cleans any tank of sediment oil or removes sediment oil from any lease shall file Form C-117-B (Monthly Sediment Oil Disposal Statement) setting out all information required thereon.

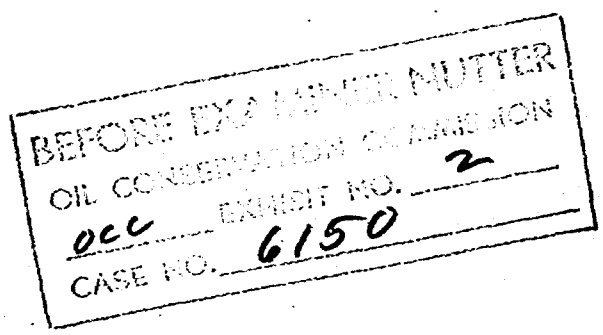
(e) Tank bottoms and/or pit oil from separate leases shall not be commingled prior to delivery to a treating plant unless the amount of pipeline oil attributable to each lease shall be determined by testing a representative sample from each lease in accordance with the standard centrifugal test prescribed by API Code for Measuring, Sampling, and Testing Crude Oil, Number 25, Section 5.

(f) Any merchantable oil recovered from sediment oil shall be charged against the allowable for the wells on the originating lease. All such recovered oil shall be reported by the operator of the lease on Form C-115 (Operator's Monthly Report).

(g) "Miscellaneous Hydrocarbons" are defined as tank bottoms occurring at pipeline stations, crude oil storage terminals, or refineries, pipeline break oil, catchings collected in traps, drips, or scrubbers by operators of gasoline plants in such plants or in the gathering lines serving such plants, the catchings collected in community salt water disposal systems, or any other liquid hydrocarbon which is not lease crude or condensate.

(h) Except in case of emergency, no miscellaneous hydrocarbons shall be delivered to a treating plant until Commission approval shall be obtained on Form C-117-A (Tank Cleaning, Sediment Oil Removal, Transportation of Miscellaneous Hydrocarbons and Disposal Permit).

Whenever an emergency shall exist which requires delivery of miscellaneous hydrocarbons to a treating plant prior to approval of Form C-117-A, the transporter of such hydrocarbons shall notify the supervisor of the appropriate Commission district office of the nature and extent of such emergency on the first working day following the emergency and shall file Form C-117-A within 2 working days following the emergency. For extended emergencies, the district supervisor may authorize the unlimited movement of miscellaneous hydrocarbons to a treating plant and during the period of the emergency and shall approve a Form C-117-A filed subsequent to the conclusion of such emergency and covering the entire volume of miscellaneous hydrocarbons transported.



RULE 312. TREATING PLANTS

No treating plant shall operate except in conformity with the following provisions:

(a) Prior to the construction of a treating plant, a written application shall be filed for a treating plant permit stating in detail the location and type and capacity of the plant contemplated. The Commission will set such application for hearing to determine whether the proposed plant and method of processing will efficiently process, treat, and reclaim sediment oil. Before beginning actual operations, any permittee shall file with the Commission a performance bond in the amount of $10,000, conditioned upon substantial compliance with applicable statutes of the State of New Mexico and all rules, regulations, and orders of the Oil Conservation Commission of New Mexico.

(b) Such permit shall entitle the treating plant operator to an approved Form C-104, Request for Allowable and Authorization to Transport Oil and Natural Gas for the total amount of products secured from sediment oils and miscellaneous hydrocarbons processed by the operator. All permits shall be revocable, after notice and hearing, upon showing of good cause.

(c) No treating plant operator may accept sediment oil at or into the treating facility unless the same is accompanied by an approved Form C-117-A (Tank Cleaning, Sediment Oil Removal, Transportation of Miscellaneous Hydrocarbons and Disposal Permit).

(d) Except as provided under Rule 311(h), no treating plant operator may accept tank bottoms from pipeline stations, crude oil storage terminals or refineries, pipeline break oil or other miscellaneous hydrocarbons for processing or mixing with recovered pipeline oil unless the same is accompanied by an approved Form C-117-A.

(e) All treating plant operators shall file a monthly report which shall detail the net oil recovered and sold during the preceding month. See Rule 1118.

The operator of each lease from which sediment oil is removed for reclamation shall be promptly notified by the treating plant operator of the amount of pipeline oil recovered therefrom. In the event sediment oil from two or more separate leases is to be commingled prior to treating, the treating plant operator shall determine the amount of pipeline oil attributable to each lease by testing a representative sample of the sediment oil from said lease in accordance with the standard centrifugal test prescribed by the API Code for Measuring, Sampling, and Testing Crude Oil, Number 25, Section 5.

RULE 1117. TANK CLEANING, SEDIMENT OIL REMOVAL, TRANSPORTATION OF MISCELLANEOUS HYDROCARBONS AND DISPOSAL PERMIT (Form C-117-A), AND MONTHLY SEDIMENT OIL DISPOSAL STATEMENT (Form C-117-B)

(a) Form C-117-A, Tank Cleaning, Sediment Oil Removal, Transportaion of Miscellaneous Hydrocarbons and Disposal Permit, shall be submitted to the appropriate District Office of the Commission in QUINTUPLICATE and in accordance with Rule 311 (b), (c), and (h).

(b) Form C-117-B, Monthly Sediment Oil Disposal Statement shall be submitted both to the Santa Fe office and the appropriate District Office(s) of the Commission in accordance with Rule 311 (d).

RULE 1118. TREATING PLANT OPERATOR'S MONTHLY REPORT (Form C-118)

Form C-118 shall be submitted in DUPLICATE to the appropriate District Office of the Commission in accordance with Rule 312, and shall contain all the information required thereon. Column 1 of Sheet 1-A of Form C-118 entitled "Permit Number," has reference to the Tank Cleaning, Sediment Oil Removal, Transportation of Miscellaneous Hydrocarbons and Disposal Permit, Form C-117-A for each lot of oil picked up for processing.

Form C-117 A

NEW MEXICO OIL CONSERVATION COMMISSION

TANK CLEANING, SEDIMENT OIL REMOVAL, TRANSPORTATION OF MISCELLANEOUS HYDROCARBONS AND DISPOSAL PERMIT

PERMIT NUMBER _____

_____ (Operator or Owner) _____ (Address)

_____ (Lease Name if Sediment Oil) _____ (Location)

OPERATION TO BE PERFORMED:

☐ Tank Cleaning ☐ Sediment Oil Removal ☐ Transportation of Miscellaneous Hydrocarbons

Operator or Owner Representative authorizing work _____

Date Work to be Performed _____

TANK CLEANING DATA

Tank Number _____ Volume _____

Tank Type _____ Volume Below Load Line _____

SEDIMENT OIL OR MISCELLANEOUS HYDROCARBON DATA

Sediment Oil From: ☐ Pit ☐ Cellar ☐ Other*

Miscellaneous Oil

Tank Bottoms From: ☐ Pipeline Station ☐ Crude Terminal

☐ Refinery ☐ Other*

Catchings from: ☐ Gasoline Plant ☐ Gathering Lines

☐ Salt Water Disposal System ☐ Other*

Pipeline Break Oil or Spill ☐

*Other(Explain) _____

_____

_____

VOLUME AND DESTINATION

Estimated Volume _____ barrels

Miscellaneous Hydrocarbons to be delivered to (Name and Location of treating plant)

_____

DESTRUCTION OF SEDIMENT OIL

Destruction by: ☐ Burning ☐ Pit Disposal ☐ Use on Roads or Firewalls

☐ Other (Explain) _____

_____

Location of Destruction _____

Justification of Destruction _____

_____

APPLICATION MAY BE MADE BY EITHER OF THE FOLLOWING:

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

Owner _____ Transporter _____

By _____ By _____

Title _____ Title _____

Date _____ Date _____

NEW MEXICO OIL CONSERVATION COMMISSION

Approved By _____ Title _____ Date _____

A COPY OF THIS FORM MUST BE ON LOCATION DURING TANK CLEANING, REMOVAL OF SEDIMENT OIL OR MISCELLANEOUS HYDROCARBONS, AND MUST BE PRESENTED WITH TANK BOTTOMS, SEDIMENT OIL, MISCELLANEOUS HYDROCARBONS AT THE TREATING PLANT TO WHICH IT IS DELIVERED

Form C-117-B

NEW MEXICO OIL CONSERVATION COMMISSION

MONTHLY SEDIMENT OIL
DISPOSAL STATEMENT

Company Name _____ MONTH _____ YEAR _____

Tank or Pit Cleaning Permit No.	Date of Cleaning	Volume Sediment Oil Recovered	Disposal method or Name and location of Reclamation Plant to which Sediment Oil was Delivered

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

By _____

Title _____

Date _____

Distribution: Original to Santa Fe, carbon copy to district office.

NEW MEXICO OIL CONSERVATION COMMISSION
PIPELINE QUALITY OIL RECOVERED BY TREATING PLANTS

Form C-118
(Revised 1-1-59)
Sheet 1-A

PERMIT NUMBER	LEASE OPERATOR	LEASE NAME	GROSS VOLUME SEDIMENT OIL	NET BBLS. P.L. OIL RECOVERED
H-3699	Amoco Production Co.	Farnsworth "A"	16.56	-0-
H-3697		S. Hobbs Unit	8.95	-0-
H-3698		Orcutt	23.80	-0-
H-3720		State "E" Tr. 18	15.00	-0-
H-3721		Cone Central Storage System	30.21	-0-
H-3682	Atlantic Richfield Co.	State "A" D&E	23.46	3.00
H-3681		State "J" D&E	34.50	5.00
		Ida White	5.82	-0-
H-3678		State "E" D&E	16.56	4.00
H-3679		State "C" D&E	8.15	2.00
		R. L. Brunson	80.00	-0-
		State "W" D&E	36.57	-0-
		State "E & F" (TG)	31.05	-0-
H-3739	Aztec Oil & Gas Co.	State "DS"	16.21	-0-
	Exxon Co., USA	Fed. L. L. Fopeano	8.28	-0-
H-3738	Getty Oil Company	Skelly "E" State	10.00	-0-
		E. Eumont Unit	16.56	-0-
H-3746	Gulf Energy & Minerals Company - U.S.	McComack	21.62	-0-
2-1518	Newmont Oil Company	State "36"	22.08	-0-
2-1519		Tallmadge	15.13	-0-
2-1520		Evans "B"	41.97	-0-
		J. N. Fidel "A"	9.31	-0-
		Carper 6	12.42	-0-
H-3685	Phillips Petroleum Co.	Bern "A"	35.00	-0-
H-3691	Samedan Oil Corp.	Turner "A"	42.09	-0-
H-3694	Shell Oil Company	E. Pearl Queen Unit	70.00	-0-
	AGUA, INC.	B-D SWDS	340.00	176.63
			991.30	190.63

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
OCC EXHIBIT NO. 3
CASE NO. 6150

NEW MEXICO OIL CONSERVATION COMMISSION
TREATING PLANT OPERATOR'S MONTHLY REPORT

Form C-118
Revised 1-1-59
Sheet 1

Report of Petro-Thermo Corporation Month of December 1977

Address P. O. Box 2069 (Street) Hobbs, New Mexico (City) 88240 (State)

TOTAL STOCKS PIPELINE OIL BEGINNING OF MONTH (Attach additional sheets if necessary)

PLANT NAME	LOCATION	BARRELS
Goodwin Treating Plant	SW/4 NW/4 Sec.31, T18S, R37E	3533.69
	TOTAL ALL PLANTS	3533.69

TOTAL PIPELINE OIL RECOVERED (Attach additional sheets if necessary)

PLANT NAME	LOCATION	BARRELS
Goodwin Treating Plant	SW/4 NW/4 Sec.31, T18S, R37E	190.63
	TOTAL ALL PLANTS	190.63

DELIVERIES PIPELINE OIL (Attach additional sheets if necessary)

FROM	TO	BARRELS
Goodwin Treating Plant	Navajo Crude Oil Purchasing	162.21
	TOTAL ALL PLANTS	162.21

TOTAL STOCKS PIPELINE OIL END OF MONTH (Attach additional sheets if necessary)

PLANT NAME	LOCATION	BARRELS
Goodwin Treating Plant	SW/4 NW/4 Sec.31, T18S, R37E	3562.11
	TOTAL ALL PLANTS	3562.11

I hereby cert fy that this report is true and complete to the best of my knowledge and belief.

NAME OF TREATING PLANT OPERATOR Petro-Thermo Corporation

By W. G. Abbott W. G. Abbott Title Manager Date 1/31/78

NEW MEXICO OIL CONSERVATION COMMISSION
PIPELINE QUALITY OIL RECOVERED BY TREATING PLANTS

Form C-118
(Revised 1-1-59)
Sheet 1-A

PERMIT NUMBER	LEASE OPERATOR	LEASE NAME	GROSS VOLUME SEDIMENT OIL	NET BBLS. P.L. OIL RECOVERED
	Amerada-Hess Corp.	Ida Wimberly	47	20
	" " "	J. R. Phillips	47	21
M-3723	Continental Oil Co.	Stevens "B"	8	6
M-3724	" " "	Skaggs "B"	28	20
M-3725	" " "	Warren Unit	130	94
M-3726	" " "	Langley Lynn	30	22
	" " "	Skaggs "B"	50	28
	Elliott Oil Co.	Monterey	65	34
M-3727	Gulf Oil Corp.	W. A. Ramsey	50	26
M-3728	" " "	Janda Consolidated	30	15
M-3730	" " "	CDU	33	19
	John H. Hendrix Corp.	Cossatat "B"	170	105
	" " "	Cossatat "H"	60	38
	" " "	Cossatat "K"	88	64
	" " "	Brunson "C"	45	33
	Imperial American	Seeton	45	20
	" "	Sims Federal	38	24
	" "	Peterson	70	53
	" "	Owens Federal	65	48
M-3733	Petro-Lewis Corp.	Warlick	10	6
M-3729	Sun Oil Co.	J. A. Randall	10	2
			1119	703

NEW MEXICO OIL CONSERVATION COMMISSION
TREATING PLANT OPERATOR'S MONTHLY REPORT

Form C-118
Revised 1-1-59
Sheet 1

Report of Am-Bett Oil Company, Inc. Month of December, 1977

Address P. O. Box 1589 (Street) Hobbs (City) New Mexico (State)

TOTAL STOCKS PIPELINE OIL BEGINNING OF MONTH (Attach additional sheets if necessary)

PLANT NAME	LOCATION	BARRELS
Eunice Treater Plant	SE/4 NW/4 3-21-37	1334
	TOTAL ALL PLANTS	1334

TOTAL PIPELINE OIL RECOVERED (Attach additional sheets if necessary)

PLANT NAME	LOCATION	BARRELS
Eunice Treater Plant	SE/4 NW/4 3-21-37	703
	TOTAL ALL PLANTS	703

DELIVERIES PIPELINE OIL (Attach additional sheets if necessary)

FROM	TO	BARRELS
Eunice Treater Plant	Phillips Petroleum Co.	590
	TOTAL ALL PLANTS	590

TOTAL STOCKS PIPELINE OIL END OF MONTH (Attach additional sheets if necessary)

PLANT NAME	LOCATION	BARRELS
Eunice Treater Plant	SE/4 NW/4 3-21-37	1447
	TOTAL ALL PLANTS	1447

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

NAME OF TREATING PLANT OPERATOR Am-Bett Oil Company, Inc.

By C. C. Gothard Title Vice-President Date 1-23-78

NEW MEXICO OIL CONSERVATION COMMISSION
PIPELINE QUALITY OIL RECOVERED BY TREATING PLANTS

Form C-118
(Revised 1-1-58)
Sheet 1A

PERMIT NUMBER	LEASE OPERATOR	LEASE NAME	GROSS VOLUME SEDIMENT OIL	NET BBLS. P.L. OIL RECOVERED
None	None	None	None	None

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JAN 25 1978
O. C. C.
ARTESIA, OFFICE

NEW MEXICO OIL CONSERVATION COMMISSION
TREATING PLANT OPERATOR'S MONTHLY REPORT

Form C-118
Revised 1-1-58
Sheet 1

Report of Yates Petroleum Corporation Month of December 1977

Address 207 S. 4th St. (Street) Artesia, (City) New Mexico 88210 (State)

TOTAL STOCKS PIPELINE OIL BEGINNING OF MONTH (Attach additional sheets if necessary)

PLANT NAME	LOCATION	BARRELS
Gerard AN Treating Plant	Eddy Co., Sec. 25-T18S-R25E	90
	TOTAL ALL PLANTS	

JAN 26 1978
O.C.C.
Santa Fe

TOTAL PIPELINE OIL RECOVERED (Attach additional sheets if necessary)

PLANT NAME	LOCATION	BARRELS
		0
	TOTAL ALL PLANTS	

DELIVERIES PIPELINE OIL (Attach additional sheets if necessary)

FROM	TO	BARRELS
		0
	TOTAL ALL PLANTS	

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JAN 25 1978
O. C. C.
ARTESIA, OFFICE

TOTAL STOCKS PIPELINE OIL END OF MONTH (Attach additional sheets if necessary)

PLANT NAME	LOCATION	BARRELS
Gerard AN Treating Plant	Eddy Co., Sec. 25-T18S-R25E	90
	TOTAL ALL PLANTS	90

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

NAME OF TREATING PLANT OPERATOR Gerard AN Treating Plant (Yates)

By Juanita Goodlett Title Production Clerk Date 1/24/78

NEW MEXICO OIL CONSERVATION COMMISSION
PIPFLINE QUALITY OIL RECOVERED BY TREATING PLANTS

Form C-118
(Revised 1-1-59)
Sheet 1 A

Tank Service Co., Inc. Dec. 77

PERMIT NUMBER	LEASE OPERATOR	LEASE NAME	GROSS VOLUME SEDIMENT OIL	NET BBLS. P.L. OIL RECOVERED
	Environpental Prot.	Loco Hills Dump Pit	500	250
	Salt Water Disposal Residue		750	375
			1250	625

NEW MEXICO OIL CONSERVATION COMMISSION
TREATING PLANT OPERATOR'S MONTHLY REPORT

Form C-118
Revised 1-1-59
Sheet 1

Report of Tank Service Company Month of December 1977

Address Box 215 (Street) Loco Hills (City) New Mexico (State)

TOTAL STOCKS PIPELINE OIL BEGINNING OF MONTH (Attach additional sheets if necessary)

PLANT NAME	LOCATION	BARRELS
Tank Service Co.	Eddy Co, Sec, 21-17-30	380
	TOTAL ALL PLANTS	380

TOTAL PIPELINE OIL RECOVERED (Attach additional sheets if necessary)

PLANT NAME	LOCATION	BARRELS
Tank Service Co.	Loco Hills, N.M.	625
	TOTAL ALL PLANTS	625

DELIVERIES PIPELINE OIL (Attach additional sheets if necessary)

FROM	TO	BARRELS
Tank Service Co.	Navajo Pipeline Co.	500
	TOTAL ALL PLANTS	500

TOTAL STOCKS PIPELINE OIL END OF MONTH (Attach additional sheets if necessary)

PLANT NAME	LOCATION	BARRELS
Tank Service Co.	Loco Hills, N.M.	505
	TOTAL ALL PLANTS	505

RECEIVED
JAN 12 1978
O. C. C.
ARTESIA, OFFICE

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

NAME OF TREATING PLANT OPERATOR Tank Service Co.

By Maxine Hodges Title Sec.; Treas. Date 1-11-78

NEW MEXICO OIL CONSERVATION COMMISSION
PIPELINE QUALITY OIL RECOVERED BY TREATING PLANTS

Form C-118
(Revised 1-1-58)
Sheet 1A

PERMIT NUMBER	LEASE OPERATOR	LEASE NAME	GROSS VOLUME SEDIMENT OIL	NET BBLS. P.L. OIL RECOVERED
	Cities Service Oil Company	Cato	135	127
		Peterson Penn	230	220
		Tobac Station	335	225
H 3701	El Paso Natural Gas	Tank # 49 & # 44	184	128
	Rice Engineering	Monument Waste	49	38
		G-19	67	47
		M-5	65	50
Shell	Shell Oil Company	Antelope Ridge	102	99
	Skelton Oil Company	Angel # 3	65	52
		Newmont	76	60
	Union Oil Co. of Calif.	Morton Fed.	36	35
	U. P. G., Inc.	West Eunice	145	136

NEW MEXICO OIL CONSERVATION COMMISSION
TREATING PLANT OPERATOR'S MONTHLY REPORT

Form C-118
Revised 1-1-58
Sheet 1

Report of General Petroleum, Inc. Month of December, 1977

Address Box 840 (Street) Hobbs (City) New Mex. 88240 (State)

TOTAL STOCKS PIPELINE OIL BEGINNING OF MONTH (Attach additional sheets if necessary)

PLANT NAME	LOCATION	BARRELS
Eunice Treater Plant	SE/4 Sec. 28, T-21-S, R-37-E	1980
	TOTAL ALL PLANTS	

TOTAL PIPELINE OIL RECOVERED (Attach additional sheets if necessary)

PLANT NAME	LOCATION	BARRELS
Eunice Treater Plant	See Schedule A	1217
	TOTAL ALL PLANTS	1217

DELIVERIES PIPELINE OIL (Attach additional sheets if necessary)

FROM	TO	BARRELS
Eunice Treater Plant	Cities Service Oil Company	1553
" " "	Latuna Gatuna Disposal	264
	TOTAL ALL PLANTS	1817

TOTAL STOCKS PIPELINE OIL END OF MONTH (Attach additional sheets if necessary)

PLANT NAME	LOCATION	BARRELS
Eunice Treater Plant	SE/4 Sec. 28, T-21-S, R-37-E	1380
	TOTAL ALL PLANTS	

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

NAME OF TREATING PLANT OPERATOR General Petroleum, Inc.

By [signature] Title General Manager Date 1-13-78

NEW MEXICO OIL CONSERVATION COMMISSION
PIPELINE QUALITY OIL RECOVERED BY TREATING PLANTS

Form C-118
(Revised 1-1-59)
Sheet 1-A

PERMIT NUMBER	LEASE OPERATOR	LEASE NAME	GROSS VOLUME SEDIMENT OIL	NET BBLS. P.L. OIL RECOVERED
H-3668	Warren Pet.	Tatum Plant Bronco Booster	31.00	30.38
H-3669	Burro Pipe Line	Lane SWD	510.00	382.50
H-3670	Phillips	Santa Fe Batt 5	28.00	27.44
H-3671	Phillips	ABO #1	25.00	24.50
H-3672	Phillips	Vacuum ABO Batt #4	30.00	29.40
H-3673	Shell	State VAA	10.00	9.80
H-3674	Shell	State H	15.00	14.70
H-3675	Texaco	BU Sanders (NCT)	39.00	23.40
H-3676	Texaco	BU Batt #1	30.00	15.00
H-3677	Texaco	Fed Lease Well #1	15.00	7.50
H-3695	Crown Central	Humble A Batt	85.00	82.45
H-3696	Phillips	Lea Lease	15.00	14.70
H-3710	Roberts & Hammack	Graham State	130.00	126.10
H-3711	Pollution Control	Laguna	6000.00	5880.00
			6963.00	6667.87

NEW MEXICO OIL CONSERVATION COMMISSION
TREATING PLANT OPERATOR'S MONTHLY REPORT

Form C-118
Revised 1-1
Sheet 1

Report of Gandy Construction Month of December 1977

Address Box 827 (Street) Tatum, New Mexico 88267 (City) (State)

TOTAL STOCKS PIPELINE OIL BEGINNING OF MONTH (Attach additional sheets if necessary)

PLANT NAME	LOCATION	BARRELS
Plant 5012	S11 T10 R35	3618.17
	TOTAL ALL PLANTS	

TOTAL PIPELINE OIL RECOVERED (Attach additional sheets if necessary)

PLANT NAME	LOCATION	BARRELS
Plant 5012	S11 T10 R35	6667.87
	TOTAL ALL PLANTS	

DELIVERIES PIPELINE OIL (Attach additional sheets if necessary)

FROM	TO	BARRELS
Plant 50122	Navajo Corp	1626.28
	TOTAL ALL PLANTS	

TOTAL STOCKS PIPELINE OIL END OF MONTH (Attach additional sheets if necessary)

PLANT NAME	LOCATION	BARRELS
Plant 5012	S11 T10 R35	8657.76
	TOTAL ALL PLANTS	

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

NAME OF TREATING PLANT OPERATOR M.C. & Dale Gandy Gandy Construction

By M.C. Gandy Title Ptr. Date 1-12-78

NEW MEXICO OIL CONSEPVATION COMMISSION
PIPELINE QUALITY OIL RECOVERED BY TREATING PLANTS

Form C-116
(Revised 1-1-58)
Sheet 1 A

PERMIT NUMBER	LEASE OPERATOR	LEASE NAME	GROSS VOLUME SEDIMENT OIL	NET BBLS. P.L. OIL RECOVERED
	Tom Ingram	Shultz	45%	49 BBLS
	Tipperary Corporation	Gulf State	10%	165 BBLS
	Tom Ingram	No. 1 Mid Hurst	33%	61 BBLS
	Tom Ingram	Federal E	23%	56 BBLS
	Read & Stevens	Santa Fe. # 4	21%	191 BBLS
	Crown Central	State B Mal Gra	30%	90 BBLS

NEW MEXICO OIL CONSERVATION COMMISSION
TREATING PLANT OPERATOR'S MONTHLY REPORT

Form C-116
Revised 1-1-58
Sheet 1

JAN - 4 1973
OIL CONSERVATION COMM.
Santa Fe

Report of New Mexico Petroleum Co. Month of Dec 1972

Address Box 994 (Street) Tatum (City) New Mexico (State)

TOTAL STOCKS PIPELINE OIL BEGINNING OF MONTH (Attach additional sheets if necessary)

PLANT NAME	LOCATION	BARRELS
Middlelane Treating Plant	SW¼/SE¼ Sec. 7 T-11-S R-34-E	810.77
	TOTAL ALL PLANTS	210.77

TOTAL PIPELINE OIL RECOVERED (Attach additional sheets if necessary)

PLANT NAME	LOCATION	BARRELS
Tom Ingram	Shultz lease	26.95
Tipperary Corporation	Gulf State	148.50
Tom Ingram	No. 1 Mid Hurst	40.87
Crown Central	St. B Mal Gra	63.00
Read & Stevens	Santa Fe # 4	150.89
Tom Ingram	Fed. E	43.12
Pit at Treating Plant		150.00
	TOTAL ALL PLANTS	623.33

DELIVERIES PIPELINE OIL (Attach additional sheets if necessary)

FROM	TO	BARRELS
	TOTAL ALL PLANTS	

TOTAL STOCKS PIPELINE OIL END OF MONTH (Attach additional sheets if necessary)

PLANT NAME	LOCATION	BARRELS
Middlelane Treating Plant	Tatum, New Mexico	834.10
	TOTAL ALL PLANTS	834.10

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

NAME OF TREATING PLANT OPERATOR New Mexico Petroleum Co.

By Orville Whited Title Partner Date 12-31-72

API Publ 2542
Price—$2.50

MANUAL
OF
PETROLEUM
MEASUREMENT STANDARDS

Chapter 10 ———— Section 4

STANDARD METHODS OF TEST FOR WATER AND SEDIMENT IN CRUDE OILS

AMERICAN PETROLEUM INSTITUTE API-2542

AMERICAN SOCIETY FOR TESTING AND MATERIALS ASTM D 96

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
OCC EXHIBIT NO. 4
CASE NO. 6150

FOREWORD

The standard in this publication is one of a series approved jointly by the American Society for Testing and Materials and the American Petroleum Institute. This standard is the result of a cooperative arrangement established by the two organizations to develop and jointly approve and publish standards dealing with quantitative and qualitative measurements for petroleum products and lubricants.

The American Society for Testing and Materials and the American Petroleum Institute have taken no position as to whether any method, apparatus or product mentioned herein is covered by an existing patent, nor has a position been taken as to the validity of any patent alleged to cover any such method, apparatus or product. Furthermore, the information contained in this standard does not grant the right, by implication or otherwise, for manufacture, sale or use in connection with any method, apparatus or product covered by letters patent; nor does it insure anyone against liability for infringement of letters patent.

This standard may be used by anyone desiring to do so, but neither the American Society for Testing and Materials nor the American Petroleum Institute shall be held responsible or liable in any way either for loss or damage resulting therefrom, or for the violation of any federal, state, or municipal regulations with which it may conflict.

Printed October, 1970

Standard Methods of Test for

WATER AND SEDIMENT IN CRUDE OILS[1]

ASTM Designation: D 96 - 68
API Standard: 2542
ADOPTED, 1963

This Standard of the American Society for Testing and Materials is issued under the fixed designation D 96; the final number indicates the year of original adoption as standard or, in the case of revision, the year of last revision. This is also a standard of the American Petroleum Institute issued under the fixed designation API 2542.

These methods were adopted as a joint ASTM-API Standard in 1963.

1. Scope

1.1 These methods describe procedures for the determination of water and sediment in crude oils.

1.2 The methods appear in the following order:

	Sections
Method A Laboratory Centrifuge Method	3 to 7
Method B. Field Centrifuge Method	8 to 13
Method C. Field Centrifuge Method, 12 50-ml Tube	14 to 19
Method D. Base Method	20 to 22

1.3 The Gravity Settling Method for Crude Oils is in use in some areas of the United States for determining water and sediment in crude oil deliveries. Where used this method is well known. The most recent standard reference is Method D in ASTM Designation D 96 - 63; API Standard 2542, published in the *1968 Book of ASTM Standards*, Part 18.

[1] Under the standardization procedures of the ASTM and the API, these methods are under the jurisdiction of the ASTM Committee D-2 on Petroleum Products and Lubricants and the API Central Committee on Petroleum Measurement. A list of D-2 members may be found in the ASTM Year Book.

Current edition accepted Sept. 13, 1968. Originally issued 1903. Replaces D 96 - 63.

2. Sample

2.1 The sample shall be thoroughly representative of the material in question and the portion used for the test shall be thoroughly representative of the sample itself. This requires vigorous agitation of the sample immediately before transferring the sample to the tube. Cold samples should be warmed to facilitate mixing. The difficulties in obtaining representative samples for this determination are unusually great; hence, the importance of sampling cannot be too strongly emphasized.

METHOD A. LABORATORY CENTRIFUGE METHOD

3. Apparatus

3.1 *Centrifuge*, capable of whirling two or more filled centrifuge tubes at a speed which can be controlled to give a relative centrifugal force (rcf) of between 500 and 800 at the tip of the tubes. The revolving head, trunnion rings, and trunnion cups, including the cushion, shall be soundly constructed to withstand the maximum centrifugal force capable of being delivered by the power source. The trunnion cups and cushions shall firmly support the tubes when the centrifuge is in motion. The centrifuge shall be enclosed by a metal shield or case strong enough to eliminate danger if any breakage occurs. Calculate the speed of the rotating head as follows:

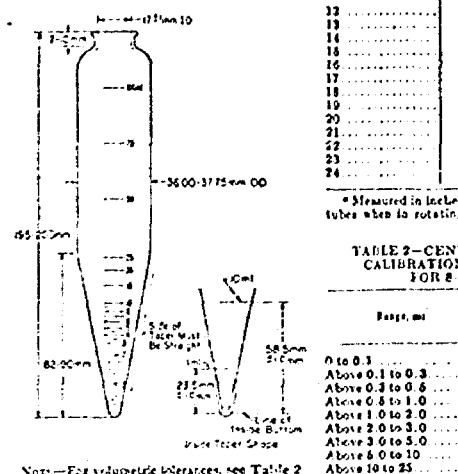
$$\text{rpm} = 265\sqrt{\frac{\text{rcf}}{d}}$$

where:
rcf = relative centrifugal force, and
d = diameter of swing, in., measured between tips of opposite tubes when in rotating position.

3.2 *Centrifuge Tubes*, cone-shaped, conforming to dimensions given in Fig. 1 and made of thoroughly annealed glass. The graduations, numbered as shown in Fig. 1 shall be clear and distinct, and the mouth constricted in shape for closure with a cork. Scale error tolerances and smallest graduations between various calibration marks are given in Table 2, and apply to calibrations made with air-free water at 20 C reading the bottom of a shaded meniscus.

3.3 *Bath for Centrifuge Tubes*—The bath shall be either a solid metal block or a liquid bath of sufficient depth for im-

mersing the centrifuge tube in vertical position to the 100-ml mark. Means shall be provided for maintaining temperature at 120 ± 2 F (49 ± 1 C) and 140 ± 2 F (60 ± 1 C).



NOTE—For volumetric tolerances, see Table 2

FIG. 1—Eight-Inch Centrifuge Tube.

TABLE 1—ROTATION SPEEDS APPLICABLE FOR CENTRIFUGES OF VARIOUS DIAMETERS OF SWING

Diameter of Swing, in.[a]	Rpm at 500 rcf	Rpm at 800 rcf
12	1710	2180
13	1650	2060
14	1590	2000
15	1530	1930
16	1480	1870
17	1440	1820
18	1400	1770
19	1370	1720
20	1330	1650
21	1300	1640
22	1270	1600
23	1240	1560
24	1210	1530

[a] Measured in inches between tips of opposite tubes when in rotating position.

TABLE 2—CENTRIFUGE TUBE CALIBRATION TOLERANCES FOR 8 IN. TUBE

Range, ml	Subdivision, ml	Volume Tolerance, ml
0 to 0.1	0.05	±0.02
Above 0.1 to 0.3	0.05	±0.03
Above 0.3 to 0.6	0.05	±0.05
Above 0.6 to 1.0	0.10	±0.05
Above 1.0 to 2.0	0.10	±0.10
Above 2.0 to 3.0	0.20	±0.10
Above 3.0 to 5.0	0.5	±0.20
Above 5.0 to 10	1.0	±0.50
Above 10 to 25	5.0	±1.00
Above 25 to 100	25	±1.00

4. Solvent

4.1 Toluene (Note 1) conforming to ASTM Specifications D 362, for Industrial Grade Toluene,[1] or benzene conforming to ASTM Specifications D 836, *for Industrial Grade Benzene*,[2] may be used as the solvent. A commercial demulsifier[3] may be added to the solvent but should not contribute to the water and sediment. The type and concentration is not limited, provided that the demulsifier itself does not contribute to the water and sediment. Commercial demulsifiers at a concentration of 7 ml per 1000 of solvent have been successfully used (Note 2).

4.2 The solvent shall be saturated with water at ambient temperature but shall be free of suspended water. Saturation may be accomplished by the addition of 2 ml of water per 1000 ml of solvent. A mechanical stirring device is recommended, but if none is available, shaking will aid in saturation. Adequate settling time should be provided to ensure that the solvent is free of suspended water before use.

NOTE 1—Toluene is the preferred solvent because of its lower toxicity.

NOTE 2—It is recognized that some crudes may require (1) other solvents or (2) solvent-demulsifier combinations. Such solvents and demulsifiers as agreed upon between the purchaser and the seller may be used after careful experimentation to determine suitability and desirability.

5. Procedure

5.1 Fill each of two centrifuge tubes (see 3.2) to the 50-ml mark with solvent; then pour immediately the well-shaken sample directly from the sample container into the centrifuge tubes until the total volume in each tube is 100 ml. Stopper the tubes tightly and shake vigorously until the contents are thoroughly mixed. Immerse the tubes to the 100-ml mark for 10 min in the bath (see 3.3) maintained at 120 ± 2 F (49 ± 1 C).

5.1.1 If wax contributes to the volume of water and sediment observed, preheat the oil-solvent mixture to 140 F (60 C) before each whirling; the final temperature of the mixture shall not drop below 115 F (46 C).

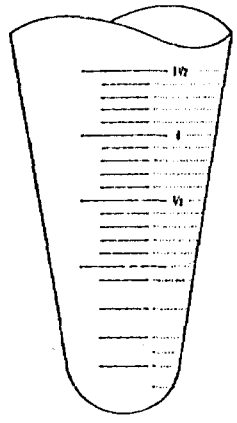


FIG. 2—Tip of 100 ml Cone-Shaped Tube.

5.2 Invert the tubes to assure that the oil and the solvent are uniformly mixed. If necessary, shake cautiously. (Caution—The vapor pressure at 140 F is approximately double that at 100 F.) Place the tubes in trunnion cups on opposite sides of the centrifuge to establish a balanced condition, and whirl 10 min at a rate, calculated from the equation given in 3.1 sufficient to produce a relative centrifugal force (rcf) of between 500 and 800 at the tip of the whirling tubes. (For the relationship between diameter of swing, rcf, and rpm, see Table 1.) Read and record the combined volume of water and sediment at the bottom of each tube to the nearest 0.05 ml from 0.1 to 1-ml graduation and to the nearest 0.1 above 1-ml graduation. Below 0.1 ml, estimate to the nearest 0.025 ml. Return the tubes without agitation to the centrifuge and whirl for 10 min at the same rate. Repeat this operation until the combined volume of water and sediment remains constant for two consecutive readings. In general, not more than two whirlings are required.

NOTE 3—With certain types of oil it is difficult to obtain a clean break between the oil layer and the separated water. In such cases one or more of the following remedies may be effective: (1) raise the temperature to 140 F and guard against allowing the temperature to drop below 115 F at the end of the run; (2) shake the mixture between whirlings in the centrifuge just sufficiently to disperse the emulsion; (3) use a different, or increased amount of demulsifier; however, it should not contribute to the water and sediment. After a satisfactory procedure for a particular type of oil has been worked out, it will ordinarily be found suitable for all samples of the same type.

5.3 Record the final volume of water and sediment in each tube and report the sum of these two readings as the percentage of water and sediment.

6. Report

6.1 The report shall include the following:

6.1.1 The percentage of water and sediment. (Results lower than 0.05 percent reported either as zero or 0.05, whichever is closer.)

6.1.2 The name of and amount of demulsifier used,

6.1.3 The solvent used if different from those in 4. Solvent, and

6.1.4 The bath temperature.

7. Precision

7.1 The following criteria should be used for judging the acceptability of results (95 percent probability):

7.1.1 *Repeatability*—Duplicate results by the same operator should be considered suspect if they differ by more than the values shown on the "repeatability" curve in Fig. 3.

7.1.2 *Reproducibility*—The results submitted by each of two laboratories should be considered suspect if they differ by more than the values shown on the "reproducibility" curve in Fig. 3.

METHOD B. FIELD CENTRIFUGE METHOD

8. Apparatus

8.1 *Centrifuge for Field Use*, meeting the requirements prescribed in 3.1.

8.2 *Centrifuge Tube, 8-in.*, cone-shaped as described in 3.2 and shown in Fig. 1.

8.3 *Centrifuge Tube, 6 in.*, cone-shaped conforming to dimensions given in Fig. 4 and made of thoroughly annealed glass. The graduations, numbered as shown in Fig. 4, shall be clear and distinct, and the mouth constricted in shape for closure with a cork. Scale error tolerances and smallest graduations between various calibration marks are given in Table 3, and apply to calibrations made with air-free water at 20 C, reading the bottom of a shaded meniscus. While the use of the 8-in. tube is preferable, the 6-in. tube is

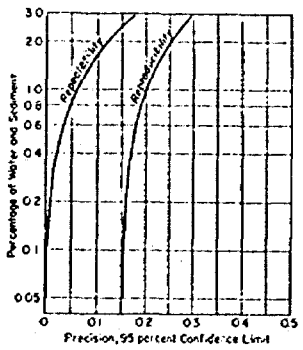


FIG. 3—Precision Curves for Centrifuge Tube Method.

included because of the extensive use of centrifuges of limited diameter.

8.4 *Centrifuge Tube, Pear-Shaped*, conforming to dimensions given in Fig. 5 and made of thoroughly annealed glass. The graduations, numbered as shown in Fig. 5 shall be clear and distinct, and the mouth constricted in shape for closure with a cork. Scale error and tolerances and smallest graduations between various calibration marks are given in Table 4 and apply to calibrations made with air-free water at 20 C reading the bottom of a shaded meniscus. (This tube has generally been superseded by tubes shown in Figs. 1 and 4, however, its use warrants inclusion in the method.)

TABLE 3 - CENTRIFUGE TUBE CALIBRATION TOLERANCES FOR 6 IN. TUBE

Range, ml	Subdivision, ml	Volume Tolerance, ml
0 to 0.1	0.05	±0.02
Above 0.1 to 0.3	0.05	±0.03
Above 0.3 to 0.6	0.05	±0.05
Above 0.6 to 1.0	0.10	±0.075
Above 1.0 to 1.6	0.10	±0.10
Above 1.6 to 2	0.10	±0.20
Above 2 to 3	0.20	±0.30
Above 3 to 5	0.50	±0.50
Above 5 to 10	1	±0.75
Above 10 to 25	5	±1.0
at 50, 75, and 100	...	±1.5

8.5 *Permissible Exception*—When mutually agreeable, centrifuge tubes graduated in 200 parts; direct reading in percent water and sediment, may be used and may be 6-in. cone-shaped or pear-shaped. The use of these tubes is limited to testing with equal parts of solvent and oil.

TABLE 4—PEAR-SHAPED CENTRIFUGE TUBE CALIBRATION TOLERANCES

Range, ml	Smallest Scale Division, ml	Maximum Scale Error, ml
0 to 1.8	0.1	0.03
Over 1.8 to 3.0	0.2	0.20
Over 3.0 to 6.0	0.5	0.30
Over 6.0 to 10.0	1	0.60
Over 10 to 25	5	1.0
Over 25 to 100	25	2.0

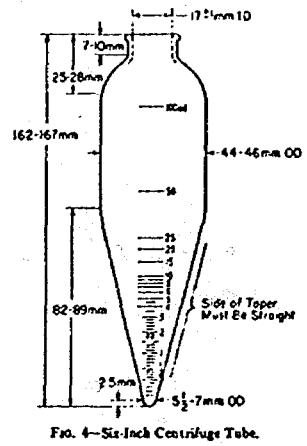


FIG. 4—Six-Inch Centrifuge Tube.

9. Solvent

9.1 The following solvents and demul-

[1] *Book of ASTM Standards*, Part 20.
[2] Tretolite F-46 and Tretolite C-10 have been successfully used.

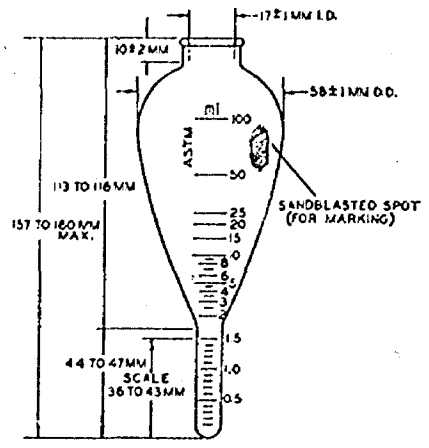


FIG. 5—Pear-Shaped Centrifuge Tube.

sifiers have been reported as satisfactory for field testing.

Solvents	Demulsifiers
Stoddard solvent	Commercial crude oil demulsifiers
Toluene	Phenol
Xylene	Nitrogen bases
Kerosine	Naphthenic acids
White gasoline	

9.1.1 Toluene and xylene shall be saturated with water at ambient or room temperature but shall be free of suspended water. Solvents are toxic and care should be exercised in their use. Gasoline containing tetraethyl lead or deicer should never be used. When Stoddard solvent, kerosine, and white gasoline are used they must have similar solvent characteristics with respect to the crude oil being tested.

9.1.2 The use of a demulsifier (resolving agent) with solvents shall be permitted subject to the mutual consent of all parties concerned when tests demonstrate that correct results cannot otherwise be determined. The type and concentration is not limited, provided that the demulsifier itself does not contribute to the water and sediment. Commercial demulsifiers,[1] at a concentration of 7 ml/1000 ml of solvent have been successfully used (Note 2).

10. Procedure

10.1 Fill the centrifuge tube to the 50-ml mark with solvent; then pour the well-shaken sample directly from the container into the tube until the total volume is 100 ml. Stopper the tube and shake until the contents are thoroughly mixed. Immerse the tube in a bath or dry heating device and heat the contents of the tube to 120 F. Where field conditions do not permit the use of sensitive temperature control devices, pocket-type thermometers may be used. In such cases every effort should be made to ensure a reasonably consistent bath temperature for the same oil at each time of testing.

10.1.1 If wax contributes to the volume of water and sediment observed, preheat the oil-solvent mixture to 140 F before each whirling; the final temperature of the mixture shall not drop below 115 F. A heated centrifuge may be required to maintain a final temperature of 115 F.

10.2 Invert the tube to assure that the oil and the solvent are uniformly mixed. If shaking is necessary, proceed cautiously because the vapor pressure at 140 F is approximately double that at 100 F. Place tubes in trunnion cups on opposite sides of the centrifuge to establish a balanced condition, and whirl for 3 to 10 min depending upon the character of the sample, at a rate calculated from the equation given in 3.1, sufficient to produce a relative centrifugal force (rcf) of between 500 and 800 at the tip of the whirling tubes. (For the relationship between diameter of swing, rcf, and rpm, see Table 2.)

10.3 Read and record the combined volume of water and sediment at the bottom of the tube to the nearest 0.05 ml from 0.1 to 1-ml graduation and to the nearest 0.1 above 1-ml graduation. Below 0.1 ml, estimate to the nearest 0.025 ml. If experience with the oil is limited, it is advisable to return the tube to the centrifuge without agitation and repeat the operation.

10.3.1 With certain types of oil it is difficult to obtain a clean break between the oil layer and the separated water. In such cases one or more of the following remedies may be effective: (*1*) raise the temperature to 140 F; (*2*) shake the mixture between whirlings in the centrifuge just sufficiently to disperse the emulsion; (*3*) use a different, or increased amount of demulsifier; however, it should not contribute to the water and sediment; (*4*) use a different, or increased amount of solvent. After a satisfactory procedure for a particular type of oil has been worked out, it will ordinarily be found suitable for all samples of the same type.

11. Calculation

11.1 Multiply the reading obtained in accordance with the procedure described in 10.1, 10.2, and 10.3 by two and record the results as the percentage of water and sediment. For example, if a reading is 0.025 ml, record the percentage of water and sediment as 0.05. If a reading is 0.15 ml, record the percentage of water and sediment as 0.30. If the results are lower than 0.05 percent, record the percentage of water and sediment as described in 12. Record. When the ratio of solvent to oil is different than 50 percent, the reading obtained in 10.3 must be multiplied by the proper ratio factor in order to obtain the correct percentage of water and sediment.

12. Record

12.1 The record shall include the following:

12.1.1 The percentage of water and sediment. (Results lower than 0.05 percent reported either as zero or 0.05, whichever is closer.)

12.1.2 The solvent used.

12.1.3 The type of and amount of demulsifier if used.

12.1.4 The bath temperature.

13. Precision

13.1 For methods using the 8-in. cone-shaped tube, as in 8. Apparatus, or the 6-in. cone-shaped tube the following criteria should be used for judging the acceptability of results (95 percent probability):

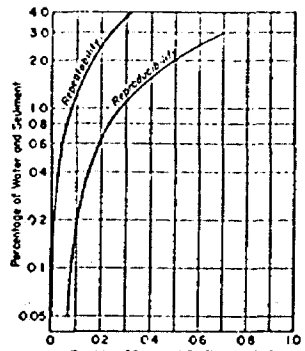


FIG. 6—Precision Curves for 6-in. Centrifuge Tube Method.

FIG. 7—Centrifuge Tube, 12.50-ml Capacity.

13.1.1 *Repeatability*—Duplicate results by the same operator should be considered suspect if they differ by more than the values shown on the "repeatability" curve (Fig. 6).

13.1.2 *Reproducibility*—The results submitted by each of two separate parties should be considered suspect if they differ by more than the values shown on the "reproducibility" curve (Fig. 6).

13.2 For the method using pear-shaped tube the following criteria should be used for judging the acceptability of results (95 percent probability):

13.2.1 *Repeatability*—Duplicate results by the same operator should be considered suspect if they differ by more than the following:

Water and Sediment (Volume Percent)	Repeatability
0 to 0.6	0.1
0.6 to 1.6	0.2

13.2.2 Reproducibility figures are not available.

METHOD C. FIELD CENTRIFUGE METHOD —12.50 ML TUBE—CRUDE OILS

NOTE 4—This method is used for crude oil in some areas of the United States and is therefore included in the standard.

14. Apparatus

14.1 *Centrifuge for Field Use,* either hand- or electrically powered, meeting the requirements prescribed in 3.1 (see Table 2).

14.2 *Centrifuge Tube, API, 12.50-ml Capacity*—The capacity of this tube shall be 12.50 ml in the calibrated portion, with capacity, dimensions, graduations, tolerances, and markings as shown in Fig. 7 and Tables 5, 6, and 7.

TABLE 5—CAPACITY OF 12.50 ML CENTRIFUGE TUBE

Indicated Percentage	Milliliters
1	0.125
2	0.250
3	0.375
5	0.625
10	1.250
15	1.875
20	2.500
25	3.125
30	3.750
35	4.375
40	5.000
45	5.625
50	6.250
100	12.500

TABLE 6—SPECIFICATIONS FOR 12.50-ML CENTRIFUGE TUBE

Graduations
Graduations shall be marked as follows:

0 to 3 percent	0.2 of 1 percent
3 to 10 percent	0.5 of 1 percent
10 to 63 percent	1.0 percent
50 to 100 percent	Blank

Specifications
Length, overall: 118 ± 2 mm
Length, 0 to 50 percent: 66 ± 3 mm
Length, 50 to 100 percent: 35 ± 3 mm
Length, tapered part: 56 to 62 mm
Length, untapered part: 53 to 60 mm
Tube thickness: 2 to 3 mm, included in overall measurement
Diameter, untapered: 17 ± 0.25 mm
Diameter, bottom, at the 0.3 percent marking: 3 ± 1 mm
Normal thickness: perfect semitriele bottom.

TABLE 7—TOLERANCES FOR 12.50-ML CENTRIFUGE TUBE

Range, percent	Tolerance, percent	Volumetric Capacity, ml
0 to 1	±0.1	±0.0125
1 to 2	±0.18	±0.0185
2 to 3	±0.2	±0.0250
3 to 5	±0.2	±0.0250
5 to 10	±0.4	±0.0500
10 to 25	±0.8	±0.0625
25 to 50	±1.0	±0.1250
50 to 100	±1.0	±0.1250

14.2.1 *Limits of Error,* Limit of error (plus or minus tolerance) is based on the total calibrated volume of tube as shown in Table 7. Molded tubes are preferred. Blown tubes that comply with the stipulations on uniform wall thickness are satisfactory. All centrifuge tubes shall be retempered to remove manufacturing strains. The lower end of the centrifuge tube must be clear and perfectly rounded inside, with the same thickness of glass as in the main body of the tube.

15. Solvent

15.1 Solvents and demulsifiers to be used in this method are the same as given in 9. Solvent, for Method B.

16. Procedure

16.1 Fill two tubes (14. Apparatus) to the 50 percent mark, with the solvent, with or without demulsifier and then to the 100 percent mark with the sample of oil to be tested. Stopper the tubes and shake until the contents are thoroughly

mixed, place them in the centrifuge and revolve at the rate of 1500 rpm for 3 to 10 min, depending upon the character of the sample. Remove the tubes and record the combined volume of water and sediment in each tube to the nearest 0.1 percent.

16.2 Replace the tubes in the centrifuge and revolve again for from 3 to 10 min. Again record the combined water and sediment. If there is a difference of more than 0.2 percent between the first and second readings, continue centrifuging until two consecutive readings check within 0.2 percent.

17. Calculation

17.1 The sum of the final readings on the two 12 50 ml centrifuge tubes represents the volume percentage of water and sediment in the crude oil tested.

18. Report

18.1 The report shall include:

18.1.1 The percentage of water and sediment,

18.1.2 The solvent used, and

18.1.3 The type and amount of demulsifier if used.

19. Precision

19.1 The precision of this method has not been established.

METHOD D. BASE METHOD

20. Procedure

20.1 The sum of the results obtained in accordance with ASTM Method D 95 – API 2560, Test for Water in Petroleum Products and Other Bituminous Materials,[4] and ASTM Method D 473 – API 2561, Test for Sediment in Crude and Fuel Oils by Extraction,[4] shall be assumed to be the correct value for water and sediment. These methods shall be considered as the "base method," and shall be used when agreement cannot be reached between the buyer and seller when using any of the other methods described. The base method shall be considered the standard method of test for crude oils and fuel oils having characteristics not suitable for test by the centrifuge method. The base method shall be used as a criterion to compare the effectiveness of solvents, with or without demulsifiers, used in Methods A, B, and C.

20.2 For crude oils containing sediment in accordance with Method D 473 – API 2561 in excess of 0.02 weight percent, the results shall be converted to a volume basis because water and sediment values are commonly reported in volume percent. As the major portion of the sediment would probably be sand (silicon dioxide, which has a specific gravity of 2.32) and a small amount of other natural-occurring materials (with a specific gravity lower than that of sand) an arbitrary specific gravity of 2.0 shall be used for the resulting sediment. Then, to obtain volume percent sediment, the weight percent sediment obtained in accordance with Method D 473 – API 2561 shall be divided by two.

21. Calculation

21.1 Calculate the percentage of water in accordance with Method D 95 – API 2560. Convert the weight percentage sediment obtained in accordance with Method D 473 – API 2561 to volume percentage as described. Calculate the volume percentage of water and sediment by adding the two results.

22. Precision

22.1 *Water*—See Section 8 of Method D 95 – API 2560.

22.2 *Sediment*—See Section 7 of Method D 473 – API 2561.

[4] Appears in this publication.

ammendments coming up Feb 22 nd.

PROPOSED REVISIONS OF RULES 311, 312, 1117, AND 1118
OF COMMISSION RULES AND REGULATIONS TO BE CONSIDERED AT AN EXAMINER HEARING
FEBRUARY 22, 1978

RULE 311. SEDIMENT OIL, TANK CLEANING, AND TRANSPORTATION OF MISCELLANEOUS HYDROCARBONS

(a) "Sediment Oil" is defined as tank bottoms and any other accumulations of liquid hydrocarbons on an oil and gas lease, which hydrocarbons are not merchantable through normal channels.

(b) No tank shall be cleaned of sediment oil nor shall sediment oil be removed from any lease without prior approval of the Commission. Authorization for tank cleaning may be received by the operator of the lease or by the company contracted or otherwise authorized to perform the tank cleaning by obtaining Commission approval on Form C-117-A (Tank or Pit Cleaning and Sediment Oil Disposal Permit). No operator, contractor, or other party shall engage in the cleaning of any tank of sediment oil or the removal of sediment oil from any lease without an approved copy of Form C-117-A at the site.

(c) No sediment oil shall be destroyed unless and until the Commission has approved an application to destroy the same on Form C-117-A (Tank or Pit Cleaning and Sediment Oil Disposal Permit). Unless the authorization to destroy sediment oil is utilized within ten (10) days after approval of the Form C-117-A such authorization is automatically revoked. However, the District Supervisor may approve one ten (10) day extension for good cause shown.

(d) Any operator, contractor, or other party which cleans any tank of sediment oil or removes sediment oil from any lease shall file Form C-117-B (Monthly Sediment Oil Disposal Statement) setting out all information required thereon.

(e) Tank bottoms and/or pit oil from separate leases shall not be commingled prior to delivery to a treating plant unless the amount of pipeline oil attributable to each lease shall be determined by testing a representative sample from each lease in accordance with the standard centrifugal test prescribed by API Code for Measuring, Sampling, and Testing Crude Oil, Number 25, Section 5.

(f) Any merchantable oil recovered from sediment oil shall be charged against the allowable for the wells on the originating lease. All such recovered oil shall be reported by the operator of the lease on Form C-115 (Operator's Monthly Report).

(g) "Miscellaneous Hydrocarbons" are defined as tank bottoms occurring at pipeline stations, crude oil storage terminals, or refineries, pipeline break oil, catchings collected in traps, drips, or scrubbers by operators of gasoline plants in such plants or in the gathering lines serving such plants, the catchings collected in community salt water disposal systems, or any other liquid hydrocarbon which is not lease crude or condensate.

(h) Except in case of emergency, no miscellaneous hydrocarbons shall be delivered to a treating plant until Commission approval shall be obtained on Form C-117-A (Tank or Pit Cleaning and Sediment Oil Disposal Permit).

Whenever an emergency shall exist which requires delivery of miscellaneous hydrocarbons to a treating plant prior to approval of Form C-117-A, the transporter of such hydrocarbons shall notify the supervisor of the appropriate Commission district office of the nature and extent of such emergency on the first working day following the emergency and shall file Form C-117-C within 2 working days following the emergency. For extended emergencies, the district supervisor may authorize the unlimited movement of miscellaneous hydrocarbons to a treating plant and during the period of the emergency and shall approve a Form C-117-A filed subsequent to the conclusion of such emergency and covering the entire volume of miscellaneous hydrocarbons transported.

RULE 312. TREATING PLANTS

No treating plant shall operate except in conformity with the following provisions:

(a) Prior to the construction of a treating plant, a written application shall be filed for a treating plant permit stating in detail the location and type and capacity of the plant contemplated. The Commission will set such application for hearing to determine whether the proposed plant and method of processing will efficiently process, treat, and reclaim sediment oil. Before beginning actual operations, any permittee shall file with the Commission a performance bond in the amount of $10,000, conditioned upon substantial compliance with applicable statutes of the State of New Mexico and all rules, regulations, and orders of the Oil Conservation Commission of New Mexico.

(b) Such permit shall entitle the treating plant operator to an approved Form C-104, Request for Allowable and Authorization to Transport Oil and Natural Gas for the total amount of products secured from sediment oils processed by the operator. All permits shall be revocable, after notice and hearing, upon showing of good cause.

(c) No treating plant operator may accept sediment oil at or into the treating facility unless the same is accompanied by an approved Form C-117-A (Tank or Pit Cleaning and Sediment Oil Disposal Permit).

(d) Except as provided under Rule 311(b), no treating plant operator may accept tank bottoms from pipeline stations, crude oil storage terminals or refineries, pipeline break oil or other miscellaneous hydrocarbons for processing or mixing with recovered pipeline oil unless the same is accompanied by an approved Form C-117-A.

(e) All treating plant operators shall file a monthly report which shall detail the net oil recovered and sold during the preceding month. See Rule 1118.

The operator of each lease from which sediment oil is removed for reclamation shall be promptly notified by the treating plant operator of the amount of pipeline oil recovered therefrom. In the event sediment oil from two or more separate leases is to be commingled prior to treating, the treating plant operator shall determine the amount of pipeline oil attributable to each lease by testing a representative sample of the sediment oil from said lease in accordance with the standard centrifugal test prescribed by the API Code for Measuring, Sampling, and Testing Crude Oil, Number 25, Section 5.

RULE 1117. TANK OR PIT CLEANING AND SEDIMENT OIL DISPOSAL PERMIT (Form C-117-A), AND MONTHLY SEDIMENT OIL DISPOSAL STATEMENT (Form C-117-B)

(a) Form C-117-A, Tank or Pit Cleaning and Sediment Oil Disposal Permit, shall be submitted to the appropriate District Office of the Commission in QUINTUPLICATE and in accordance with Rule 311 (b) and (c).

(b) Form C-117-B, Monthly Sediment Oil Disposal Statement shall be submitted both to the Santa Fe office and the appropriate District Office(s) of the Commission in accordance with Rule 311 (d).

RULE 1118. TREATING PLANT OPERATOR'S MONTHLY REPORT (Form C-118)

Form C-118 shall be submitted in DUPLICATE to the appropriate District Office of the Commission in accordance with Rule 312, and shall contain all the information required thereon. Column 1 of Sheet 1-A of Form C-118 entitled "Permit Number," has reference to the Tank or Pit Cleaning and Sediment Oil Disposal Permit, Form C-117-A for each lot of oil picked up for processing.

Form C-117 A

NEW MEXICO OIL CONSERVATION COMMISSION

TANK CLEANING, SEDIMENT OIL REMOVAL, TRANSPORTATION OF MISCELLANEOUS HYDROCARBONS AND DISPOSAL PERMIT

PERMIT NUMBER _____

(Operator or Owner) _____ (Address) _____

(Lease Name if Sediment Oil) _____ (Location) _____

OPERATION TO BE PERFORMED:

☐ Tank Cleaning ☐ Sediment Oil Removal ☐ Transportation of Miscellaneous Hydrocarbons

Operator or Owner Representative authorizing work _____

Date Work to be Performed _____

TANK CLEANING DATA

Tank Number _____ Volume _____

Tank Type _____ Volume Below Load Line _____

SEDIMENT OIL OR MISCELLANEOUS HYDROCARBON DATA

Sediment Oil From: ☐ Pit ☐ Cellar ☐ Other*

Miscellaneous Oil

Tank Bottoms From: ☐ Pipeline Station ☐ Crude Terminal ☐ Refinery ☐ Other*

Catchings from: ☐ Gasoline Plant ☐ Gathering Lines ☐ Salt Water Disposal System ☐ Other*

Pipeline Break Oil or Spill ☐

*Other(Explain) _____

VOLUME AND DESTINATION

Estimated Volume _____ barrels

Miscellaneous Hydrocarbons to be delivered to (Name and Location of treating plant)

DESTRUCTION OF SEDIMENT OIL

Destruction by: ☐ Burning ☐ Pit Disposal ☐ Use on Roads or Firewalls ☐ Other (Explain) _____

Location of Destruction _____

Justification of Destruction _____

APPLICATION MAY BE MADE BY EITHER OF THE FOLLOWING:

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

Owner _____ Transporter _____

By _____ By _____

Title _____ Title _____

Date _____ Date _____

NEW MEXICO OIL CONSERVATION COMMISSION

Approved By _____ Title _____ Date _____

A COPY OF THIS FORM MUST BE ON LOCATION DURING TANK CLEANING, REMOVAL OF SEDIMENT OIL OR MISCELLANEOUS HYDROCARBONS, AND MUST BE PRESENTED WITH TANK BOTTOMS, SEDIMENT OIL, MISCELLANEOUS HYDROCARBONS AT THE TREATING PLANT TO WHICH IT IS DELIVERED

Form C-117-B

NEW MEXICO OIL CONSERVATION COMMISSION

MONTHLY SEDIMENT OIL
DISPOSAL STATEMENT

Company Name _____ MONTH _____ YEAR _____

Tank or Pit Cleaning Permit No.	Date of Cleaning	Volume Sediment Oil Recovered	Disposal method or Name and location of Reclamation Plant to which Sediment Oil was Delivered

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

By _____

Title _____

Date _____

Distribution: Original to Santa Fe, carbon copy to district office.

Dan

PROPOSED REVISED RULE 311

RULE 311. SEDIMENT OIL, TANK CLEANING, AND TRANSPORTATION OF MISCELLANEOUS HYDROCARBONS

(a) "Sediment Oil" is defined as tank bottoms and any other accumulations of liquid hydrocarbons on an oil and gas lease, which hydrocarbons are not merchantable through normal channels.

(b) No tank shall be cleaned of sediment oil nor shall sediment oil be removed from any lease without prior approval of the Commission. Authorization for tank cleaning may be received by the operator of the lease or by the company contracted or otherwise authorized to perform the tank cleaning by obtaining Commission approval on Form C- 117-A (Tank or Pit Cleaning and Sediment Oil Disposal Permit). No operator, contractor, or other party shall engage in the cleaning of any tank of sediment oil or the removal of sediment oil from any lease without an approved copy of Form C- 117-A at the site.

(c) No sediment oil shall be destroyed unless and until the Commission has approved an application to destroy the same on Form C- 117-A (Tank or Pit Cleaning and Sediment Oil Disposal Permit). Unless the authorization to destroy sediment oil is utilized within ten (10) days after approval of the Form C- 117-A such authorization is automatically revoked. However, the District Supervisor may approve one ten (10) day extension for good cause shown.

(d) Any operator, contractor, or other party which

cleans any tank of sediment oil or removes sediment oil from any lease shall file Form C- 117-B (Monthly Sediment Oil Disposal Statement) setting out all information required thereon.

(e) Tank bottoms and/or pit oil from separate leases shall not be commingled prior to delivery to a treating plant unless the amount of pipeline oil attributable to each lease shall be determined by testing a representative sample from each lease in accordance with the standard centrifugal test prescribed by API Code for Measuring, Sampling, and Testing Crude Oil, Number 25, Section 5.

(f) Any merchantable oil recovered from sediment oil shall be charged against the allowable for the wells on the originating lease. All such recovered oil shall be reported by the operator of the lease on Form C-115 (Operator's Monthly Report).

(g) "Miscellaneous Hydrocarbons" are defined as tank bottoms occurring at pipeline stations, crude oil storage terminals, or refineries, pipeline break oil, catchings collected in traps, drips, or scrubbers by operators of gasoline plants in such plants or in the gathering lines serving such plants, the catchings collected in community salt water disposal systems, or any other liquid hydrocarbon which is not lease crude or condensate.

(h) No miscellaneous hydrocarbons shall be delivered to a treating plant until Commission approval shall be obtained on Form C-117-C (Authorization to Transport Miscellaneous Hydrocarbons).

RULE 312. TREATING PLANTS

No treating plant shall operate except in conformity with the following provisions:

(a) Prior to the construction of a treating plant, a written application shall be filed for a treating plant permit stating in detail the location and type and capacity of the plant contemplated. The Commission will set such application for hearing to determine whether the proposed plant and method of processing will efficiently process, treat, and reclaim sediment oil. Before beginning actual operations, any permittee shall file with the Commission a performance bond in the amount of $10,000, conditioned upon substantial compliance with applicable statutes of the State of New Mexico and all rules, regulations, and orders of the Oil Conservation Commission of New Mexico.

(b) Such permit shall entitle the treating plant operator to an approved Form C-104, Request for Allowable and Authorization to Transport Oil and Natural Gas for the total amount of products secured from sediment oils processed by the operator. All permits shall be revocable, after notice and hearing, upon showing of good cause.

(c) No treating plant operator may accept sediment oil at or into the treating facility unless the same is accompanied by an approved Form C-117-A (Tank or Pit Cleaning and Sediment Oil Disposal Permit).

(d) No treating plant operator may accept tank bottoms from pipeline stations, crude oil storage terminals or refineries, pipeline break oil or other miscellaneous hydrocarbons for processing or mixing with recovered pipeline oil unless the same is accompanied by an approved Form C-117-C .

(e) All treating plant operators shall file a monthly report which shall detail the net oil recovered and sold during the preceding month. See Rule 1118.

The operator of each lease from which sediment oil is removed for reclamation shall be promptly notified by the treating plant operator of the amount of pipeline oil recovered therefrom. In the event sediment oil from two or more separate leases is to be commingled prior to treating, the treating plant operator shall determine the amount of pipeline oil attributable to each lease by testing a representative sample of the sediment oil from said lease in accordance with the standard centrifugal test prescribed by the API Code for Measuring, Sampling, and Testing Crude Oil, Number 25, Section 5.

PROPOSED REVISED RULE 1117

RULE 1117 TANK OR PIT CLEANING AND SEDIMENT OIL DISPOSAL PERMIT (Form C-117-A), MONTHLY SEDIMENT OIL DISPOSAL STATEMENT (Form C-117-B), AND AUTHORIZATION TO TRANSPORT MISCELLANEOUS HYDROCARBONS (Form C-117-C)

(a) Form C-117-A, Tank or Pit Cleaning and Sediment Oil Disposal Permit, shall be submitted to the appropriate District Office of the Commission in QUINTUPLICATE and in accordance with Rule 311 (b) and (c).

(b) Form C-117-B, Monthly Sediment Oil Disposal Statement shall be submitted both to the Santa Fe office and the appropriate District Office(s) of the Commission in accordance with Rule 311 (d).

(c) Form C-117-C, Authorization to Transport Miscellaneous Hydrocarbons shall be submitted to the appropriate District Office of the Commission in QUINTUPLICATE and in accordance with Rule 311 (h).

PROPOSED REVISED RULE 1118

RULE 1118. TREATING PLANT OPERATOR'S MONTHLY REPORT (Form C-118)

Form C-118 shall be submitted in DUPLICATE to the appropriate District Office of the Commission in accordance with Rule 312, and shall contain all the information required thereon. Column 1 of Sheet 1-A of Form C-118 entitled "Permit Number," has reference to the Sediment Oil Recovery Permit, Form C-117-A or Form C-117-C, for each lot of oil picked up for processing.

Form C-117

NEW MEXICO OIL CONSERVATION COMMISSION

TANK OR PIT CLEANING AND
SEDIMENT OIL DISPOSAL PERMIT

PERMIT NUMBER _____

(Operator) _____ (Address) _____

(Lease) _____ (Location) _____

Operation to be performed Tank Cleaning Pit Cleaning

Operator representative authorizing work _____

Date Work to be Performed _____ Equipment to be used _____

TANK DATA

Tank Number _____ Volume _____

Tank Type _____ Volume Below Load Line _____

DISPOSAL OF SEDIMENT OIL

Type of Sediment _____ Estimated Volume _____

Sediment Oil to be disposed of by:

(a) Delivery to Reclamation Plant (name and location of plant) _____

_____; OR,

(b) Destruction by: Burning _____ Pit Disposal _____

Use on lease roads or firewalls _____

Other (explain) _____

Justify any Destruction: _____

APPLICATION MAY BE MADE BY EITHER OF THE FOLLOWING:

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

Operator _____ Tank Cleaner _____

By _____ By _____

Title _____ Title _____

Date _____ Date _____

NEW MEXICO OIL CONSERVATION COMMISSION

Approved by _____ Title _____ Date _____

A COPY OF THIS FORM MUST BE ON LOCATION DURING TANK OR PIT CLEANING, AND MUST BE PRESENTED WITH SEDIMENT OIL AT THE PLANT TO WHICH IT IS DELIVERED.

Form C-117

NEW MEXICO OIL CONSERVATION COMMISSION

MONTHLY SEDIMENT OIL
DISPOSAL STATEMENT

Company Name _____ MONTH _____ YEAR _____

Tank or Pit Cleaning Permit No.	Date of Cleaning	Volume Sediment Oil Recovered	Disposal method or Name and location of Reclamation Plant to which Sediment Oil was Delivered

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

By _____

Title _____

Date _____

Distribution: Original to Santa Fe, carbon copy to district office.

NEW MEXICO OIL CONSERVATION COMMISSION
AUTHORIZATION TO TRANSPORT MISCELLANEOUS HYDROCARBONS

PERMIT NUMBER _____

(Owner) _____ (Location) _____

(Address) _____

Owner representative authorizing work _____

Date Work to be Performed _____ Equipment to be Used _____

TYPE HYDROCARBON

Tank Bottoms From — Pipeline Station / Crude Storage Terminal / Refinery

Catchings From — Gasoline Plant / Gathering Lines / Saltwater Disposal System

Pipeline Break Oil

Other (Explain) _____

_____

_____

VOLUME AND DESTINATION

Estimated Volume _____ barrels

Miscellaneous Hydrocarbons to be delivered to (name and location of treating plant) __

_____

APPLICATION MAY BE MADE BY EITHER OF THE FOLLOWING:

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

Owner _____	Transporter _____
By _____	By _____
Title _____	Title _____
Date _____	Date _____

NEW MEXICO OIL CONSERVATION COMMISSION

Approved By _____ Title _____ Date _____

PROPOSED REVISIONS OF RULES 311, 312, 1117, AND 1118
OF COMMISSION RULES AND REGULATIONS TO BE CONSIDERED AT AN EXAMINER HEARING
FEBRUARY 22, 1978

RULE 311. SEDIMENT OIL, TANK CLEANING, AND TRANSPORTATION OF MISCELLANEOUS HYDROCARBONS

(a) Sediment Oil" is defined as tank bottoms and any other accumulations of liquid hydrocarbons on an oil and gas lease, which hydrocarbons are not merchantable through normal channels.

(b) No tank shall be cleaned of sediment oil nor shall sediment oil be removed from any lease without prior approval of the Commission. Authorization for tank cleaning may be received by the operator of the lease or by the company contracted or otherwise authorized to perform the tank cleaning by obtaining Commission approval on Form C-117-A (Tank Cleaning, Sediment Oil Removal, Transportation Of Miscellaneous Hydrocarbons and Disposal Permit). No operator, contractor, or other party shall engage in the cleaning of any tank of sediment oil or the removal of sediment oil from any lease without an approved copy of Form C-117-A at the site.

(c) No sediment oil shall be destroyed unless and until the Commission has approved an application to destroy the same on Form C-117-A (Tank Cleaning, Sediment Oil Removal, Transportation of Miscellaneous Hydrocarbons and Disposal Permit). Unless the authorization to destroy sediment oil is utilized within ten (10) days after approval of the Form C-117-A such authorization is automatically revoked. However, the District Supervisor may approve one ten (10) day extension for good cause shown.

(d) Any operator, contractor, or other party which cleans any tank of sediment oil or removes sediment oil from any lease shall file Form C-117-B (Monthly Sediment Oil Disposal Statement) setting out all information required thereon.

(e) Tank bottoms and/or pit oil from separate leases shall not be commingled prior to delivery to a treating plant unless the amount of pipeline oil attributable to each lease shall be determined by testing a representative sample from each lease in accordance with the standard centrifugal test prescribed by API Code for Measuring, Sampling, and Testing Crude Oil, Number 25, Section 3.

(f) Any merchantable oil recovered from sediment oil shall be charged against the allowable for the wells on the originating lease. All such recovered oil shall be reported by the operator of the lease on Form C-115 (Operator's Monthly Report).

substitute new standard

probably non-merchantable

(g) "Miscellaneous Hydrocarbons" are defined as tank bottoms occurring at pipeline stations, crude oil storage terminals, or refineries, pipeline break oil, catchings collected in traps, drips, or scrubbers by operators of gasoline plants in such plants or in the gathering lines serving such plants, the catchings collected in community salt water disposal systems, or any other liquid hydrocarbon which is not lease crude or condensate.

(h) Except in case of emergency, no miscellaneous hydrocarbons shall be delivered to a treating plant until Commission approval shall be obtained on Form C-117-A (Tank Cleaning, Sediment Oil Removal, Transportation of Miscellaneous Hydrocarbons and Disposal Permit).

Whenever an emergency shall exist which requires delivery of miscellaneous hydrocarbons to a treating plant prior to approval of Form C-117-A, the transporter of such hydrocarbons shall notify the supervisor of the appropriate Commission district office of the nature and extent of such emergency on the first working day following the emergency and shall file Form C-117-A within 2 working days following the emergency. For extended emergencies, the district supervisor may authorize the unlimited movement of miscellaneous hydrocarbons to a treating plant and during the period of the emergency and shall approve a Form C-117-A filed subsequent to the conclusion of such emergency and covering the entire volume of miscellaneous hydrocarbons transported.

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
OCC EXHIBIT NO. 2
CASE NO. 6150

RULE 312. TREATING PLANTS

No treating plant shall operate except in conformity with the following provisions:

(a) Prior to the construction of a treating plant, a written application shall be filed for a treating plant permit stating in detail the location and type and capacity of the plant contemplated. The Commission will set such application for hearing to determine whether the proposed plant and method of processing will efficiently process, treat, and reclaim sediment oil. Before beginning actual operations, any permittee shall file with the Commission a performance bond in the amount of $10,000, conditioned upon substantial compliance with applicable statutes of the State of New Mexico and all rules, regulations, and orders of the Oil Conservation Commission of New Mexico.

(b) Such permit shall entitle the treating plant operator to an approved Form C-104, Request for Allowable and Authorization to Transport Oil and Natural Gas for the total amount of products secured from sediment oils and miscellaneous hydrocarbons processed by the operator. All permits shall be revocable, after notice and hearing, upon showing of good cause.

(c) No treating plant operator may accept sediment oil at or into the treating facility unless the same is accompanied by an approved Form C-117-A (Tank Cleaning, Sediment Oil Removal, Transportation of Miscellaneous Hydrocarbons and Disposal Permit).

(d) Except as provided under Rule 311(h), no treating plant operator may accept tank bottoms from pipeline stations, crude oil storage terminals or refineries, pipeline break oil or other miscellaneous hydrocarbons for processing or mixing with recovered pipeline oil unless the same is accompanied by an approved Form C-117-A.

(e) All treating plant operators shall file a monthly report which shall detail the net oil recovered and sold during the preceding month. See Rule 1118.

The operator of each lease from which sediment oil is removed for reclamation shall be promptly notified by the treating plant operator of the amount of pipeline oil recovered therefrom. In the event sediment oil from two or more separate leases is to be commingled prior to treating, the treating plant operator shall determine the amount of pipeline oil attributable to each lease by testing a representative sample of the sediment oil from said lease in accordance with the standard centrifugal test prescribed by the API Code for Measuring, Sampling, and Testing Crude Oil, Number 25, Section 5.

RULE 1117. TANK CLEANING, SEDIMENT OIL REMOVAL, TRANSPORTATION OF MISCELLANEOUS HYDROCARBONS AND DISPOSAL PERMIT (Form C-117-A), AND MONTHLY SEDIMENT OIL DISPOSAL STATEMENT (Form C-117-B)

(a) Form C-117-A, Tank Cleaning, Sediment Oil Removal, Transportaion of Miscellaneous Hydrocarbons and Disposal Permit, shall be submitted to the appropriate District Office of the Commission in QUINTUPLICATE and in accordance with Rule 311 (b), (c), and (h).

(b) Form C-117-B, Monthly Sediment Oil Disposal Statement shall be submitted both to the Santa Fe office and the appropriate District Office(s) of the Commission in accordance with Rule 311 (d).

RULE 1118. TREATING PLANT OPERATOR'S MONTHLY REPORT (Form C-118)

Form C-118 shall be submitted in DUPLICATE to the appropriate District Office of the Commission in accordance with Rule 312, and shall contain all the information required thereon. Column 1 of Sheet 1-A of Form C-118 entitled "Permit Number," has reference to the Tank Cleaning, Sediment Oil Removal, Transportation of Miscellaneous Hydrocarbons and Disposal Permit, Form C-117-A for each lot of oil picked up for processing.

Form C-117 A

NEW MEXICO OIL CONSERVATION COMMISSION

TANK CLEANING, SEDIMENT OIL REMOVAL, TRANSPORTATION OF MISCELLANEOUS HYDROCARBONS AND DISPOSAL PERMIT

PERMIT NUMBER _____

(Operator or Owner) _____ (Address) _____

(Lease Name if Sediment Oil) _____ (Location) _____

OPERATION TO BE PERFORMED:

☐ Tank Cleaning ☐ Sediment Oil Removal ☐ Transportation of Miscellaneous Hydrocarbons

Operator or Owner Representative authorizing work _____

Date Work to be Performed _____

TANK CLEANING DATA

Tank Number _____ Volume _____

Tank Type _____ Volume Below Load Line _____

SEDIMENT OIL OR MISCELLANEOUS HYDROCARBON DATA

Sediment Oil From: ☐ Pit ☐ Cellar ☐ Other*

Miscellaneous Oil

Tank Bottoms From: ☐ Pipeline Station ☐ Crude Terminal ☐ Refinery ☐ Other*

Catchings from: ☐ Gasoline Plant ☐ Gathering Lines ☐ Salt Water Disposal System ☐ Other*

Pipeline Break Oil or Spill ☐

*Other(Explain) _____

VOLUME AND DESTINATION

Estimated Volume _____ barrels

Miscellaneous Hydrocarbons to be delivered to (Name and Location of treating plant)

_____

DESTRUCTION OF SEDIMENT OIL

Destruction by: ☐ Burning ☐ Pit Disposal ☐ Use on Roads or Firewalls ☐ Other (Explain) _____

Location of Destruction _____

Justification of Destruction _____

APPLICATION MAY BE MADE BY EITHER OF THE FOLLOWING:

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

Owner _____	Transporter _____
By _____	By _____
Title _____	Title _____
Date _____	Date _____

NEW MEXICO OIL CONSERVATION COMMISSION

Approved By _____ Title _____ Date _____

A COPY OF THIS FORM MUST BE ON LOCATION DURING TANK CLEANING, REMOVAL OF SEDIMENT OIL OR MISCELLANEOUS HYDROCARBONS, AND MUST BE PRESENTED WITH TANK BOTTOMS, SEDIMENT OIL, MISCELLANEOUS HYDROCARBONS AT THE TREATING PLANT TO WHICH IT IS DELIVERED

1 for file
1 for trucking agent
1 to owner 2 to Transporter
1 to Dist

Form C-117-B

NEW MEXICO OIL CONSERVATION COMMISSION

MONTHLY SEDIMENT OIL
DISPOSAL STATEMENT

Company Name _____ MONTH _____ YEAR _____

Tank or Pit Cleaning Permit No.	Date of Cleaning	Volume Sediment Oil Recovered	Disposal method or Name and location of Reclamation Plant to which Sediment Oil was Delivered

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

By _____

Title _____

Date _____

Distribution: Original to Santa Fe, carbon copy to district office.

Docket No. 7-78

Dockets Nos. 9-78 and 11-78 are tentatively set for hearing on March 8 and March 22, 1978. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - FEBRUARY 22, 1978

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

6150 only

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

CASE 6150: In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the amendment of Rules 311, 312, 1117, and 1118 of the Commission Rules and the revision of Forms C-117-A and C-117-B, all for the purpose of regulating the handling and reporting of tank bottoms, sediment oil, miscellaneous hydrocarbons, and the operation of treating plants.

CASE 6151: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Vega Petroleum Corporation, American Employers' Insurance Company, and all other interested parties to appear and show cause why the North Caprock Queen Unit No. 1 Well No. 5Y located in Unit E of Section 8, Township 13 South, Range 32 East, Lea County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6152: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Al Greer, American Employers' Insurance Company, and all other interested parties to appear and show cause why the Thompson Well No. 1 located in Unit N of Section 10, Township 30 North, Range 11 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6153: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Mints-Kenaston and all other interested parties to appear and show cause why the L. A. McCoy Well No. 1 located in Unit B of Section 28, Township 30 North, Range 12 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6154: Application of Read & Stevens, Inc. for a unit agreement, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for its Calumet Ranch Unit Area comprising 5,760 acres, more or less, of Federal, State, and fee lands in Township 12 South, Range 27 East, Chaves County, New Mexico.

CASE 6155: Application of Gulf Oil Corporation for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the N/2 of Section 28, Township 23 South, Range 26 East, South Carlsbad Field, Eddy County, New Mexico, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6144: (Readvertised)

Application of Southland Royalty Company for two unorthodox locations and two non-standard gas proration units, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for two 120-acre non-standard gas proration units comprising the S/2 SE/4 of Section 10 and the SW/4 SW/4 of Section 11, and comprising the SE/4 SW/4 and the S/2 SE/4 of Section 11, all in Township 28 North, Range 11 West, Fulcher Kutz-Pictured Cliffs Pool, San Juan County, New Mexico, each of said units to be dedicated to a well drilled at an unorthodox location thereon.

CASE 6156: Application of Southland Royalty Company for an unorthodox location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its East Well No. 5A to be located 1120 feet from the South line and 1790 feet from the West line of Section 24, Township 31 North, Range 12 West, Blanco-Mesaverde Gas Pool, San Juan County, New Mexico.

CASE 6157: Application of Supron Energy Corporation for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 160-acre non-standard gas proration unit comprising the SW/4 of Section 13, Township 16 South, Range 33 East, Lea County, New Mexico, to be dedicated to a Morrow gas well test to be drilled thereon.

CASE 6158: Application of C. H. Berry for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the NE/4 of Section 15, Township 24 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6159: Application of Texaco Inc., for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Drinkard and Wantz-Granite Wash production in the wellbore of its A. H. Blinebry Federal Well No. 38 located in Unit J of Section 19, Township 22 South, Range 38 East, Lea County, New Mexico.

CASE 6160: Application of Bass Enterprises Production Co., for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Delaware formation through the perforated interval from 3310 feet to 3375 feet in its Big Eddy Unit Well No. 56, located in Unit G of Section 35, Township 21 South, Range 28 East, Indian Flats-Delaware Pool, Eddy County, New Mexico.

CASE 6161: Application of Tenneco Oil Company for two waterflood projects, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project on its Leonard Federal Lease by the injection of water into the Queen formation through one well in Unit O of Section 11, and on its Leonard Brothers Lease through two wells, in Units I and M, respectively, of Section 14, all in Township 26 South, Range 37 East, Leonard Queen Pool, Lea County, New Mexico. Applicant further seeks the establishment of an administrative procedure for the addition of injection wells and the conversion of existing wells to injection at both orthodox and unorthodox locations without further notice and hearing.

CASE 6162: Application of Continental Oil Company for an unorthodox location and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Jack B-30 Well No. 2 to be located 330 feet from the North line and 1725 feet from the East line of Section 30, Township 24 South, Range 37 East, Jalmat Gas Pool, Lea County, New Mexico, the NE/4 of said Section 30 to be simultaneously dedicated to the aforesaid well and to Well No. 5 in Unit H.

CASE 6163: Application of Continental Oil Company for amendment of Commission Order No. R-3863, Lea County, New Mexico. Applicant, in the above-styled cause, seeks to substitute its Anderson Ranch Unit Wells No. 6 located in Unit X of Section 2 and Nos. 3 and 10, located in Units A and H, respectively, of Section 11, all in Township 16 South, Range 32 East, for the initial injection wells authorized by said order in its Anderson Ranch-Wolfcamp Waterflood Project, Anderson Ranch-Wolfcamp Pool, Lea County, New Mexico.

CASE 6164: Application of Shell Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Tubb, Wantz-Abo, and Brunson-Ellenburger production in the wellbore of its Shell State Section 2 Well No. 15 located in Unit K of Section 2, Township 21 South, Range 37 East, Lea County, New Mexico.

CASE 6165: Application of Shell Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Drinkard, Hare-McKee, and Brunson-Ellenburger production in the wellbore of its Shell State Section 2 Well No. 3 located in Unit U of Section 2, Township 21 South, Range 37 East, Lea County, New Mexico.

CASE 6166: Application of Odessa Natural Corporation for rescission of Order No. R-5601, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks a hearing at which any interested party could appear and show cause why Order No. R-5601, which granted a special well classification to applicant's ARCO-Little Fed. Well No. 1, located in Unit D of Section 32, Township 24 North, Range 3 West, Rio Arriba County, New Mexico, should not be rescinded.

CASE 6141: Application of Paul Slayton for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Seven Rivers formation thru the open-hole interval from 528 feet to 547 feet in his Hastie Well No. 7 located in Unit L of Section 18, Township 17 South, Range 28 East, Empire Field, Eddy County, New Mexico.

Case 6150
For Feb 22 Hearing

Misc 63
6/22/82
SF

Application of OCC on its own motion to consider the amendment of Rules 311, 312, 1117, and 1118; and the revision of Forms C-117 A and C-117 B, all for the purpose of regulating ~~the cleaning of tanks, the treatment of sediment oil and miscellaneous oil field hydro~~ the handling and reporting of tank bottoms, sediment oil, ~~miscellaneous oils~~ miscellaneous hydrocarbons, and the operation of treating plants.

ROUGH

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. 6150

Order No. R-2161

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION ON ITS OWN MOTION TO CONSIDER THE AMENDMENT OF RULES 311, 312, 1117, AND 1118 OF THE RULES AND REGULATIONS, AND FOR THE REVISION OF FORMS C-117-A AND C-117-B.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on February 28, 19 78, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this _____ day of _____, 19____, 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 Case No. 6150 should be dismissed.

IT IS THEREFORE ORDERED:

(1) That Case No. 6150 is hereby dismissed.

DONE@

~~Continued to~~

~~March 22~~

Continued to

April 19

CASE 6151: OCC - PLUGGING CASE

VEGA PETROLEUM CORPORATION, AMERICAN EMPLOYERS' INSURANCE COMPANY

Re: Plugging Order

Case Number

6151

Application

Transcripts.

Small Exhibits

ETC.

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
March 22, 1978

EXAMINER HEARING

IN THE MATTER OF:

The Application of the Oil Conservation Commission on its own motion ot permit Vega Petroleum Corporation, American Employers' Insurance Company, and all Interested Parties to show cause on the North Caprock Queen Unit No. 1 Well No. 5Y, Lea County, New Mexico

CASE 6151

BEFORE: Richard L. Stamets, Examiner.

TRANSCRIPT OF HEARING

For the New Mexico Oil Conservation Commission: Lynn Teschendorf, Esq.
Legal Counsel for the Commission
State Land Office Building
Santa Fe, New Mexico

sid morrish reporting service
General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

MR. STAMETS: The hearing will please come to order. We will call first today Case 6151.

MS. TESCHENDORF: Case 6151 is in the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Vega Petroleum Corporation, American Employers Insurance Company, and all other interested parties to appear and show cause why the North Caprock Queen Unit No. 1 Well No. 5Y, located in Unit E of Section S, Township 13 South, Range 32 East, Lea County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugged program.

At the request of the Vega Petroleum Corporation they wish this to be continued until the April 19th Examiner Hearing.

MR. STAMETS: Case 6151 will be so continued.

sid morrish reporting service
General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

REPORTER'S CERTIFICATE

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

Sidney F. Morrish, C.S.R.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 6151, heard by me on 3-22, 1978.

Richard L. Stamets, Examiner
New Mexico Oil Conservation Commission

sid morrish reporting service
General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

BEFORE THE

NEW MEXICO OIL CONSERVATION DIVISION

SANTA FE, NEW MEXICO
APRIL 19, 1978

EXAMINER HEARING

IN THE MATTER OF: Hearing called by the Oil Conservation Division on its own motion to permit Vega Petroleum Corporation, American Employers' Insurance Company, and all other interested parties to appear and show cause why the North Caprock Queen Unit No. Well No. 1 Well No. 5Y should not be plugged and abandoned in accordance with a Division-approved plugging program.	Case 6151

BEFORE: Richard L. Stamets, Examiner.

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the New Mexico Oil Conservation Division:

Lynn Teschendorf, Esq.
Legal Counsel for the Division
State Land Office Building
Santa Fe, New Mexico

LANPHERE REPORTING SERVICE
P.O. BOX 449
58 SOUTH FEDERAL PLACE
SANTA FE, NEW MEXICO 87501

I N D E X

		Page
1.	Appearances	2
2.	Reporter's Certificate	5

* * * * *

MR. STAMETS: Call Case No. 6151 being in the matter of the hearing called by the Oil Conservation Division on its own motion to permit Vega Petroleum Corporation, American Employers' Insurance Company, and all other interested parties to appear and show cause why the North Caprock Queen Unit Well No. 1, Well No. 5Y located in Unit E of Section 8, Township 13 South, Range 32 East, Lea County, New Mexico, should not be plugged and abandoned in accordance with a Division-approved plugging program.

MS. TESCHENDORF: Request of Vega Petroleum Corporation the case should be dismissed.

MR. STAMETS: This was called on the motion of the Oil Conservation Division, I presume the Division concurs in this request?

MS. TESCHENDORF: Yes.

MR. STAMETS: This case will be dismissed.

(WHEREUPON, Case 6151 dismissed.)

LANPHERE REPORTING SERVICE
P.O. BOX 449
58 SOUTH FEDERAL PLACE
SANTA FE, NEW MEXICO 87501

REPORTER'S CERTIFICATE

I, BETTY J. LANPHERE, CSR-RPR with offices in Santa Fe, New Mexico, do hereby certify that the foregoing transcript is a complete and accurate record of said proceedings as the same were recorded by me stenographically and reduced to typewritten transcript by me or under my supervision.

DATED at Santa Fe, New Mexico, this first day of May, 1978.

Betty J. Lanphere, Court Reporter

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 6157, heard by me on May 4, 1978, Examiner New Mexico Oil Conservation Commission

LANPHERE REPORTING SERVICE
P. O. BOX 449
58 SOUTH FEDERAL PLACE
SANTA FE, NEW MEXICO 87501

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

JERRY APODACA
GOVERNOR

NICK FRANKLIN
SECRETARY

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

April 28, 1978

Re: CASE NO. 6151
ORDER NO. R-5712

Vega Petroleum Corp.
P. O. Box 2383
Midland, Texas 79701

Applicant:

OCD (Vega Petroleum Corporation)

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 OCC x
Artesia OCC x
Aztec OCC

Other Johnny Johnson Insurance

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

CASE NO. 6151
Order No. R-5712

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION ON ITS OWN MOTION TO PERMIT VEGA PETROLEUM CORPORATION, AMERICAN EMPLOYERS' INSURANCE COMPANY, AND ALL OTHER INTERESTED PARTIES TO APPEAR AND SHOW CAUSE WHY THE NORTH CAPROCK QUEEN UNIT NO. 1 WELL NO. 5Y LOCATED IN UNIT E OF SECTION 8, TOWNSHIP 13 SOUTH, RANGE 32 EAST, LEA COUNTY, NEW MEXICO, SHOULD NOT BE PLUGGED AND ABANDONED IN ACCORDANCE WITH A DIVISION-APPROVED PLUGGING PROGRAM.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on April 19, 1978, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 28th day of April, 1978, the Division Director, having considered the record and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

That Case No. 6151 should be dismissed.

IT IS THEREFORE ORDERED:

That Case No. 6151 is hereby dismissed.

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

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

JOE D. RAMEY
Division Director

S E A L

jr/

State of New Mexico

Commissioner of Public Lands

PHIL R. LUCERO
COMMISSIONER

April 12, 1978

P. O. BOX 1148
SANTA FE, NEW MEXICO 87501

Mr. Donald G. Stevens
Attorney at Law
P. O. Box 2203
919 Security National Building
Roswell, New Mexico 88201

Re: AMENDMENT-North Caprock
Queen Unit Agreement
Well # 8-5-Y
Sec. 8, 13S-32E
Lea County, New Mexico

Dear Mr. Stevens:

We are in receipt of three copies of an amendment to the North Caprock Queen Unit Agreement.

The Commissioner of Public Lands has this date approved the amendment effective as of April 10, 1978. This amendment is regarding Homer Kyle's and Louise E. Kyle's well No. 8-5-Y.

Enclosed is an approved copy for your files.

Very truly yours,

PHIL R. LUCERO
COMMISSIONER OF PUBLIC LANDS

BY: Ray D. Graham
RAY D. GRAHAM, Director
Oil and Gas Division

PRL/RDG/s
encl.
cc: OCC-Santa Fe, New Mexico

STATE OF NEW MEXICO

COMMISSIONER OF PUBLIC LANDS

P. O. BOX 1148
SANTA FE, NEW MEXICO

RECEIVED
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STATE LAND OFFICE
SANTA FE, N. M.

AGREEMENT

STATE OF NEW MEXICO)
) KNOW ALL MEN BY THESE PRESENTS:
COUNTY OF SANTA FE)

THAT THIS AGREEMENT is entered into as of the 10th Day of April 1978, by and between the parties subscribing, ratifying or consenting hereto, such parties hereinafter being referred to as "Parties hereto";

WHEREAS, the Commissioner of Public Lands of the State of New Mexico is authorized by the Legislature in the interest of conservation of oil and gas and the prevention of waste, to consent to and approve the development or operation of State lands under agreements made by lessees of oil and gas leases thereon, jointly or severally with other oil and gas lessees of State lands, or oil and gas lessees or mineral owners of privately owned or fee lands, for the purpose of pooling or communitizing such lands to form a proration unit or portion thereof, or well-spacing unit, pursuant to any order, rule or regulation of the New Mexico Oil Conservation Commission, where such agreement provides for the allocation of the production of oil or gas from such pools or communitized area on an acreage or other basis found by the commissioner to be fair and equitable.

WHEREAS, the parties hereto, being oil and gas lessees of record, have previously entered into or are subject to the North Caprock Queen Unit Agreement and Amendments thereto whereby by assignment dated October 3, 1973, (recorded Book 145, Page 852, Chaves County Records), Book 313, Page 128, Lea County Records, Lone Star Oil Associates, a limited partnership, conveyed to Thunderbird Oil Corporation all of its entire 7/8ths interest in the North Caprock Queen Unit, except the North Caprock Well No. 8-5-Y actually located in the SW/4 NW/4 of Section 8, Township 13 South, Range 32 East, N.M.P.M. (being a portion of Tract No. 27 to the Unit Agreement, and

WHEREAS, said lease and well are now owned by Homer Kyle and Louise E. Kyle, and

WHEREAS, by amendment to the North Caprock Queen Unit Agreement dated October 3, 1973 the Unit Owners agreed that production of unitized

substances from the 8-5-Y Well shall be separately measured and the working interest owners of such well shall be paid on the basis of actual production of the Unitized Substances from the 8-5-Y Well, and

WHEREAS, said Amendment provided that nothing therein would change the allocation provisions of the Unit Agreement with respect to royalty interests, and

WHEREAS, the State of New Mexico was not a party to said Amendment, and

WHEREAS, no allowable will be assigned by the New Mexico Oil Conservation Commission to said well until approval by the parties hereto.

NOW, THEREFORE, in consideration of the premises and the mutual advantages to the parties hereto, it is agreed as follows:

1. Production of unitized substances from the 8-5-Y Well may be separately measured and the working interest owners of such well shall be paid on the basis of actual production of the Unitized Substances from the 8-5-Y Well.
2. Nothing herein shall be construed to change the allocation provisions of the Unit Agreement with respect to the payment of a royalty interest as defined in Section 9.4 of the Unit Agreement. Except as herein amended, the Unit Agreement shall remain in force and effect.
3. An allowable may be assigned the 8-5-Y Well by the New Mexico Oil Conservation Commission.
4. Homer Kyle and Louise E. Kyle agree that within 30 days of initiation of tertiary recovery work in said Unit that they, their heirs or assigns, shall transfer operation of said 8-5-Y Well to the then Unit Operator of said North Caprock Queen Unit to be used in said tertiary recovery project as may be necessary, however, nothing herein shall be construed to mean that the transfer of operation shall affect the rights and ownership of the well and lease.
5. This Agreement shall be a covenant running with the land.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement the day and year first above written.

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STATE LAND OFFICE
SANTA FE, N. M.

STATE OF NEW MEXICO
COMMISSIONER OF PUBLIC LANDS

Phil R. Lucero

Homer Kyle

Louise E. Kyle

STATE OF NEW MEXICO)
: ss
COUNTY OF SANTA FE)

The foregoing instrument was acknowledged before me this ____ day of _____, 1978, by Phil R. Lucero, State of New Mexico Commissioner of Public Lands.

Not required

My commission expires:

_____

Notary Public

STATE OF NEW MEXICO)
: ss
COUNTY OF Lea)

The foregoing instrument was acknowledged before me this 6th day of April, 1978 by Homer Kyle and Louise E. Kyle.

My commission expires:
July 18th, 1981

Peggy J. Bingham
Notary Public

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APR 10 9 16 AM '78
STATE LAND OFFICE
SANTA FE, N. M.

Dockets Nos. 16-78 and 17-78 are tentatively set for hearing on May 3 and 17, 1978. Application for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - APRIL 19, 1978

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

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

ALLOWABLE: (1) Consideration of the allowable production of gas for May, 1978, from fifteen prorated pools in Lea, Eddy, and Chaves Counties, New Mexico.

(2) Consideration of the allowable production of gas for May, 1978, from four prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.

CASE 6151: (Continued from March 22, 1978, Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Division on its own motion to permit Vega Petroleum Corporation, American Employers' Insurance Company, and all other interested parties to appear and show cause why the North Caprock Queen Unit No. Well No. 1 Well No. 5Y located in Unit E of Section 8, Township 13 South, Range 32 East, Lea County, New Mexico, should not be plugged and abandoned in accordance with a Division-approved plugging program.

CASE 6199: In the matter of the hearing called by the Oil Conservation Division on its own motion to permit Marion B. Edmonds and O. A. Peters and all other interested parties to appear and show cause why the Edmonds & Peters Federal Well No. 1 located in Unit M of Section 3, Township 15 North, Range 33 East, Harding County, New Mexico, should not be plugged and abandoned in accordance with a Division-approved plugging program.

CASE 6200: In the matter of the hearing called by the Oil Conservation Division on its own motion to permit Astro-Tex Oil Corp., American Employers' Insurance Co., and all other interested parties to appear and show cause why the Cain Well No. 2 located in Unit J of Section 22, Township 15 North, Range 33 East, Harding County, New Mexico, should not be plugged and abandoned in accordance with a Division-approved plugging program.

CASE 6201: In the matter of the hearing called by the Oil Conservation Division on its own motion to permit Paul Haskins and all other interested parties to appear and show cause why the Federal "17" Well No. 1 located in Unit P of Section 17, Township 15 North, Range 33 East, Harding County, New Mexico, should not be plugged and abandoned in accordance with a Division-approved plugging program.

CASE 6202: Application of Amoco 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 its Teledyne Fed. Gas Com Well No. 1 to be located 660 feet from the South line and 1980 feet from the East line of Section 4, Township 23 South, Range 29 East, Eddy County, New Mexico, the E/2 of said Section 4 to be dedicated to the well.

CASE 6203: Application of Walter W. Krug DBA Wallen Production Co., for special casirg-cementing rules in the Potash-Oil Area, Lea County, New Mexico. Applicant, in the above-styled cause, asks that the special cable tool casing-cementing rules for wells in the North Lynch Yates-Seven Rivers Pool, as promulgated by Order No. R-4253, be extended to encompass additional lands, including all or portions of Sections 20, 21, 27, 28, 33 and 34, Township 20 South, Range 34 East, Lea County, New Mexico.

CASE 6204: Application of Producing Royalties, Inc., for exemption from the Natural Gas Pricing Act, San Juan County, New Mexico. Applicant, in the above-styled cause, proposes to drill a replacement Pictured Cliffs gas well in the same proration unit as its Payne Well No. 2, that is, the NW/4 of Section 12, Township 29 North, Range 12 West, San Juan County, New Mexico, and seeks exemption from the Natural Gas Pricing Act pursuant to a finding that the new well is justified for reasons other than avoiding the application of said act.

CASE 6205: Application of Gifford, Mitchell & Wisenbaker for an unorthodox location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Quanah Parker Well No. 2-Y to be located 2770 feet from the South line and 2310 feet from the East line of Section 28, Township 26 South, Range 36 East, West Scarborough-Yates Pool, Lea County, New Mexico, the SW/4 NE/4 of said Section to be dedicated to the well.

CASE 6206: Application of Cleary Petroleum Corporation for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a Morrow test well at a point 4650 feet from the South line and 1980 feet from the West line of Section 5, Township 21 South, Range 32 East, South Lake-Morrow Field, Lea County, New Mexico, Lots 11, 12, 13, and 14, and SW/4 of said Section 5 to be dedicated to the well.

CASE 6207: Application of Belco Petroleum Corporation for an unorthodox location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Little et al Well No. 1 to be drilled 1290 feet from the South line and 1720 feet from the West line of Section 20, Township 22 South, Range 27 East, South Carlsbad-Cherry Canyon Pool, Eddy County, New Mexico, the SE/4 SW/4 of said Section 20 to be dedicated to the well.

CASE 6208: Application of Layton Enterprises, Inc., for two non-standard oil proration units and two unorthodox locations, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks approval for two non-standard oil proration units in Township 8 South, Range 38 East, Bluitt-San Andres Associated Pool, Roosevelt County, New Mexico, each to be dedicated to a well to be drilled at an unorthodox location thereon. The first unit would comprise 102.55 acres being the N/2 NW/4 and Lot 1 of Section 16 with the well located 800 feet from the North line and 450 feet from the East line of the section; the second unit would comprise 101.84 acres being the S/2 NW/4 and Lot 2 of Section 16 with the well located 2120 feet from the North line and 450 feet from the East line of the section.

CASE 6209: Application of Southern Union Exploration Co., for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pictured Cliffs formation underlying the NW/4 of Section 18, Township 25 North, Range 13 West, San Juan County, New Mexico, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6210: Application of Orla Petco, Inc., for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Upper Delaware formation through the perforated interval from 2560 feet to 2690 feet in its Sanders Well No. 1 located in Unit G of Section 6, Township 23 South, Range 28 East, Herradura Bend-Delaware Field, Eddy County, New Mexico.

sid morrish reporting service
General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
22 February, 1978

EXAMINER HEARING

IN THE MATTER OF:

The hearing called by the Oil Conservation Commission on its own motion to permit Vega Petroleum Corporation, American Employers' Insurance Company, and all other interested parties to appear and show cause why the North Caprock Queen Unit No. 1 Well No. 5Y located in Unit E of Section 8, Township 13 South, Range 32 East, Lea County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6151

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Commission: Lynn Teschendorf, Esq.
Legal Counsel for the Commission
State Land Office Building
Santa Fe, New Mexico 87501

MR. STAMETS: Call now Case 6151.

MS. TESCHENDORF: Case 6151. In the matter of the hearing called by the OCC on its own motion to permit Vega Petroleum Corporation, American Employers' Insurance Company and all other interested parties to appear and show cause why a certain well in Lea County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

Vega Petroleum has requested that we continue the case to the March 22nd Examiner Hearing.

MR. STAMETS: This case will be continued to the March 22nd hearing.

(Hearing concluded.)

sid morrish reporting service
General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

REPORTER'S CERTIFICATE

I, SALLY WALTON BOYD, Notary Public and Certified Shorhand Reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and the same is a true and correct record of the said proceedings to the best of my knowledge, skill and ability.

Sally Walton Boyd
Sally Walton 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. 6157, heard by me on 2-22, 1978.

Richard L. Stamets, Examiner
New Mexico Oil Conservation Commission

sid morrish reporting service
General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

Docket No. 11-78

Dockets Nos. 12-78 and 13-78 are tentatively set for hearing on April 5 and 19, 1978. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - MARCH 22, 1978

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

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

CASE 6151: (Continued from February 22, 1978, Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Vega Petroleum Corporation, American Employers' Insurance Company, and all other interested parties to appear and show cause why the North Caprock Queen Unit No. 1 Well No. 5Y located in Unit E of Section 8, Township 13 South, Range 32 East, Lea County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6152: (Continued from February 22, 1978, Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Al Greer, American Employers' Insurance Company, and all other interested parties to appear and show cause why the Thompson Well No. 1 located in Unit N of Section 10, Township 30 North, Range 11 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6179: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit McCoy and Phillips and all other interested parties to appear and show cause why the John Bergin Well No. 1 located 2515 feet from the North line and 1410 feet from the West line of Section 21, Township 29 North, Range 11 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6180: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Elvis L. Roberts, The Travelers Indemnity Company, and all other interested parties to appear and show cause why the Wade Well No. 1 located 850 feet from the North line and 1750 feet from the East line of Section 21, Township 29 North, Range 11 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6137: (Continued from February 8, 1978, Examiner Hearing)

Application of Amoco Production Company for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Nellis Federal Well No. 3 to be located 1980 feet from the North line and 660 feet from the West line of Section 8, Township 19 South, Range 33 East, West Tonto-Pennsylvanian Gas Pool, Lea County, New Mexico, the N/2 of said Section 8 to be dedicated to the well.

CASE 6172: (Continued from March 8, 1978, Examiner Hearing)

Application of Morris R. Antweil 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 22, Township 19 South, Range 25 East, Eddy County, New Mexico, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6181: Application of Yates Petroleum Corporation for an unorthodox location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Rio Pecos "GB" Well No. 2 to be located 1980 feet from the South line and 1100 feet from the West line of Section 20, Township 18 South, Range 27 East, Red Lake Field, Eddy County, New Mexico, to test the Wolfcamp and Pennsylvanian formations, the S/2 of said Section 20 to be dedicated to the well.

CASE 6182: Application of Union Oil Company of California for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for its Laguna Deep Unit Area comprising 2,558 acres, more or less, of State, Federal and fee lands in Townships 19 and 20 South, Range 33 East, Lea County, New Mexico.

CASE 6183: Application of Mesa Petroleum Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for its North Scharb Unit Area comprising 1911 acres, more or less, of State and fee lands in Township 18 South, Range 35 East, Lea County, New Mexico.

CASE 6184: Application of Mesa Petroleum 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 24, Township 18 South, Range 24 East, Eddy County, New Mexico, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6185: (This Case will be dismissed)

Application of Mesa Petroleum Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the W/2 of Section 32, Township 18 South, Range 35 East, Lea County, New Mexico, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6186: Application of Sun Production Company for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 320-acre non-standard gas proration unit comprising the NE/4 of Section 20 and the NW/4 of Section 21, both in Township 22 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico, to be dedicated to applicant's Boren & Greer Gas Unit Well No. 2 to be located 890 feet from the North line and 1780 feet from the West line of said Section 21.

CASE 6187: Application of Continental Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Blinebry and Drinkard production in the wellbore of its Hawk B-1 Well No. 1 located in Unit F of Section 9, Township 21 South, Range 37 East, Lea County, New Mexico.

CASE 6170: Application of Aminoil USA, Inc., for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for its Westlake Unit Area comprising 1920 acres, more or less, of State lands in Township 24 South, Range 33 East, Lea County, New Mexico.

CASE 6188: Application of Sam D. Ares for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Seven Rivers formation through the open-hole interval from 3465 feet to 3497 feet in his Zattu Cushing Well No. 1 located in Unit F of Section 23, Township 24 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico.

CASE 6189: Application of Merrion & Bayless for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle Pictured Cliffs and Mesaverde production in the wellbore of its North Lindrith Com Well No. 2, to be drilled in the NW/4 of Section 20, Township 26 North, Range 2 West, Rio Arriba County, New Mexico.

VEGA PETROLEUM CORPORATION
P.O. BOX 2383 · MIDLAND, TEXAS 79702 · PHONE 915 682-3733

February 15, 1978

Case No. 6151

Mr. Homer Kyle
P. O. Box 387
Lovington, New Mexico 88260

NORTH CAPROCK QUEEN UNIT NO. 1, WELL NO. 8-5Y

Pursuant to our telephone conversation this date, enclosed are xerox copies of letter from Oil Conservation Commission dated February 10, 1978 and Docket outlining Case 6151.

Vega Petroleum Corporation was an interim operator of the North Caprock Queen Unit No. 1 after Thunderbird Oil Corporation ceased to be an operator and before Murphy Minerals or Don Layton were approved as Unit Operator. It is my understanding after talking with Jerry Sexton, Hobbs, New Mexico, Oil Conservation Commission, that the Commission has denied the Amendment to North Caprock Queen Unit No. 1 for setting aside production from the 8-5Y well, but has not added this well to the Plugging Bond filed by Murphy et al.

Vega has never owned an interest in this well, and only served as interim operator for a short period of time, and surely should not be involved in the misunderstanding existing at the present time.

VEGA PETROLEUM CORPORATION

BY Betty W. Bethancourt
Betty W. Bethancourt

CC: Lynn Teschendorf, NMOCC
J. Fife Symington, III w/copies

Dockets Nos. 9-78 and 11-78 are tentatively set for hearing on March 8 and March 22, 1978. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - FEBRUARY 22, 1978

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

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

CASE 6150: In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the amendment of Rules 311, 312, 1117, and 1118 of the Commission Rules and the revision of Forms C-117-A and C-117-B, all for the purpose of regulating the handling and reporting of tank bottoms, sediment oil, miscellaneous hydrocarbons, and the operation of treating plants.

CASE 6151: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Vega Petroleum Corporation, American Employers' Insurance Company, and all other interested parties to appear and show cause why the North Caprock Queen Unit No. 1 Well No. 5Y located in Unit E of Section 8, Township 13 South, Range 32 East, Lea County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6152: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Al Greer, American Employers' Insurance Company, and all other interested parties to appear and show cause why the Thompson Well No. 1 located in Unit N of Section 10, Township 30 North, Range 11 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6153: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Mints-Kenaston and all other interested parties to appear and show cause why the L. A. McCoy Well No. 1 located in Unit B of Section 28, Township 30 North, Range 12 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6154: Application of Read & Stevens, Inc. for a unit agreement, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for its Calumet Ranch Unit Area comprising 5,760 acres, more or less, of Federal, State, and fee lands in Township 12 South, Range 27 East, Chaves County, New Mexico.

CASE 6155: Application of Gulf Oil Corporation for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the N/2 of Section 28, Township 23 South, Range 26 East, South Carlsbad Field, Eddy County, New Mexico, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6144: (Readvertised)

Application of Southland Royalty Company for two unorthodox locations and two non-standard gas proration units, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for two 120-acre non-standard gas proration units comprising the S/2 SE/4 of Section 10 and the SW/4 SW/4 of Section 11, and comprising the SE/4 SW/4 and the S/2 SE/4 of Section 11, all in Township 28 North, Range 11 West, Fulcher Kutz-Pictured Cliffs Pool, San Juan County, New Mexico, each of said units to be dedicated to a well drilled at an unorthodox location thereon.

CASE 6156: Application of Southland Royalty Company for an unorthodox location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its East Well No. 5A to be located 1120 feet from the South line and 1790 feet from the West line of Section 24, Township 31 North, Range 12 West, Blanco-Mesaverde Gas Pool, San Juan County, New Mexico.

CASE 6157: Application of Supron Energy Corporation for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 160-acre non-standard gas proration unit comprising the SW/4 of Section 13, Township 16 South, Range 33 East, Lea County, New Mexico, to be dedicated to a Morrow gas well test to be drilled thereon.

CASE 6158: Application of O. H. Berry for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the NE/4 of Section 15, Township 24 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6159: Application of Texaco Inc., for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Drinkard and Wantz-Granite Wash production in the wellbore of its A. H. Blinebry Federal Well No. 38 located in Unit J of Section 19, Township 22 South, Range 36 East, Lea County, New Mexico.

CASE 6160: Application of Bass Enterprises Production Co., for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Delaware formation through the perforated interval from 3310 feet to 3375 feet in its Big Eddy Unit Well No. 56, located in Unit G of Section 35, Township 21 South, Range 28 East, Indian Flats-Delaware Pool, Eddy County, New Mexico.

CASE 6161: Application of Tenneco Oil Company for two waterflood projects, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project on its Leonard Federal Lease by the injection of water into the Queen formation through one well in Unit O of Section 11, and on its Leonard Brothers Lease through two wells, in Units I and M, respectively, of Section 14, all in Township 26 South, Range 37 East, Leonard Queen Pool, Lea County, New Mexico. Applicant further seeks the establishment of an administrative procedure for the addition of injection wells and the conversion of existing wells to injection at both orthodox and unorthodox locations without further notice and hearing.

CASE 6162: Application of Continental Oil Company for an unorthodox location and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Jack B-30 Well No. 2 to be located 330 feet from the North line and 1725 feet from the East line of Section 30, Township 24 South, Range 37 East, Jalmat Gas Pool, Lea County, New Mexico, the NE/4 of said Section 30 to be simultaneously dedicated to the aforesaid well and to Well No. 5 in Unit H.

CASE 6163: Application of Continental Oil Company for amendment of Commission Order No. R-3863, Lea County, New Mexico. Applicant, in the above-styled cause, seeks to substitute its Anderson Ranch Unit Wells No. 6 located in Unit X of Section 2 and Nos. 3 and 10, located in Units A and H, respectively, of Section 11, all in Township 16 South, Range 32 East, for the initial injection wells authorized by said order in its Anderson Ranch-Wolfcamp Waterflood Project, Anderson Ranch-Wolfcamp Pool, Lea County, New Mexico.

CASE 6164: Application of Shell Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Tubb, Wantz-Abo, and Brunson-Ellenburger production in the wellbore of its Shell State Section 2 Well No. 15 located in Unit K of Section 2, Township 21 South, Range 37 East, Lea County, New Mexico.

CASE 6165: Application of Shell Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Drinkard, Hare-McKee, and Brunson-Ellenburger production in the wellbore of its Shell State Section 2 Well No. 3 located in Unit U of Section 2, Township 21 South, Range 37 East, Lea County, New Mexico.

CASE 6166: Application of Odessa Natural Corporation for rescission of Order No. R-5601, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks a hearing at which any interested party could appear and show cause why Order No. R-5601, which granted a special well classification to applicant's ARCO-Little Fed. Well No. 1, located in Unit D of Section 32, Township 24 North, Range 3 West, Rio Arriba County, New Mexico, should not be rescinded.

CASE 6141: Application of Paul Slayton for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Seven Rivers formation thru the open-hole interval from 528 feet to 547 feet in his Hastie Well No. 7 located in Unit L of Section 18, Township 17 South, Range 28 East, Empire Field, Eddy County, New Mexico.

OIL CONSERVATION COMMISSION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

February 10, 1978

CERTIFIED - RETURN
RECEIPT REQUESTED

Vega Petroleum Corporation
P. O. Box 2383
Midland, Texas 79701

Johnny Johnson Insurance
P. O. Box 231
Midland, Texas 79701

Re: Vega Petroleum Corporation
North Caprock Queen Unit No. 1 Well No. 5Y, located in Unit E of Section 8, Township 13 South, Range 32 East, Lea County
Plugging Bond

Gentlemen:

Enclosed is a copy of the docket of the Examiner Hearing to be held on Wednesday, February 22, 1978, at 9:00 a.m. in the Oil Conservation Commission Conference Room, State Land Office Building, Santa Fe, New Mexico. Case 6151 concerns the above captioned subject matter.

Very truly yours,

LYNN TESCHENDORF
General Counsel

LT/fd
enc.

Case 6151

Well Should be

5y not 54

Case 6151
SF
Hobbs

In the matter of the hearing called by the OCC on its own motion to permit Vega Petroleum Corporation, American Employers' Insurance Co., and all other interested parties to appear and show cause why the North Caprock Queen Unit No. 1 Well No. 54 located in Unit E of Section 8, T 13S, R 32E, Lea County, N.M., should not be plugged and abandoned in accordance with a Commission-approved plugging program.

P/S. docket for Feb. 8

Send docket to Johnny Johnson Insurance
P.O. Box 231
Midland, Texas 79701

DRAFT

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
O C D

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

CASE NO. 6151

Order No. R- 5712

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION ON ITS OWN MOTION TO PERMIT VEGA PETROLEUM CORPORATION, AMERICAN EMPLOYERS' INSURANCE COMPANY, AND ALL OTHER INTERESTED PARTIES TO APPEAR AND SHOW CAUSE WHY THE NORTH CAPROCK QUEEN UNIT NO.1 WELL NO. 5Y LOCATED IN UNIT E OF SECTION 8, TOWNSHIP 13 SOUTH, RANGE 32 EAST, LEA COUNTY, NEW MEXICO, SHOULD NOT BE PLUGGED AND ABANDONED IN ACCORDANCE WITH A DIVISION-APPROVED PLUGGING PROGRAM.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on April 19, 19 78, at Santa Fe, New Mexico, before Examiner Richard L. Stamets

NOW, on this _____ day of April, 19 78, the Division Director, having considered the record and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

That Case No. 6151 should be dismissed. ~~the applicant's request for dismissal should be granted~~.

IT IS THEREFORE ORDERED:

That Case No. 6151 is hereby dismissed.

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

PS Form 3811, Nov. 1976

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- ☐ RESTRICTED DELIVERY.
Show to whom and date delivered .....85¢
- ☐ RESTRICTED DELIVERY.
Show to whom, date, and address of delivery ..$1.05

(Fees shown are in addition to postage charges and other fees).

2. ARTICLE ADDRESSED TO:
Johnny Johnson Insurance

3. ARTICLE DESCRIPTION:

REGISTERED NO.	CERTIFIED NO.	INSURED NO.
	705677	

(Always obtain signature of addressee or agent)

I have received the article described above.
SIGNATURE ☐ Addressee ☐ Authorized agent
Sikes Johnson

4. DATE OF DELIVERY

POSTMARK
DALLAS TX FEB 15 1978

5. ADDRESS (Complete only if requested)

6. UNABLE TO DELIVER BECAUSE: CLERK'S INITIALS

☆ GOP: 1976—O-203-456

PS Form 3811, Nov. 1976

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Add your address in the "RETURN TO" space on reverse.

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- ☐ RESTRICTED DELIVERY.
Show to whom and date delivered .....85¢
- ☐ RESTRICTED DELIVERY.
Show to whom, date, and address of delivery ..$1.05

(Fees shown are in addition to postage charges and other fees).

2. ARTICLE ADDRESSED TO:
Vega Petroleum Corporation

3. ARTICLE DESCRIPTION:

REGISTERED NO.	CERTIFIED NO.	INSURED NO.
	705681	

(Always obtain signature of addressee or agent)

I have received the article described above.
SIGNATURE ☐ Addressee ☐ Authorized agent
Betty W Bethancourt

4. DATE OF DELIVERY

POSTMARK
MIDLAND TX FEB 15 1978

5. ADDRESS (Complete only if requested)

6. UNABLE TO DELIVER BECAUSE: CLERK'S INITIALS

☆ GOP: 1976—O-203-456

PS Form 3800, Apr. 1976

No. 705681

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO
Vega Petroleum Corp.
STREET AND NO.
P. O. Box 2383
P.O., STATE AND ZIP CODE
Midland, Texas 79701

POSTAGE		$
CONSULT POSTMASTER FOR FEES	CERTIFIED FEE	¢
OPTIONAL SERVICES	SPECIAL DELIVERY	¢
OPTIONAL SERVICES	RESTRICTED DELIVERY	¢
OPTIONAL SERVICES / RETURN RECEIPT SERVICE	SHOW TO WHOM AND DATE DELIVERED	¢
OPTIONAL SERVICES / RETURN RECEIPT SERVICE	SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	¢
OPTIONAL SERVICES / RETURN RECEIPT SERVICE	SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	¢
OPTIONAL SERVICES / RETURN RECEIPT SERVICE	SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	¢
TOTAL POSTAGE AND FEES		$
POSTMARK OR DATE		

PS Form 3800, Apr. 1976

No. 705677

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO
Johnny Johnson Ins.
STREET AND NO.
Box 231
P.O., STATE AND ZIP CODE
Midland, Texas 79701

POSTAGE		$
CONSULT POSTMASTER FOR FEES	CERTIFIED FEE	¢
OPTIONAL SERVICES	SPECIAL DELIVERY	¢
OPTIONAL SERVICES	RESTRICTED DELIVERY	¢
OPTIONAL SERVICES / RETURN RECEIPT SERVICE	SHOW TO WHOM AND DATE DELIVERED	¢
OPTIONAL SERVICES / RETURN RECEIPT SERVICE	SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	¢
OPTIONAL SERVICES / RETURN RECEIPT SERVICE	SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	¢
OPTIONAL SERVICES / RETURN RECEIPT SERVICE	SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	¢
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- Endorse article "Return Receipt Requested" adjacent to number.

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U.S. MAIL

RETURN TO

OIL CONSERVATION COMMISSION
(Name of Sender)

POST OFFICE BOX 2088
(Street or P.O. Box)

SANTA FE, NEW MEXICO 87501
(City, State, and ZIP Code)

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POST OFFICE BOX 2088
(Street or P.O. Box)

SANTA FE, NEW MEXICO 87501
(City, State, and ZIP Code)

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2. If you do not want this receipt postmarked, stick the gummed stub on the left portion of the address side of the article, date, detach and retain the receipt, and mail the article.
3. If you want a return receipt, write the certified-mail number and your name and address on a return receipt card, Form 3811, and attach it to the front of the article by means of the gummed ends if space permits. Otherwise, affix to back of article. Endorse front of article **RETURN RECEIPT REQUESTED** adjacent to the number.
4. If you want delivery restricted to the addressee, or to an authorized agent of the addressee, endorse RESTRICTED DELIVERY on the front of the article.
5. Enter fees for the services requested in the appropriate spaces on the front of this receipt. If return receipt is requested, check the applicable blocks in Item 1 of Form 3811.
6. Save this receipt and present it if you make inquiry.

STICK POSTAGE STAMPS TO ARTICLE TO COVER FIRST CLASS POSTAGE, CERTIFIED MAIL FEE, AND CHARGES FOR ANY SELECTED OPTIONAL SERVICES. (see front)

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5. Enter fees for the services requested in the appropriate spaces on the front of this receipt. If return receipt is requested, check the applicable blocks in Item 1 of Form 3811.
6. Save this receipt and present it if you make inquiry.

CASE 6152: OCC - PLUGGING CASE
AL GREER, AMERICAN EMPLOYERS' INSURANCE COMPANY

Continued to
March 22

Case Number

6152

Application

Transcripts.

Small Exhibits

ETC.

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE, NEW MEXICO

Hearing Date MARCH 22, 1978 TIME: 9:00 A.M.

NAME	REPRESENTING	LOCATION
William F. Carr	Catron, Catron & Sawtell	Santa Fe
Ann Kuykendall	Sun Oil Company	Dallas
KENNETH W. LARSON	SUN OIL CO.	DENVER
Sumner G. Buell	Jasper & Buell	Santa Fe
Jason Kellahin	Kellahin & Fox	Santa Fe
Joseph W Jeffer	Mesa Petroleum	Midland Tx
Paul Eaton	Hinkle firm	Roswell NM
Charles D Preston	Mesa Petroleum	Midland Tx
Robert R. Donnelly	Mesa Petroleum	Midland, Tx
U. T. Lyon	CONOCO	Hobbs NM
A. R. Kendrick	"	Aztec
Robert V. Lockhart	Union Oil Co. of California.	Midland, Tx.
Chas Carry	Union Oil Co of Calif.	Midland, TX
Joel Carson	Losee & Carson P.A.	Artesia
Marvin D. Wilson	Yates Petroleum (Consultant)	Artesia
A. W. HANLEY	MARATHON OIL CO.	MIDLAND, TEXAS
Robert J. PICKENS	" " "	HOUSTON, TEX.

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
March 22, 1978

EXAMINER HEARING

IN THE MATTER OF:

Application of the Oil Conservation Commission on its own motion to permit Al Greer, American Employers' Insurance Company, to show cause on the Thompson Well No. 1, San Juan County, New Mexico.

CASE 6152

BEFORE: Richard L. Stamets, Examiner.

TRANSCRIPT OF HEARING

For the New Mexico Oil Conservation Commission: Lynn Teschendorf, Esq.
Legal Counsel for the Commission
State Land Office Building
Santa Fe, New Mexico

For Al Greer: Jason W. Kellahin, Esq.
KELLAHIN & FOX
Attorneys at Law
500 Don Gaspar Avenue
Santa Fe, New Mexico

sid morrish reporting service
General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

I N D E X

		Page
1.	Appearances	1
2.	The Witness, Mr. A. R. Kendrick	
	Direct Examination by Ms. Teschendorf	4
	Witness Excused	7
3.	Reporter's Certificate	9

EXHIBIT INDEX

Commission's Exhibit No. 1, Photograph	7
Commission's Exhibit No. 2, Records	7
Exhibits Numbers 1 & 2 Admitted	7

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MR. STAMETS: Call next case, Case 6152, which is in the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Al Greer, American Employers' Insurance Company, and all other interested parties to appear and show cause why the Thompson Well No. 1, located in Unit N of Section 10, Township 30 North, Range 11 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

Call for appearances.

MS. TESCHENDORF: Lynn Teschendorf appearing for the Commission and I have one witness to be sworn.

MR. KELLAHIN: Jason Kellahin, Kellahin and Fox, Santa Fe, appearing on behalf of Al Greer and at this time we would ask that the Commission continue this case because it hasn't yet been determined who owns that well.

The information available to us at the present time is that Mr.Greer's father assigned the well to a Mr. Florence who -- both of these gentlemen are deceased -- and Mr. Florence's son says he doesn't own it and Mr. Greer doesn't know if he owns it or not. He is trying to find out.

We would have no objection, if the Examiner please, to go ahead and present your testimony and leave the case open for a later appearance on behalf of Mr. Greer.

MR. STAMETS: Mr. Kellahin, we are going to go ahead

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and hear this case today and in going ahead with these proceedings the Examiner and I am sure the Commission, itself, will make every effort to provide Mr. Greer with the time he needs to resolve this matter and an opportunity to make the ownership clear subsequent to the hearing.

MR. KELLAHIN: Also, the disposition of the well. We are in the position, Mr. Examiner, that if Mr. Greer actually owns the well site in fee he intends to attempt to complete it and not to flood. We do not want to plug it or an order entered in the case until, at least, he knows he owns it.

MR. STAMETS: Do you think one hundred and twenty days will be enough time?

MR. KELLAHIN: I think so.

MR. STAMETS: We are going to go ahead and hear the Commission's witness in this case.

(THEREUPON, the witness was sworn.)

A. R. KENDRICK

was called as a witness by the Commission, and having been first duly sworn, testified upon his oath as follows, to-wit:

DIRECT EXAMINATION

BY MS. TESCHENDORF:

Q. Would you state your name, position, place or residence?

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A. A. R. Kendrick, District Supervisor for the Oil Conservation Commission and I reside at Aztec, New Mexico.

Q. Have you previously testified before the Commission and are your credentials a matter of record?

A. I have and they are.

Q. Does your district include that part of San Juan County that is involved in this case?

A. Yes.

Q. Do your duties as the District Supervisor include making recommendations to the Commission as to when wells should be plugged and abandoned?

A. Yes.

Q. Are you familiar with the subject matter of this case?

A. Yes.

Q. And have you reviewed all of the reports filed with the Commission concerning this particular well?

A. Yes.

Q. Would you please summarize those records?

A. I have to present to the Commission a copy of our entire well file which was initiated January of 1958, by the receipt of a forty-acre plat for this well, the well having been drilled in 1938, or 1935, our records on some of our scout tickets are not to definite. But the well was completed

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in 1941, and it started producing gas in the pipeline in 1951.

For C-104 and C-110 were also received in January of 1955. In April of 1955, a request for a non-standard unit was received.

In April of 1955, another forty-acre plat and in May of 1955, a non-standard unit of forty acres for this gas well was received and then there are two interoffice memorandums between the Commission personnel and a letter to Albert Greer's secretary. Albert Greer's father was the owner of this well.

At that time we asked that we asked for information about temporary abandoned wells in 1975, Albert Greer's secretary contacted the person who worked in my office at that time and said that they were not familiar with this well.

However, I think this well was the discovery well in the Aztec Pictured Cliffs Pool. It last produced in January of 1959, and has a cumulative production of one hundred twenty-one thousand nine hundred seventy-two MCF.

Q. Is that well record record marked as Exhibit No. 1 in this case?

A. No, a photograph of the well head is marked as Exhibit 1, the well record is marked Exhibit 2.

Q. Did you or one of the Commission personnel take that picture?

A. The picture was taken by Charles Gossen who is a

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field representative working for me in the district office.

Q. Is there a bond on this well?

A. Yes. There is one well bond in the name of Al Greer.

Q. Who is the security on this bond?

A. There is not -- I do not.

Q. In your opinion could the failure to plug this well cause waste?

A. Yes, the well could either be flooding out of the Pictured Cliffs gas formation or gas from the Pictured Cliffs could be coming up the hole and going into the water formation due to casing failure in the well.

Q. Are you prepared to recommend a plugging program at this time or would you prefer to describe the plugging program at the actual time of plugging?

A. I would rather work the plugging program with the plugging contractor at the time the well is actually plugged.

MS. TESCHENDORF: I offer Exhibits 1 and 2 into evidence.

MR. STAMETS: These exhibits will be admitted.

Q (Ms. Teschendorf continuing.) Do you have anything further?

A. Yes. I recommend that this well either be made as a useful well or that it be plugged and abandoned.

MR. TESCHENDORF: I have no further questions.

MR. STAMETS: Any questions of the witness? You

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Phone (505) 982-9212

maybe excused. Anything further in this case? The case will be taken under advisement.

(THEREUPON, the case was concluded.)

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Phone (505) 982-9212

REPORTER'S CERTIFICATE

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

Sidney F. Morrish, C.S.R.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 6152 heard by me on 3-22, 1978.

Richard L. Stamets, Examiner
New Mexico Oil Conservation Commission

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General Court Reporting Service
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Phone (505) 982-9212

Memo

From

A. R. KENDRICK
Supervisor

7/21/78

To Lynn:

I'll bet $5.00 even money that Al Greer does not accomplish either court action or field work during the terms of the order or the requested extension.

The case was heard in March - so there is another 90 days.

If you want the bet let me know next week.

AL

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE

JERRY APODACA
GOVERNOR

NICK FRANKLIN
SECRETARY

1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178

July 21, 1978

Case 6152

Mr. Jason Kellahin
Kellahin & Fox
P. O. Box 1796
Santa Fe, New Mexico 87501

Re: Case No. 6152
Order R-5751

Dear Jason:

The completion date for the action required by the subject order is hereby extended until December 1, 1978, per your request of July 19, 1978.

Hopefully the time extension will not be needed.

Yours very truly

A. R. Kendrick
Supervisor, District #3

XC: Al Greer
OCD, Santa Fe

ARK/bk

JASON W. KELLAHIN
ROBERT E. FOX
W. THOMAS KELLAHIN

KAREN AUBREY

KELLAHIN and FOX
ATTORNEYS AT LAW
P. O. BOX 1769
SANTA FE, NEW MEXICO 87501

TELEPHONE 982-4315
AREA CODE 505

July 19, 1978

Mr. Al Kendrick
Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico 87410

Re: Case No. 6152

Dear Al:

In connection with the above case, we would request that time for plugging the subject well be extended to December 1, 1978. As you know, there is a serious question as to the actual ownership of this well, and Al Greer wants to re-enter the well and attempt to get it back on production. Until the title situation is straightened out, however, this would be quite risky, particularly if he is able to get the well on production. A quiet title suit will probably be required.

Your consideration of this request will be appreciated.

Sincerely,

Jason

Jason W. Kellahin

CC: Mr. Al Greer

JWK:kfm

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 - SANTA FE
87501

DIRECTOR
JOE D. RAMEY

LAND COMMISSIONER
PHIL R. LUCERO

STATE GEOLOGIST
EMERY C. ARNOLD

July 10, 1978

Mr. Jason Kellahin
Kellahin & Fox
Attorneys at Law
Post Office Box 1769
Santa Fe, New Mexico

Re: CASE NO. 6152
ORDER NO. R-5751

Applicant:

OCD (Al Greer)

Dear Sir:

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

Yours very truly,

JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCC x
Artesia OCC x
Aztec OCC

Other

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION ON ITS OWN MOTION TO PERMIT AL GREER, AMERICAN EMPLOYERS' INSURANCE COMPANY, AND ALL OTHER INTERESTED PARTIES TO APPEAR AND SHOW CAUSE WHY THE THOMPSON WELL NO. 1 LOCATED IN UNIT N OF SECTION 10, TOWNSHIP 30 NORTH, RANGE 11 WEST, SAN JUAN COUNTY, NEW MEXICO, SHOULD NOT BE PLUGGED AND ABANDONED IN ACCORDANCE WITH A COMMISSION-APPROVED PLUGGING PROGRAM.

CASE NO. 6152
Order No. R-5751

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on March 22, 1978, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 7th day of July, 1978, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That Al Greer is the owner and operator of the Thompson Well No. 1, located in Unit N of Section 10, Township 30 North, Range 11 West, NMPM, San Juan County, New Mexico.

(3) That American Employers' Insurance Company is the surety on the Oil Conservation Division plugging bond on which Al Greer is principal.

(4) That the purpose of said bond is to assure the state that the subject well will be properly plugged and abandoned when not capable of commercial production.

(5) That in order to prevent waste, to protect fresh water supplies, and protect correlative rights said Thompson Well No. 1 should be plugged and abandoned in accordance with a program approved by the Aztec District Office of the Oil Conservation Division of the New Mexico Energy and Minerals Department on or before September 1, 1978, or the well should be returned to active drilling status or placed on production.

IT IS THEREFORE ORDERED:

(1) That Al Greer is hereby ordered to plug and abandon the Thompson Well No. 1, located in Unit N of Section 10, Township 30 North, Range 11 West, NMPM, San Juan County, New Mexico, or in the alternative, to return the well to active drilling status or place the well on production on or before September 1, 1978.

(2) That Al Greer, prior to plugging and abandoning the above-described well, shall obtain from the Aztec office of the Division, a Division-approved program for said plugging and abandoning, and shall notify said Aztec office of the date and hour said work is to be commenced whereupon the Division may, at its option, witness such work.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

PHIL R. LUCERO, Chairman

EMERY C. ARNOLD, Member

JOE D. RAMEY, Member & Division Director

S E A L

fd/

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

JERRY APODACA
GOVERNOR

NICK FRANKLIN
SECRETARY

July 3, 1978

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

Mr. Al Kendrick
Oil Conservation Division
Aztec, New Mexico

Re: Case No. 6152

Dear Al:

Jason Kellahin, on behalf of Al Greer, Jr., has requested a 90-day extension to the September 1 deadline set out in the order not yet issued for the Thompson No. 1, N-10-30N-11W. This is agreeable to all parties, since this will give Mr. Greer enough time to conclude a quiet title action and make plans for re-working of the well. Therefore, I am recommending that when the order is issued, you send Mr. Greer a letter extending the deadline for plugging to December 1, 1978.

Very truly yours,

LYNN TESCHENDORF
General Counsel

LT/dr

cc: Jason Kellahin

JASON W. KELLAHIN
ROBERT E. FOX
W. THOMAS KELLAHIN

KELLAHIN and FOX
ATTORNEYS AT LAW
500 DON GASPAR AVENUE
P. O. BOX 1769
SANTA FE, NEW MEXICO 87501

TELEPHONE 982-4315
AREA CODE 505

RECEIVED
JUN 30 1978
Oil Conservation Division
Santa Fe

June 29, 1978

Mr. Joe Ramey, Director
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Re: Case No. 6152 - Order to Show Cause why Thompson No. 1 Well, Unit N, Sec. 10, T30N, R11W, Should Not be Plugged

Dear Mr. Ramey:

There continues to be considerable doubt as to who actually owns the above well, which your records apparently show belongs to the Al Greer estate.

Al Greer, Jr., has checked into his records but was not able to find anything on it. He did find, in a search of the county records, a contract between Mr. Greer and M. J. Florance under the terms of which Mr. Florance would assign title to a duplex apartment, which was done. The contract also provided that Florance would pay Greer $8,000 for assignment of some leasehold rights, including the lease on the subject well. A copy of this agreement is enclosed.

We have been unable to find that Florance paid the $8,000, or that the lease assignment was made. The well was not included in the estate of either of the men.

Al Greer, if he can be assured of clear title, would like to attempt to restore the well to production before plugging it. With the questionable title, he does not feel that he can do this, since if the well is put back on production, the Florance family could make a claim to it.

Probably the only way this could be resolved would be through a quiet title action. Al would like some additional time in which to determine if a quiet title suit will be necessary.

Sincerely,

Jason W. Kellahin

Jason W. Kellahin

CC: Mr. Albert R. Greer

JWK:kfm

[illegible] AGREEMENT

THIS CONTRACT AND AGREEMENT, made and entered into this [illegible] day of August, 1960, by and between M. J. FLORANCE and AL GREER;

W I T N E S S E T H:

THAT, WHEREAS, Greer is the owner of an oil and gas lease made and entered into on January 12, 1955 by and between Chester Thompson, et ux, as lessors, and Al Greer, as lessee, recorded in Book 89, at Page 544, of the records of San Juan County, State of New Mexico, and covering the following described lands in said San Juan County, to-wit:

Township 30 North, Range 11 West

Southeast Quarter of Southwest Quarter (SE/4 SW/4), of Section Ten (10); and,

Northeast Quarter of Northwest Quarter (NE/4 NW/4), of Section Fifteen (15);,

and,

WHEREAS, Florance is the owner of a duplex apartment located upon the following described lands in the town of Aztec, San Juan County, New Mexico, to-wit:

BEGINNING at a point which is 552.7 feet East of the West quarter-corner of Section Nine (9), Township Thirty (30) North, Range Eleven (11) West, N.M.P.M.;
THENCE S 0°13' West along the center of a roadway 138.97 feet to the Southeast corner of Lot Eighteen (18), Block One (1), Florance Addition to the Town of Aztec;
THENCE in a Northwesterly direction along the South line of Lot 18, to the Southwest corner of said lot;
THENCE South 0°12' East to the South line of the Southeast Quarter of the Northwest Quarter SW NW of the above described Section 9;
THENCE West along said line approximately 32 feet, to the point of beginning;

and,

WHEREAS, Florance desires to obtain from Greer an assignment of the above described oil and gas lease EXCEPT as to those rights above the base of the Pictured Cliffs formation in the [illegible] Quarter of the [illegible] Quarter (Unit [illegible]) of the above described Section [illegible] and EXCEPTING a production payment of $_____ in the Dakota sand formation, and $_____ in those horizons below the Dakota sand formation to be paid out of one-thirty-second of eight-eighths (1/32nd of 8/8ths) of all oil, gas or other hydrocarbons produced, saved and sold under the terms of the above described oil and gas lease, in exchange for a conveyance by Florance to Greer of the above described duplex apartment and the lands upon which it is situated, and payment by Florance to Greer of Eight Thousand Dollars ($8,000.00), in cash, all in accord with the terms and provisions hereof;

NOW, THEREFORE, For and in consideration of the sum of One Dollar ($1.00) and other good and valuable considerations, the receipt of which is hereby acknowledged, the parties hereto do contract and agree, one with another, as follows:

1. Greer hereby agrees that he will execute and deliver unto Florance an assignment conveying to Florance all right, title and interest in and to the above described oil and gas lease, together with any and all personal property used or obtained in connection with the Pictured Cliffs well located upon the North forty (40) acres of such lease, EXCEPTING the rights down to the base of the Pictured Cliffs formation on the South forty (40) acres of such lease, and EXCEPTING and RESERVING unto Greer one-thirty-second of eight-eighths (1/32nd of 8/8ths) of all oil, gas and other hydrocarbons produced, saved and sold under the terms of said oil and gas lease from all formations from the base of the Pictured Cliffs formation to the base of the Dakota formation until such time as there has been paid to Greer [illegible] reserved interest the sum

$_____, and EXCEPTING AND RESERVING a further one-thirty-second of eight-eighths (1/32nd of 8/8ths) of all oil, gas and other hydrocarbons produced, saved and sold under the terms of said oil and gas lease from all those formations below the base of the Pictured Cliffs formation until such time as Greer has been paid therefrom the sum of $_____. Such assignment shall be executed and delivered by Greer to Florance when Florance pays to Greer the sum of Eight Thousand Dollars ($8,000.00), in cash, and such payment shall be made within sixty (60) days from the date hereof.

2. Immediately upon the execution of this contract, Florance hereby agrees to execute and deliver to Greer a warranty deed conveying to Greer all right, title and interest in the above described duplex apartment and the lands upon which same are located.

3. Simultaneously with the delivery of the warranty deed from Florance to Greer, Florance shall furnish to Greer a title insurance policy guaranteeing title to such property to be merchantable EXCEPT that such title policy will be limited by an exception to the effect that the land upon which the above described duplex apartment is located may encroach upon the adjacent land which is owned by Greer and others.

4. Greer warrants to Florance that the above described oil and gas lease is a valid subsisting oil and gas lease and that he has good title thereto as to all interest that is being conveyed to Florance.

5. In addition to the consideration herein provided for, Greer is to receive, as a further consideration for this agreement, from Eva Thompson and any other heirs of Chester Thompson, deceased, an easement across the surface of:

[illegible] quarter of the Southwest [illegible] of the above described [illegible],

which easement shall extend from the South side of the Aztec-Blanco road to a pipe yard presently owned and operated by Greer on the

Northeast Quarter of the Northwest Quarter (NE¼NW¼) of the above described Section Fifteen (15),

such right-of-way to be located upon the presently existing roadway which extends from said Aztec-Blanco road to such pipe yard. Provided, that such right-of-way easement from the Thompsons may expressly provide that in the event they subdivide the

Southeast Quarter of the Southwest Quarter (SE¼SW¼) of the above described Section Ten (10),

they may grant to Greer, in lieu of the above described right-of-way easement, a right-of-way co-incidental with the nearest corner to said presently existing road-way laid out in such subdivision. Florance agrees that such right-of-way will be granted from the Thompson and the other heirs of Chester Thompson, deceased, in writing, and shall convey an easement in perpetuity. Such contract of right-of-way easement shall be delivered to Greer at the same time that the above described Eight Thousand Dollars ($8,000.00) is paid by Florance to Greer.

This contract and agreement shall extend to and be binding upon the parties hereto, their respective heirs, successors and assigns, and the respective spouses of the parties hereto join in this instrument for all intents and purposes.

EXECUTED as of the day and year first above written.

W. O. Florance
(W. O. Florance)

Thos. Florance
(Thos Florance)

C. J. Greer
(C. J. Greer)

[illegible]
([illegible])

(Acknowledgments - next page)

acknowledgments omitted

sid morrish reporting service
General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
22 February, 1978

EXAMINER HEARING

IN THE MATTER OF:

The hearing called by the Oil Conservation Commission on its own motion to permit Al Greer, American Employers' Insurance Company, and all other interested parties to appear and show cause why the Thompson Well No. 1 located in Unit N of Section 10, Township 30 North, Range 11 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6152

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Commission: Lynn Teschendorf, Esq.
Legal Counsel for the Commission
State Land Office Building
Santa Fe, New Mexico 87501

MR. STAMETS: Call next Case 6152.

MS. TESCHENDORF: Case 6152. In the matter of the hearing called by the OCC on its own motion to permit Al Greer, American Employers' Insurance Company, and all other interested parties to appear and show cause why the Thompson Well No. 1 in San Juan County, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

This case has been continued to the March 22nd Examiner Hearing.

MR. STAMETS: Case 6152 will be continued.

(Hearing concluded.)

sid morrish reporting service
General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

REPORTER'S CERTIFICATE

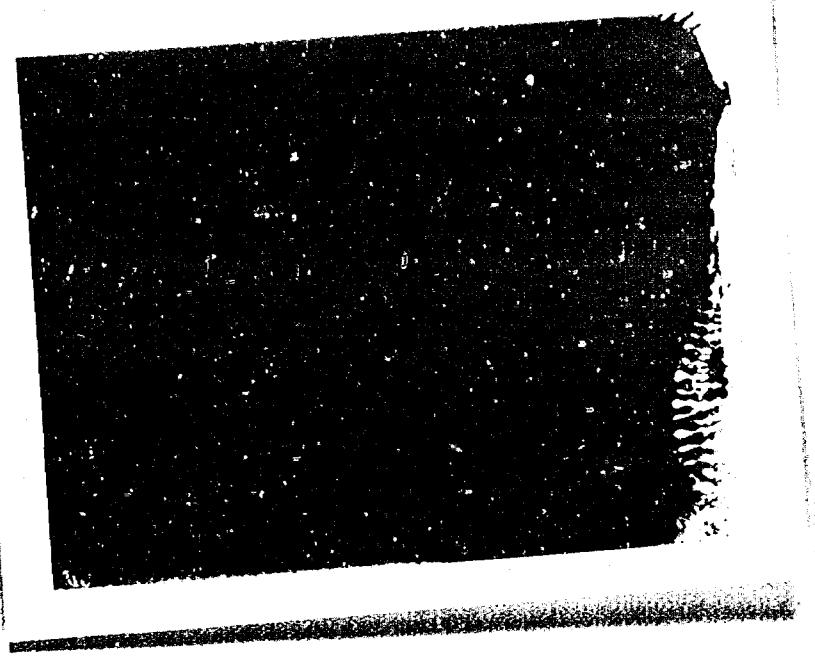
I, Sally Walton Boyd, a Certified Shorthand Reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and the same is a true and correct record of the said proceedings to the best of my knowledge, skill, and ability.

Sally Walton Boyd
Sally Walton 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. 6152, heard by me on 2-22, 1978.

Richard L. Stamets, Examiner
New Mexico Oil Conservation Commission

sid morrish reporting service
General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212



220/S ; 1520/W

F.Loc. 150/S; 152/W Elev. 5770 Gl. Spd. 8/22/35 Comp. 9/4/41 TD 2360 PB

Casing 8 1/4 @ 50 w set Sx. Int. @ W Sx. Pr. 5 1/2 @ 2210 W Sx. T. @

Csg.Perf. Prod. Stim.

Tr no

I.P. 180 BO/D MCF/D After Hrs. SICP 675 PSI After Days GOR Grav. 1st Del. 9/11/51 Trans SUG

TOPS		NITD		Well Log	
Kirtland		C-102		Plat	✓
Fruitland		C-103		Electric Log	
Pictured Cliffs		C-104	✓	C-110	✓
Cliff House					
Menefee		Remarks			
Point Lookout		* [illegible]			
Mancos					
Tocito					
Dakota					
Morrison					
Entrada					
		[illegible] 10-17-66			

TEST DATA						
Schd.	PC	Q	PW	PD	D	All.
*	514	79	99	25	64	
						1 N
X						

Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec.

Pool Aztec PC Co. SJ S 10 T 30N R 11W N.M. Oper. Al Greer Lse. Thompson No. 1

STATE NEW MEXICO

COUNTY San Juan SEC. 10 XX T. 30N R. 11W

FIELD OR AREA LOCATION 130'/S 1550'/W

LEASE Thompson, Chester WELL NO. 2

COMPANY Greer, Al SPD. 2-21-28 COMPLETED 9-24-41

ELEV. 5769' Gr 5770' DF T.D. 2362' P.B.

CASING 6-5/8" @ 1300' set 5" @ 2097' set

SHOT OR ACID

PERF.

I.P. 180,000 gas

PRODUCING FORM.

PRODUCTIVE DEPTH OR INTERVAL

REMARKS:

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
acc EXHIBIT NO. 2
CASE NO. 6152
Submitted by acc
Hearing Date 3-22-78

NEW MEXICO

OIL CONSERVATION COMMISSION

Gas Well Plat

Date January 27, 1955

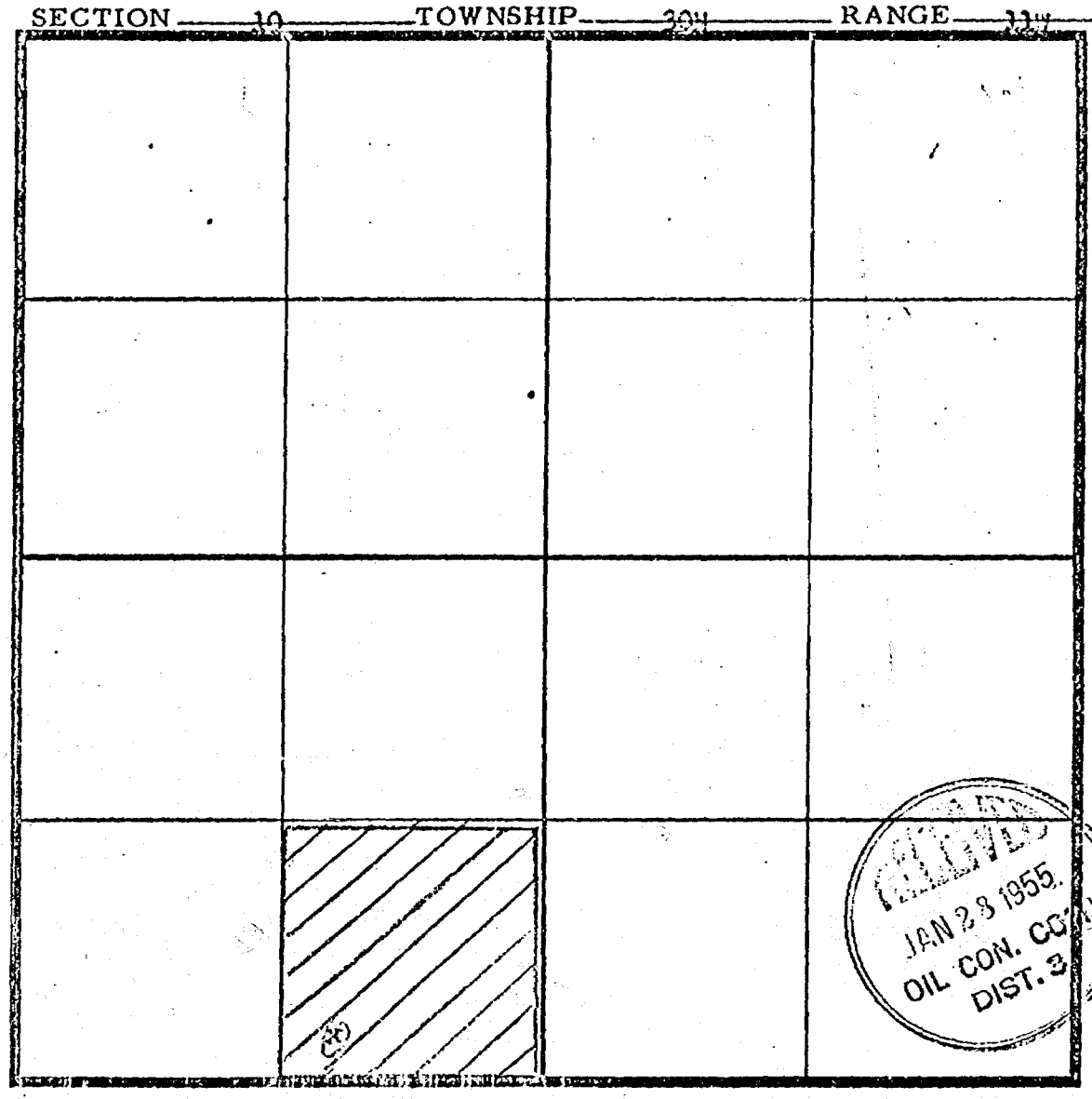
Al Greer (Operator) | Thompson (Lease) | 1 (Well No.)

Name of Producing Formation Pictured Cliffs Pool Aztec

No. Acres Dedicated to the Well 40

Indicate land status and show ownership

SECTION 10 TOWNSHIP 30N RANGE 11W



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

Name ~~Al Greer~~ Al Greer

Position Owner

Representing and Operator

Address ~~Aztec, New Mexico~~

(over)

(Form C-104)
(Revised 7/1/52)

NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

REQUEST FOR (OIL) - (GAS) ALLOWABLE

New Well
Recompletion

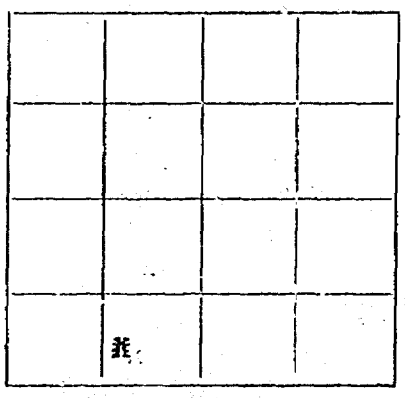
This form shall be submitted by the operator before an initial allowable will be assigned to any completed Oil or Gas well. Form C-104 is to be submitted in QUADRUPLICATE to the same District Office to which Form C-101 was sent. The allowable will be assigned effective 7:00 A.M. on date of completion or recompletion, provided this form is filed during calendar month of completion or recompletion. The completion date shall be that date in the case of an oil well when oil is delivered into the stock tanks. Gas must be reported on 15.025 psia at 60° Fahrenheit.

Aztec, New Mexico (Place) January 27, 1955 (Date)

WE ARE HEREBY REQUESTING AN ALLOWABLE FOR A WELL KNOWN AS:

Al Greer (Company or Operator) Thompson (Lease), Well No. 1, in SW ¼ SW ¼,
N (Unit), Sec. 10, T. 30N, R. 11W, NMPM., Aztec Pictured Cliffs Pool
San Juan County. Date Spudded 8/22/35, Date Completed 9/4/41

Please indicate location:



220/S; 1520/W

Elevation 5770 GL Total Depth 2360, P.B.

Top oil/gas pay Top of Prod. Form 2222

Casing Perforations: or

Depth to Casing shoe of Prod. String 2210

Natural Prod. Test BOPD

based on bbls. Oil in Hrs. Mins.

Test after acid or shot BOPD

Based on bbls. Oil in Hrs. Mins.

Gas Well Potential 180 MCF/D

Size choke in inches

Date first oil run to tanks or gas to Transmission system:

Transporter taking Oil or Gas: Southern Union Gas Company

Casing and Cementing Record

Size	Feet	Sax
12½	50	set
5½	2210	

Remarks:

RECEIVED
JAN 28 1955
OIL CON. COM.
DIST. 3

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

Approved FEB 7 1955, 19
ORIGINAL SIGNED BY
OIL CONSERVATION COMMISSION
By: S. V. Roberts
Title PETROLEUM ENGINEER DIST. NO. 3

Al Greer (Company or Operator)
By: Al Greer (Signature)
Title Owner and Operator
Send Communications regarding well to:
Name Al Greer
Address Aztec, New Mexico

(Form C-110)
(Revised 7/1/52)

NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

It is necessary that Form C-104 be approved before this form can be approved on an *initial* allowable be assigned to any completed Oil or Gas well. Submit this form in QUADRUPLICATE.

CERTIFICATE OF COMPLIANCE AND AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

Company or Operator Al Greer Lease Thompson

Address Aztec, New Mexico (Local or Field Office) (Principal Place of Business)

Unit H N, Well(s) No. 1, Sec. 10, T. 30N, R. 11W, Pool Aztec Pictured Cliffs

County San Juan Kind of Lease: Patented

If Oil well Location of Tanks

Authorized Transporter Southern Union Gas Company Address of Transporter

(Local or Field Office) (Principal Place of Business)

Per cent of ~~Oil~~ or Natural Gas to be Transported 100 Other Transporters authorized to transport Oil or Natural Gas from this unit are None

%

REASON FOR FILING: (Please check proper box)

NEW WELL ☐ CHANGE IN OWNERSHIP ☐

CHANGE IN TRANSPORTER ☐ OTHER (Explain under Remarks) ☒

REMARKS:

This form not previously filed.

RCVD
JAN 23 1955
OIL CON. COM.
DIST. 3

The undersigned certifies that the Rules and Regulations of the Oil Conservation Commission have been complied with.

Executed this the 27th day of January 19 55

Approved FEB 7 1955, 19
ORIGINAL SIGNED BY
OIL CONSERVATION COMMISSION

By A. P. Roberts

Title PETROLEUM ENGINEER DIST. NO. 3

By Al Greer

Title Owner and Operator

(See Instructions on Reverse Side)

MAIN OFFICE OCC

APR 25 AM 8:55

Aztec, New Mexico
April 23, 1955

APR 25 1955

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

Attention: Mr. C. M. Rieder, District Engineer

RECEIVED
APR 27 1955
OIL CON. COM.
DIST. 3

Re: Thompson #1 Well
Al Greer, Owner-Operator
Aztec Pictured Cliffs Pool
Sec 10-Twp30N-Rng11W

Gentlemen:

The following information is submitted in compliance with your letter dated March 30, 1955, and Memorandum on Non-Standard Gas Proration Units for Pictured Cliffs Gas Pools, Order R-565, Rule 6(b):

1. The Thompson #1 well is located 220 feet from the South line and 1520 feet from the West line of Section 10, Township 30 North, Range 11 West, N.M.P.M., in the Aztec Pictured Cliffs Pool.

2. The proposed non-standard unit comprises forty acres and in this connection attention is called to the fact that said well was completed September 4, 1941, at which time the present spacing requirements were not in effect. It was tied into the Southern Union Gas Company line September 11, 1951.

3. The proposed non-standard proration unit lies wholly within a single governmental section.

4. The entire unit may reasonably be presumed to be productive of gas.

5. The acreage to the West of the unit lies within the Town limits of the Town of Aztec and a copy of this letter is being sent to said Town as well as to all offset operators, by registered mail, to advise them of the intent to form this non-standard unit.

The writer respectfully requests consideration of this application for approval under the provisions of Order #R-565, Rule 6(b).

COPY

revised, of the subject non-standard gas proration unit.

Very truly yours,
Al Greer
Al Greer
Aztec, New Mexico

AG/lb
cc - Reg/Mail: W. P. Carr
6700 Forest Lane, Dallas, Texas

Tom Bolack
Farmington, New Mexico

Town of Aztec,
Aztec, New Mexico

El Paso Natural Gas Co
Tenth Floor Bassett Tower Bldg
El Paso, Texas

RECEIVED
APR 27 1955
OIL CON. COM.
DIST. 3

NEW MEXICO

OIL CONSERVATION COMMISSION

Gas Well Plat

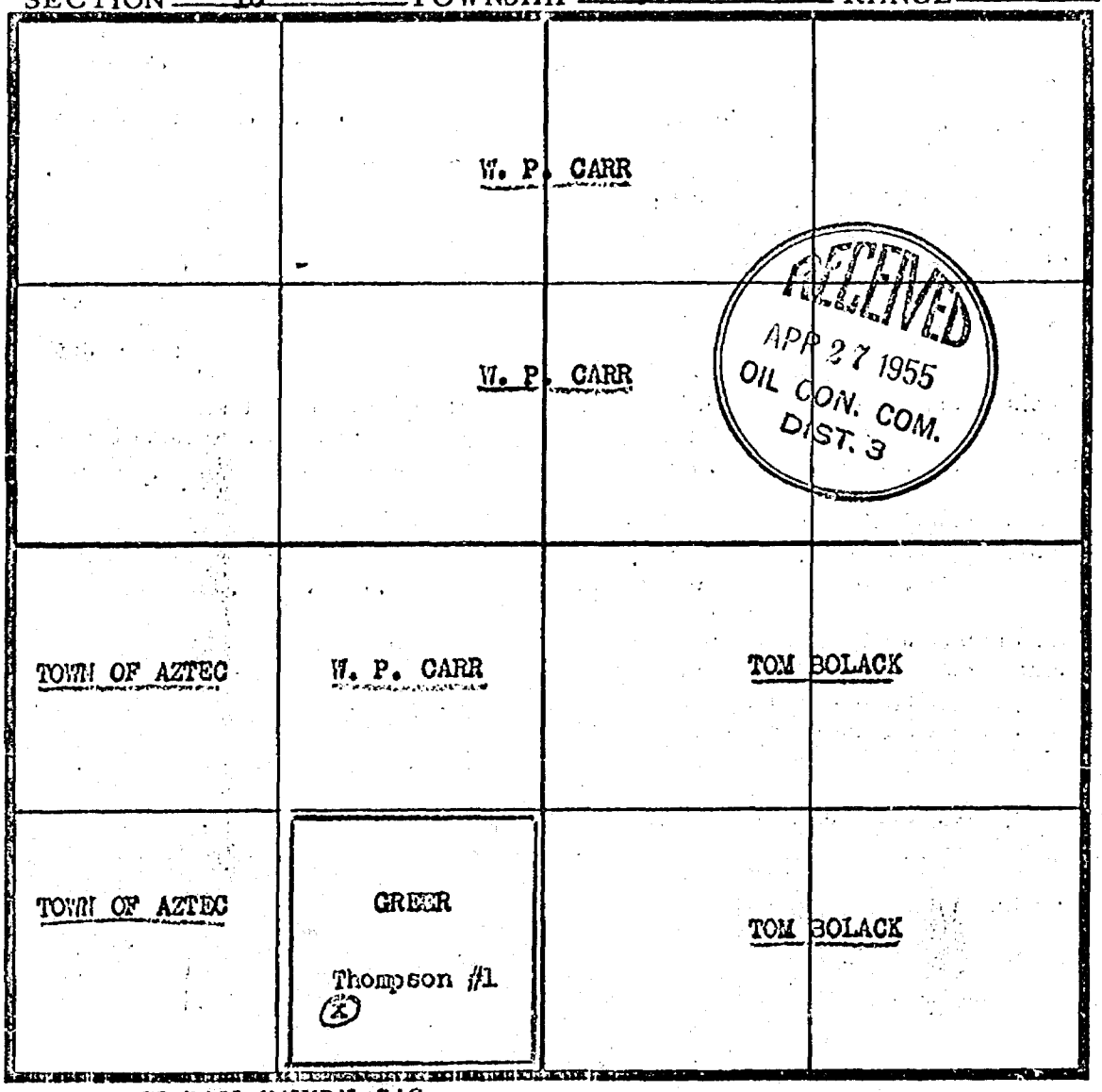
Date April 23, 1955

Al Greer (Operator) | Thompson (Lease) | #1 (Well No.)

Name of Producing Formation Pictured Cliffs Pool Aztec

No. Acres Dedicated to the Well 40.0

SECTION 10 TOWNSHIP 30N RANGE 11W



RECEIVED
APR 27 1955
OIL CON. COM.
DIST. 3

EL PASO NATURAL GAS

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

Name Al Greer
Position Owner-Operator
Representing
Address Aztec, New Mexico

(over)

RECEIVED
MAY 27 1955
OIL CON. COM.
DIST. 3

May 25, 1955

Mr. Al Greer
Aztec, New Mexico

Attention: Mr. Al Greer

Administrative Order NWU-86

Gentlemen:

Reference is made to your application for approval of a 40-acre non-standard gas proration unit in the Aztec-Pictured Cliffs Gas Pool consisting of the following acreage:

Township 30 North, Range 11 West, NMPM
SE/4 SW/4 of Section 10

It is understood that this unit is to be ascribed to your Thompson Well No. 1, located 220 feet from the South line and 1520 feet from the West line of Section 10, Township 30 North, Range 11 West, NMPM, San Juan County, New Mexico.

By authority granted me under provisions of Rule 6, Section (b) of the Special Rules and Regulations for the Aztec-Pictured Cliffs Gas Pool, as set forth in Order R-565, you are hereby authorized to operate the above described acreage as a non-standard gas proration unit, with allowable to be assigned thereto in accordance with pool rules, based upon the unit size of 40 acres.

Very truly yours,

W. B. Macey
Secretary-Director

WBM:jh
cc: Oil Conservation Commission
Aztec, New Mexico

OIL CONSERVATION COMMISSION

P. O. BOX 2088 • SANTA FE, NEW MEXICO 87501 • PHONE 827-2434

TO Emery C. Arnold
Supervisor & Oil & Gas Inspector
District III

DATE 7-23-66

Re: Al Green et al
Thompson #2-M 10-30N-11

Please send a complete copy of your file. Is this well plugged?

Thanks,

BY C. R. Ultbarri

DATE 7-25-66

Our records show this to be the # 1 Thompson in unit N. You have been sent Completion and Recompletion but our test, explanation is that it is 2220 ft. S + 1520 ft W. [redacted] It has been drilled but has not been plugged.

SIGNED C. C. Cornell

DETACH AND FILE FOR FOLLOW-UP

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
1000 RIO BRAZOS RD. · AZTEC
87410

DIRECTOR
JOE D. RAMEY

LAND COMMISSIONER
PHIL R. LUCERO

STATE GEOLOGIST
EMERY C. ARNOLD

July 1, 1976

Mrs. Nancy York
Benson-Montin-Greer Drilling Corp.
221 Petroleum Center Bldg.
501 Airport Drive
Farmington, New Mexico

Re: Al Greer
Thompson #1, N-10-30N-11W

Dear Mrs. York:

While working some computer lists of wells which need to be plugged I ran across a note from Norman Maxwell regarding a conversation between you and him regarding the subject well.

This well is located at the east edge of Aztec. It was connected to the Southern Union Gas system in 1951 and was disconnected in 1960.

Enclosed are some of the reports in our well file.

The well should be plugged and abandoned.

Yours very truly,

A. R. Kendrick
Supervisor, District #3

ARK:mc

Encls.

Dockets Nos. 12-78 and 13-78 are tentatively set for hearing on April 5 and 19, 1978. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - MARCH 22, 1978

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

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

CASE 6151: (Continued from February 22, 1978, Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Vega Petroleum Corporation, American Employers' Insurance Company, and all other interested parties to appear and show cause why the North Caprock Queen Unit No. 1 Well No. 5Y located in Unit E of Section 8, Township 13 South, Range 32 East, Lea County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6152: (Continued from February 22, 1978, Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Al Greer, American Employers' Insurance Company, and all other interested parties to appear and show cause why the Thompson Well No. 1 located in Unit N of Section 10, Township 30 North, Range 11 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6179: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit McCoy and Phillips and all other interested parties to appear and show cause why the John Bergin Well No. 1 located 2515 feet from the North line and 1410 feet from the West line of Section 21, Township 29 North, Range 11 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6180: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Elvis L. Roberts, The Travelers Indemnity Company, and all other interested parties to appear and show cause why the Wade Well No. 1 located 850 feet from the North line and 1750 feet from the East line of Section 21, Township 29 North, Range 11 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6137: (Continued from February 8, 1978, Examiner Hearing)

Application of Amoco Production Company for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Nellis Federal Well No. 3 to be located 1980 feet from the North line and 660 feet from the West line of Section 8, Township 19 South, Range 33 East, West Tonto-Pennsylvanian Gas Pool, Lea County, New Mexico, the N/2 of said Section 8 to be dedicated to the well.

CASE 6172: (Continued from March 8, 1978, Examiner Hearing)

Application of Morris R. Antweil 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 22, Township 19 South, Range 25 East, Eddy County, New Mexico, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6181: Application of Yates Petroleum Corporation for an unorthodox location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Rio Pecos "GB" Well No. 2 to be located 1980 feet from the South line and 1100 feet from the West line of Section 20, Township 18 South, Range 27 East, Red Lake Field, Eddy County, New Mexico, to test the Wolfcamp and Pennsylvanian formations, the S/2 of said Section 20 to be dedicated to the well.

CASE 6182: Application of Union Oil Company of California for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for its Laguna Deep Unit Area comprising 2,558 acres, more or less, of State, Federal and fee lands in Townships 19 and 20 South, Range 33 East, Lea County, New Mexico.

CASE 6183: Application of Mesa Petroleum Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for its North Scharb Unit Area comprising 1911 acres, more or less, of State and fee lands in Township 18 South, Range 35 East, Lea County, New Mexico.

CASE 6184: Application of Mesa Petroleum 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 24, Township 18 South, Range 24 East, Eddy County, New Mexico, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6185: (This Case will be dismissed)

Application of Mesa Petroleum Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the W/2 of Section 32, Township 18 South, Range 35 East, Lea County, New Mexico, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6186: Application of Sun Production Company for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 320-acre non-standard gas proration unit comprising the NE/4 of Section 20 and the NW/4 of Section 21, both in Township 22 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico, to be dedicated to applicant's Boren & Greer Gas Unit Well No. 2 to be located 890 feet from the North line and 1780 feet from the West line of said Section 21.

CASE 6187: Application of Continental Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Blinebry and Drinkard production in the wellbore of its Hawk B-1 Well No. 1 located in Unit F of Section 9, Township 21 South, Range 37 East, Lea County, New Mexico.

CASE 6170: Application of Aminoil USA, Inc., for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for its Westlake Unit Area comprising 1920 acres, more or less, of State lands in Township 24 South, Range 33 East, Lea County, New Mexico.

CASE 6188: Application of Sam D. Ares for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Seven Rivers formation through the open-hole interval from 3465 feet to 3497 feet in his Zattu Cushing Well No. 1 located in Unit F of Section 23, Township 24 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico.

CASE 6189: Application of Merrion & Bayless for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle Pictured Cliffs and Mesaverde production in the wellbore of its North Lindrith Com Well No. 2, to be drilled in the NW/4 of Section 20, Township 26 North, Range 2 West, Rio Arriba County, New Mexico.

Douglas E. Florance
Route 4 Box 770
Flagstaff, Arizona 86001
March 4, 1978

New Mexico Oil Conservation Commission
Box 2088
Sante Fe, New Mexico 87501

RE: Case No. 6152
Pictured Cliffs Well
Unit M, Sec. 10, T-30N, R-11W
San Juan County

Gentlemen:

I recently recieved a copy of Mr. Al Greer's letter to you dated Feb. 20, 1978, with regard to the above matter and respond as follows:

I remember that certain negotiations were held as to the above well, but I don't remember that any assighnment was actually made or that any final agreement was reached. I did look into this matter for Dad or the estate but could not determine that any acreage was actually dedicated to the well.

I claim no interest in the well nor do any other members of the Florance family. I do not believe it was included in M. J. Florance's estate nor does the Mercantile National Bank as trustee for his estate have any record of said lease.

Very Truly Yours,
D. E. Florance

DEF/lrb
CC: Al Greer

MAR 6 1978

PS Form 3811, Nov. 1976

● SENDER: Complete items 1, 2, and 3.
Add your address in the "RETURN TO" space on reverse.

1. The following service is requested (check one).
- ☐ Show to whom and date delivered .....25¢
- ☐ Show to whom, date, & address of delivery .....45¢
- ☐ RESTRICTED DELIVERY. Show to whom and date delivered .....85¢
- ☐ RESTRICTED DELIVERY. Show to whom, date, and address of delivery ..$1.05

(Fees shown are in addition to postage charges and other fees).

2. ARTICLE ADDRESSED TO:
American Employers' Ins. Co.

3. ARTICLE DESCRIPTION:

REGISTERED NO.	CERTIFIED NO.	INSURED NO.
	705678	

(Always obtain signature of addressee or agent)

I have received the article described above.
SIGNATURE ☐ Addressee ☐ Authorized agent
D Walsh

4. DATE OF DELIVERY 2/15/78
POSTMARK FEB 15 1978

5. ADDRESS (Complete only if requested)

6. UNABLE TO DELIVER BECAUSE:
CLERK'S INITIALS

☆ GPO: 1976—O-203-456

RETURN RECEIPT, REGISTERED, INSURED AND CERTIFIED MAIL

PS Form 3811, Nov. 1976

● SENDER: Complete items 1, 2, and 3.
Add your address in the "RETURN TO" space on reverse.

1. The following service is requested (check one).
- ☐ Show to whom and date delivered .....25¢
- ☐ Show to whom, date, & address of delivery .....45¢
- ☐ RESTRICTED DELIVERY. Show to whom and date delivered .....85¢
- ☐ RESTRICTED DELIVERY. Show to whom, date, and address of delivery ..$1.05

(Fees shown are in addition to postage charges and other fees).

2. ARTICLE ADDRESSED TO:
Al Greer

3. ARTICLE DESCRIPTION:

REGISTERED NO.	CERTIFIED NO.	INSURED NO.
	705680	

(Always obtain signature of addressee or agent)

I have received the article described above.
SIGNATURE ☐ Addressee ☐ Authorized agent
Betty Gonzales

4. DATE OF DELIVERY 2/15/78
POSTMARK

5. ADDRESS (Complete only if requested)

6. UNABLE TO DELIVER BECAUSE:
CLERK'S INITIALS

☆ GPO: 1976—O-203-456

RETURN RECEIPT, REGISTERED, INSURED AND CERTIFIED MAIL

No. 705680
RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO
Al Greer
STREET AND NO.
501 Airport Dr.
P.O., STATE AND ZIP CODE
Farmington, N.M. 87401

POSTAGE		$
CONSULT POSTMASTER FOR FEES — OPTIONAL SERVICES	CERTIFIED FEE	¢
	SPECIAL DELIVERY	¢
	RESTRICTED DELIVERY	¢
	RETURN RECEIPT SERVICE — SHOW TO WHOM AND DATE DELIVERED	¢
	RETURN RECEIPT SERVICE — SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	¢
	RETURN RECEIPT SERVICE — SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	¢
	RETURN RECEIPT SERVICE — SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	¢
TOTAL POSTAGE AND FEES		$

POSTMARK OR DATE

PS Form 3800, Apr. 1976

No. 705678
RECEIPT FOR CERTIFIED MAIL
NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO
American Emp. Ins. Co.
STREET AND NO.
110 Milk Street
P.O., STATE AND ZIP CODE
Boston, Mass. 02107

POSTAGE		$
CONSULT POSTMASTER FOR FEES — OPTIONAL SERVICES	CERTIFIED FEE	¢
	SPECIAL DELIVERY	¢
	RESTRICTED DELIVERY	¢
	RETURN RECEIPT SERVICE — SHOW TO WHOM AND DATE DELIVERED	¢
	RETURN RECEIPT SERVICE — SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	¢
	RETURN RECEIPT SERVICE — SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	¢
	RETURN RECEIPT SERVICE — SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	¢
TOTAL POSTAGE AND FEES		$

POSTMARK OR DATE

PS Form 3800, Apr. 1976

UNITED STATES POSTAL SERVICE
OFFICIAL BUSINESS

SENDER INSTRUCTIONS

Print your name, address, and ZIP Code in the space below.
- Complete items 1, 2, and 3 on the reverse.
- Moisten gummed ends and attach to front of article if space permits. Otherwise affix to back of article.
- Endorse article "Return Receipt Requested" adjacent to number.

PENALTY FOR PRIVATE USE TO AVOID PAYMENT OF POSTAGE, $300

U.S.MAIL

RETURN TO

OIL CONSERVATION COMMISSION
(Name of Sender)

POST OFFICE BOX 2088
(Street or P.O. Box)

SANTA FE, NEW MEXICO 87501
(City, State, and ZIP Code)

UNITED STATES POSTAL SERVICE
OFFICIAL BUSINESS

SENDER INSTRUCTIONS

Print your name, address, and ZIP Code in the space below.
- Complete items 1, 2, and 3 on the reverse.
- Moisten gummed ends and attach to front of article if space permits. Otherwise affix to back of article.
- Endorse article "Return Receipt Requested" adjacent to number.

PENALTY FOR PRIVATE USE TO AVOID PAYMENT OF POSTAGE, $300

U.S.MAIL

RETURN TO

OIL CONSERVATION COMMISSION
(Name of Sender)

POST OFFICE BOX 2088
(Street or P.O. Box)

SANTA FE, NEW MEXICO 87501
(City, State, and ZIP Code)

STICK POSTAGE STAMPS TO ARTICLE TO COVER FIRST CLASS POSTAGE, CERTIFIED MAIL FEE, AND CHARGES FOR ANY SELECTED OPTIONAL SERVICES. (see front)

1. If you want this receipt postmarked, stick the gummed stub on the left portion of the address side of the article, **leaving the receipt attached,** and present the article at a post office service window or hand it to your rural carrier. (no extra charge)
2. If you do not want this receipt postmarked, stick the gummed stub on the left portion of the address side of the article, date, detach and retain the receipt, and mail the article.
3. If you want a return receipt, write the certified-mail number and your name and address on a return receipt card, Form 3811, and attach it to the front of the article by means of the gummed ends if space permits. Otherwise, affix to back of article. Endorse front of article **RETURN RECEIPT REQUESTED** adjacent to the number.
4. If you want delivery restricted to the addressee, or to an authorized agent of the addressee, endorse **RESTRICTED DELIVERY** on the front of the article.
5. Enter fees for the services requested in the appropriate spaces on the front of this receipt. If return receipt is requested, check the applicable blocks in Item 1 of Form 3811.
6. Save this receipt and present it if you make inquiry.

STICK POSTAGE STAMPS TO ARTICLE TO COVER FIRST CLASS POSTAGE, CERTIFIED MAIL FEE, AND CHARGES FOR ANY SELECTED OPTIONAL SERVICES. (see front)

1. If you want this receipt postmarked, stick the gummed stub on the left portion of the address side of the article, **leaving the receipt attached,** and present the article at a post office service window or hand it to your rural carrier. (no extra charge)
2. If you do not want this receipt postmarked, stick the gummed stub on the left portion of the address side of the article, date, detach and retain the receipt, and mail the article.
3. If you want a return receipt, write the certified-mail number and your name and address on a return receipt card, Form 3811, and attach it to the front of the article by means of the gummed ends if space permits. Otherwise, affix to back of article. Endorse front of article **RETURN RECEIPT REQUESTED** adjacent to the number.
4. If you want delivery restricted to the addressee, or to an authorized agent of the addressee, endorse **RESTRICTED DELIVERY** on the front of the article.
5. Enter fees for the services requested in the appropriate spaces on the front of this receipt. If return receipt is requested, check the applicable blocks in Item 1 of Form 3811.
6. Save this receipt and present it if you make inquiry.

ALBERT R. GREER
PETROLEUM ENGINEER
221 PETROLEUM CENTER BUILDING
FARMINGTON, NEW MEXICO 87401

Cont. to 3-22

February 10, 1978

FEB 13 1978

New Mexico Oil Conservation Commission
Box 2088
Santa Fe, New Mexico 87501

Re: CASE NO. 6152:
PICTURED CLIFFS WELL
UNIT M, SEC. 10, T-30N, R-11W
SAN JUAN COUNTY

Gentlemen:

We request that Case No. 6152, concerning the above captioned well, be continued.

Apparently on the records of the Conservation Commission this well is shown to be owned by Al Greer. My recollection is that this well which was originally owned by my father was assigned to M. J. Florance ten or fifteen years ago.

Both my father and Mr. Florance are now deceased; and I presume that the well is now owned by Mr. Florance's son, Douglas Florance; however, I do not know this for certain, nor have I been able to contact Mr. Florance.

We will pursue this and attempt to get the ownership of the well in the records of the Commission, and either confirm that the well does in fact still belong to my father's estate, or that it does belong to someone in Mr. Florance's estate. It seems proper to me that this first be done before a decision as to plugging the well is made.

Yours very truly,

Albert R. Greer

Albert R. Greer

cc: Mr. D. E. Florance
5420 Villa View Drive
Farmington, New Mexico 87401

ARG:ney

Dockets Nos. 9-78 and 11-78 are tentatively set for hearing on March 8 and March 22, 1978. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - FEBRUARY 22, 1978

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

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

CASE 6150: In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the amendment of Rules 311, 312, 1117, and 1118 of the Commission Rules and the revision of Forms C-117-A and C-117-B, all for the purpose of regulating the handling and reporting of tank bottoms, sediment oil, miscellaneous hydrocarbons, and the operation of treating plants.

CASE 6151: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Vega Petroleum Corporation, American Employers' Insurance Company, and all other interested parties to appear and show cause why the North Caprock Queen Unit No. 1 Well No. 5Y located in Unit E of Section 8, Township 13 South, Range 32 East, Lea County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6152: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Al Greer, American Employers' Insurance Company, and all other interested parties to appear and show cause why the Thompson Well No. 1 located in Unit N of Section 10, Township 30 North, Range 11 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6153: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Mints-Kenaston and all other interested parties to appear and show cause why the L. A. McCoy Well No. 1 located in Unit B of Section 28, Township 30 North, Range 12 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6154: Application of Read & Stevens, Inc. for a unit agreement, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for its Calumet Ranch Unit Area comprising 5,760 acres, more or less, of Federal, State, and fee lands in Township 12 South, Range 27 East, Chaves County, New Mexico.

CASE 6155: Application of Gulf Oil Corporation for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the N/2 of Section 28, Township 23 South, Range 26 East, South Carlsbad Field, Eddy County, New Mexico, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6144: (Readvertised)

Application of Southland Royalty Company for two unorthodox locations and two non-standard gas proration units, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for two 120-acre non-standard gas proration units comprising the S/2 SE/4 of Section 10 and the SW/4 SW/4 of Section 11, and comprising the SE/4 SW/4 and the S/2 SE/4 of Section 11, all in Township 28 North, Range 11 West, Fulcher Kutz-Pictured Cliffs Pool, San Juan County, New Mexico, each of said units to be dedicated to a well drilled at an unorthodox location thereon.

CASE 6156: Application of Southland Royalty Company for an unorthodox location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its East Well No. 5A to be located 1120 feet from the South line and 1790 feet from the West line of Section 24, Township 31 North, Range 12 West, Blanco-Mesaverde Gas Pool, San Juan County, New Mexico.

CASE 6157: Application of Supron Energy Corporation for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 160-acre non-standard gas proration unit comprising the SW/4 of Section 13, Township 16 South, Range 33 East, Lea County, New Mexico, to be dedicated to a Morrow gas well test to be drilled thereon.

CASE 6158: Application of C. H. Berry for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the NE/4 of Section 15, Township 24 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6159: Application of Texaco Inc., for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Drinkard and Wantz-Granite Wash production in the wellbore of its A. H. Blinebry Federal Well No. 38 located in Unit J of Section 19, Township 22 South, Range 38 East, Lea County, New Mexico.

CASE 6160: Application of Bass Enterprises Production Co., for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Delaware formation through the perforated interval from 3310 feet to 3375 feet in its Big Eddy Unit Well No. 56, located in Unit G of Section 35, Township 21 South, Range 28 East, Indian Flats-Delaware Pool, Eddy County, New Mexico.

CASE 6161: Application of Tenneco Oil Company for two waterflood projects, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project on its Leonard Federal Lease by the injection of water into the Queen formation through one well in Unit O of Section 11, and on its Leonard Brothers Lease through two wells, in Units I and M, respectively, of Section 14, all in Township 26 South, Range 37 East, Leonard Queen Pool, Lea County, New Mexico. Applicant further seeks the establishment of an administrative procedure for the addition of injection wells and the conversion of existing wells to injection at both orthodox and unorthodox locations without further notice and hearing.

CASE 6162: Application of Continental Oil Company for an unorthodox location and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Jack B-30 Well No. 2 to be located 330 feet from the North line and 1725 feet from the East line of Section 30, Township 24 South, Range 37 East, Jalmat Gas Pool, Lea County, New Mexico, the NE/4 of said Section 30 to be simultaneously dedicated to the aforesaid well and to Well No. 5 in Unit H.

CASE 6163: Application of Continental Oil Company for amendment of Commission Order No. R-3863, Lea County, New Mexico. Applicant, in the above-styled cause, seeks to substitute its Anderson Ranch Unit Wells No. 6 located in Unit X of Section 2 and Nos. 3 and 10, located in Units A and H, respectively, of Section 11, all in Township 16 South, Range 32 East, for the initial injection wells authorized by said order in its Anderson Ranch-Wolfcamp Waterflood Project, Anderson Ranch-Wolfcamp Pool, Lea County, New Mexico.

CASE 6164: Application of Shell Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Tubb, Wantz-Abo, and Brunson-Ellenburger production in the wellbore of its Shell State Section 2 Well No. 15 located in Unit K of Section 2, Township 21 South, Range 37 East, Lea County, New Mexico.

CASE 6165: Application of Shell Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Drinkard, Hare-McKee, and Brunson-Ellenburger production in the wellbore of its Shell State Section 2 Well No. 3 located in Unit U of Section 2, Township 21 South, Range 37 East, Lea County, New Mexico.

CASE 6166: Application of Odessa Natural Corporation for rescission of Order No. R-5601, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks a hearing at which any interested party could appear and show cause why Order No. R-5601, which granted a special well classification to applicant's ARCO-Little Fed. Well No. 1, located in Unit D of Section 32, Township 24 North, Range 3 West, Rio Arriba County, New Mexico, should not be rescinded.

CASE 6141: Application of Paul Slayton for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Seven Rivers formation thru the open-hole interval from 528 feet to 547 feet in his Hastie Well No. 7 located in Unit L of Section 18, Township 17 South, Range 28 East, Empire Field, Eddy County, New Mexico.

OIL CONSERVATION COMMISSION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

February 10, 1978

CERTIFIED - RETURN
RECEIPT REQUESTED

Al Greer
Aztec, New Mexico 87410

American Employers' Insurance Company
110 Milk Street
Boston, Massachusetts 02107

Re: Al Greer Thompson Well No. 1, located in Unit N of Section 10, Township 30 North, Range 11 West, San Juan County
Plugging Bond

COPY

Gentlemen:

Enclosed is a copy of the docket of the Examiner Hearing to be held on Wednesday, February 22, 1978, at 9:00 a.m. in the Oil Conservation Commission Conference Room, State Land Office Building, Santa Fe, New Mexico. Case 6152 concerns the above captioned subject matter.

Very truly yours,

LYNN TESCHENDORF
General Counsel

LT/fd
enc.

Case 6152

SF - Family

In the matter of the hearing called by the OCC on its own motion to permit Al Green, American Employers' Insurance Company, and all other interested parties to appear and show cause why the Thompson Well No. 1 located in Unit N of Section 10, T30N, R11W, San Juan County, NM, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

ROUGH

dr/

✓ correct

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 6152

Order No. R- 5751

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION ON ITS OWN MOTION TO PERMIT AL GREER, AMERICAN EMPLOYERS' INSURANCE COMPANY, AND ALL OTHER INTERESTED PARTIES TO APPEAR AND SHOW CAUSE WHY THE THOMPSON WELL NO. 1 LOCATED IN UNIT N OF SECTION 10, TOWNSHIP 30 NORTH, RANGE 11 WEST, SAN JUAN COUNTY, NEW MEXICO, SHOULD NOT BE PLUGGED AND ABANDONED IN ACCORDANCE WITH A COMMISSION-APPROVED PLUGGING PROGRAM.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on March 22, 19 78, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this _____ day of _____, 19 78, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That Al Greer is the owner and operator of the Thompson Well No. 1, located in Unit N of Section 10, Township 30 North, Range 11 West, NMPM, San Juan County, New Mexico.

(3) That American Employers' Insurance Company is the surety on the Oil Conservation ~~Commission~~ Division plugging bond on which Al Greer is principal.

(4) That the purpose of said bond is to assure the state that the subject well ~~(s)~~ will be properly plugged and abandoned when not capable of commercial production. to protect fresh water supplies,

(5) That in order to prevent waste and protect correlative rights said Thompson Well No. 1 should be plugged and abandoned in accordance with a program approved by the Aztec District Office of the ~~New Mexico~~ Oil Conservation ~~Commission~~ Division of the New Mexico Energy and Minerals Department on or before September 1, 19 78, or the well should be returned to active drilling status or placed on production.

IT IS THEREFORE ORDERED:

(1) That Al Greer ~~and American Employers' Insurance Company~~ is hereby ordered to plug and abandon the Thompson Well No. 1, located in Unit N of Section 10, Township 30 North, Range 11 West, NMPM, San Juan County, New Mexico, or in the alternative, to return the well to active drilling status or place the well on production on or before September 1, 19 78.

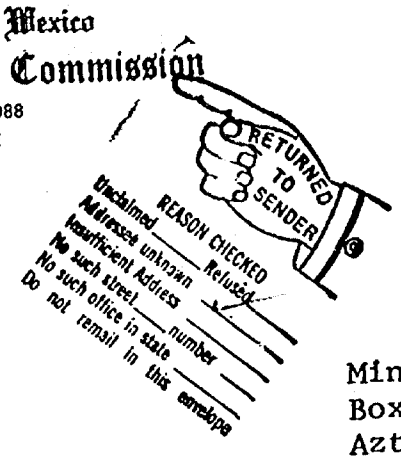
(2) That Al Greer ~~and American Employers' Insurance Company~~, prior to plugging and abandoning the above-described well, shall obtain from the Aztec office of the ~~Commission~~ Division, a ~~Commission~~ Division-approved program for said plugging and abandoning, and shall notify said Aztec office of the date and hour said work is to be commenced whereupon the ~~Commission~~ Division may, at its option, witness such work.

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

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

CASE 6153: OCC - PLUGGING CASE
MINTS-KENASTON AND OTHER INTERESTED
PARTIES

State of New Mexico
Oil Conservation Commission
P. O. BOX 2088
SANTA FE
87501



Mints-Kenaston Drilling Company
Box 471
Aztec, New Mexico

Aztec 471

Case Number

6153

Application

Transcripts.

Small Exhibits

ETC.

sid morrish reporting service
General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
22 February 1978

EXAMINER HEARING

IN THE MATTER OF:

The hearing called by the Oil Conservation Commission on its own motion to permit Mints-Kenaston and all other interested parties to appear and show cause why the L. A. McCoy Well No. 1 located in Unit B of Section 28, Township 30 North, Range 12 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program. CASE 6153

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Commission: Lynn Teschendorf, Esq.
Legal Counsel for the Commission
State Land Office Building
Santa Fe, New Mexico 87501

I N D E X

The Witness, A. R. Kendrick

Direct Examination by Ms. Teschendorf 3

Cross Examination by Mr. Stamets 6

E X H I B I T S

Commission Exhibit One, Photograph 6

Commission Exhibit Two, Documents 6

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Phone (505) 982-9212

MR. STAMETS: Call next Case 6153.

MS. TESCHENDORF: Case 6153. In the matter of the hearing called by the OCC on its own motion to permit Mints-Kenaston and all other interested parties to appear and show cause why the L. A. McCoy Well No. 1 located in Unit B of Section 28, Township 30 North, Range 12 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

MR. STAMETS: Call for appearances in this case.

MS. TESCHENDORF: Lynn Teschendorf, appearing on behalf of the Commission and I have one witness.

MR. STAMETS: If you'll stand and be sworn, please.

(Witness sworn.)

MR. STAMETS: Any other appearances in this case? You may proceed.

A. R. KENDRICK

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

DIRECT EXAMINATION

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General Court Reporting Service
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Phone (505) 982-9212

BY MS. TESCHENDORF:

Q. Would you state your name, position, and employer for the record, please?

A. I'm A. R. Kendrick, District Supervisor for the Oil Conservation Commission in District Three, Northwest New Mexico.

Q. Have you previously testified before the Commission and are your credentials a matter of record?

A. They are.

MS. TESCHENDORF: Is the witness qualified?

MR. STAMETS: The witness is.

Q. (Ms. Teschendorf continuing) Does District Three include that part of San Juan County involved in this case?

A. It does.

Q. And are you familiar with the subject matter of this case?

A. I am.

Q. What is the purpose of this case?

A. The purpose of this case is to allow Mints-Kenaston, the operators of this well to make this well a useful well or to plug and abandon the well.

Q. Have you reviewed all the reports filed with the Commission concerning this well?

A. Yes.

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Phone (505) 982-9212

Q. And I believe you have some exhibits with you. Would you please describe Exhibit Number One?

A. Exhibit Number One is a Poloroid photograph of the wellhead taken by Charles Golson on January the 27th of this year, showing the wellhead, in place.

Q. Is Mr. Golson an employee of the Oil Commission?

A. Mr. Golson is a Field Representative from my district office.

Q. And would you please describe Exhibit Number Two?

A. Exhibit Number Two is a series of pages which constitutes all the records we have on this well.

The first page being a scout ticket, which shows this to be an abandoned location.

The next page is a letter dated December the 15th, 1952, written from Emery Arnold to R. R. Spurrier, who at that time was the Secretary-Director of the Oil Commission, inquiring about a non-standard drill tract, or a drill tract with insufficient acreage to be a standard unit.

The next page is a letter from Mr. Spurrier to Mr. Arnold, dated December the 19th. It said he would approve the intent to drill subject to the communitization of the drill tract.

The next page is a notice of intent to drill,

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Phone (505) 982-9212

filed December the 22nd, 1952. It was approved subject to final communitization of the lease.

There are no further records. The wellhead is in place.

Q. Is there a bond on this well?

A. No, there is no bond on this well. The bond was cancelled because this record showed it to be an abandoned location instead of a drilled well.

Q. In your opinion could the failure to plug this well cause waste?

A. It could.

Q. And how could that be done?

A. By allowing water to percolate into the Pictured Cliffs if this well were drilled that deep, which was the target zone, or by allowing the gas from the Pictured Cliffs to escape and go into the water sands.

Q. Anything further?

A. No.

MS. TESCHENDORF: We'll offer Exhibits One and Two.

MR. STAMETS: These exhibits will be admitted.

MS. TESCHENDORF: I have nothing further.

CROSS EXAMINATION

BY MR. STAMETS:

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Phone (505) 982-9212

Q. Mr. Kendrick, in addition to the possibility of waste there, is it also possible that if this well is not properly plugged that water contamination could result?

A. Yes.

MR. STAMETS: Any other questions of the witness? He may be excused.

Anything further in this case? The case will be taken under advisement.

(Hearing concluded.)

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Phone (505) 982-9212

REPORTER'S CERTIFICATE

I, SALLY WALTON BOYD, a Certified Shorthand Reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and the same is a true and correct record of the said proceedings to the best of my ability, skill, and knowledge.

Sally Walton Boyd

Sally Walton 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. 6153, heard by me on 2-22, 1978.

Richard L. Stamets, Examiner

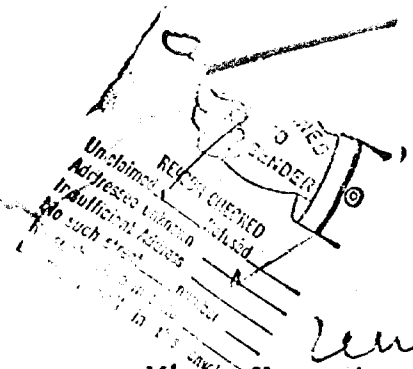
New Mexico Oil Conservation Commission

sid morrish reporting service
General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

State of New Mexico
Oil Conservation Commission
P. O. BOX 2088
SANTA FE
87501

CERTIFIED
No. 705679
MAIL

CERTIFIED - RETURN
RECEIPT REQUESTED



Unknown

Mints-Kenaston Drilling Company
Box 471 Patricia Kay
Aztec, New Mexico Check address

MAR 14
MAR 21

032027

☐ HOLD

DATE
FEB 14

1ST NOTICE

2ND NOTICE

RETURN
2 29

State of New Mexico
Oil Conservation Commission
P. O. BOX 2088
SANTA FE
87501

CERTIFIED
No. 705679
MAIL

CERTIFIED - RETURN
RECEIPT REQUESTED

Unknown
Mints-Kenaston Drilling Company
Box 471 Natches Bay
Aztec, New Mexico Check address

MAR 14
MAR 22

032027
☐ HOLD
DATE
FEB 14
1ST NOTICE
2ND NOTICE
RETURN
2 29

PS Form 3811, Nov. 1976

RETURN RECEIPT, REGISTERED, INSURED AND CERTIFIED MAIL

● SENDER: Complete items 1, 2, and 3.
Add your address in the "RETURN TO" space on reverse.

1. The following service is requested (check one).

- ☐ Show to whom and date delivered . . . . . 25¢
- ☐ Show to whom, date, & address of delivery . . . . . 45¢
- ☐ RESTRICTED DELIVERY.
  Show to whom and date delivered . . . . . 85¢
- ☐ RESTRICTED DELIVERY.
  Show to whom, date, and address of delivery . . $1.05

(Fees shown are in addition to postage charges and other fees).

2. ARTICLE ADDRESSED TO:

Mints-Kenaston Drilling Co.

3. ARTICLE DESCRIPTION:

REGISTERED NO.	CERTIFIED NO.	INSURED NO.
	705679	

(Always obtain signature of addressee or agent)

I have received the article described above.

SIGNATURE ☐ Addressee ☐ Authorized agent

4. DATE OF DELIVERY | POSTMARK

5. ADDRESS (Complete only if requested)

6. UNABLE TO DELIVER BECAUSE: | CLERK'S INITIALS

☆ GOP: 1976—O-203-456

UNITED STATES POSTAL SERVICE
OFFICIAL BUSINESS

SENDER INSTRUCTIONS

Print your name, address, and ZIP Code in the space below.
- Complete items 1, 2, and 3 on the reverse.
- Moisten gummed ends and attach to front of article if space permits. Otherwise affix to back of article.
- Endorse article "Return Receipt Requested" adjacent to number.

PENALTY FOR PRIVATE USE TO AVOID PAYMENT OF POSTAGE, $300

U.S. MAIL

RETURN TO

OIL CONSERVATION COMMISSION
(Name of Sender)

POST OFFICE BOX 2088
(Street or P.O. Box)

SANTA FE, NEW MEXICO 87501
(City, State, and ZIP Code)

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 - SANTA FE
87501

DIRECTOR
JOE D. RAMEY

LAND COMMISSIONER
PHIL R. LUCERO

STATE GEOLOGIST
EMERY C. ARNOLD

February 10, 1978

CERTIFIED - RETURN
RECEIPT REQUESTED

Mints-Kenaston Drilling Company
Box 471
Aztec, New Mexico

Re: Mints-Kenaston L. A. McCoy
Well No. 1, located in Unit
B of Section 28, Township 30
North, Range 12 West, San
Juan County
Plugging Bond

Gentlemen:

Enclosed is a copy of the docket of the Examiner Hearing to be held on Wednesday, February 22, 1978, at 9:00 a.m. in the Oil Conservation Commission Conference Room, State Land Office Building, Santa Fe, New Mexico. Case 6153 concerns the above captioned subject matter.

Very truly yours,

LYNN TESCHENDORF
General Counsel

LT/fd
enc.

Dockets Nos. 9-78 and 11-78 are tentatively set for hearing on March 8 and March 22, 1978. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - FEBRUARY 22, 1978

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

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

CASE 6150: In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the amendment of Rules 311, 312, 1117, and 1118 of the Commission Rules and the revision of Forms C-117-A and C-117-B, all for the purpose of regulating the handling and reporting of tank bottoms, sediment oil, miscellaneous hydrocarbons, and the operation of treating plants.

CASE 6151: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Vega Petroleum Corporation, American Employers' Insurance Company, and all other interested parties to appear and show cause why the North Caprock Queen Unit No. 1 Well No. 5Y located in Unit E of Section 8, Township 13 South, Range 32 East, Lea County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6152: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Al Greer, American Employers' Insurance Company, and all other interested parties to appear and show cause why the Thompson Well No. 1 located in Unit N of Section 10, Township 30 North, Range 11 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6153: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Mints-Kenaston and all other interested parties to appear and show cause why the L. A. McCoy Well No. 1 located in Unit B of Section 28, Township 30 North, Range 12 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6154: Application of Read & Stevens, Inc. for a unit agreement, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for its Calumet Ranch Unit Area comprising 5,760 acres, more or less, of Federal, State, and fee lands in Township 12 South, Range 27 East, Chaves County, New Mexico.

CASE 6155: Application of Gulf Oil Corporation for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the N/2 of Section 28, Township 23 South, Range 26 East, South Carlsbad Field, Eddy County, New Mexico, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6144: (Readvertised)

Application of Southland Royalty Company for two unorthodox locations and two non-standard gas proration units, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for two 120-acre non-standard gas proration units comprising the S/2 SE/4 of Section 10 and the SW/4 SW/4 of Section 11, and comprising the SE/4 SW/4 and the S/2 SE/4 of Section 11, all in Township 28 North, Range 11 West, Fulcher Kutz-Pictured Cliffs Pool, San Juan County, New Mexico, each of said units to be dedicated to a well drilled at an unorthodox location thereon.

CASE 6156: Application of Southland Royalty Company for an unorthodox location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its East Well No. 5A to be located 1120 feet from the South line and 1790 feet from the West line of Section 24, Township 31 North, Range 12 West, Blanco-Mesaverde Gas Pool, San Juan County, New Mexico.

CASE 6157: Application of Supron Energy Corporation for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 160-acre non-standard gas proration unit comprising the SW/4 of Section 13, Township 16 South, Range 33 East, Lea County, New Mexico, to be dedicated to a Morrow gas well test to be drilled thereon.

CASE 6158: Application of O. H. Berry for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the NE/4 of Section 15, Township 24 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6159: Application of Texaco Inc., for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Drinkard and Wantz-Granite Wash production in the wellbore of its A. H. Blinebry Federal Well No. 38 located in Unit J of Section 19, Township 22 South, Range 38 East, Lea County, New Mexico.

CASE 6160: Application of Bass Enterprises Production Co., for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Delaware formation through the perforated interval from 3310 feet to 3375 feet in its Big Eddy Unit Well No. 56, located in Unit G of Section 35, Township 21 South, Range 28 East, Indian Flats-Delaware Pool, Eddy County, New Mexico.

CASE 6161: Application of Tenneco Oil Company for two waterflood projects, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project on its Leonard Federal Lease by the injection of water into the Queen formation through one well in Unit O of Section 11, and on its Leonard Brothers Lease through two wells, in Units I and M, respectively, of Section 14, all in Township 26 South, Range 37 East, Leonard Queen Pool, Lea County, New Mexico. Applicant further seeks the establishment of an administrative procedure for the addition of injection wells and the conversion of existing wells to injection at both orthodox and unorthodox locations without further notice and hearing.

CASE 6162: Application of Continental Oil Company for an unorthodox location and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Jack B-30 Well No. 2 to be located 330 feet from the North line and 1725 feet from the East line of Section 30, Township 24 South, Range 37 East, Jalmat Gas Pool, Lea County, New Mexico, the NE/4 of said Section 30 to be simultaneously dedicated to the aforesaid well and to Well No. 5 in Unit H.

CASE 6163: Application of Continental Oil Company for amendment of Commission Order No. R-3863, Lea County, New Mexico. Applicant, in the above-styled cause, seeks to substitute its Anderson Ranch Unit Wells No. 6 located in Unit X of Section 2 and Nos. 3 and 10, located in Units A and H, respectively, of Section 11, all in Township 16 South, Range 32 East, for the initial injection wells authorized by said order in its Anderson Ranch-Wolfcamp Waterflood Project, Anderson Ranch-Wolfcamp Pool, Lea County, New Mexico.

CASE 6164: Application of Shell Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Tubb, Wantz-Abo, and Brunson-Ellenburger production in the wellbore of its Shell State Section 2 Well No. 15 located in Unit K of Section 2, Township 21 South, Range 37 East, Lea County, New Mexico.

CASE 6165: Application of Shell Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Drinkard, Hare-McKee, and Brunson-Ellenburger production in the wellbore of its Shell State Section 2 Well No. 3 located in Unit U of Section 2, Township 21 South, Range 37 East, Lea County, New Mexico.

CASE 6166: Application of Odessa Natural Corporation for rescission of Order No. R-5601, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks a hearing at which any interested party could appear and show cause why Order No. R-5601, which granted a special well classification to applicant's ARCO-Little Fed. Well No. 1, located in Unit D of Section 32, Township 24 North, Range 3 West, Rio Arriba County, New Mexico, should not be rescinded.

CASE 6141: Application of Paul Slayton for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Seven Rivers formation thru the open-hole interval from 528 feet to 547 feet in his Hastie Well No. 7 located in Unit L of Section 18, Township 17 South, Range 28 East, Empire Field, Eddy County, New Mexico.

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 · SANTA FE
87501

DIRECTOR
JOE D. RAMEY

LAND COMMISSIONER
PHIL R. LUCERO

STATE GEOLOGIST
EMERY C. ARNOLD

March 9, 1978

Re: CASE NO. 6153
ORDER NO. R-5656

Mints-Kenaston Drilling Co.
Box 471
Aztec, New Mexico

Applicant:

OCC (Mints-Kenaston Drilling Company)

Dear Sir:

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

Yours very truly,

JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCC x
Artesia OCC x
Aztec OCC x

Other

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

CASE NO. 6153
Order No. R-5656

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION ON ITS OWN MOTION TO PERMIT MINTS-KENASTON AND ALL OTHER INTERESTED PARTIES TO APPEAR AND SHOW CAUSE WHY THE L. A. McCOY WELL NO. 1 LOCATED IN UNIT B OF SECTION 28, TOWNSHIP 30 NORTH, RANGE 12 WEST, SAN JUAN COUNTY, NEW MEXICO, SHOULD NOT BE PLUGGED AND ABANDONED IN ACCORDANCE WITH A COMMISSION-APPROVED PLUGGING PROGRAM.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 22, 1978, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 8th day of March, 1978, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That Mints-Kenaston is the owner and operator of the L. A. McCoy Well No. 1, located in Unit B of Section 28, Township 30 North, Range 12 West, NMPM, San Juan County, New Mexico.

(3) That in order to prevent waste, to protect correlative rights, and to protect fresh waters said L. A. McCoy Well No. 1 should be plugged and abandoned in accordance with a program approved by the Aztec district office of the New Mexico Oil Conservation Commission on or before March 31, 1978, or the well should be returned to active drilling status or placed on production.

IT IS THEREFORE ORDERED:

(1) That Mints-Kenaston is hereby ordered to plug and abandon the L. A. McCoy Well No. 1, located in Unit B of Section 28, Township 30 North, Range 12 West, NMPM, San Juan County, New Mexico, or in the alternative, to return the well to active drilling status or place the well on production on or before March 31, 1978.

(2) That Mints-Kenaston, prior to plugging and abandoning the above-described well, shall obtain from the Aztec office of the Commission, a Commission-approved program for said plugging and abandoning, and shall notify said Aztec office of the date and hour said work is to be commenced whereupon the Commission may, at its option, witness such work.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

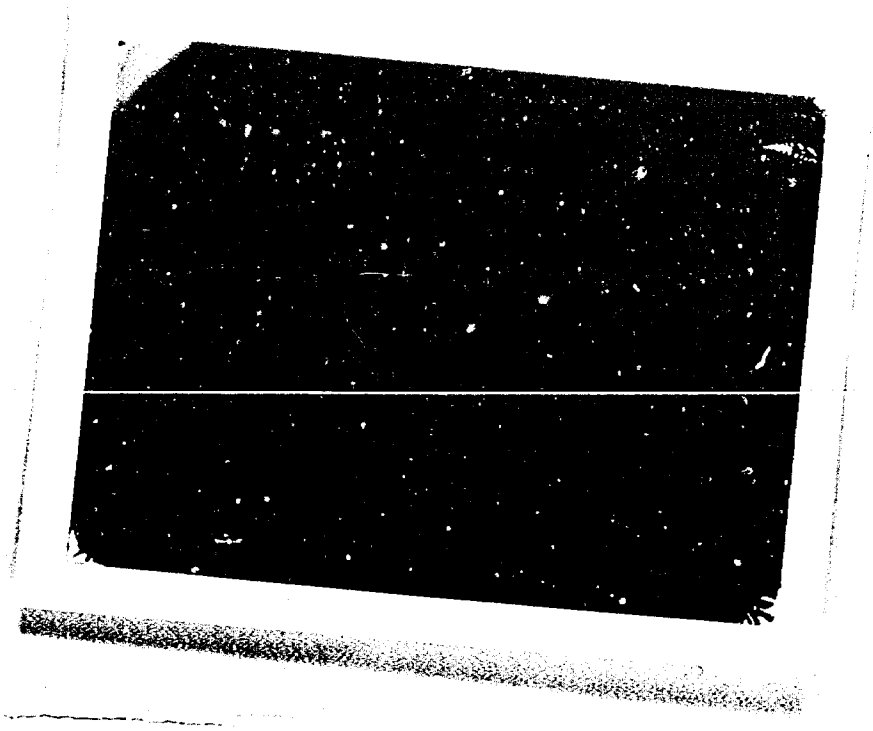
PHIL R. LUCERO, Chairman

EMERY C. ARNOLD, Member

JOE D. RAMEY, Member & Secretary

SEAL

jr/



State New Mexico

County San Juan Sec. 28 Twp. 30N Rge. 12W

Field Fulcher-Kutz Location 990' from North; 1380' from East

Company Mints-Kenaston Lease McCoy Well No. 1

Elev. Spd. Completed T.D. P.B.

Log to ft. Elec. log to ft. Samples

Pictured Cliffs

COMPLETION RECORD	HORIZONS - FORMATIONS		
Prod. Formation		Cores & Samples	Elec. Log
Interval			
I.P.			
Grav.			
REMARKS			

DRILLING PROGRESS

Date	Depth	Remarks and History
		Abd. loc.

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
EXHIBIT NO. 2
CASE NO. 6153
Submitted by OCC
Hearing Date 2-22-78

STATE OR FEDERAL LAND:
C-101 ✓ C-102
C-103 C-104
C-105 C-110
Electric Log

December 15, 1952

Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Attention, R. R. Spurrier, Director

Dear Dick:

Enclosed is Notice of Intention to Drill for MintheKenaston #1 McCoy in the NE¼ of Sec. 28-30N-12W. You will note that the footage location is 990 feet from the North line and 1380 feet from the East line.

According to the spacing rules in the Fulcher Basin-Kutz Canyon, this makes it an unorthodox location by 70 feet. He is enclosing a plat showing the acreage which hekhas under lease and also a letter explaining the reason for the unorthodox location. He is also enclosing a letter showing that, as of this date, he is not in possession of the lease on 6.1 acres belonging to the Denver & Rio Grande Railroad Co. He has written the D. & R.G. Railroad Co. in Denver asking their participation in the unit.

If the location can be approved as made he would like to begin operations immediately in order to finish the well before December 31, 1952. Will you please wire approval or disapproval?

Yours very truly

Emery C. Arnold
Oil & Gas Inspector, Dist. #3

ECA:ks
Encls.

GOVERNOR EDWIN L. MECHEM
CHAIRMAN

LAND COMMISSIONER GUY SHEPARD
MEMBER

STATE GEOLOGIST R. R. SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

December 19, 1952

Oil Conservation Commission
Aztec, New Mexico

Attention: Mr. Emery C. Arnold - Oil & Gas Inspector

Dear Emery:

I am returning herewith OCC Form C-101 for the Mints-Kenaston #1 McCoy in the NE/4 of Section 28, Township 30 North, Range 12 West, San Juan County, New Mexico.

Upon your approval of the abovementioned Form, then this will constitute permission to drill on the unorthodox location per our wire to Crane and Koogler of December 18, 1952.

Done under authority granted to me by Rule 104 of the Oil Conservation Commission's Rules and Regulations.

Very truly yours,

R. R. Spurrier by Haggard

R. R. Spurrier
Secretary - Director

lh
cc:
Crane & Koogler
Unorthodox Location file
Well file

RECEIVED
DEC 22 1952
OIL CON. COM.
DIST. 3

NEW MEXICO OIL CONSERVATION COMMISSION

NOTICE OF INTENTION TO DRILL

See Rules 101 and 1104.

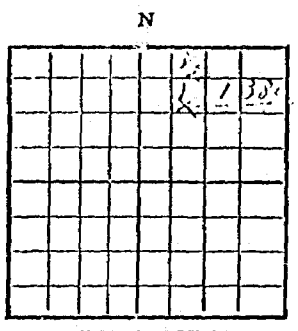
If changes in the proposed plan are considered advisable, a copy of this notice showing such changes will be returned to the sender. Submit this notice in triplicate. One copy will be returned following approval.

Aztec, New Mexico (Place) December 15, 1952 (Date)

Notice hereby is given that it is our intention to commence the drilling of a well to be known as

Mints - Kenaston (Company or Operator) Lu A McCoy (Lease) well No. 1 in

of Sec. 28, T. 30 N, R. 12 W, N. M., P. M., ------ Pool, San Juan County.



AREA 640 ACRES

LOCATE WELL CORRECTLY

The well is 990' feet from (N.) ~~S~~ line and 1380' feet from (E.) ~~W~~ line of the above section.

(Give location from section lines. Cross out wrong directions.)

If state land the oil and gas lease is No. ..... Assignment No. .....

If patented land the owner is Lu A. McCoy, Aztec, New Mexico

Address .....

If government land the permittee is .....

Address .....

The lessee is .....

Address .....

We propose to drill well with drilling equipment as follows: Rotary rig to the Pictured Cliff sand and cable tools to drill in to the sand.

The status of a bond for this well in conformance with Rule 101 of the General Rules and Regulations of the Commission is as follows: $10,000 Blanket Bond

We propose to use the following strings of casing and to land or cement them as indicated:

Size of Hole	Size of Casing	Weight Per Foot	New or Second Hand	Depth	Landed or Cemented	Sacks Cement
13	10 3/4	42#	New	100'	Cemented	50
8 5/8	7	32#	New	1900'	Cemented	200

If changes in the above plans become advisable we will notify you before cementing or landing casing. We estimate that the first productive oil or gas sand should occur at a depth of about 2000' feet.

Additional information: We propose to drill a well to and through the Pictured Cliff sand, estimated depth 2000 feet. A minimum of 100 feet of 10 3/4" casing will be cemented to the surface. Approximately 1900 feet of 7" casing cemented with approximately 200 sacks; drill the sand and if conditions warrant 60 feet of section will be shot with approximately 3 qts. to the foot of SNG; clean out, run 1 syphon line to the bottom and complete as gas well.

Approved Dec 22, 1952

except as follows:

Subject to final Commitization of lease.

OIL CONSERVATION COMMISSION,

By Emery C Arnold

Title Oil and Gas Inspector Dist. #3.

Douglas Kenaston (Company or Operator)

By Wilson Mints

Position Manager

Send communications regarding well to:

Name W. R. Mints, Aztec, New Mexico

Address Box 471

RECEIVED
DEC 22 1952
OIL CON. COM.
DIST. 3

No. 705679

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO
Mints-Kenaston Drlg.Co

STREET AND NO.
Box 471

P.O., STATE AND ZIP CODE
Aztec, New Mexico

POSTAGE		$
CONSULT POSTMASTER FOR FEES — CERTIFIED FEE		¢
OPTIONAL SERVICES — SPECIAL DELIVERY		¢
OPTIONAL SERVICES — RESTRICTED DELIVERY		¢
OPTIONAL SERVICES — RETURN RECEIPT SERVICE	SHOW TO WHOM AND DATE DELIVERED	¢
	SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	¢
	SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	¢
	SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	¢
TOTAL POSTAGE AND FEES		$

POSTMARK OR DATE

PS Form 3800, Apr. 1976

OIL CONSERVATION COMMISSION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

February 10, 1978

CERTIFIED - RETURN
RECEIPT REQUESTED

Mints-Kenaston Drilling Company
Box 471
Aztec, New Mexico

Re: Mints-Kenaston L. A. McCoy
Well No. 1, located in Unit
B of Section 28, Township 30
North, Range 12 West, San
Juan County
Plugging Bond

COPY

Gentlemen:

Enclosed is a copy of the docket of the Examiner Hearing to be held on Wednesday, February 22, 1978, at 9:00 a.m. in the Oil Conservation Commission Conference Room, State Land Office Building, Santa Fe, New Mexico. Case 6153 concerns the above captioned subject matter.

Very truly yours,

LYNN TESCHENDORF
General Counsel

LT/fd
enc.

Dockets Nos. 9-78 and 11-78 are tentatively set for hearing on March 8 and March 22, 1978. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - FEBRUARY 22, 1978

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

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

CASE 6150: In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the amendment of Rules 311, 312, 1117, and 1118 of the Commission Rules and the revision of Forms C-117-A and C-117-B, all for the purpose of regulating the handling and reporting of tank bottoms, sediment oil, miscellaneous hydrocarbons, and the operation of treating plants.

CASE 6151: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Vega Petroleum Corporation, American Employers' Insurance Company, and all other interested parties to appear and show cause why the North Caprock Queen Unit No. 1 Well No. 5Y located in Unit E of Section 8, Township 13 South, Range 32 East, Lea County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6152: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Al Greer, American Employers' Insurance Company, and all other interested parties to appear and show cause why the Thompson Well No. 1 located in Unit N of Section 10, Township 30 North, Range 11 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6153: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Mints-Kenaston and all other interested parties to appear and show cause why the L. A. McCoy Well No. 1 located in Unit B of Section 28, Township 30 North, Range 12 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6154: Application of Read & Stevens, Inc. for a unit agreement, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for its Calumet Ranch Unit Area comprising 5,760 acres, more or less, of Federal, State, and fee lands in Township 12 South, Range 27 East, Chaves County, New Mexico.

CASE 6155: Application of Gulf Oil Corporation for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the N/2 of Section 28, Township 23 South, Range 26 East, South Carlsbad Field, Eddy County, New Mexico, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6144: (Readvertised)

Application of Southland Royalty Company for two unorthodox locations and two non-standard gas proration units, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for two 120-acre non-standard gas proration units comprising the S/2 SE/4 of Section 10 and the SW/4 SW/4 of Section 11, and comprising the SE/4 SW/4 and the S/2 SE/4 of Section 11, all in Township 28 North, Range 11 West, Fulcher Kutz-Pictured Cliffs Pool, San Juan County, New Mexico, each of said units to be dedicated to a well drilled at an unorthodox location thereon.

CASE 6156: Application of Southland Royalty Company for an unorthodox location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its East Well No. 5A to be located 1120 feet from the South line and 1790 feet from the West line of Section 24, Township 31 North, Range 12 West, Blanco-Mesaverde Gas Pool, San Juan County, New Mexico.

CASE 6157: Application of Supron Energy Corporation for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 160-acre non-standard gas proration unit comprising the SW/4 of Section 13, Township 16 South, Range 33 East, Lea County, New Mexico, to be dedicated to a Morrow gas well test to be drilled thereon.

CASE 6158: Application of C. H. Berry for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the NE/4 of Section 15, Township 24 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6159: Application of Texaco Inc., for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Drinkard and Wantz-Granite Wash production in the wellbore of its A. H. Blinebry Federal Well No. 38 located in Unit J of Section 19, Township 22 South, Range 38 East, Lea County, New Mexico.

CASE 6160: Application of Bass Enterprises Production Co., for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Delaware formation through the perforated interval from 3310 feet to 3375 feet in its Big Eddy Unit Well No. 56, located in Unit G of Section 35, Township 21 South, Range 28 East, Indian Flats-Delaware Pool, Eddy County, New Mexico.

CASE 6161: Application of Tenneco Oil Company for two waterflood projects, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project on its Leonard Federal Lease by the injection of water into the Queen formation through one well in Unit O of Section 11, and on its Leonard Brothers Lease through two wells, in Units I and M, respectively, of Section 14, all in Township 26 South, Range 37 East, Leonard Queen Pool, Lea County, New Mexico. Applicant further seeks the establishment of an administrative procedure for the addition of injection wells and the conversion of existing wells to injection at both orthodox and unorthodox locations without further notice and hearing.

CASE 6162: Application of Continental Oil Company for an unorthodox location and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Jack B-30 Well No. 2 to be located 330 feet from the North line and 1725 feet from the East line of Section 30, Township 24 South, Range 37 East, Jalmat Gas Pool, Lea County, New Mexico, the NE/4 of said Section 30 to be simultaneously dedicated to the aforesaid well and to Well No. 5 in Unit H.

CASE 6163: Application of Continental Oil Company for amendment of Commission Order No. R-3863, Lea County, New Mexico. Applicant, in the above-styled cause, seeks to substitute its Anderson Ranch Unit Wells No. 6 located in Unit X of Section 2 and Nos. 3 and 10, located in Units A and H, respectively, of Section 11, all in Township 16 South, Range 32 East, for the initial injection wells authorized by said order in its Anderson Ranch-Wolfcamp Waterflood Project, Anderson Ranch-Wolfcamp Pool, Lea County, New Mexico.

CASE 6164: Application of Shell Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Tubb, Wantz-Abo, and Brunson-Ellenburger production in the wellbore of its Shell State Section 2 Well No. 15 located in Unit K of Section 2, Township 21 South, Range 37 East, Lea County, New Mexico.

CASE 6165: Application of Shell Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Drinkard, Hare-McKee, and Brunson-Ellenburger production in the wellbore of its Shell State Section 2 Well No. 3 located in Unit U of Section 2, Township 21 South, Range 37 East, Lea County, New Mexico.

CASE 6166: Application of Odessa Natural Corporation for rescission of Order No. R-5601, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks a hearing at which any interested party could appear and show cause why Order No. R-5601, which granted a special well classification to applicant's ARCO-Little Fed. Well No. 1, located in Unit D of Section 32, Township 24 North, Range 3 West, Rio Arriba County, New Mexico, should not be rescinded.

CASE 6141: Application of Paul Slayton for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Seven Rivers formation thru the open-hole interval from 528 feet to 547 feet in his Hastie Well No. 7 located in Unit L of Section 18, Township 17 South, Range 28 East, Empire Field, Eddy County, New Mexico.

Case 6153

SF Farmington

In the matter of the hearing called by the OCC on its own motion to permit Mints-Kenaston and all other interested parties to appear and show cause why the L. A. McCoy Well No. 1 located in Unit B of Section 28, T30N, R12W, San Juan County, N.M. should not be plugged and abandoned in accordance with a Commission-approved plugging program.

ROUGH

jr/

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 6153

Order No. R- 5656

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISION ON ITS OWN MOTION TO PERMIT MINTS-KENASTON AND ALL OTHER INTERESTED PARTIES TO APPEAR AND SHOW CAUSE WHY THE L. A. McCOY WELL NO. 1 LOCATED IN UNIT B OF SECTION 28, TOWNSHIP 30 NORTH, RANGE 12 WEST, SAN JUAN COUNTY, NEW MEXICO, SHOULD NOT BE PLUGGED AND ABANDONED IN ACCORDANCE WITH A COMMISSION-APPROVED PLUGGING PROGRAM.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 22, , 19 78, at Santa Fe, New Mexico, before Examiner Richard L. Stamets

NOW, on this day of , 19 78, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That Mints-Kenaston is the owner and operator of the L. A. McCoy Well No. 1, located in Unit B of Section 28, Township 30 North, Range 12 West, NMPM, San Juan County, New Mexico.

~~(3) That _____ is the surety on the Oil Conservation Commission plugging bond on which _____ is principal.~~

~~(4) That the purpose of said bond is to assure the state that the subject well(s) will be properly plugged and abandoned when not capable of commercial production.~~

(3) That in order to prevent waste, ~~and~~ To protect correlative rights and to protect fresh waters said L. A. McCoy Well No. 1 should be plugged and abandoned in accordance with a program approved by the Aztec District Office of the New Mexico Oil Conservation Commission on or before March 31, 1978, or the well should be returned to active drilling status or placed on production.

IT IS THEREFORE ORDERED:

(1) That Mints-Kenaston is ~~are~~ hereby ordered to plug and abandon the L. A. McCoy Well No. 1, located in Unit B of Section 28, Township 30 North, Range 12 West, NMPM, San Juan County, New Mexico, or in the alternative, to return the well to active drilling ~~making~~ status or place the well on production on or before March 31, 19 78.

(2) That Mints-Kenaston, prior to plugging and abandoning the above-described well, shall obtain from the Aztec office of the Commission, a Commission-approved program for said plugging and abandoning, and shall notify said Aztec office of the date and hour said work is to be commenced whereupon the Commission may, at its option, witness such work.

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

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

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 - SANTA FE
87501

DIRECTOR
JOE D. RAMEY

LAND COMMISSIONER
PHIL R. LUCERO

STATE GEOLOGIST
EMERY C. ARNOLD

March 9, 1978

Mints-Kenaston Drilling Co.
Box 471
Aztec, New Mexico

Re: CASE NO. 6153
ORDER NO. R-5656

Applicant:

OCC (Mints-Kenaston Drilling Company)

Dear Sir:

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

Yours very truly,

JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCC x
Artesia OCC x
Aztec OCC x

Other

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

CASE NO. 6153
Order No. R-5656

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION ON ITS OWN MOTION TO PERMIT MINTS-KENASTON AND ALL OTHER INTERESTED PARTIES TO APPEAR AND SHOW CAUSE WHY THE L. A. McCOY WELL NO. 1 LOCATED IN UNIT B OF SECTION 28, TOWNSHIP 30 NORTH, RANGE 12 WEST, SAN JUAN COUNTY, NEW MEXICO, SHOULD NOT BE PLUGGED AND ABANDONED IN ACCORDANCE WITH A COMMISSION-APPROVED PLUGGING PROGRAM.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 22, 1978, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 8th day of March, 1978, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That Mints-Kenaston is the owner and operator of the L. A. McCoy Well No. 1, located in Unit B of Section 28, Township 30 North, Range 12 West, NMPM, San Juan County, New Mexico.

(3) That in order to prevent waste, to protect correlative rights, and to protect fresh waters said L. A. McCoy Well No. 1 should be plugged and abandoned in accordance with a program approved by the Aztec district office of the New Mexico Oil Conservation Commission on or before March 31, 1978, or the well should be returned to active drilling status or placed on production.

IT IS THEREFORE ORDERED:

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(2) That Mints-Kenaston, prior to plugging and abandoning the above-described well, shall obtain from the Aztec office of the Commission, a Commission-approved program for said plugging and abandoning, and shall notify said Aztec office of the date and hour said work is to be commenced whereupon the Commission may, at its option, witness such work.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

PHIL R. LUCERO, Chairman

EMERY C. ARNOLD, Member

JOE D. RAMEY, Member & Secretary

S E A L

jr/

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

CASE NO. 6153
Order No. R-5656

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION ON ITS OWN MOTION TO PERMIT MINTS-KENASTON AND ALL OTHER INTERESTED PARTIES TO APPEAR AND SHOW CAUSE WHY THE L. A. McCOY WELL NO. 1 LOCATED IN UNIT B OF SECTION 28, TOWNSHIP 30 NORTH, RANGE 12 WEST, SAN JUAN COUNTY, NEW MEXICO, SHOULD NOT BE PLUGGED AND ABANDONED IN ACCORDANCE WITH A COMMISSION-APPROVED PLUGGING PROGRAM.

ORDER OF THE COMMISSION

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FINDS:

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

(2) That Mints-Kenaston is the owner and operator of the L. A. McCoy Well No. 1, located in Unit B of Section 28, Township 30 North, Range 12 West, NMPM, San Juan County, New Mexico.

(3) That in order to prevent waste, to protect correlative rights, and to protect fresh waters said L. A. McCoy Well No. 1 should be plugged and abandoned in accordance with a program approved by the Aztec district office of the New Mexico Oil Conservation Commission on or before March 31, 1978, or the well should be returned to active drilling status or placed on production.

IT IS THEREFORE ORDERED:

(1) That Mints-Kenaston is hereby ordered to plug and abandon the L. A. McCoy Well No. 1, located in Unit B of Section 28, Township 30 North, Range 12 West, NMPM, San Juan County, New Mexico, or in the alternative, to return the well to active drilling status or place the well on production on or before March 31, 1978.

(2) That Mints-Kenaston, prior to plugging and abandoning the above-described well, shall obtain from the Aztec office of the Commission, a Commission-approved program for said plugging and abandoning, and shall notify said Aztec office of the date and hour said work is to be commenced whereupon the Commission may, at its option, witness such work.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

PHIL R. LUCERO, Chairman

EMERY C. ARNOLD, Member

JOE D. RAMEY, Member & Secretary

S E A L

jr/

CASE FILE

NO. 6154

IS

MISSING

CASE 6155: GULF OIL CORPORATION FOR COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO

Case Number

6155

Application

Transcripts.

Small Exhibits

ETC.

Gulf Oil Exploration and Production Company

R. E. Galvin
GENERAL MANAGER PRODUCTION
SOUTHWEST DISTRICT

October 13, 1978

P. O. Drawer 1150
Midland, TX 79702

Stamets

OCT 16 1978

RLL

New Mexico Department of Energy & Minerals
Oil Conservation Division
Post Office Box 2088
Santa Fe, New Mexico 87501

ATTENTION: Mr. Joe D. Ramey

RE: Case No. 6155
Order No. R-5678
Compulsory Pooling
Eddy "GN" State Com. Well No. 1,
N/2, Section 28, T-23-S, R-36-E,
South Carlsbad Field.

Gentlemen:

Item 5 of the subject Order provides "that the operator shall furnish the Commission and each known working interest owner an itemized schedule of actual well costs within 90 days following completion of the well". Attached is a tabulation of expenditures as of September 30, 1978 to conform with the break-down by items as set out in our original cost estimate. Also attached to support these expenditures are detailed Joint Operations Invoices for the months of June through September, 1978.

Yours very truly,

J. M. THACKER
Manager - Operations

CFK:sdn
Attachments

cc: Apache Exploration Corporation
1121 First Place
Tulsa, Oklahoma 74103
ATTN: Mr. W. J. Phillips

J. M. Huber Corporation
1900 Wilco Building
Midland, Texas 79701
ATTN: Mr. George E. Conner

Gulf
A DIVISION OF GULF OIL CORPORATION

GULF OIL CO. - U. S.
MIDLAND DISTRICT

Drilling Cost Estimate (Gross)
and
Actual Expenditures as of 9-30-78 Date: October 12 , 1978

Drill and Complete Eddy "GN" State #1

Located 1880 FNL & 1980 FEL, Sec. 28 T-23-SR-26-E, Eddy County, New Mexico

Authorized Depth 12,000 Type Development

Intangible Element	Item	Drill - $	Complete-$	Expended-$	Over (Under) -$
	101 Location & Access	10,000		11,368.74	1,368.74
	102 Rig Contract: 12,000 " @ 20 per Ft.= $ 240,000 / 6 days @ $ 4,200 per day = $ 25,200 / Flat Rate $				
	Total Rig Contract	265,200		191,216.01	(73,983.99)
	106 Drilling Fluids & Adds	55,000	2,000	39,757.14	(17,242.86)
	107 Rental Eqpt. & Tools	5,000	2,000	50,126.46	43,126.46
	108 Cement & Cement Services	20,000	10,000	21,035.25	(8,964.75)
	109 Logging, Perf. & Testing	20,000	8,000	39,735.04	11,735.04
	110 Formation Treating		3,000	23,257.01	20,257.01
011x -	111 Fuels & Power				
0164 -	111 Drlg. Supplies (bits)				
0237 -	111 Completion Rig 10 days @ $ 900 per day = $ 9,000		9,000		(9,000.00)
Var. -	111 Miscellaneous Items	10,000	2,000	151,077.14	139,077.14
	192 Allocation of FOE	3,500	1,000	6,811.72	2,311.72
	196 Tang. Matls. Temp. Use				
	Other Costs				
	TOTAL INTANGIBLE COSTS	388,700	37,000	534,384.51	108,684.51
	GRAND TOTAL INTANGIBLE COSTS	$425,700		$534,384.51	

Drilling Cost Estimate (Gross) - Page 2

Well Name & Number Eddy "GN" State Com #1

Tangible Producing Equipment	Drill - $	Complete-$	Expended-$	Over (Under) - $
Element Item				
21X Casing				
400 ' of ~~13-3/8~~ 16 "	7,200		6,257.71	(942.29)
2,000 ' of 10-3/4 "	23,000		6,169.28	(16,830.72)
8,610 ' of 7-5/8 "	114,000		104,056.67	(9,943.33)
22X Casing (oil string)				
3,700 ' of 5 "		31,000	39,585.10	8,585.10
23X Other Subsurface Prod. Eqpt.		2,000	31,554.47	29,554.47
Tubing 11,900 'of 2-3/8 "		30,000	30,744.76	744.76
24X Subsurface Artificial Lift Eqpt.				
25X Surface Producing Equipment		2,000	18,802.65	(16,802.65)
26X Christmas Tree	8,000	11,000		(19,000.00)
29X Miscellaneous		1,000		(1,000.00)
TOTAL TANGIBLE PROD. EQPT.	152,200	77,000	237,170.64	(7,970.64)
GRAND TOTAL TANG. PROD. EQPT.	$ 229,200		$ 237,170.64	
TOTAL ESTIMATE	$ 540,900	$ 114,000		
GRAND TOTAL	$ 654,900		$ 771,555.15	116,655.15

PREPARED BY: J B Parker

JOINT OPERATIONS
INVOICE

GULF OIL CORPORATION
P O BOX 1150
MIDLAND TEXAS 79702

DATE 09 78 PROPERTY NAME EDDY GN STATE COM PROPERTY NO 05 73979

SHOW PROPERTY NO ON ALL REMITTANCES MAILED TO THE ABOVE ADDRESS

TERMS - NET CASH 15 DAYS AFTER RECEIPT OF INVOICE UNLESS OTHERWISE PROVIDED IN OPERATING AGREEMENT

VO	PG	DESCRIPTION		AMOUNT
1	3 9284	J. M. HUBER CORP C/I	.0000000	.00
1	66 7786	APACHE EXPLORATION C/I	.0000000	.00
6	999 9999	GULF OIL CORPORATION	1.0000000	19,977.83
8		DIVISION OF INTEREST TOTAL	1.0000000	19,977.83

AFE 50536 EDDY GN STATE COM NO 1-D&C

4500 7400		FR EDDY GN STATE COM #1 TO COLONA DIV 6/28/78 N/C COLONA THREAD PROT CLASS F	00224 @ 0.06500	14.56CR
		N/C COLONA THREAD PROT CLASS F	00736 @ 0.06500	47.84CR
		FR EDDY GN STATE COM #1 TO COLONA DIV 6/28/78 N/C COLONA THREAD PROT CLASS F	02302 @ 0.06500	149.63CR
		N/C COLONA THREAD PROT CLASS F	00281 @ 0.06500	18.27CR
	IDC	RENTALS EQUIPMENT AND TOOLS		5,810.53
	IDC	SUPPLIES		4,963.74CR
	IDC	OTHER SERVICES		558.69
			AFE #50536 TOTAL	1,175.18

AFE 51036 EDDY GN ST COM #1-INST GAS PROD EQPT

1531 0046		ENGELMAN-GENERAL 1.00 GENE. ENCLOSED PKG GAS PROD UNIT COMPLETE WITH THE FOLLOW-ING MAJOR COMPONENTS AND ACCESSORIES A.250,008THR.INDIRECT HEATER WITH 2 INCH 6747 PSI WP PRE-HEAT COIL THORNHILL CRAVER LONG NOSE CHOKE WITH FISHER DIAPH ACTUATOR AND PILOT 2XH EXPANSION COIL AND STANDARD HEATER ACC. B. 16X7 6 INCH 1000 PSI WP 3-PHASE ASME CODE OIL & GAS SEPARATOR COMPLETE WITH 3RD PHASE CNTRLS AND STANDARD SEPARATOR ACCES. C. 2 INCH HI-LO SHUTDOWN VALVE AND PILOT WITH 1/2 INCH STARTUP BYPASS D. UNIT ASSEMBLED	8,794.00

		TESTED AND APINTED TO FED SPECIFICATION 595A-30318 PRICE F.O.B. LOCATION WITH STARTUP SERV FURNISHED	
		STATE SALES TAX	329.78
1569 0035		UNION SPLY CO INC 1 H-500 15FT 6IN X 16 FT TYPE A 1/4IN CONE BOTTOM 3/16IN SHELL & DECK COMPLETE W/20FT STAIRWAY AND LANDING SN#5154 4,011.85	4,011.85
		STATE SALES TAX	150.44
	INV	NONCONTROLLABLE PROD EQPT AND OTHER COST	5,320.22
	OPN	SALES TAX ON PRODUCING EQUIPTMENT	196.36
		AFE #51036 TOTAL	18,802.65
		LEASE TOTAL	19,977.83

JOINT OPERATIONS
INVOICE

GULF OIL CORPORATION
P O BOX 1150
MIDLAND TEXAS 79702

PROPERTY NO 05 73979

DATE 09 78 PROPERTY NAME EDDY GN STATE COM

SHOW PROPERTY NO ON ALL REMITTANCES MAILED TO THE ABOVE ADDRESS

TERMS - NET CASH 15 DAYS AFTER RECEIPT OF INVOICE UNLESS OTHERWISE PROVIDED IN OPERATING AGREEMENT

VO	PG	DESCRIPTION		AMOUNT
			.0000000	.00
1	3 9284	J. M. HUBER CORP C/I	.0000000	.00
1	66 7786	APACHE EXPLORATION C/I	1.0000000	19,977.83
6	999 9999	GULF OIL CORPORATION		19,977.83
		DIVISION OF INTEREST TOTAL	1.0000000	

8

AFE 50536 EDDY GN STATE COM NO 1-DGC

4500 7400	FR EDDY GN STATE COM #1 TO COLONA DIV	
	6/28/78 N/C COLONA THREAD PROT	
	CLASS F 00224 @ 0.06500	14.56CR
	N/C COLONA THREAD PROT	
	CLASS F 00736 @ 0.06500	47.84CR
	FR EDDY GN STATE COM #1 TO COLONA DIV	
	6/28/78 N/C COLONA THREAD PROT	
	CLASS F 02302 @ 0.06500	149.63CR
	N/C COLONA THREAD PROT	
	CLASS F 00281 @ 0.06500	18.27CR
	IDC RENTALS EQUIPMENT AND TOOLS	5,810.53
	IDC SUPPLIES	4,963.74CR
	IDC OTHER SERVICES	558.69
	AFE #50536 TOTAL	1,175.18

AFE 51036 EDDY GN ST COM #1-INST GAS PROD EQPT 8,794.00

1531 0046 ENGELMAN-GENERAL 1.00 GENE. ENCLOSED PKG GAS PROD UNIT COMPLETE WITH THE FOLLOW-ING MAJOR COMPONENTS AND ACCESSORIES A.250,008THR.INDIRECT HEATER WITH 2 INCH 6747 PSI WP PRE-HEAT COIL THORNHILL CRAVER LONG NOSE CHOKE WITH FISHER DIAPH ACTUATOR AND PILOT 2XH EXPANSION COIL AND STANDARD HEATER ACC. B. 16X7 6 INCH 1000 PSI WP 3-PHASE ASME CODE OIL & GAS SEPARATOR COMPLETE WITH 3RD PHASE CNTRLS AND STANDARD SEPARATOR ACCES. C. 2 INCH HI-LO SHUTDOWN VALVE AND PILOT WITH 1/2 INCH STARTUP BYPASS D. UNIT ASSEMBLED

		TESTED AND APINTED TO FED SPECIFICATION 595A-30318 PRICE F.O.B. LOCATION WITH STARTUP SERV FURNISHED	
		STATE SALES TAX	329.78
1569 0035		UNION SPLY CO INC 1 H-500 15FT 6IN X 16 FT TYPE A 1/4IN CONE BOTTOM 3/16IN SHELL & DECK COMPLETE W/20FT STAIRWAY AND LANDING SN#5154 4,011.85	4,011.85
		STATE SALES TAX	150.44
	INV	NONCONTROLLABLE PROD EQPT AND OTHER COST	5,320.22
	OPN	SALES TAX ON PRODUCING EQUIPTMENT	196.36
		AFE #51036 TOTAL	18,802.65
		LEASE TOTAL	19,977.83

JOINT OPERATIONS
INVOICE

GULF OIL CORPORATION
P O BOX 1150
MIDLAND TEXAS 79702

DATE 09 78 PROPERTY NAME EDDY GN STATE COM PROPERTY NO 05 73979

SHOW PROPERTY NO ON ALL REMITTANCES MAILED TO THE ABOVE ADDRESS

TERMS - NET CASH 15 DAYS AFTER RECEIPT OF INVOICE UNLESS OTHERWISE PROVIDED IN OPERATING AGREEMENT

VO	PG	DESCRIPTION		AMOUNT
1	3 9284	J. M. HUBER CORP C/I	.0000000	.00
1	66 7786	ARACHE EXPLORATION C/I	.0000000	.00
6	999 9999	GULF OIL CORPORATION	1.0000000	19,977.83
8		DIVISION OF INTEREST TOTAL	1.0000000	19,977.83

AFE 50536 EDDY GN STATE COM NO 1-D&C

4500 7400		FR EDDY GN STATE COM #1 TO COLONA DIV 6/28/78 N/C COLONA THREAD PROT CLASS F 00224 @	0.06500	14.56CR
		N/C COLONA THREAD PROT CLASS F 00736 @	0.06500	47.84CR
		FR EDDY GN STATE COM #1 TO COLONA DIV 6/28/78 N/C COLONA THREAD PROT CLASS F 02302 @	0.06500	149.63CR
		N/C COLONA THREAD PROT CLASS F 00281 @	0.06500	18.27CR
	IDC	RENTALS EQUIPMENT AND TOOLS		5,810.53
	IDC	SUPPLIES		4,963.74CR
	IDC	OTHER SERVICES		558.69
			AFE #50536 TOTAL	1,175.18

AFE 51036 EDDY GN ST COM #1-INST GAS PROD EQPT

1531 0046		ENGELMAN-GENERAL 1.00 GENE. ENCLOSED PKG GAS PROD UNIT COMPLETE WITH THE FOLLOW-ING MAJOR COMPONENTS AND ACCESSORIES A.250,008THR.INDIRECT HEATER WITH 2 INCH 6747 PSI WP PRE-HEAT COIL THORNHILL CRAVER LONG NOSE CHOKE WITH FISHER DIAPH ACTUATOR AND PILOT 2XH EXPANSION COIL AND STANDARD HEATER ACC. B. 16X7 6 INCH 1000 PSI WP 3-PHASE ASME CODE OIL & GAS SEPARATOR COMPLETE WITH 3RD PHASE CNTRLS AND STANDARD SEPARATOR ACCES. C. 2 INCH HI-LO SHUTDOWN VALVE AND PILOT WITH 1/2 INCH STARTU. YPASS D. UNIT ASSEMBLED	8,794.00

		TESTED AND APINTED TO FED SPECIFICATION 595A-30318 PRICE F.O.B. LOCATION WITH STARTUP SERV FURNISHED	
		STATE SALES TAX	329.78
1569 0035		UNION SPLY CO INC 1 H-500 15FT 6IN X 16 FT TYPE A 1/4IN CONE BOTTOM 3/16IN SHELL & DECK COMPLETE W/20FT STAIRWAY AND LANDING SN#5154 4,011.85	4,011.85
		STATE SALES TAX	150.44
	INV	NONCONTROLLABLE PROD EQPT AND OTHER COST	5,320.22
	OPN	SALES TAX ON PRODUCING EQUIPTMENT	196.36
		AFE #51036 TOTAL	18,802.65
		LEASE TOTAL	19,977.83

JOINT OPERATIONS
INVOICE

GULF OIL CORPORATION
P O BOX 1150
MIDLAND TEXAS 79702

DATE 09 78 PROPERTY NAME EDDY GN STATE COM PROPERTY NO 05 73979

SHOW PROPERTY NO ON ALL REMITTANCES MAILED TO THE ABOVE ADDRESS

TERMS - NET CASH 15 DAYS AFTER RECEIPT OF INVOICE UNLESS OTHERWISE PROVIDED IN OPERATING AGREEMENT

VO	PG	DESCRIPTION		AMOUNT
1	3 9284	J. M. HUBER CORP C/I	.0000000	.00
1	66 7786	APACHE EXPLORATION C/I	.0000000	.00
6	999 9999	GULF OIL CORPORATION	1.0000000	19,977.83
8		DIVISION OF INTEREST TOTAL	1.0000000	19,977.83

AFE 50536 EDDY GN STATE COM NO 1-D&C

4500 7400		FR EDDY GN STATE COM #1 TO COLONA DIV		
		6/28/78 N/C COLONA THREAD PROT		
		CLASS F 00224 @	0.06500	14.56CR
		N/C COLONA THREAD PROT		
		CLASS F 00736 @	0.06500	47.84CR
		FR EDDY GN STATE COM #1 TO COLONA DIV		
		6/28/78 N/C COLONA THREAD PROT		
		CLASS F 02302 @	0.06500	149.63CR
		N/C COLONA THREAD PROT		
		CLASS F 00281 @	0.06500	18.27CR
	IDC	RENTALS EQUIPMENT AND TOOLS		5,810.53
	IDC	SUPPLIES		4,963.74CR
	IDC	OTHER SERVICES		558.69
			AFE #50536 TOTAL	1,175.18

AFE 51036 EDDY GN ST COM #1-INST GAS PROD EQPT

1531 0046	ENGELMAN-GENERAL 1.00 GENE. ENCLOSED PKG GAS PROD UNIT COMPLETE WITH THE FOLLOW-ING MAJOR COMPONENTS AND ACCESSORIES A.250,008THR.INDIRECT HEATER WITH 2 INCH 6747 PSI WP PRE-HEAT COIL THORNHILL CRAVER LONG NOSE CHOKE WITH FISHER DIAPH ACTUATOR AND PILOT 2XH EXPANSION COIL AND STANDARD HEATER ACC. B. 16X7 6 INCH 1000 PSI WP 3-PHASE ASME CODE OIL & GAS SEPARATOR COMPLETE WITH 3RD PHASE CNTRLS AND STANDARD SEPARATOR ACCES. C. 2 INCH HI-LO SHUTDOWN VALVE AND PILOT WITH 1/2 INCH STARTUP BYPASS D. UNIT ASSEMBLED		8,794.00

		TESTED AND APINTED TO FED SPECIFICATION 595A-30318 PRICE F.O.B. LOCATION WITH STARTUP SERV FURNISHED	
		STATE SALES TAX	329.78
1569 0035		UNION SPLY CO INC 1 H-500 15FT 6IN X 16 FT TYPE A 1/4IN CONE BOTTOM 3/16IN SHELL & DECK COMPLETE W/20FT STAIRWAY AND LANDING SN#5154 4,011.85	4,011.85
		STATE SALES TAX	150.44
	INV	NONCONTROLLABLE PROD EQPT AND OTHER COST	5,320.22
	OPN	SALES TAX ON PRODUCING EQUIPTMENT	196.36
		AFE #51036 TOTAL	18,802.65
		LEASE TOTAL	19,977.83

JOINT OPERATIONS
INVOICE

GULF OIL CORPORATION
P O BOX 1150
MIDLAND TEXAS 79702

DATE 08 78 PROPERTY NAME EDDY GN STATE COM PROPERTY NO 05 73979

SHOW PROPERTY NO ON ALL REMITTANCES MAILED TO THE ABOVE ADDRESS

TERMS - NET CASH 15 DAYS AFTER RECEIPT OF INVOICE UNLESS OTHERWISE PROVIDED IN OPERATING AGREEMENT

VO	PG	DESCRIPTION		AMOUNT
1	3 9284	J. M. HUBER CORP C/I	.0000000	.00
1	66 7786	APACHE EXPLORATION C/I	.0000000	.00
6	999 9999	GULF OIL CORPORATION	1.0000000	7,002.28
8		DIVISION OF INTEREST TOTAL	1.0000000	7,002.28

AFE 50536 EDDY GN STATE COM NO 1-D&C

4507 6183	FR EDDY GN STATE #1 TO EDDY GZ STATE #1		
	7-26-78 TBG 2 3/8 IN EUE 8RD N-80 /7JTS/		
	CLASS A 00219 @ 3.03360		664.36CR
	FR EDDY GN STATE #1 TO EDDY GZ STATE #1		
	7-26-78 TBG 2 3/8 IN EUE 8RD N-80 /17JT/		
	CLASS B 00532 @ 2.27520		1,210.41CR
4507 6386	FR EDDY G N STATE TO WHITE CITY PENN		
	8-28-78		
	JT 2 3/8 EUE 8RD N-80 TBG		
	CLASS B 00093 @ 2.34110		217.72CR
4580 5309	FR EDDY GN STATE #1 TO WHSE STK NATL		
	SUPPLY CO 7/27/78		
	CHOKE-ADJ 2 IN FEXLP 5M TC		
	CLASS B 00001 @ 521.12000		521.12CR
4580 5329	FR WHSE STK NATL SUPPLY WCS HOBBS NM		
	TO EDDY GN STATE #1 5-1-78		
	VALVE-GATE 2 IN FE 5M DEMCO MODEL TC		
	R-370		
	CLASS B 00002 @ 872.04000		1,744.08
	CHOKE-ADJ 2 IN FEXLP 5M TC R-369		
	CLASS B 00001 @ 465.94000		465.94
4580 5346	FR TBG 2-3/8 IN 4.70# EUE 8RT N-80 39 JT		
	CLASS B 01205 @ 2.35820		2,841.63CR
	TBG 2-3/8 IN 4.70# GFLPO 13 JTS		
	CLASS B 00401 @ 2.35820		945.64CR
4580 5360	FR EDDY GN STATE COMM #1 TO HOBBS JNK		
	ACCT 8-21-78 16 IN 65# H40 ST&C 8RT CSG		
	1 CUT JT IN 4 PIECES & USED ON RIG		
	CLASS F 02210 @ 0.04000		88.40CR

IDC	RIG CONTRACTS		964.88
IDC	DRILLING FLUIDS AND AIR		4,271.10CR
IDC	RENTALS EQUIPMENT AND TOOLS		7,181.64
IDC	FORMATION TREATING		2,978.25
IDC	MISCELLANEOUS COSTS		42.49CR
IDC	DISTRICT EXPENSE		408.00
INV	NONCONTROLLABLE PROD EQPT AND OTHER COST		1,041.16CR
IDC	OTHER SERVICES		4,427.47
IDC	TRANSPORTATION		118.80
		AFE #50536 TOTAL	6,445.03
OPN	ADMINISTRATIVE OVERHEAD		557.25
		OPERATIONS TOTAL	557.25
		LEASE TOTAL	7,002.28

JOINT OPERATIONS
INVOICE

GULF OIL CORPORATION
P O BOX 1150
MIDLAND TEXAS 79702

DATE 08 78 PROPERTY NAME EDDY GN STATE COM PROPERTY NO 05 73979

SHOW PROPERTY NO ON ALL REMITTANCES MAILED TO THE ABOVE ADDRESS

TERMS - NET CASH 15 DAYS AFTER RECEIPT OF INVOICE UNLESS OTHERWISE PROVIDED IN OPERATING AGREEMENT

VO	PG	DESCRIPTION		AMOUNT
1	3 9284	J. M. HUBER CORP C/I	.0000000	.00
1	66 7786	APACHE EXPLORATION C/I	.0000000	.00
6	999 9999	GULF OIL CORPORATION	1.0000000	7,002.28
8		DIVISION OF INTEREST TOTAL	1.0000000	7,002.28

AFE 50536 EDDY GN STATE COM NO 1-D&C

4507 6183	FR EDDY GN STATE #1 TO EDDY GZ STATE #1		
	7-26-78 TBG 2 3/8 IN EUE 8RD N-80 /7JTS/		
	CLASS A 00219 @ 3.03360		664.36CR
	FR EDDY GN STATE #1 TO EDDY GZ STATE #1		
	7-26-78 TBG 2 3/8 IN EUE 8RD N-80 /17JT/		
	CLASS B 00532 @ 2.27520		1,210.41CR
4507 6386	FR EDDY G N STATE TO WHITE CITY PENN		
	8-28-78		
	JT 2 3/8 EUE 8RD N-80 TBG		
	CLASS B 00093 @ 2.34110		217.72CR
4580 5309	FR EDDY GN STATE #1 TO WHSE STK NATL		
	SUPPLY CO 7/27/78		
	CHOKE-ADJ 2 IN FEXLP 5M TC		
	CLASS B 00001 @ 521.12000		521.12CR
4580 5329	FR WHSE STK NATL SUPPLY WCS HOBBS NM		
	TO EDDY GN STATE #1 5-1-78		
	VALVE-GATE 2 IN FE 5M DEMCO MODEL TC		
	R-370		
	CLASS B 00002 @ 872.04000		1,744.08
	CHOKE-ADJ 2 IN FEXLP 5M TC R-369-		
	CLASS B 00001 @ 465.94000		465.94
4580 5346	FR TBG 2-3/8 IN 4.70# EUE 8RT N-80 39 JT		
	CLASS B 01205 @ 2.35820		2,841.63CR
	TBG 2-3/8 IN 4.70# GFLPO 13 JTS		
	CLASS B 00401 @ 2.35820		945.64CR
4580 5360	FR EDDY GN STATE COMM #1 TO HOBBS JNK		
	ACCT 8-21-78 16 IN 65# H40 ST&C 8RT CSG		
	1 CUT JT IN 4 PIECES & USED ON RIG		
	CLASS F 02210 @ 0.04000		88.40CR

IDC	RIG CONTRACTS		964.88
IDC	DRILLING FLUIDS AND AIR		4,271.10CR
IDC	RENTALS EQUIPMENT AND TOOLS		7,181.64
IDC	FORMATION TREATING		2,978.25
IDC	MISCELLANEOUS COSTS		42.49CR
IDC	DISTRICT EXPENSE		408.00
INV	NONCONTROLLABLE PROD EQPT AND OTHER COST		1,041.16CR
IDC	OTHER SERVICES		4,427.47
IDC	TRANSPORTATION		118.80
		AFE #50536 TOTAL	6,445.03
OPN	ADMINISTRATIVE OVERHEAD		557.25
		OPERATIONS TOTAL	557.25
		LEASE TOTAL	7,002.28

JOINT OPERATIONS
INVOICE

GULF OIL CORPORATION
P O BOX 1150
MIDLAND TEXAS 79702

DATE 08 78 PROPERTY NAME EDDY GN STATE COM PROPERTY NO 05 73979

SHOW PROPERTY NO ON ALL REMITTANCES MAILED TO THE ABOVE ADDRESS

TERMS - NET CASH 15 DAYS AFTER RECEIPT OF INVOICE UNLESS OTHERWISE PROVIDED IN OPERATING AGREEMENT

VO	PG	DESCRIPTION		AMOUNT
1	3 9284	J. M. HUBER CORP C/I	.0000000	.00
1	66 7766	APACHE EXPLORATION C/I	.0000000	.00
6	999 9999	GULF OIL CORPORATION	1.0000000	7,002.28
8		DIVISION OF INTEREST TOTAL	1.0000000	7,002.28

AFE 50536 EDDY GN STATE COM NO 1-D&C

4507 6183	FR EDDY GN STATE #1 TO EDDY GZ STATE #1		
	7-26-78 TbG 2 3/8 IN EUE 8RD N-80 /7JTS/		
	CLASS A 00219 @ 3.03360		664.36CR
	FR EDDY GN STATE #1 TO EDDY GZ STATE #1		
	7-26-78 TBG 2 3/8 IN EUE 8RD N-80 /17JT/		
	CLASS B 00532 @ 2.27520		1,210.41CR
4507 6386	FR EDDY G N STATE TO WHITE CITY PENN		
	8-28-78		
	JT 2 3/8 EUE 8RD N-80 TBG		
	CLASS B 00093 @ 2.34110		217.72CR
4580 5309	FR EDDY GN STATE #1 TO WHSE STK NATL		
	SUPPLY CO 7/27/78		
	CHOKE-ADJ 2 IN FEXLP 5M TC		
	CLASS B 00001 @ 521.12000		521.12CR
4580 5329	FR WHSE STK NATL SUPPLY WCS HOBBS NM		
	TO EDDY GN STATE #1 5-1-78		
	VALVE-GATE 2 IN FE 5M DEMCO MODEL TC		
	R-370		
	CLASS B 00002 @ 872.04000		1,744.08
	CHOKE-ADJ 2 IN FEXLP 5M TC R-369		
	CLASS B 00001 @ 465.94000		465.94
4580 5346	FR TBG 2-3/8 IN 4.70# EUE 8RT N-80 39 JT		
	CLASS B 01205 @ 2.35820		2,841.63CR
	TBG 2-3/8 IN 4.70# GFLPO 13 JTS		
	CLASS B 00401 @ 2.35820		945.64CR
4580 5360	FR EDDY GN STATE COMM #1 TO HOBBS JNK		
	ACCT 8-21-78 16 IN 65# H40 ST&C 8RT CSG		
	1 CUT JT IN 4 PIECES & USED ON RIG		
	CLASS F 02210 @ 0.04000		88.40CR

DATE 08 78 PROPERTY NAME EDDY GN STATE COM PROPERTY NO 05 73979

IDC	RIG CONTRACTS		964.88
IDC	DRILLING FLUIDS AND AIR		4,271.10CR
IDC	RENTALS EQUIPMENT AND TOOLS		7,181.64
IDC	FORMATION TREATING		2,978.25
IDC	MISCELLANEOUS COSTS		42.49CR
IDC	DISTRICT EXPENSE		408.00
INV	NONCONTROLLABLE PROD EQPT AND OTHER COST		1,041.16CR
IDC	OTHER SERVICES		4,427.47
IDC	TRANSPORTATION		118.80
		AFE #50536 TOTAL	6,445.03
OPN	ADMINISTRATIVE OVERHEAD		557.25
		OPERATIONS TOTAL	557.25
		LEASE TOTAL	7,002.28

JOINT OPERATIONS
INVOICE

GULF OIL CORPORATION
P O BOX 1150
MIDLAND TEXAS 79702

DATE 08 78 PROPERTY NAME EDDY GN STATE COM PROPERTY NO 05 73979

SHOW PROPERTY NO ON ALL REMITTANCES MAILED TO THE ABOVE ADDRESS

TERMS - NET CASH 15 DAYS AFTER RECEIPT OF INVOICE UNLESS OTHERWISE PROVIDED IN OPERATING AGREEMENT

VO	PG	DESCRIPTION		AMOUNT
1	3 9284	J. M. HUBER CORP C/I	.0000000	.00
1	66 7786	APACHE EXPLORATION C/I	.0000000	.00
6	999 9999	GULF OIL CORPORATION	1.0000000	7,002.28
8		DIVISION OF INTEREST TOTAL	1.0000000	7,002.28

AFE 50536 EDDY GN STATE COM NO 1-D&C

4507 6183 FR EDDY GN STATE #1 TO EDDY GZ STATE #1
7-26-78 TBG 2 3/8 IN EUE 8RD N-80 /7JTS/
CLASS A 00219 @ 3.03360 664.36CR

FR EDDY GN STATE #1 TO EDDY GZ STATE #1
7-26-78 TBG 2 3/8 IN EUE 8RD N-80 /17JT/
CLASS B 00532 @ 2.27520 1,210.41CR

4507 6386 FR EDDY G N STATE TO WHITE CITY PENN
8-28-78
JT 2 3/8 EUE 8RD N-80 TBG
CLASS B 00093 @ 2.34110 217.72CR

4580 5309 FR EDDY GN STATE #1 TO WHSE STK NATL
SUPPLY CO 7/27/78
CHOKE-ADJ 2 IN FEXLP 5M TC
CLASS B 00001 @ 521.12000 521.12CR

4580 5329 FR WHSE STK NATL SUPPLY WCS HOBBS NM
TO EDDY GN STATE #1 5-1-78
VALVE-GATE 2 IN FE 5M DEMCO MODEL TC
R-370
CLASS B 00002 @ 872.04000 1,744.08
CHOKE-ADJ 2 IN FEXLP 5M TC R-369
CLASS B 00001 @ 465.94000 465.94

4580 5346 FR TBG 2-3/8 IN 4.70# EUE 8RT N-80 39 JT
CLASS B 01205 @ 2.35820 2,841.63CR
TBG 2-3/8 IN 4.70# GFLPO 13 JTS
CLASS B 00401 @ 2.35820 945.64CR

4580 5360 FR EDDY GN STATE COMM #1 TO HOBBS JNK
ACCT 8-21-78 16 IN 65# H40 ST&C 8RT CSG
1 CUT JT IN 4 PIECES & USED ON RIG
CLASS F 02210 @ 0.04000 88.40CR

			964.88
IDC	RIG CONTRACTS		4,271.10CR
IDC	DRILLING FLUIDS AND AIR		7,181.64
IDC	RENTALS EQUIPMENT AND TOOLS		2,978.25
IDC	FORMATION TREATING		42.49CR
IDC	MISCELLANEOUS COSTS		408.00
IDC	DISTRICT EXPENSE		1,041.16CR
INV	NONCONTROLLABLE PROD EQPT AND OTHER COST		4,427.47
IDC	OTHER SERVICES		118.80
IDC	TRANSPORTATION		6,445.03
		AFE #50536 TOTAL	557.25
OPN	ADMINISTRATIVE OVERHEAD		
		OPERATIONS TOTAL	557.25
		LEASE TOTAL	7,002.28

JOINT OPERATIONS
INVOICE

GULF OIL CORPORATION
P O BOX 1150
MIDLAND TEXAS 79702

DATE 07 78 PROPERTY NAME EDDY GN STATE COM PROPERTY NO 05 73979

SHOW PROPERTY NO ON ALL REMITTANCES MAILED TO THE ABOVE ADDRESS

TERMS - NET CASH 15 DAYS AFTER RECEIPT OF INVOICE UNLESS OTHERWISE PROVIDED IN OPERATING AGREEMENT

VO	PG	DESCRIPTION		AMOUNT
2	3 9284	J M HUBER CORP C/I	.0000000	.00
2	66 7786	APACHE EXPLORATION C/I	.0000000	.00
6	999 9999	GULF OIL CORPORATION	1.0000000	104,044.70
10		DIVISION OF INTEREST TOTAL	1.0000000	104,044.70

AFE 50536 EDDY GN STATE COM NO 1-D&C

4505 0017	TO CNL VO 4507-5704 TO CORR QUANTITY AMT FR EDDY GF STATE 2 TO EDDY GN ST 1 2 JTS 2 3/8IN N80 8RD EUE TBG CLASS A 06186 @ 3.03360		18,765.85CR
4505 0018	FR EDDY GF STATE 2 TO EDDY GN ST 1 2 JTS 2 3/8IN N80 8RD EUE TBG CLASS A 00062 @ 3.03360		188.08
4507 5638	FR EDDY GN STATE #1 TO WHITE CITY PENN GAS COM UNIT 3 WELL #1 7/11/78 4 JTS 2 3/8 N80 8RD EUE TBG CLASS A 00125 @ 2.27870		284.84CR
4507 5704	FR EDDY GF STATE #2 TO EDDY GN STATE #1 7/5/78 2 JTS 2 3/8IN N80 8RD EUE TBG CLASS A 06186 @ 3.03360		18,765.85
	IDC	LOCATION AND ACCESS	10,467.86
	IDC	DRILLING FLUIDS AND AIR	
	IDC	RENTALS EQUIPMENT AND TOOLS	12,278.93
	IDC	LOGGING, PERFORATING, TESTING	14,044.78
	IDC	FORMATION TREATING	14,691.33
	IDC	MISCELLANEOUS COSTS	12.30
	IDC	DISTRICT EXPENSE	1,099.00
	INV	NONCONTROLLABLE PROD EQPT AND OTHER COST	307.49

IDC	SUPPLIES		12,668.12
IDC	OTHER SERVICES		32,715.53
IDC	TRANSPORTATION		3,589.37
		AFE #50536 TOTAL	101,777.95
OPN	COMBINED ADM OVERHEAD & DISTRICT EXPENSE		2,266.75
		OPERATIONS TOTAL	2,266.75
		LEASE TOTAL	104,044.70

JOINT OPERATIONS
INVOICE

GULF OIL CORPORATION
P O BOX 1150
MIDLAND TEXAS 79702

DATE 07 78 PROPERTY NAME EDDY GN STATE COM PROPERTY NO 05 73979

SHOW PROPERTY NO ON ALL REMITTANCES MAILED TO THE ABOVE ADDRESS

TERMS - NET CASH 15 DAYS AFTER RECEIPT OF INVOICE UNLESS OTHERWISE PROVIDED IN OPERATING AGREEMENT

VO	PG	DESCRIPTION		AMOUNT
2	3 9284	J M HUBER CORP C/I	.0000000	.00
2	66 7786	APACHE EXPLORATION C/I	.0000000	.00
6	999 9999	GULF OIL CORPORATION	1.0000000	104,044.70
10		DIVISION OF INTEREST TOTAL	1.0000000	104,044.70

AFE 50536 EDDY GN STATE COM NO 1-D&C

4505 0017	TO CNL VO 4507-5704 TO CORR QUANTITY AMT FR EDDY GF STATE 2 TO EDDY GN ST 1 2 JTS 2 3/8IN N80 8RD EUE TBG CLASS A 06186 @ 3.03360		18,765.85CR
4505 0018	FR EDDY GF STATE 2 TO EDDY GN ST 1 2 JTS 2 3/8IN N80 8RD EUE TBG CLASS A 00062 @ 3.03360		188.08
4507 5638	FR EDDY GN STATE #1 TO WHITE CITY PENN GAS COM UNIT 3 WELL #1 7/11/78 4 JTS 2 3/8 N80 8RD EUE TBG CLASS A 00125 @ 2.27870		284.84CR
4507 5704	FR EDDY GF STATE #2 TO EDDY GN STATE #1 7/5/78 2 JTS 2 3/8IN N80 8RD EUE TBG CLASS A 06186 @ 3.03360		18,765.85
	IDC	LOCATION AND ACCESS	10,467.86
	IDC	DRILLING FLUIDS AND AIR	
	IDC	RENTALS EQUIPMENT AND TOOLS	12,278.93
	IDC	LOGGING, PERFORATING, TESTING	14,044.78
	IDC	FORMATION TREATING	14,691.33
	IDC	MISCELLANEOUS COSTS	12.30
	IDC	DISTRICT EXPENSE	1,099.00
	INV	NONCONTROLLABLE PROD EQPT AND OTHER COST	307.49

IDC	SUPPLIES	12,668.12
IDC	OTHER SERVICES	32,715.53
IDC	TRANSPORTATION	3,589.37
	AFE #50536 TOTAL	101,777.95
OPN	COMBINED ADM OVERHEAD & DISTRICT EXPENSE	2,266.75
	OPERATIONS TOTAL	2,266.75
	LEASE TOTAL	104,044.70

JOINT OPERATIONS
INVOICE

GULF OIL CORPORATION
P O BOX 1150
MIDLAND TEXAS 79702

DATE 07 78 PROPERTY NAME EDDY GN STATE COM PROPERTY NO 05 73979

SHOW PROPERTY NO ON ALL REMITTANCES MAILED TO THE ABOVE ADDRESS

TERMS - NET CASH 15 DAYS AFTER RECEIPT OF INVOICE UNLESS OTHERWISE PROVIDED IN OPERATING AGREEMENT

VO	PG	DESCRIPTION		AMOUNT
2	3 9284	J M HUBER CORP C/I	.0000000	.00
2	66 7786	APACHE EXPLORATION C/1	.0000000	.00
6	999 9999	GULF OIL CORPORATION	1.0000000	104,044.70
10		DIVISION OF INTEREST TOTAL	1.0000000	104,044.70

AFE 50536 EDDY GN STATE COM NO 1-D&C

4505 0017		TO CNL VO 4507-5704 TO CORR QUANTITY AMT FR EDDY GF STATE 2 TO EDDY GN ST 1 2 JTS 2 3/8IN N80 8RD EUE TBG CLASS A 06186 @ 3.03360		18,765.85CR
4505 0018		FR EDDY GF STATE 2 TO EDDY GN ST 1 2 JTS 2 3/8IN N80 8RD EUE TBG CLASS A 00062 @ 3.03360		188.08
4507 5638		FR EDDY GN STATE #1 TO WHITE CITY PENN GAS COM UNIT 3 WELL #1 7/11/78 4 JTS 2 3/8 N80 8RD EUE TBG CLASS A 00125 @ 2.27870		284.84CR
4507 5704		FR EDDY GF STATE #2 TO EDDY GN STATE #1 7/5/78 2 JTS 2 3/8IN N80 8RD EUE TBG CLASS A 06186 @ 3.03360		18,765.85
	IDC	LOCATION AND ACCESS		10,467.86
	IDC	DRILLING FLUIDS AND AIR		
	IDC	RENTALS EQUIPMENT AND TOOLS		12,278.93
	IDC	LOGGING, PERFORATING, TESTING		14,044.78
	IDC	FORMATION TREATING		14,691.33
	IDC	MISCELLANEOUS COSTS		12.30
	IDC	DISTRICT EXPENSE		1,099.00
	INV	NONCONTROLLABLE PROD EQPT AND OTHER COST		307.49

IDC	SUPPLIES		12,668.12
IDC	OTHER SERVICES		32,715.53
IDC	TRANSPORTATION		3,589.37
		AFE #50536 TOTAL	101,777.95
OPN	COMBINED ADM OVERHEAD & DISTRICT EXPENSE		2,266.75
		OPERATIONS TOTAL	2,266.75
		LEASE TOTAL	104,044.70

JOINT OPERATIONS
INVOICE

GULF OIL CORPORATION
P O BOX 1150
MIDLAND TEXAS 79702

DATE 06 78 PROPERTY NAME EDDY GN STATE COM PROPERTY NO 05 73979

SHOW PROPERTY NO ON ALL REMITTANCES MAILED TO THE ABOVE ADDRESS

TERMS - NET CASH 15 DAYS AFTER RECEIPT OF INVOICE UNLESS OTHERWISE PROVIDED IN OPERATING AGREEMENT

VO	PG	DESCRIPTION		AMOUNT
2	3 9284	J M HUBER CORP C/I	.0000000	.00
2	66 7786	APACHE EXPLORATION C/I	.0000000	.00
6	999 9999	GULF OIL CORPORATION	1.0000000	318,666.03
10		DIVISION OF INTEREST TOTAL	1.0000000	318,666.03

AFE 50536 EDDY GN STATE COM NO 1-D&C

1516 0007	ARMCO NATL SUPPLY 1 10IN CSG FLANGE 849.68 1 10IN TBG SPOOL 2634.76 3 2IN GATE VALVE 3555.00 N/C 5256.16	12,295.60
	SALES TAX	491.82
4502 2722	FR ODESSA WHSE STI STO EL FARMER YD TO EDDY GN STATE COMM NO 1 6-1-78 TBG 2 3/8IN OD 4.70# EUE 8-R-THD GR N-80 SEAMLESS STEEL T&C R-2 374 JTS	
	CLASS A 11712 @ 3.03360	35,529.52
4502 2731	FR ODESSA WHSE STK STO AT EL FARMERS TO EDDY GN STATE COM #1 5-19-78 CSG 5IN OD 17.43# N-80 W/FL4S ATLAS BRADFORD BOX & PINS 83 JTS	
	CLASS A 03464 @ 11.47090	39,735.20
4507 4828	FR EDDY GN ST COMM #1 TO LEA ED ST A#2 4-27-78 1JT 16IN 75LB H-40 ST&C	
	CLASS A 00038 @ 28.13590	1,069.16CR
	2JT 10 3/4 40.50LB K55 ST&C	
	CLASS A 00086 @ 13.87040	1,192.85CR
	FR EDDY GN ST COMM #1 TO LEA ED ST A#2 4-27-78 1JT 10 3/4 32.70LB H40 ST&C PIN MASHED	
	CLASS C 00040 @ 5.62290	224.92CR
	1 CUT JT 10 3/4 40.50LB K55 ST&C	
	CLASS C 00037 @ 6.93520	256.60CR
4507 5175	FR EDDY GN ST COMM #1 TO LEA ED ST #2 5-24-78 1 JT 7 5/8IN 26.40# S95 LT&C	
	CLASS A 00041 @ 13.40520	549.61CR

		1 JT 7 5/8IN 26.40# N-80 LT&C	
		CLASS A 00045 @ 12.00700	540.32CR
		5 JTS 7 5/8IN 29.70# S95 LT&C	
		CLASS A 00232 @ 15.74850	3,653.65CR
		FR EDDY GN ST COMM #1 TO LEA ED ST #2 5-24-78	
		1 CUT JT 7 5/8IN 29.70# S95 LT&C	
		CLASS C 00031 @ 7.87430	244.10CR
		1 JT 5IN 15# N80 LT&C	
		CLASS C 00042 @ 3.57390	150.10CR
4507 5315		FR EDDY GE ST 2 TO EDDY BN ST 1 6-1-78	
		17JTS 2 3/8IN EUE 8RD N80 TBG	
		CLASS B 00523 @ 2.27870	1,191.76
4580 5265		FR EDDY GN ST COMM #1 TO HOBBS WHSE STK	
		5-18-78 CSG 16IN 75LB K55 R3 ST&C 1JT	
		CLASS A 00036 @ 28.23340	1,016.40CR
	IDC	LOCATION AND ACCESS	298.48
	IDC	RIG CONTRACTS	91,339.45
	IDC	DRILLING FLUIDS AND AIR	30,242.63
	IDC	RENTALS EQUIPMENT AND TOOLS	8,193.04
	IDC	CEMENT AND CEMENTING SERVICE	8,035.81
	IDC	LOGGING, PERFORATING, TESTING	25,486.91
	IDC	FORMATION TREATING	5,587.43
	IDC	MISCELLANEOUS COSTS	62,851.35
	IDC	DISTRICT EXPENSE	609.00
	IDC	NONCONTROLLABLE TEMP SERVICE EQPT	3,787.28
	INV	NONCONTROLLABLE PROD EQPT AND OTHER COST	396.88
		AFE #50536 TOTAL	317,174.45
	OPN	COMBINED ADM OVERHEAD & DISTRICT EXPENSE	1,491.58
		OPERATIONS TOTAL	1,491.58
		LEASE TOTAL	318,666.03

JOINT OPERATIONS
INVOICE

GULF OIL CORPORATION
P O BOX 1150
MIDLAND TEXAS 79702

DATE C6 78 PROPERTY NAME EDDY GN STATE COM PROPERTY NO 05 73979

SHOW PROPERTY NO ON ALL REMITTANCES MAILED TO THE ABOVE ADDRESS

TERMS - NET CASH 15 DAYS AFTER RECEIPT OF INVOICE UNLESS OTHERWISE PROVIDED IN OPERATING AGREEMENT

VO	PG	DESCRIPTION		AMOUNT
			.0000000	.00
2	3 9284	J M HUBER CORP C/I	.0000000	.00
2	66 7786	APACHE EXPLORATION C/I	1.0000000	318,666.03
6	999 9999	GULF OIL CORPORATION		
10		DIVISION OF INTEREST TOTAL	1.0000000	318,666.03

AFE 50536 EDDY GN STATE COM NO 1-D&C

1516 0007	ARMCO NATL SUPPLY 1 10IN CSG FLANGE 849.68 1 10IN TBG SPOOL 2634.76 3 2IN GATE VALVE 3555.00 N/C 5256.16 SALES TAX	12,295.60 491.82
4502 2722	FR ODESSA WHSE ST1 STO EL FARMER YD TO EDDY GN STATE COMM NO 1 6-1-78 TBG 2 3/8IN OD 4.70# EUE 8-R-THD GR N-80 SEAMLESS STEEL T&C R-2 374 JTS CLASS A 11712 @ 3.03360	35,529.52
4502 2731	FR ODESSA WHSE STK STO AT EL FARMERS TO EDDY GN STATE COM #1 5-19-78 CSG 5IN OD 17.43# N-80 W/FL4S ATLAS BRADFORD BOX & PINS 83 JTS CLASS A 03464 @ 11.47090	39,735.20
4507 4828	FR EDDY GN ST COMM #1 TO LEA ED ST A#2 4-27-78 1JT 16IN 75LB H-40 ST&C CLASS A 00038 @ 28.13590	1,069.16CR
	2JT 10 3/4 40.50LB K55 ST&C CLASS A 00086 @ 13.87040	1,192.85CR
	FR EDDY GN ST COMM #1 TO LEA ED ST A#2 4-27-78 1JT 10 3/4 32.70LB H40 ST&C PIN MASHED CLASS C 00040 @ 5.62290	224.92CR
	1 CUT JT 10 3/4 40.50LB K55 ST&C CLASS C 00037 @ 6.93520	256.60CR
4507 5175	FR EDDY GN ST COMM #1 TO LEA ED ST #2 5-24-78 1 JT 7 5/8IN 26.40# S95 LT&C CLASS A 00041 @ 13.40520	549.61CR

		1 JT 7 5/8IN 26.40# N-80 LT&C	
		CLASS A 00045 @ 12.00700	540.32CR
		5 JTS 7 5/8IN 29.70# S95 LT&C	
		CLASS A 00232 @ 15.74850	3,653.65CR
		FR EDDY GN ST COMM #1 TO LEA ED ST #2	
		5-24-78	
		1 CUT JT 7 5/8IN 29.70# S95 LT&C	
		CLASS C 00031 @ 7.87430	244.10CR
		1 JT 5IN 15# N80 LT&C	
		CLASS C 00042 @ 3.57390	150.10CR
4507 5315		FR EDDY GE ST 2 TO EDDY BN ST 1 6-1-78	
		17JTS 2 3/8IN EUE 8RD N80 TBG	
		CLASS B 00523 @ 2.27870	1,191.76
4580 5265		FR EDDY GN ST COMM #1 TO HOBBS WHSE STK	
		5-18-78 CSG 16IN 75LB K55 R3 ST&C 1JT	
		CLASS A 00036 @ 28.23340	1,016.40CR
	IDC	LOCATION AND ACCESS	298.48
	IDC	RIG CONTRACTS	91,339.45
	IDC	DRILLING FLUIDS AND AIR	30,242.63
	IDC	RENTALS EQUIPMENT AND TOOLS	8,193.04
	IDC	CEMENT AND CEMENTING SERVICE	8,035.81
	IDC	LOGGING, PERFORATING, TESTING	25,486.91
	IDC	FORMATION TREATING	5,587.43
	IDC	MISCELLANEOUS COSTS	62,851.35
	IDC	DISTRICT EXPENSE	609.00
	IDC	NONCONTROLLABLE TEMP SERVICE EQPT	3,787.28
	INV	NONCONTROLLABLE PROD EQPT AND OTHER COST	396.88
		AFE #50536 TOTAL	317,174.45
	OPN	COMBINED ADM OVERHEAD & DISTRICT EXPENSE	1,491.58
		OPERATIONS TOTAL	1,491.58
		LEASE TOTAL	318,666.03

JOINT OPERATIONS
INVOICE

GULF OIL CORPORATION
P O BOX 1150
MIDLAND TEXAS 79702

DATE 06 78 PROPERTY NAME EDDY GN STATE COM PROPERTY NO 05 73979

SHOW PROPERTY NO ON ALL REMITTANCES MAILED TO THE ABOVE ADDRESS

TERMS - NET CASH 15 DAYS AFTER RECEIPT OF INVOICE UNLESS OTHERWISE PROVIDED IN OPERATING AGREEMENT

VO	PG	DESCRIPTION		AMOUNT
2	3 9284	J M HUBER CORP C/I	.0000000	.00
2	66 7786	APACHE EXPLORATION C/I	.0000000	.00
6	999 9999	GULF OIL CORPORATION	1.0000000	318,666.03
10		DIVISION OF INTEREST TOTAL	1.0000000	318,666.03

AFE 50536 EDDY GN STATE COM NO 1-D&C

1516 0007	ARMCO NAIL SUPPLY 1 10IN CSG FLANGE 849.68 1 10IN TBG SPOOL 2634.76 3 2IN GATE VALVE 3555.00 N/C 5256.16		12,295.60
	SALES TAX		491.82
4502 2722	FR ODESSA WHSE STI STO EL FARMER YD TO EDDY GN STATE COMM NO 1 6-1-78 TBG 2 3/8IN OD 4.70# EUE 8-R-THD GR N-80 SEAMLESS STEEL T&C R-2 374 JTS		
	CLASS A 11712 @	3.03360	35,529.52
4502 2731	FR ODESSA WHSE STK STO AT EL FARMERS TO EDDY GN STATE COM #1 5-19-78 CSG 5IN OD 17.43# N-80 W/FL4S ATLAS BRADFORD BOX & PINS 83 JTS		
	CLASS A 03464 @	11.47090	39,735.20
4507 4828	FR EDDY GN ST COMM #1 TO LEA ED ST A#2 4-27-78 1JT 16IN 75LB H-40 ST&C		
	CLASS A 00038 @	28.13590	1,069.16CR
	2JT 10 3/4 40.50LB K55 ST&C		
	CLASS A 00086 @	13.87040	1,192.85CR
	FR EDDY GN ST COMM #1 TO LEA ED ST A#2 4-27-78 1JT 10 3/4 32.70LB H40 ST&C PIN MASHED		
	CLASS C 00040 @	5.62290	224.92CR
	1 CUT JT 10 3/4 40.50LB K55 ST&C		
	CLASS C 00037 @	6.93520	256.60CR
4507 5175	FR EDDY GN ST COMM #1 TO LEA ED ST #2 5-24-78 1 JT 7 5/8IN 26.40# S95 LT&C		
	CLASS A 00041 @	13.40520	549.61CR

		1 JT 7 5/8IN 26.40# N-80 LT&C CLASS A 00045 @ 12.00700	540.32CR
		5 JTS 7 5/8IN 29.70# S95 LT&C CLASS A 00232 @ 15.74850	3,653.65CR
		FR EDDY GN ST COMM #1 TO LEA ED ST #2 5-24-78	
		1 CUT JT 7 5/8IN 29.70# S95 LT&C CLASS C 00031 @ 7.87430	244.10CR
		1 JT 5IN 15# N80 LT&C CLASS C 00042 @ 3.57390	150.10CR
4507	5315	FR EDDY GE ST 2 TO EDDY BN ST 1 6-1-78 17JTS 2 3/8IN EUE 8RD N80 TBG CLASS B 00523 @ 2.27870	1,191.76
4580	5265	FR EDDY GN ST COMM #1 TO HOBBS WHSE STK 5-18-78 CSG 16IN 75LB K55 R3 ST&C 1JT CLASS A 00036 @ 28.23340	1,016.40CR
	IDC	LOCATION AND ACCESS	298.48
	IDC	RIG CONTRACTS	91,339.45
	IDC	DRILLING FLUIDS AND AIR	30,242.63
	IDC	RENTALS EQUIPMENT AND TOOLS	8,193.04
	IDC	CEMENT AND CEMENTING SERVICE	8,035.81
	IDC	LOGGING, PERFORATING, TESTING	25,486.91
	IDC	FORMATION TREATING	5,587.43
	IDC	MISCELLANEOUS COSTS	62,851.35
	IDC	DISTRICT EXPENSE	609.00
	IDC	NONCONTROLLABLE TEMP SERVICE EQPT	3,787.28
	INV	NONCONTROLLABLE PROD EQPT AND OTHER COST	396.88
		AFE #50536 TOTAL	317,174.45
	OPN	COMBINED ADM OVERHEAD & DISTRICT EXPENSE	1,491.58
		OPERATIONS TOTAL	1,491.58
		LEASE TOTAL	318,666.03

JOINT OPERATIONS
. INVOICE

GULF OIL CORPORATION
P O BOX 1150
MIDLAND TEXAS 79704

DATE 05 78 PROPERTY NAME EDDY GN STATE COM PROPERTY NO 05 73979

SHOW PROPERTY NO ON ALL REMITTANCES MAILED TO THE ABOVE ADDRESS

TERMS - NET CASH 15 DAYS AFTER RECEIPT OF INVOICE UNLESS OTHERWISE PROVIDED IN OPERATING AGREEMENT

VO	PG	DESCRIPTION		AMOUNT
2	3 9284	J M HUBER CORP C/I	.0000000	.00
2	66 7786	APACHE EXPLORATION C/I	.0000000	.00
6	999 9999	GULF OIL CORPORATION	1.0000000	321,864.31
10		DIVISION OF INTEREST TOTAL	1.0000000	321,864.31

AFE 50536 EDDY GN STATE COM NO 1-D&C

1551 0142	VINSON SPLY CO 7 JTS 16IN OD 65# GR H40 STEEL CASING ST&C RG 3 7375.26 FRT 892.80 LESS DISC 131.40		8,136.66
	STATES SALES TAX		295.01
1551 0169	WILSON SPLY CO 4,009.8FT 90 JTS 7 5/8IN OF 26.40# LSS API ERW CASING GR N-80 LONG T&C RANGE 3 44,410.94 PREPAID FRT 2,039.42 PREPAID LOADING CHARGES 37.05 LADING&TALLY LESS DISC 923.75		45,563.66
	PLUS 4% NM STATE SALES TAX		1,858.01
4502 2694	FR ODESSA WHSE STK STO AT EL FARMER YD TO EDDY GN STATE COM #1 4-21-78 CSG 7 5/8IN OD 26.40# 8-R-THD GR S-95 ERW LT&C R-3 102 JTS		
	CLASS A 04616 @	13.34980	61,622.68
4505 0106	TO RERUN 4-4502-2646 FR ODSSA WHSE STK STOR AT E L FARMER CSG 10 3/4 OD 32.75LB GR H-40 SS ST&C R-3 35 JTS		
	CLASS A 01412 @	11.13920	15,728.55CR
4505 0107	TO RERUN 4-4502-2646 FR ODSSA WHSE STK STOR AT E L FARMER CSG 10 3/4IN OD 32.75LB GR H-40 SS ST&C R-3 35 JTS		
	CLASS A 01412 @	11.13920	15,728.55
5518 0414	10 3/4IN 40.50LB K-55 ST&C CSG 582.25FT AT 1256.58 CWT-7,316.44 PLUS FRT 386.73 LESS DISC 152.18		7,550.99
5518 0416	4% STATE TAX		292.66
1DC	LOCATION AND ACCESS		602.40

IDC	RIG CONTRACTS	98,911.68
IDC	DRILLING FLUIDS AND AIR	13,785.61
IDC	RENTALS EQUIPMENT AND TOOLS	3,994.20
IDC	CEMENT AND CEMENTING SERVICE	12,999.44
IDC	LOGGING, PERFORATING, TESTING	203.35
IDC	MISCELLANEOUS COSTS	49,119.16
IDC	DISTRICT EXPENSE	805.00
IDC	NONCONTROLLABLE TEMP SERVICE EQPT	9.96
INV	NONCONTROLLABLE PROD EQPT AND OTHER COST	13,617.70
	AFE #50536 TOTAL	319,368.17
OPN	ADMINISTRATIVE OVERHEAD	1,280.18
OPN	EMPLOYEE BENEFITS	836.40
OPN	LIABILITY INSURANCE	63.02
OPN	WORKMENS COMPENSATION INSURANCE	69.63
OPN	PAYROLL TAXES	246.91
	OPERATIONS TOTAL	2,496.14
	LEASE TOTAL	321,864.31

JOINT OPERATIONS
INVOICE

GULF OIL CORPORATION
P O BOX 1150
MIDLAND TEXAS 79704

DATE 05 78 PROPERTY NAME EDDY GN STATE COM PROPERTY NO 05 73979

SHOW PROPERTY NO ON ALL REMITTANCES MAILED TO THE ABOVE ADDRESS

TERMS - NET CASH 15 DAYS AFTER RECEIPT OF INVOICE UNLESS OTHERWISE PROVIDED IN OPERATING AGREEMENT

VO	PG	DESCRIPTION		AMOUNT
2	3 9284	J M HUBER CORP C/I	.0000000	.00
2	66 7786	APACHE EXPLORATION C/I	.0000000	.00
6	999 9999	GULF OIL CORPORATION	1.0000000	321,864.31
10		DIVISION OF INTEREST TOTAL	1.0000000	321,864.31

AFE 50536 EDDY GN STATE COM NO 1-D&C

1551 0142		VINSON SPLY CO 7 JTS 16IN OD 65# GR H40 STEEL CASING ST&C RG 3 7375.26 FRT 892.80 LESS DISC 131.40		8,136.66
		STATES SALES TAX		295.01
1551 0169		WILSON SPLY CO 4,009.8FT 90 JTS 7 5/8IN OF 26.40# LSS API ERW CASING GR N-80 LONG T&C RANGE 3 44,410.94 PREPAID FRT 2,039.42 PREPAID LOADING CHARGES 37.05 LADING&TALLY LESS DISC 923.75		45,563.66
		PLUS 4% NM STATE SALES TAX		1,858.01
4502 2694		FR ODESSA WHSE STK STO AT EL FARMER YD TO EDDY GN STATE COM #1 4-21-78 CSG 7 5/8IN OD 26.40# 8-R-THD GR S-95 ERW LT&C R-3 102 JTS		
		CLASS A 04616 @	13.34980	61,622.68
4505 0106		TO RERUN 4-4502-2646 FR ODSSA WHSE STK STOR AT E L FARMER CSG 10 3/4 OD 32.75LB GR H-40 SS ST&C R-3 35 JTS		
		CLASS A 01412 @	11.13920	15,728.55CR
4505 0107		TO RERUN 4-4502-2646 FR ODSSA WHSE STK STOR AT E L FARMER CSG 10 3/41N OD 32.75LB GR H-40 SS ST&C R-3 35 JTS		
		CLASS A 01412 @	11.13920	15,728.55
5518 0414		10 3/41N 40.50LB K-55 ST&C CSG 582.25FT AT 1256.58 CWT-7,316.44 PLUS FRT 386.73 LESS DISC 152.18		7,550.99
5518 0416		4% STATE TAX		292.66
	10C	LOCATION AND ACCESS		602.40

IDC	RIG CONTRACTS		98,911.68
IDC	DRILLING FLUIDS AND AIR		13,785.61
IDC	RENTALS EQUIPMENT AND TOOLS		3,994.20
IDC	CEMENT AND CEMENTING SERVICE		12,999.44
IDC	LOGGING, PERFORATING, TESTING		203.35
IDC	MISCELLANEOUS COSTS		49,119.16
IDC	DISTRICT EXPENSE		805.00
IDC	NONCONTROLLABLE TEMP SERVICE EQPT		9.96
INV	NONCONTROLLABLE PROD EQPT AND OTHER COST		13,617.70
		AFE #50536 TOTAL	319,368.17
OPN	ADMINISTRATIVE OVERHEAD		1,280.18
OPN	EMPLOYEE BENEFITS		836.40
OPN	LIABILITY INSURANCE		63.02
OPN	WORKMENS COMPENSATION INSURANCE		69.63
OPN	PAYROLL TAXES		246.91
		OPERATIONS TOTAL	2,496.14
		LEASE TOTAL	321,864.31

JOINT OPERATIONS
INVOICE

GULF OIL CORPORATION
P O BOX 1150
MIDLAND TEXAS 79704

DATE 05 78 PROPERTY NAME EDDY GN STATE COM PROPERTY NO 05 73979

SHOW PROPERTY NO ON ALL REMITTANCES MAILED TO THE ABOVE ADDRESS

TERMS - NET CASH 15 DAYS AFTER RECEIPT OF INVOICE UNLESS OTHERWISE PROVIDED IN OPERATING AGREEMENT

VO	PG	DESCRIPTION		AMOUNT
2	3 9284	J M HUBER CORP C/I	.0000000	.00
2	66 7786	APACHE EXPLORATION C/I	.0000000	.00
6	999 9999	GULF OIL CORPORATION	1.0000000	321,864.31
10		DIVISION OF INTEREST TOTAL	1.0000000	321,864.31

AFE 50536 EDDY GN STATE COM NO 1-D&C

1551 0142	VINSON SPLY CO 7 JTS 16IN OD 65# GR H40 STEEL CASING ST&C RG 3 7375.26 FRT 892.80 LESS DISC 131.40		8,136.66
	STATES SALES TAX		295.01
1551 0169	WILSON SPLY CO 4,009.8FT 90 JTS 7 5/8IN OF 26.40# LSS API ERW CASING GR N-80 LONG T&C RANGE 3 44,410.94 PREPAID FRT 2,039.42 PREPAID LOADING CHARGES 37.05 LADING&TALLY LESS DISC 923.75		45,563.66
	PLUS 4% NM STATE SALES TAX		1,858.01
4502 2694	FR ODESSA WHSE STK STO AT EL FARMER YD TO EDDY GN STATE COM #1 4-21-78 CSG 7 5/8IN OD 26.40# 8-R-THD GR S-95 ERW LT&C R-3 102 JTS		
	CLASS A 04610 @	13.34980	61,622.68
4505 0106	TO RERUN 4-4502-2646 FR ODSSA WHSE STK STOR AT E L FARMER CSG 10 3/4 OD 32.75LB GR H-40 SS ST&C R-3 35 JTS		
	CLASS A 01412 @	11.13920	15,728.55CR
4505 0107	TO RERUN 4-4502-2646 FR ODSSA WHSE STK STOR AT E L FARMER CSG 10 3/4IN OD 32.75LB GR H-40 SS ST&C R-3 35 JTS		
	CLASS A 01412 @	11.13920	15,728.55
5518 0414	10 3/4IN 40.50LB K-55 ST&C CSG 582.25FT AT 1256.58 CWT-7,316.44 PLUS FRT 386.73 LESS DISC 152.18		7,550.99
5518 0416	4% STATE TAX		292.66
1DC	LOCATION AND ACCESS		602.40

IDC	RIG CONTRACTS		98,911.68
IDC	DRILLING FLUIDS AND AIR		13,785.61
IDC	RENTALS EQUIPMENT AND TOOLS		3,994.20
IDC	CEMENT AND CEMENTING SERVICE		12,999.44
IDC	LOGGING, PERFORATING, TESTING		203.35
IDC	MISCELLANEOUS COSTS		49,119.16
IDC	DISTRICT EXPENSE		805.00
IDC	NONCONTROLLABLE TEMP SERVICE EQPT		9.96
INV	NONCONTROLLABLE PROD EQPT AND OTHER COST		13,617.70
		AFE #50536 TOTAL	319,368.17
OPN	ADMINISTRATIVE OVERHEAD		1,280.18
OPN	EMPLOYEE BENEFITS		836.40
OPN	LIABILITY INSURANCE		63.02
OPN	WORKMENS COMPENSATION INSURANCE		69.63
OPN	PAYROLL TAXES		246.91
		OPERATIONS TOTAL	2,496.14
		LEASE TOTAL	321,864.31

JOINT OPERATIONS
INVOICE

GULF OIL CORPORATION
P O BOX 1150
MIDLAND TEXAS 79704

DATE 05 78 PROPERTY NAME EDDY GN STATE COM PROPERTY NO 05 73979

SHOW PROPERTY NO ON ALL REMITTANCES MAILED TO THE ABOVE ADDRESS

TERMS - NET CASH 15 DAYS AFTER RECEIPT OF INVOICE UNLESS OTHERWISE PROVIDED IN OPERATING AGREEMENT

VO	PG	DESCRIPTION		AMOUNT
2	3 9284	J M HUBER CORP C/I	.0000000	.00
2	66 7786	APACHE EXPLORATION C/I	.0000000	.00
6	999 9999	GULF OIL CORPORATION	1.0000000	321,864.31
10		DIVISION OF INTEREST TOTAL	1.0000000	321,864.31

AFE 50536 EDDY GN STATE COM NO 1-D&C

1551 0142		VINSON SPLY CO 7 JTS 16IN OD 65# GR H40 STEEL CASING ST&C RG 3 7375.26 FRT 892.80 LESS DISC 131.40	8,136.66
		STATES SALES TAX	295.01
1551 0169		WILSON SPLY CO 4,009.8FT 90 JTS 7 5/8IN OF 26.40# LSS API ERW CASING GR N-80 LONG T&C RANGE 3 44,410.94 PREPAID FRT 2,039.42 PREPAID LOADING CHARGES 37.05 LADING&TALLY LESS DISC 923.75	45,563.66
		PLUS 4% NM STATE SALES TAX	1,858.01
4502 2694		FR ODESSA WHSE STK STO AT EL FARMER YD TO EDDY GN STATE COM #1 4-21-78 CSG 7 5/8IN OD 26.40# 8-R-THD GR S-95 ERW LT&C R-3 102 JTS	
		CLASS A 04616 @ 13.34980	61,622.68
4505 0106		TO RERUN 4-4502-2646 FR ODSSA WHSE STK STOR AT E L FARMER CSG 10 3/4 OD 32.75LB GR H-40 SS ST&C R-3 35 JTS	
		CLASS A 01412 @ 11.13920	15,728.55CR
4505 0107		TO RERUN 4-4502-2646 FR ODSSA WHSE STK STOR AT E L FARMER CSG 10 3/41N OD 32.75LB GR H-40 SS ST&C R-3 35 JTS	
		CLASS A 01412 @ 11.13920	15,728.55
5518 0414		10 3/41N 40.50LB K-55 ST&C CSG 582.25FT AT 1256.58 CWT-7,316.44 PLUS FRT 386.73 LESS DISC 152.18	7,550.99
5518 0416		4% STATE TAX	292.66
	1DC	LOCATION AND ACCESS	602.40

IDC	RIG CONTRACTS	98,911.68
IDC	DRILLING FLUIDS AND AIR	13,785.61
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GULF OIL CORPORATION
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DATE 05 78 PROPERTY NAME EDDY GN STATE COM DS PAGE 1

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		246.91
	OPERATIONS TOTAL	2,496.14
	LEASE TOTAL	321,864.31

Gulf Oil Exploration and Production Company

R. E. Galvin
GENERAL MANAGER PRODUCTION
SOUTHWEST DISTRICT

P. O. Drawer 1150
Midland, TX 79702

JUL 17 1978

CONSERVATION COM...
S...

July 14, 1978

Stamts
PSL

New Mexico Department of Energy & Minerals
Oil Conservation Division
Post Office Box 2088
Santa Fe, New Mexico 87501

Attention: Mr. Joe D. Ramey

RE: Case No. 6155
Order No. R-5678
Compulsory Pooling
Eddy "GN" State Com. Well No. 1,
N/2 Sec. 28, T-23-S, R-36-E,
South Carlsbad Field.

Gentlemen:

Item 12 of the subject Order provides that "proceeds from production from the subject well which are not disbursed for any reason shall be placed in escrow in Eddy County, New Mexico to be paid to the true owner thereof upon demand and proof of ownership". Attached is a copy of a letter from Mr. Jerry N. Jones, President of American Bank of Carlsbad, P. O. Box 1689, Carlsbad, New Mexico 88220, wherein they have agreed to serve as escrow agent in this matter.

Yours very truly,

J. M. THACKER
Manager - Operations

CFK:sdn
Attachment

JUL 17 1978

JERRY N. JONES
President

May 16, 1978

RECEIVED
MAY 19 1978
TREASURY DEPARTMENT

W. R. Mace
Director
Banking & Cash Management
Gulf Oil Corporation
P. O. Box 2227
Houston, Texas 77001

Dear Mr. Mace:

American Bank of Carlsbad agrees to serve as escrow agent for any undisbursed production proceeds from a Gulf well operating on the north half of Section 28, T-23-S, R-26-E, South Carlsbad Field. The account would be administered in accordance with Compulsory Pooling Order No. R-5678, Case No. 6155 of the New Mexico Oil Conservation Commission. A copy of the order would be provided to us as escrow agent at such time as there are undisbursed production proceeds with which to open the escrow account.

Sincerely,

Jerry N. Jones
President

JNJ/mc

AMERICAN BANK OF CARLSBAD P. O. BOX 1688 CARLSBAD, NEW MEXICO 88220 505 885-8888

Case 6155
Hanish

GULF OIL CO. - U. S.
Midland District
Hobbs Area

JUN 1978
OIL CONSERVATION COM.
Santa Fe

Drilling Cost Estimate (Gross)

HOBBS AREA — Date: 3-28-78

Drill and Complete Eddy "GN" State Com No. 1

Located 1880' FNL & 1980' FEL of Section 28, T-23S, R-26E, Eddy County, New Mexico

Authorized Depth 12,000' — Type Development

Intangible Element	Item	Drill - $	Complete-$	Expended-$	Over (Under) - $
	101 Location & Access	10,000			
	102 Rig Contract: 12,000 ' @ $ 20 per Ft. = $ 240,000				
	6 days @ $ 4,200 per day = $ 25,200				
	Flat Rate $				
	Total Rig Contract	265,200			
	106 Drilling Fluids & Adds.	55,000	2,000		
	107 Rental Eqpt. & Tools	5,000	2,000		
	108 Cement & Cement Services	20,000	10,000		
	109 Logging, Porf. & Testing	20,000	8,000		
	110 Formation Treating		3,000		
0llx -	111 Fuels & Power				
0164 -	111 Drlg. Supplies (bits)				
0237 -	111 Completion Rig				
	10 days @ $ 900 per day = $ 9,000		9,000		
Var. -	111 Miscellaneous Items	10,000	2,000		
	192 Allocation of FOE	3,500	1,000		
	196 Tang. Matls. Temp. Use				
	Other Costs				
	TOTAL INTANGIBLE COSTS	388,700	37,000		
	GRAND TOTAL INTANGIBLE COSTS	$ 425,700		$	

Drilling Cost Estimate (Gross) - Page 2

Well Name & Number Eddy "GN" State Com No. 1

Tangible Producing Equipment

Element	Item	Drill - $	Complete - $	Expended - $	Over (Under) - $
21X	Casing				
	400 ' of 13-3/8 "	7,200			
	2000 ' of 10-3/4 "	23,000			
	8610 ' of 7-5/8 "	114,000			
22X	Casing (oil string)				
	3700 ' of 5 "		31,000		
23X	Other Subsurface Prod. Eqpt.		2,000		
	Tubing 11,900 ' of 2-3/8 "		30,000		
24X	Subsurface Artificial Lift Eqpt.				
25X	Surface Producing Equipment		2,000		
26X	Christmas Tree	8,000	11,000		
29X	Miscellaneous		1,000		
	TOTAL TANGIBLE PROD. EQPT.	152,200	77,000		
	GRAND TOTAL TANG. PROD. EQPT.	$ 229,200		$	
	TOTAL ESTIMATE	$ 540,900	$ 114,000		
	GRAND TOTAL	$ 654,900			

PREPARED BY: R M Qualls

C O Borland
AREA PRODUCTION MANAGER

AGREED AND ACCEPTED

THIS ____ DAY OF _____, 1978

By _____

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 6155
Order No. R-5678

APPLICATION OF GULF OIL CORPORATION
FOR COMPULSORY POOLING, EDDY COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 22, 1978, at Santa Fe, New Mexico, before Examiner, Richard L. Stamets.

NOW, on this 21st day of March, 1978, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Gulf Oil Corporation, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the N/2 of Section 28, Township 23 South, Range 26 East, NMPM, South Carlsbad Field, Eddy County, New Mexico.

(3) That the applicant has the right to drill and proposes to drill a well at a standard location thereon.

(4) That there are interest owners in the proposed proration unit who have not agreed to pool their interests.

(5) That to avoid the drilling of unnecessary wells, to protect correlative rights, and to afford to the owner of each interest in said unit the opportunity to recover or receive without unnecessary expense his just and fair share of the gas in said pool, the subject application should be approved by pooling all mineral interests, whatever they may be, within said unit.

(6) That the applicant should be designated the operator of the subject well and unit.

(7) That any non-consenting working interest owner should be afforded the opportunity to pay his share of estimated well costs to the operator in lieu of paying his share of reasonable well costs out of production.

(8) That any non-consenting working interest owner that does not pay his share of estimated well costs should have withheld from production his share of the reasonable well costs plus an additional 200 percent thereof as a reasonable charge for the risk involved in the drilling of the well.

(9) That any non-consenting interest owner should be afforded the opportunity to object to the actual well costs but that actual well costs should be adopted as the reasonable well costs in the absence of such objection.

(10) That following determination of reasonable well costs, any non-consenting working interest owner that has paid his share of estimated costs should pay to the operator any amount that reasonable well costs exceed estimated well costs and should receive from the operator any amount that paid estimated well costs exceed reasonable well costs.

(11) That $2720.00 per month while drilling and $272.00 per month while producing should be fixed as reasonable charges for supervision (combined fixed rates); that the operator should be authorized to withhold from production the proportionate share of such supervision charges attributable to each non-consenting working interest, and in addition thereto, the operator should be authorized to withhold from production the proportionate share of actual expenditures required for operating the subject well, not in excess of what are reasonable, attributable to each non-consenting working interest.

(12) That all proceeds from production from the subject well which are not disbursed for any reason should be placed in escrow to be paid to the true owner thereof upon demand and proof of ownership.

(13) That upon the failure of the operator of said pooled unit to commence drilling of the well to which said unit is dedicated on or before July 1, 1978, the order pooling said unit should become null and void and of no effect whatsoever.

IT IS THEREFORE ORDERED:

(1) That all mineral interests, whatever they may be, in the Pennsylvanian formation underlying the N/2 of Section 28, Township 23 South, Range 26 East, NMPM, South Carlsbad Field, Eddy County, New Mexico, are hereby pooled to form a standard 320-acre gas spacing and proration unit to be dedicated to a well to be drilled at a standard location thereon.

PROVIDED HOWEVER, that the operator of said unit shall commence the drilling of said well on or before the 1st day of July, 1978, and shall thereafter continue the drilling of said well with due diligence to a depth sufficient to test the Pennsylvanian formation;

PROVIDED FURTHER, that in the event said operator does not commence the drilling of said well on or before the 1st day of July, 1978, Order (1) of this order shall be null and void and of no effect whatsoever; unless said operator obtains a time extension from the Commission for good cause shown.

PROVIDED FURTHER, that should said well not be drilled to completion, or abandonment, within 120 days after commencement thereof, said operator shall appear before the Commission and show cause why Order (1) of this order should not be rescinded.

(2) That Gulf Oil Corporation is hereby designated the operator of the subject well and unit.

(3) That after the effective date of this order and within 30 days prior to commencing said well, the operator shall furnish the Commission and each known working interest owner in the subject unit an itemized schedule of estimated well costs.

(4) That within 30 days from the date the schedule of estimated well costs is furnished to him, any non-consenting working interest owner shall have the right to pay his share of estimated well costs to the operator in lieu of paying his share of reasonable well costs out of production, and that any such owner who pays his share of estimated well costs as provided above shall remain liable for operating costs but shall not be liable for risk charges.

(5) That the operator shall furnish the Commission and each known working interest owner an itemized schedule of actual well costs within 90 days following completion of the well; that if no objection to the actual well costs is received by the Commission and the Commission has not objected within 45 days following receipt of said schedule, the actual well costs shall be the reasonable well costs; provided however, that if there is an objection to actual well costs within said 45-day period the Commission will determine reasonable well costs after public notice and hearing.

(6) That within 60 days following determination of reasonable well costs, any non-consenting working interest owner that has paid his share of estimated costs in advance as provided above shall pay to the operator his pro rata share of the amount that reasonable well costs exceed estimated well costs and shall receive from the operator his pro rata share of the amount that estimated well costs exceed reasonable well costs.

(7) That the operator is hereby authorized to withhold the following costs and charges from production:

(A) The pro rata share of reasonable well costs attributable to each non-consenting working interest owner who has not paid his share of estimated well costs within 30 days from the date the schedule of estimated well costs is furnished to him.

(B) As a charge for the risk involved in the drilling of the well, 200 percent of the pro rata share of reasonable well costs attributable to each non-consenting working interest owner who has not paid his share of estimated well costs within 30 days from the date the schedule of estimated well costs is furnished to him.

(8) That the operator shall distribute said costs and charges withheld from production to the parties who advanced the well costs.

(9) That $2720.00 per month while drilling and $272.00 per month while producing are hereby fixed as reasonable charges for supervision (combined fixed rates); that the operator is hereby authorized to withhold from production the proportionate share of such supervision charges attributable to each non-consenting working interest, and in addition thereto, the operator is hereby authorized to withhold from production the proportionate share of actual expenditures required for operating such well, not in excess of what are reasonable, attributable to each non-consenting working interest.

(10) That any unsevered mineral interest shall be considered a seven-eighths (7/8) working interest and a one-eighth (1/8) royalty interest for the purpose of allocating costs and charges under the terms of this order.

(11) That any well costs or charges which are to be paid out of production shall be withheld only from the working interests share of production, and no costs or charges shall be withheld from production attributable to royalty interests.

(12) That all proceeds from production from the subject well which are not disbursed for any reason shall be placed in escrow in Eddy County, New Mexico, to be paid to the true owner thereof upon demand and proof of ownership; that the operator shall notify the Commission of the name and address of said escrow agent within 90 days from the date of this order.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

PHIL R. LUCERO, Chairman

EMERY C. ARNOLD, Member

JOE D. RAMEY, Member & Secretary

S E A L

jr/

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 - SANTA FE
87501

DIRECTOR
JOE D. RAMEY

LAND COMMISSIONER
PHIL R. LUCERO

STATE GEOLOGIST
EMERY C. ARNOLD

March 24, 1978

Re: CASE NO. 6155
ORDER NO. R-5678

Terry I. Cross, Attorney
Gulf Oil Corporation
P. O. Box 1150
Midland, Texas 79702

Applicant:

Gulf Oil Corporation

Dear Sir:

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

Yours very truly,

JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCC x
Artesia OCC x
Aztec OCC

Other James T. Jennings

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
22 February 1978

EXAMINER HEARING

IN THE MATTER OF:	
Application of Gulf Oil Corporation for compulsory pooling, Eddy County, New Mexico.	CASE 6155

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Commission:	Lynn Teschendorf, Esq. Legal Counsel for the Commission State Land Office Building Santa Fe, New Mexico 87501
For Gulf Oil Corporation:	Terry I. Cross, Esq. Attorney at Law The Gulf Companies P. O. Box 1150 Midland, Texas 79702 and Jeffrey G. Shrader, Esq. Attorney at Law The Gulf Companies P. O. Box 1150 Midland, Texas 79702
For J. M. Huber Corporation:	James T. Jennings, Esq. JENNINGS, CHRISTIE & COPPLE Roswell, New Mexico

sid morrish reporting service
General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

sid morrish reporting service
General Court Reporting Service
125 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

I N D E X

The Witness, Charles Kalteyer

Direct Examination by Mr. Cross	4
Cross Examination by Mr. Jennings	12
Direct Examination by Mr. Shrader	23
Recross Examination by Mr. Jennings	24
Cross Examination by Mr. Ramey	25

The Witness, C. D. Stenberg

Direct Examination by Mr. Cross	26
Cross Examination by Mr. Jennings	32

The Witness, George Conner

Direct Examination by Mr. Jennings	34
Cross Examination by Mr. Shrader	40

E X H I B I T S

Gulf Exhibit One, Document	31
Gulf Exhibit Two, Cost Estimate	31
Gulf Exhibit Three, Diagram	31
Gulf Exhibit Four, Plat	31
Gulf Exhibit Five, Tabulation	31
Gulf Exhibit Six, Map	31
Gulf Exhibit Seven, Map	31
Huber Exhibit One, Plat	45

MR. STAMETS: Call now Case 6155.

MR. TESCHENDORF: Case 6155. Application of Gulf Oil Corporation for compulsory pooling, Eddy County, New Mexico.

MR. STAMETS: Call for appearances in this case.

MR. CROSS: Yes. My name is Terry Cross. I'm an attorney for the Gulf Oil Corporation in Midland, Texas. Mr. Jeffrey Shrader is also here representing Gulf, and I have two witnesses to be sworn.

MR. STAMETS: Will the witnesses stand and be sworn at this time, please.

Is there another appearance in this case?

MR. JENNINGS: Yes, sir. I'm James T. Jennings, Jennings, Christy, and Copple, Roswell, New Mexico, appearing on behalf of J. M. Huber Corporation.

I'll have one witness, possibly, Mr. Connor.

MR. STAMETS: All witnesses in this case stand and be sworn at this time, please.

(Witnesses sworn.)

MR. STAMETS: The record will note that James E. Sperling, New Mexico counsel, has entered an appearance in this case on behalf of Gulf Oil Corporation.

Mr. Cross, you may proceed.

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CHARLES F. KALTEYER

being called as a witness on behalf of Gulf Oil Corporation, having been duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. CROSS:

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

A. My name is Charles F. Kalteyer. I'm employed by Gulf Oil Corporation in Midland, Texas, as Chief Proration Engineer for the southwest district.

Q. Have you previously testified before this Commission and stated your qualifications as a petroleum engineer?

A. Yes, sir, I have.

MR. CROSS: Mr. Examiner, is the witness qualified?

MR. STAMETS: The witness is considered qualified.

Q. (Mr. Cross continuing.) Mr. Kalteyer, what is Gulf seeking in this application?

A. Gulf is seeking an order pooling all the mineral interests in the Pennsylvanian formation underlying the north half of Section 28, Township 23 South, Range 26

East, South Carlsbad Field, Eddy County, New Mexico.

The acreage is to be dedicated to a well to be drilled at a standard location thereon. Gulf is seeking allocation of well costs, supervisory charges, to have Gulf designated as the operator, and a charge for the risk of drilling the well.

Q. Do you have an exhibit which shows the proposed unit?

A. Yes, sir. We've marked it as Exhibit One.

Q. Would you please explain what this exhibit shows?

A. This shows the boundary portion of the proposed three hundred and twenty acre Eddy "GN" State Com Unit. The exhibit shows the tract ownership within the proposed proration unit. Units A, C, E, F, and G, under those units Gulf Oil Corporation is owner of the leasehold estate. These units total two hundred acres. Units B, D, and H, Apexco and J. M. Huber Corporation share the ownership of the leasehold estate, with each owning sixty net acres.

The working interest ownership of the proposed unit would be Gulf, sixty-two and a half percent, and Apexco and J. M. Huber Corporation each owning eighteen and three-quarter percent.

The royalty owners under all of these units

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is State of New Mexico.

Q. Mr. Kalteyer, can you briefly summarize Gulf's attempts to form a drilling unit on the north half of Section 28, Township 23 South, Range 26 East, Eddy County, New Mexico?

A. Gulf first proposed forming a three hundred and twenty acre unit comprising the north half of Section 28 to Huber and Apexco in November of 1973. It was proposed to drill to twelve thousand feet to test the Strawn and Morrow formations.

At that time the estimated cost of the well was $445,340. Gulf asked the other parties whether they were interested in farming out their interest in the event they elected not to join the test well.

Our 1973 offer to pool was not accepted and since that time various proposals and counter-proposals have been exchanged between the parties. The end result is that the parties have never been able to agree on satisfactory terms for the formation of this unit, or farm-out of their interests.

Meanwhile, the estimated cost of drilling the well has risen to $654,900, an increase of approximately forty-seven percent.

I'd also like to point out that Gulf's lease on this acreage expires April 16th, 1978, unless there's

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actual production or unless the lease is extended by drilling.

Because the parties that hold the leasehold interest in the north half of this section have not been able to agree on the formation of the unit for the drilling of this well, and because Gulf's lease will be expiring shortly, it has been necessary for Gulf to request this compulsory pooling hearing. Gulf, however, would prefer that the Huber Corporation and Apexco join in the drilling of this well without the necessity of forced pooling. This compulsory pooling is the last ditch measure to enable Gulf to start developing these reserves we believe to be under this property before our lease expires.

I have copies of all the correspondence between the parties relating to this well and if the Examiner desires, we will be pleased to enter it in the record.

Q. You mentioned that the latest reasonable estimated cost of this well was $654,900. How did you arrive at that?

A. I have a copy of the latest cost estimate prepared by our Gulf's Hobbs Area office on this well. It's marked as Gulf's Exhibit Two, and this is where I came up with the figure of $654,900. This estimate was prepared yesterday, or revised yesterday.

Q. Part of Gulf's application seeks to have Gulf

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named as operator for this unit. Does Gulf have an estimate of a reasonable fixed fee charge for supervision of the proposed well?

A. Yes, Gulf would propose that the property be handled under the COPUS 1974 accounting procedure for joint operations;for overhead on a fixed rate basis Gulf would propose a figure of $2720 per month during the drilling and completing operations and a figure of $272 per month while the well is producing.

MR. STAMETS: $270?

A. $272.

MR. STAMETS: $272.

A. Yes, sir. These are currently Gulf's standard charges.

Q. And how does Gulf propose to complete this well?

A. Exhibit Number Three is a schematic diagram of the casing and tubing settings planned by our Hobbs office for the Eddy "GN" State Well No. 1. Gulf proposes to set and cement 13-3/8 inch O.D. casing at four hundred feet; 10-3/4 inch O.D. casing at two thousand feet; and 7-5/8 inch casing at eighty-six ten.

Gulf further proposes to set and cement a 5 inch O.D. liner from twelve thousand feet to tie back into the 7-5/8 casing. We'd anticipate setting 2-3/8 tubing at

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approximately eleven thousand nine hundred feet with Baker Loc Set Production Packer.

Q. Do you have a plat which shows the wells that have been drilled in the area in an attempt to develop the Strawn and Morrow gas reserves?

A. Yes, sir, it's marked as Exhibit Four.

Q. Would you please explain what that exhibit shows?

A. In Exhibit Four you'll note that the proposed Eddy "GN" State Com Unit is located in the north half of Section 28 and outlined in red.

The location of the proposed test for the Pennsylvanian horizon is indicated by the green circle. This location scales nineteen hundred and eighty feet from the east line and eighteen eighty feet from the north line of Section 28.

And you'll note that the wells completed in Carlsbad South Morrow Gas Pool are enclosed by yellow circles. You'll note in Section 27 to the east of the proposed location that the Exxon South Carlsbad Gas Com No. 2 is completed in the Morrow, as well as in the Strawn, which is indicated by the yellow and blue half circles. The same is indicated in Samedan State Com No. 1 in Section 34.

The dry holes in the area of our proposed location are enclosed in red triangles. These are dry holes

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in the Morrow, dry in the Morrow.

Q. Do you have an exhibit which shows the 1977 production rate for wells in this area that are completed in the Morrow as producers?

A. Yes, sir, I have. Gulf's Exhibit Five is a tabulation of the daily average gas production rate in MCF for January through November, 1977, reports that we have received.

You'll note that a wide variation in the daily average production rate of these wells. In Section 27 east of the proposed location Exxon South Carlsbad Gas Com No. 2 produced at a daily average rate of only fifty-seven MCF per day, and Exxon's Carlsbad Gas Com No. 4 immediately to the north and in the same section produced at an average rate of two hundred and fifty-three MCF per day.

By moving to Section 21 on Exhibit Four, immediately north of the proposed location, Coquina's Philly-Federal produced at an average rate of nineteen hundred and eighty-four MCF per day during the first four-month period that we have records of it being on stream, from August through November of 1977.

If we exclude the now abandoned Huber-Sorenson No. 1, the average rate of production of the wells in the area of Exhibit Four is scattered fairly well between a low of fifty-seven MCF per day in Exxon's South Carlsbad Com

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No. 2 to the highest rate of nineteen hundred and eighty-four MCF per day in Coquina's Philly-Federal No. 1 in Section 21.

Q. Based upon this information do you believe the proposed well is a high-risk venture?

A. Yes, sir, I do.

Q. Based upon your opinion that this is a high-risk venture, what is your recommendation for the handling of well costs involving non-consenting working interest owners?

A. Any non-consenting working interest owner who does not pay his share of the well cost within thirty days after the entry of this order should have withheld from production his share of reasonable well cost plus an additional two hundred percent thereof as a reasonable charge for the risk involved in drilling the well.

Q. Under a normal joint operating agreement, what is your understanding of Gulf's standard risk penalty for non-consenting operations?

A. It's my understanding that a two hundred percent risk penalty above the cost of the well is standard for our voluntary joint operating agreements.

Q. Is there a precedent for assigning risk factor in the South Carlsbad Gas Pool?

A. Yes, sir. A review of the last ten compulsory

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pooling orders entered for the South Carlsbad Gas Field revealed that in seven out of ten cases a risk penalty of two hundred percent was assigned to non-consenting working interest owners. Two of the ten cases a hundred and fifty percent risk penalty, and one case a one hundred and twenty percent risk penalty.

Q. Will the entry of a compulsory pooling order prevent waste in this case?

A. Yes, sir, I believe it will.

Q. Were these exhibits prepared by you or under your direction?

A. Yes, sir, with the exception of Exhibit Two.

MR. CROSS: Mr. Examiner, I have no further questions of this witness at this time.

MR. STAMETS: Are there questions of the witness?

MR. JENNINGS: Yes, sir.

MR. STAMETS: Mr. Jennings.

CROSS EXAMINATION

BY MR. JENNINGS:

Q. Mr. Kalteyer, what effort has Gulf made to farm in this acreage?

A. There are numerous attempts for -- by reviewing the correspondence, there have been attempts to farm in the

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interests but we've been unable to work out terms that we thought were agreeable.

Q. Have you handled this?

A. No, sir, I have not.

Q. Who has handled it?

A. Our land department has had various personnel on this over the period from 1973.

Q. Are any of the representatives of the land department here that you propose any of them to testify?

A. No, sir.

Q. Have both J. M. Huber Corporation and Apexco offered to farm any acreage?

A. Yes, sir, it's my understanding of the correspondence that there have been various proposals made, counter-proposals.

Q. Does Gulf frequently farm out acreage in this area?

A. I'm not -- I'm not really familiar with our --

Q. Are you familiar with Gulf's --

A. -- farming.

Q. -- policy on farming out acreage?

A. No, sir, I'm not involved with that in proration, but we do farm out. It's my understanding that we farm out property.

Q. Do you have any idea what Gulf's policy on

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farm outs is?

A. No, sir.

Q. Do -- have you formed any opinion yourself as to a reasonable farm out agreement in acreage in this area?

A. No, sir, I --

MR. CROSS: Mr. Jennings, I think the point is we haven't reached an agreement. I mean that's the only issue here, that we have not voluntarily pooled and we're now seeking compulsory pooling; not the reasonableness of the negotiation preceding this.

MR. STAMETS: Are you objecting to Mr. Jennings questions?

MR. CROSS: Yes, sir, I am.

MR. STAMETS: Mr. Jennings, do you have any comment on the objection raised?

MR. JENNINGS: Yes, sir. We want to show that we are willing, we want to participate and support the well, but we don't feel that we should be dragged up here when the lease is expiring and say you're going to do that and that's all it is.

We've made what we feel is a good faith effort to support the well and we think that others have, too, and I think he's gone into this. And he offered -- I think he offered and he went into the problems in negotiation, and I would like -- I was just getting up -- I'd like to

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see what the negotiations indicated.

MR. STAMETS: Do you have copies of the letters that have gone back and forth?

A. Yes.

MR. STAMETS: That could be given to the Examiner and to opposing counsel?

Perhaps, Mr. Jennings, the issue that you wish to raise here might be best presented by your own witness, since Mr. Kalteyer is not acquainted with it.

MR. JENNINGS: Well, that's correct, but I would like to see one letter that they have that we do not have. It's a letter to Apexco, dated August 16, 1976.

MR. STAMETS: The Examiner would like to have the full set for the record, so if you'll make that part of the record, please.

MR. JENNINGS: Is the objection sustained?

MR. STAMETS: I haven't ruled on that, as a matter of fact. Do you have the material that you need now to proceed? Do you wish to proceed with your line of examination of this witness?

MR. JENNINGS: I would like to proceed on just one avenue concerning the -- one portion of the negotiations.

MR. STAMETS: The objection is overruled at this point.

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Q. (Mr. Jennings continuing.) Mr. Kalteyer, are you familiar with Apexco's offer to farm in -- farm out this acreage to Gulf, made on August 16th, 1976?

A. Yes, sir, I have a copy of their letter before me.

Q. Basically what were the terms of that offer?

A. I could read it from the letter. Apexco would assign you all of our rights, title, and interest in the north half of Section 28, 23 South, 26 East, subject to our retaining unto ourselves a one-eighth of the eight-eighths overriding royalty interest in oil and gas, being proportionately reduced, with Apexco having the option to pay out to convert said retained overriding royalties to a fifty percent working interest being proportionately reduced. Apexco will retain all rights below the total depth drilled in said tests and a call on oil and gas production attributable to the interests which we own in the unit.

Q. Are you familiar with Gulf's reply, dated August -- October 18, 1977, addressed to Apache Exploration Corporation?

A. What was the date?

Q. October 18th.

A. Of '76?

Q. No, '77.

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A. October 18th, 1977, the Apache. Yes, sir, I have that letter before me.

Q. Would you briefly state to the Examiner what that letter states?

A. Reference is made to your letter of August 16th, 1976, wherein you offer to farm out your interest in the captioned acres for the drilling of a twelve thousand foot Morrow test well. Gulf is now in the process of farming this unit and is willing to accept your farm out terms as stated in your letter; however, Gulf still prefers the rights to be earned to be limited to the base of the deepest formation penetrated in the initial test well, not to exceed the base of the Morrow formation.

Q. Is that -- what has occurred to have made Gulf change its position since October of this last year?

A. Well, this was an offer to Apache.

Q. Yes, sir, they're one of the operators here, aren't they?

A. Right. Yes, sir. And I don't know that we've ever gotten a proposal from Huber to do the same.

Q. Has that offer ever -- Apache ever been withdrawn or terminated?

A. Yes, I believe it has.

Q. Do you have a copy of the correspondence terminating it?

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A. I'll see if I can find it. Yes, sir, January 27th, 1978.

Q. Is it -- is that letter in this material that you handed me?

A. Yes.

MR. STAMETS: What's the date on that letter?

A. January 27th, 1978, to Apache, attention W. J. Phillips.

MR. JENNINGS: May I proceed, Mr. Stamets?

MR. STAMETS: Yes.

Q. (Mr. Jennings continuing.) Did J. M. Huber Corporation respond to your proposal of October 18th, 1977?

To expedite matters, would you refer to their letter of November 9th, 1977?

A. This date is cut off. Was this the one signed by George E. Conner?

Q. Yes.

A. Where it refers to our letter of October 18th, '77?

Q. Yes, sir.

A. Yes, sir, I have that. This is to advise that we are not interested in joining in the drilling of this well; however, subject to final management approval, we would be interested in negotiating a farm out of our deep rights in this section in support thereof upon your

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completion of the test well as a commercial producer.

We should assign you our interest in this proration unit for same, receiving a one-sixteenth of eight-eighths overriding royalty with an option to back in for a fifty percent working interest at payout.

We would reserve all rights from the surface to the base of the Delaware at or about fifty-two hundred feet, assigning our interest from that depth to one hundred feet below the total depth drilled.

Q. Was there any ever counter-offer or proposal made to J. M. Huber Corporation, to your knowledge?

A. A counter-proposal?

Q. Yes.

A. No, sir, not that I know of.

Q. And was the --

A. Well, wait a minute. No, sir, not -- not that I have in the record. I'm not aware of it.

Q. And that proposal was rejected by your letter of January 27th, 1978? Addressed to J. M. Huber Corporation?

A. Yes, sir, that's right.

Q. And that is the letter in which you advise J. M. Huber Corporation that you were going to force-pool the acreage.

A. Yes, sir, that we were -- the terms were un-

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acceptable; we couldn't work them out with both the other operators, and we were going to -- since our lease was expiring, we were going to proceed.

Q. Mr. Kalteyer, are there other producing horizons in this area, to your knowledge?

A. Yes, sir, we've indicated on our exhibit that the Strawn is productive there in the immediate vicinity.

Q. Are there any shallower formations, to your knowledge?

A. I'm not aware of the nearest of other producers. I understand there are other pays in that area. This might be directed to our geological witness.

Q. You have referred to what has been designated as Exhibit Number Three. That's your schematic diagram of the well completion.

A. Yes, sir.

Q. Was that prepared by you?

A. No, sir, this was prepared by our drafting department. This is the proposed plan that our Hobbs drilling department had set up for this well.

Q. Are you familiar with the mechanics of completion as evidenced by this exhibit?

A. I'm not a drilling expert, no, sir, I have not worked out the plan of casing setting.

Q. Would it be possible for you to complete this

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well after it reached its -- after the Morrow formation has been reached, at a depth of, say, five thousand feet?

A. I would assume it could be, if we set at eighty-six ten.

Q. How high will that cement rise in that --

A. I have not determined that, no, sir. They may have to cement block squeeze or something to complete in another zone.

Q. You're only proposing to force pool the Morrow formation, is that right?

A. Yes, sir.

MR. STAMETS: I believe the advertisement is for the Pennsylvanian, so that would be the entire section.

A. Right.

Q. But no other, other than the Pennsylvanian?

A. That's all our application was for, yes.

Q. What is your best estimate as to the risk factor involved here, one to two, one to three, or --

A. I have testified that the risk is very high based on the production performance of the wells in the area, and based on the past history of assignment of risk factors, they've gone to the limit of two hundred percent penalty, the majority have.

Q. Well, you've testified that it's high. Could you better define the word "high"?

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A. I think it's the limit allowed by the law as far as -- in compulsory pooling cases.

Q. Well, are you prepared to characterize this as a rank wildcat or a development well?

A. Yes, sir, I'd say it's an -- it would be carried as an outpost development well.

Q. Would Gulf be drilling this absent the lease expiration date?

A. Well, Gulf has attempted to drill it. It is a high risk venture, but we feel we must proceed with the development of the acreage.

Q. Does Gulf have other leases to the west and south of this acreage?

A. Yes, sir, I believe we indicated on the plat.

Q. You have what, the northwest quarter of Section 33?

A. Yes, sir.

Q. And you have the southwest quarter of 33, also.

A. No, sir, I believe not. I'm not aware of that. It's not indicated on our map. We may have it and I --

Q. Yeah, and you also have the offset acreage to the west in Section 29?

A. According to this plat we have the east one hundred and sixty acres of Section 29.

Q. And you also have acreage to the north, offset

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acreage to the north in Section 21?

A. Yes, sir, it looks like we have eighty acres to the north, and we also have other acreage in Section 28.

Q. That's part of the same --

A. That's part of the same lease, and we do have -- that's part of our reason to -- or responsibility to develop this acreage, or to drill this well, to evaluate this acreage, too.

MR. JENNINGS: That's all.

MR. STAMETS: Any other questions for this witness?

MR. SHRADER: Mr. Examiner, I need to question. My name's Jeff Shrader and as Mr. Cross pointed out, I also represent Gulf Oil Corporation.

DIRECT EXAMINATION

BY MR. SHRADER:

Q. Mr. Kalteyer, despite this over four year period of negotiations when Gulf has attempted to form some type of drilling unit for the north half of this section, has any type of agreement among the leasehold owners been accepted?

A. Not at all, no, sir, to my knowledge there hasn't been.

Q. In other words, despite all this proposals and

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counter-proposals and acceptances of farm out terms based on other provisions, there's never been any farm outs entered into between any of the parties?

A. No, sir, according to the correspondence there has been no interest by Huber in forming a unit, that I see directly in the record.

MR. SHRADER: I have no further questions.

MR. STAMETS: Any further questions for the witness?

MR. JENNINGS: One.

RECROSS EXAMINATION

BY MR. JENNINGS:

Q. You say that none of the proposals have ever been accepted?

A. To form the unit.

Q. To form the unit?

A. Yes, sir, to form a drilling -- to form a unit for the drilling of the well.

Q. But you did accept Apache Oil Corporation's offer to farm the acreage in?

A. With one condition.

Q. What was that condition?

A. In the letter of October 18th, 1977, Gulf still prefers the right to be earned to be limited to the

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base of the deepest formation penetrated in the initial test well; not to exceed the base of the Morrow formation.

Q. But that wasn't exactly a condition, was it, that you preferred it?

A. Well, we had not signed an agreement. This was a letter of intent, I would assume.

MR. JENNINGS: That's all.

MR. STAMETS: Mr. Ramey?

CROSS EXAMINATION

BY MR. RAMEY:

Q. Mr. Kalteyer, you stated your acreage expired on April what?

A. April 16th of 1978.

Q. Do you have to be producing by that time or just drilling?

A. No, sir, it can be extended. It's State acreage and can be extended if we have drilling operations in effect at that time.

MR. RAMEY: That's all.

MR. STAMETS: Any other questions? The witness may be excused.

MR. CROSS: Call my next witness.

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C. D. STENBERG

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

DIRECT EXAMINATION

BY MR. CROSS:

Q. Please state your name, by whom you're employed and in what capacity?

A. My name is C. D. Stenberg, Gulf Oil Corporation. I am a Production Geotechnologist.

Q. What is a Production Geotechnologist?

A. Basically, a Production Geotechnologist is a wireline log analyst.

Q. Mr. Stenberg, what is your educational background?

A. I have a Bachelor of Science degree in geology from the University of Kansas and a Master of Science degree in geology from the University of Iowa.

Q. How long have you worked for Gulf Oil Corporation?

A. I have worked for Gulf for twenty-four years.

Q. And how many years have you been involved with the Eddy County area?

A. I have worked in the Eddy County area off and

on for twenty-four years.

Q. Are you familiar with the geology of the area surrounding Gulf's proposed No. 1 Eddy "GN" State Com Unit?

A. Yes, I am.

MR. CROSS: Mr. Examiner, is the witness qualified?

MR. STAMETS: The witness is considered qualified.

Q. (Mr. Cross continuing.) Do you have an exhibit which shows the area in which the proposed well is to be drilled?

A. Yes, sir, I have. It is marked Exhibit Number Six.

Q. Will you explain please your interpretation of Exhibit Number Six?

A. Okay. The map on Exhibit Number Six is a structural contour map contoured on the base of the Morrow shale. The Morrow shale is a good structural marker for mapping in this area. It may be noted from the contours there is a slight nosing structure from the west to east in the center of the plat, but generally the contours follow normal regional east-southeast dip and do not depict closure generally found in structural traps.

Rather, the contours show the nature of the Morrow sand pays, which are found in stratigraphic traps.

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Q. What does the red line marked A-A Prime depict?

A. The red line is the line of section A-A Prime which will be discussed in Exhibit Number Seven. You will note at the start of the cross section at Point A in Section 20, the Coquina Number 1 Federal M, which is dry in the Morrow, is at the same structural position as the Gulf Eddy "GN" State proposed location. The cross section extends east and south ending in Section 34.

Q. What does your Exhibit Number Seven show?

A. Exhibit Number Seven will show why this proposed well is a high risk venture.

Exhibit Number Seven shows Gamma Ray - Neutron Density Logs of the six wells found on the line of Section A-A Prime as depicted on the Exhibit Number Six.

These logs are hung on the base of the Morrow shale, which is the same structural marker on which Exhibit Six is contoured. You will note I have identified the logs Numbers One through Six at the top of the cross section, along with the -- and the well name, and the numbers on the Exhibit Seven correspond to the numbers found on the cross section on Exhibit Six.

For example, on Exhibit Number Seven the Coquina No. 1 Federal "M" is labeled as well Number One, which is the start of the cross section, and the Samedan No. 1-B Carlsbad State Com is identified as Number Six.

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Phone (505) 982-9212

Q. Why did you choose to hang these on the base of the Morrow shale marker?

A. As noted before in discussion of Exhibit Number Six, the Morrow shale is a good regional marker. More importantly, by hanging these logs on this marker, one can see the erratic and lenticular depositional features of the Morrow sand pays, which have a limited areal extent. The limited areal extent of these stratigraphic traps may be seen by observing the perforated zones in the cross section.

The perforations are in zones which the operators obviously believed the logs indicated sufficient porosity to produce fluids. The perforated zones are marked in red. The scattered nature of the perforations makes it easy to see the erratic deposition of the producible Morrow zones.

It will be noted that the perforations in Wells Number Five and Six, which are on the righthand side of the cross section, have correlative producing zones. You will also note that these two adjacent wells are located, referring to Exhibit Six, they are located in Section 27 and 34 and they are on strike, and they're offsetting wells.

Moving left through the rest of the cross section, it may be noted that the pay zones can be correlated but eventually the pay zones become indistinct and

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disappear because of depositional changes.

Let me call your attention to the sand beginning at eleven thousand four hundred and ten feet in Well No. 6 on the righthand side of the cross section. This zone can be correlated, moving toward the left, in Wells No. 5, 4, and 3. In Well No. 5 it's at eleven thousand four hundred and thirty. In Well No. 4 it's at eleven thousand four hundred and -- eleven thousand four hundred and twenty-eight.

Now, this -- this sand zone is perforated for production in Wells No. 6 and No. 5 and No. 3. However, in Well No. 4 the same zone is present but has insufficient porosity to produce.

Upon closer examination of the logs we have observed that this interval in Well No. 4 has a maximum porosity of only three percent while in Well No. 5 the maximum porosity is indicated to be eight percent.

Gulf normall considers five percent the minimum producible porosity.

Note that this zone disappears in Wells 2 and 1, on the lefthand side of the cross section. It grades stratigraphically into -- into shaley formations.

And you will note that in Well No. 3 the zone is present but porous interval is indicated only at the base, a small part of the base of the zone.

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I believe this Exhibit Number Seven clearly points out the erratic and lenticular nature of the porous zones of the Morrow pay and substantiates our claim that this is a very high risk area.

Q. Based on your opinion that this is a high risk area, what is your recommendation for the handling of well cost involving non-consenting working interest owners?

A. Any non-consenting working interest owner who does not pay his share of the well cost within thirty days after the entry of this order should have withheld from production his share of the reasonable well cost, plus an additional two hundred percent thereof as a reasonable charge for the risk involved in the drilling of the well.

Q. Will the entry of a compulsory pooling order in this case prevent waste?

A. Yes, I believe it will. By drilling this well we will recover hydrocarbons which would otherwise be left in the ground.

Q. Were these Exhibits Six and Seven prepared by you or under your supervision?

A. Yes, they were prepared by me.

MR. CROSS: I move that Exhibits One through Seven be admitted in the record.

MR. STAMETS: These exhibits will be admitted.

MR. CROSS: I have no further questions of

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this witness at this time.

MR. STAMETS: Are there any questions of Mr. Stenberg?

CROSS EXAMINATION

BY MR. JENNINGS:

Q. Mr. Stenberg, who prepared the exhibit from which you are reading?

A. I beg your pardon?

Q. I said, who prepared the exhibit from which you read your opinion?

MR. CROSS: Mr. Examiner, that's not an exhibit. It's not entered into the record and his testimony was prepared by Mr. Stenberg.

MR. JENNINGS: Well, I'm just asking who prepared the document from which he reads.

A. Well, I certainly prepared the part that I read, because those are my -- those are my words that -- I dictated them and they were typed.

Q. (Mr. Jennings continuing.) That's fine, that is all I wanted to know.

A. All right.

MR. STAMETS: Any other questions?

Q. One other question. Just -- you referred to it being a high risk venture. Could you better define "high

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risk" for me, the odds?

A. Yes, sir, I sure can.

Q. All right.

A. What I'm trying to point out with these exhibits -- no, what I have pointed out with these exhibits, is that this is a stratigraphic trap area as opposed to structural trap. Now, in a stratigraphic trap area the depositional features are the major thing. As these wells are rowed up and their offsetting wells going pretty well down through the cross section, they can be seen that each one, as you go through the area, varies considerably; therefor, from my experience in the area, I am quite convinced that on every three hundred and twenty acres you drill one of these wells, you definitely don't know which stringer, or any, that you're going to hit until the test is actually drilled and logged.

Q. Well, would you let us have your opinion as to the odds of success in this thing?

A. Well, I feel this way about it. We're -- this is offsetting production in two directions, or a producing -- in a producing area, so in three hundred twenty acre spacing this is as close as you can drill another well, and therefor, the way in our operations we believe that we should drill a test in this three hundred and twenty acres, definitely, because there's no other way to prove whether or

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not there are hydrocarbons there, and I believe it has -- I certainly believe it has better than a fifty percent chance of finding at least a couple stringers in there that would produce gas in the Pennsylvanian.

MR. STAMETS: Any other questions of this witness? He may be excused. That concludes Gulf's direct case. Mr. Jennings?

MR. JENNINGS: Call Mr. Conner.

GEORGE CONNER

being called as a witness on behalf of J. M. Huber Corporation, and having been duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. JENNINGS:

MR. JENNINGS: Mr. Examiner, this packet was offered but it was never identified. It might expedite for the record if we identify this packet of material that Gulf's offered, and I think the first correspondence is a November 30 of 1973, letter.

We have no objection to it.

MR. STAMETS: Mr. Cross, how would you like to enter this pack of letters? Mr. Kalteyer has entered.

MR. CROSS: How would I like it designated?

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MR. STAMETS: Yes, would you like it as an exhibit or would you like it identified as letters for the purpose of the record?

MR. CROSS: How about letters for the purpose of the record.

MR. STAMETS: Okay, we accept it as such, the record of correspondence between Gulf and Huber and Apexco relative to a voluntary agreement concerning this three hundred and twenty acre tract.

MR. JENNINGS: Just refer to them then as Gulf letters?

MR. STAMETS: Gulf letters, that's right.

Q. (Mr. Jennings continuing.) Would you please state your name, your occupation, please, sir?

A. My name is George Conner. I'm a district land man with Huber in Midland/Odessa.

Q. How long have you been so employed, Mr. Conner?

A. With Huber for about eighteen months.

Q. Have you generally handled negotiations with Gulf Oil Corporation concerning the well in question during that period?

A. Since my employ, yes.

Q. I hand you what has been marked as Huber Exhibit Number One.

A. I have a copy of it.

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Q. And would you please refer to that and tell briefly what that exhibit shows.

A. The exhibit, the land plat, just a few months ago, it's colored in yellow to show Huber's leasehold interests in the area.

Q. That basically shows the Huber holdings --

A. Right.

Q. -- throughout the -- are they -- do you have extensive holdings in the area?

A. I think we do, yes. I think it comprises approximately eight or nine sections, if I'm not mistaken. I haven't counted.

Q. And you have participated in a number of wells in the area?

A. We have, either in sharing in cost or otherwise.

Q. Mr. Conner, what efforts has J. M. Huber made to support this prospect?

A. Since November of '73 when we first received their AFP proposal offering us to join the well, we have received two others, three, totaling three separate offers by Gulf. We have in three separate ways indicated our various methods of support; none of which entailed sharing in the cost of the well.

Q. Are you still willing to participate or contri-

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bute to the well?

A. We're willing to support the well, yes.

Q. Did you advise Gulf in 19 -- on September 7, 1976 that you were willing to support the well?

A. Yes, we did.

Q. After that offer when did you again hear from Gulf concerning the matter?

A. Approximately a year later, if I'm not mistaken. I think the letter dated October 18th, 1977, and they again submitted an AFP work sheet for the well, the same well.

Q. To your knowledge has any action been taken on this prospect between September, 1976, and October 18th, 1977?

A. I don't -- to my knowledge, no. I know the October 18, '77 letter from Gulf represents their declining our September 7th, 1977 -- 1976 offer in support of the well, approximately a year later.

There's no correspondence in the file, in any case, otherwise.

Q. Do you have other prospects in the -- do you have plans to develop this acreage, or acreage in this vicinity?

A. We have some acreage in the vicinity, approximately a mile or two to the north/northeast in which we are

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presently engaging in some exploration.

Q. But shallow depths?

A. Shallow, yes.

Q. Mr. Conner, do you feel that in your opinion and in light of your experience in the area, that a two hundred percent penalty would be justified in this --

A. In this instance, no.

Q. What do you feel would be reasonable in light of the development in the area?

A. Taken into account our willingness to support the well, and in light of our attempts to find oil and gas in the area, I think anything in excess of a hundred percent penalty is unjustified.

Q. Do you feel that would impair your correlative rights?

A. I think it would, yes.

Q. One other question. Are there some good wells in the area, Mr. Conner?

A. I think there are some.

Q. Referring to what has been marked as Gulf's Exhibit Number Six, and in particular the well that they have numbered Number Two in Section -- in the north half of Section 21.

A. Yes, sir.

Q. What is -- what kind of well is that?

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A. It's a Morrow test, Coquina, it's the Philly-Federal. We consider it a good well.

Q. Do you have any idea what are the production figures to date on that? Do you have those?

A. It's approximately producing about forty-five to sixty million a month. I think it's exceeded two BCF since it's been hooked up to the line.

The figures I have on it, it is over two BCF since October, 1975. We are a participant in that well.

Q. And you are still willing to farm any acreage on the terms that you indicated to Gulf on September 7th, I believe, 1977?

A. My letter dated November 9th, 1977, outlines my last counter-offer.

Q. So we won't encumber the record, is that a part of the Gulf letters?

A. Yes, sir. Uh-huh, I'm fairly certain it is. And as to that letter, they responded January 27th of this year.

MR. JENNINGS: Mr. Examiner, I would call your attention to the fact that in the Gulf letters the letter-head has been cut off and the date.

MR. STAMETS: Which letter is that?

MR. JENNINGS: It's a letter to Gulf Energy Corporation and --

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MR. STAMETS: Approximately what date?

MR. JENNINGS: It's November 9th.

MR. STAMETS: Of '77?

MR. JENNINGS: Yes, sir.

MR. STAMETS: That's the one signed by George E. Conner.

MR. JENNINGS: George E. Conner.

MR. STAMETS: Okay, and that's from --

A. That's from Huber.

MR. STAMETS: Okay, mine has the date at the top of it.

MR. JENNINGS: I believe that's all.

MR. STAMETS: Are there questions of this witness?

MR. SHRADER: Yes, sir, I've got a few questions.

CROSS EXAMINATION

BY MR. SHRADER:

Q. Mr. Conner, going back through this file that's been marked as Gulf letters, it also contains Apexco letters and Huber letters --

A. Uh-huh.

Q. -- to be quite correct, how have you proposed to support this well in the past?

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A. To my understanding, the first AFP that was submitted to Huber by Gulf in '73, we offered to sell our acreage. I don't have any correspondence to that effect. I have notes in the file that indicates that we had made an offer to Gulf to sell the acreage.

And the second offer to participate in the well made by Gulf in '76, we responded to that indicating that we would be willing to trade our acreage, cross assign our acreage in that section, for a like assignment of acreage of Gulf's in a prospect we were presently evaluating.

This last submittal, October the 18th, 1977, we responded to that offering to farm out our interest in the three twenty reserving a sixteenth with an option to back for half, excluding the Delaware rights, I think approximately five thousand feet, assigning you upon completion as a producer rights between five thousand and a hundred feet below TD.

Q. But you've never offered to share in the cost of the drilling of this well?

A. No, we haven't.

Q. Do you know why Huber hasn't offered to share in the cost of drilling this well?

A. I presume we just don't want to share in the cost of drilling the well. It has to be based on some

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geologic foundation.

Q. Could it be because it's a very risky prospect?

A. I don't know if I'd consider it to be very risky. Since I've been with Huber, in eighteen months we -- we've farmed out a lot of stuff that was not very risky simply because we didn't like it.

Q. You testified that in your opinion a two hundred percent risk penalty was not justified.

A. Uh-huh.

Q. Would you elaborate on why you don't feel that it's justified?

A. I feel in light of our willingness to support the well, not considering the risk involved in undertaking the venture, and we shouldn't be penalized for -- for not joining the well.

Q. Now, I take it when you say "support", that you mean give up something that you have.

A. In a manner other than joining in the cost of the well, yes. Allowing Gulf to acquire an interest in our leases; that's what I mean by support.

Q. That's what you mean by support.

A. Right.

Q. Okay, but if Gulf had traded acreage or had bought this acreage, in fact, that would have been an even swop, is that correct?

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A. Well --

Q. And there would have been no actual support by Huber in that well, is that correct, other than your definition of support, by letting Gulf acquire the acreage?

A. Right.

Q. In other words, Huber would not have farmed out, and did not offer to farm out, in the early instances.

A. Right.

Q. Did not offer to share in the cost of the well.

A. Right.

Q. You also testified that if more than a one hundred percent risk penalty was imposed, that you felt your correlative rights would be impaired. Would you tell us how these would be impaired in your opinion?

A. Well, I think based on the offer that we had tendered to Gulf, a sixteenth with an option to back in for a half, that had that offer been accepted by Gulf, and any penalty approximating a two hundred percent recovery, would in effect be excessive. By that I mean that our ability to recover any funds through a farm out would be greater than had -- than could you receive at two hundred percent penalty under forced pooling.

Q. Well, I'm not sure I quite follow your answer, but if there's forced pooling in this instance, and you do

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not join in this unit, you will not be putting up any money, is that correct?

A. This is true.

Q. Until the cost of the well plus whatever risk in fact is assigned.

A. Right.

Q. You talked about productive wells in the area. You talked about Coquina Philly-Federal, which is a very good well. Now, I think -- first of all, are you familiar with the geology of that particular well?

A. I'm not a geologist, no.

Q. Okay, then you would not know that contained a, in essence, an unique Morrow sand zone which is not present in any of the other wells, and certainly not present in the wells that we've pointed out on this cross section, which are, except for one, all producers.

A. Uh-huh. No, I don't.

MR. SHRADER: I have no further questions.

MR. STAMETS: Are there any other questions of this witness?

He may be excused. Mr. Jennings, do you have anything further?

MR. JENNINGS: We have nothing further to offer.

MR. STAMETS: You offered Exhibit Number One.

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MR. JENNINGS: Yes.

MR. STAMETS: Okay, if I didn't admit it before, I admit it now.

Is there anything else to be offered in this case?

MR. SHRADER:I'd like to make a closing statement.

MR. STAMETS: Okay, you're the Applicant in this case; you get to go last. Mr. Jennings, do you have a closing statement?

MR. JENNINGS: Only that I feel it would be grossly unfair to impose a two hundred percent penalty in light of the other operators apparent effort to participate in the well or to farm in the acreage, and that the record will show Apexco offered to farm any acreage for one-eighth, back in for half, and that was accepted, but apparently nothing was done about it, and J. M. Huber Corporation offered to farm in for one-sixteenth, back into a half, which is even a better deal, and it is my understanding that is a common deal in the oil patch, to farm in, and I'm sure that Gulf has made many deals the same as that. In light of this, I think that Gulf is kind of throwing its weight around and pushing some people around because they have an expiring lease, and I think it would grossly unjust to impose a two hundred percent penalty.

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MR. SHRADER: Mr. Examiner, I would point out in this case that most of the questions raised by Huber have been about the history of the negotiations.

Now, there are several things I'd like to point out about the history of the negotiations. First of all, all the conditional acceptances, and by that I mean letters where we accepted farm outs with certain conditions that have never been met, were with Apexco. We never had any conditional acceptances or anywhere close to any type of agreement with Huber, and the fact is that even though all these proposals and counter-proposals have been going on back and forth for over four years, there's never been any agreement entered into between any of the parties that are going to drill this acreage either on a cost sharing, a farm out, or swopped acreage basis.

Now, we could go ahead and talk all day about the history of the negotiations but those do not go to the risk of drilling this well, and I think Gulf has put on the geological testimony; it's shown the production history of other wells in this area, which justify a two hundred percent risk penalty over the cost of the drilling. I think it's recognized by operators in this area, by the standard operating agreements that provide for a two hundred percent risk penalty, and I think it's been realized by the Commission in the past ten orders entered for the South

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Morrow Carlsbad Gas Field, or Pool, seven out of those ten orders have carried a two hundred percent risk penalty.

Now, the fact is that Gulf would like to drill this well. We've been trying for over four and a half years to get something together to drill this well, and it's obvious that Huber has never been able or never been willing to put up any money to drill this well.

In Gulf's statement in its application it asks that all parties be given a chance for thirty days after the entry of this order to join in and share the cost of this well and it's hopeful that if the Commission does go ahead and enter this order, as requested by Gulf with the two hundred percent risk penalty, that some agreement for drilling this well could still be reached with Huber and Apexco without the necessity of imposing whatever the Commission will allow; however, we do ask that the Commission order this compulsory pooling and that they give us two hundred percent risk penalty for drilling this well, because we would like to see this well drilled.

MR. STAMETS: If there is nothing further, the case will be taken under advisement.

(Hearing concluded.)

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REPORTER'S CERTIFICATE

I, Sally Walton Boyd, a Certified Shorthand Reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and the same is a true and correct record of the said proceedings prepared to the best of my knowledge, skill, and ability.

Sally Walton Boyd

Sally Walton 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. 6155, heard by me on 2-23, 1978.

Richard L. Stamets, Examiner
New Mexico Oil Conservation Commission

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CARLSBAD AIRPORT

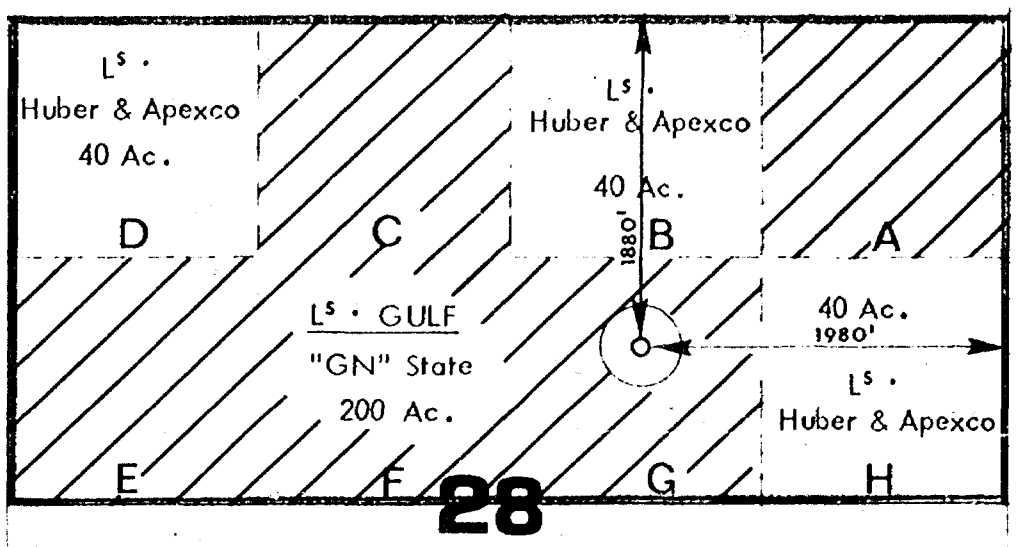
CUEVA UNIT CORINNE GRACE (OPER)

BYRNES TANK

Hearing Date 2-22-79

T 23 S

PROPOSED EDDY "GN" STATE COM. UNIT
N/2 Section 28 T-23-S R-26-E
Eddy County, NewMexico



Scale 1" = 1000'

Owner	Acres	Percentage
Gulf Oil Corp.	200	62.50
J.M. Huber Corp.	60	18.75
Apexco	60	18.75
		100.00

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
Gulf's EXHIBIT NO. 1
CASE NO. 6155
Submitted by Gulf Oil Corp
Hearing Date 2-22-78

EXHIBIT 1
Case No. 6155
February 22, 1978

Midland District
Hobbs Area

EXHIBIT 2
CASE NO. 6155
FEBRUARY 22, 1978

Drilling Cost Estimate (Gross)

Date: 2-21-78

BBS AREA

Drill and Complete Eddy GN State #1

Located 1650 FNL & 1980 FEL, Sec 28 T-23-S R-26-E Eddy Co. N.M.

Authorized Depth 12,000 Type Development

Tangible Acct	Item	Drill - $	Complete - $	Expended - $	Over (Under) - $
	101 Location & Access	10,000			
	102 Rig Contract: 12,000 ' @ 20 per Ft. = $ 240,000; 6 days @ $ 4200 per day = $ 25,200; Flat Rate $				
	Total Rig Contract	265,200			
	106 Drilling Fluids & Adds.	55,000	2,000		
	107 Rental Eqpt. & Tools	5,000	2,000		
	108 Cement & Cement Services	20,000	10,000		
	109 Logging, Perf. & Testing	20,000	8,000		
	110 Formation Treating		3,000		
	111 Fuels & Power				
	111 Drlg. Supplies (bits)				
	111 Completion Rig: 10 days @ $ 900 per day = $ 9,000		9,000		
	111 Miscellaneous Items	10,000	2,000		
	192 Allocation of POE	3,500	1,000		
	196 Tang. Matls. Temp. Use				
	Other Costs				
	TOTAL INTANGIBLE COSTS	388,700	37,000		
	GRAND TOTAL INTANGIBLE COSTS	$ 425,700		$	

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
Gulf's EXHIBIT NO. 2
CASE NO. 6155
Submitted by Gulf Oil Corp.
Hearing Date 2-22-78

Well Name & Number: Eddy GN State Com #1

Tangible Producing Equipment	Item	Drill — $	Complete — $	Expended — $	Over (Under)
21X	Casing 400 ' of 13 3/8 " 48# H-40	7,200			
	2,000 ' of 10 3/4 " 40. K-55	23,000			
	5,610 ' of 7 5/8 " 26.4 N80 S-95	114,000			
22X	Casing (oil string) 3700 ' of 5 " 15# S-95 N-80		31,000		
23X	Other Subsurface Prod. Eqpt.		2,000		
	Tubing 11,900 ' of 2 3/8 "		30,000		
24X	Subsurface Artificial Lift Eqpt.				
25X	Surface Producing Equipment		2,000		
26X	Christmas Tree	8000	11,000		
29X	Miscellaneous		1,000		
	TOTAL TANGIBLE PROD. EQPT.	152200	77,000		
	GRAND TOTAL TANG. PROD. EQPT.	$ 229,200		$	
	TOTAL ESTIMATE	$ 540,900	$ 114,000		
	GRAND TOTAL	$ 654,900			

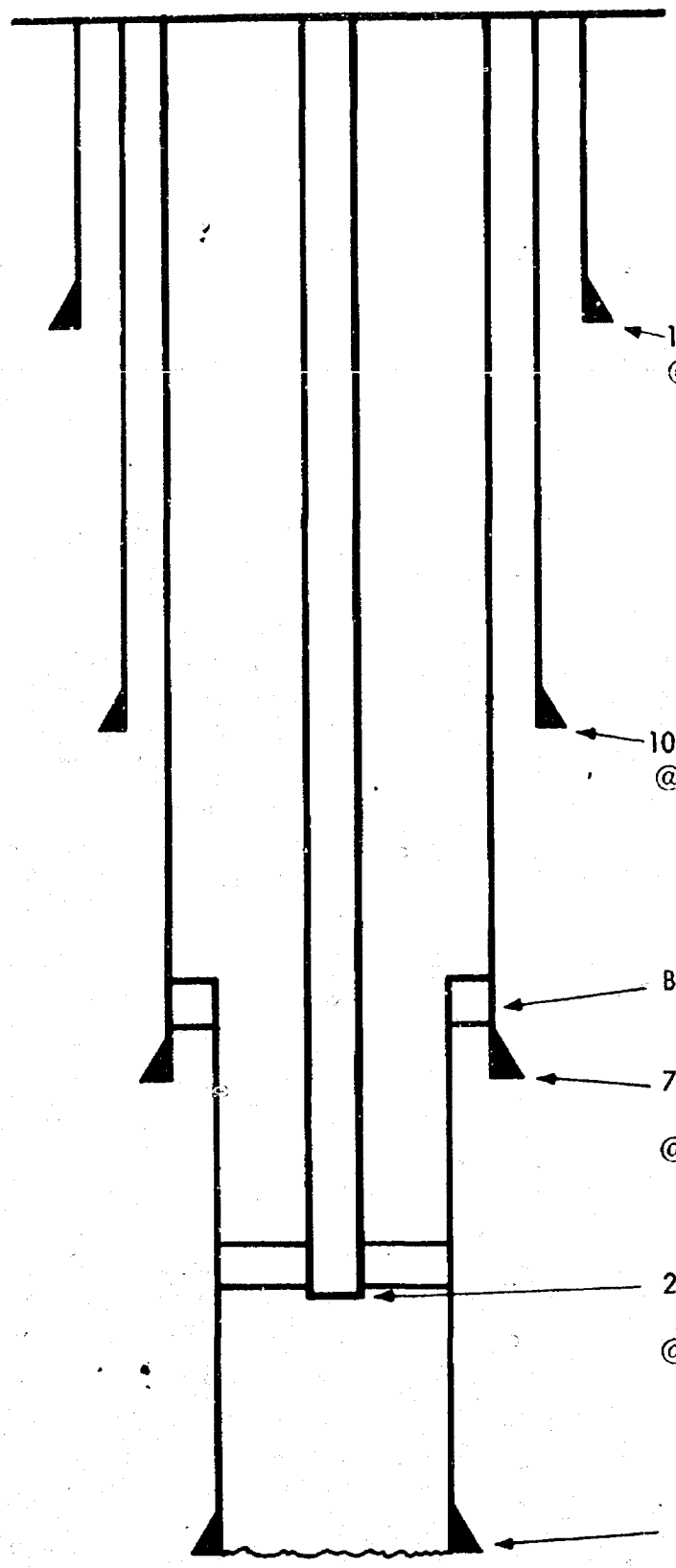
AREA PRODUCTION MANAGER

PREPARED BY: P.P. Bullard
P.I.N.Q.

SCHEMATIC DIAGRAM
EDDY "GN" STATE WELL No. 1

1880' FNL & 1980' FEL, Unit G, Sec. 28, T-23-S, R-26-E

Carlsbad Morrow South (Gas)
Eddy County, New Mexico



13-3/8" O.D. 48# H-40 Csg.
@ 400' w/400 sxs Cmt.

10-3/4" O.D. 40# K-55 Csg.
@ 2000' w/1300 sxs Cmt.

Brown Oil Tool Liner Hanger

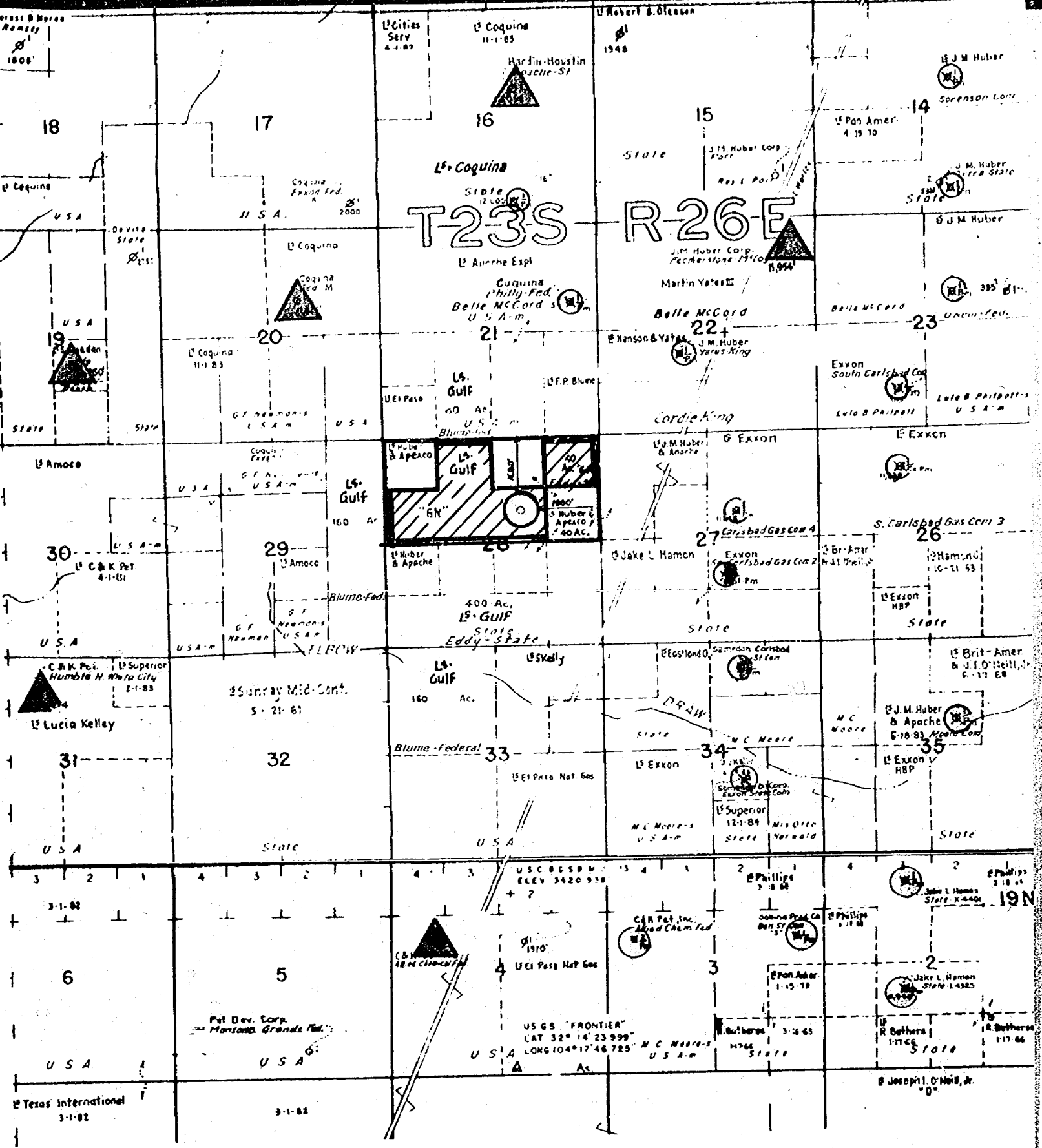
7-5/8" O.D. 26.4# S-95 &
N-80 Csg.
@ 8610' w/ 600 sxs Cmt.

2-3/8" O.D. 4.7# EUE N-80
N-80 Tbg.
@ 11,900' w/Baker Loc Set
Production Packer

5" O.D. 15# S-95 &
N-80 Liner
@ 12,000' w/500 sxs. Cmt.

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
Gulf's EXHIBIT NO. 3
CASE NO. 6155
Submitted by Gulf Oil Corp.
Hearing Date 2-22-78

EXHIBIT 3
Case No. 6155
February 22, 1978



Proposed EDDY "GN" STATE COM. UNIT
N/2 Section 28 T-23-S R-26-E
Eddy County, New Mexico

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
GULF'S EXHIBIT NO. 4
CASE NO. 6155
Submitted by GULF OIL CORP
Hearing Date 2-22-78

- Proposed Unit Outline
- Proposed Pennsylvanian Test
- Carlsbad Morrow, South (Gas) Completion
- Carlsbad Strawn, South (Gas) Completion
- Dry In Morrow

Scale: 1" = 3000'

EXHIBIT 4
Case No. 6155
February 22, 1978

EXHIBIT 5
CASE NO. 6155
FEBRUARY 22, 1978

GAS PRODUCTION DATA (MCF)
CARLSBAD, SOUTH-MORROW GAS
EDDY COUNTY, NEW MEXICO

	C & K PETRO INC.	COQUINA		EXXON - SOUTH CARLSBAD GAS COM,				JAKE L. HAMON	
	Allied Chem. Fed 2E324S26E	Philly-Federal 1H2123S26E	State 16 1O1623S26E	No. 1 1N2323S26E	No. 2 1J2723S26E	No. 3 1C2623S26S	No. 4 1G2723S26E	St. K-4401 Com. 1C224S26E	St. L-4325 Com. 1K224S26E
	El Paso Nat'l.	Nat'l Gas P.L.	Nat'l. Gas P.L.	El Paso & Llano	Llano Inc.	Llano Inc.	Llano Inc.	El Paso Nat'l.	El Paso Nat'l.
1977									
January	11,340	---	5,521	1,633	1,793	2,477	9,836	58,784	53,859
February	8,210	---	4,031	1,437	1,358	1,690	8,494	48,916	46,191
March	9,081	---	4,384	1,406	2,027	2,250	8,785	52,914	47,438
April	8,567	---	3,754	1,719	1,677	1,608	8,840	43,012	42,268
May	8,606	---	3,821	1,875	1,863	2,631	6,737	41,506	41,886
June	8,108	---	3,783	1,280	1,920	1,695	8,231	37,265	37,617
July	6,244	---	---	378	1,972	2,286	6,967	16,897	36,561
August	12,950	64,351	4,255	3,239	1,978	2,139	6,609	18,556	32,621
September	12,085	63,798	4,569	2,461	2,033	1,792	7,269	25,433	30,402
October	10,492	54,028	3,625	1,881	1,930	1,613	6,786	42,259	30,512
November	10,021	59,855	3,739	1,807	335	2,342	5,996	39,501	27,614
TOTALS	105,704	242,032	41,482	19,176	18,886	22,523	84,550	425,043	426,969
DAILY AVERAGE	316	1,984	154	57	57	67	253	1,273	1,278
CUMMUL.	156,184	242,032	166,922	2,020,172	541,506	159,598	938,574	2,179,593	2,113,623

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
Gulf's EXHIBIT NO. 5
CASE NO. 6155
Submitted by Gulf Oil Corp
Hearing Date 2-22-78

EXHIBIT 5
CASE NO. 6155
FEBRUARY 22, 1978

GAS PRODUCTION DATA
CARLSBAD, SOUTH-MORROW GAS
EDDY COUNTY, NEW MEXICO

	J. M. HUBER CORPORATION					SABINE PROD.	SAMEDAN OIL CORPORATION	
	Moore Com. 1G3523S26E Transw. & Llano	O'Neill Fed. Com. 1G2323S26E Llano Inc.	Sorenson Com. 1G1423S26E Llano Inc.	Terra-State 101423S26E Llano Inc.	Yates King 1K2223S26E Llano Inc.	Bell St. Com. 1H324526E El Paso Nat'l.	Carlsbad St. Com. 1B3423S26E El Paso Nat'l	Exxon St. Com. 1J3423S26E El Paso Nat'l.
1977								
January	4,114	28,402	284	41,820	3,478	---	45,825	---
February	4,037	23,146	103	38,849	3,407	---	42,647	---
March	4,388	23,696	Last Prod. 2/77	43,919	2,951	24,470	43,012	18,907
April	4,090	24,208	Abandon Zone	41,278	1,791	21,651	35,695	26,210
May	4,174	24,077	---	40,028	260	23,097	35,071	22,140
June	3,520	20,211	---	25,744	528	21,676	30,690	22,259
July	4,208	23,286	---	2,769	599	23,682	41,243	48,419
August	3,899	21,204	---	2,150	618	21,554	31,943	41,360
September	3,795	15,587	---	2,663	4,921	18,735	32,664	35,980
October	3,982	16,025	---	2,226	2,986	22,088	29,739	34,784
November	3,516	18,163	---	22,990	1,596	21,648	29,643	30,875
TOTALS	43,723	238,005	387	264,436	23,135	198,601	398,172	280,934
DAILY AVERAGE	131	713	7	792	69	722	1,192	1,022
CUMMUL.	261,016	2,338,788	2,338,788	2,958,978	146,357	198,601	1,399,719	280,934

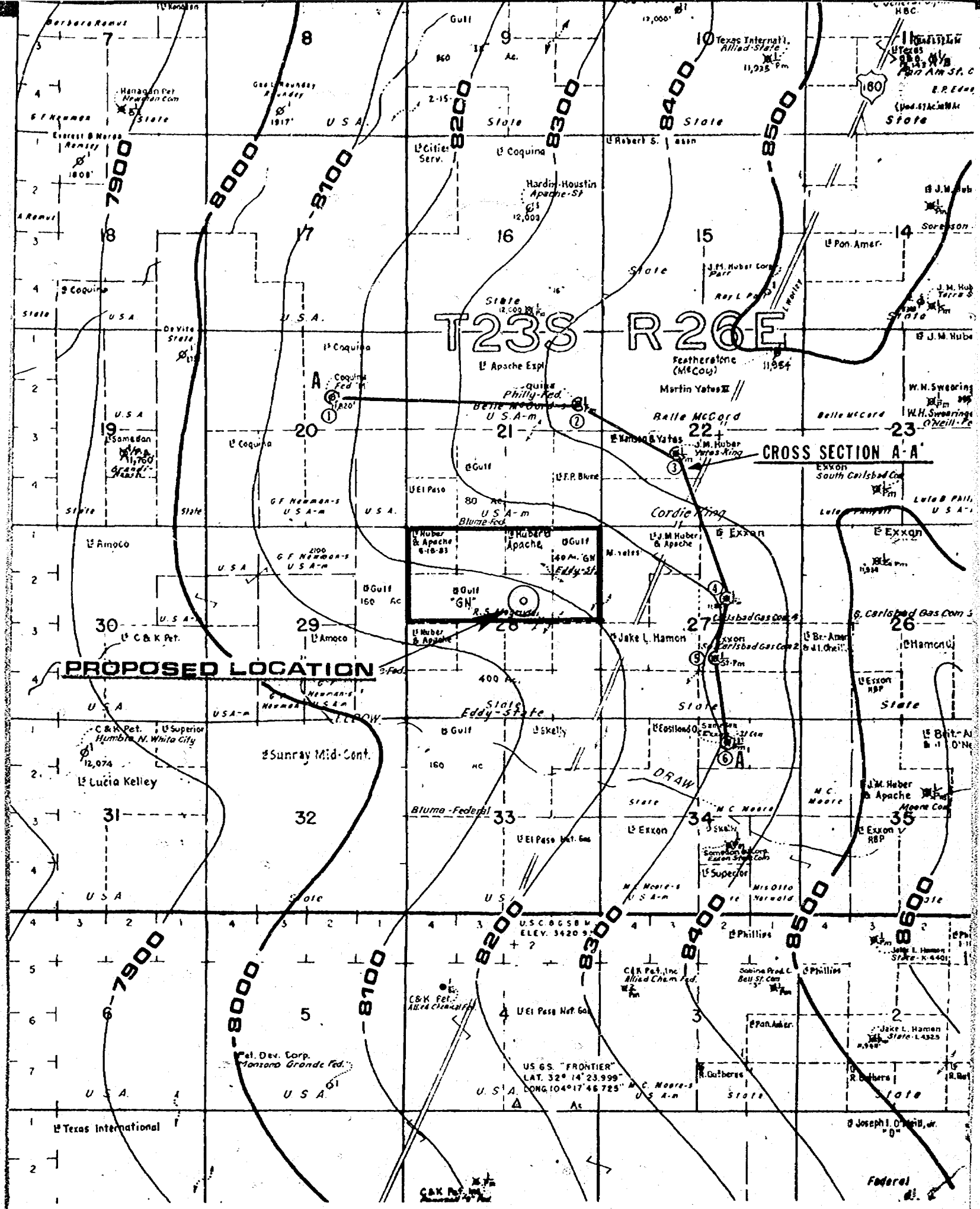


EXHIBIT # 6
CASE # 6155

PROPOSED LOCATION
GULF OIL CORP. # 1 EDDY STATE "GN" COM
CONTOURED ON BASE OF MORROW SHALE

C.I. = 100'
SCALE 1" = 3000'

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
GULFS EXHIBIT NO. 6
CASE NO. 6155
Submitted by GULF OIL CORP
Hearing Date 2-22-78

GULF OIL CORP.
FEBRUARY 22, 1978

SOUTHWEST DIVISION
MIDLAND, TEXAS

November 30, 1973

Re: Strawn & Morrow Dual Prospect,
N/2 Section 28, T-23-S, R-26-E,
Eddy County, New Mexico (Gulf's
Eddy "GI" State Lease No.
3-02862-00

Apache Exploration Corporation
P.O. Box 2299
Tulsa, Oklahoma 74101
Attn: Mr. P. M. Keeley

J. M. Huber Corporation
1900 Wilco Building
Midland, Texas 79701
Attn: Mr. G. S. Cromwell, District Manager

Gentlemen:

Gulf Oil Corporation proposes to form and operate a 320-acre unit comprising of the N/2 Section 28, T-23-S, R-26-E, Eddy County, New Mexico. The proposed location for the Strawn and Morrow dual prospect is in the SW/4 NW/4 Section 28. Estimated completion cost of this 12,000' prospect will be $445,344.

From a cursory check of the county records it reveals ownership of the N/2 Section 28 to be as follows:

Owner	Net Acres	Percent of Unit
Apache Corporation	60.00	18.75
Gulf Oil Corporation	200.00	62.50
J. M. Huber Corporation	60.00	18.75
	320.00	100.00%

We would appreciate each of you confirming your ownership as set out above.

Should you elect not to join in the test well as proposed above, please indicate whether or not you would be willing to farm out your interest in order to facilitate the drilling of this well.

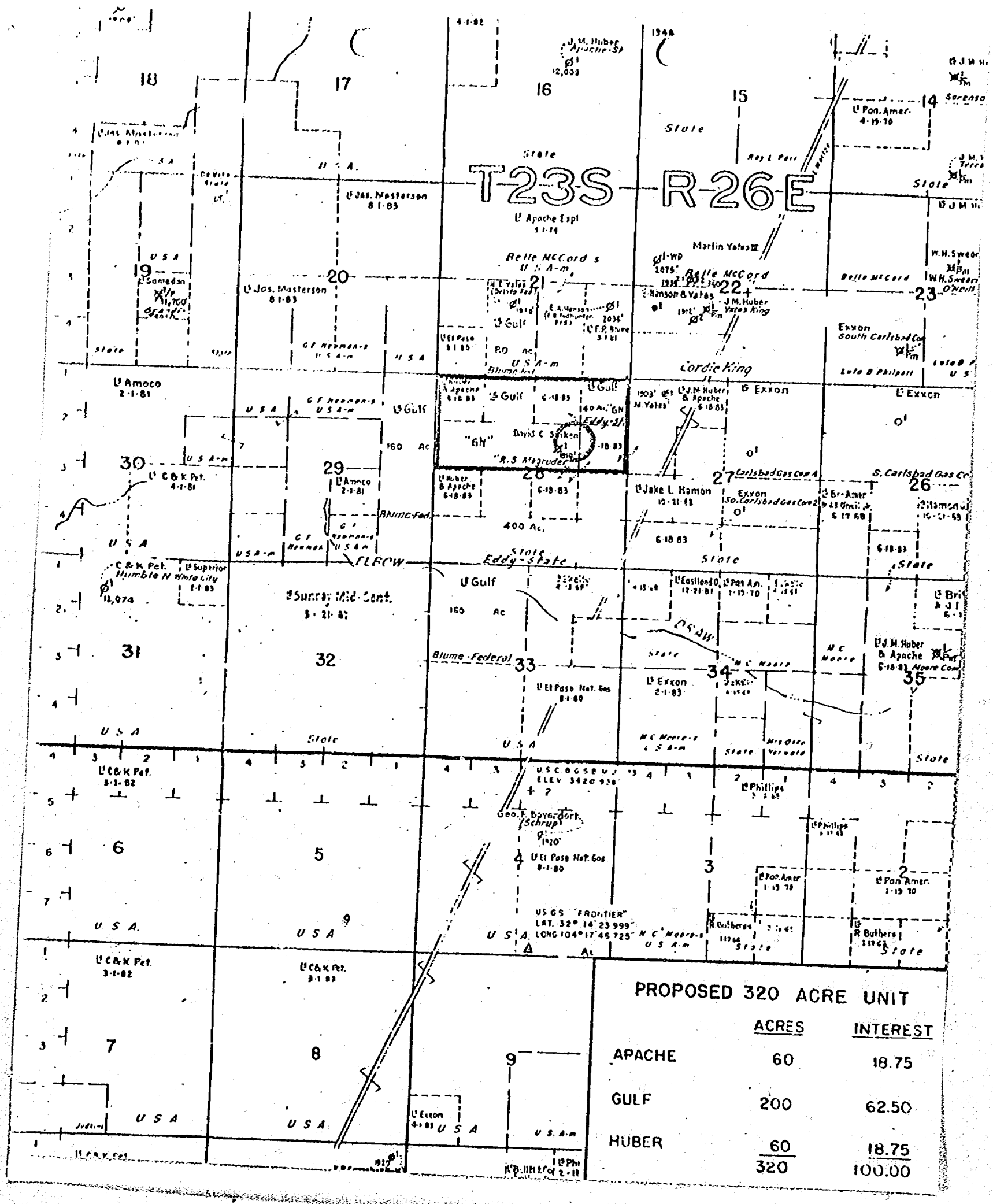
The attached two copies of a detailed well estimate have been prepared for your review. Please return one signed copy of cost estimate sheet acknowledging your acceptance to join the unit.

Communitization Agreement and Operating Agreement will be circulated later. However, an early confirmation from you to join the unit will certainly be appreciated.

Yours very truly,

R. B. GRIFFITH
District Landman

RBG/rs
Attachments


T23S
R26E
Belle McCord
Belle McCord
Belle McCord

GULF OIL COMPANY - U. S.

AREA Hobbs DATE 9-28-73

DRILL & COMPLETE Eddy "GN" State Com. #1

LOCATED 1880' FNL 1980' FEL Section 28-23S-26E, Eddy County, New Mexico

AD 12,000' - Dual - Strawn & Morrow

INTANGIBLE ELEMENT	ITEM		$ DRILL	COMPLETE	$ EXPENDED	OVER/ UNDER
	101	Location & Access	6,000			
	102	Rig Contract	-			
	103	Rig Contract - Footage ____' @ $____per ft.	-			
	104	Rig Contract - Day Work day 50 days @ $ 1950.00 per ~~day~~	97,500			
	105	Rig Contract - Rig Up & Down	20,000			
111 -	106	Fuel (Gas)	-			
	106	Drilling Fluids	25,000			
	107	Rentals - Equipment & Tools	10,000			
	108	Cement & Cementing Service	12,750			
	109	Logging, Perforating & Testing	10,000			
	110	Formation Treating	-			
	111	Miscellaneous Items	25,000			
164 -	111	Bits & Reamers	29,000			
232 -	111	Water Well, Lay Water Lines, etc.	10,000			
	122	Rig Contract	-			
	123	Rig Contract - Footage ____' @ $____per ft.				
	124	Rig Contract - Day Work day 15 days @ $ 400.00 per ~~day~~		6,000		
	125	Rig Contract - Rig Up & Down		-		
111 -	126	Fuel (Gas)		-		
	126	Drilling & Fluids		-		
	127	Rentals - Equipment & Tools		3,000		
	128	Cement & Cementing Service		5,000		
	129	Logging, Perforating & Testing		4,500		
	130	Formation Treating		10,000		
	131	Miscellaneous Items		5,000		
	192	Allocation of FOE - Other		5,000		
	193	Billings to Outsiders				
	195	Billings from Outsiders				
	196	Tangible Material for Temp. Use				
	198	Transfer between AFEs				
		Miscellaneous				
		TOTAL INTANGIBLE DRILLING COSTS	245,250	38,500		
		GRAND TOTAL INTANGIBLE DRILLING COSTS	$283,750			

TANGIBLE PRODUCING EQUIPMENT

ELEMENT	ITEM	$ DRILL	ESTIMATED COSTS COMPLETE	$EXPENDED	OVER/ UNDER
21X	Casing Surface 600 ' of 13-3/8 "	4,800			
	Intermediate 5400 ' of 9-5/8 "	33,571			
22X	Casing (Oil String) 12,000 ' of 7" "		53,793		
23X	Other Subsurface Prod. Eqpt. Tubing 11,500' of 2-7/8" A-95*&		4,500		
24X	Subsurface Artificial Lift Eqpt. 10,500' 2-3/8"		*27,370		
25X	Surface Producing Equipment A-95**		**20,160		
26X	Christmas Tree		2,000		
		400	15,000		
	Miscellaneous				
	TOTAL TANGIBLE PRODUCING EQUIPT.	38,771	122,823		

INTANGIBLE COSTS CAPITALIZED

27X	Billing to Outsiders				
28X	Billings from Outsiders				
29X	Misc'l. Items, Transfers & Other Expense				
	TOTAL INTANGIBLE & TANGIBLE COSTS CAPITALIZED				
	TOTAL ESTIMATE	284,021	161,323		
	GRAND TOTAL	$ 445,344			

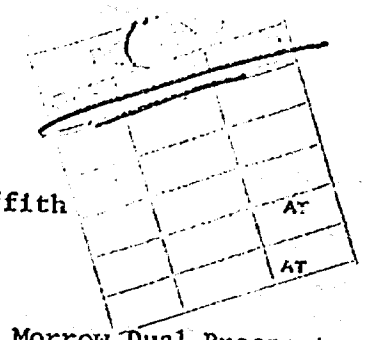
C D Borland
AREA PRODUCTION MANAGER

APPROVED: CDC

BY _____

DATE _____

GUS 10/73



LEASE FILE

FROM R. E. Griffith — Midland

TO J. L. Pike — Midland

IN REPLY REFER TO

DATE 12-20-73

SUBJECT Strawn and Morrow Dual Prospect
N/2 Section 28, T-23-S, R-26-E,
EDDY COUNTY, New Mexico
(Gulf's Eddy "GN" State Lease No. 3-02862-00)

Mr. G. S. Cromwell, District Manager, with J. M. Huber Corporation called Floyd Thompson December 20, 1973, concerning the subject prospect. They are not interested in our Unit. Cromwell said "I have authority to offer our 60 net acres (87.5%) to Gulf for $500.00 per acre."

Are we interested.

R. E. GRIFFITH

FWT/dch

Thompson

Copy to [illegible]

P.O. BOX 2299 / TULSA, OKLAHOMA 74101 / 4815 SOUTH HARVARD AVENUE

(918) 749-4851

Apexco

January 4, 1974

RECEIVED
JAN 4 1974
LAND SECTION
MIDLAND, TEXAS

Gulf Oil Company - U. S.
P. O. Drawer 1150
Midland, Texas 79701

Attention: Mr. R. E. Griffith

Re: Strawn & Morrow Dual Prospect
N/2 Section 28-23S-26E
Eddy County, New Mexico (Gulf's
Eddy "GN" State Lease No. 3-02862-00)
Our Dark Canyon Area

Gentlemen:

After a careful review of your proposed test in the N/2 of Section 28-23S-26E, Eddy County, New Mexico, we must advise that Apexco is not interested in participating in the drilling of this well.

We would, however, be interested in farming out our interest in the proposed 320 acre unit retaining a 1/8 of 8/8 override on oil and gas with an option to convert said override to a 50% working interest, proportionately reduced after payout of the initial test.

If these terms are acceptable, please advise and we will prepare a formal Farmout Agreement for your execution.

Yours very truly,

APEXCO, INC.

Philip M. Keeley

Philip M. Keeley
Central Division Land Manager

PMK/sd

cc: J. M. Huber Corporation
1900 Wilco Building
Midland, Texas 79701

Attention: Mr. Stan Cromwell

March 6, 1974

Re: Strawn and Morrow Dual Prospect
N/2 Section 28, T-23-S, R-26-E,
EDDY COUNTY, New Mexico (Gulf's
Eddy "GN" State Lease No. 3-02862-00)

Apache Exploration Corporation
P. O. Box 2299
Tulsa, Oklahoma 74101
Attention: Mr. P. M. Keeley

J. M. Huber Corporation
1900 Wilco Building
Midland, TX 79701
Attention: Mr. G. S. Cromwell

Gentlemen:

Reference is made to various letters and telephone conversations regarding our efforts to form a working interest unit covering the captioned lands. Due to the apparent lack of interest, we are unable to form the unit at this time.

Yours very truly,

R. E. GRIFFITH

FWT/dch

July 13, 1976

Re: Proposed Eddy "GN" Com No. 1
N/2 Section 28, T-23-S, R-26-E
Eddy County, New Mexico
Gulf Lease No. 3-02862-00

J. M. Huber Corporation
1900 Wilco Building
Midland, Texas 79701

Gentlemen:

We are at this time proposing the formation of the captioned unit for the drilling of a 12,000' Morrow test; said test to be located 1880' FNL and 1980' FEL of Section 28, T-23-S, R-26-E, Eddy County. Enclosed is a cost estimate of the initial test for your reference.

According to our records participation in the proposed unit is as follows:

	Acres	%
Gulf Oil Corporation	200.00	62.50
J. M. Huber Corporation	60.00	18.75
Apache Corporation	60.00	18.75
	320.00 Acres	100.00 %

Your earliest consideration and reply to joining as a working interest owner in the proposed unit is appreciated.

Yours very truly,

R. E. Griffith

Enclosure
KHG:jmf

GULF OIL CO. - U. S.
Midland District
Hobbs Area

Drilling Cost Estimate (Gross)

Date: 1-18-76

HOBBS AREA

Drill and Complete Eddy "GN" State Com No. 1

Located 1880' FNL & 1980' FEL, Sec. 28 - T23S - R26E Eddy Co. N.M.

Authorized Depth 12,000 Type Development

		Drill - $	Complete - $	Expended - $	Over (Under) - $
	Intangible				
	Element Item				
	101 Location & Access	10,000			
	102 Rig Contract: 8550' @ 12.50 per Ft. = $ 106875; 30 days @ $ 3500 per day = $ 105100; Flat Rate $ ____				
	Total Rig Contract	211975			
	106 Drilling Fluids & Adds.	55000	1000		
	107 Rental Eqpt. & Tools	16000	2000		
	108 Cement & Cement Services	9775	5000		
	109 Logging, Perf. & Testing	17000	8000		
	110 Formation Treating	—	3000		
		—	—		
011x -	111 Fuels & Power	25000	—		
0164 -	111 Drlg. Supplies (bits)				
0237 -	111 Completion Rig 100 days @ $ 800 per day = $ 8000		8000		
Var. -	111 Miscellaneous Items	35000	7000		
	192 Allocation of FOE	3500	1000		
	196 Tang. Matls. Temp. Use	—	—		
	Other Costs				
	TOTAL INTANGIBLE COSTS	382250	35000		
	GRAND TOTAL INTANGIBLE COSTS	$ 417250		$	

Drilling Cost Estimate (Gross) (Page 2

Well Name & Number Eddy "GN" STATE Com No. 1 (

Tangible Producing Equipment	Drill - $	Complete-$	Expended-$	Over (Under) - $
Element Item				
21X Casing				
600 ' of 13 3/8 "	7812			
2000 ' of 9 5/8 "	10940			
8610 ' of 7 5/8 "	86789			
22X Casing (oil string)				
3500 ' of 5 1/2 "		36250		
23X Other Subsurface Prod. Eqpt.		2000		
Tubing 11900 ' of 2 3/8 EUE "		22253		
24X Subsurface Artificial Lift Eqpt.		-		
25X Surface Producing Equipment		2000		
26X Christmas Tree	1000	16000		
29X Miscellaneous	-	500		
TOTAL TANGIBLE PROD. EQPT.	114441	69003		
GRAND TOTAL TANG. PROD. EQPT.	$ 183441	$		
TOTAL ESTIMATE	$ 119621	$ 104333		
GRAND TOTAL	$ 600694			

C W Borland
AREA PRODUCTION MANAGER

PREPARED BY: R M Qualls

July 13, 1976

Re: Proposed Eddy "GN" Com No. 1
N/2 Section 28, T-23-S, R-26-E
Eddy County, New Mexico
Gulf Lease No. 3-02862-00

Apache Exploration Corporation
P. O. Box 2299
Tulsa, Oklahoma 74101

Gentlemen:

We are at this time proposing the formation of the captioned unit for the drilling of a 12,000' Morrow test; said test to be located 1880' FNL and 1980' FEL of Section 28, T-23-S, R-26-E, Eddy County. Enclosed is a cost estimate of the initial test for your reference.

According to our records participation in the proposed unit is as follows:

	Acres	%
Gulf Oil Corporation	200.00	62.50
J. M. Huber Corporation	60.00	18.75
Apache Corporation	60.00	18.75
	320.00 Acres	100.00 %

Your earliest consideration and reply to joining as a working interest owner in the proposed unit is appreciated.

Yours very truly,

R. E. Griffith

Enclosure
KHG:jmf

July 22, 1976

Re: Proposed Eddy "GN" Com No. 1
N/2 Section 28, T-23-S, R-26-E
EDDY COUNTY, New Mexico
Gulf Lease No. 3-02862

Apache Exploration Corporation
Harvard Tower Building
Room 330
Tulsa, Oklahoma 74135

Attention: Mr. Kent Harrell

Gentlemen:

We are at this time proposing the formation of the captioned unit for the drilling of a 12,000-foot Morrow test; said test to be located 1880 FNL and 1980 FEL of Section 28, T-23-S, R-26-E, Eddy County. Enclosed is a cost estimate of the initial test for your reference.

According to our records, participation in the proposed unit is as follows:

	Acres	Percent
Gulf Oil Corporation	200.00	62.50
J. M. Huber Corporation	60.00	18.75
Apache Corporation	60.00	18.75
	320.00 Acres	100.00%

Your earliest consideration and reply to joining as a working interest owner in the proposed unit is appreciated.

Yours very truly,

R. E. GRIFFITH

KHG/mkb
Attachment

August 2, 1976

Re: Proposed Eddy "GN" Com No. 1
N/2 Section 28, T-23-S, R-26-E
EDDY COUNTY, New Mexico
(Gulf Lease No. 3-02862-00)

Apache Exploration Corporation
1800 Foshay Tower
Minneapolis, Minnesota 55402

Attention: Mr. Raymond L. Plank

Gentlemen:

We are at this time proposing the formation of the captioned unit for the drilling of a 12,000-foot Morrow test; said test to be located 1880 FNL and 1980 FEL of Section 28, T-23-S, R-26-E, Eddy County. Enclosed is a cost estimate of the initial test for your reference.

According to our records, participation in the proposed unit is as follows:

	Acres	Percent
Gulf Oil Corporation	200.00	62.50
J. M. Huber Corporation	60.00	18.75
Apache Corporation	60.00	18.75
	320.00 Acres	100.00%

Your earliest consideration and reply to joining as a working interest owner in the proposed unit is appreciated.

Yours very truly,

R. E. GRIFFITH

KHG/mkb
Attachment

August 6, 1976

Re: Proposed Eddy "GN" Com No. 1
N/2 Section 28, T-23-S, R-26-E,
N.M.P.M., EDDY COUNTY, New Mexico
(Gulf Lease Number 3-02862-00)

J. M. Huber Corporation
1900 Wilco Building
Midland, Texas 79701

Ginger Conner

Gentlemen:

Reference is made to our letter of July 13, 1976 wherein we proposed the drilling of a 12,000-foot Morrow test well to be located 1880 FNL and 1980 FEL of Section 28, T-23-S, R-26-E, Eddy County, New Mexico.

We would appreciate your advising us as quickly as possible if you are interested in participating as to your 18.75% interest in the proposed well.

Should you have any questions or desire to discuss the proposal, please contact Mr. Doyle Snow of our Land Department.

Yours very truly,

R. E. GRIFFITH

DJS/mkb

Snow

1121 FIRST PLACE / TULSA, OKLAHOMA 74103

(918) 582-1581

August 10, 1976

RECEIVED
AUG 12 1976
LAND SECTION
MIDLAND, TEXAS

Gulf Oil Company
P. O. Drawer 1150
Midland, TX 79701

Attn: Mr. R. A. Griffith

Re: Dark Canyon Area
Proposed Eddy "GN" Com #1
N/2 Sec. 28-R23S-R26E
Eddy County, New Mexico
Gulf Lease #3-02862-00

Gentlemen:

Your letter of August 2, 1976 directed to Apache Exploration Corporation, attention Mr. Raymond L. Plank has been forwarded to this office for our further handling. We are presently in the process of evaluating your proposal concerning a 12,000' Morrow test to be located 1880' FNL 1980' FEL of Section 28-23S-26E, Eddy County, New Mexico and upon the completion of same we will advise as to our desire to participate in your proposal.

In the meantime, if we can be of any further assistance concerning this matter, please do not hesitate to contact us.

Yours very truly,

APEXCO, INC.

Philip W. Livingston
Division Landman

PWL/dm

1121 FIRST PLACE / TULSA, OKLAHOMA 74103

(918) 582-1581

RECEIVED
AUG 19 1976
LAND SECTION
MIDLAND, TEXAS

August 16, 1976

Gulf Oil Company
P. O. Drawer 1150
Midland, TX 79701

Attn: Mr. R. E. Griffith

Re: Dark Canyon Area
State Shell "A" Lease
Proposed Eddy "GN" Com #1
N/2 Section 28-23S-26E
Eddy County, New Mexico

Gentlemen:

Reference is made to your letter of August 2, 1976 concerning the captioned proposed 12,000' Morrow test which will be located 1880' FNL and 1980' FEL of Section 28-23S-26E. This is to advise that Apexco, Inc. would be willing to farmout our interest in and to this 320 acre drilling unit and upon the completion of same as a producing oil and/or gas well, Apexco, Inc. would assign to you all of our right, title and interest in and to the N/2 of Section 28-23S-26E, subject to our retaining unto ourselves a 1/8th of 8/8ths ORRI on oil and gas, being proportionately reduced with Apexco having the option at payout to convert said retained ORRI to a 50% working interest, being proportionately reduced. Apexco would retain all rights below the total depth drilled in said test and a call-on-oil and gas-production attributable to the interest which we own in the unit.

It is requested that if the above general farmout terms meet with your approval, please so advise and we will prepare the necessary formal agreement covering said test.

In the meantime, if we may be of any further assistance, please advise.

Yours very truly,
APEXCO, INC.

Philip W. Livingston
Division Landman

PWL/dm

copy to R.F. Ward, Jr 8-19-76 PWL

August 31, 1976

Re: Eddy "GH" Com No. 1 well N/2
of Section 28, T-23-S, R-26-E,
NMPM, EDDY COUNTY, New Mexico
(Gulf Lease No. 3-02862-00)

APEXCO, INC.
1121 First Place
Tulsa, Oklahoma 74103

Gentlemen:

Reference is made to your letter of August 16, 1976 wherein you offered to farmout your interest in the captioned acreage for the drilling of a 12,000 foot Morrow test well.

Gulf is willing to accept your farmout terms as stated in your letter; however, Gulf prefers that the rights to be earned be limited to the base of the deepest formation penetrated in the initial test well not to exceed the base of the Morrow formation.

We will appreciate your furnishing us copies of the formal agreement at your earliest convenience. As soon as we are advised of J. M. Huber Corporation's decision concerning the well, we will commence the preparation of the Operating Agreement.

Thank you very much for your cooperation in this matter.

Yours very truly,

R. H. GRIFFITH

DJB/ng

cc: J. M. Huber Corporation

Savage

J. M. Huber Corporation
1900 Wilco Building
Midland, Texas 79701

OIL AND GAS
DIVISION

RECEIVED
SEP 13 1976
LAND SECTION
MIDLAND, TEXAS

TELEPHONE
MUTUAL 2-3794

September 7, 1976

Gulf Energy and Minerals Company - U.S.
P. O. Drawer 1150
Midland, Texas 79701

Attention: Mr. R. E. Griffith

RE: Farmout Proposal
Section 28-T23S-R26E
Eddy County, New Mexico
Huber's Lease 14-716

Map No. A-61

Gentlemen:

Prod. Dept. "Eddy 'GN' Com."

We have reviewed your request for the formation of a Unit in Section 28-23S-26E, Eddy County, New Mexico. Huber, at this time, does not wish to join in the drilling of the proposed well. However, we do not wish to preclude your drilling of the proposed well so we are prepared to recommend to our management that Huber trade the 100 net mineral acres we hold in Section 28-23S-26E to Gulf for a like amount which Gulf holds in the SE/4 of Section 16-19S-34E, Lea County, New Mexico.

Map No. R-22

If the above trade can be made, Huber also requests Gulf's consideration of a farmout of Gulf's acreage in Sections 10, 15, 16 and 22, T19S, R34E. Huber would commence, within 90 days of the farmout contract, a 10,900 foot Bone Springs test in the W/2 SE/4 of Section 16-19S-34E on acreage received in the trade. Within 120 days of completion or abandonment of the test in the W/2 SE/4 of Section 16-19S-34E, Huber to have the option to drill a like test in the W/2 of Section 15-19S-34E. Upon completion of the option well as a well capable of commercial production of oil and/or gas, Gulf will assign Huber 100% of the Proration Unit from the surface to 100 feet below depth drilled retaining 1/16 of 8/8 ORRI. Also upon completion of the option well Huber to be assigned like rights to 3/4ths of Gulf's lease-hold outside the Proration Unit in Sections 10, 15, 16 and 22, T19S, R34E. At payout of the option well Gulf to have the option to convert the retained override to a 25% working interest.

original to B. L. Choate -

Permian Land Dept. RW 9-22-76

In both the test well and the option well Huber to have the option but not the obligation to drill a Morrow test.

Final terms of the trade and Operating Agreement subject to our Managements approval.

Your consideration of this proposed trade and farmout will be appreciated.

Very truly yours,

J. M. HUBER CORPORATION

R. D. Cramer

R. D. Cramer
District Exploration Manager

RDC:mmt

Lease Nos. on farmout proposal:

0-63373-00	HBP
5-06940-00	8-1-82
5-07530-00	8-1-83
5-07242-00	3-1-83

October 18, 1977

Re: Proposed Eddy "GN" Com No. 1
N/2-Section 28 T-23-S, R-28-E
NMPM, EDDY COUNTY, New Mexico

J. M. Huber Corporation
1900 Wilco Building
Midland, Texas 79701

Gentlemen:

Reference is made to your letter of September 7, 1976, concerning the caption unit, wherein you proposed a trade with Gulf.

Please be advised that we have carefully considered your proposal and Gulf does not wish to comply with the terms of your trade.

Therefore, we are again proposing formation of the captioned unit, and requesting your participation. According to our records, participation in the proposed unit is as follows:

Parties	Acres	%Participation
Gulf Oil Corporation	200	62.50
J. M. Huber Corporation	60	18.75
Apache Exploration Corporation	60	18.75
	320	100.00%

Enclosed for your review is an AFE for the proposed test. Your earliest consideration and reply to joining as a working interest owner in the proposed unit is appreciated.

If you have any questions, contact Mr. Ches Blackham, extension 468.

Yours very truly,

R. E. GRIFFITH

CTB/dh
Enclosure

October 18, 1977

Re: Proposed Eddy "GN" Com No. 1
N/2 Section 28, T-23-S, R-26-E
NMPM, EDDY COUNTY, New Mexico

Apache Exploration Corporation
1121 First Place
Tulsa, Oklahoma 74103

Gentlemen:

Reference is made to your letter of August 16, 1976, wherein you offered to farmout your interest in the captioned acreage for the drilling of a 12,000' Morrow test well.

Gulf is now in the process of forming this unit and is willing to accept your farmout terms as stated in your letter; however, Gulf still prefers that the rights to be earned be limited to the base of the deepest formation penetrated in the initial test well not to exceed the base of the Morrow formation.

Your earliest consideration and reply would be most appreciated.

If you have any questions, please contact Mr. Ches Blackham, phone area code 915-682-7301, extension 468.

Yours very truly,

R. E. GRIFFITH

CHB/dh

DIVISION

November 9, 1977

MUTUAL 8-3784

Gulf Energy and Minerals Company - U.S.
P. O. Drawer 1150
Midland, Texas 79702

Attention: Mr. R. E. Griffith

RE: Proposed Eddy "GN" Com No. 1
N½ Section 28-23S-26E
Eddy County, New Mexico
Huber's 14-716

Gentlemen:

Reference is made to your letter of October 18, 1977, concerning the drilling of your proposed Morrow test.

This is to advise that we are not interested in joining in the drilling of this well. However, subject to final management approval, we would be interested in negotiating a farmout of our deep rights in this Section in support thereof. Upon your completion of the test well as a commercial producer, we would assign you our interest in the proration unit for same, reserving a 1/16 of 8/8 overriding royalty interest with an option to back-in for a 50% working interest at payout. We would reserve all rights from the surface to the base of the Delaware, at or about 5200 feet, assigning you our interest from that depth to 100 feet below total depth drilled.

Please advise us of your decision at your earliest convenience.

Yours very truly,

J. M. HUBER CORPORATION

Geo. Conner

George E. Conner
Senior Landman

GEC:mmt

CTB

RECEIVED
NOV 30 1977
LAND SECTION
MIDLAND, TEXAS

1121 FIRST PLACE / TULSA, OKLAHOMA 74103

Apexco

(918) 582-1581

November 28, 1977

Gulf Energy and Minerals Company, U. S.
P. O. Drawer 1150
Midland, Texas 79702

Attention: Mr. R. E. Griffith
Manager - Land

Re: Proposed Eddy "GN" Com. #1
N/2 Section 28, T23S-R26E
Eddy County, New Mexico

Gentlemen:

This is to advise that Apexco, Inc. is willing to farmout its 50 percent interest in the three 40 acre tracts in the N/2 of Section 28, T23S-R26E, Eddy County, New Mexico to Gulf Energy and Minerals Company, U. S.

Apexco will retain an overriding royalty interest equal to the difference between existing burdens and 25 percent with the option to convert such overriding royalty to 50 percent working interest after payout.

The rights to be earned by Gulf shall be limited to the deepest formations penetrated in the initial test well.

It should be noted that J. M. Huber Corporation owns the remaining 50 percent in this lease.

Please advise at your earliest convenience.

Very truly yours,

W. J. Phillips

WJP/nt

January 27, 1978

Re: Proposed Eddy "GN" Com No. 1
N/2-Section 28, T-23-S, R-26-E,
NMPM, EDDY COUNTY, New Mexico

Apache Exploration Corporation — Natomas — North America, Inc.
1121 First Place
Tulsa, Oklahoma 74103 — Don Chapman, 918-583-1581

Attention: Mr. W. J. Phillips

Gentlemen:

Reference is made to your letter of November 28, 1977 concerning formation of the captioned unit, wherein you agreed to farmout your interest in the captioned acreage to Gulf.

Please be advised that we have carefully reviewed your proposed farmout terms and have found them to be unacceptable in their present form. We have, in lieu thereof, filed a letter of application with the Oil Conservation Commission, State of New Mexico for the purpose of obtaining a hearing to force pool your acreage into the proposed unit. Scheduled date of the hearing is February 22, 1978. However, in order to avoid the time and expense involved in the above mentioned hearing, we hereby tender you the following:

(1) Gulf Oil Corporation will drill the captioned test well and Gulf will recover your proportionate share of the costs plus 175% of those costs as a penalty payment out of production.

(2) At that time when the costs in No. 1 above have been paid, you will be able to back in the unit with an 18.75% Working Interest and abide by the terms of the Operating Agreement.

If the above terms and conditions are acceptable, please signify your approval by signing and returning one copy of this letter to this office.

2-3-78 - Hoval received letter.

2-7-78 Don Chapman - agreeable to cost + 100%

If you have any questions, please contact Mr. Chesley Blackham at 915-682-7301, extension 468.

Yours very truly,

R. E. GRIFFITH

CTB/dh

January 27, 1978

Re: Proposed Eddy "GN" Com No. 1,
N/2-Section 28, T-23-S, R-26-E,
NMPM, EDDY COUNTY, New Mexico

J. M. Huber Corporation
1900 Wilco Building
Midland, Texas 79701

Attention: Mr. George E. Conner

Gentlemen:

Reference is made to your letter of November 9, 1977 concerning formation of the captioned unit, wherein you agreed to farmout your interest in the captioned acreage to Gulf.

Please be advised that we have carefully reviewed your proposed farmout terms and have found them to be unacceptable in their present form. We have, in lieu thereof, filed a letter of application with the Oil Conservation Commission, State of New Mexico for the purpose of obtaining a hearing to force pool your acreage into the proposed unit. Scheduled date of the hearing is February 22, 1978. However, in order to avoid the time and expense involved in the above mentioned hearing, we hereby tender you the following:

(1) Gulf Oil Corporation will drill the captioned test well and Gulf will recover your proportionate share of the costs plus 175% of those costs as a penalty payment out of production.

(2) At that time when the costs in No. 1 above have been paid, you will be able to back in the unit with an 18.75% Working Interest and abide by the terms of the Operating Agreement.

If the above terms and conditions are acceptable, please signify your approval by signing and returning one copy of this letter to this office.

2-3-78
looking at title & will let us know
if they will contest or accept
CB

If you have any questions, please contact Mr. Chesley Blackham at 915-682-7301, extension 468.

Yours very truly,

R. E. GRIFFITH

CTB/dh

J. M. HUBER CORPORATION
1900 WILCO BUILDING
MIDLAND, TEXAS 79701

RECEIVED
FEB 16 1978
LAND SECTION
MIDLAND, TEXAS

OIL AND GAS
DIVISION

February 16, 1978

TELEPHONE
915-682-3794

Gulf Energy and Minerals Company U.S.
P. O. Drawer 1150
Midland, Texas 79702

Attention: Mr. R. E. Griffith

RE: Your Proposed Eddy "GN" Com #1
N½ Section 28-23S-26E
Eddy County, New Mexico
Huber's 14-716

Gentlemen:

This is in response to your January 27, 1978 offer to this Company whereby you would allow us to go non-consent as to the above captioned Morrow test.

Please be advised that we find this proposal unacceptable. Inasmuchas you informed us only that you found our farmout proposal unacceptable but didn't indicate what you would accept, we must surmise that you aren't really interested in negotiating a farmout with us, but only wish to force pool our interest.

We ask that you give serious consideration to the implication of this course of action. Should you fail in your attempt to force pool our interest, it will mean only another delay in getting this well drilled. We feel that we have shown good faith in offering you, what we consider to be, a farmout on terms that are generally acceptable in the industry today. As it now stands, your offer is no better than what the Commission would impose should they decide to force pool our interest. Therefore, there is no advantage in accepting your offer.

We must remind you that by letter dated August 31, 1976, you agreed to a farmout of Apexco, Inc's. interest in this unit that, with the exception of our exclusion of the shallow rights, is identical in nature to the one we offered you. We have been advised that Apexco reiterated this same offer to you within the

last four (4) months, that you had agreed to accept the farmout, and that now you are also attempting to force pool their interest.

We regret that you find this hearing necessary.

Sincerely,

J. M. HUBER CORPORATION

GEC:mmt

George E. Conner
District Landman

Gulf Energy and Minerals Company - U. S.

SOUTHWEST DIVISION

J. L. Hulitt
VICE-PRESIDENT
C. E. Fields
COMPTROLLER
R. E. Galvin
GENERAL MANAGER-PRODUCTION
J. A. Hord
GENERAL MANAGER-EXPLORATION

February 20, 1978

P. O. Drawer 1150
Midland, TX 79702

J. M. Huber Corporation
1900 Wilco Building
Midland, Texas 79701

Re: Proposed Eddy "GN" Com #1, N/2
Section 28, T-23-S, R-26-E,
Eddy County, New Mexico

Gentlemen:

I refer to your letter of February 16, 1978, regarding the captioned matter. We also regret that we find this hearing necessary. However, over four years of negotiations have failed to yield an agreement which will allow this well to be drilled. As Gulf's lease on this acreage will expire on April 16, 1978, unless drilling is begun or a well completed, it is imperative that some provision be made which will allow this well to be drilled. In this regard, our decision to seek to compulsory pool the captioned land is an attempt by Gulf to insure that some provision is reached for drilling the well.

Gulf is still willing to enter into serious and meaningful negotiations to form this unit. However, given the present state of affairs, Gulf has no choice but to proceed with this hearing.

Very truly yours,

R. E. Galvin

JGS:bg

cc: Apexco
P. O. Box 2299
Tulsa, Oklahoma 74101

Gulf

A DIVISION OF GULF OIL CORPORATION

Case 4155

Feb 22

Please send copies of all correspondence to
George Conner
J. M. Huber Corp.
1900 Wilco
Midland 79701

OIL CONSERVATION COMMISSION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

February 16, 1978

COPY

Mr. Jim Jennings
P. O. Box 1180
Roswell, New Mexico 88201

Re: Case No. 6155

Dear Jim:

Enclosed is the application we received from Gulf in the above-referenced case. Please let me know if you need further information.

Very truly yours,

LYNN TESCHENDORF
General Counsel

LT/fd
enc.

J. R. MODRALL
JAMES E. SPERLING
JOSEPH E. ROEHL
GEORGE T. HARRIS, JR.
DANIEL A. SISK
LELAND S. SEDBERRY, JR.
ALLEN C. DEWEY, JR.
FRANK H. ALLEN, JR.
JAMES A. PARKER
JOHN R. COONEY
KENNETH L. HARRIGAN
PETER J. ADANG
DALE W. EK
DENNIS J. FALK
JOE R. G. FULCHER
ARTHUR D. MELENDRES
JAMES P. HOUGHTON
GEORGE J. HOPKINS
PAUL H. FISH
JUDY A. FRY
MARK B. THOMPSON III
JEFFREY W. LOUBET
RUTH M. SCHIFANI
THOMAS L. JOHNSON
LYNN H. SLADE
ALAN KONRAD

LAW OFFICES OF
MODRALL, SPERLING, ROEHL, HARRIS & SISK
PUBLIC SERVICE BUILDING
P. O. BOX 2168
ALBUQUERQUE, NEW MEXICO 87103

JOHN F. SIMMS (1885-1954)
AUGUSTUS T. SEYMOUR
(1907-1965)

TELEPHONE 243-4511
AREA CODE 505

FEB 13 1978

February 10, 1978

Mr. Joe D. Ramey
Secretary-Director
Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

Re: Application of Gulf Oil Corporation -
Case No. 6155

Dear Mr. Ramey:

Enclosed, please find Entry of Appearance on behalf of Gulf Oil Corporation in Case No. 6155, which has been docketed for the Examiner's Hearing on February 22, 1978.

Very truly yours,

James E. Sperling

/jev
Enclosure

cc: Mr. Morgan L. Copeland, w/encl.
Mr. Jeffrey G. Shrader, w/encl.

BEFORE THE OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

MAR 13 1978
OIL CONSERVATION COM.
SANTA FE

IN THE MATTER OF THE APPLICATION
OF GULF OIL CORPORATION FOR APPROVAL
TO POOL ALL MINERAL INTERESTS IN THE
PENNSYLVANIAN FORMATION, EDDY COUNTY,
NEW MEXICO

Case No. 6155

ENTRY OF APPEARANCE

The undersigned, Modrall, Sperling, Roehl, Harris & Sisk, of Albuquerque, New Mexico, hereby enter their appearance for the applicant, Gulf Oil Corporation, with its house counsel of Midland, Texas.

MODRALL SPERLING ROEHL HARRIS & SISK

By: James E. Sperling

James E. Sperling, Attorneys for
Gulf Oil Corporation
P. O. Box 2168
Albuquerque, New Mexico 87103
Telephone: (505) 243-4511

Docket No. 7-78

Dockets Nos. 9-78 and 11-78 are tentatively set for hearing on March 8 and March 22, 1978. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - FEBRUARY 22, 1978

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

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

CASE 6150: In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the amendment of Rules 311, 312, 1117, and 1118 of the Commission Rules and the revision of Forms C-117-A and C-117-B, all for the purpose of regulating the handling and reporting of tank bottoms, sediment oil, miscellaneous hydrocarbons, and the operation of treating plants.

CASE 6151: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Vega Petroleum Corporation, American Employers' Insurance Company, and all other interested parties to appear and show cause why the North Caprock Queen Unit No. 1 Well No. 5Y located in Unit E of Section 8, Township 13 South, Range 32 East, Lea County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6152: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Al Greer, American Employers' Insurance Company, and all other interested parties to appear and show cause why the Thompson Well No. 1 located in Unit N of Section 10, Township 30 North, Range 11 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6153: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Mints-Kenaston and all other interested parties to appear and show cause why the L. A. McCoy Well No. 1 located in Unit B of Section 28, Township 30 North, Range 12 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6154: Application of Read & Stevens, Inc. for a unit agreement, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for its Calumet Ranch Unit Area comprising 5,760 acres, more or less, of Federal, State, and fee lands in Township 12 South, Range 27 East, Chaves County, New Mexico.

CASE 6155: Application of Gulf Oil Corporation for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the N/2 of Section 28, Township 23 South, Range 26 East, South Carlsbad Field, Eddy County, New Mexico, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6144: (Readvertised)

Application of Southland Royalty Company for two unorthodox locations and two non-standard gas proration units, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for two 120-acre non-standard gas proration units comprising the S/2 SE/4 of Section 10 and the SW/4 SW/4 of Section 11, and comprising the SE/4 SW/4 and the S/2 SE/4 of Section 11, all in Township 28 North, Range 11 West, Fulcher Kutz-Pictured Cliffs Pool, San Juan County, New Mexico, each of said units to be dedicated to a well drilled at an unorthodox location thereon.

CASE 6156: Application of Southland Royalty Company for an unorthodox location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its East Well No. 5A to be located 1120 feet from the South line and 1790 feet from the West line of Section 24, Township 31 North, Range 12 West, Blanco-Mesaverde Gas Pool, San Juan County, New Mexico.

CASE 6157: Application of Supron Energy Corporation for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 160-acre non-standard gas proration unit comprising the SW/4 of Section 13, Township 16 South, Range 33 East, Lea County, New Mexico, to be dedicated to a Morrow gas well test to be drilled thereon.

CASE 6158: Application of C. H. Berry for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the NE/4 of Section 15, Township 24 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6159: Application of Texaco Inc., for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Drinkard and Wantz-Granite Wash production in the wellbore of its A. H. Blinebry Federal Well No. 38 located in Unit J of Section 19, Township 22 South, Range 38 East, Lea County, New Mexico.

CASE 6160: Application of Bass Enterprises Production Co., for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Delaware formation through the perforated interval from 3310 feet to 3375 feet in its Big Eddy Unit Well No. 56, located in Unit G of Section 35, Township 21 South, Range 28 East, Indian Flats-Delaware Pool, Eddy County, New Mexico.

CASE 6161: Application of Tenneco Oil Company for two waterflood projects, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project on its Leonard Federal Lease by the injection of water into the Queen formation through one well in Unit O of Section 11, and on its Leonard Brothers Lease through two wells, in Units I and M, respectively, of Section 14, all in Township 26 South, Range 37 East, Leonard Queen Pool, Lea County, New Mexico. Applicant further seeks the establishment of an administrative procedure for the addition of injection wells and the conversion of existing wells to injection at both orthodox and unorthodox locations without further notice and hearing.

CASE 6162: Application of Continental Oil Company for an unorthodox location and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Jack B-30 Well No. 2 to be located 330 feet from the North line and 1725 feet from the East line of Section 30, Township 24 South, Range 37 East, Jalmat Gas Pool, Lea County, New Mexico, the NE/4 of said Section 30 to be simultaneously dedicated to the aforesaid well and to Well No. 5 in Unit H.

CASE 6163: Application of Continental Oil Company for amendment of Commission Order No. R-3863, Lea County, New Mexico. Applicant, in the above-styled cause, seeks to substitute its Anderson Ranch Unit Wells No. 6 located in Unit X of Section 2 and Nos. 3 and 10, located in Units A and H, respectively, of Section 11, all in Township 16 South, Range 32 East, for the initial injection wells authorized by said order in its Anderson Ranch-Wolfcamp Waterflood Project, Anderson Ranch-Wolfcamp Pool, Lea County, New Mexico.

CASE 6164: Application of Shell Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Tubb, Wantz-Abo, and Brunson-Ellenburger production in the wellbore of its Shell State Section 2 Well No. 15 located in Unit K of Section 2, Township 21 South, Range 37 East, Lea County, New Mexico.

CASE 6165: Application of Shell Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Drinkard, Hare-McKee, and Brunson-Ellenburger production in the wellbore of its Shell State Section 2 Well No. 3 located in Unit U of Section 2, Township 21 South, Range 37 East, Lea County, New Mexico.

CASE 6166: Application of Odessa Natural Corporation for rescission of Order No. R-5601, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks a hearing at which any interested party could appear and show cause why Order No. R-5601, which granted a special well classification to applicant's ARCO-Little Fed. Well No. 1, located in Unit D of Section 32, Township 24 North, Range 3 West, Rio Arriba County, New Mexico, should not be rescinded.

CASE 6141: Application of Paul Slayton for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Seven Rivers formation thru the open-hole interval from 528 feet to 547 feet in his Nastie Well No. 7 located in Unit L of Section 18, Township 17 South, Range 28 East, Empire Field, Eddy County, New Mexico.

EXHIBIT 5
CASE NO. 6155
FEBRUARY 22, 1978

GAS PRODUCTION DATA (MCF)
CARLSBAD, SOUTH-MORROW GAS
EDDY COUNTY, NEW MEXICO

	C & K PETRO INC.	COQUINA		EXXON - SOUTH CARLSBAD GAS COM.				JAKE L. HAMON	
	Allied Chem. Fed 2E324S26E	Philly-Federal 1H2123S26E	State 16 1O1623S26E	No. 1 1N2323S26E	No. 2 1J2723S26E	No. 3 1C2623S26S	No. 4 1G2723S26E	St. K-4401 Com. 1C224S26E	St. L-4325 Com. 1K224S26E
	El Paso Nat'l.	Nat'l Gas P.L.	Nat'l. Gas P.L.	El Paso & Llano	Llanc Inc.	Llano Inc.	Llano Inc.	El Paso Nat'l.	El Paso Nat'l.
1977									
January	11,340	---	5,521	1,633	1,793	2,477	9,836	58,784	53,859
February	8,210	---	4,031	1,437	1,358	1,690	8,494	48,916	46,191
March	9,081	---	4,384	1,406	2,027	2,250	8,785	52,914	47,438
April	8,567	---	3,754	1,719	1,677	1,608	8,840	43,012	42,268
May	8,606	---	3,821	1,875	1,863	2,631	6,737	41,506	41,886
June	8,108	---	3,783	1,280	1,920	1,695	8,231	37,265	37,617
July	6,244	---	---	378	1,972	2,286	6,967	16,897	36,561
August	12,950	64,351	4,255	3,239	1,978	2,139	6,609	18,556	32,621
September	12,085	63,798	4,569	2,461	2,033	1,792	7,269	25,433	30,402
October	10,492	54,028	3,625	1,881	1,930	1,613	6,786	42,259	30,512
November	10,021	59,855	3,739	1,807	335	2,342	5,996	39,501	27,614
TOTALS	105,704	242,032	41,482	19,176	18,886	22,523	84,550	425,043	426,969
DAILY AVERAGE	316	1,984	154	57	57	67	253	1,273	1,278
CUMMUL.	156,184	242,032	166,922	2,020,172	541,506	159,598	938,574	2,179,593	2,113,623

EXHIBIT 5
CASE NO. 6155
FEBRUARY 22, 1978

GAS PRODUCTION DATA
CARLSBAD, SOUTH-MORROW GAS
EDDY COUNTY, NEW MEXICO

	J. M. HUBER CORPORATION					SABINE PROD.	SAMEDAN OIL CORPORATION	
	Moore Com. 1G3523S26E Transw. & Llano	O'Neill Fed. Com. 1G2323S26E Llano Inc.	Sorenson Com. 1G1423S26E Llano Inc.	Terra-State 101423S26E Llano Inc.	Yates King 1K2223S26E Llano Inc.	Bell St. Com. 1H324526E El Paso Nat'l.	Carlsbad St. Com. 1B3423S26E El Paso Nat'l	Exxon St. Com. 1J3423S26E El Paso Nat'l.
1977								
January	4,114	28,402	284	41,820	3,478	---	45,825	---
February	4,037	23,146	103	38,849	3,407	---	42,647	---
March	4,388	23,696	Last Prod. 2/77	43,919	2,951	24,470	43,012	18,907
April	4,090	24,208	Abandon Zone	41,278	1,791	21,651	35,695	26,210
May	4,174	24,077	---	40,028	260	23,097	35,071	22,140
June	3,520	20,211	---	25,744	528	21,676	30,690	22,259
July	4,208	23,286	---	2,769	599	23,682	41,243	48,419
August	3,899	21,204	---	2,150	618	21,554	31,943	41,360
September	3,795	15,587	---	2,663	4,921	18,735	32,664	35,980
October	3,982	16,025	---	2,226	2,986	22,088	29,739	34,784
November	3,516	18,163	---	22,990	1,596	21,648	29,643	30,875
TOTALS	43,723	238,005	387	264,436	23,135	198,601	398,172	280,934
DAILY AVERAGE	131	713	7	792	69	722	1,192	1,022
CUMMUL.	261,016	2,338,788	2,338,788	2,958,978	146,357	198,601	1,399,719	280,934

DRAFT

dr/

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 6155

Order No. R-5628

APPLICATION OF GULF OIL CORPORATION
FOR COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 22, 1978 at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this _____ day of _____, 1978, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Gulf Oil Corporation, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the N/2 of Section 28, Township 23 South, Range 26 East, NMPM, South Carlsbad Field, Eddy County, New Mexico.

(3) That the applicant has the right to drill and proposes to drill a well at a standard location thereon.

(4) That there are interest owners in the proposed proration unit who have not agreed to pool their interests.

(5) That to avoid the drilling of unnecessary wells, to protect correlative rights, and to afford to the owner of each interest in said unit the opportunity to recover or receive without unnecessary expense his just and fair share of the gas in said pool, the subject application should be approved by pooling all mineral interests, whatever they may be, within said unit.

(6) That the applicant should be designated the operator of the subject well and unit.

(7) That any non-consenting working interest owner should be afforded the opportunity to pay his share of estimated well costs to the operator in lieu of paying his share of reasonable well costs out of production.

(8) That any non-consenting working interest owner that does not pay his share of estimated well costs should have withheld from production his share of the reasonable well costs plus an additional 200 percent thereof as a reasonable charge for the risk involved in the drilling of the well.

(9) That any non-consenting interest owner should be afforded the opportunity to object to the actual well costs but that actual well costs should be adopted as the reasonable well costs in the absence of such objection.

(10) That following determination of reasonable well costs, any non-consenting working interest owner that has paid his share of estimated costs should pay to the operator any amount that reasonable well costs exceed estimated well costs and should receive from the operator any amount that paid estimated well costs exceed reasonable well costs.

(11) That $2720.00 per month while drilling and $272.00 per month while producing ~~per month~~ should be fixed as reasonable charges for supervision (combined fixed rates); that the operator should be authorized to withhold from production the proportionate share of such supervision charges attributable to each non-consenting working interest, and in addition thereto, the operator should be authorized to withhold from production the proportionate share of actual expenditures required for operating the subject well, not in excess of what are reasonable, attributable to each non-consenting working interest.

(12) That all proceeds from production from the subject well which are not disbursed for any reason should be placed in escrow to be paid to the true owner thereof upon demand and proof of ownership.

(13) That upon the failure of the operator of said pooled unit to commence drilling of the well to which said unit is dedicated on or before July 1, 1978, the order pooling said unit should become null and void and of no effect whatsoever.

IT IS THEREFORE ORDERED:

(1) That all mineral interests, whatever they may be, in the Pennsylvanian formation underlying the N/2 of Section 28, Township 23 South, Range 26 East, NMPM, South Carlsbad Field, Eddy County, New Mexico, are hereby pooled to form a standard 320- acre gas spacing and proration unit to be dedicated to a well to be drilled at a standard location thereon.

PROVIDED HOWEVER, that the operator of said unit shall commence the drilling of said well on or before the 1st day of July, 1978, and shall thereafter continue the drilling of said well with due diligence to a depth sufficient to test the Pennsylvanian formation;

PROVIDED FURTHER, that in the event said operator does not commence the drilling of said well on or before the 1st day of July, 1978, Order (1) of this order shall be null and void and of no effect whatsoever; unless said operator obtains a time extension from the Commission for good cause shown.

PROVIDED FURTHER, that should said well not be drilled to completion, or abandonment, within 120 days after commencement thereof, said operator shall appear before the Commission and show cause why Order (1) of this order should not be rescinded.

(2) That Gulf Oil Corporation is hereby designated the operator of the subject well and unit.

(3) That after the effective date of this order and within 30 days prior to commencing said well, the operator shall furnish the Commission and each known working interest owner in the subject unit an itemized schedule of estimated well costs.

(4) That within 30 days from the date the schedule of estimated well costs is furnished to him, any non-consenting working interest owner shall have the right to pay his share of estimated well costs to the operator in lieu of paying his share of reasonable well costs out of production, and that any such owner who pays his share of estimated well costs as provided above shall remain liable for operating costs but shall not be liable for risk charges.

(5) That the operator shall furnish the Commission and each known working interest owner an itemized schedule of actual well costs within 90 days following completion of the well; that if no objection to the actual well costs is received by the Commission and the Commission has not objected within 45 days following receipt of said schedule, the actual well costs shall be the reasonable well costs; provided however, that if there is an objection to actual well costs within said 45-day period the Commission will determine reasonable well costs after public notice and hearing.

(6) That within 60 days following determination of reasonable well costs, any non-consenting working interest owner that has paid his share of estimated costs in advance as provided

above shall pay to the operator his pro rata share of the amount that reasonable well costs exceed estimated well costs and shall receive from the operator his pro rata share of the amount that estimated well costs exceed reasonable well costs.

(7) That the operator is hereby authorized to withhold the following costs and charges from production:

(A) The pro rata share of reasonable well costs attributable to each non-consenting working interest owner who has not paid his share of estimated well costs within 30 days from the date the schedule of estimated well costs is furnished to him.

(B) As a charge for the risk involved in the drilling of the well, 200 percent of the pro rata share of reasonable well costs attributable to each non-consenting working interest owner who has not paid his share of estimated well costs within 30 days from the date the schedule of estimated well costs is furnished to him.

(8) That the operator shall distribute said costs and charges withheld from production to the parties who advanced the well costs.

(9) That $2720.00 per month while drilling and $272.00 per month while producing are ~~per month is~~ hereby fixed as reasonable charges for supervision (combined fixed rates); that the operator is hereby authorized to withhold from production the proportionate share of such supervision charges attributable to each non-consenting working interest, and in addition thereto, the operator is hereby authorized to withhold from production the proportionate share of actual expenditures required for operating such well, not in excess of what are reasonable, attributable to each non-consenting working interest.

(10) That any unsevered mineral interest shall be considered a seven-eighths (7/8) working interest and a one-eighth (1/8) royalty interest for the purpose of allocating costs and charges under the terms of this order.

(11) That any well costs or charges which are to be paid out of production shall be withheld only from the working interests share of production, and no costs or charges shall be withheld from production attributable to royalty interests.

(12) That all proceeds from production from the subject well which are not disbursed for any reason shall be placed in escrow in Eddy County, New Mexico, to be paid to the true owner thereof upon demand and proof of ownership; that the operator shall notify the Commission of the name and address of said escrow agent within 90 days from the date of this order.

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

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

Case 6155

Gulf Energy and Minerals Company-U.S.

SOUTHWEST DIVISION

J. L. Huitt
VICE-PRESIDENT
C. E. Fields
COMPTROLLER
R. E. Galvin
GENERAL MANAGER-PRODUCTION
J. A. Hord
GENERAL MANAGER-EXPLORATION

P. O. Drawer 1150
Midland, TX 79702

January 27, 1978

New Mexico Oil Conservation Commission (3)
Post Office Box 2088
Santa Fe, New Mexico 88501

ATTENTION: Mr. Joe D. Ramey

Gentlemen:

Gulf Oil Corporation respectfully requests that a hearing be scheduled on your Examiner Hearing Docket for February 22, 1978 to consider an order pooling all mineral interests in the Pennsylvanian formation underlying the N/2, Section 28, Township 23 South, Range 26 East, N.M.P.M., South Carlsbad Field, Eddy County, New Mexico.

The above standard 320 acre unit is to be dedicated to the Eddy "GN" State Com., Well No. 1 to be located at a regular location in Unit G, 1880 feet from the North Line and 1980 feet from the East Line of Section 28. To be considered at the hearing will be designation of operator, drilling and completion costs, as well as risk and supervision charges.

Yours very truly,

J. M. THACKER
Manager - Operations

CFK:sdn

Case
6155

Gulf Energy and Minerals Company-U.S.

SOUTHWEST DIVISION

J. L. Huitt
VICE PRESIDENT
C. E. Fields
COMPTROLLER
R. E. Galvin
GENERAL MANAGER PRODUCTION
J. A. Hord
GENERAL MANAGER EXPLORATION

P. O. Drawer 1150
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Santa Fe, New Mexico 88501

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The above standard 320 acre unit is to be dedicated to the Eddy "GN" State Com., Well No. 1 to be located at a regular location in Unit G, 1880 feet from the North Line and 1980 feet from the East Line of Section 28. To be considered at the hearing will be designation of operator, drilling and completion costs, as well as risk and supervision charges.

Yours very truly,

J. M. THACKER
Manager - Operations

CFK:sdn

CASE 6136: SOUTHLAND ROYALTY COMPANY FOR AN UNORTHODOX LOCATION, SAN JUAN COUNTY, NEW MEXICO

Case Number

6156

Application

Transcripts.

Small Exhibits

ETC.

sid morrish reporting service
General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
March 8, 1978

EXAMINER HEARING

IN THE MATTER OF:

Application of Southland Royalty Company for an unorthodox location, San Juan County, New Mexico.

CASE 6156

BEFORE: Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

For the New Mexico Oil Conservation Commission: Lynn Teschendorf, Esq.
Legal Counsel for the Commission
State Land Office Building
Santa Fe, New Mexico

MR. NUTTER: Call the next case, Case 6156.

MS. TESCHENDORF: Case 6156, application of Southland Royalty Company for an unorothodox location, San Juan County, New Mexico.

MR. NUTTER: Case Number 6156 has been previously heard but it was readvertised for a correction of a legal notice and are there any appearances at this time in Case Number 6156?

We will take the case under advisement.

(THEREUPON, the case was concluded.)

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Phone (505) 982-9212

REPORTER'S CERTIFICATE

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

Sidney F. Morrish, C.S.R.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 6156, heard by me on 3/6, 1978.

, Examiner
New Mexico Oil Conservation Commission

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Phone (505) 982-9212

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Phone (505) 982-9212

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
22 February 1978

EXAMINER HEARING

IN THE MATTER OF:

Application of Southland Royalty Company for an unorthodox location, San Juan County, New Mexico.

CASE 6156

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Commission: Lynn Teschendorf, Esq.
Legal Counsel for the Commission
State Land Office Building
Santa Fe, New Mexico

For the Applicant: Michael Campbell, Esq.
CAMPBELL, BINGAMAN & BLACK
Jefferson Plaza
Santa Fe, New Mexico

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Phone (505) 982-9212

I N D E X

LARRY VAN RYAN

Direct Examination by Mr. Campbell 4

Cross Examination by Mr. Kendrick 7

Cross Examination by Mr. Stamets 7

E X H I B I T S

Southland Exhibit One, Document 6

Southland Exhibit Two, Document 6

MR. STAMETS: We'll call next Case 6156.

MS. TESCHENDORF: Case 6156. Application of Southland Royalty Company for an unorthodox location, San Juan County, New Mexico.

MR. STAMETS: Call for appearances.

MR. CAMPBELL: Michael Campbell with Campbell, Bingaman and Black, on behalf of Southland Royalty Company. We have one witness, Mr. Examiner.

MR. STAMETS: Same witness as in the last case, and the record should show that the witness has been sworn and qualified.

MR. CAMPBELL: Mr. Examiner, I would like to make a statement to the general effect that Case Number 6156 is an application for a non-standard proration unit. It is our understanding and we realize that when the case was originally advertised, there was a mis-description of property. We have notified the Commission to that effect, and I understand that it will be readvertised depicting the correct property description.

We requested permission to go ahead and present our testimony here today to -- so that we don't have to come back in again.

MR. STAMETS: I believe this is a non-standard location and not a non-standard unit.

MR. CAMPBELL: Excuse me, it is.

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MR. STAMETS: Okay, and what's the error in the description?

MR. CAMPBELL: It should read from the south line 1120 instead of -- it does read from the south line and it should read from the north line.

MR. STAMETS: Okay, very good. Then this will be readvertised for the March the 8th hearing and be re-opened at that time for any additional testimony, and we will hear testimony today.

LARRY VAN RYAN

being called as a witness on behalf of Southland Royalty Company, and having been duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. CAMPBELL:

Q. Would you please state your name and your position with Southland Royalty Company?

A. Yes. My name is Larry Van Ryan and I'm a District Production Manager for Southland Royalty Company.

Q. Have you previously testified before this Commission?

A. Yes.

Q. And have your qualifications been accepted as

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adequate?

A. Yes, they have.

Q. In what field?

A. Petroleum Engineering.

Q. I am handing you what has been marked Southland's Exhibit Number One and ask you to state whether you prepared that or whether it was prepared under your direct supervision?

A. It was prepared under my supervision.

Q. Would you please explain what Southland Royalty seeks by its application and relate that to the exhibit?

A. Southland Royalty requests an unorthodox location for the east Number Five-A Well, which will be an infill Mesaverde well.

The reason for the non-standard or the unorthodox location is the unusual shape of the proration unit, in which the northwest of the northwest quarter of Section 24 is not dedicated to the wells in the west half of Section 24. And as opposed to that, the southeast of the southeast quarter of Section 23 is a portion of this proration unit.

Q. I am handing you what has been marked as Southland's Exhibit Number Two and ask you to state what that exhibit indicates?

A. This exhibit shows the unusual proration unit

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Phone (505) 982-9212

for this Mesaverde proration unit, unusual size, and it shows that an orthodox location is not feasible in the northwest quarter of Section 24. In other words, we could not stay 790 feet away from the proration unit boundaries and still drill a well in this quarter section.

Q. It is your testimony, then, that there is not an orthodox location for your Five-A Well within that proration unit?

A. Within the northwest quarter, which would be the required area for an infill Mesaverde well.

MR. CAMPBELL: Mr. Examiner, I would move for the introduction of Southland's Exhibits One and Two.

MR. STAMETS: These exhibits will be admitted.

Q. (Mr. Campbell continuing.) In your opinion, Mr. Van Ryan, would the Commission's approval of this application prevent waste and protect correlative rights?

A. Yes, it would. It would allow us to drill a well in what would normally be a standard drainage area and facilitate a more uniform drainage of the Blanco-Mesaverde Pool.

MR. CAMPBELL: Mr. Examiner, I have no further questions.

MR. STAMETS: Mr. Kendrick.

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Phone (505) 982-9212

CROSS EXAMINATION

BY MR. KENDRICK:

Q. What outside parties own an offset to this quarter section?

A. None. Southland Royalty Company is the operator of all the offset acreage to this unit.

MR. KENDRICK: That's all.

CROSS EXAMINATION

BY MR. STAMETS:

Q. Mr. Van Ryan, what order number approved this non-standard proration unit?

A. I believe this was Administrative Order NWU-37.

MR. STAMETS: Okay, thank you very much. Any other questions of the witness?

If there's nothing further the witness may be excused and the case will be taken under advisement.

(Hearing concluded.)

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Phone (505) 982-9212

REPORTER'S CERTIFICATE

I, Sally Walton Boyd, a Certified Shorthand Reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and the same is a true and correct record of the said proceedings to the best of my knowledge, skill, and ability.

Sally Walton Boyd

Sally Walton 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. 6156, heard by me on 3-22, 1978.

Richard L. Stamets, Examiner

New Mexico Oil Conservation Commission

sid morrish reporting service
General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 - SANTA FE
87501

DIRECTOR
JOE D. RAMEY

LAND COMMISSIONER
PHIL R. LUCERO

STATE GEOLOGIST
EMERY C. ARNOLD

March 28, 1978

Re: CASE NO. 6156
ORDER NO. R-5674

Mr. Michael Campbell
Campbell, Bingaman & Black
Attorneys at Law
Post Office Box 2208
Santa Fe, New Mexico 87501

Applicant:

South land Royalty Company

Dear Sir:

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

Yours very truly,

JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCC x
Artesia OCC x
Aztec OCC x

Other

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 6156
Order No. R-5674

APPLICATION OF SOUTHLAND ROYALTY COMPANY
FOR AN UNORTHODOX GAS WELL LOCATION,
SAN JUAN COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 22 and March 8, 1978, at Santa Fe, New Mexico, before Examiners Richard L. Stamets and Daniel S. Nutter, respectively.

NOW, on this 21st day of March, 1978, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiners, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Southland Royalty Company, seeks approval of an unorthodox gas well location 1120 feet from the North line and 1790 feet from the West line of Section 24, Township 31 North, Range 12 West, NMPM, Blanco-Mesaverde Pool, San Juan County, New Mexico.

(3) That the 320-acre non-standard proration unit previously authorized by Commission Order NWU-37 shall be dedicated to the well.

(4) That a well at said unorthodox location will better enable applicant to produce the gas underlying the proration unit.

(5) That no offset operator objected to the proposed unorthodox location.

(6) That approval of the subject application will afford the applicant the opportunity to produce its just and equitable share of the gas in the subject pool, will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and will otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That an unorthodox gas well location is hereby approved for the Southland Royalty Company East Well No. 5A to be located at a point 1120 feet from the North line and 1790 feet from the West line of Section 24, Township 31 North, Range 12 West, NMPM, Blanco-Mesaverde Pool, San Juan County, New Mexico.

(2) That the previously approved 320-acre non-standard gas proration unit consisting of the SE/4 SE/4 of Section 23 and the SW/4, S/2 NW/4 and NE/4 NW/4 of Section 24, both in said Township 31 North, Range 12 West, shall be dedicated to the above-described well.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

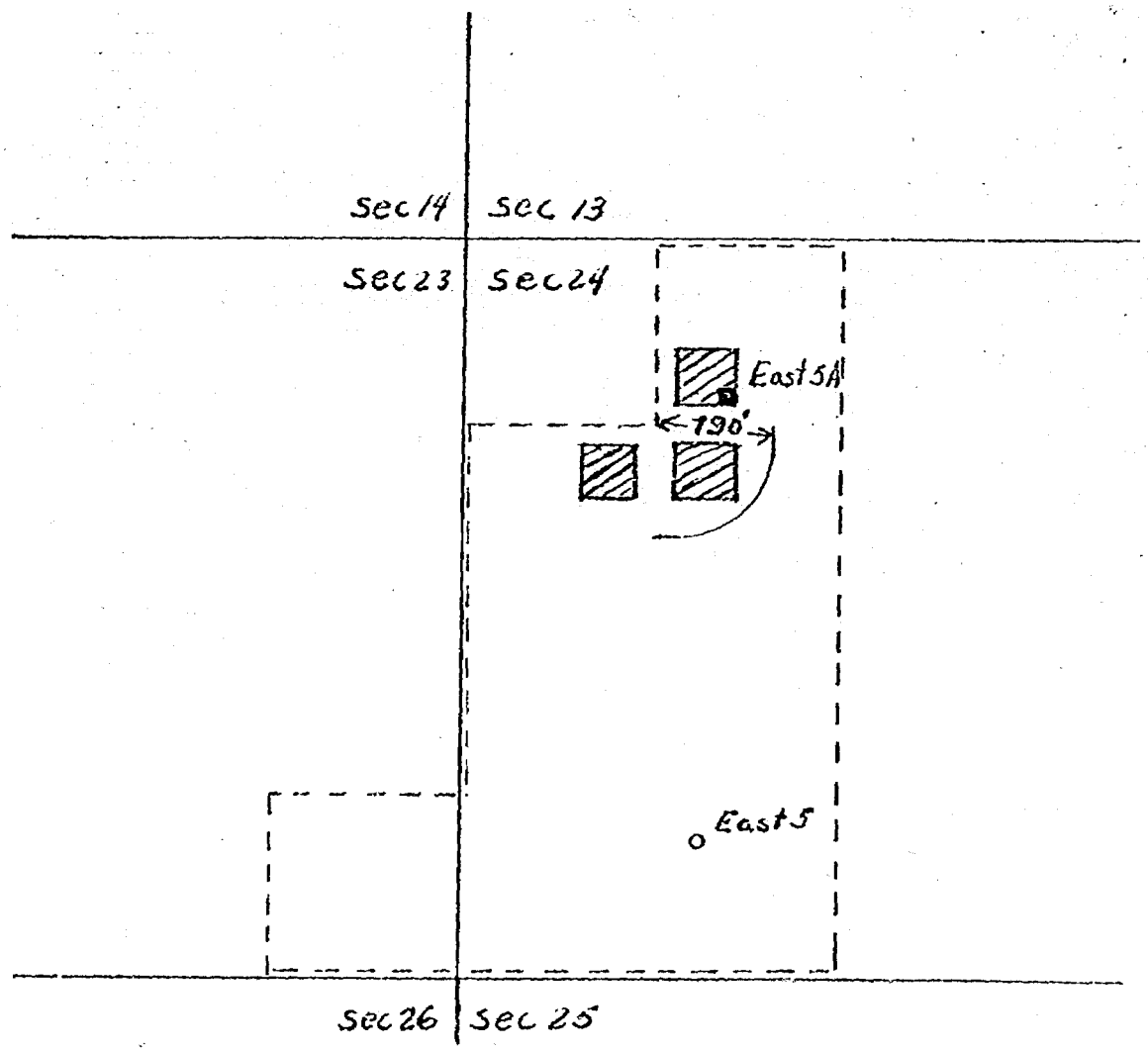
PHIL R. LUCERO, Chairman

EMERY C. ARNOLD, Member

JOE D. RAMEY, Member & Secretary

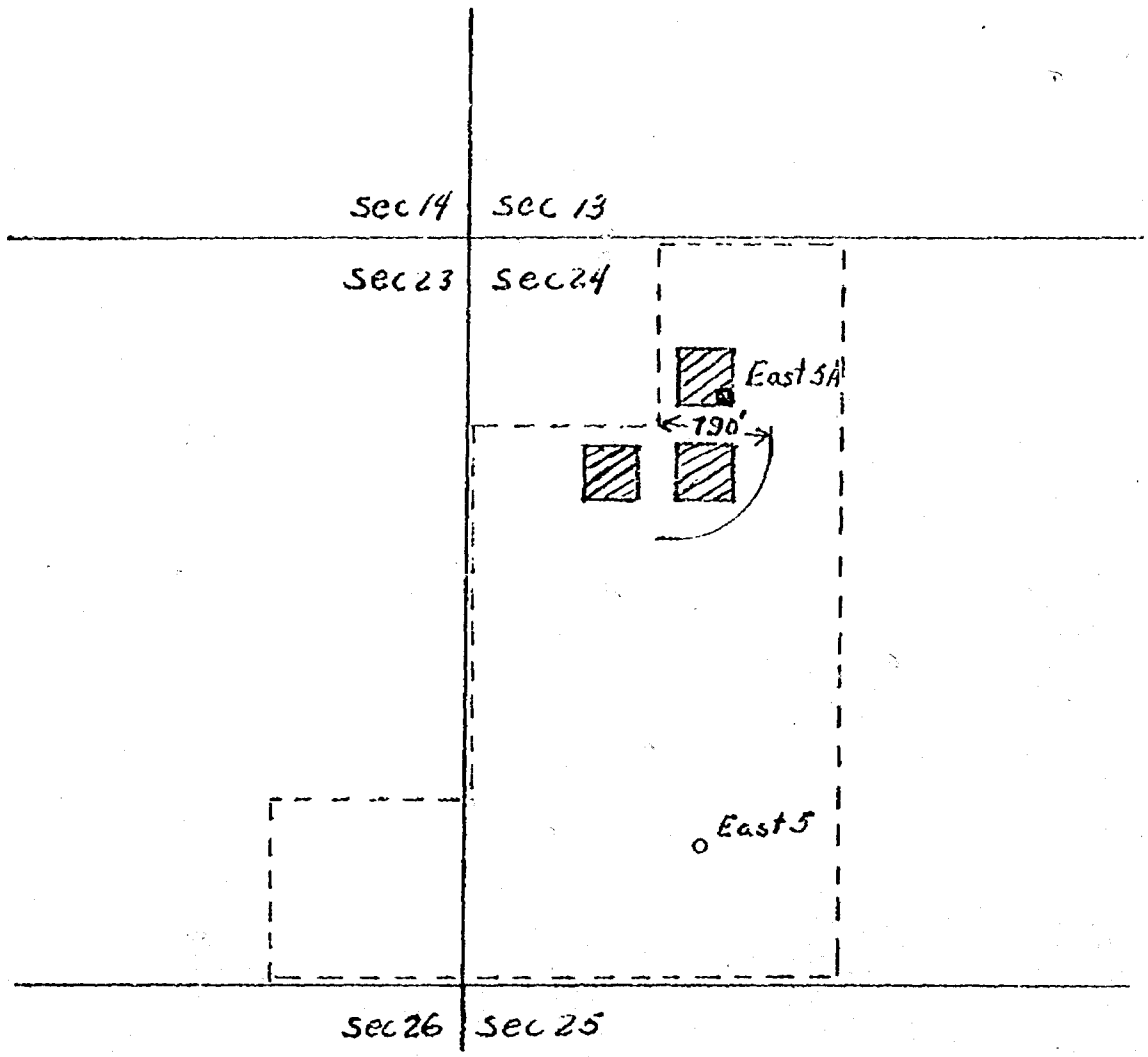
S E A L

jr/



BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
EXHIBIT NO. 2
CASE NO. 6156
Submitted by Southland
Hearing Date 2/22/78

Southland Royalty Company
East 5A
Sec 24 - 31N - 12W
(1120'FNL - 1790'FWL)



BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
EXHIBIT NO. 2
CASE NO. 6156
Submitted by Southland
Hearing Date 2/22/78

Southland Royalty Company
East 5A
Sec 24 - 31N - 12W
(1120' FNL - 1790' FWL)

Dockets Nos. 11-78 and 12-78 are tentatively set for hearing on March 22 and April 5, 1978. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - MARCH 8, 1978

9 A.M. - OIL CONSERVATION COMMISSION 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 6167: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Saguaro Oil Company and all other interested parties to appear and show cause why the Tenneco Santa Fe Well No. 1 located in Unit D of Section 31, Township 18 North, Range 8 West, McKinley County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6168: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Rutter and Wilbanks Brothers, Maryland Casualty Company, and all other interested parties to appear and show cause why the Magruder State Well No. 1 located in Unit E of Section 36, Township 17 South, Range 27 East, Eddy County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6169: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Petroleum Products Refining and Producing Company, and all other interested parties to appear and show cause why the Santa Fe Pacific Wells Nos. 1 and 2 located in Units F and K, respectively, of Section 21, Township 21 North, Range 8 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6170: Application of Aminoil USA, Inc., for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for its Westlake Unit Area comprising 1920 acres, more or less, of State lands in Township 24 South, Range 34 East, Lea County, New Mexico.

CASE 6171: Application of J. M. Huber Corporation for a non-standard proration unit, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 160-acre non-standard proration unit comprising the SW/4 NE/4, W/2 SE/4 and SE/4 SE/4 of Section 10, Township 23 South, Range 26 East, Yarrow-Delaware Gas Pool, Eddy County, New Mexico, to be dedicated to a well to be drilled at an unorthodox location 990 feet from the South line and 1650 feet from the East line of said Section 10.

CASE 6172: Application of Morris R. Antweil 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 22, Township 19 South, Range 25 East, Eddy County, New Mexico, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6173: Application of Harvey E. Yates Company for an unorthodox gas well location, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval of an unorthodox location for its Crosby Well No. 1 located 990 feet from the North line and 660 feet from the West line of Section 34, Township 7 South, Range 30 East, Cato Field, Chaves County, New Mexico, the W/2 of said Section 34 to be dedicated to the well.

CASE 6174: Application of Yates Petroleum Corporation for an unorthodox location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of an unorthodox location for its Moore "JD" Well No. 1 to be located 660 feet from the South and East lines of Section 34, Township 17 South, Range 26 East, Kennedy Farms Field, Eddy County, New Mexico, the S/2 of said Section 34 to be dedicated to the well.

CASE 6096: (Continued from February 8, 1978, Examiner Hearing)

Application of Texas Oil & Gas Corporation for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp and Pennsylvanian formations underlying the S/2 of Section 14, Township 21 South, Range 34 East, Lea County, New Mexico, to be dedicated to applicant's South Wilson State Well No. 1 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6175: Application of Petroleum Corporation of Texas for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation through the open-hole interval from 3000 feet to 3258 feet in its Jenkins "B" Fed. Well No. 1 located in Unit E of Section 20, Township 17 South, Range 30 East, Grayburg-Jackson Pool, Eddy County, New Mexico.

CASE 6176: Application of Read & Stevens, Inc., for an unorthodox location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Scharb Com Well No. 1 located in the center of Unit J of Section 7, Township 19 South, Range 35 East, Scharb-Bone Spring Pool, Lea County, New Mexico.

CASE 6156: (Readvertised)

Application of Southland Royalty Company for an unorthodox location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its East Well No. 5A to be located 1120 feet from the North line and 1790 feet from the West line of Section 24, Township 31 North, Range 12 West, Blanco-Mesaverde Pool, San Juan County, New Mexico.

CASE 6177: Application of Texas International Petroleum Corporation for directional drilling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the directional drilling of a proposed gas well, the surface location of which would be 1650 feet from the South line and 1800 feet from the East line of Section 29, Township 20 South, Range 30 East, Golden Lane Field, Eddy County, New Mexico, in such a manner as to bottom said well in the Morrow formation within 100 feet of a point 1980 feet from the North line and 1985 feet from the West line of said Section 29, the N/2 of the Section to be dedicated to the well.

CASE 6178: In the matter of the application of the Oil Conservation Commission of New Mexico upon its own motion for an order creating and extending certain pools in Chaves, Eddy, Lea, and Roosevelt Counties, New Mexico, and the assignment of a discovery allowable in Eddy County, New Mexico.

(a) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Atoka production and designated as the Alacran Hills-Atoka Gas Pool. The discovery well is the Read and Stevens, Inc. WR State Com Well No. 1 located in Unit X of Section 6, Township 21 South, Range 27 East, NMPM. Said pool would comprise:

TOWNSHIP 21 SOUTH, RANGE 27 EAST, NMPM
Section 6: Lots 9, 10, 15, 16 & SE/4

(b) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Atoka production and designated as the West Malaga-Atoka Gas Pool. The discovery well is the HNG Oil Company Valdez 5 Com Well No. 1 located in H of Section 5, Township 24 South, Range 28 East, NMPM. Said pool would comprise:

TOWNSHIP 24 SOUTH, RANGE 28 EAST, NMPM
Section 5: E/2

(c) CREATE a new pool in Eddy County, New Mexico, classified as an oil pool for Wolfcamp production and designated as the Palmillo-Wolfcamp Pool, and assign 43,300 barrels of discovery allowable to the discovery well, Southland Royalty Company Palmillo State Well No. 1 located in Unit G of Section 32, Township 18 South, Range 29 East, NMPM. Said pool would comprise:

TOWNSHIP 18 SOUTH, RANGE 29 EAST, NMPM
Section 32: NE/4

(d) CREATE a new pool in Chaves County, New Mexico, classified as an oil pool for San Andres production and designated as the Railroad Mountain-San Andres Pool. The discovery well is the Harlow Corporation Graves Well No. 1 located in Unit F of Section 11, Township 8 South, Range 28 East, NMPM. Said pool would comprise:

TOWNSHIP 8 SOUTH, RANGE 28 EAST, NMPM
Section 11: NW/4

(e) EXTEND the Angell Ranch-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 28 EAST, NMPM
Section 31: All

(f) EXTEND the Avalon-Strawn Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 27 EAST, NMPM
Section 31: S/2
Section 32: S/2

(g) EXTEND the Bass-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 28 EAST, NMPM
Section 29: W/2

(h) EXTEND the South Brunson-Abo Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 38 EAST, NMPM
Section 31: S/2

(i) EXTEND the West Bubbling Springs-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 25 EAST, NMPM
Section 25: All
Section 26: E/2

(j) EXTEND the Buffalo Valley-Pennsylvanian Gas Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 15 SOUTH, RANGE 28 EAST, NMPM
Section 17: N/2

(k) EXTEND the Burton Flat-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 27 EAST, NMPM
Section 13: S/2
Section 23: All
Section 26: N/2

(l) EXTEND the East Burton Flat-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 28 EAST, NMPM
Section 12: E/2

TOWNSHIP 20 SOUTH, RANGE 29 EAST, NMPM
Section 7: All

(m) EXTEND the Cabin Lake-Strawn Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 30 EAST, NMPM
Section 1: S/2 SW/4
Section 2: SE/4 SE/4

(n) EXTEND the South Carlsbad Cherry Canyon Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 27 EAST, NMPM
Section 20: NW/4 SW/4

(o) EXTEND the South Carlsbad-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 26 EAST, NMPM
Section 11: All
Section 12: S/2

TOWNSHIP 22 SOUTH, RANGE 27 EAST, NMPM
Section 7: W/2

TOWNSHIP 23 SOUTH, RANGE 27 EAST, NMPM
Section 8: E/2
Section 9: All
Section 16: All

(p) EXTEND the East Carlsbad-Wolfcamp Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 27 EAST, NMPM
Section 2: SE/4
Section 11: E/2

(q) EXTEND the Cato-San Andres Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 8 SOUTH, RANGE 31 EAST, NMPM
Section 5: NW/4

(r) EXTEND the Cemetery-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 24 EAST, NMPM
Section 24: N/2

TOWNSHIP 21 SOUTH, RANGE 24 EAST, NMPM
Section 6: S/2

(s) EXTEND the East Chisum-San Andres Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 11 SOUTH, RANGE 28 EAST, NMPM
Section 16: E/2 W/2 & SE/4

(t) EXTEND the Chaveroo-San Andres Pool in Roosevelt County, New Mexico, to include therein:

TOWNSHIP 7 SOUTH, RANGE 32 EAST, NMPM
Section 34: SE/4

(u) EXTEND the South Corbin-Morrow Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 33 EAST, NMPM
Section 20: SE/4

(v) EXTEND the North Dagger Draw-Upper Pennsylvanian Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 25 EAST, NMPM
Section 16: NW/4

(w) EXTEND the vertical limits of the Daugherity-San Andres Pool in Eddy County, New Mexico, to include the Grayburg formation, redesignate said pool as the Daugherity Grayburg-San Andres Pool and extend the horizontal limits of said pool to include therein:

TOWNSHIP 17 SOUTH, RANGE 27 EAST, NMPM
Section 10: N/2 NE/4

(x) EXTEND the Dickenson-San Andres Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 10 SOUTH, RANGE 36 EAST, NMPM
Section 35: S/2

(y) EXTEND the East Eagle Creek Atoka-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 25 EAST, NMPM
Section 23: E/2

(z) EXTEND the South Empire-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 29 EAST, NMPM
Section 5: N/2
Section 7: N/2
Section 8: W/2

(aa) EXTEND the Fordinkus-Cisco Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 24 EAST, NMPM
Section 22: E/2
Section 23: All

(bb) EXTEND the West Four Mile Draw-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 26 EAST, NMPM
Section 5: S/2

(cc) EXTEND the Kennedy Farms-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 26 EAST, NMPM
Section 26: S/2
Section 35: N/2

(dd) EXTEND the South Leonard-Queen Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 26 SOUTH, RANGE 37 EAST, NMPM
Section 13: SW/4

(ee) EXTEND the Reeves-Queen Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 35 EAST, NMPM
Section 22: SW/4

(ff) EXTEND the Sams Ranch-Grayburg Gas Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 14 SOUTH, RANGE 28 EAST, NMPM
Section 8: NE/4
Section 9: NW/4

(gg) EXTEND the Sanmal-Wolfcamp Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 16 SOUTH, RANGE 33 EAST, NMPM
Section 33: NW/4

(hh) EXTEND the Tomahawk-San Andres Pool in Roosevelt County, New Mexico, to include therein:

TOWNSHIP 7 SOUTH, RANGE 32 EAST, NMPM
Section 31: NW/4

(ii) EXTEND the North Turkey Track-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 29 EAST, NMPM
Section 30: S/2
Section 32: S/2

(jj) EXTEND the North Vacuum-Abo Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 35 EAST, NMPM
Section 30: NE/4

****

Docket No. 10-78

DOCKET: EXAMINER HEARING - WEDNESDAY - MARCH 15, 1978

9 A.M. - OIL CONSERVATION COMMISSION 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:

ALLOWABLE: (1) Consideration of the allowable production of gas for April, 1978, from fifteen prorated pools in Lea, Eddy and Chaves Counties, New Mexico.

(2) Consideration of the allowable production of gas for April, 1978, from four prorated pools in San Juan, Rio Arriba and Sandoval Counties, New Mexico.

Memo

From
D. S. NUTTER
CHIEF ENGINEER

To Juanita

Would you believe that we goofed again for Southland Royalty.

In Case No 6156, it should be 1120 feet from the North line, not South. Lets re-run it for Mar 8.

Dockets Nos. 9-78 and 11-78 are tentatively set for hearing on March 8 and March 22, 1978. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - FEBRUARY 22, 1978

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

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

CASE 6150: In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the amendment of Rules 311, 312, 1117, and 1118 of the Commission Rules and the revision of Forms C-117-A and C-117-B, all for the purpose of regulating the handling and reporting of tank bottoms, sediment oil, miscellaneous hydrocarbons, and the operation of treating plants.

CASE 6151: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Vega Petroleum Corporation, American Employers' Insurance Company, and all other interested parties to appear and show cause why the North Ceprock Queen Unit No. 1 Well No. 5Y located in Unit E of Section 8, Township 13 South, Range 32 East, Lea County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6152: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Al Greer, American Employers' Insurance Company, and all other interested parties to appear and show cause why the Thompson Well No. 1 located in Unit H of Section 10, Township 30 North, Range 11 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6153: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Mints-Kenaston and all other interested parties to appear and show cause why the L. A. McCoy Well No. 1 located in Unit B of Section 28, Township 30 North, Range 12 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6154: Application of Read & Stevens, Inc. for a unit agreement, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for its Calumet Ranch Unit Area comprising 5,760 acres, more or less, of Federal, State, and fee lands in Township 12 South, Range 27 East, Chaves County, New Mexico.

CASE 6155: Application of Gulf Oil Corporation for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the N/2 of Section 28, Township 23 South, Range 26 East, South Carlsbad Field, Eddy County, New Mexico, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6144: (Readvertised)

Application of Southland Royalty Company for two unorthodox locations and two non-standard gas proration units, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for two 120-acre non-standard gas proration units comprising the S/2 SE/4 of Section 10 and the SW/4 SW/4 of Section 11, and comprising the SE/4 SW/4 and the S/2 SE/4 of Section 11, all in Township 28 North, Range 11 West, Fulcher Kutz-Pictured Cliffs Pool, San Juan County, New Mexico, each of said units to be dedicated to a well drilled at an unorthodox location thereon.

CASE 6156: Application of Southland Royalty Company for an unorthodox location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its East Well No. 5A to be located 1120 feet from the ~~South~~ North line and 1790 feet from the West line of Section 24, Township 31 North, Range 12 West, Blanco-Mesaverde Gas Pool, San Juan County, New Mexico.

CASE 6157: Application of Supron Energy Corporation for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 160-acre non-standard gas proration unit comprising the SW/4 of Section 13, Township 16 South, Range 33 East, Lea County, New Mexico, to be dedicated to a Morrow gas well test to be drilled thereon.

CASE 6158: Application of O. H. Berry for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the NE/4 of Section 15, Township 24 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6159: Application of Texaco Inc., for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Drinkard and Wantz-Granite Wash production in the wellbore of its A. H. Blinebry Federal Well No. 38 located in Unit J of Section 19, Township 22 South, Range 38 East, Lea County, New Mexico.

CASE 6160: Application of Bass Enterprises Production Co., for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Delaware formation through the perforated interval from 3310 feet to 3375 feet in its Big Eddy Unit Well No. 56, located in Unit G of Section 35, Township 21 South, Range 28 East, Indian Flats-Delaware Pool, Eddy County, New Mexico.

CASE 6161: Application of Tenneco Oil Company for two waterflood projects, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project on its Leonard Federal Lease by the injection of water into the Queen formation through one well in Unit O of Section 11, and on its Leonard Brothers Lease through two wells, in Units I and M, respectively, of Section 14, all in Township 26 South, Range 37 East, Leonard Queen Pool, Lea County, New Mexico. Applicant further seeks the establishment of an administrative procedure for the addition of injection wells and the conversion of existing wells to injection at both orthodox and unorthodox locations without further notice and hearing.

CASE 6162: Application of Continental Oil Company for an unorthodox location and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Jack B-30 Well No. 2 to be located 330 feet from the North line and 1725 feet from the East line of Section 30, Township 24 South, Range 37 East, Jalmat Gas Pool, Lea County, New Mexico, the NE/4 of said Section 30 to be simultaneously dedicated to the aforesaid well and to Well No. 5 in Unit H.

CASE 6163: Application of Continental Oil Company for amendment of Commission Order No. R-3863, Lea County, New Mexico. Applicant, in the above-styled cause, seeks to substitute its Anderson Ranch Unit Wells No. 6 located in Unit X of Section 2 and Nos. 3 and 10, located in Units A and H, respectively, of Section 11, all in Township 16 South, Range 32 East, for the initial injection wells authorized by said order in its Anderson Ranch-Wolfcamp Waterflood Project, Anderson Ranch-Wolfcamp Pool, Lea County, New Mexico.

CASE 6164: Application of Shell Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Tubb, Wantz-Abo, and Brunson-Ellenburger production in the wellbore of its Shell State Section 2 Well No. 15 located in Unit K of Section 2, Township 21 South, Range 37 East, Lea County, New Mexico.

CASE 6165: Application of Shell Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Drinkard, Hare-McKee, and Brunson-Ellenburger production in the wellbore of its Shell State Section 2 Well No. 3 located in Unit U of Section 2, Township 21 South, Range 37 East, Lea County, New Mexico.

CASE 6166: Application of Odessa Natural Corporation for rescission of Order No. R-5601, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks a hearing at which any interested party could appear and show cause why Order No. R-5601, which granted a special well classification to applicant's ARCO-Little Fed. Well No. 1, located in Unit D of Section 32, Township 24 North, Range 3 West, Rio Arriba County, New Mexico, should not be rescinded.

CASE 6141: Application of Paul Slayton for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Seven Rivers formation thru the open-hole interval from 528 feet to 547 feet in his Hastie Well No. 7 located in Unit L of Section 18, Township 17 South, Range 28 East, Empire Field, Eddy County, New Mexico.

Case 6156

Southland Royalty Company

January 19, 1978

NSL
R

Mr. Joe D. Ramey
Secretary-Director
New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico

Dear Sir:

Southland Royalty Company hereby makes application for administrative approval of a non-standard location for the East #5A, a Mesa Verde infill well. The location is non-standard only because of the unusual acreage dedication shown on the attached plat and approved by administrative order #NWU-37 on May 12, 1955.

All offset drill tracts are owned by Southland Royalty Company.

Yours truly,

Curtis C. Parsons

Curtis C. Parsons
District Engineer

CCP/eg

Attachment

CC: Mr. Al Kendrick
N.M.O.C.C. - Aztec

P.O. DRAWER 570 (505) 325-1841 FARMINGTON, NEW MEXICO 87401

Case 6156

OIL CONSERVATION COMMISSION
Hobbs DISTRICT

JAN 23 1978

OIL CONSERVATION COMMISSION
BOX 2088
SANTA FE, NEW MEXICO

DATE 1-20-78

R. L. Stamets

RE: Proposed MC _____
Proposed DHC _____
Proposed NSL ✓
Proposed SWD _____
Proposed WFX _____
Proposed PMX _____

Gentlemen:

I have examined the application dated 1-19-78

for the Southland Royalty Co. East #5A C-24-31N-12W
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

The infill well cannot be 790' from the unit boundary because of the shape of the unit.

Approve

Yours very truly,

A R Kendrick

Hobbs Dist

Case 6156

Southland Royalty Company

JAN 23 1978

January 19, 1978

Mr. Joe D. Ramey
Secretary-Director
New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico

Dear Sir:

Southland Royalty Company hereby makes application for administrative approval of a non-standard location for the East #5A, a Mesa Verde infill well. The location is non-standard only because of the unusual acreage dedication shown on the attached plat and approved by administrative order #NWU-37 on May 12, 1955.

All offset drill tracts are owned by Southland Royalty Company.

Yours truly,

Curtis C. Parsons

Curtis C. Parsons
District Engineer

CCP/eg

Attachment

CC: Mr. Al Kendrick
N.M.O.C.C. - Aztec

JAN 20 1978
OIL CON. COM.
DIST. 3

P.O. DRAWER 570 (505) 325-1841 FARMINGTON, NEW MEXICO 87401

Case 6156

NEW MEXICO
OIL CONSERVATION COMMISSION

Gas Well Plat

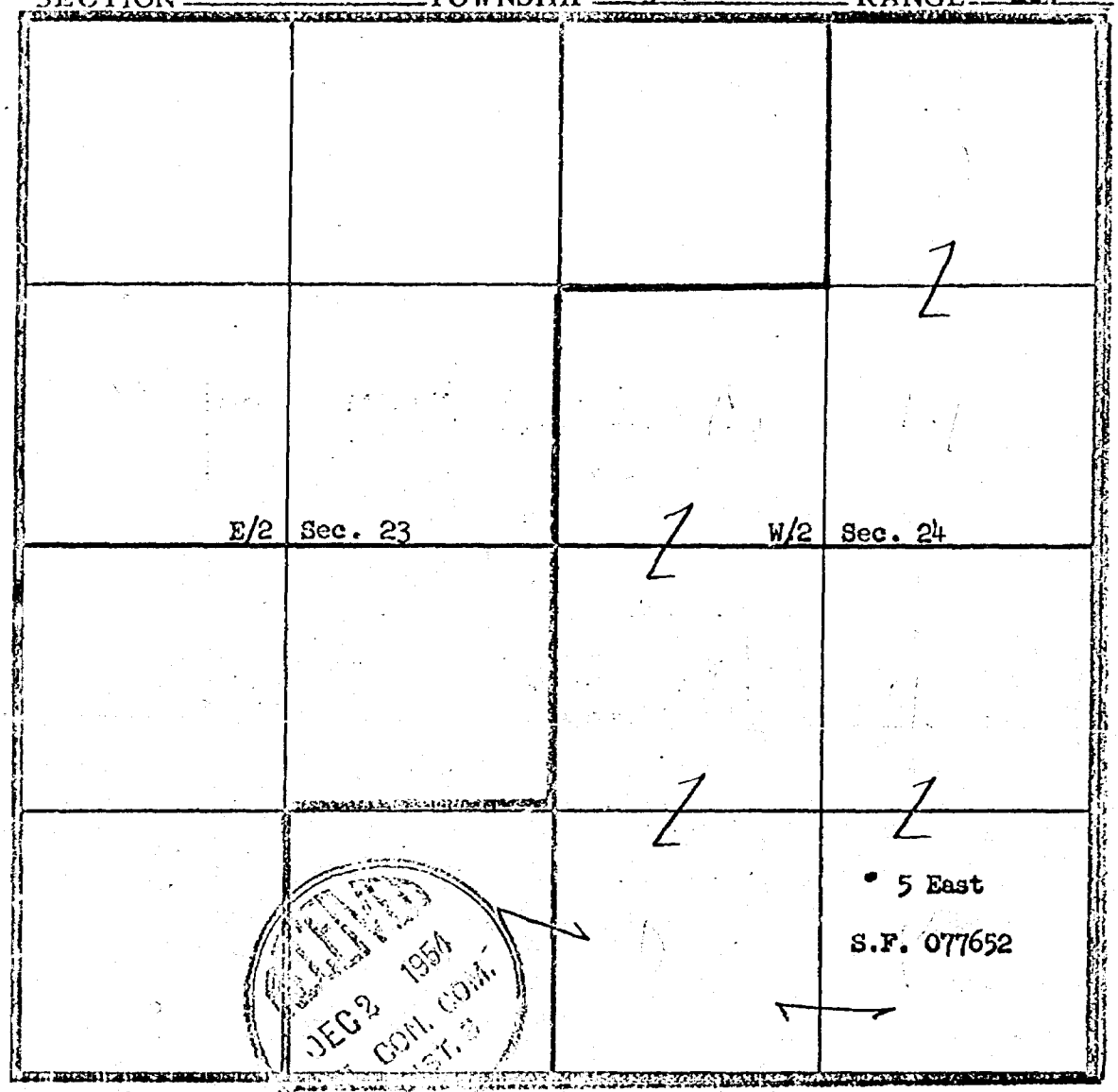
Date November 30, 1954

AZTEC OIL & GAS COMPANY (Operator) | East (Lease) | 5 (Well No.)

Name of Producing Formation Mesaverde Pool Blanco Field

No. Acres Dedicated to the Well 320

SECTION 24 TOWNSHIP 31N RANGE 12W



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

Name G. B. Williams
Position Petroleum Engineer
Representing Aztec Oil & Gas Company
Address 920 Mercantile Securities Bldg.
Dallas, Texas

(over)

Case 6156

May 12, 1955

Aztec Oil and Gas Company
920 Mercantile Securities Bldg.
Dallas 1, Texas

Attention: Mr. Quilman B. Davis

Administrative Order NWU-37

Gentlemen:

Reference is made to your application for approval of a 320-acre non-standard gas proration unit in the Blanco-Mesaverde Gas Pool consisting of the SE/4 SE/4 of Section 23, and the NE/4 NW/4, S/2 NW/4, and SW/4 of Section 24, Township 31 North, Range 12 West, NMPM, San Juan County, New Mexico.

It is understood that this unit is to be ascribed to your East Well No. 5, located 990 feet from the South line and 1650 feet from the West line of Section 24, Township 31 North, Range 12 West, in the Blanco-Mesaverde Gas Pool, San Juan County, New Mexico.

The Commission is aware of the fact that this non-standard gas proration unit has been formed as a result of previous Commission action under the provisions of Orders R-230 and R-230-A.

In view of the previous Commission action in the granting of Orders R-230 and R-230-A, which made necessary the formation of this unit and in the absence of any objections, and in line with the authority granted me, you are hereby authorized to operate the above described acreage as a non-standard gas proration unit, with allowable to be assigned thereto in accordance with pool rules, based upon the unit size of 320 acres.

Very truly yours,

W. B. Macey
Secretary-Director

RECEIVED
DEC 29 1977
DISTRICT

WBM:jh
cc: Oil Conservation Commission
Aztec, New Mexico

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO 6156

Order No. R- 5674

APPLICATION OF SOUTHLAND ROYALTY COMPANY
FOR AN UNORTHODOX GAS WELL LOCATION,
SAN JUAN COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on March 8, 1978, and February 22nd
at Santa Fe, New Mexico, before Examiners ~~Daniel~~ S. Nutter, respectively.

NOW, on this ____ day of March, 19 78, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiners, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Southland Royalty Company, seeks approval of an unorthodox gas well location 1120 feet from the North line and 1790 feet from the West line of Section 24, Township 31 North, Range 12 West, NMPM, ~~to test the formation~~, Blanco-Mesaverde Pool, San Juan County, New Mexico.

~~(3) That the ____ of said Section 24 is to be dedicated to the well.~~

(4) That a well at said unorthodox location will better enable applicant to produce the gas underlying the proration unit.

(5) That no offset operator objected to the proposed unorthodox location.

(3) That the 320-acre non-standard proration unit previously authorized by Commission Order NWU 37 shall be dedicated to the well.

(6) That approval of the subject application will afford the applicant the opportunity to produce its just and equitable share of the gas in the subject pool, will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and will otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That an unorthodox gas well location ~~for the~~ The Southland Royalty Company East Well No 5 ~~formation~~ is hereby approved for ~~a well~~ to be located at a point 1120 feet from the North line and 1790 feet from the West line of Section 24, Township 31 North, Range 12 West NMPM, Blanco-Mesaverde Pool, San Juan County, New Mexico.

(2) That the _____ of said Section 24 shall be dedicated to the above-described well.

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

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

(2) That the previously approved 320-acre non-standard gas proration unit consisting of the SE/4 SW/4 of Section 23 and the SW/4, S/2 NW/4 and NE/4 NW/4 of Section 24, 60th in said Township 31 North, Range 12 West, shall be dedicated to the above-described well.

CASE 6157: SUPRON ENERGY CORPORATION
FOR A NON-STANDARD GAS PRORATION UNIT,
LEA COUNTY, NEW MEXICO

Case Number

6157

Application

Transcripts.

Small Exhibits

ETC.

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
22 February 1978

EXAMINER HEARING

IN THE MATTER OF:

Application of Supron Energy Corporation for a non-standard gas proration unit, Lea County, New Mexico.

CASE 6157

BEFORE: Richard L. Stamets.

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Commission: Lynn Teschendorf, Esq.
Legal Counsel for the Commission
State Land Office Building
Santa Fe, New Mexico

For the Applicant: Michael Campbell, Esq.
CAMPBELL, BINGAMAN & BLACK
Jefferson Plaza
Santa Fe, New Mexico

sid morrish reporting service
General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

I N D E X

ROBERT BELCHER

Direct Examination by Mr. Campbell 3

Cross Examination by Mr. Stamets 8

E X H I B I T S

Supron Exhibit One, Document 7

Supron Exhibit Two, Letters of Consent 7

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Phone (505) 982-9212

MR. STAMETS: We'll call next Case 6157.

MS. TESCHENDORF: Case 6157. Application of Supron Energy Corporation for a non-standard gas proration unit, Lea County, New Mexico.

MR. STAMETS: Call for appearances at this time.

MR. CAMPBELL: Appearing for Supron Energy Company, Michael Campbell. I'm with Campbell, Bingaman and Black in Santa Fe, and we have one witness, Mr. Examiner.

MR. STAMETS: Stand and be sworn, please.

(Witness sworn.)

ROBERT BELCHER

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

DIRECT EXAMINATION

BY MR. CAMPBELL:

Q. Would you please state your name and your position with Supron Energy Company?

A. I'm Robert Belcher. I'm Drilling and Production Engineer.

Q. Would you state briefly your educational background and work experience in the oil and gas industry?

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A. Well, I spent eight and a half years in southeast New Mexico and west Texas as a drilling and production and completion engineering work, and --

Q. Who were you working for?

A. Well, with Sun Oil Company and Adobe Oil Company out of Midland.

Q. All right, and what -- what is -- what is your current position with Supron?

A. I'm involved in all phases of drilling and production and evaluation, et cetera. I report directly to the vice president.

MR. CAMPBELL: Mr. Examiner, will you accept Mr. Belcher as a qualified witness for testimony today?

MR. STAMETS: Okay, Mr. Belcher, what's your educational background?

A. I'm a petroleum engineer.

MR. STAMETS: Okay, and where is your degree from?

A. Texas A & I, Kingsville.

MR. STAMETS: Bachelor's degree?

A. Yes, sir.

MR. STAMETS: Yes, the witness is considered qualified.

Q. (Mr. Campbell continuing.) Would you please state what Supron's application today seeks?

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A. Yes, sir, what it is, we own the southwest quarter, 160 acres, of Section 13 and 16, 33, in Lea County, and we propose to drill a well, Atoka test, and the Sombrero Atoka Field in this area is 320 acre spacing.

Q. I am handing you what has been marked as Supron's Exhibit Number One. Was that exhibit prepared by you or under your supervision?

A. Yes, sir, it was.

Q. Would you please explain Supron Exhibit Number One?

A. It shows our ownership of the southwest quarter of 13; Great Western owns the 320 in the east half; Phillips Petroleum the northwest quarter; Sabine Royalty owns the east half -- well they own all of Section 14; Amoco's in the northeast quarter of 23. It shows Petco in the northeast of 24 and Getty and Merritt in the northwest of 24. It shows all the offset operators ownership.

Q. Have you notified these offset operators of your intention to drill on a 160 acre unit?

A. Yes, sir, we have and received answers from everybody.

Q. And has a non-consent been sent to you by one of the offset operators?

A. Yes, sir, Great Western.

MR. CAMPBELL: Mr. Examiner, I have the consent

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forms if you would care to have them in the file.

MR. STAMETS: If you have them, you might as well submit them, Mr. Campbell, and make them part of the record.

Q. (Mr. Campbell continuing.) Mr. Belcher, would you please explain your understanding of the circumstances leading up to Supron seeking a 160 acre non-standard unit?

A. Yes, sir, I will. In 19 -- I think it was '56 or '57, Phillips Petroleum drilled their well in the northwest quarter of Section 13 on 160 acre spacing. It was completed;several years later it was put in the Sombrero Atoka Field, which at that time was 320 acre spacing.

Phillips since that time produced their well on 160 acre spacing.

In 1976 Great Western re-entered the well they presently produce from; it's an old Sinclair well, and made an Atoka completion and they have the east half dedicated to that well.

At the time the Supron lease was purchased last year the feeling was Phillips had been producing their well for twenty years on 160 and we felt that due to the geology in the area, that we should be able to complete our well on 160 to protect ourselves.

Q. Do you know the production history of the Phillips well in the northwest quarter of that section?

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A. Yes, sir, through last year it had made a billion six and it was shut in several years ago and reworked last year and it's on production. In fact, it's dually completed with a shallower Penn section. I believe it's producing out of the Semen and the Atoka now.

Q. Do you seek an orthodox location for drilling the well within that proration unit?

A. Yes, sir, we do.

MR. CAMPBELL: Mr. Examiner, I would move for the introduction of Supron's Exhibits One and Two.

MR. STAMETS: Exhibit Two being the letters of consent; do you have an extra set?

MR. CAMPBELL: Yes, sir.

MR. STAMETS: Okay, thank you.

MR. CAMPBELL: I might state, Mr. Examiner, that the letters do not include any consent from Mr. Merritt. We have been informed that he has consented and we will supply the Commission with that consent form when we get copies of it.

MR. STAMETS: And this also includes Great Western's objection.

MR. CAMPBELL: Yes, sir, right.

MR. STAMETS: Okay, these exhibits will be admitted.

Q (Mr. Campbell continuing.) Mr. Belcher, in

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Phone (505) 982-9212

your opinion will the approval by the Commission of the application prevent waste and protect correlative rights?

A. Yes, sir, I feel it will. In addition, I might add we're presently drilling in Section 33, three miles southwest of here, and we have a rig committed after it finishes this well to move up and drill, and we're planning on moving up and drilling on this acreage. If for some reason we're not able to produce the Atoka, we will probably drill through the top Penn sections, the Semen and zones, and make a shallow completion and therefore probably that deeper production will never be drilled. I doubt very seriously if we'd go in, if we ran four and a half casing and went in later and tried to drill another fifteen hundred, two thousand feet in the slim hole that we'd probably attempt it, especially with the Great Western production. The well's been a year and a half. If we waited two or three or four years it may be uneconomical. So --

MR. CAMPBELL: Mr. Examiner, I have no further questions.

CROSS EXAMINATION

BY MR. STAMETS:

Q. Mr. Belcher, as I understand now, the Phillips well was completed many years ago in standard spacing for

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all gas wells was 160.

A. Yes, sir, correct.

Q. And subsequent to that time the pool rules have changed so that now 320 acres is the standard spacing proration unit.

A. Right, yes, sir.

Q. But Phillips never amended their dedication to the original hole, so that the southwest quarter of this section is not dedicated to any well.

A. That's correct, yes, sir.

Q. Okay, and the only way that you can drill, develop, produce gas under this quarter section is to put a well there.

A. Yes, sir. Also, I might add, we did get Phillips' approval for the 160.

MR. STAMETS: Any other questions of this witness?

He may be excused. Anything further in this case?

The case will be taken under advisement.

(Hearing concluded.)

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REPORTER'S CERTIFICATE

I, Sally Walton Boyd, a certified shorthand reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and the same is a true and correct record of the said proceedings to the best of my knowledge, skill, and ability.

Sally Walton Boyd

Sally Walton 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. 6157 heard by me on 3-22, 1978.

Richard L. Stamets, Examiner
New Mexico Oil Conservation Commission

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General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 - SANTA FE
87501

DIRECTOR
JOE D. RAMEY

LAND COMMISSIONER
PHIL R. LUCERO

STATE GEOLOGIST
EMERY C. ARNOLD

March 1, 1978

Re: CASE NO. 6157
ORDER NO. R-5653

Mr. Michael Campbell
Campbell, Bingaman and Black
Attorneys at Law
Post Office Box 2208
Santa Fe, New Mexico

Applicant:

Supron Energy Corporation

Dear Sir:

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

Yours very truly,

JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCC x
Artesia OCC x
Aztec OCC

Other

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 6157
Order No. R-5653

APPLICATION OF SUPRON ENERGY CORPORATION
FOR A NON-STANDARD PRORATION UNIT, LEA
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 22, 1978, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 28th day of February, 1978, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Supron Energy Corporation, seeks approval of a 160-acre non-standard gas proration unit comprising the SW/4 of Section 13, Township 16 South, Range 33 East, NMPM, to be dedicated to a Morrow gas well test to be drilled thereon.

(3) That the entire non-standard proration unit may reasonably be presumed productive of gas from the Morrow formation and that the entire non-standard gas proration unit can be efficiently and economically drained and developed by the aforesaid well.

(4) That approval of the subject application will afford the applicant the opportunity to produce its just and equitable share of the gas in the Sombrero-Morrow Gas Pool, will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and will otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That a 160-acre non-standard gas proration unit in the Sombrero-Morrow Gas Pool comprising the SW/4 of Section 13, Township 16 South, Range 33 East, NMPM, Lea County, New Mexico, is hereby established and dedicated to a Morrow gas well test to be drilled thereon.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

PHIL R. LUCERO, Chairman

EMERY C. ARNOLD, Member

JOE D. RAMEY, Member & Secretary

S E A L

jr/

CAMPBELL, BINGAMAN AND BLACK, P. A.
LAWYERS
JACK M. CAMPBELL
JEFF BINGAMAN
BRUCE D. BLACK
MICHAEL B. CAMPBELL

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

FEB 2 1978
CONSERVATION COMM.
Santa Fe

February 23, 1978

Mr. Richard L. Stamets
Hearing Examiner
New Mexico Oil Conservation
Commission
Post Office Box 2088
Santa Fe, New Mexico 87501

Re: Case No. 6157--Application of Supron Energy Corporation for a non-standard gas proration unit in the NE1/2, SW1/4 of Sec. 13, T 16 S, R 33 E, Lea County, New Mexico. February 22, 1978

Dear Mr. Stamets:

At the hearing today, I mentioned that Supron Energy Corporation had obtained consent to the above-noted application from Mr. M. M. Merritt, an offsetting owner to the south. That consent was not included in Supron's Exhibit #2. Enclosed please find three (3) copies of Mr. Merritt's consent.

Very truly yours,

Michael Campbell

MC:dnc

cc: Mr. William S. Jameson

SUPRON ENERGY CORPORATION
SUITE 1700, CAMPBELL CENTRE
8350 NORTH CENTRAL EXPRESSWAY
DALLAS, TEXAS 75206

TELEPHONE (214) 691-9141
TWX: (910) 861-9112
SUPCO-DAL.

December 27, 1977

DEC 29 1977
CONSERVATION COMM.
SANTA FE

DRLG. & PRODN.

Mort M. Merritt
Box 4182
Midland, Texas 79702

Dear Sir:

We are planning to drill a Morrow test in the NE/4 SW/4 of Section 13, Township 16 South, Range 33 East, Lea County, New Mexico. As we own only 160 acres in this section and the New Mexico Oil Conservation Commission requires a 320 acre dedication, we are requesting an Administrative Order allowing the 160 acre dedication without a penalty on allowable.

In order to obtain such an order, we must obtain waivers from all off-set operators. Our records indicate you are currently operator ~~(of a producing well)~~ ajoining this acreage. If this information is correct, would you please indicate your approval on the second copy of this letter and return it to this office at your earliest convenience.

Thank you for your prompt attention in this matter.

Sincerely yours,

Dan R. Collier

Dan R. Collier
Operations Assistant

DRC:nl

Approved: M. M. Merritt

Date: 2-15-78

SUPRON ENERGY CORPORATION
SUITE 1700, CAMPBELL CENTRE
8350 NORTH CENTRAL EXPRESSWAY
DALLAS, TEXAS 75206

TELEPHONE: (214) 691-9141
TWX: (910) 861-9112
SUPCO-DAL

December 27, 1977

DEC 28 1978
CONSERVATION COM...
S...

DRLG. & PRODN.

Mort M. Merritt
Box 4182
Midland, Texas 79702

Dear Sir:

We are planning to drill a Morrow test in the NE/4 SW/4 of Section 13, Township 16 South, Range 33 East, Lea County, New Mexico. As we own only 160 acres in this section and the New Mexico Oil Conservation Commission requires a 320 acre dedication, we are requesting an Administrative Order allowing the 160 acre dedication without a penalty on allowable.

In order to obtain such an order, we must obtain waivers from all off-set operators. Our records indicate you are currently operator ~~(of a producing well)~~ ajoining this acreage. If this information is correct, would you please indicate your approval on the second copy of this letter and return it to this office at your earliest convenience.

Thank you for your prompt attention in this matter.

Sincerely yours,

Dan R Collier

Dan R. Collier
Operations Assistant

DRC:nl

Approved: R. M. Merritt

Date: 2-15-78

SUPRON ENERGY CORPORATION
SUITE 1700, CAMPBELL CENTRE
8350 NORTH CENTRAL EXPRESSWAY
DALLAS, TEXAS 75206

TELEPHONE (214) 691-9141
TWX: (910) 861-9112
SUPCO-DAL.

December 27, 1977

DEC 29 1977
CONSERVATION COM.
HOBBS, N. MEX.

DEC 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7
FILE 8
DRLG. & PRODN.

Mort M. Merritt
Box 4182
Midland, Texas 79702

Dear Sir:

We are planning to drill a Morrow test in the NE/4 SW/4 of Section 13, Township 16 South, Range 33 East, Lea County, New Mexico. As we own only 160 acres in this section and the New Mexico Oil Conservation Commission requires a 320 acre dedication, we are requesting an Administrative Order allowing the 160 acre dedication without a penalty on allowable.

In order to obtain such an order, we must obtain waivers from all off-set operators. Our records indicate you are currently operator ~~of a producing well~~ ajoining this acreage. If this information is correct, would you please indicate your approval on the second copy of this letter and return it to this office at your earliest convenience.

Thank you for your prompt attention in this matter.

Sincerely yours,

Dan R Collier

Dan R. Collier
Operations Assistant

DRC:nl

Approved: M. M. Merritt

Date: 2-15-78

R33E

R33E

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
EXHIBIT NO. 1
CASE NO. 6156
Submitted by Sohio
Hearing Date 2/22/78

SUPRON ENERGY CORPORATION
SUITE 1700, CAMPBELL CENTRE
8350 NORTH CENTRAL EXPRESSWAY
DALLAS, TEXAS 75206

TELEPHONE (214) 691-9141
TWX: (910) 861-9112
SUPCO-DAL.

December 27, 1977

Phillips Petroleum Company
Room B-2, Phillips Bldg.
4th & Washington
Odessa, Texas 79761

Dear Sir:

We are planning to drill a Morrow test in the NE/4 SW/4 of Section 13, Township 16 South, Range 33 East, Lea County, New Mexico. As we own only 160 acres in this section and the New Mexico Oil Conservation Commission requires a 320 acre dedication, we are requesting an Administrative Order allowing the 160 acre dedication without a penalty on allowable.

In order to obtain such an order, we must obtain waivers from all off-set operators. Our records indicate you are currently operator of a producing well ajoining this acreage. If this information is correct, would you please indicate your approval on the second copy of this letter and return it to this office at your earliest convenience.

Thank you for your prompt attention in this matter.

Sincerely yours,

Dan R. Collier
Operations Assistant

DRC:nl

PHILLIPS PETROLEUM COMPANY

Approved: W. W. Allen
Engineering Director

Date: January 6, 1978

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
EXHIBIT NO. 2
CASE NO. 6157
Submitted by Supron
Hearing Date 2/22/78

SUPRON ENERGY CORPORATION
SUITE 1700, CAMPBELL CENTRE
8350 NORTH CENTRAL EXPRESSWAY
DALLAS, TEXAS 75206
TELEPHONE (214) 691-9141
TWX: (910) 861-9112
SUPCO DAL

December 27, 1977

Petroleum Corporation of Texas
Box 911
300 N. Breckenridge Ave.
Breckenridge, Texas 76024

Dear Sir:

We are planning to drill a Morrow test in the NE/4 SW/4 of Section 13, Township 16 South, Range 33 East, Lea County, New Mexico. As we own only 160 acres in this section and the New Mexico Oil Conservation Commission requires a 320 acre dedication, we are requesting an Administrative Order allowing the 160 acre dedication without a penalty on allowable.

In order to obtain such an order, we must obtain waivers from all off-set operators. Our records indicate you are currently operator of a producing well ajoining this acreage. If this information is correct, would you please indicate your approval on the second copy of this letter and return it to this office at your earliest convenience.

Thank you for your prompt attention in this matter.

Sincerely yours,

Dan R. Collier
Operations Assistant

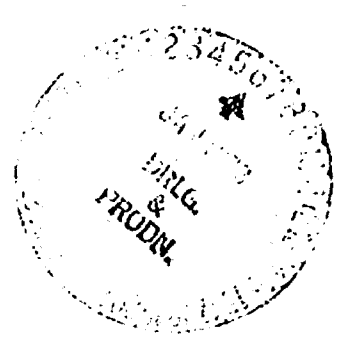
DRC:nl

Approved: Petroleum Corporation of Texas

Date: ~~January 4, 1978~~ Aug. 11, 1978

SUPRON ENERGY CORPORATION
SUITE 1700, CAMPBELL CENTRE
8350 NORTH CENTRAL EXPRESSWAY
DALLAS, TEXAS 75206
TELEPHONE (214) 691-9141
TWX: (910) 861-9112
SUPCO-DAL.

December 27, 1977



Sabine Production Company
1200 Mercantile Bank Bldg.
Dallas, Texas 75201

Dear Sir:

We are planning to drill a Morrow test in the NE/4 SW/4 of Section 13, Township 16 South, Range 33 East, Lea County, New Mexico. As we own only 160 acres in this section and the New Mexico Oil Conservation Commission requires a 320 acre dedication, we are requesting an Administrative Order allowing the 160 acre dedication without a penalty on allowable.

In order to obtain such an order, we must obtain waivers from all off-set operators. Our records indicate you are currently operator of a producing well ajoining this acreage. If this information is correct, would you please indicate your approval on the second copy of this letter and return it to this office at your earliest convenience.

Thank you for your prompt attention in this matter.

Sincerely yours,

Dan R Collier

Dan R. Collier
Operations Assistant

DRC:nl

Approved: B. L. Hoover

Date: January 4, 1978

Getty Oil Company

P.O. Box 1231, Midland, Texas 79702 · Telephone (915) 683-6301

Audra B. Cary, District Production Manager
Central Exploration and Production Division

January 9, 1978

Supron Energy Corporation
Suite 1700, Campbell Centre
8350 North Central Expressway
Dallas, Texas 75206

Attn: Mr. Dan R. Collier

Gentlemen:

We are returning your request for waiver allowing a 160 acre dedication without a penalty on allowable for a Morrow test in the NE/4 of the SW/4 of Section 13, T16S, R33E, Lea County, New Mexico. The Skelly Sombrero Unit #1 well in Section 12, T16S, R33E was plugged and abandoned on April 11, 1972 and we are no longer Operator of a producing well adjoining this acreage.

Yours very truly,

Jack E. King
for Audra B. Cary

OVS/slw

Encl.

Amoco Production Company
500 Jefferson Building
P.O. Box 3092
Houston, Texas 77001

J. M. Brown
Division Engineering
Manager

January 19, 1978

File: DBF-986.51NM-182

Re: Proration Unit Waiver
NE/4 SW/4, Section 13, T-6-S, R-33-E
Lea County, New Mexico

Supron Energy Corporation
Suite 1700, Campbell Centre
8350 North Central Expressway
Dallas, TX 75206

Gentlemen:

Your letter of December 27, 1977 requested our waiver of objection to the drilling of a Morrow test in the NE/4 SW/4 of Section 13, T-16-S, R-33-E, Lea County. This well would be on a 160 acre proration unit, rather than the 320 acres required by the NMOCC regulations.

We have no objection to the drilling of your well as planned, however, we elect to not grant our waiver of objection to the standard 320 acre unit for allowable purposes.

Yours very truly,

J. M. Brown

EHW:sam

GREAT WESTERN
Midland drilling co. Texas

PHONE 682-9241
ADDRESS REPLY TO
BOX 1659
MIDLAND, TEXAS 79701

January 9, 1978

Re: SW/4 Section 13,
T-16-S, R-33-E
Lea County, New Mexico

Supron Energy Corporation
Suite 1700, Campbell Centre
8350 North Central Expressway
Dallas, Texas 75206

Attention: Mr. Dan R. Collier

Gentlemen:

In your letter dated December 27, 1977 you requested Great Western to waive any objections to your drilling a Morrow test on a tentative 160 acre dedication.

Great Western must object to this request because of our existing Morrow gas well in the SE/4 Section 13, with the E/2 of Section 13 being designated to the pro ration unit.

Yours very truly,

GREAT WESTERN DRILLING COMPANY

W. T. Cowan
Land Manager

WTC/ll

cc: New Mexico Oil Conservation Commission
1000 Rio Brazos
Aztec, New Mexico 87410

R33E

R33E

MORTON EAST

MORTON

SOMERSET

SOMERSET WEST

NORTH LEAMAX UNIT

AZTEC OIL FIELD

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
EXHIBIT NO. 10
CASE NO. 6156
Submitted by Sohio
Hearing Date 2/22/78

Dockets Nos. 9-78 and 11-78 are tentatively set for hearing on March 8 and March 22, 1978. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - FEBRUARY 22, 1978

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

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

CASE 6150: In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the amendment of Rules 311, 312, 1117, and 1118 of the Commission Rules and the revision of Forms C-117-A and C-117-B, all for the purpose of regulating the handling and reporting of tank bottoms, sediment oil, miscellaneous hydrocarbons, and the operation of treating plants.

CASE 6151: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Vega Petroleum Corporation, American Employers' Insurance Company, and all other interested parties to appear and show cause why the North Caprock Queen Unit No. 1 Well No. 5Y located in Unit E of Section 8, Township 13 South, Range 32 East, Lea County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6152: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Al Greer, American Employers' Insurance Company, and all other interested parties to appear and show cause why the Thompson Well No. 1 located in Unit N of Section 10, Township 30 North, Range 11 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6153: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Mints-Kenaston and all other interested parties to appear and show cause why the L. A. McCoy Well No. 1 located in Unit B of Section 28, Township 30 North, Range 12 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6154: Application of Read & Stevens, Inc. for a unit agreement, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for its Calumet Ranch Unit Area comprising 5,760 acres, more or less, of Federal, State, and fee lands in Township 12 South, Range 27 East, Chaves County, New Mexico.

CASE 6155: Application of Gulf Oil Corporation for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the N/2 of Section 28, Township 23 South, Range 26 East, South Carlsbad Field, Eddy County, New Mexico, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6144: (Readvertised)

Application of Southland Royalty Company for two unorthodox locations and two non-standard gas proration units, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for two 120-acre non-standard gas proration units comprising the S/2 SE/4 of Section 10 and the SW/4 SW/4 of Section 11, and comprising the SE/4 SW/4 and the S/2 SE/4 of Section 11, all in Township 28 North, Range 11 West, Fulcher Kutz-Pictured Cliffs Pool, San Juan County, New Mexico, each of said units to be dedicated to a well drilled at an unorthodox location thereon.

CASE 6156: Application of Southland Royalty Company for an unorthodox location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its East Well No. 5A to be located 1120 feet from the South line and 1790 feet from the West line of Section 24, Township 31 North, Range 12 West, Blanco-Mesaverde Gas Pool, San Juan County, New Mexico.

CASE 6157: Application of Supron Energy Corporation for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 160-acre non-standard gas proration unit comprising the SW/4 of Section 13, Township 16 South, Range 33 East, Lea County, New Mexico, to be dedicated to a Morrow gas well test to be drilled thereon.

CASE 6158: Application of C. H. Berry for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the NE/4 of Section 15, Township 24 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6159: Application of Texaco Inc., for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Drinkard and Wantz-Granite Wash production in the wellbore of its A. H. Blinebry Federal Well No. 38 located in Unit J of Section 19, Township 22 South, Range 38 East, Lea County, New Mexico.

CASE 6160: Application of Bass Enterprises Production Co., for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Delaware formation through the perforated interval from 3310 feet to 3375 feet in its Big Eddy Unit Well No. 56, located in Unit G of Section 35, Township 21 South, Range 28 East, Indian Flats-Delaware Pool, Eddy County, New Mexico.

CASE 6161: Application of Tenneco Oil Company for two waterflood projects, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project on its Leonard Federal Lease by the injection of water into the Queen formation through one well in Unit O of Section 11, and on its Leonard Brothers Lease through two wells, in Units I and M, respectively, of Section 14, all in Township 26 South, Range 37 East, Leonard Queen Pool, Lea County, New Mexico. Applicant further seeks the establishment of an administrative procedure for the addition of injection wells and the conversion of existing wells to injection at both orthodox and unorthodox locations without further notice and hearing.

CASE 6162: Application of Continental Oil Company for an unorthodox location and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Jack B-30 Well No. 2 to be located 330 feet from the North line and 1725 feet from the East line of Section 30, Township 24 South, Range 37 East, Jalmat Gas Pool, Lea County, New Mexico, the NE/4 of said Section 30 to be simultaneously dedicated to the aforesaid well and to Well No. 5 in Unit H.

CASE 6163: Application of Continental Oil Company for amendment of Commission Order No. R-3863, Lea County, New Mexico. Applicant, in the above-styled cause, seeks to substitute its Anderson Ranch Unit Wells No. 6 located in Unit X of Section 2 and Nos. 3 and 10, located in Units A and H, respectively, of Section 11, all in Township 16 South, Range 32 East, for the initial injection wells authorized by said order in its Anderson Ranch-Wolfcamp Waterflood Project, Anderson Ranch-Wolfcamp Pool, Lea County, New Mexico.

CASE 6164: Application of Shell Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Tubb, Wantz-Abo, and Brunson-Ellenburger production in the wellbore of its Shell State Section 2 Well No. 15 located in Unit K of Section 2, Township 21 South, Range 37 East, Lea County, New Mexico.

CASE 6165: Application of Shell Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Drinkard, Hare-McKee, and Brunson-Ellenburger production in the wellbore of its Shell State Section 2 Well No. 3 located in Unit U of Section 2, Township 21 South, Range 37 East, Lea County, New Mexico.

CASE 6166: Application of Odessa Natural Corporation for rescission of Order No. R-5601, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks a hearing at which any interested party could appear and show cause why Order No. R-5601, which granted a special well classification to applicant's ARCO-Little Fed. Well No. 1, located in Unit D of Section 32, Township 24 North, Range 3 West, Rio Arriba County, New Mexico, should not be rescinded.

CASE 6141: Application of Paul Slayton for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Seven Rivers formation thru the open-hole interval from 528 feet to 547 feet in his Hastie Well No. 7 located in Unit L of Section 18, Township 17 South, Range 28 East, Empire Field, Eddy County, New Mexico.

Case 6157

CAMPBELL, BINGAMAN AND BLACK, P. A.
LAWYERS

JACK M. CAMPBELL
JEFF BINGAMAN
BRUCE D. BLACK
MICHAEL B. CAMPBELL

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

February 1, 1978

Mr. Joe Ramey
Secretary Director
New Mexico Oil Conservation Commission
Post Office Box 2088
Santa Fe, New Mexico 87501

Dear Mr. Ramey:

Supron Energy Corporation requests a hearing before the Oil Conservation Commission to obtain an exemption to the 320-acre spacing regulations in Lea County, New Mexico.

Supron owns a state lease covering the SW1/4 of Section 13, T 16 S, R 33 E, Lea County, New Mexico, and plans to drill a Morrow formation test on the 160 acres covered by the lease. The enclosed plat illustrates Supron's acreage and identifies off-setting owners.

Phillips Petroleum Company has a Morrow formation well located on a 160-acre unit in the NW1/4 of Section 13. Phillips, Sabine Production Company and Petroleum Corporation of Texas have granted consent to the proposed well. We have not been notified whether Amoco Production Company, Getty Oil Company and Mort M. Merritt will grant consent. Great Western Drilling Company has refused to grant consent to the test well. We believe that the proposed well will prevent waste and protect correlative rights.

Please let me know of the hearing date on this matter.

Kindest regards,

Michael Campbell

MC:dc

Enclosure

cc: Mr. William S. Jameson

Case 6157

R33E

R33E

SOMBRERO WEST

NORTH EAST ZAMAR UNIT

AZTEC OPERATING

DRAFT

jr/

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 6157

Order No. R- 5653

APPLICATION OF SUPRON ENERGY CORPORATION
FOR A NON-STANDARD PRORATION UNIT,
LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 22, 19 78, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this _____ day of _____, 19 78, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Supron Energy Corporation, seeks approval of a 160-acre non-standard gas proration unit comprising the SW/4 of Section 13, Township 16 South, Range 33 East, NMPM, to be dedicated to a Morrow gas well test to be drilled thereon.

~~located in Unit _____ of said Section~~

(3) That the entire non-standard proration unit may reasonably be presumed productive of gas from the Morrow formation ~~Gas Pool~~ and that the entire non-standard gas proration unit can be efficiently and economically drained and developed by the aforesaid well.

(4) That approval of the subject application will afford the applicant the opportunity to produce ~~his~~ its just and equitable share of the gas in the Sombrero-Morrow Gas Pool, will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and will otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That a 160-acre non-standard gas proration unit in the Sombrero-Morrow Gas Pool comprising the SW/4 of Section 13, Township 16 South, Range 33 East, NMPM, Lea County, New Mexico, is hereby established and dedicated to a Morrow gas well test to be drilled thereon.

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

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

CASE 6158: O. H. BERRY FOR COMPULSORY POOLING, LEA COUNTY, NEW MEXICO

Case Number

6158

Application

Transcripts.

Small Exhibits

ETC.

Case 6158

O. H. BERRY
Independent Oil Producer
186 ONE MARIENFELD PLACE
MIDLAND, TEXAS 79701

(915) 684-4932

18 September 1978

RECEIVED
SEP 20 1978
CATRON, CATRON & SAWTELL

Mr. William F. Carr
Catron, Catron & Sawtell
Attorneys and Counselors at Law
The Plaza
P. O. Box 788
Santa Fe, New Mexico 87501

Dear Bill:

In accordance with requirements under Order No. R-5654, this is to inform you that our total cost in drilling the Isbell No. 5 and No. 5-Y is $169,553.32.

Would you please see that the Commission is properly notified in this connection.

Very truly yours,

O. H. Berry

OHB/br

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Phone (505) 982-9212

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
22 February 1978

EXAMINER HEARING

IN THE MATTER OF:

Application of O. H. Berry for compulsory pooling, Lea County, New Mexico. CASE 6158

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Commission: Lynn Teschendorf, Esq.
Legal Counsel for the Commission
State Land Office Building
Santa Fe, New Mexico

For the Applicant: William F. Carr, Esq.
CATRON, CATRON, AND SAWTELL
Old Santa Fe Trail
Santa Fe, New Mexico

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I N D E X

O. H. BERRY

Direct Examination by Mr. Carr 3

Cross Examination by Mr. Stamets 11

E X H I B I T S

Berry Exhibit One, Well Cost Estimate 10

Berry Exhibit Two, Document 10

Berry Exhibit Three, Form C-101 10

Berry Exhibit Four, Letter 10

Berry Exhibit Five, Letter 10

MR. STAMETS: We'll call now Case 6158.

MS. TESCHENDORF: Case 6158. Application of O. H. Berry for compulsory pooling, Lea County, New Mexico.

MR. CARR: William F. Carr, Catron, Catron, and Sawtell, appearing on behalf of the Applicant, O. H. Berry. I have one witness to be sworn.

(Witness sworn.)

O. H. BERRY

being called as a witness on behalf of the Applicant, 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. My name is O. H. Berry and I reside in Midland, Texas.

Q. And you are the Applicant in this case?

A. That's correct.

Q. Have you previously testified before this Commission and had your credentials accepted and made a matter of record?

A. No, I have not.

Q. Will you briefly summarize for the Examiner

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your educational background and work experience?

A. In 1947 I graduated from Texas A & M University -- at that time it was Texas A & M College -- and with a degree in -- Bachelor's degree in petroleum engineering.

I worked for majors and independent companies for eight years, that includes Standard of California, the Chevron Division, and Vickers Petroleum, Wilshire Oil Company, completing wells at all various depths, doing reservoir work.

I went into business for myself in 1955. The last twenty-three years I've practiced as a consulting engineer and independent oil producer.

MR. CARR: I tender Mr. Berry as an expert witness and petroleum engineer.

MR. STAMETS: The witness is considered qualified.

Q. (Mr. Carr continuing.) Mr. Berry, will you state briefly what you seek in this case?

A. I seek to force pool the mineral interests that have not agreed to join me, although an AFE has been submitted to them. I've attempted to farm out or obtain a lease from them on a very equitable basis.

There has been a strong indication from all of the ones that are now subject to this forced pooling

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that they are in the process of preparing farm out agreements and leases, but the former leaseholder has been very reluctant to give a release, and consequently the major companies are in kind of a bad position, because it's their policy not to do anything with a lease unless they have a release from the prior owner.

The prior owner has plugged all his wells and has abandoned the lease.

Q. Mr. Berry, have you prepared or has there been prepared under your direction certain exhibits for introduction in this case?

A. Yes, there have.

Q. Will you please refer to what has been marked for identification as Exhibit One and explain to the Examiner what it is and what it shows?

A. All right. This is a New Mexico Conservation Commission Form C-101, and attached to it is Form C-102, applying for a well 330 feet out of the northeast corner of the northeast quarter of Section 15, 24 South, 36 East, Lea County.

The projected total depth of the well would be 3600 and it's to test the Seven Rivers Reef.

Q. Now will you refer to what has been marked for identification as Exhibit Number Two and explain to the Examiner what it is and what it shows?

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A. All right. This is a takeoff from the abstractor in Lovington showing the one hundred percent mineral ownership underlying the northeast quarter of Section 15.

The majority of the owners, the individual owners, I've obtained leases from, but the major companies with the exception of Gulf, and Atlantic has agreed to join me in the drilling, all the other companies that are listed there, I'm endeavoring to force pool so that I can develop this property.

Q. What percent of the working interests, or the mineral interests, do you represent at this hearing?

A. Approximately thirty percent.

Q. And this is the percentage that has been committed to the unit, is that correct?

A. That's correct.

Q. Do you anticipate the joinder of other mineral interest owners?

A. Well, frankly, they all told me that they're going to join me, but that Gulf lease that I have has a deadline on it of March the 1st, and I hate to go back to the Gulf and ask for a new lease, or an extension on that lease, and I felt like that the alternative was to come to this commission and endeavor to force pool so the well can be drilled.

Q. Will you refer to what has been marked as Ex-

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hibit Number Three and explain to the Examiner what it is and what it shows?

A. Exhibit Number Three is an AFE which has been submitted by mail, registered with return receipt, and we have the receipts from all the companies. It sets out the total cost of drilling this well and completing the well, and in the amount of $146,825.

Q. Are these costs in line with the cost of drilling and completing similar wells in the area?

A. Well, this being the first well on the lease, it would be a little more than, say, the second well, because of the tank battery, but it is in line with costs in the area at this time.

Q. Mr. Berry, have you made calculations as to the risk you are assuming in drilling this well?

A. Yes, I have.

Q. What factors have you considered?

A. Well, I've considered the fact that I'm drilling in an area that is partically depleted, particularly in the Yates Gas zone. The Seven Rivers geologically it appears that it -- there may be some trapped oil in a protrusion of the reef, and that's what I'm hoping for. If I can't -- if I don't find that, if I find the Seven Rivers uneconomical, then I'll fall back upon the low pressure Yates Gas zone, which would take a long time to pay out.

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And I think my risks are very muchly there.

Q. Okay, and there are abandoned holes throughout the area?

A. Yes. As a matter of fact, there's abandoned holes on this property.

Q. And you consider this a high risk venture?

A. I do.

Q. Do you have a recommendation to make to the Commission as tc what risk factor should be set on this well?

A. I would recommend two hundred percent.

Q. Now, do you have a recommendation to make to the Commission for overhead and administration cost for drilling and producing the well, if it is a producing well?

A. Yes, on the drilling the well basis, I would recommend $1200 per month. On a producing well basis, I would recommend $400 per well per month. On a -- well, that's it

Q. Are these recommendations in line with what is being charged by other operators in the area?

A. I think they're somewhat lower than what is being charged in the area.

Q. Now, will you refer to what has been marked for identification as Exhibit Number Four and tell the Examiner what it is?

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A. This a letter of transmittal to the, I believe it's seven companies, where we transmitted the AFE, shown as Exhibit Number Three, asking if they would join me in drilling this well, and the numbers opposite the companies at the heading, are the receipt numbers that we have on file, the return receipts which we got back.

Q. Now, refer to what has --

A. I want to comment that Atlantic did agree to join and we have evidence to that, that they're joining.

Q. Now refer to what has been marked as Exhibit Five and explain what this is.

A. Although under your advice as my attorney, I was told I had no obligation to notify these people of this hearing, but I felt compelled to, so I transmitted a copy of the docket, a certified copy of the docket, to each of the companies listed above, and we have return receipts for that.

Q. Okay. Do you request that you, O. H. Berry, be designated operator of the well?

A. Yes, I do.

Q. In your opinion will granting this application be in the best interests of conservation, the prevention of waste and the protection of correlative rights?

A. I do.

Q. Do you have anything further to add to your

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testimony?

A. Well, I'd appreciate the early consideration of it, as far as the Commission, so that I might commence activities as soon as possible.

Q. Okay.

A. And I'd appreciate their approval of the application.

Q. Now when does the Gulf lease expire?

A. March the 1st, 1978.

Q. And do you have a rig available?

A. I do.

Q. And could you spud the well as soon as you receive verbal approval from the Commission?

A. I can do that.

Q. That their order has been signed?

A. Right. The cable tool rig that I'm going to drill this well with is down in Ward County in Texas, but I'm going to move it up here to the Jal area.

Q. And were Exhibits One through Five prepared by you?

A. Yes, they were.

MR. CARR: At this time I would offer Applicant's Exhibits One through Five.

MR. STAMETS: Exhibits One through Five will be admitted into evidence.

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MR. CARR: I have nothing further on direct.

CROSS EXAMINATION

BY MR. STAMETS:

Q. Mr. Berry, are the -- well, referring to Exhibit Number Two there are many names listed here.

A. Yes, sir.

Q. Your letter, which is Exhibit Four, only went out to looks like seven companies.

A. Yes, sir, that's the only ones that I don't have leases on.

Q. You have the rest of these all signed up?

A. Yes, sir, I do.

Q. And these are not outstanding?

A. No, they're leases of record and we filed them in Lovington.

Q. All right. Referring back to Exhibit Number One, you show the location of this well being 330 feet from the north and east lines of Section 15, and while that's a legal location for an oil well, it's not a legal location for a gas well, and you're seeking to pool 160 acres here today for a gas well. I'm confused by these two conflicting --

A. Well --

Q. -- items.

A. Sir, my primary objective is the -- is the

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Seven Rivers reef, and this is by far the most favorable structural position on my lease to drill for the reef, and you see in the center of each of those forties are abandoned holes right now that have been plugged and abandoned, and I had -- I needed to stay away from those and the 330 is a legal oil location and that is my primary objective.

As far as the gas spacing, I guess I'd have to come back and ask for permission to produce it as a gas well.

Q. Do you own all of the interests under the northeast northeast of Section 15?

A. It's an undivided interest, yes, sir, the leases are undivided.

Q. All right, let me ask this a different way. Do you need to force pool any interest under the northeast of the northeast of 15?

A. Well, yes, sir. Each of the owners here are mineral owners; they're not -- they don't own leases, you see. See, these major companies, they're not leases that the major companies have; they are mineral interests that were acquired back in the thirties when this lease was first drilled.

Q. It's not a working interest, it's a royalty interest.

A. They're all royalty interests.

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Q. You have one hundred percent of the working interest in the entire northeast quarter?

A. Yes, sir.

(There followed a discussion off the record.)

Q. Back on the record at this point. Mr. Berry, are there some -- is there some unleased acreage involved in this quarter section, in the quarter quarter section?

A. Yes, sir, there's some unleased acreage and that is the six companies that are listed on my Exhibit Four.

Q. Okay, thank you very much. You asked for overhead charges of $400 a month for a well. That certainly seems to be one of the highest figures that I remember.

A. I might point out to you that that's on the combined basis. In other words, I have no other charges, whereas the companies, they'll charge maybe $200 a month and they have all the fringe benefits that they pay employees that they lump that in, and in other offices. Mine encompasses everything and there is no other operating charge to the people. That includes the pumping the well.

Q. Perhaps you should re-figure this because normally pumping a well is not considered an overhead charge. Overhead charges are strictly those things like

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overhead; how much it takes to --

A. Well, on that basis we could reduce it by $100.

Q. That's still one of the highest ones I think I've ever heard of. To be perfectly honest, we had one in here this morning for Gulf Oil Corporation, $272, which is pretty high. Most of the time an independent operator seems to be able to get by for $100, $125, $150 a month.

A. Things have really changed down there in our country. All these people, these contract pumpers, are raising their rates and all of our expenses are going up.

Q. Some of those are chargeable expenses to lease operation, though, and not chargeable as overhead.

A. Well, I'll just leave it to the discretion of the Commission as to what they think is fair.

MR. STAMETS: Any other questions of this witness?

He may be excused. Anything further in this case?

MR. CARR: Nothing further.

MR. STAMETS: We'll take the case under advisement.

(Hearing concluded.)

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REPORTER'S CERTIFICATE

I, Sally Walton Boyd, a Certified Shorthand Reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me and the same is a true and correct record of the said proceedings prepared by me to the best of my knowledge, skill, and ability.

Sally Walton Boyd

Sally Walton 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. 6156, heard by me on 8-22, 1978.

Richard L. Stamets, Examiner
New Mexico Oil Conservation Commission

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General Court Reporting Service
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Phone (505) 982-9212

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 - SANTA FE
87501

DIRECTOR
JOE D. RAMEY

LAND COMMISSIONER
PHIL R. LUCERO

STATE GEOLOGIST
EMERY C. ARNOLD

March 1, 1978

Mr. William F. Carr
Catron, Catron & Sawtell
Attorneys at Law
Post Office Box 788
Santa Fe, New Mexico

Re: CASE NO. 6158
ORDER NO. R-5654

Applicant:

O. H. Berry

Dear Sir:

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

Yours very truly,

JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCC x
Artesia OCC x
Aztec OCC

Other

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 6158
Order No. R-5654

APPLICATION OF O. H. BERRY FOR
COMPULSORY POOLING, LEA COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 22, 1978, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 28th day of February, 1978, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, O. H. Berry, seeks an order pooling all mineral interests in the Tansill, Yates, and all but the lowermost 100 feet of the Seven Rivers formation underlying the NE/4 of Section 15, Township 24 South, Range 36 East, NMPM, Jalmat Gas Pool, Lea County, New Mexico.

(3) That the applicant has the right to drill and proposes to drill a well at a standard location thereon.

(4) That there are interest owners in the proposed proration unit who have not agreed to pool their interests.

(5) That to avoid the drilling of unnecessary wells, to protect correlative rights, and to afford to the owner of each interest in said unit the opportunity to recover or receive without unnecessary expense his just and fair share of the gas in said pool, the subject application should be approved by pooling all mineral interests, whatever they may be, within said unit.

(6) That the applicant should be designated the operator of the subject well and unit.

(7) That any non-consenting working interest owner should be afforded the opportunity to pay his share of estimated well costs to the operator in lieu of paying his share of reasonable well costs out of production.

(8) That any non-consenting working interest owner that does not pay his share of estimated well costs should have withheld from production his share of the reasonable well costs plus an additional 200 percent thereof as a reasonable charge for the risk involved in the drilling of the well.

(9) That any non-consenting interest owner should be afforded the opportunity to object to the actual well costs but that actual well costs should be adopted as the reasonable well costs in the absence of such objection.

(10) That following determination of reasonable well costs, any non-consenting working interest owner that has paid his share of estimated costs should pay to the operator any amount that reasonable well costs exceed estimated well costs and should receive from the operator any amount that paid estimated well costs exceed reasonable well costs.

(11) That $1200.00 per month while drilling and $150.00 per month while producing should be fixed as reasonable charges for supervision (combined fixed rates); that the operator should be authorized to withhold from production the proportionate share of such supervision charges attributable to each non-consenting working interest, and in addition thereto, the operator should be authorized to withhold from production the proportionate share of actual expenditures required for operating the subject well, not in excess of what are reasonable, attributable to each non-consenting working interest.

(12) That all proceeds from production from the subject well which are not disbursed for any reason should be placed in escrow to be paid to the true owner thereof upon demand and proof of ownership.

(13) That upon the failure of the operator of said pooled unit to commence drilling of the well to which said unit is dedicated on or before June 1, 1978, the order pooling said unit should become null and void and of no effect whatsoever.

IT IS THEREFORE ORDERED:

(1) That all mineral interests, whatever they may be, in the Tansill, Yates, and all but the lowermost 100 feet of the Seven Rivers formation underlying the NE/4 of Section 15, Township 24 South, Range 36 East, NMPM, Jalmat Gas Pool, Lea County, New Mexico, are hereby pooled to form a non-standard 160-acre gas spacing and proration unit to be dedicated to a well to be drilled at a standard location thereon.

PROVIDED HOWEVER, that the operator of said unit shall commence the drilling of said well on or before the 1st day of June, 1978, and shall thereafter continue the drilling of said well with due diligence to a depth sufficient to test the Seven Rivers formation;

PROVIDED FURTHER, that in the event said operator does not commence the drilling of said well on or before the 1st day of June, 1978, Order (1) of this order shall be null and void and of no effect whatsoever; unless said operator obtains a time extension from the Commission for good cause shown.

PROVIDED FURTHER, that should said well not be drilled to completion, or abandonment, within 120 days after commencement thereof, said operator shall appear before the Commission and show cause why Order (1) of this order should not be rescinded.

(2) That O. H. Berry is hereby designated the operator of the subject well and unit.

(3) That after the effective date of this order and within 30 days prior to commencing said well, the operator shall furnish the Commission and each known working interest owner in the subject unit an itemized schedule of estimated well costs.

(4) That within 30 days from the date the schedule of estimated well costs is furnished to him, any non-consenting working interest owner shall have the right to pay his share of estimated well costs to the operator in lieu of paying his share of reasonable well costs out of production, and that any such owner who pays his share of estimated well costs as provided above shall remain liable for operating costs but shall not be liable for risk charges.

(5) That the operator shall furnish the Commission and each known working interest owner an itemized schedule of actual well costs within 90 days following completion of the well; that if no objection to the actual well costs is received by the Commission and the Commission has not objected within 45 days following receipt of said schedule, the actual well costs shall be the reasonable well costs; provided however, that if there is an objection to actual well costs within said 45-day period the Commission will determine reasonable well costs after public notice and hearing.

(6) That within 60 days following determination of reasonable well costs, any non-consenting working interest owner that has paid his share of estimated costs in advance as provided above shall pay to the operator his pro rata share of the amount that reasonable well costs exceed estimated well costs and shall receive from the operator his pro rata share of the amount that estimated well costs exceed reasonable well costs.

(7) That the operator is hereby authorized to withhold the following costs and charges from production:

(A) The pro rata share of reasonable well costs attributable to each non-consenting working interest owner who has not paid his share of estimated well costs within 30 days from the date the schedule of estimated well costs is furnished to him.

(B) As a charge for the risk involved in the drilling of the well, 200 percent of the pro rata share of reasonable well costs attributable to each non-consenting working interest owner who has not paid his share of estimated well costs within 30 days from the date the schedule of estimated well costs is furnished to him.

(8) That the operator shall distribute said costs and charges withheld from production to the parties who advanced the well costs.

(9) That $1200.00 per month while drilling and $150.00 per month while producing are hereby fixed as reasonable charges for supervision (combined fixed rates); that the operator is hereby authorized to withhold from production the proportionate share of such supervision charges attributable to each non-consenting working interest, and in addition thereto, the operator is hereby authorized to withhold from production the proportionate share of actual expenditures required for operating such well, not in excess of what are reasonable, attributable to each non-consenting working interest.

(10) That any unsevered mineral interest shall be considered a seven-eighths (7/8) working interest and a one-eighth (1/8) royalty interest for the purpose of allocating costs and charges under the terms of this order.

(11) That any well costs or charges which are to be paid out of production shall be withheld only from the working interests share of production, and no costs or charges shall be withheld from production attributable to royalty interests.

(12) That all proceeds from production from the subject well which are not disbursed for any reason shall be placed in escrow in Lea County, New Mexico, to be paid to the true owner thereof upon demand and proof of ownership; that the operator shall notify the Commission of the name and address of said escrow agent within 90 days from the date of this order.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

PHIL R. LUCERO, Chairman

EMERY C. ARNOLD, Member

JOE D. RAMEY, Member & Secretary

S E A L

jr/

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NEW MEXICO OIL CONSERVATION COMMISSION

Form C-101
Revised 1-1-65

5A. Indicate Type of Lease STATE [ ] FEE [X]

5. State Oil & Gas Lease No. --

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

7. Unit Agreement Name

1a. Type of Work
DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. Type of Well
OIL WELL [X] GAS WELL [ ] OTHER SINGLE ZONE [X] MULTIPLE ZONE [ ]

8. Farm or Lease Name: J. L. Isabell

2. Name of Operator: O. H. Berry

9. Well No.: 5

3. Address of Operator: 515 Midland National Bank Tower, Midland, TX 79701

10. Field and Pool, or Wildcat: Jal-Mat Yates Seven Rvrs

4. Location of Well UNIT LETTER A LOCATED 330' FEET FROM THE North LINE AND 330' FEET FROM THE East LINE OF SEC. 15 TWP. 24S RGE. 36E NMPM

12. County: Lea

19. Proposed Depth	19A. Formation	20. Rotary or C.T.
3600'	Seven Rivers	Rotary - 3500' C. T. - T.D.

21. Elevations (Show whether DF, RT, etc.)	21A. Kind & Status Plug. Bond	21B. Drilling Contractor	22. Approx. Date Work will start
3382.6	Statewide	Unknown	February 15, 1978

23. PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
12-3/4"	8-5/8"	24#	1300'	400	Circulated
7-7/8"	5-1/2"	14#	3500'	250	Above base of salt

Drill to top of anhydrite at 1300' and set 8-5/8" surface pipe, circulate cement. Drill out with blowout preventer Shaeffer 10" Series, 800 LWS, 3000# working pressure and 5000# test to oil string casing point at 3500'. Log well and run 5-1/2" oil string and cement to base of salt. Rig up cable tools and drill into Seven Rivers Reef under cable tool control head.

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
APPLICANTS EXHIBIT NO. 1
CASE NO. 6158
Submitted by O. H. BERRY
Hearing Date 2/22/78

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

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

Signed O. H. Berry Title Owner Date 12-20-77

(This space for State Use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section

Operator	Lease	Well No.
O. H. Berry	J. L. Isabell	5

Unit Letter	Section	Township	Range	County
A	15	24 South	36 East	Lea

Actual Footage Location of Well:
330 feet from the North line and 330 feet from the East line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3382.6			Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

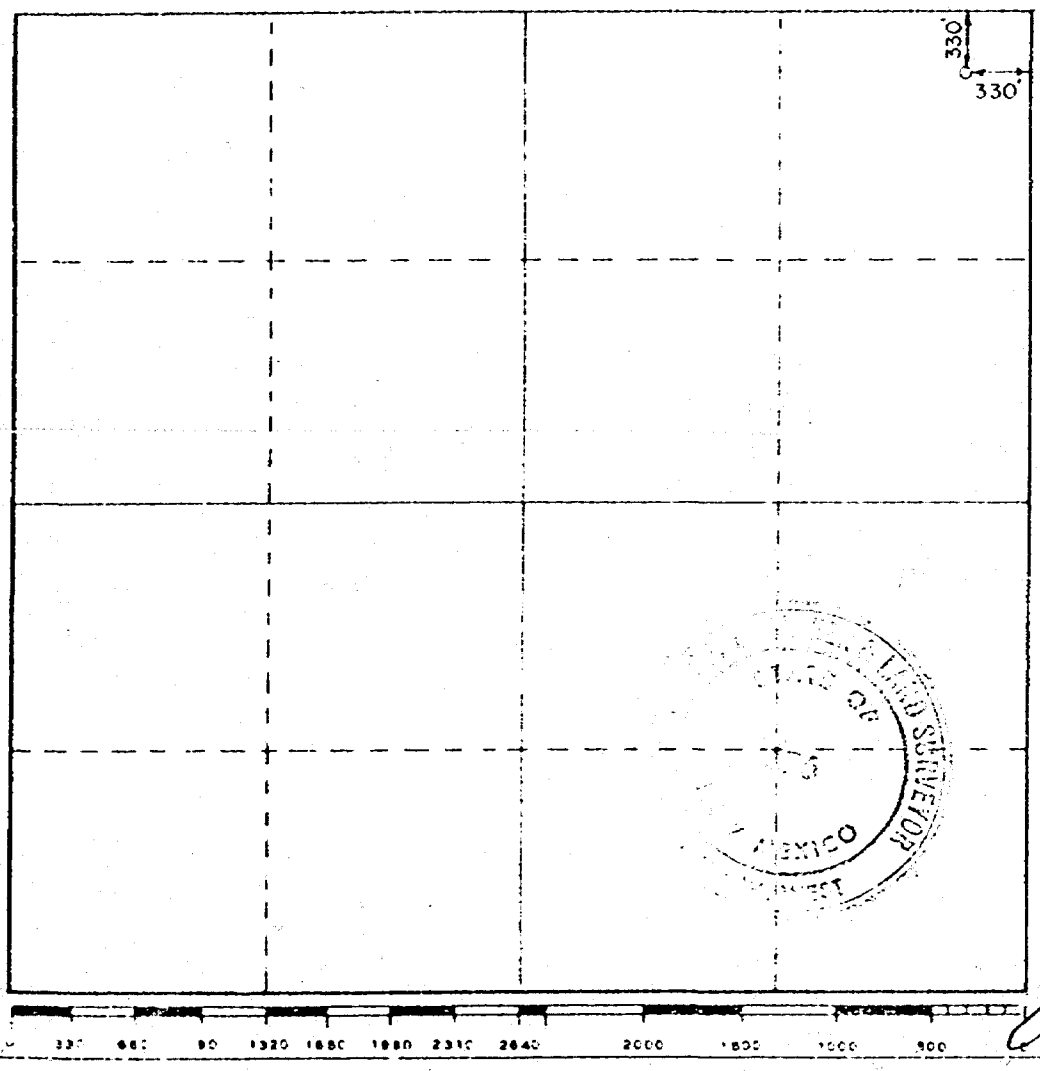
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



0 330 660 90 1320 1650 1980 2310 2640 2000 1500 1000 500

CERTIFICATION

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

Name: Owner

Position: O. H. Berry

Company: 20 December 1977

Date:

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed: 12/15/77

Registered Professional Engineer and/or Land Surveyor: John W. West

Certificate No. 676

E/2 (Lots 1, 2, S/2 NE/4 and SE/4) Sec 5-T24S-R36E cont'd

F. Kenneth Bateman, Jr. .0333333 1/30
c/o Frank K. Bateman
P. O. Box 103
Santa Fe, N.M. 87501

Jerry Curtis .0333333 1/30
wife: Loneta S. Curtis
P. O. Box 617
Artesia, N.M. 88210

will lease per 12/13 conversation
1/4 Royalty
Helen D. Preston
502-683-3188

SECTION 15

NE/4

J. Basil Preston .0035000 1/16
a single man
Glasgow, Kentucky 42141

Patricia Penrose Schieffer .0227727 1/44
c/o Penrose Production Co.
1605 Commerce Bldg.
Ft. Worth, Tex. 76102

Mr. Zachery

Geo. V. Holmes, Trustee .0157576 83/6600
c/o Eckols & Peterek
P. O. Box 200
Gonzales, Tex. 78629

call Mr. Echols on 8/4/77

Gonzales Royalties, Inc. .0090909 1/110
c/o Eckols & Peterek
P. O. Box 200
Gonzales, Tex. 78629

10-1-77

Lexington Oil Co. .0363636 57/6600
c/o Eckols & Peterek
P. O. Box 200
Gonzales, Tex. 78629

Continental Oil Co. .0969697 17/176
P. O. Box 431
Midland, Tex. 79701

Mike Gray (contract-for lease)

Iris Goldston .0250 1/64
a widow
202 Oil & Gas Bldg.
Houston, Tex.

Margaret Bell

Hugh Corrigan, III .0151515 1/66
wife: Ann U. Corrigan
Station 1
Vero Beach, Fla. 32960

Will Join
Son Eddie in Midland

J. Patrick Corrigan .0151515 1/66
wife: Patricia P. Corrigan
P. O. Box 2076
Vero Beach, Fla. 32960

Petroleum Corporation of Texas .0111111 1/90
P. O. Box 911
Breckenridge, Tex. 76024

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
APPLICANTS EXHIBIT NO. 2
CASE NO. 6158
Submitted by O.H. HEXEL
Hearing Date 2/22/78

continued

Mineral Ownership Take-Off cont'd — as of 8-2-77 at 7:00 A.M.

NE/4 Sec 15-T24S-R36E cont'd

Cities Service Oil Co. .0765091 — 17/176
800 Vaughn Bldg.
Midland, Tex. 79701

Box 1919 Tom Hellers

Heritage Resources .0083333 — 1/120 ✓ Mr Healy
P. O. Box 777
Davis, Okla. 73030

Nancy Zoe Goldston Herpin .0078125 — 1/128 ✓
202 Oil & Gas Bldg.
Houston, Tex.

Clark Reed
J. M Eggleston
235 Mid
79702

Gas Producing Enterprises, Inc. .0046875 — 9/192
c/o Coastal States Gas Producing Co.
Five Greenway Plaza East
Houston, Tex. 77046

Jack H. Mayfield, Jr. .0078125 — 1/128 ✓
202 Oil & Gas Bldg.
Houston, Tex.

General Crude Oil Co. .21875 — 7/32 → Dee Randel Hardbright
P. O. Box 2252
Houston, Tex. 77001

502 Vaughn

Mobil Oil Corp. .21875 — 7/32
P. O. Box 633
Midland, Tex. 79701

Rosey — 90 dr. Roswell
505-622-4220
Ard 820 Roswell 88201

Atlantic Richfield Co. .0546875 — 5/88
P. O. Box 1610
Midland, Tex. 79701

T. F. Furtwangler (loc. depth cost Join on Jarmont

Sun Oil Co. .0222222 — 2/90 John Hawkes - David L Peterson
P. O. Box 1861
Midland, Tex. 79701

Gulf Oil Corp. .046875 — 9/192 → R.E. Griffith
P. O. Box 1150 Harry Franklin
Midland, Tex. 79701

NOTE: You are cautioned not to use the information set forth herein as evidence of title.

O. H. BERRY

WELL COST ESTIMATE Date 13 January 1978

Lease and Well No. J. L. ISABELL NO. 5

Proposed T. D. 3600 feet Type Rig Rotary & Cable Tool AFE No. 1-78-01

INTANGIBLE COST:

3500 feet @ 9.35 per ft.	$ 32,725	$
Day Work 2 days @ 2,800 per day	5,600	
Cement & Cementing Services (surface)	2,500	
Floating Equipment (surface)	250	
Cement & Cementing Services (Long string)	2,000	
Floating Equipment (Long string)	500	
Mud & Mud Additives Coring Required better mud	3,000	
Water	3,000	
Survey Location	250	
Road, Cleaning & Levelling Location & Clean Up	4,500	
Trucking (Surface, long string; tubing)	2,500	
Electric Logs	2,000	
Coring		
Formation Tests		
Perforating		
Acid Treatment	2,200	
Fracture Treatment	8,000	
Pit Liner	900	
Labor (hooking up well, etc.)	1,200	
Ruff Coat Casing	800	
Welding	200	
Cable Tool - Tailing in - 112 hrs @ $36.00 /hr	4,000	
Miscellaneous	2,000	
Supervision	3,400	
TOTAL INTANGIBLES	$ 81,525	

TANGIBLE COST:

Surface String (1300' 8-5/8" 20# @ 5.15 /ft.)	6,700	
Long String (3500' 5-1/2" 14# @ 4.10 /ft.)	14,350	
Tubing (3500' 2-3/8" 4.7# @ 2.00 /ft.)	7,000	
Flow Line (700' 2" @ 1.00 /ft.)	700	
Xmas Tree & Connections - 8-5/8 Braden, tbg head	1,500	
Pumping Unit (Rods, pump, motor, etc.) Control panel	16,000	
Tanks - 2-500 bbl., weld stock tank, deliver, set & hook up w/heater treater	15,000	
Electric line (3/4 mile), damages, right of way, and all materials	2,550	
Miscellaneous	1,500	
TOTAL TANGIBLES	$ 65,300	

Total Dry Hole Cost $

Total Completion Cost (Tangible & Intangible) $ 146,825

Accepted this _____ day of _____, 1978

By: _____

O. H. BERRY

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
APPLICANTS EXHIBIT NO. 3
CASE NO. 6158
Submitted by O.H. BERRY
Hearing Date 2/22/78

O. H. BERRY
Independent Oil Producer
SUITE 515
MIDLAND NATIOANL BANK TOWER
MIDLAND, TEXAS 79701

(915) 684-4932

13 January 1978

Sun Oil Company - #361249
Atlantic Richfield Company - #361249
Mobil Oil Corporation - #361247
General Crude Oil Company - #361246
Cities Service Oil Company - #361245
Gas Producing Enterprises, Inc. - #361244
Continental Oil Company - #361243

Northeast Quarter (NE/4) Section 15,
T-24-S, R-36-E, Lea County, New Mexico

Herewith is an AFE covering my proposed drilling of J. L. Isabell Well No. 5. A copy of my C-101 Application to Drill has previously been furnished to you.

If you should like to join in the drilling of this well, please signify by signing this AFE and returning one copy to me.

Yours very truly,

O. H. Berry

OHB/br

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
APPLICANTS EXHIBIT NO. 4
CASE NO. 6158
Submitted by O.H. BERRY
Hearing Date 2/22/78

O. H. BERRY
Independent Oil Producer
SUITE 515
MIDLAND NATIOANL BANK TOWER
MIDLAND, TEXAS 79701

(915) 684-4932

15 February 1978

Sun Oil Company - #361252
Mobil Oil Corporation - #361237
Atlantic Richfield Company -#361236
General Crude Oil Com. - #361238
Gas Producing Enterprises, Inc. - #361241
Cities Service Oil Company - #361239
Continental Oil Company - #361240

Northeast Quarter (NE/4) Section 15
T24S, R36E, Lea County, New Mexico

Gentlemen:

Attached hereto is a copy of the Docket for the New Mexico Oil Conservation Commission hearing scheduled for February 22, 1978.

Very truly yours,

O. H. Berry

OHB/br

Attachment

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
APPLICANTS EXHIBIT NO. 5
CASE NO. 6158
Submitted by O. H. BERRY
Hearing Date 2/22/78

CASE 6158: Application of C. H. Berry for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the NE/4 of Section 15, Township 24 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6159: Application of Texaco Inc., for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Drinkard and Wantz-Granite Wash production in the wellbore of its A. H. Blinebry Federal Well No. 38 located in Unit J of Section 19, Township 22 South, Range 38 East, Lea County, New Mexico.

CASE 6160: Application of Bass Enterprises Production Co., for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Delaware formation through the perforated interval from 3310 feet to 3375 feet in its Big Eddy Unit Well No. 56, located in Unit G of Section 35, Township 21 South, Range 28 East, Indian Flats-Delaware Pool, Eddy County, New Mexico.

CASE 6161: Application of Tenneco Oil Company for two waterflood projects, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project on its Leonard Federal Lease by the injection of water into the Queen formation through one well in Unit O of Section 11, and on its Leonard Brothers Lease through two wells, in Units I and M, respectively, of Section 14, all in Township 26 South, Range 37 East, Leonard Queen Pool, Lea County, New Mexico. Applicant further seeks the establishment of an administrative procedure for the addition of injection wells and the conversion of existing wells to injection at both orthodox and unorthodox locations without further notice and hearing.

CASE 6162: Application of Continental Oil Company for an unorthodox location and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Jack B-30 Well No. 2 to be located 330 feet from the North line and 1725 feet from the East line of Section 30, Township 24 South, Range 37 East, Jalmat Gas Pool, Lea County, New Mexico, the NE/4 of said Section 30 to be simultaneously dedicated to the aforesaid well and to Well No. 5 in Unit H.

CASE 6163: Application of Continental Oil Company for amendment of Commission Order No. R-3863, Lea County, New Mexico. Applicant, in the above-styled cause, seeks to substitute its Anderson Ranch Unit Wells No. 6 located in Unit X of Section 2 and Nos. 3 and 10, located in Units A and H, respectively, of Section 11, all in Township 16 South, Range 32 East, for the initial injection wells authorized by said order in its Anderson Ranch-Wolfcamp Waterflood Project, Anderson Ranch-Wolfcamp Pool, Lea County, New Mexico.

CASE 6164: Application of Shell Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Tubb, Wantz-Abo, and Brunson-Ellenburger production in the wellbore of its Shell State Section 2 Well No. 15 located in Unit K of Section 2, Township 21 South, Range 37 East, Lea County, New Mexico.

CASE 6165: Application of Shell Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Drinkard, Hare-McKee, and Brunson-Ellenburger production in the wellbore of its Shell State Section 2 Well No. 3 located in Unit U of Section 2, Township 21 South, Range 37 East, Lea County, New Mexico.

CASE 6166: Application of Odessa Natural Corporation for rescission of Order No. R-5601, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks a hearing at which any interested party could appear and show cause why Order No. R-5601, which granted a special well classification to applicant's ARCO-Little Fed. Well No. 1, located in Unit D of Section 32, Township 24 North, Range 3 West, Rio Arriba County, New Mexico, should not be rescinded.

CASE 6141: Application of Paul Slayton for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Seven Rivers formation thru the open-hole interval from 528 feet to 547 feet in his Hastie Well No. 7 located in Unit L of Section 18, Township 17 South, Range 28 East, Empire Field, Eddy County, New Mexico.

Dockets Nos. 9-78 and 11-78 are tentatively set for hearing on March 8 and March 22, 1978. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - FEBRUARY 22, 1978

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

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

CASE 6150: In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the amendment of Rules 311, 312, 1117, and 1118 of the Commission Rules and the revision of Forms C-117-A and C-117-B, all for the purpose of regulating the handling and reporting of tank bottoms, sediment oil, miscellaneous hydrocarbons, and the operation of treating plants.

CASE 6151: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Vega Petroleum Corporation, American Employers' Insurance Company, and all other interested parties to appear and show cause why the North Caprock Queen Unit No. 1 Well No. 5Y located in Unit E of Section 8, Township 13 South, Range 32 East, Lea County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6152: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Al Greer, American Employers' Insurance Company, and all other interested parties to appear and show cause why the Thompson Well No. 1 located in Unit N of Section 10, Township 30 North, Range 11 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6153: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Mints-Kenaston and all other interested parties to appear and show cause why the L. A. McCoy Well No. 1 located in Unit B of Section 28, Township 30 North, Range 12 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6154: Application of Read & Stevens, Inc. for a unit agreement, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for its Calumet Ranch Unit Area comprising 5,760 acres, more or less, of Federal, State, and fee lands in Township 12 South, Range 27 East, Chaves County, New Mexico.

CASE 6155: Application of Gulf Oil Corporation for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the N/2 of Section 28, Township 23 South, Range 26 East, South Carlsbad Field, Eddy County, New Mexico, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6144: (Readvertised)

Application of Southland Royalty Company for two unorthodox locations and two non-standard gas proration units, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for two 120-acre non-standard gas proration units comprising the S/2 SE/4 of Section 10 and the SW/4 SW/4 of Section 11, and comprising the SE/4 SW/4 and the S/2 SE/4 of Section 11, all in Township 28 North, Range 11 West, Fulcher Kutz-Pictured Cliffs Pool, San Juan County, New Mexico, each of said units to be dedicated to a well drilled at an unorthodox location thereon.

CASE 6156: Application of Southland Royalty Company for an unorthodox location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its East Well No. 5A to be located 1120 feet from the South line and 1790 feet from the West line of Section 24, Township 31 North, Range 12 West, Blanco-Mesaverde Gas Pool, San Juan County, New Mexico.

CASE 6157: Application of Supron Energy Corporation for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 160-acre non-standard gas proration unit comprising the SW/4 of Section 13, Township 16 South, Range 33 East, Lea County, New Mexico, to be dedicated to a Morrow gas well test to be drilled thereon.

Case 6158

CATRON, CATRON & SAWTELL
ATTORNEYS AND COUNSELORS AT LAW
THE PLAZA
SANTA FE, NEW MEXICO 87501

POST OFFICE BOX 788
TELEPHONE 982-1947
AREA CODE 505

THOMAS B. CATRON, 1840-1921
FLETCHER A. CATRON, 1890-1964

THOMAS B. CATRON, III
JOHN S. CATRON
WILLIAM A. SAWTELL, JR.
FLETCHER R. CATRON

WILLIAM F. CARR
W. ANTHONY SAWTELL

January 27, 1978

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

Attention: Mr. Joe D. Ramey
State Petroleum Engineer

Gentlemen:

Enclosed herewith, in triplicate, is the Application of O. H. Berry for compulsory pooling, Lea County, New Mexico. Mr. Berry requests that this matter be set for the Examiner's hearing to be held on February 22, 1978.

Very truly yours,

William F. Carr

William F. Carr

WFC:tg
Enclosures
cc: Mr. O. H. Berry
Midland National Bank Tower
Suite 515
Midland, Texas 79701

BEFORE THE
OIL CONSERVATION COMMISSION OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF O. H. BERRY FOR COMPULSORY POOLING, LEA COUNTY, NEW MEXICO

CASE 6158

APPLICATION

Comes now O. H. Berry, by his undersigned attorneys and, as provided by Section 65-3-14, New Mexico Statutes Annotated, 1953 Compilation, as amended, hereby makes application for an order pooling all of the mineral interests in and under the NE/4 of Section 15, Township 24 South, Range 36 East, N.M.P.M., Lea County, New Mexico, and in support thereof would show the Commission:

1. Applicant is the owner of 24.34% of the working interest in and under the NE/4 of said Section 15, and applicant has the right to drill thereon.

2. Applicant proposes to dedicate the above-referenced pooled unit to a well to be drilled at an orthodox location within the boundary of said pooled unit.

3. Applicant has sought and been unable to obtain either voluntary agreement for pooling or farm-out from certain other owners of mineral interest in the NE/4 of said Section 15.

4. Said pooling of interest and well completion will avoid the drilling of unnecessary wells, will protect correlative rights and prevent waste.

5. In order to permit applicant to obtain its just and fair share of the oil and gas underlying the subject lands, the mineral interest

Case 6158

should be pooled, and applicant should be designated as the operator of the well to be drilled.

WHEREFORE, applicant prays that this application be set for hearing before the Commission or the Commission's duly appointed examiner, and that after notice and hearing as required by law the Commission enter its order pooling the lands, together with the provision for applicant to recover its costs of drilling, equipping and completing the well, its costs of supervision while drilling, and after completion, including overhead charges, and a risk factor for the risk assumed by applicant in drilling, completing and equipping the well, and such other and further provisions as may be proper in the premises

Respectfully submitted
CATRON, CATRON & SAWTELL

By /s/ William F. Carr

William F. Carr
Post Office Box 788
Santa Fe, New Mexico 87501
Attorneys for Applicant

DRAFT

dr/

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 6158

Order No. R- 5654

APPLICATION OF O. H. BERRY FOR
COMPULSORY POOLING, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 22, 1978 at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this _____ day of _____, 1978, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, O. H. Berry, seeks an order pooling all mineral interests in the Tansill, Yates, and all but the lowermost 100 feet of the Seven Rivers formation underlying the NE/4 of Section 15, Township 24 South, Range 36 East, NMPM, Jalmat Gas Pool, Lea County, New Mexico.

(3) That the applicant has the right to drill and proposes to drill a well at a standard location thereon.

(4) That there are interest owners in the proposed proration unit who have not agreed to pool their interests.

(5) That to avoid the drilling of unnecessary wells, to protect correlative rights, and to afford to the owner of each interest in said unit the opportunity to recover or receive without unnecessary expense his just and fair share of the gas in said pool, the subject application should be approved by pooling all mineral interests, whatever they may be, within said unit.

(6) That the applicant should be designated the operator of the subject well and unit.

(7) That any non-consenting working interest owner should be afforded the opportunity to pay his share of estimated well costs to the operator in lieu of paying his share of reasonable well costs out of production.

(8) That any non-consenting working interest owner that does not pay his share of estimated well costs should have withheld from production his share of the reasonable well costs plus an additional 200 percent thereof as a reasonable charge for the risk involved in the drilling of the well.

(9) That any non-consenting interest owner should be afforded the opportunity to object to the actual well costs but that actual well costs should be adopted as the reasonable well costs in the absence of such objection.

(10) That following determination of reasonable well costs, any non-consenting working interest owner that has paid his share of estimated costs should pay to the operator any amount that reasonable well costs exceed estimated well costs and should receive from the operator any amount that paid estimated well costs exceed reasonable well costs.

$1200 per month while drilling and $150.00 while producing

(11) That _____ per month should be fixed as a reasonable charge for supervision (combined fixed rates); that the operator should be authorized to withhold from production the proportionate share of such supervision charges attributable to each non-consenting working interest, and in addition thereto, the operator should be authorized to withhold from production the proportionate share of actual expenditures required for operating the subject well, not in excess of what are reasonable, attributable to each non-consenting working interest.

(12) That all proceeds from production from the subject well which are not disbursed for any reason should be placed in escrow to be paid to the true owner thereof upon demand and proof of ownership.

(13) That upon the failure of the operator of said pooled unit to commence drilling of the well to which said unit is dedicated on or before June 1, 1978, the order pooling said unit should become null and void and of no effect whatsoever.

IT IS THEREFORE ORDERED:

(1) That all mineral interests, whatever they may be, in the Tansill, Yates, and all but the lowermost 100 feet of the Seven Rivers formation underlying the NE/4 of Section 15, Township 24 South, Range 36 East, NMPM, Jalmat Gas Pool, Lea County, New Mexico, are hereby pooled to form a non-standard 160-acre gas spacing and proration unit to be dedicated to a well to be drilled at a standard location thereon.

PROVIDED HOWEVER, that the operator of said unit shall commence the drilling of said well on or before the 1st day of June, 1978, and shall thereafter continue the drilling of said well with due diligence to a depth sufficient to test the Seven Rivers formation;

PROVIDED FURTHER, that in the event said operator does not commence the drilling of said well on or before the 1st day of June, 1978, Order (1) of this order shall be null and void and of no effect whatsoever; unless said operator obtains a time extension from the Commission for good cause shown.

PROVIDED FURTHER, that should said well not be drilled to completion, or abandonment, within 120 days after commencement thereof, said operator shall appear before the Commission and show cause why Order (1) of this order should not be rescinded.

(2) That O. H. Berry is hereby designated the operator of the subject well and unit.

(3) That after the effective date of this order and within 30 days prior to commencing said well, the operator shall furnish the Commission and each known working interest owner in the subject unit an itemized schedule of estimated well costs.

(4) That within 30 days from the date the schedule of estimated well costs is furnished to him, any non-consenting working interest owner shall have the right to pay his share of estimated well costs to the operator in lieu of paying his share of reasonable well costs out of production, and that any such owner who pays his share of estimated well costs as provided above shall remain liable for operating costs but shall not be liable for risk charges.

(5) That the operator shall furnish the Commission and each known working interest owner an itemized schedule of actual well costs within 90 days following completion of the well; that if no objection to the actual well costs is received by the Commission and the Commission has not objected within 45 days following receipt of said schedule, the actual well costs shall be the reasonable well costs; provided however, that if there is an objection to actual well costs within said 45-day period the Commission will determine reasonable well costs after public notice and hearing.

(6) That within 60 days following determination of reasonable well costs, any non-consenting working interest owner that has paid his share of estimated costs in advance as provided

above shall pay to the operator his pro rata share of the amount that reasonable well costs exceed estimated well costs and shall receive from the operator his pro rata share of the amount that estimated well costs exceed reasonable well costs.

(7) That the operator is hereby authorized to withhold the following costs and charges from production:

(A) The pro rata share of reasonable well costs attributable to each non-consenting working interest owner who has not paid his share of estimated well costs within 30 days from the date the schedule of estimated well costs is furnished to him.

(B) As a charge for the risk involved in the drilling of the well, 200 percent of the pro rata share of reasonable well costs attributable to each non-consenting working interest owner who has not paid his share of estimated well costs within 30 days from the date the schedule of estimated well costs is furnished to him.

(8) That the operator shall distribute said costs and charges withheld from production to the parties who advanced the well costs.

(9) That $1000 per month while drilling and $150 per month while producing are ~~per month is~~ hereby fixed as ~~a~~ reasonable charges for supervision (combined fixed rates); that the operator is hereby authorized to withhold from production the proportionate share of such supervision charges attributable to each non-consenting working interest, and in addition thereto, the operator is hereby authorized to withhold from production the proportionate share of actual expenditures required for operating such well, not in excess of what are reasonable, attributable to each non-consenting working interest.

(10) That any unsevered mineral interest shall be considered a seven-eighths (7/8) working interest and a one-eighth (1/8) royalty interest for the purpose of allocating costs and charges under the terms of this order.

(11) That any well costs or charges which are to be paid out of production shall be withheld only from the working interests share of production, and no costs or charges shall be withheld from production attributable to royalty interests.

(12) That all proceeds from production from the subject well which are not disbursed for any reason shall be placed in escrow in Lea County, New Mexico, to be paid to the true owner thereof upon demand and proof of ownership; that the operator shall notify the Commission of the name and address of said escrow agent within 90 days from the date of this order.

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

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

CASE 6159: TEXACO INC. FOR DOWNHOLE COMMINGLING, LEA COUNTY, NEW MEXICO

Case Number

6159

Application

Transcripts.

Small Exhibits

ETC.

sid morrish reporting service
General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
22 February 1978

EXAMINER HEARING

IN THE MATTER OF:

Application of Texaco, Inc. for downhole commingling, Lea County, New Mexico.

CASE 6159

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Commission: Lynn Teschendorf, Esq.
Legal Counsel for the Commission
State Land Office Building
Santa Fe, New Mexico

For Texaco, Inc.: William Booker Kelly, Esq.
WHITE, KOCH, KELLY, & MC CARTHY
220 Otero Street
Santa Fe, New Mexico

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General Court Reporting Service
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Phone (505) 982-9212

I N D E X

WES HAYWORTH

Direct Examination by Mr. Kelly 3

Cross Examination by Mr. Stamets 7

E X H I B I T S

Texaco Exhibit One, Plat 7

Texaco Exhibit Two, Data Sheet 7

Texaco Exhibit Three, Document 7

Texaco Exhibit Four, Decline curve 7

Texaco Exhibit Five, Decline Curve 7

Texaco Exhibit Six, Document 7

Texaco Exhibit Seven, Document 7

Texaco Exhibit Eight, Document 7

MR. STAMETS: Okay, the hearing is called to order, please. Take at this time Case 6159.

MS. TESCHENDORF: Case 6159. Application of Texaco, Inc., for downhole commingling, Lea County, New Mexico.

MR. KELLY: Booker Kelly of White, Koch, Kelly and McCarthy, on behalf of the applicant, Texaco.

I have one witness.

(Witness sworn.)

WES HAYWORTH

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

DIRECT EXAMINATION

BY MR. KELLY:

Q. Would you state your name, by whom you're employed, and in what position?

A. Wes Hayworth, employed by Texaco, Incorporated, at Hobbs, New Mexico. I'm presently the District Production Engineer.

Q. Would you give the examiner a brief summary of your educational and professional background?

A. I graduated from Montana State University in

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1975 with a degree in -- a Bachelor of Science degree in Civil Engineering, and I've been employed by Texaco since that time.

Q. And are you -- do part of your duties have to do with this subject well?

A. Yes.

MR. KELLY: Are the witness' qualifications acceptable?

MR. STAMETS: I presume your duties with Texaco would be in the area of petroleum engineering?

A. Right.

MR. STAMETS: The witness will be considered qualified.

Q. (Mr. Kelly continuing.) Referring to Exhibit Number One, would you locate the subject well and state briefly what Texaco seeks by this application?

A. Exhibit Number One is a plat showing the general area that the lease is located in. Exhibit Number One has the A. H. Blinebry Tract One lease shaded in yellow and the subject well has a red arrow pointing to it.

Q. And what does Texaco seek by this application?

A. We seek to downhole commingle the Drinkard and Granite Wash production.

Q. Now, referring to Exhibit Number Two, your data sheet, could you through that exhibit show the examiner

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the crude characteristics of the -- and the present production of the two zones?

A. Yes. This data sheet shows, of course, that both zones are classified sweet; both zones have gravity of 39.1 degrees API; the production is currently surface commingled, and I believe that indicates that no damage would occur by commingling.

Q. Now, you estimate on this sheet that the commingling will increase your barrels of oil per day by about ten, is that correct?

A. Yes, that's correct.

Q. How do you -- how can you support that statement?

A. Could we refer to --

Q. Yeah, go ahead and refer to Exhibits Seven and Eight.

A. Could we refer to Exhibit Seven? It shows that we have -- are currently producing the well through two parallel strings of tubing. The Granite Wash is being produced from below a packer and the Drinkard is flowing currently. We feel that by removing the packer we'll be able to produce the well more efficiently and also we'll be able to artificially lift the Drinkard and together these two will, we estimate, will increase production about ten barrels per day.

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Q. Now, is the royalty interest the same on these two zones?

A. Yes, it is.

Q. And this is a Federal lease, is that correct?

A. Right.

Q. Now, Exhibit Number Three is your gas/oil ratio test, is that correct?

A. Right.

Q. Anything you want to add on those?

A. No comments.

Q. And Exhibits Four and Five are your decline curves, or production curves?

A. These are decline curves showing that period of time from when the well was completed in 1975 through the present.

Q. And your present production is 936, approximately, is that correct?

A. Approximately, based on the test.

Q. And you have included as Exhibit Number Five your pressure tests on the Blinebry, is that correct?

A. On the Drinkard flowing zone.

Q. And that is the same information as summarized on your data sheet?

A. Right.

Q. Now, do you have a recommendation to the Examiner

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as far as allocation of this additional ten barrels a day, or the total -- total production upon well commingling?

A. Yes. We recommend that the Granite Wash be assigned seventy-five percent of the oil production and twenty percent of the gas production. These percentages are based on current tests which are shown on C -- Form C-116.

Q. So you're just projecting the same ratios?

A. Right. The declines, the decline rate for the two zones are essentially the same.

Q. In your opinion will the granting of this application allow Texaco to produce oil and gas that would otherwise be left in place?

A. Yes, it is my opinion.

Q. And thereby preventing waste?

A. Right.

Q. Were Exhibits One through Eight, I think it is, prepared by you or under your supervision?

A. Under my supervision.

MR. KELLY: I would move Texaco's Exhibits One through Eight into evidence.

MR. STAMETS: These exhibits will be admitted.

MR. KELLY: We have nothing further on direct.

CROSS EXAMINATION

BY MR. STAMETS:

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Phone (505) 982-9212

Q. Mr. Hayworth, you increase in ten barrels a day. Will that increase come from each zone in proportion or from the Drinkard zone, which has been flowing, which will now be pumped?

A. I would assume that the production increase would be in proportion to the current production.

Q. What do you base that on?

A. Simply my experience.

Q. Okay, now your pressures on your data sheet are the lower zone is almost -- well, it's right at two times the pressure in the upper zone, is that correct?

A. That is correct. There's a difference in the datum as noted on that data sheet, which would account for approximately, I believe, around two hundred PSI, based on a gradient of around .35.

Q. Okay.

A. And further, I feel that since this well will be pumped following the downhole commingling, I do not feel that the pressure differential represents any problem.

Q. Okay, and actually it's the zone with the higher pressure that's being pumped now.

A. Right.

MR. STAMETS: Okay. Any other questions of this witness? He may be excused. Anything further in this case? We'll take the case under advisement.

(Hearing concluded.)

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Phone (505) 982-9212

REPORTER'S CERTIFICATE

I, SALLY WALTON BOYD, a Certified Shorthand Reporter, DO HEREBY CERTIFY that the foregoing and attached transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and the same is a true and correct record of the said proceedings to the best of my knowledge, skill, and ability.

Sally Walton Boyd

Sally Walton 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. 6157, heard by me on 3-22, 1978.

Richard L. Stamets, Examiner
New Mexico Oil Conservation Commission

sid morrish reporting service
General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 - SANTA FE
87501

DIRECTOR
JOE D. RAMEY

LAND COMMISSIONER
PHIL R. LUCERO

STATE GEOLOGIST
EMERY C. ARNOLD

March 9, 1978

Re: CASE NO. 6159
ORDER NO. R-5657

Mr. Booker Kelly
White, Koch, Kelly & McCarthy
Attorneys at Law
Post Office Box 787
Santa Fe, New Mexico 87501

Applicant:

Texaco Inc.

Dear Sir:

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

Yours very truly,

JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCC x
Artesia OCC x
Aztec OCC

Other

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 6159
Order No. R-5657

APPLICATION OF TEXACO INC., FOR
DOWNHOLE COMMINGLING, LEA COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 22, 1978, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 8th day of March, 1978, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Texaco Inc., is the owner and operator of the A. H. Blinebry Federal (NCT-1) Well No. 38 located in Unit J of Section 19, Township 22 South, Range 38 East, NMPM, Lea County, New Mexico.

(3) That the applicant seeks authority to commingle Drinkard and Wantz-Granite Wash production within the wellbore of the above-described well.

(4) That from the Drinkard zone, the subject well is capable of low marginal production only.

(5) That from the Wantz-Granite Wash zone, the subject well is capable of marginal production only.

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

(7) That the reservoir characteristics of each of the subject zones are such that underground waste would not be caused by the proposed commingling provided that the well is not shut-in for an extended period.

(8) That to afford the Commission the opportunity to assess the potential for waste and to expeditiously order appropriate remedial action, the operator should notify the Hobbs district office of the Commission any time the subject well is shut-in for 7 consecutive days.

(9) That the commingled production should be allocated to each of the commingled zones in the subject well in accordance with a production-based formula.

IT IS THEREFORE ORDERED:

(1) That the applicant, Texaco Inc., is hereby authorized to commingle Drinkard and Wantz-Granite Wash production within the wellbore of the A. H. Blinebry Federal (NCT-1) Well No. 38, located in Unit J of Section 19, Township 22 South, Range 38 East, NMPM, Lea County, New Mexico.

(2) That 25 percent and 80 percent of the commingled oil and gas production, respectively, shall be allocated to the Drinkard zone and 75 percent and 20 percent of the commingled oil and gas production, respectively, shall be allocated to the Wantz-Granite Wash zone.

(3) That the operator of the subject well shall immediately notify the Commission's Hobbs district office any time the well has been shut-in for 7 consecutive days and shall concurrently present, to the Commission, a plan for remedial action.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

PHIL R. LUCERO, Chairman

EMERY C. ARNOLD, Member

JOE D. RAMEY, Member & Secretary

S E A L

jr/

R-37-E

R-38-E

T 22 S

TEXACO Inc.
A.H. BLINEBRY FED. NCT-1 ISE.
WANTZ GRANITE WASH
AND
DRINKARD FIELDS
LEA COUNTY, NEW MEXICO

DATA SHEET FOR WELLBORE COMMINGLING

Operator: TEXACO INC.

Address: P. O. Box 728 - Hobbs, New Mexico 88240

Lease and Well No.: A. H. Blinebry Federal (NCT-1) Well No. 38

Location: 1980' FSL & 1980' FEL, Section 19, T-22-S, R-38-E

700 psi diff at datum

WELL DATA

	Upper Pool	Middle Pool	Lower Pool
Name of Pool	Drinkard		Wantz Granite Wash
Producing Method	Flow		Artificial Lift
BHP	375 psi at 6713' (24-hr. shut in)		750 psi (Est.) @ 7417'
Type Crude	Sweet		Sweet
Gravity	39.1		39.1
GOR Limit	6000:1		2000:1
Completion Interval	6316'-7110' (perfs)		7383'-7450' (perfs)
Current Test Date	1-24-78		1-25-78
Oil	10		36
Water	0		3
GOR	6500		389
Selling Price of Crude - $/BBL.	$14.65 (stripper)		$14.65 (stripper)
Daily Income - $/Day	146.50		527.40

Production is currently surface commingled.

COMMINGLED DATA:

Gravity of Commingled Crude 39.1

Selling Price of Commingled Crude - $/BBL. 14.65

Daily Income - $/Day 820.40 * 10 BOPD production increase

Net (Gain) ~~(Loss)~~ from Wellbore Commingling - $/Day 146.50
based on current producing rates.

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
EXHIBIT NO. 2
CASE NO. 6159
Submitted by Texaco
Hearing Date 2/22/78

NEW MEXICO OIL CONSERVATION COMMISSION
GAS – OIL RATIO TESTS

C-116
Revised 1-1-65

Operator	Pool	County
TEXACO INC.	Wantz Granite Wash & Drinkard	Lea

Address	TYPE OF TEST – (X)	Scheduled [ ]	Completion [ ]	Special [X]
P. O. Box 728 - Hobbs, New Mexico 88240				

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.
A. H. Blinebry (NCT-1)	38	J	19	22	38											
Wantz Granite Wash						1-25-78	P	--	25	41	24	3	38.0	36	14	389
Drinkard						1-24-78	F	32/64	25	44	24	0	39.1	10	65	6500

BEFORE [illegible] GINER STAMETS
OIL CONS[illegible]TION COMMISSION
[illegible]BIT NO. 3
CASE NO. 6159
Submitted by: Texaco
Hearing Date: 2/22/78

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.

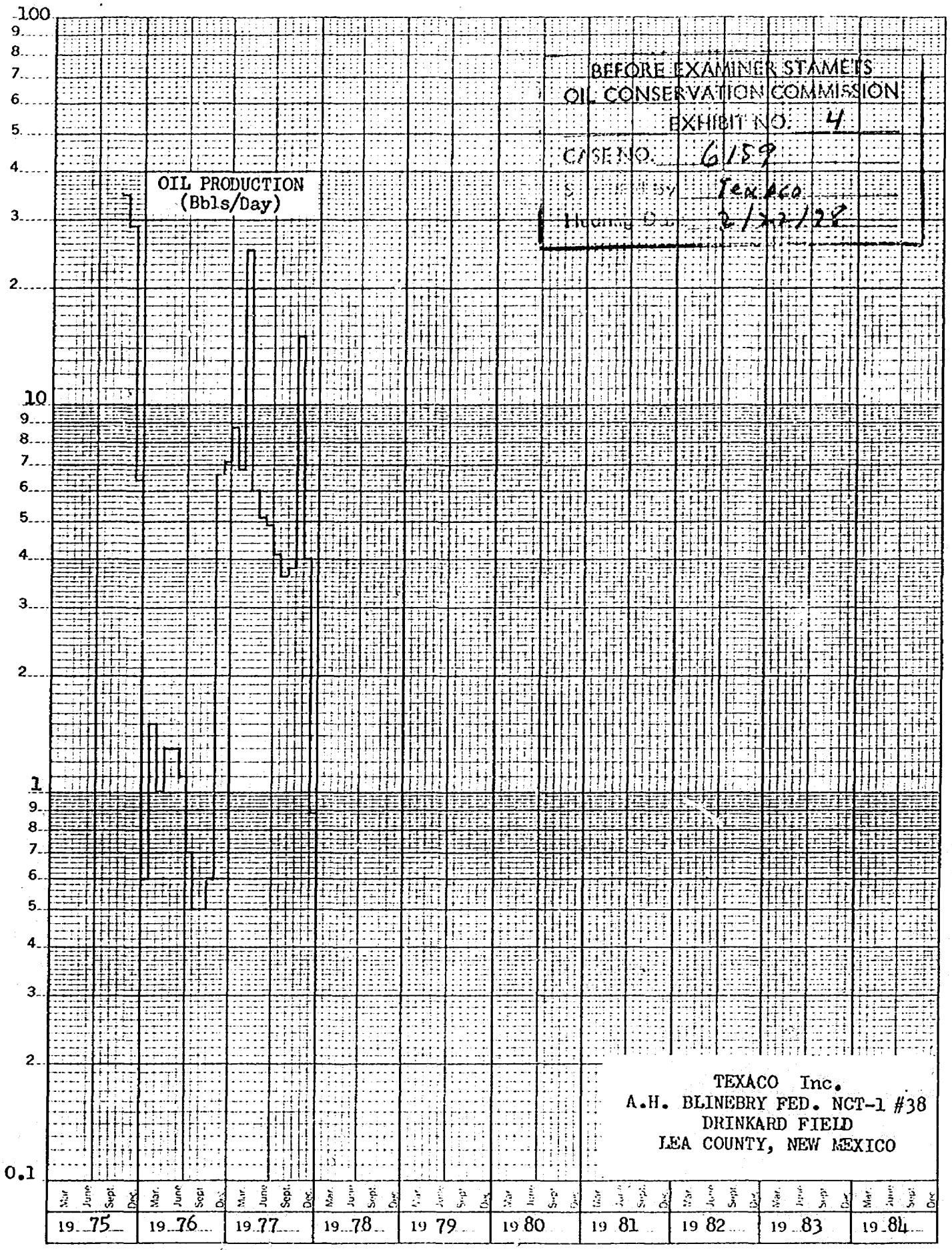
Report casing pressure in lieu of tubing pressure for any well producing through casing.

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.

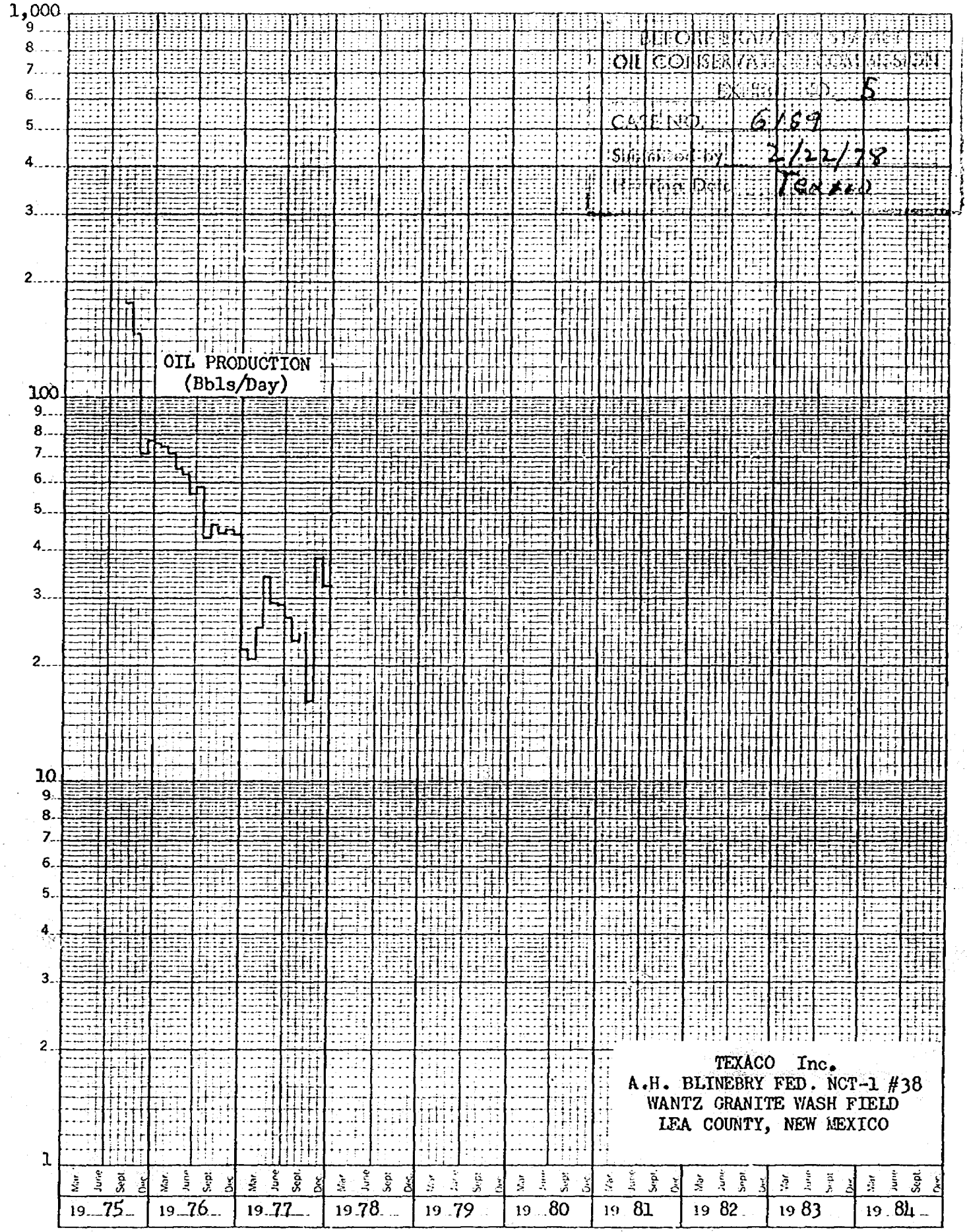
I hereby certify that the above information is true and complete to the best of my knowledge and belief.

(Signature)
Assistant District Superintendent
(Title)
February 6, 1978
(Date)

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
EXHIBIT NO. 4
CASE NO. 6159
Submitted by Texaco
Hearing Date 2/22/78



TEXACO Inc.
A.H. BLINEBRY FED. NCT-1 #38
DRINKARD FIELD
LEA COUNTY, NEW MEXICO


OIL CONSERVATION
EXHIBIT NO. 5
CASE NO. 6169
Submitted by
Hearing Date
Texaco
OIL PRODUCTION
(Bbls/Day)
1,000
100
10
1
Mar. June Sept. Dec.
19 75
19 76
19 77
19 78
19 79
19 80
19 81
19 82
19 83
19 84
TEXACO Inc.
A.H. BLINEBRY FED. NCT-1 #38
WANTZ GRANITE WASH FIELD
LEA COUNTY, NEW MEXICO

H. L. HAGLER
President

WEST TEXAS Consulting SERVICE INC.

P. O. BOX 4456
MIDLAND, TEXAS 79701

TELEPHONES
AREA CODE 915
682-5381 • 563-1810

INDIVIDUAL WELL DATA SHEET

Company TEXACO, Inc. Lease Blinebry (NCT-1) Well No. 38

Field Blinebry County Lea State New Mexico

Test Date 1-25-78 Time 12:00N Status of Well Shut In

Top of Pay _____ Total Depth _____ Producing Formation Drinkard

Tubing 2 7/8EUE Depth 6855 B.H.C _____ Packer _____ Pressure Datum MPP

Casing _____ Depth _____ Perf. _____ Liner _____

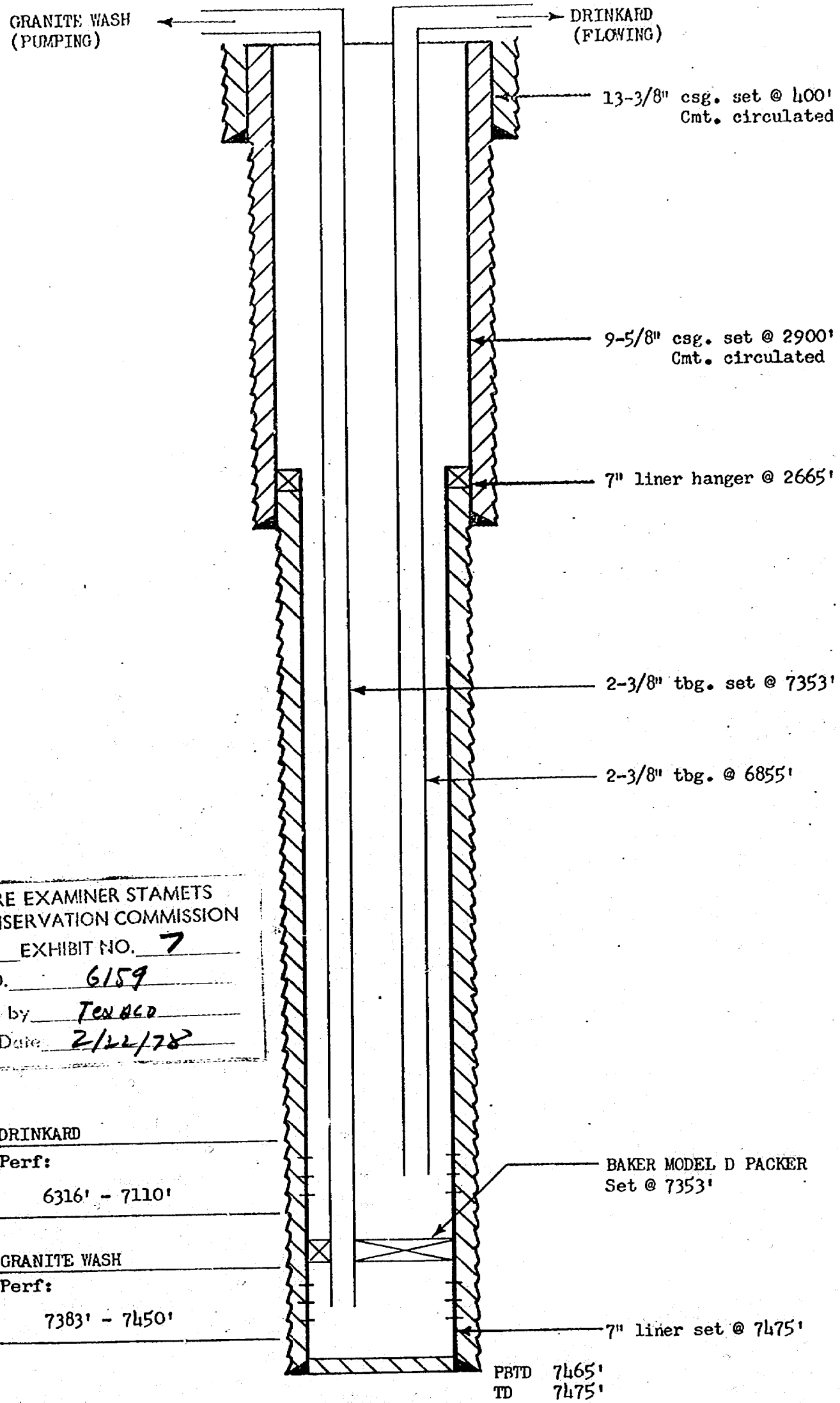
Depth Feet	Δ Depth	Pressure Lbs. Sq. In.	Δ Pressure	*Gradient Lbs./Ft.		
Surface		0				
	2500		0	0.000	Tubing Press.	0 DWG
2500		0			Top of Fluid	5804
	2500		0	0.000	Top of Water	No
5000		0			Hrs.-Shut In	*
	1013		93	0.092		
6013		93			Elevation	
	500		61	0.122	Last Test Date	Initial Test
6513		154			Press. Last Test	
	200		40	0.200	B.H.P. Change	
6713	Run Depth & MPP	194				
					RPG	9891
					Calibration No.	109
*NOTE: THIS SUB-SURFACE PRESSURE WAS RUN SUCCESSIVE TO SWABBING WELL.					Run By	G.A.Moore
					Calculated By	H.L.Hagler

*Pressure and Gradients are calculated in decimals. Pressure and Δpressure are shown to the nearest pound.

Calculations and Remarks: All Pressure Instruments are Temperature Compensated

Distribution 4 - P. O. Box 1065 - Eunice, New Mexico 88211 - Attn: Barry Johnson
1 - Our File

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
EXHIBIT NO. 6
CASE NO. 6159
Submitted by: Texaco
Hearing Date 2/22/78



ORE EXAMINER STAMETS
ONSERVATION COMMISSION
EXHIBIT NO. 7
NO. 6159
ited by TEXACO
ring Date 2/22/78

DRINKARD
Perf:
6316' - 7110'

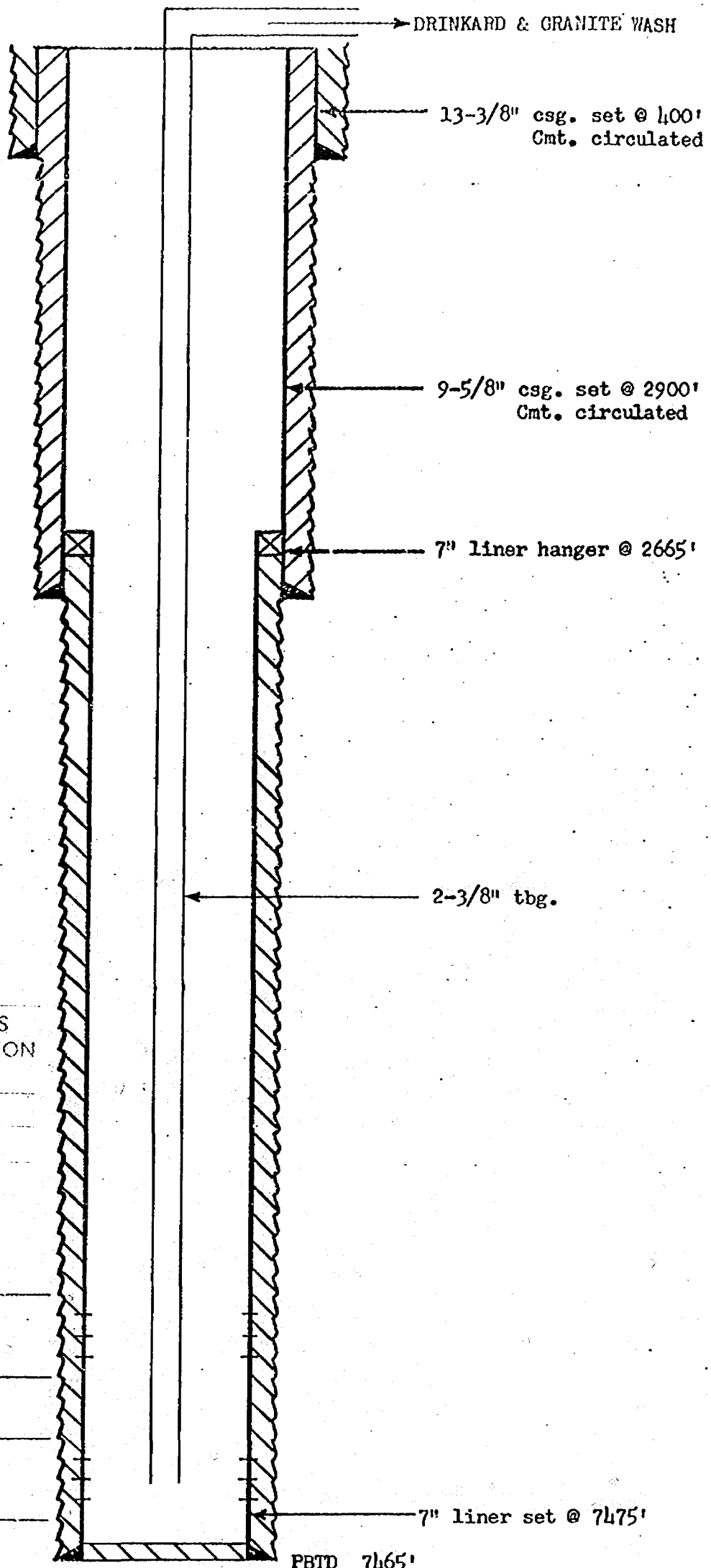
GRANITE WASH
Perf:
7383' - 7450'

PRESENT COMPLETION

TEXACO Inc.
A. H. BLINEBRY FED. NCT-1 NO. 38

LEA COUNTY, NEW MEXICO

WRH/CRC 1-23-78



BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
EXHIBIT NO. 8
CASE NO. 6159
Submitted by Texaco
Hearing Date 2/22/78

DRINKARD
Perf:
6316' - 7110'

GRANITE WASH
Perf:
7383' - 7450'

PROPOSED COMMINGLING METHOD

TEXACO Inc.
A. H. BLINEBRY FED. NCT-1 NO. 38

LEA COUNTY, NEW MEXICO

WRH/CRC 1-23-78

H. L. HAGLER
President

WEST TEXAS CONSULTING SERVICE INC.

P. O. BOX 4456
MIDLAND, TEXAS 79701

TELEPHONES
AREA CODE 915
682-5381 • 563-1810

TEXACO, INC.

Blinebry (NCT-1), Well No. 38

Blinebry Field, Lea County, New Mexico

Sub-Surface Pressure Recorded @ 6713' MPP in psig

"O" Time = Time Instrument Arrived @ Run Depth = 12:00N, January 25, 1978

TIME-HOURS	SUB-SURFACE PRESSURE	TIME-HOURS	SUB-SURFACE PRESSURE
0	195.362	5.25	240.671
.0833 (5 min)	195.912	.50	244.523
.1667 (10 min)	196.095	.75	244.890
.2500 (15 min)	194.811	6.00	243.973
.3333 (20 min)	195.178	.25	244.523
.4167 (25 min)	193.711	.50	246.724
.5000 (30 min)	194.444	.75	249.109
.5833 (35 min)	194.995	7.00	250.943
.6667 (40 min)	196.462	.25	252.411
.7500 (45 min)	196.829	.50	253.144
.8333 (50 min)	197.930	.75	254.979
.9167 (55 min)	198.663	8.00	256.630
1.00	199.764	.50	258.464
.25	203.066	9.00	262.867
.50	205.817	.50	265.985
.75	210.403	10.00	267.453
2.00	212.421	.50	269.837
.25	214.439	11.00	273.873
.50	215.907	.50	277.175
.75	217.007	12.00	279.743
3.00	217.741	13.00	284.329
.25	218.842	14.00	289.832
.50	222.327	15.00	294.968
.75	226.363	16.00	299.738
4.00	231.682	17.00	202.407
.25	235.168	18.00	208.359
.50	236.452	19.00	312.398
.75	237.185	.25	312.949
5.00	238.653	.50	313.682

(Continued on Page 2)

H. L. HAGLER
President

WEST TEXAS CONSULTING SERVICE INC.

P. O. BOX 4456
MIDLAND, TEXAS 79701

TELEPHONES
AREA CODE 915
682-5361 • 563-1810

TEXACO, INC.
Blinebry (NCT-1), Well No. 38
Blinebry Field, Lea County, New Mexico

TIME-HOURS	SUB-SURFACE PRESSURE
19.75	313.866
.8334 (19 hr 50 min)	314.049
.9167 (19 hr 55 min)	314.783
.9334 (19 hr 56 min)	314.966
.9500 (19 hr 57 min)	315.517
.9667 (19 hr 58 min)	317.351
.9834 (19 hr 59 min)	322.488
20.00	330.009
.0167 (20 hr 1 min)	336.246
.0334 (20 hr 2 min)	342.666
.0500 (20 hr 3 min)	349.453
.0667 (20 hr 4 min)	352.939
.0833 (20 hr 5 min)	354.223
.0166 (20 hr 10 min)	355.218
.2500 (20 hr 15 min)	356.241
.3334 (20 hr 20 min)	356.424
.4167 (20 hr 25 min)	356.974
.5000 (20 hr 30 min)	356.974
.5834 (20 hr 35 min)	355.690
.6667 (20 hr 40 min)	354.039
.7500 (20 hr 45 min)	349.820
.8334 (20 hr 50 min)	348.719
.9167 (20 hr 55 min)	349.270
21.00	350.370
.0834 (21 hr 5 min)	350.738
.1667 (21 hr 10 min)	351.655
.2500 (21 hr 15 min)	352.388
.3334 (21 hr 20 min)	352.755
.4167 (21 hr 25 min)	352.755

TIME-HOURS	SUB-SURFACE PRESSURE
21.5000 (21 hr 30 min)	349.453
.5834 (21 hr 35 min)	347.069
.6667 (21 hr 40 min)	345.234
.7500 (21 hr 45 min)	345.234
.8334 (21 hr 50 min)	345.234
.9167 (21 hr 55 min)	344.684
22.00	343.216
.0834 (22 hr 5 min)	342.299
.1667 (22 hr 10 min)	341.382
.2500 (22 hr 15 min)	339.364
.3334 (22 hr 20 min)	341.198
.3500 (22 hr 21 min)	343.767
.3667 (22 hr 22 min)	348.353
.3834 (22 hr 23 min)	352.388
.4000 (22 hr 24 min)	356.241
.4167 (22 hr 25 min)	360.093
.4334 (22 hr 26 min)	364.862
.4501 (22 hr 27 min)	367.430
.4667 (22 hr 28 min)	368.531
.4834 (22 hr 29 min)	369.632
.5000 (22 hr 30 min)	370.549
.75	371.283
23.00	372.199
.25	368.714
.50	372.016
.75	378.253
24.00	374.951
.25	377.703
.50	383.023

TEXACO

PETROLEUM PRODUCTS

TEXACO INC.
DRAWER 728
HOBBS, NEW MEXICO 88240

February 16, 1978

FEB 20 1978
OIL CONSERVATION COMM.
Santa Fe

APPLICATION FOR DOWNHOLE COMMINGLING
DRINKARD & WANTZ GRANITE WASH POOLS
A. H. Blinebry Fed. (NCT-1) No. 38
Lea County, New Mexico
Case No. 6159

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

Gentlemen:

Attached is a copy of the following exhibits for Texaco's application for downhole commingling of Drinkard and Wantz Granite Wash production in the A. H. Blinebry Federal (NCT-1) Well No. 38:

1. Data sheet for wellbore commingling.
2. Commission form C-116 showing current production for each zone.
3. Decline curves for each zone.
4. Bottom hole pressure survey for the Drinkard (flowing) zone.
5. Plat of lease.
6. Wellbore diagrams showing existing and proposed completion methods.

This application is scheduled for an examiner hearing on February 22, 1978 under Case No. 6159.

Yours very truly,

J. V. Gannon
District Superintendent

WRH:las

Attachments

TEXACO Working to keep your trust for 75 years

RECEIVED
FEB 17 1978
OIL CONSERVATION COMM.
HOBBS, N. M.

DATA SHEET FOR WELLBORE COMMINGLING

Operator: TEXACO INC.

Address: P. O. Box 728 - Hobbs, New Mexico 88240

Lease and Well No.: A. H. Blinebry Federal (NCT-1) Well No. 38

Location: 1980' FSL & 1980' FEL, Section 19, T-22-S, R-38-E

WELL DATA

	Upper Pool	Middle Pool	Lower Pool
Name of Pool	Drinkard		Wantz Granite Wash
Producing Method	Flow		Artificial Lift
BHP	375 psi at 6713' (24-hr. shut in)		750 psi (Est.) @ 7417'
Type Crude	Sweet		Sweet
Gravity	39.1		39.1
GOR Limit	6000:1		2000:1
Completion Interval	6316'-7110' (perfs)		7383'-7450' (perfs)
Current Test Date	1-24-78		1-25-78
Oil	10		36
Water	0		3
GOR	6500		389
Selling Price of Crude - $/BBL.	$14.65 (stripper)		$14.65 (stripper)
Daily Income - $/Day	146.50		527.40

Production is currently surface commingled.

COMMINGLED DATA:

Gravity of Commingled Crude 39.1

Selling Price of Commingled Crude - $/BBL. 14.65

Daily Income - $/Day 820.40 * 10 BOPD production increase

Net (Gain) ~~Loss~~ from Wellbore Commingling - $/Day 146.50
based on current producing rates.

NEW MEXICO OIL CONSERVATION COMMISSION
GAS – OIL RATIO TESTS

C-116
Revised 1-1-65

Operator	Pool	County
TEXACO INC.	Wantz Granite Wash & Drinkard	Lea

Address: P. O. Box 728 - Hobbs, New Mexico 88240

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

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.
A. H. Blinebry (NCT-1)	38	J	19	22	38											
Wantz Granite Wash						1-25-78	P	--	25	41	24	3	38.0	36	14	389
Drinkard						1-24-78	F	32/64	25	44	24	0	39.1	10	65	6500

FEB 20 1978
OIL CONSERVATION COMM.
Santa Fe

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.

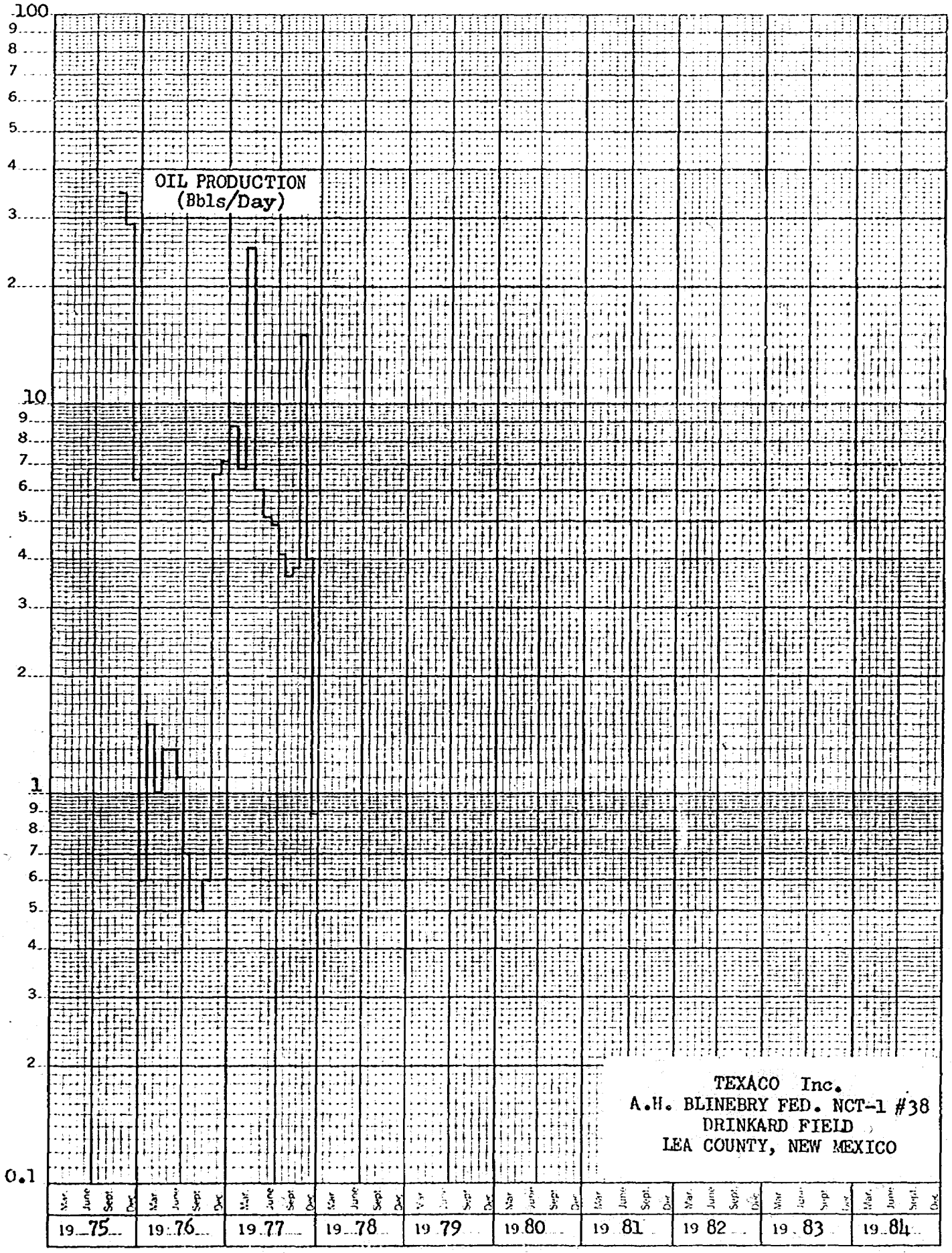
Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 301 and appropriate pool rules.

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

(Signature)

Assistant District Superintendent
(Title)

February 6, 1978
(Date)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OIL PRODUCTION
(Bbls/Day)
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TEXACO Inc.
A.H. BLINEBRY FED. NCT-1 #38
DRINKARD FIELD
LEA COUNTY, NEW MEXICO
Mar. June Sept. Dec.
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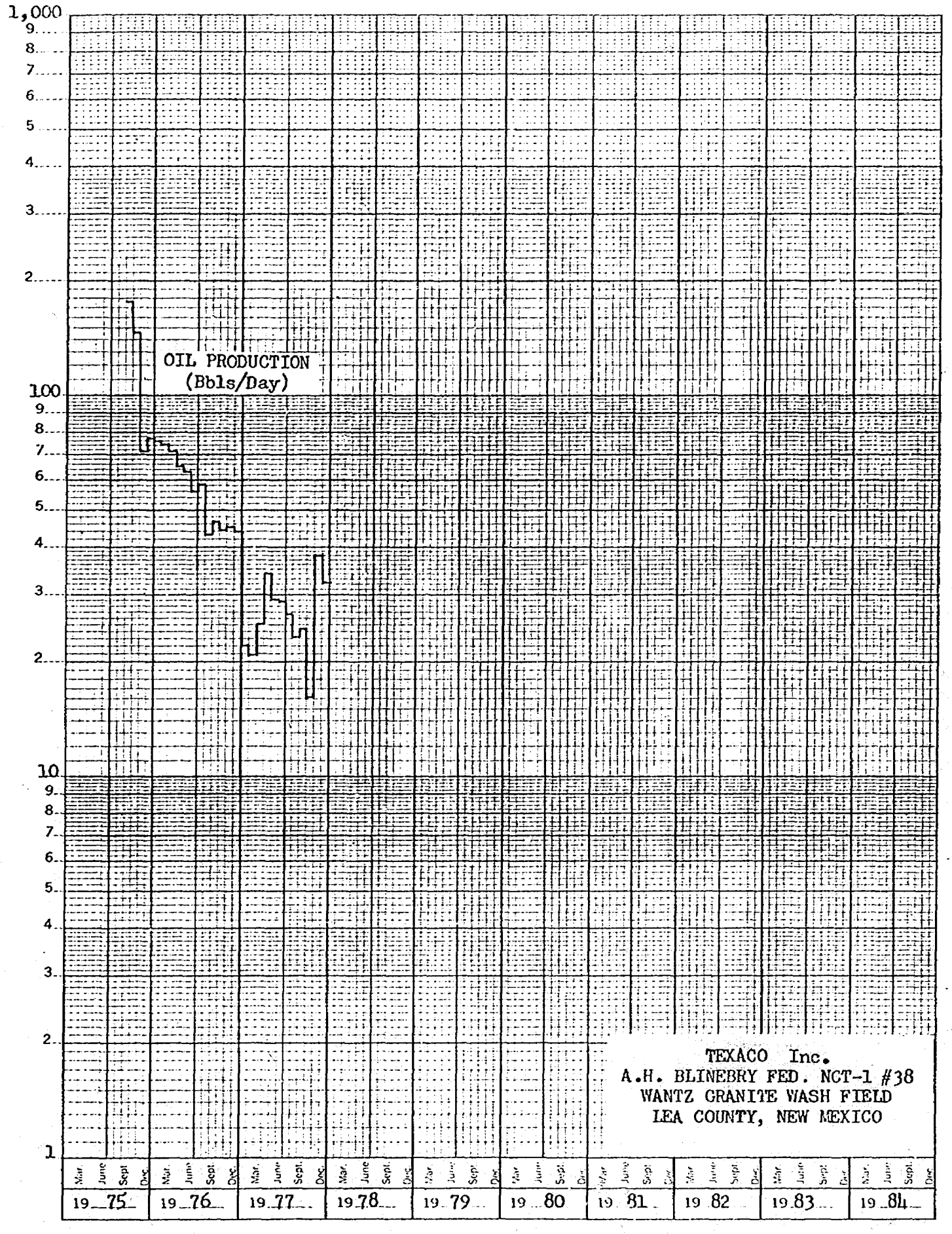
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OIL PRODUCTION
(Bbls/Day)
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TEXACO Inc.
A.H. BLINEBRY FED. NCT-1 #38
WANTZ GRANITE WASH FIELD
LEA COUNTY, NEW MEXICO
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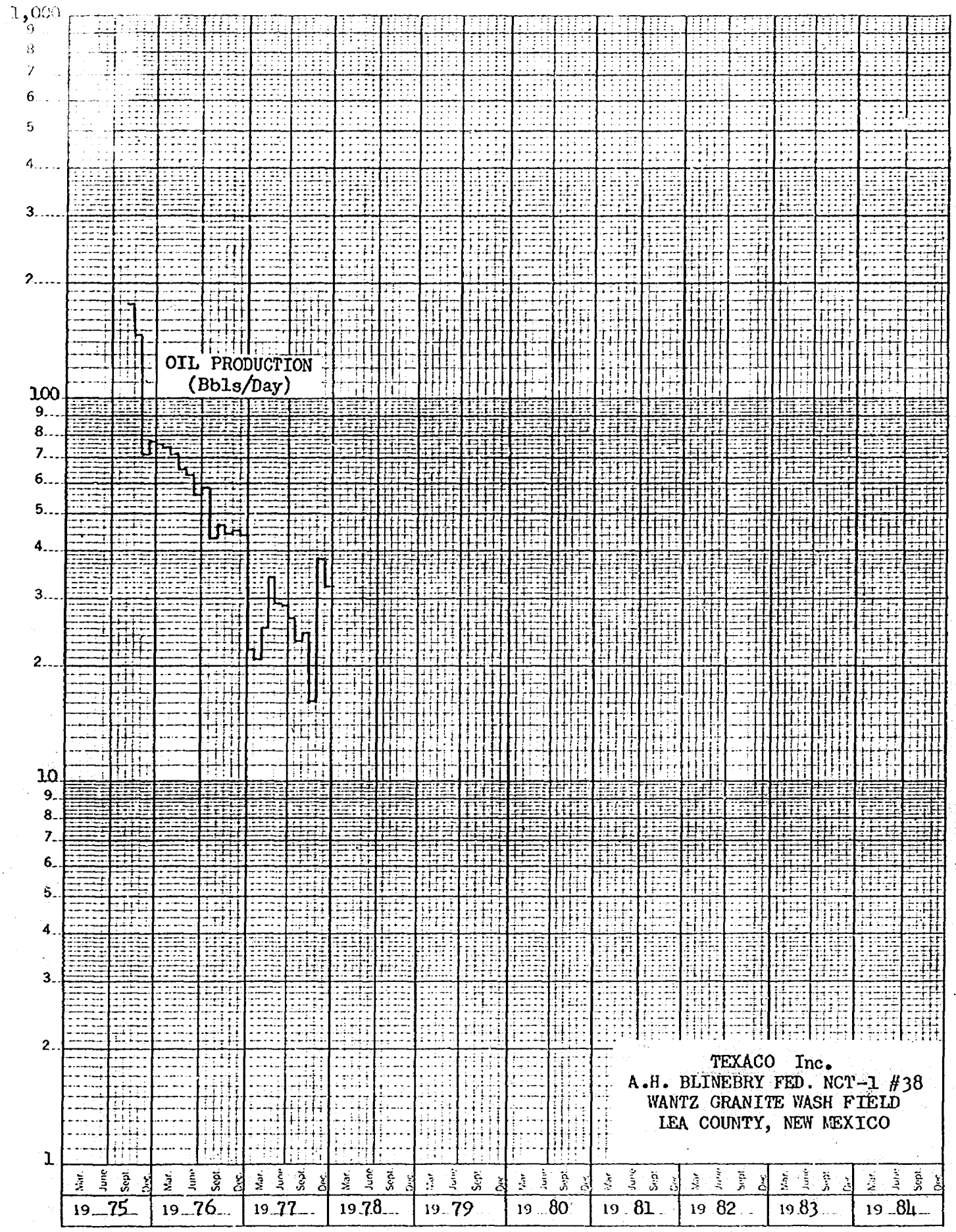
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TEXACO Inc.
A.H. BLINEBRY FED. NCT-1 #38
WANTZ GRANITE WASH FIELD
LEA COUNTY, NEW MEXICO
Mar. June Sept. Dec.
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H. L. HAGLER
President

WEST TEXAS CONSULTING SERVICE INC.

P. O. BOX 4456
MIDLAND, TEXAS 79701

TELEPHONES
AREA CODE 915
682-5361 • 563-1810

INDIVIDUAL WELL DATA SHEET

Company TEXACO, Inc. Lease Blinebry (NCT-1) Well No. 38

Field Blinebry County Lea State New Mexico

Test Date 1-25-78 Time 12:00N Status of Well Shut In

Top of Pay ____ Total Depth ____ Producing Formation Drinkard

Tubing 2 7/8EUE Depth 6855 B.H.C. ____ Packer ____ Pressure Datum MPP

Casing ____ Depth ____ Perf. ____ Liner ____

Depth Feet	Δ Depth	Pressure Lbs. Sq. In.	Δ Pressure	*Gradient Lbs./Ft.		
Surface		0			Tubing Press.	0 DWG
	2500		0	0.000	Top of Fluid	5804
2500		0			Top of Water	No
	2500		0	0.000	Hrs.-Shut In	*
5000		0				
	1013		93	0.092	Elevation	
6013		93			Last Test Date	Initial Test
	500		61	0.122	Press. Last Test	
6513		154			B.H.P. Change	
	200		40	0.200		
6713	Run Depth & MPP	194			RPG	9891
					Calibration No.	109
					Run By	G.A.Moore
					Calculated By	H.L.Hagler

*NOTE: THIS SUB-SURFACE PRESSURE WAS RUN SUCCESSIVE TO SWABBING WELL.

*Pressure and Gradients are calculated in decimals. Pressure and Δpressure are shown to the nearest pound.

Calculations and Remarks: All Pressure Instruments are Temperature Compensated

Distribution 4 - P. O. Box 1065 - Eunice, New Mexico 88211 - Larry Johnson
1 - Our File

H. L. HAGLER
President

WEST TEXAS CONSULTING SERVICE INC.

P. O. BOX 4456
MIDLAND, TEXAS 79701

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AREA CODE 915
682-5361 • 563-1810

TEXACO, INC.

Blinebry (NCT-1), Well No. 38

Blinebry Field, Lea County, New Mexico

Sub-Surface Pressure Recorded @ 6713' MPP in psig

"O" Time = Time Instrument Arrived @ Run Depth = 12:00N, January 25, 1978

TIME-HOURS	SUB-SURFACE PRESSURE
0	195.362
.0833 (5 min)	195.912
.1667 (10 min)	196.095
.2500 (15 min)	194.811
.3333 (20 min)	195.178
.4167 (25 min)	193.711
.5000 (30 min)	194.444
.5833 (35 min)	194.995
.6667 (40 min)	196.462
.7500 (45 min)	196.829
.8333 (50 min)	197.930
.9167 (55 min)	198.663
1.00	199.764
.25	203.066
.50	205.817
.75	210.403
2.00	212.421
.25	214.439
.50	215.907
.75	217.007
3.00	217.741
.25	218.842
.50	222.327
.75	226.363
4.00	231.682
.25	235.168
.50	236.452
.75	237.185
5.00	238.653
5.25	240.671
.50	244.523
.75	244.890
6.00	243.973
.25	244.523
.50	246.724
.75	249.109
7.00	250.943
.25	252.411
.50	253.144
.75	254.979
8.00	256.630
.50	258.464
9.00	262.867
.50	265.985
10.00	267.453
.50	269.837
11.00	273.873
.50	277.175
12.00	279.743
13.00	284.329
14.00	289.832
15.00	294.968
16.00	299.738
17.00	202.407
18.00	208.359
19.00	312.398
.25	312.949
.50	313.682

(Continued on Page 2)

H. L. HAGLER
President

WEST TEXAS CONSULTING SERVICE INC.

P. O. BOX 4456
MIDLAND, TEXAS 79701

TELEPHONES
AREA CODE 915
682-5361 • 563-1810

TEXACO, INC.
Blinebry (NCT-1), Well No. 38
Blinebry Field, Lea County, New Mexico

TIME-HOURS		SUB-SURFACE PRESSURE
19.75		313.866
.8334	(19 hr 50 min)	314.049
.9167	(19 hr 55 min)	314.783
.9334	(19 hr 56 min)	314.966
.9500	(19 hr 57 min)	315.517
.9667	(19 hr 58 min)	317.351
.9834	(19 hr 59 min)	322.488
20.00		330.009
.0167	(20 hr 1 min)	336.246
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.5000	(20 hr 30 min)	356.974
.5834	(20 hr 35 min)	355.690
.6667	(20 hr 40 min)	354.039
.7500	(20 hr 45 min)	349.820
.8334	(20 hr 50 min)	348.719
.9167	(20 hr 55 min)	349.270
21.00		350.370
.0834	(21 hr 5 min)	350.738
.1667	(21 hr 10 min)	351.655
.2500	(21 hr 15 min)	352.388
.3334	(21 hr 20 min)	352.755
.4167	(21 hr 25 min)	352.755

TIME-HOURS		SUB-SURFACE PRESSURE
21.5000	(21 hr 30 min)	349.453
.5834	(21 hr 35 min)	347.069
.6667	(21 hr 40 min)	345.234
.7500	(21 hr 45 min)	345.234
.8334	(21 hr 50 min)	345.234
.9167	(21 hr 55 min)	344.684
22.00		343.216
.0834	(22 hr 5 min)	342.299
.1667	(22 hr 10 min)	341.382
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.3334	(22 hr 20 min)	341.198
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.3667	(22 hr 22 min)	348.353
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.4834	(22 hr 29 min)	369.632
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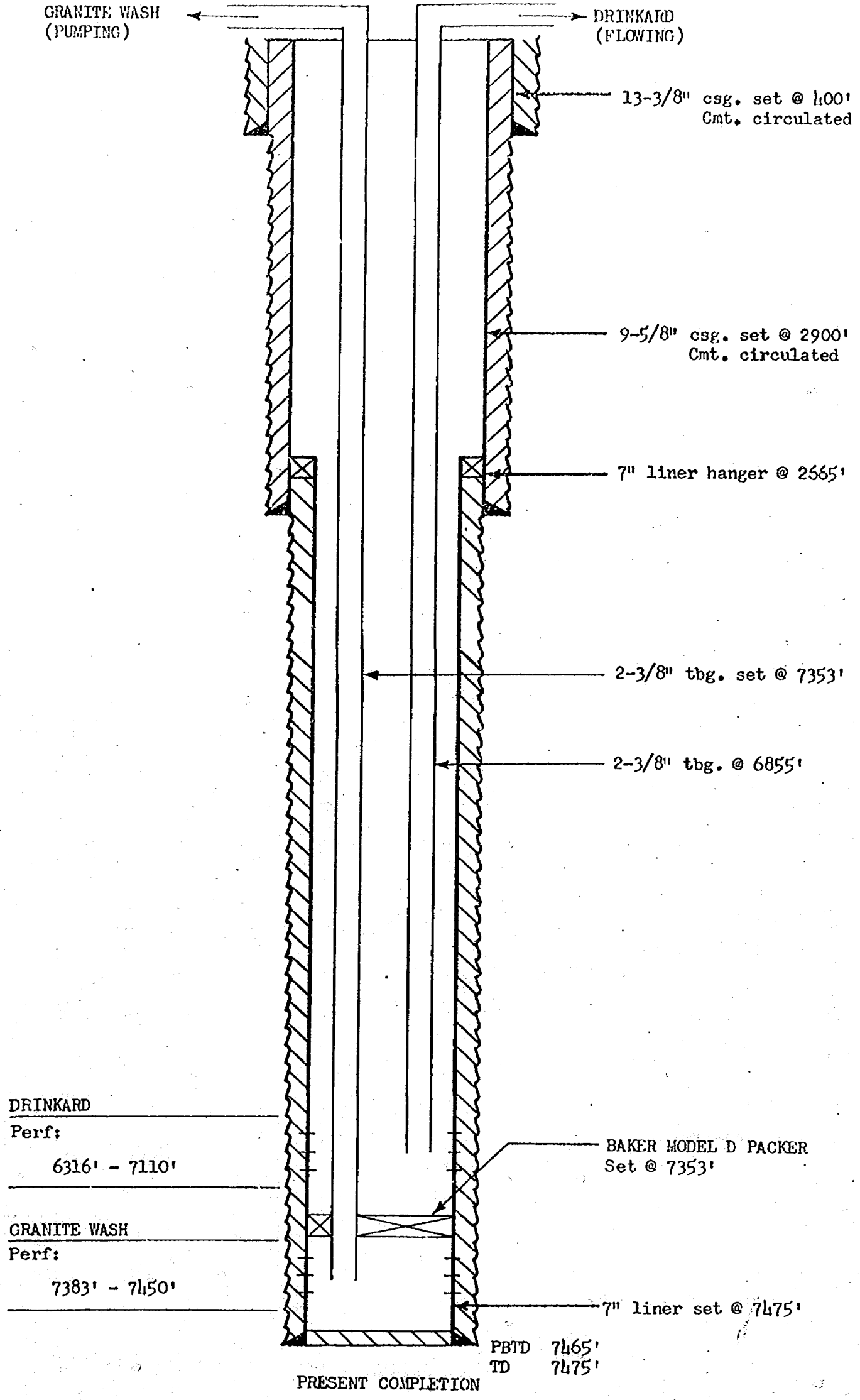
.75		378.253
24.00		374.951
.25		377.703
.50		383.023

R-37-E

R-38-E

T 22 S

TEXACO Inc.
A.H. BLINEBRY FED. NCT-1 LSE.
WANTZ GRANITE WASH
AND
DRINKARD FIELDS
LEA COUNTY, NEW MEXICO

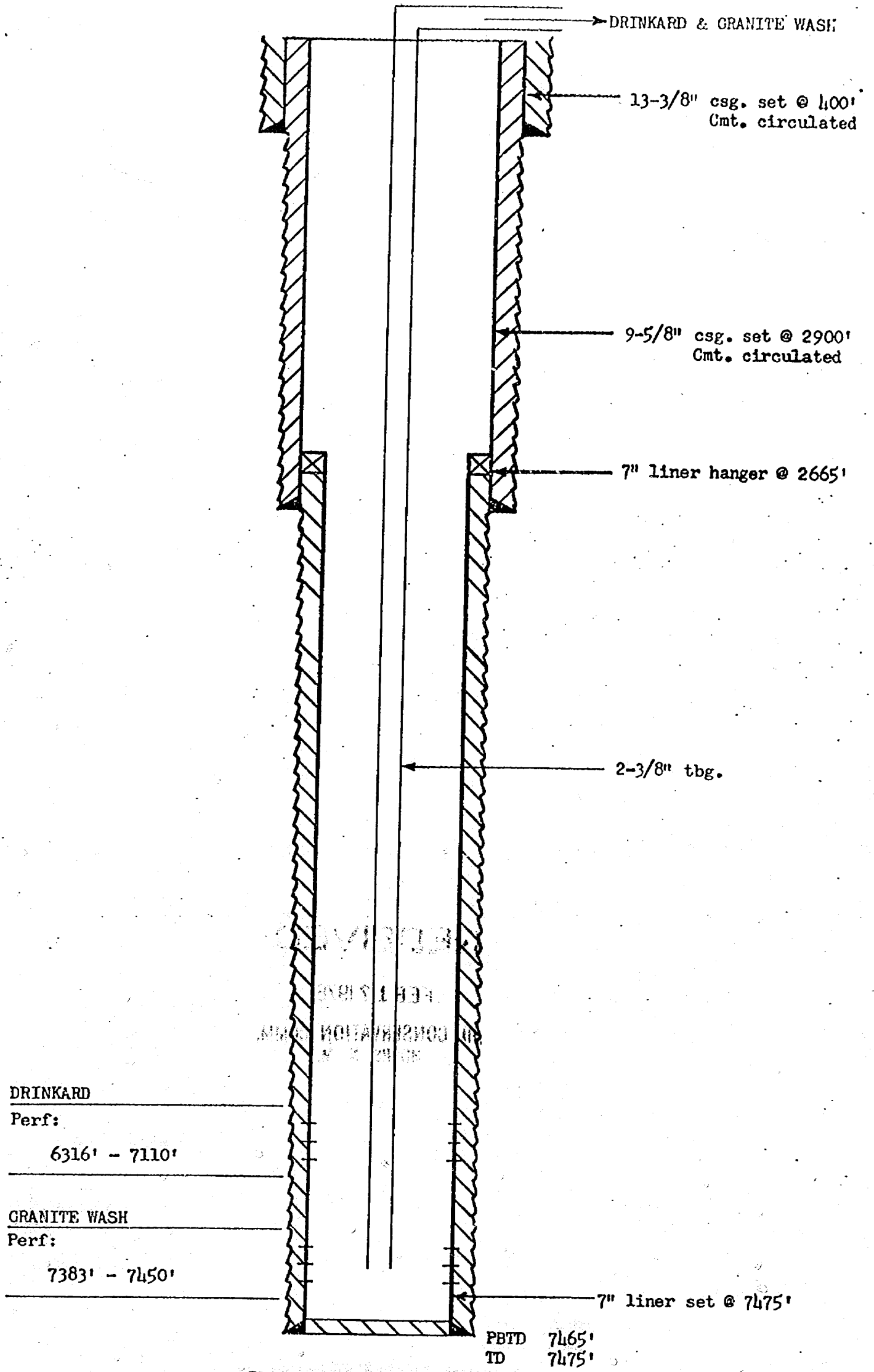


PRESENT COMPLETION

TEXACO Inc.
A. H. BLINEBRY FED. NCT-1 NO. 38

LEA COUNTY, NEW MEXICO

WRH/CRC 1-23-78



PROPOSED COMMINGLING METHOD

TEXACO Inc.
A. H. BLINEBRY FED. NCT-1 NO. 38

LEA COUNTY, NEW MEXICO

WRH/CRC 1-23-78

CASE 6158: Application of C. H. Berry for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the NE/4 of Section 15, Township 24 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6159: Application of Texaco Inc., for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Drinkard and Wantz-Granite Wash production in the wellbore of its A. H. Blinebry Federal Well No. 38 located in Unit J of Section 19, Township 22 South, Range 38 East, Lea County, New Mexico.

CASE 6160: Application of Bass Enterprises Production Co., for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Delaware formation through the perforated interval from 3310 feet to 3375 feet in its Big Eddy Unit Well No. 56, located in Unit G of Section 35, Township 21 South, Range 28 East, Indian Flats-Delaware Pool, Eddy County, New Mexico.

CASE 6161: Application of Tenneco Oil Company for two waterflood projects, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project on its Leonard Federal Lease by the injection of water into the Queen formation through one well in Unit O of Section 11, and on its Leonard Brothers Lease through two wells, in Units I and M, respectively, of Section 14, all in Township 26 South, Range 37 East, Leonard Queen Pool, Lea County, New Mexico. Applicant further seeks the establishment of an administrative procedure for the addition of injection wells and the conversion of existing wells to injection at both orthodox and unorthodox locations without further notice and hearing.

CASE 6162: Application of Continental Oil Company for an unorthodox location and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Jack B-30 Well No. 2 to be located 330 feet from the North line and 1725 feet from the East line of Section 30, Township 24 South, Range 37 East, Jalmat Gas Pool, Lea County, New Mexico, the NE/4 of said Section 30 to be simultaneously dedicated to the aforesaid well and to Well No. 5 in Unit H.

CASE 6163: Application of Continental Oil Company for amendment of Commission Order No. R-3863, Lea County, New Mexico. Applicant, in the above-styled cause, seeks to substitute its Anderson Ranch Unit Wells No. 6 located in Unit X of Section 2 and Nos. 3 and 10, located in Units A and H, respectively, of Section 11, all in Township 16 South, Range 32 East, for the initial injection wells authorized by said order in its Anderson Ranch-Wolfcamp Waterflood Project, Anderson Ranch-Wolfcamp Pool, Lea County, New Mexico.

CASE 6164: Application of Shell Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Tubb, Wantz-Abo, and Brunson-Ellenburger production in the wellbore of its Shell State Section 2 Well No. 15 located in Unit K of Section 2, Township 21 South, Range 37 East, Lea County, New Mexico.

CASE 6165: Application of Shell Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Drinkard, Hare-McKee, and Brunson-Ellenburger production in the wellbore of its Shell State Section 2 Well No. 3 located in Unit U of Section 2, Township 21 South, Range 37 East, Lea County, New Mexico.

CASE 6166: Application of Odessa Natural Corporation for rescission of Order No. R-5601, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks a hearing at which any interested party could appear and show cause why Order No. R-5601, which granted a special well classification to applicant's ARCO-Little Fed. Well No. 1, located in Unit D of Section 32, Township 24 North, Range 3 West, Rio Arriba County, New Mexico, should not be rescinded.

CASE 6141: Application of Paul Slayton for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Seven Rivers formation thru the open-hole interval from 528 feet to 547 feet in his Hastie Well No. 7 located in Unit L of Section 18, Township 17 South, Range 28 East, Empire Field, Eddy County, New Mexico.

Docket No. 7-78

Dockets Nos. 9-78 and 11-78 are tentatively set for hearing on March 8 and March 22, 1978. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - FEBRUARY 22, 1978

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

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

CASE 6150: In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the amendment of Rules 311, 312, 1117, and 1118 of the Commission Rules and the revision of Forms C-117-A and C-117-B, all for the purpose of regulating the handling and reporting of tank bottoms, sediment oil, miscellaneous hydrocarbons, and the operation of treating plants.

CASE 6151: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Vega Petroleum Corporation, American Employers' Insurance Company, and all other interested parties to appear and show cause why the North Caprock Queen Unit No. 1 Well No. 5Y located in Unit E of Section 8, Township 13 South, Range 32 East, Lea County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6152: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Al Greer, American Employers' Insurance Company, and all other interested parties to appear and show cause why the Thompson Well No. 1 located in Unit N of Section 10, Township 30 North, Range 11 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6153: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Mints-Kenaston and all other interested parties to appear and show cause why the L. A. McCoy Well No. 1 located in Unit B of Section 28, Township 30 North, Range 12 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6154: Application of Read & Stevens, Inc. for a unit agreement, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for its Calumet Ranch Unit Area comprising 5,760 acres, more or less, of Federal, State, and fee lands in Township 12 South, Range 27 East, Chaves County, New Mexico.

CASE 6155: Application of Gulf Oil Corporation for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the N/2 of Section 28, Township 23 South, Range 26 East, South Carlsbad Field, Eddy County, New Mexico, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6144: (Readvertised)

Application of Southland Royalty Company for two unorthodox locations and two non-standard gas proration units, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for two 120-acre non-standard gas proration units comprising the S/2 SE/4 of Section 10 and the SW/4 SW/4 of Section 11, and comprising the SE/4 SW/4 and the S/2 SE/4 of Section 11, all in Township 28 North, Range 11 West, Fulcher Kutz-Pictured Cliffs Pool, San Juan County, New Mexico, each of said units to be dedicated to a well drilled at an unorthodox location thereon.

CASE 6156: Application of Southland Royalty Company for an unorthodox location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its East Well No. 5A to be located 1120 feet from the South line and 1790 feet from the West line of Section 24, Township 31 North, Range 12 West, Blanco-Mesaverde Gas Pool, San Juan County, New Mexico.

CASE 6157: Application of Supron Energy Corporation for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 160-acre non-standard gas proration unit comprising the SW/4 of Section 13, Township 16 South, Range 33 East, Lea County, New Mexico, to be dedicated to a Morrow gas well test to be drilled thereon.

Case 6159

JAN 25 1978

TEXACO

PETROLEUM PRODUCTS

TEXACO INC.
DRAWER 728
HOBBS, NEW MEXICO 88240

January 24, 1978

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

RE: REQUEST FOR EXAMINER HEARING
Application for Downhole Commingling
A. H. Blinebry (NCT-1) No. 38
Drinkard & Wantz Granite Wash Pools
Lea County, New Mexico

ATTENTION: MR. JOE D. RAMEY
SECRETARY-DIRECTOR

Gentlemen:

It is requested that an examiner hearing be scheduled to consider Texaco's application to downhole commingle the Drinkard and Wantz Granite Wash pools in the A. H. Blinebry Federal (NCT-1) Well No. 38 located in Unit J of Section 19, Township 22 South, Range 38 East, Lea County, New Mexico. Dual completion of this well was authorized by NMOCC Order MC-2218 dated October 6, 1975.

Additional exhibits as required by Rule 303-C,2 will be presented at the hearing and forwarded to the Hobbs District Office of the NMOCC as soon as they are available.

All offset operators and the U.S.G.S. are being notified of this application by copy of this letter.

Yours very truly,

J. V. Gannon
District Superintendent

WRH:las

NMOCC - Hobbs, N.M.
U.S.G.S.- Hobbs, N.M.
Offset Operators
White, Koch, Kelly & McCarthy - Santa Fe, N.M.

TEXACO Working to keep your trust for 75 years

Case 6159

OFFSET OPERATORS

American Petrofina, Inc.
P. O. Box 2159
Dallas, Texas 75221

Gulf Oil Company
P. O. Box 670
Hobbs, New Mexico 88240

Hanson Oil Corporation
P. O. Box 1515
Roswell, New Mexico 88201

Coquina Oil Corporation
P. O. Drawer 2960
Midland, Texas 79701

Imperial American Resources Fund, Inc.
215 Mid-America Building
Midland, Texas 79701

Moranco
P. O. Box 1860
Hobbs, New Mexico 88240

Summit Energy, Inc.
1925 Mercantile Dallas Building
Dallas, Texas 75201

Union Texas Petroleum
P. O. Box 2120
Houston, Texas 77001

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 6159

Order No. R- 5657

APPLICATION OF TEXACO INC.,
FOR DOWNHOLE COMMINGLING, LEA
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 22, 19 78, at Santa Fe, New Mexico, before Examiner Richard L. Stamets

NOW, on this _____ day of _____, 19 78, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Texaco Inc., is the owner and operator of the A. H. Blinebry Federal (NCT-1) Well No. 38 located in Unit J of Section 19, Township 22 South, Range 38 East, NMPM, Lea County, New Mexico.

(3) That the applicant seeks authority to commingle _____ Drinkard and Wantz-Granite Wash production within the wellbore of the above-described well.

(4) That from the Drinkard zone, the subject well is capable of low marginal production only.

(5) That from the Wantz-Granite Wash zone, the subject well is capable of ~~low marginal~~ marginal production only.

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

(7) That the reservoir characteristics of each of the subject zones are such that underground waste would not be caused by the proposed commingling provided that the well is not shut-in for an extended period.

(8) That to afford the Commission the opportunity to assess the potential for waste and to expeditiously order appropriate remedial action, the operator should notify the Hobbs district office of the Commission any time the subject well is shut-in for 7 consecutive days.

(9) That ~~in order to allocate~~ the commingled production shall be allocated to each of the commingled zones in the subject well, _____ ~~percent of the commingled _____ production should be allocated to the Drinkard zone, and _____ percent of the commingled _____ production to the Wantz-Granite Wash zone.~~ in accordance with a production-based formula.

IT IS THEREFORE ORDERED:

(1) That the applicant, Texaco Inc., is hereby authorized to commingle Drinkard and Wantz-Granite Wash production within the wellbore of the A. H. Blinebry Federal Well No. 38, located in Unit J of Section 19, Township 22 South, Range 38 East, NMPM, Lea County, New Mexico.

(2) That 25 percent and 80 percent of the commingled oil and gas production respectively shall be allocated to the Drinkard zone and 75 percent and 20 percent of the commingled oil and gas production respectively, shall be allocated to the Wantz-Granite Wash zone.

(3) That the operator of the subject well shall immediately notify the Commission's Hobbs district office any time the well has been shut-in for 7 consecutive days and shall concurrently present, to the Commission, a plan for remedial action.

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

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

Bas CASE 6160: BASS ENTERPRISES PRODUCTION Co.
COMPANY FOR SALT WATER DISPOSAL, EDDY
COUNTY, NEW MEXICO

Case Number

6160

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

May 24, 1982

Mr. J. E. Pullig
Division Manager
Bass Enterprises Production Co.
P. O. Box 2760
Midland, Texas 79702

Re: Big Eddy Unit Well No. 56 (SWD), Indian Flats Field Area, Case No. 6160, Order No. R-5693

Dear Mr. Pullig:

Your letter of May 6, 1982, to Mr. Bill Gressett requesting an increased injection pressure limit on the subject well has been forwarded to me for reply.

Based upon the results to the step-rate test submitted with your letter and the authority granted me by Order (3) of Division Order No. R-5693, an increase in the surface pressure limit on the subject well to 1300 psig is hereby approved.

Yours very truly,

JOE D. RAMEY
Director

JDR/RLS/fd

cc: Bill Gressett
Prentiss Childs
Case File

D 13 1978

APPLICATION FOR HEARING

BEFORE NEW MEXICO OIL CONSERVATION COMMISSION

COMES NOW the undersigned as attorney on behalf of Bass Enterprises Production Company and files this written application for hearing to be set on the docket for February 22, 1978. In connection therewith, the undersigned, on behalf of Bass Enterprises Production Company, submits the following data:

1. Name of Applicant: Bass Enterprises Production Company

2. Area Affected by the Order Sought:

Township 21 South, Range 28 East, N.M.P.M.
Eddy County, New Mexico

Section 35: SW¼NE¼
The above being the location of Big Eddy Unit Well No. 56 located 1980 feet from the North line and 2310 from the East line of said Section 35.

3. General Nature of Order Sought: Applicant seeks to inject produced salt water into the above described well, with the volume of water anticipated to be injected being 350 barrels of water per day. The formation into which applicant seeks to inject salt water is the Delaware Sand Formation.

4. Other Matters to be Noted in Connection with Order Sought: The proposed perforations for the foregoing are 3310 feet to 3330 feet and 3350 feet to 3375 feet beneath the surface with the injection interval located 3310 feet to 3375 feet beneath the surface.

The above well for which applicant seeks authority from the Commission to inject salt water is located in the Indian Flats Delaware Field.

DATED this 1st day of February, 1978.

Respectfully submitted,

HINKLE, COX, EATON,
COFFIELD & HENSLEY

By: _____
Conrad E. Coffield
Attorney for Bass Enterprises
Production Company

APPLICATION FOR HEARING

BEFORE NEW MEXICO OIL CONSERVATION COMMISSION

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Eddy County, New Mexico

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DATED this 1st day of February, 1978.

Respectfully submitted,

HINKLE, COX, EATON,
COFFIELD & HENSLEY

By: _____
Conrad E. Coffield
Attorney for Bass Enterprises
Production Company

APPLICATION FOR HEARING

BEFORE NEW MEXICO OIL CONSERVATION COMMISSION

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2. Area Affected by the Order Sought:

Township 21 South, Range 28 East, N.M.P.M.
Eddy County, New Mexico

Section 35: SW¼NE¼
The above being the location of Big Eddy Unit Well No. 56 located 1980 feet from the North line and 2310 from the East line of said Section 35.

3. General Nature of Order Sought: Applicant seeks to inject produced salt water into the above described well, with the volume of water anticipated to be injected being 350 barrels of water per day. The formation into which applicant seeks to inject salt water is the Delaware Sand Formation.

4. Other Matters to be Noted in Connection with Order Sought: The proposed perforations for the foregoing are 3310 feet to 3330 feet and 3350 feet to 3375 feet beneath the surface with the injection interval located 3310 feet to 3375 feet beneath the surface.

The above well for which applicant seeks authority from the Commission to inject salt water is located in the Indian Flats Delaware Field.

DATED this 1st day of February, 1978.

Respectfully submitted,

HINKLE, COX, EATON,
COFFIELD & HENSLEY

By: _____
Conrad E. Coffield
Attorney for Bass Enterprises
Production Company

APPLICATION FOR HEARING

BEFORE NEW MEXICO OIL CONSERVATION COMMISSION

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1. Name of Applicant: Bass Enterprises Production Company

2. Area Affected by the Order Sought:

Township 21 South, Range 28 East, N.M.P.M.
Eddy County, New Mexico

Section 35: SW¼NE¼
The above being the location of Big Eddy Unit Well No. 56 located 1980 feet from the North line and 2310 from the East line of said Section 35.

3. General Nature of Order Sought: Applicant seeks to inject produced salt water into the above described well, with the volume of water anticipated to be injected being 350 barrels of water per day. The formation into which applicant seeks to inject salt water is the Delaware Sand Formation.

4. Other Matters to be Noted in Connection with Order Sought: The proposed perforations for the foregoing are 3310 feet to 3330 feet and 3350 feet to 3375 feet beneath the surface with the injection interval located 3310 feet to 3375 feet beneath the surface.

The above well for which applicant seeks authority from the Commission to inject salt water is located in the Indian Flats Delaware Field.

DATED this 1st day of February, 1978.

Respectfully submitted,

HINKLE, COX, EATON,
COFFIELD & HENSLEY

By: _____
Conrad E. Coffield
Attorney for Bass Enterprises
Production Company

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 6160
Order No. R-5693

APPLICATION OF BASS ENTERPRISES
PRODUCTION CO., FOR SALT WATER
DISPOSAL, EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 22, 1978, at Santa Fe, New Mexico, before Examiner, Richard L. Stamets.

NOW, on this 11th day of April, 1978, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Bass Enterprises Production Co., is the owner and operator of the Big Eddy Unit Well No. 56, located in Unit G of Section 35, Township 21 South, Range 28 East, NMPM, Indian Flats-Delaware Pool, Eddy County, New Mexico.

(3) That the applicant proposes to utilize said well to dispose of produced salt water into the Delaware formation, with injection into the perforated interval from approximately 3310 feet to 3375 feet.

(4) That the injection should be accomplished through 2 3/8-inch plastic lined tubing installed in a packer set at approximately 3260 feet; that the casing-tubing annulus should be filled with an inert fluid; and that a pressure gauge or approved leak detection device should be attached to the annulus or the annulus be left open in order to determine leakage in the casing, tubing, or packer.

(5) That the injection well or system should be equipped with a pressure limiting switch or acceptable substitute which will limit the wellhead pressure on the injection well to no more than 662 psi unless the Director of the Oil Conservation Division of the New Mexico Energy and Minerals Department should administratively authorize a higher pressure.

(6) That the operator should notify the supervisor of the Artesia district office of the Division of the date and time of the installation of disposal equipment and periodic testing required under terms of this order so that the same may be inspected.

(7) That the operator should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

(8) That the applicant's Big Eddy Unit Well No. 41 located in Unit J of said Section 35 is located within one-half mile of the proposed injection well and is not cemented opposite the disposal zone.

(9) That said Big Eddy Unit Well No. 41 could serve as an avenue of escape for injected waters from the disposal zone to other zones.

(10) That to prevent said migration of injected waters into zones other than the disposal zone the applicant should periodically monitor the 8 5/8-inch x 5 1/2-inch casing annulus for detection of injected fluid and, upon such detection, immediately cease injection or repair said Big Eddy Unit Well No. 41.

(11) That in no event should injection into said well continue for a period in excess of two years unless said Big Eddy Unit Well No. 41 shall have been cemented across the injection zone.

(12) That approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Bass Enterprises Production Co., is hereby authorized to utilize its Big Eddy Unit Well No. 56, located in Unit G of Section 35, Township 21 South, Range 28 East, NMPM, Indian Flats-Delaware Pool, Eddy County, New Mexico, to dispose of produced salt water into the Delaware formation, injection to be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 3260 feet, with injection into the perforated interval from approximately 3310 feet to 3375 feet;

PROVIDED HOWEVER, that the tubing shall be plastic-lined; that the casing-tubing annulus shall be filled with an inert fluid; and that a pressure gauge shall be attached to the annulus or the annulus shall be equipped with an approved leak detection device or the annulus be left open in order to determine leakage in the casing, tubing, or packer;

PROVIDED FURTHER, that the authority granted by this order shall expire ipso facto two years from the date of first injection unless the operator shall properly cement the Big Eddy Unit Well No. 41 located in Unit J of said Section 35 across the injection zone.

(2) That the injection well or system shall be equipped with a pressure limiting switch or acceptable substitute which will limit the wellhead pressure on the injection well to no more than 662 psi.

(3) That the Oil Conservation Division Director may administratively authorize a pressure limitation in excess of 662 psi upon a showing by the operator that such higher pressure will not result in fracturing of the confining strata.

(4) That prior to commencing injection into said Big Eddy Unit Well No. 56, the applicant shall determine the pressure in the 8 5/8-inch x 5 1/2-inch casing-casing annulus in its Big Eddy Unit Well No. 41 located in Unit letter J of said Section 35.

(5) That upon initiation of injection into said Unit Well No. 56, the applicant shall conduct quarterly pressure tests on said casing-casing annulus in said Unit Well No. 41.

(6) Upon a finding of a pressure increase in said casing-casing annulus, the operator shall so notify the Director of the Oil Conservation Division and shall proceed immediately to cement the 5 1/2-inch casing in said Unit Well No. 41 in such a manner as to effectively seal off the injection interval or cease injection into said Unit Well No. 56.

(7) That the operator shall notify the supervisor of the Artesia district office of the Division of the date and time of the initial pressure test and every fourth test thereafter to be conducted in accordance with Orders No. (4) and (5) above in order that the same may be witnessed.

(8) That the operator shall maintain the records of such tests in order that they may be reviewed by Division personnel upon reasonable request.

(9) That the operator shall notify the supervisor of the Artesia district office of the Division of the date and time of the installation of disposal equipment so that the same may be inspected.

(10) That the operator shall immediately notify the supervisor of the Division's Artesia district office of the failure of the tubing, casing, or packer, in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

(11) That the applicant shall submit monthly reports of its disposal operations in accordance with Rules 704 and 1120 of the Division Rules and Regulations.

(12) 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 herein-above designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

PHIL R. LUCERO, Chairman

EMERY C. ARNOLD, Member

JOE D. RAMEY, Member & Secretary

S E A L

jr/

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 - SANTA FE
87501

LAND COMMISSIONER
PHIL R. LUCERO

STATE GEOLOGIST
EMERY C. ARNOLD

DIRECTOR
JOE D. RAMEY

April 12, 1978

Re: CASE NO. 6160
ORDER NO. R-5693

Mr. Conrad Coffield
Hinkle, Cox, Eaton, Coffield
& Hensley
Attorneys at Law
Post Office Box 10
Roswell, New Mexico 88201

Applicant:

Bass Enterprises Production Co.

Dear Sir:

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

Yours very truly,

JOE D. RAMEY
Director

JDR/fd

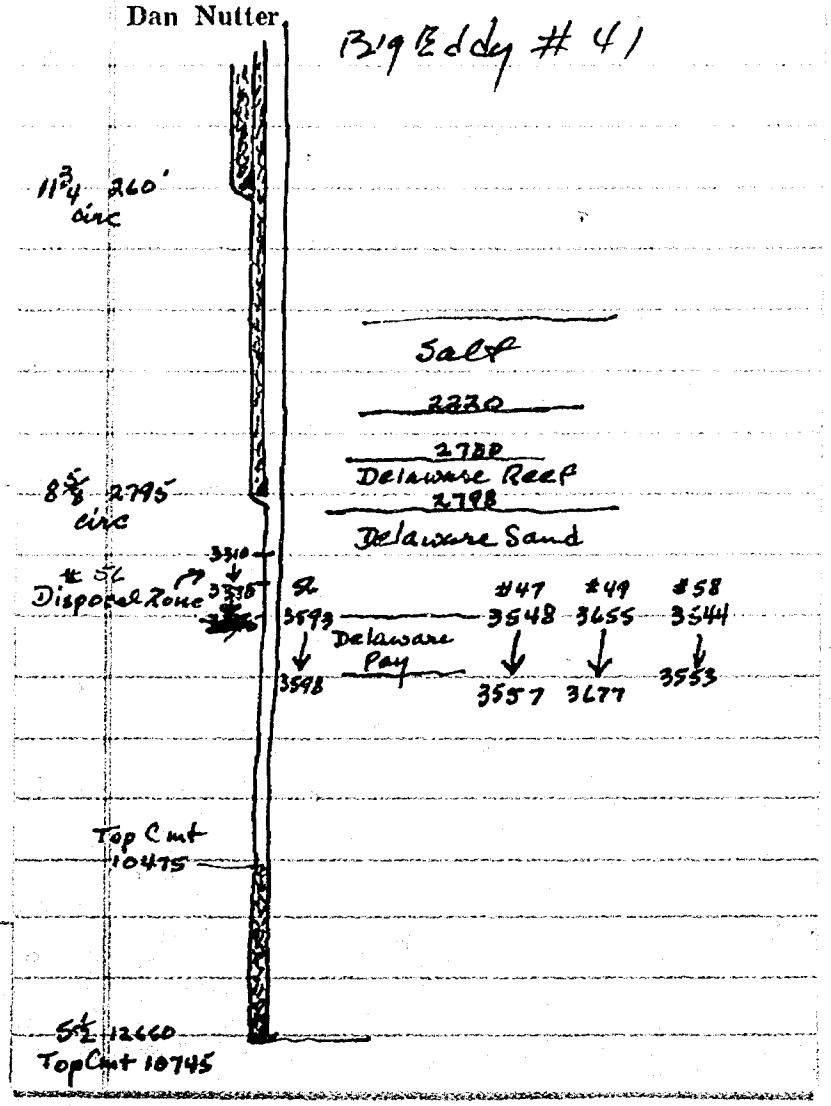
Copy of order also sent to:

Hobbs OCC x
Artesia OCC x
Aztec OCC

Other

Dan Nutter

Big Eddy #41



sid morrish reporting service
General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
22 February 1978

EXAMINER HEARING

IN THE MATTER OF:

Application of Bass Enterprises Production Company for salt water disposal, Eddy County, New Mexico. CASE 6160

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Commission: Lynn Teschendorf, Esq.
Legal Counsel for the Commission
State Land Office Building
Santa Fe, New Mexico

For the Applicant: Conrad E. Coffield, Esq.
HINKLE, COX, EATON, COFFIELD & HENSLEY
600 Hinkle Building
Roswell, New Mexico

I N D E X

EDWIN L. WALLACE

Direct Examination by Mr. Coffield 3

Cross Examination by Mr. Stamets 11

E X H I B I T S

Bass Exhibit One, Map 11

Bass Exhibit Two, Calibration Record 11

Bass Exhibit Three, Document 11

Bass Exhibit Four, Map 11

Bass Exhibit Five, Document 11

sid morrish reporting service
General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

sid morrish reporting service
General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

MR. STAMETS: We'll call first Case 6160.

MS. TESCHENDORF: Case 6160. Application of Bass Enterprises Production Company for salt water disposal, Eddy County, New Mexico.

MR. STAMETS: Call for appearances.

MR. COFFIELD: Conrad Coffield with Hinkle, Cox, Eaton, Coffield and Hensley, on behalf of Bass Enterprises. We have one witness.

MR. STAMETS: If you'll stand and be sworn, please.

(Witness sworn.)

EDWIN L. WALLACE

being called as a witness on behalf of Bass Enterprises Production Company, and being duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. COFFIELD:

Q. Would you please state your name, address, occupation, and employer?

A. My name is Edwin L. Wallace. I live in Midland, Texas. I am a petroleum engineer employed by Bass Enterprises Production Company.

Q. Are you familiar with the application of Bass

Enterprises Production Company in this case?

A. Yes, I am.

Q. And are you familiar with the property and the proposed injection well involved in this case?

A. Yes, I am.

Q. Have you previously testified before the OCC as a petroleum engineer?

A. No.

Q. Would you please tell the Examiner your educational background and experience as a petroleum engineer?

A. Graduated in 1969 from Texas A & I University with a Bachelor of Science degree in natural gas engineering. Since that time I've been employed continuously as a petroleum engineer by Texaco and Bass Enterprises Production Company.

While with Texaco I worked five years in the Hobbs area. And since the last year and a half I've been with Bass and spent about half my time working with New Mexico production.

MR. COFFIELD: Are Mr. Wallace's qualifications acceptable?

MR. STAMETS: The witness is considered qualified.

Q. Would you state what Bass Enterprises Production Company seeks by its application?

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Phone (505) 982-9212

A. We seek permission to dispose of salt water by injection in the Delaware sand in Eddy County, New Mexico.

Q. I hand you what's been marked Exhibit One and ask that you state what this reflects?

A. This is a plat which shows the location of the proposed injection well, the location of all the wells within a radius of two miles. It shows the formation from which the wells have produced, or which they are now producing from, or have produced, and it shows leasehold ownership.

The acreage which is colored in yellow is acreage which Bass interests have the operating rights in the Delaware formation.

Q. Okay, what is the designation and location of this injection well?

A. The proposed injection well is Big Eddy Unit Number 56. It is located 1980 feet from the north line, 2310 feet from the east line of Section 35, Township 21 South, Range 28 East, in Eddy County.

Q. Is Bass Enterprises Production Company the operator of this property on which the injection well is located?

A. Yes.

Q. Would you please state to the Examiner the history of this injection well? When it was drilled, and so forth?

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Phone (505) 982-9212

A. The well was spudded in October, October the 2nd, 1977. It was drilled to a total depth of 3800 feet. Five and a half inch casing was run to 3702. The well was perforated in the Delaware sand at 3593, 3598. It was acidized with 1000 gallons. The well was pumped from October the 26th of 1977 through November the 22nd of 1977. During that time it pumped from twenty to sixteen barrels of water per day and there was no show of oil or gas during this time. It has been shut in since November 22nd.

Q. 1977?

A. 1977.

Q. Okay, I hand you what's been marked as Exhibit Two and ask you to state what this shows.

A. Okay, on the detail portion of the log -- well, first of all, this is a Borehole Compensated Sonic Log, which was run in Big Eddy Unit 356 prior to running casing.

On the detail portion of the log at approximately 3587 there's a zone colored in green. This is the Delaware sand which we production tested and the perforations we tested are indicated on the log.

Up the hole at approximately 3301 at an interval which is colored in blue, this is the zone in which we propose to dispose of produced salt water. Also indicated there is the proposed interval which we propose to perforate.

Q. Okay, I'm now handing you what has been marked

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825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

Exhibit Three and ask you to state what this reflects.

A. Okay. This is a diagrammatic sketch of the subject well and shows that at a depth of 414 feet eight and five-eighths surface casing was set and cemented. It shows that the well was drilled to a total depth of 3800 feet. Five and a half inch casing was run to a depth of 3702 feet, cemented with 540 sacks.

It indicates the perforated interval at 3593 to 3598, which we production tested. It also shows how we propose to complete the well as a disposal well. We would set a cast iron bridge plug at about 3450. We would cap that with ten feet of Hydromite. We would perforate at 3310 to 3330; 3350 to 3375. We would run internally plastic-coated two and three-eighths inch OD tubing with tension-type packer. The packer would be set at about 3260 feet.

Q. Okay, what is the name of the formation in which the injection is going to be made?

A. It is Delaware Sand.

Q. And what are the intervals in this formation in which you propose to make the injection?

A. Gross interval is 3310 to 3375.

Q. Okay, I've handed you what is marked as Exhibit Four and just state briefly what this shows.

A. Okay. This is a cross section, sructural cross section of the field. It illustrates the two producing

sid morrish reporting service
General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

Hamels

LAW OFFICES
HINKLE, COX, EATON, COFFIELD & HENSLEY
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MIDLAND, TEXAS 79701
(915) 683-4691

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PAUL J. KELLY, JR.
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DOUGLAS L. LUNSFORD
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K. DOUGLAS PERRIN
C. RAY ALLEN

OF COUNSEL
CLARENCE E. HINKLE

W. E. BONDURANT, JR. (1914-1973)

ROSWELL, NEW MEXICO OFFICE
600 HINKLE BUILDING
(505) 622-6510

ONLY MESSRS. COFFIELD, MARTIN, BOZARTH, BOHANNON, FOSTER & ALLEN LICENSED IN TEXAS

MAR 13 1978
CONSERVATION COMM.

March 8, 1978

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

Re: Big Eddy Unit Well No. 56, Eddy County, New Mexico-Case No. 6160

Gentlemen:

Transmitted herewith you will find three copies of each of the following:

(a) Tabular summary of all wells within 1/2 mile radius showing all data required by Item (2) of the Oil Conservation Commission Memo No. 3-77.

(b) Water analysis on all wells listed in Exhibit No. 5 as presented in the above referenced case at the hearing before the Examiner on February 22, 1978, except for Big Eddy Unit Wells Nos. 41, 53 and 54. Well No. 41 has recently been recompleted in the Atoka Formation and accordingly Bass Enterprises has not obtained a water sample as of this date. Well Nos. 53 and 54 are new wells and have not produced enough water to obtain a water sample. Also included herein is a water analysis for Big Eddy Unit Well No. 44. This well should have been included on the list on Exhibit No. 5 as presented to the Examiner on February 22 in the above referenced case but was inadvertently omitted.

If any additional information or data is needed for the Commission to favorably consider the application for Bass Enterprises in the above referenced case, please advise. Otherwise, we presume that the Commission's Order in this matter will be released in due course.

Thank you.

Very truly yours,

HINKLE, COX, EATON,
COFFIELD & HENSLEY

Conrad E. Coffield

CEC:cm
Enclosures

TABULAR SUMMARY
Wells within one half mile radius of Big Eddy Unit No. 56

Big Eddy Unit No. 41
Lease No. LC 067144
Location: 1980' FSL & 1980' FEL of
Unit J, Sec. 35, T-21-S, R-28-E
Eddy County, New Mexico

Base salt 2220
Delaware Reef 2730
SL 2798

Total Depth: 12,660'
Producing Interval: 11,419-11,434' (Atoka)

Casing: 11 3/4" set @ 260' cmt'd with 250 sx, circulated to surface.
8 5/8" set @ 2794.80 cmt'd with 2200 sx, circulated to surface.
7 7/8 hole 5 1/2" set @ 12,660.21 cmt'd with 600 sx, top of cmt 10,745' by cement bond log.

250 sx lt wt 10% salt
350 sx H

Big Eddy Unit No. 47 (LC 067144)
Location: 1980' FNL & 1980' FWL of
Unit Letter F, Sec. 35, T-21-S, R-28-E
Eddy County, New Mexico

Total Depth: 3791'
Producing Interval: 3548-3557' (Delaware)

Casing: 8 5/8" set @ 305.03' cmt'd with 200 sx, circulated to surface
5 1/2" set @ 3794.00' cmt'd with 616 sx, calculated top of cement 1542'.

Big Eddy Unit No. 49 (LC 067144)
Location: 1650' FSL & 330' FWL of
Unit Letter L, Sec. 35, T-21-S, R-28-E
Eddy County, New Mexico

Total Depth: 3808'
Producing Interval: 3655-3677' (Delaware)

Casing: 8 5/8" set @ 324' cmt'd with 350 sx, circulated to surface.
5 1/2" set @ 3808' cmt'd with 350 sx, calculated top of cement 2376'.

Big Eddy Unit No. 58 (LC 067144)
Location: 2310' FSL & 1650' FWL of
Unit Letter K, Sec. 35, T-21-S, R-28-E
Eddy County, New Mexico

Total Depth: 3820'
Producing Interval: 3544-3553' (Delaware)

Casing: 8 5/8" set @ 400' cmt'd with 300 sx, circulated to surface.
5 1/2" set @ 3800' cmt'd with 450 sx, calculated top of cement 1760'.

TABULAR SUMMARY
Wells within one half mile radius of Big Eddy Unit No. 56

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Lease No. LC 067144
Location: 1980' FSL & 1980' FEL of
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5 1/2" set @ 3808' cmt'd with 350 sx, calculated top of cement 2376'.

Big Eddy Unit No. 58 (LC 067144)
Location: 2310' FSL & 1650' FWL of
Unit Letter K, Sec. 25, T-21-S, R-28-E
Eddy County, New Mexico

Total Depth: 3820'
Producing Interval: 3544-3553' (Delaware)

Casing: 8 5/8" set @ 400' cmt'd with 300 sx, circulated to surface.
5 1/2" set @ 3800' cmt'd with 450 sx, calculated top of cement 1760'.

TABULAR SUMMARY
Wells within one half mile radius of Big Eddy Unit No. 56

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5 1/2" set @ 12,660.21 cmt'd with 600 sx, top of cmt 10,745' by cement bond log.

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Martin Water Laboratories, Inc

P. O. BOX 1468
MONAHANS, TEXAS 79756
PHONE 943-3234 OR 563-1040

731 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

TO: Mr. Allen Roberts
P.O.Box 2760, Midland, Texas

LABORATORY NO. 278231
SAMPLE RECEIVED 2-27-78
RESULTS REPORTED 2-28-78

COMPANY Bass Enterprises Production Co. LEASE Big Eddy Unit
FIELD OR POOL Big Eddy
SECTION ___ BLOCK ___ SURVEY ___ COUNTY Eddy STATE New Mexico
SOURCE OF SAMPLE AND DATE TAKEN:
NO. 1 Produced water - taken from Big Eddy Unit #7. 2-27-78
NO. 2
NO. 3
NO. 4
REMARKS: Morrow

CHEMICAL AND PHYSICAL PROPERTIES

	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0754			
pH When Sampled				
pH When Received	6.97			
Bicarbonate as HCO_3	329			
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	19,600			
Calcium as Ca	6,320			
Magnesium as Mg	923			
Sodium and/or Potassium	34,485			
Sulfate as SO_4	162			
Chloride as Cl	66,758			
Iron as Fe	71.4			
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	108,977			
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0			
Resistivity, ohms/m at 77° F.	0.088			
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks: The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

Form No. 3

By ___

cc: Mr. Albert Gallas, Kermit

Waylan C. Martin, M. A.

Martin Water Laboratories, Inc

P. O. BOX 1468
MONAHANS, TEXAS 79756
PHONE 943-3234 OR 563-1040

RESULT OF WATER ANALYSES

731 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

LABORATORY NO. 278231

TO: Mr. Allen Roberts
P.O.Box 2760, Midland, Texas

SAMPLE RECEIVED 2-27-78

RESULTS REPORTED 2-28-78

COMPANY Bass Enterprises Production Co. LEASE Big Eddy Unit

FIELD OR POOL Big Eddy

SECTION ____ BLOCK ____ SURVEY ____ COUNTY Eddy STATE New Mexico

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Produced water - taken from Big Eddy Unit #7. 2-27-78

NO. 2

NO. 3

NO. 4

REMARKS: Morrow

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0754			
pH When Sampled				
pH When Received	6.97			
Bicarbonate as HCO_3	329			
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	19,600			
Calcium as Ca	6,320			
Magnesium as Mg	923			
Sodium and/or Potassium	34,485			
Sulfate as SO_4	162			
Chloride as Cl	66,758			
Iron as Fe	71.4			
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	108,977			
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0			
Resistivity, ohms/m at 77° F.	0.088			
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks: The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

Form No. 3

By _____

cc: Mr. Albert Gallas, Kermit

Waylan C. Martin, M. A.

Martin Water Laboratories, Inc

P. O. BOX 1468
MONAHANS, TEXAS 79756
PHONE 943-3234 OR 563-1040

RESULT OF WATER ANALYSES

731 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

LABORATORY NO. 278231

TO: Mr. Allen Roberts
P.O.Box 2760, Midland, Texas

SAMPLE RECEIVED 2-27-78

RESULTS REPORTED 2-28-78

COMPANY Bass Enterprises Production Co. LEASE Big Eddy Unit

FIELD OR POOL Big Eddy

SECTION ___ BLOCK ___ SURVEY ___ COUNTY Eddy STATE New Mexico

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Produced water - taken from Big Eddy Unit #7. 2-27-78

NO. 2

NO. 3

NO. 4

REMARKS: Morrow

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0754			
pH When Sampled				
pH When Received	6.97			
Bicarbonate as HCO_3	329			
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	19,600			
Calcium as Ca	6,320			
Magnesium as Mg	923			
Sodium and/or Potassium	36,485			
Sulfate as SO_4	162			
Chloride as Cl	66,758			
Iron as Fe	71.4			
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	108,977			
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0			
Resistivity, ohms/m at 77° F.	0.088			
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

Form No. 3

By _____

cc: Mr. Albert Gallas, Kermit

Waylan C. Martin, M. A.

Martin Water Laboratories

BOX 1468 MONAHANS, TEXAS WI 7-2534

RESULT OF WATER ANALYSES

LABORATORY NO. 66672

Mr. Grover Worley — SAMPLE RECEIVED 6-16-66

P. O. Box 1178, Monahans, Texas — RESULTS REPORTED 6-16-66

COMPANY Perry R. Bass, Inc. LEASE Big Eddy (Strawn)

FIELD OR POOL Big Eddy

SECTION ____ BLOCK ____ SURVEY ____ COUNTY Eddy STATE N. Mexico

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Produced water - taken from Big Eddy '08.

NO. 2

NO. 3

NO. 4

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.				
pH When Sampled				
pH When Received	7.5			
Total Alkalinity as $CaCO_3$	250			
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	20,600			
Calcium as $CaCO_3$	15,400			
Magnesium as $CaCO_3$	5,200			
Sodium and/or Potassium				
Sulfate as SO_4	287			
Chloride as NaCl	124,020			
Iron as Fe				
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Dissolved Solids at 103° C.				
Total Solids at 103° C.				
Total Solids, Calculated				
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0			
Resistivity, ohms/m at 60° F.				
Suspended Oil				

All Results Reported As Parts Per Million (mg/l)

RECEIVED
JUL 13 1977
U.S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

RECEIVED
MAY 19 1977
U.S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

Additional Determinations And Remarks: We have no records of Strawn in this general area but in comparing this with our records in the more distant area (30-40 miles to the east, northeast, and southeast), we see no evidence that would contradict this being a natural Strawn water.

R_w = 0.073 ohms @ 81°F

BY

Waylan C. Martin, M. A.

Martin Water Laboratories

BOX 1468 MONAHANS, TEXAS WI 7-3934

RESULT OF WATER ANALYSES

LABORATORY NO. 66672

Mr. Grover Worley — SAMPLE RECEIVED 6-16-66

P. O. Box 1178, Monahans, Texas — RESULTS REPORTED 6-16-66

COMPANY Perry R. Bass, Inc. LEASE Big Eddy (Strawn)

FIELD OR POOL Big Eddy

SECTION ____ BLOCK ____ SURVEY ____ COUNTY Eddy STATE N. Mexico

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Produced water - taken from Big Eddy #8.

NO. 2

NO. 3

NO. 4

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.				
pH When Sampled				
pH When Received	7.5			
Total Alkalinity as $CaCO_3$	250			
Bicarbonate as $CaCO_3$				
Undetermination as $CaCO_3$				
Total Hardness as $CaCO_3$	20,600			
Calcium as $CaCO_3$	15,400			
Magnesium as $CaCO_3$	5,200			
Sodium and/or Potassium				
Sulfate as SO_4	287			
Chloride as NaCl	124,020			
Iron as Fe				
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Dissolved Solids at 103° C.				
Total Solids at 103° C.				
Total Solids, Calculated				
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0			
Resistivity, ohms/m at 60° F.				
Suspended Oil				

All Results Reported As Parts Per Million (mg/l)

RECEIVED
JUL 13 1977
U.S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

RECEIVED
MAY 19 1977
U.S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

Additional Determinations And Remarks: We have no records of Strawn in this general area but in comparing this with our records in the more distant area (30-40 miles to the east, northeast, and southeast), we see no evidence that would contradict this being a natural Strawn water.

R_w = 0.073 ohms @ 81°F

BY

Waylan C. Martin, M. A.

Martin Water Laboratories

BOX 1468 MONAHANS, TEXAS WI7-3234

RESULT OF WATER ANALYSES

LABORATORY NO. 66672

Mr. Grover Worley

SAMPLE RECEIVED 6-16-66

P. O. Box 1178, Monahans, Texas

RESULTS REPORTED 6-16-66

COMPANY Perry R. Bass, Inc. LEASE Big Eddy (Strawn)

FIELD OR POOL Big Eddy

SECTION ____ BLOCK ____ SURVEY ____ COUNTY Eddy STATE N. Mexico

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Produced water - taken from Big Eddy #8.

NO. 2

NO. 3

NO. 4

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.				
pH When Sampled				
pH When Received	7.5			
Total Alkalinity as $CaCO_3$	250			
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	20,600			
Calcium as $CaCO_3$	15,400			
Magnesium as $CaCO_3$	5,200			
Sodium and/or Potassium				
Sulfate as SO_4	287			
Chloride as NaCl	124,020			
Iron as Fe				
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Dissolved Solids at 103° C.				
Total Solids at 103° C.				
Total Solids, Calculated				
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0			
Resistivity, ohms/m at 60° F.				
Suspended Oil				

All Results Reported As Parts Per Million (mg/l)

RECEIVED
JUL 13 1971
U.S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

RECEIVED
MAY 19 1972
U.S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

Additional Determinations And Remarks: We have no records of Strawn in this general area but in comparing this with our records in the more distant area (30-40 miles to the east, northeast, and southeast), we see no evidence that would contradict this being a natural Strawn water.

R_w = 0.073 ohms @ 81°F

BY

Waylan C. Martin, M. A.

Martin Water Laboratories, Inc.

P. O. BOX 1468
AONE 943-3234 OR 563-1040
MONAHANS, TEXAS 79756

406 W. ILLINOIS
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 10769

TO: Mr. Allen Roberts
P. O. Box 2760, Midland, Texas

SAMPLE RECEIVED 10-4-76

RESULTS REPORTED 10-6-76

COMPANY Bass Enterprises Prod. Co. LEASE Big Eddy Unit

FIELD OR POOL 1. 3. & 4. Big Eddy 2. Quahada Ridge

SECTION ___ BLOCK ___ SURVEY ___ COUNTY Eddy STATE N. M.

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Produced (Strawn) water - taken from Big Eddy Unit #10. ✓ 10-1-76

NO. 2 Produced (Morrow) water - taken from Big Eddy Unit #38. 10-1-76

NO. 3 Produced (Morrow) water - taken from Big Eddy Unit #39. 10-1-76

NO. 4 Produced (Atoka) water - taken from Big Eddy Unit #40. 10-1-76

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1 ✓	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0767	1.0120	1.0021	1.0665
pH When Sampled				
pH When Received	6.8	6.45	6.4	6.8
Bicarbonate as HCO_3	142	239	327	830
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	20,000	2,425	55	11,500
Calcium as Ca	6,160	660	12	3,600
Magnesium as Mg	1,118	200	6	608
Sodium and/or Potassium	36,065	5,036	144	16,393
Sulfate as SO_4	147	8	2	169
Chloride as Cl	69,599	9,339	69	32,669
Iron as Fe	36.0	194	114	266
Barium as Ba		0	0	
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	113,231	15,462	560	54,169
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0	0.0	0.0	0.0
Resistivity, ohms/m at 77° F.	0.087	0.491	22.50	0.150
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				
Results Reported As Milligrams Per Liter				
Additional Determinations And Remarks				

Form No. 3

By _____

P. O. BOX 1468
AONE 943-3234 OR 563-1040
MONAHANS, TEXAS 79756

Martin Water Laboratories, Inc.

406 W. ILLINOIS
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 10769
SAMPLE RECEIVED 10-4-76
RESULTS REPORTED 10-6-76

TO: Mr. Allen Roberts
P. O. Box 2760, Midland, Texas

COMPANY Bass Enterprises Prod. Co. LEASE Big Eddy Unit
FIELD OR POOL 1. 3. & 4. Big Eddy 2. Quahada Ridge
SECTION ____ BLOCK ____ SURVEY ____ COUNTY Eddy STATE N. M.
SOURCE OF SAMPLE AND DATE TAKEN
NO. 1 Produced (Strawn) water - taken from Big Eddy Unit #10. 10-1-76
NO. 2 Produced (Morrow) water - taken from Big Eddy Unit #38. 10-1-76
NO. 3 Produced (Morrow) water - taken from Big Eddy Unit #39. 10-1-76
NO. 4 Produced (Atoka) water - taken from Big Eddy Unit #40. 10-1-76
REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1 ✓	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0767	1.0120	1.0021	1.0665
pH When Sampled				
pH When Received	6.8	6.45	6.4	6.8
Bicarbonate as HCO_3	142	239	327	830
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	20,000	2,425	55	11,500
Calcium as Ca	6,160	660	12	3,600
Magnesium as Mg	1,118	200	6	608
Sodium and/or Potassium	36,065	5,036	144	16,293
Sulfate as SO_4	147	8	2	169
Chloride as Cl	69,599	9,339	69	32,669
Iron as Fe	36.0	194	114	266
Barium as Ba		0	0	
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	113,231	15,462	560	54,169
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0	0.0	0.0	0.0
Resistivity, ohms/m at 77° F.	0.087	0.491	22.50	0.150
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks

Form No. 3

By _____

Martin Water Laboratories, Inc.

P. O. BOX 1468
PHONE 943-3234 OR 563-1040
MONAHANS, TEXAS 79756

406 W. ILLINOIS
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

TO: Mr. Allen Roberts
P. O. Box 2760, Midland, Texas

LABORATORY NO. 10769
SAMPLE RECEIVED 10-4-76
RESULTS REPORTED 10-6-76

COMPANY Bass Enterprises Prod. Co. LEASE Big Eddy Unit
FIELD OR POOL 1. 3. & 4. Big Eddy 2. Quahada Ridge
SECTION ____ BLOCK ____ SURVEY ____ COUNTY Eddy STATE N. M.
SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Produced (Strawn) water - taken from Big Eddy Unit #10. 10-1-76
NO. 2 Produced (Morrow) water - taken from Big Eddy Unit #38. 10-1-76
NO. 3 Produced (Morrow) water - taken from Big Eddy Unit #39. 10-1-76
NO. 4 Produced (Atoka) water - taken from Big Eddy Unit #40. 10-1-76

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0767	1.0120	1.0021	1.0665
pH When Sampled				
pH When Received	6.8	6.45	6.4	6.8
Bicarbonate as HCO_3	142	239	327	830
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	20,000	2,425	55	11,500
Calcium as Ca	6,160	660	12	3,600
Magnesium as Mg	1,118	200	6	608
Sodium and/or Potassium	36,065	5,036	144	16,393
Sulfate as SO_4	147	8	2	169
Chloride as Cl	69,599	9,339	69	32,669
Iron as Fe	36.0	194	114	266
Barium as Ba		0	0	
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	113,231	15,462	560	54,169
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0	0.0	0.0	0.0
Resistivity, ohms/m at 77° F.	0.087	0.491	22.50	0.150
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks

Form No. 3

By _____

Martin Water Laboratories

P. O. BOX 1468
MONAHANS, TEXAS 79756
PHONE 943-3234 or 563-1040

406 W. ILLINOIS
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 1274107

TO: Mr. R. L. Thurman
P. O. Box 1178, Monahans, Texas

SAMPLE RECEIVED 12-16-74
RESULTS REPORTED 12-19-74

COMPANY Bass Enterprises Prod. Co. LEASE As listed
FIELD OR POOL 1 & 2. Parallel (Delaware) 3. Corral Canyon (Delaware)
SECTION ___ BLOCK ___ SURVEY ___ COUNTY Eddy STATE N. M.

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Produced water - taken from Federal Cobb #1. 12-7-74
NO. 2 Produced water - taken from Federal Rodke #1. 12-7-74
NO. 3 Produced water - taken from Continental Federal #1. 12-7-74 Ranger Sd.
NO. 4

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.1951	1.1818	1.1068	
pH When Sampled				
pH When Received	5.8	6.15	7.35	
Bicarbonate as HCO_3	37	56	121	
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	93,000	79,000	25,250	
Calcium as Ca	32,600	30,400	8,300	
Magnesium as Mg	2,795	729	1,094	
Sodium and/or Potassium	84,481	78,993	53,929	
Sulfate as SO_4	236	322	186	
Chloride as Cl	196,012	177,548	100,847	
Iron as Fe	34.0	38.0	4.0	
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	316,161	288,048	164,477	
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0	0.0	0.0	
Resistivity, ohms/m at 77° F.	0.045	0.049	0.067	
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks In the above results we generally classify the Cobb #1 and Rodke #1 as being typical of Delaware waters that are common throughout the Basin. However, we do get some changes in a few of the fields in the northwest productive area of the Delaware Basin; therefore, the difference in the water from Continental Federal #1 may be due to some of these unusual Delaware waters and does not necessarily confirm that any foreign water is present. If you would contact me on this matter, we could possibly clarify the implications of these results.

Form No. 3

By Waylan C. Martin, M. A.

Martin Water Laboratories

P. O. BOX 1468
MONAHANS, TEXAS 79756
PHONE 943-3234 OR 563-1040

406 W. ILLINOIS
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 1274107
SAMPLE RECEIVED 12-16-74
RESULTS REPORTED 12-19-74

TO: Mr. R. L. Thurman
P. O. Box 1178, Monahans, Texas

COMPANY Bass Enterprises Prod. Co. LEASE As listed
FIELD OR POOL 1 & 2. Parallel (Delaware) 3. Corral Canyon (Delaware)
SECTION ___ BLOCK ___ SURVEY ___ COUNTY Eddy STATE N. M.
SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Produced water - taken from Federal Cobb #1. 12-7-74
NO. 2 Produced water - taken from Federal Rodke #1. 12-7-74
NO. 3 Produced water - taken from Continental Federal #1. 12-7-74 RAMSEY Sd
NO. 4

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.1951	1.1818	1.1068	
pH When Sampled				
pH When Received	5.8	6.15	7.35	
Bicarbonate as HCO_3	37	56	121	
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	93,000	79,000	25,250	
Calcium as Ca	32,600	30,400	8,300	
Magnesium as Mg	2,795	729	1,094	
Sodium and/or Potassium	84,481	78,993	53,929	
Sulfate as SO_4	236	322	186	
Chloride as Cl	196,012	177,548	100,847	
Iron as Fe	34.0	38.0	4.0	
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	316,161	288,048	164,477	
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0	0.0	0.0	
Resistivity, ohms/m at 77° F.	0.045	0.049	0.067	
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks In the above results we generally classify the Cobb #1 and Rodke #1 as being typical of Delaware waters that are common throughout the Basin. However, we do get some changes in a few of the fields in the northwest productive area of the Delaware Basin; therefore, the difference in the water from Continental Federal #1 may be due to some of these unusual Delaware waters and does not necessarily confirm that any foreign water is present. If you would contact me on this matter, we could possibly clarify the implications of these results.

Form No. 3

By Waylan C. Martin, M. A.

Martin Water Laboratories

P. O. BOX 1468
MONAHANS, TEXAS 79756
PHONE 943-3234 OR 563-1040

RESULT OF WATER ANALYSES

406 W. ILLINOIS
MIDLAND, TEXAS 79701
PHONE 683-4521

LABORATORY NO. 1274107

TO: Mr. R. L. Thurman — SAMPLE RECEIVED 12-16-74
P. O. Box 1178, Monahans, Texas — RESULTS REPORTED 12-19-74

COMPANY Bass Enterprises Prod. Co. LEASE As listed

FIELD OR POOL 1 & 2. Parallel (Delaware) 3. Corral Canyon (Delaware)

SECTION ___ BLOCK ___ SURVEY ___ COUNTY Eddy STATE N. M.

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Produced water - taken from Federal Cobb #1. 12-7-74

NO. 2 Produced water - taken from Federal Rodke #1. 12-7-74

NO. 3 Produced water - taken from Continental Federal #1. 12-7-74 RAMsey sd.

NO. 4

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.1951	1,1818	1,1068	
pH When Sampled				
pH When Received	5.8	6.15	7.35	
Bicarbonate as HCO_3	37	56	121	
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	93,000	79,000	25,250	
Calcium as Ca	32,600	30,400	8,300	
Magnesium as Mg	2,795	729	1,094	
Sodium and/or Potassium	84,481	78,993	53,929	
Sulfate as SO_4	236	322	186	
Chloride as Cl	196,012	177,548	100,847	
Iron as Fe	34.0	38.0	4.0	
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	316,161	288,048	164,477	
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0	0.0	0.0	
Resistivity, ohms/m at 77° F.	0.045	0.049	0.067	
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks: In the above results we generally classify the Cobb #1 and Rodke #1 as being typical of Delaware waters that are common throughout the Basin. However, we do get some changes in a few of the fields in the northwest productive area of the Delaware Basin; therefore, the difference in the water from Continental Federal #1 may be due to some of these unusual Delaware waters and does not necessarily confirm that any foreign water is present. If you would contact me on this matter, we could possibly clarify the implications of these results.

Form No. 3

By _____
Waylan C. Martin, M. A.

Martin Water Laboratories, Inc

P. O. BOX 1468
MONAHANS, TEXAS 79756
PHONE 943-3234 OR 563-1040

RESULT OF WATER ANALYSES

406 W. ILLINOIS
MIDLAND, TEXAS 79701
PHONE 683-4521

LABORATORY NO. 377195
SAMPLE RECEIVED 3-24-77
RESULTS REPORTED 3-25-77

TO: Mr. Allen Roberts
P. O. Box 2760, Midland, TX

COMPANY Bass Enterprises Production Company LEASE Federal Rodke
FIELD OR POOL Undesignated
SECTION ___ BLOCK ___ SURVEY ___ COUNTY Eddy STATE New Mexico
SOURCE OF SAMPLE AND DATE TAKEN:
NO. 1 Produced water - taken from Federal Rodke #2. 3-24-77
NO. 2
NO. 3
NO. 4
REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.1546			
pH When Sampled				
pH When Received	7.9			
Bicarbonate as HCO_3	151			
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	47,000			
Calcium as Ca	13,200			
Magnesium as Mg	3,402			
Sodium and/or Potassium	76,044			
Sulfate as SO_4	866			
Chloride as Cl	149,850			
Iron as Fe	1.4			
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	243,513			
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	23.0			
Resistivity, ohms/m at 77° F.	0.051			
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks: The above results indicate that the interpretation provided on analysis #1176178 (11-29-76) of water from this well is invalid. These results indicate very good consistency with this previous analysis, thereby strongly suggesting that the water at that time and at this time is natural Delaware water with no influence from artificial waters. It appears that the Delaware water in this well is moderately different from what we would anticipate in the general area but based on the consistency of these two analyses, we would suggest that it be considered natural connate Delaware water.

Form No. 3

By _____
Waylan C. Martin, M. A.

Martin Water Laboratories, Inc

P. O. BOX 1468
MONAHANS, TEXAS 79756
PHONE 943-3234 OR 563-1040

RESULT OF WATER ANALYSES

406 W. ILLINOIS
MIDLAND, TEXAS 79701
PHONE 683-4521

TO: Mr. Allen Roberts
P. O. Box 2760, Midland, TX

LABORATORY NO. 377195
SAMPLE RECEIVED 3-24-77
RESULTS REPORTED 3-25-77

COMPANY Bass Enterprises Production Company LEASE Federal Rodke
FIELD OR POOL Undesignated
SECTION ___ BLOCK ___ SURVEY ___ COUNTY Eddy STATE New Mexico
SOURCE OF SAMPLE AND DATE TAKEN:
NO. 1 Produced water - taken from Federal Rodke #2. 3-24-77
NO. 2
NO. 3
NO. 4
REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.1546			
pH When Sampled				
pH When Received	7.9			
Bicarbonate as HCO_3	151			
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	47,000			
Calcium as Ca	13,200			
Magnesium as Mg	3,402			
Sodium and/or Potassium	76,044			
Sulfate as SO_4	866			
Chloride as Cl	149,850			
Iron as Fe	1.4			
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	243,513			
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	23.0			
Resistivity, ohms/m at 77° F.	0.051			
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks The above results indicate that the interpretation provided on analysis #1176178 (11-29-76) of water from this well is invalid. These results indicate very good consistency with this previous analysis, thereby strongly suggesting that the water at that time and at this time is natural Delaware water with no influence from artificial waters. It appears that the Delaware water in this well is moderately different from what we would anticipate in the general area but based on the consistency of these two analyses, we would suggest that it be considered natural connate Delaware water.

Form No. 3

By _____
Waylan C. Martin, M. A.

Martin Water Laboratories, Inc

P. O. BOX 1468
MONAHANS, TEXAS 79756
PHONE 943-3234 OR 563-1040

RESULT OF WATER ANALYSES

406 W. ILLINOIS
MIDLAND, TEXAS 79701
PHONE 683-4521

LABORATORY NO. 377195
SAMPLE RECEIVED 3-24-77
RESULTS REPORTED 3-25-77

TO: Mr. Allen Roberts
P. O. Box 2760, Midland, TX

COMPANY Bass Enterprises Production Company LEASE Federal Rodke
FIELD OR POOL Undesignated
SECTION ___ BLOCK ___ SURVEY ___ COUNTY Eddy STATE New Mexico
SOURCE OF SAMPLE AND DATE TAKEN:
NO. 1 Produced water - taken from Federal Rodke #2, 3-24-77
NO. 2
NO. 3
NO. 4
REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.1546			
pH When Sampled				
pH When Received	7.9			
Bicarbonate as HCO_3	151			
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	47,000			
Calcium as Ca	13,200			
Magnesium as Mg	3,402			
Sodium and/or Potassium	76,044			
Sulfate as SO_4	866			
Chloride as Cl	149,850			
Iron as Fe	1.4			
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	243,513			
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	23.0			
Resistivity, ohms/m at 77° F.	0.051			
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks: The above results indicate that the interpretation provided on analysis #1176178 (11-29-76) of water from this well is invalid. These results indicate very good consistency with this previous analysis, thereby strongly suggesting that the water at that time and at this time is natural Delaware water with no influence from artificial waters. It appears that the Delaware water in this well is moderately different from what we would anticipate in the general area but based on the consistency of these two analyses, we would suggest that it be considered natural connate Delaware water.

Form No. 3

By _____
Waylan C. Martin, M. A.

Martin Water Laboratories, Inc.

P. O. BOX 1468
PHONE 943-3234 OR 563-1040
MONAHANS, TEXAS 79756

406 W. ILLINOIS
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 47673

TO: Mr. Allen Roberts — SAMPLE RECEIVED 4-12-76
P. O. Box 2760, Midland, Texas — RESULTS REPORTED 4-15-76

COMPANY Bass Enterprises Production Co. LEASE Big Eddy Unit
FIELD OR POOL Lusk (Delaware)
SECTION ___ BLOCK ___ SURVEY ___ COUNTY Eddy STATE N. M.
SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Recovered water - taken from Big Eddy Unit #47, 4-12-76
NO. 2
NO. 3
NO. 4
REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES

	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0890			
pH When Sampled				
pH When Received	7.1			
Bicarbonate as HCO_3	161			
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	20,700			
Calcium as Ca	5,360			
Magnesium as Mg	1,774			
Sodium and/or Potassium	46,838			
Sulfate as SO_4	2,139			
Chloride as Cl	85,223			
Iron as Fe	9.2			
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	141,495			
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0			
Resistivity, ohms/m at 77° F.	0.074			
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks: The above results show no evidence of any change in this water as compared to analysis #4769 (4-6-76). If this is a Delaware water, it is considered very unique for the area. If you have evidence that this water is being produced from the Delaware, we would appreciate your calling us for a discussion of this as we would like to use it for future reference for this field.

Form No. 3

By Waylan C. Martin, M.A.

Martin Water Laboratories, Inc.

P. O. BOX 1468
PHONE 943-3234 OR 563-1040
MONAHANS, TEXAS 79756

406 W. ILLINOIS
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 47673

TO: Mr. Allen Roberts
P. O. Box 2760, Midland, Texas

SAMPLE RECEIVED 4-12-76

RESULTS REPORTED 4-15-76

COMPANY Bass Enterprises Production Co. LEASE Big Eddy Unit

FIELD OR POOL Lusk (Delaware)

SECTION ___ BLOCK ___ SURVEY ___ COUNTY Eddy STATE N. M.

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Recovered water - taken from Big Eddy Unit #47, 4-12-76

NO. 2

NO. 3

NO. 4

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES

	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0890			
pH When Sampled				
pH When Received	7.1			
Bicarbonate as HCO_3	161			
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	20,700			
Calcium as Ca	5,360			
Magnesium as Mg	1,774			
Sodium and/or Potassium	46,838			
Sulfate as SO_4	2,139			
Chloride as Cl	85,223			
Iron as Fe	9.2			
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	141,495			
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0			
Resistivity, ohms/m at 77° F.	0.074			
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks The above results show no evidence of any change in this water as compared to analysis #4769 (4-6-76). If this is a Delaware water, it is considered very unique for the area. If you have evidence that this water is being produced from the Delaware, we would appreciate your calling us for a discussion of this as we would like to use it for future reference for this field.

Form No. 3

By Waylan C. Martin, M.A.

Martin Water Laboratories, Inc.

P. O. BOX 1468
PHONE 943-3234 OR 563-1040
MONAHANS, TEXAS 79756

406 W. ILLINOIS
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 47673

TO: Mr. Allen Roberts
P. O. Box 2760, Midland, Texas

SAMPLE RECEIVED 4-12-76

RESULTS REPORTED 4-15-76

COMPANY Bass Enterprises Production Co. LEASE Big Eddy Unit

FIELD OR POOL Lusk (Delaware)

SECTION ___ BLOCK ___ SURVEY ___ COUNTY Eddy STATE N. M.

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Recovered water - taken from Big Eddy Unit #47. 4-12-76

NO. 2

NO. 3

NO. 4

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES

	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0890			
pH When Sampled				
pH When Received	7.1			
Bicarbonate as HCO_3	161			
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	20,700			
Calcium as Ca	5,360			
Magnesium as Mg	1,774			
Sodium and/or Potassium	46,838			
Sulfate as SO_4	2,139			
Chloride as Cl	85,223			
Iron as Fe	9.2			
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	141,495			
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0			
Resistivity, ohms/m at 77° F.	0.074			
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks: The above results show no evidence of any change in this water as compared to analysis #4769 (4-6-76). If this is a Delaware water, it is considered very unique for the area. If you have evidence that this water is being produced from the Delaware, we would appreciate your calling us for a discussion of this as we would like to use it for future reference for this field.

Form No. 3

By Waylan C. Martin, M.A.

Martin Water Laboratories, Inc.

P. O. BOX 1468
MONAHANS, TEXAS 79756
PHONE 943-3234 OR 563-1040

406 W. ILLINOIS
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 117714

TO: Mr. Allen Roberts
P.O. Box 2760, Midland, Texas

SAMPLE RECEIVED 11-1-77
RESULTS REPORTED 11-7-77

COMPANY Bass Enterprises Production LEASE Big Eddy Unit
FIELD OR POOL Indian Flat (Delaware)
SECTION ___ BLOCK ___ SURVEY ___ COUNTY Eddy STATE New Mexico
SOURCE OF SAMPLE AND DATE TAKEN:
NO. 1 Produced water - taken from Big Eddy Unit #49 (wellhead). 11-1-77
NO. 2 Produced water - taken from Big Eddy Unit #56 (wellhead). 11-1-77
NO. 3 ___
NO. 4 ___
REMARKS: ___

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0926	1.0882		
pH When Sampled				
pH When Received	7.8	6.7		
Bicarbonate as HCO_3	409	433		
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	23,200	21,900		
Calcium as Ca	6,400	5,400		
Magnesium as Mg	1,750	2,041		
Sodium and/or Potassium	44,247	43,397		
Sulfate as SO_4	1,820	1,663		
Chloride as Cl	83,092	80,962		
Iron as Fe	1.8	32.6		
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	137,718	133,896		
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0	0.0		
Resistivity, ohms/m at 77° F.	0.075	0.077		
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks: The above results reveal good correlation between the characteristics of these two waters. This is in an area that we do not have good records, but we feel these characteristics could be commensurate with predominant Delaware. We note that #49 has no hydrogen sulfide which is inconsistent with the presence of sulfide in the water from this well on analysis #477179 (4-27-77).

NOTE: 4/77 SAMPLE #47 141,221 ppm .074 Ω-m
" " #49 151,337 .066

Form No. 3

By _____
Waylan C. Martin, M. A.

CC - FT. WORTH - GRAVE
CC - KEYSTONE

Martin Water Laboratories, Inc

P. O. BOX 1468
MONAHANS, TEXAS 79756
PHONE 943-3234 OR 563-1040

RESULT OF WATER ANALYSES

406 W. ILLINOIS
MIDLAND, TEXAS 79701
PHONE 683-4521

LABORATORY NO. 117714

TO: Mr. Allen Roberts
P.O. Box 2760, Midland, Texas

SAMPLE RECEIVED 11-1-77
RESULTS REPORTED 11-7-77

COMPANY Bass Enterprises Production LEASE Big Eddy Unit
FIELD OR POOL Indian Flat (Delaware)
SECTION ___ BLOCK ___ SURVEY ___ COUNTY Eddy STATE New Mexico
SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Produced water - taken from Big Eddy Unit #49 (wellhead). 11-1-77
NO. 2 Produced water - taken from Big Eddy Unit #56 (wellhead). 11-1-77
NO. 3
NO. 4

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0926	1.0882		
pH When Sampled				
pH When Received	7.8	6.7		
Bicarbonate as HCO_3	409	433		
Superasturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	23,200	21,900		
Calcium as Ca	6,400	5,400		
Magnesium as Mg	1,750	2,041		
Sodium and/or Potassium	44,247	43,397		
Sulfate as SO_4	1,820	1,663		
Chloride as Cl	83,092	80,962		
Iron as Fe	1.8	32.6		
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	137,718	133,896		
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0	0.0		
Resistivity, ohms/m at 77° F.	0.075	0.077		
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks The above results reveal good correlation between the characteristics of these two waters. This is in an area that we do not have good records, but we feel these characteristics could be commensurate with predominant Delaware. We note that #49 has no hydrogen sulfide which is inconsistent with the presence of sulfide in the water from this well on analysis #477179 (4-27-77).

NOTE: 4/77 SAMPLE #47 141,221 ppm .074 Rw
" #49 141,337 .066

Form No. 3

CC - FT. WORTH - GRAVI
CC - KEYSTONE

By _____
Waylan C. Martin, M. A.

Martin Water Laboratories, Inc

P. O. BOX 1468
MONAHANS, TEXAS 79756
PHONE 943-3234 OR 563-1040

RESULT OF WATER ANALYSES

406 W. ILLINOIS
MIDLAND, TEXAS 79701
PHONE 683-4521

LABORATORY NO. 117714
SAMPLE RECEIVED 11-1-77
RESULTS REPORTED 11-7-77

TO: Mr. Allen Roberts
P.O. Box 2760, Midland, Texas

COMPANY Bass Enterprises Production LEASE Big Eddy Unit
FIELD OR POOL Indian Flat (Delaware)
SECTION ___ BLOCK ___ SURVEY ___ COUNTY Eddy STATE New Mexico
SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Produced water - taken from Big Eddy Unit #49 (wellhead). 11-1-77
NO. 2 Produced water - taken from Big Eddy Unit #56 (wellhead). 11-1-77
NO. 3
NO. 4

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0926	1.0882		
pH When Sampled				
pH When Received	7.8	6.7		
Bicarbonate as HCO_3	409	433		
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	23,200	21,900		
Calcium as Ca	6,400	5,400		
Magnesium as Mg	1,750	2,041		
Sodium and/or Potassium	44,247	43,397		
Sulfate as SO_4	1,820	1,663		
Chloride as Cl	83,092	80,962		
Iron as Fe	1.8	32.6		
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	137,718	133,896		
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0	0.0		
Resistivity, ohms/m at 77° F.	0.075	0.077		
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks: The above results reveal good correlation between the characteristics of these two waters. This is in an area that we do not have good records, but we feel these characteristics could be commensurate with predominant Delaware. We note that #49 has no hydrogen sulfide which is inconsistent with the presence of sulfide in the water from this well on analysis #477179 (4-27-77).

NOTE: 4/22 SAMPLE #47 141,221 ppm .074 Rw
" " #49 141,337 .066

Form No. 3

By (signature)
Waylan C. Martin, M. A.

cc - Ft. Worth - Grove
cc - Keystone

Martin Water Laboratories, Inc.

P. O. BOX 1468
AONE 943-3234 OR 563-1040
MONAHANS, TEXAS 79756

406 W. ILLINOIS
MIDLAND, TEXAS 79701
PHONE 683-4521

WTP

RESULT OF WATER ANALYSES

TO: Mr. Allen Roberts
P. O. Box 2760, Midland, Texas

LABORATORY NO. 10769
SAMPLE RECEIVED 10-4-76
RESULTS REPORTED 10-6-76

COMPANY Bass Enterprises Prod. Co. LEASE Big Eddy Unit
FIELD OR POOL 1. 3. & 4. Big Eddy 2. Quahada Ridge
SECTION ___ BLOCK ___ SURVEY ___ COUNTY Eddy STATE N. M.
SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Produced (Strawn) water - taken from Big Eddy Unit #10. 10-1-76
NO. 2 Produced (Morrow) water - taken from Big Eddy Unit #38. 10-1-76
NO. 3 Produced (Morrow) water - taken from Big Eddy Unit #39. 10-1-76
NO. 4 Produced (Atoka) water - taken from Big Eddy Unit #40. 10-1-76

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0767	1.0120	1.0021	1.0665
pH When Sampled				
pH When Received	6.8	6.45	6.4	6.8
Bicarbonate as HCO_3	142	239	327	830
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	20,000	2,425	55	11,500
Calcium as Ca	6,160	640	12	3,600
Magnesium as Mg	1,118	200	6	608
Sodium and/or Potassium	36,065	5,036	144	16,393
Sulfate as SO_4	147	8	2	169
Chloride as Cl	69,599	9,339	69	32,669
Iron as Fe	36.0	194	114	266
Barium as Ba		0	0	
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	113,231	15,462	560	54,169
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0	0.0	0.0	0.0
Resistivity, ohms/m at 77° F.	0.087	0.491	22.50	0.150
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				
Results Reported As Milligrams Per Liter				
Additional Determinations And Remarks				

Form No. 3

By _____

Martin Water Laboratories, Inc.

P. O. BOX 1468
PHONE 943-3234 OR 563-1040
MONAHANS, TEXAS 79756

406 W. ILLINOIS
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

TO: Mr. Allen Roberts
P. O. Box 2760, Midland, Texas

LABORATORY NO. 10769
SAMPLE RECEIVED 10-4-76
RESULTS REPORTED 10-6-76

COMPANY Bass Enterprises Prod. Co. LEASE Big Eddy Unit
FIELD OR POOL 1. 3. & 4. Big Eddy 2. Quahada Ridge
SECTION ___ BLOCK ___ SURVEY ___ COUNTY Eddy STATE N. M.
SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Produced (Strawn) water - taken from Big Eddy Unit #10. 10-1-76
NO. 2 Produced (Morrow) water - taken from Big Eddy Unit #38. 10-1-76
NO. 3 Produced (Morrow) water - taken from Big Eddy Unit #39. 10-1-76
NO. 4 Produced (Atoka) water - taken from Big Eddy Unit #40. 10-1-76

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0767	1.0120	1.0021	1.0665
pH When Sampled				
pH When Received	6.8	6.45	6.4	6.8
Bicarbonate as HCO_3	142	239	327	830
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	20,000	2,425	55	11,300
Calcium as Ca	6,160	660	12	3,600
Magnesium as Mg	1,118	200	6	608
Sodium and/or Potassium	36,065	5,036	144	16,393
Sulfate as SO_4	147	8	2	169
Chloride as Cl	69,599	9,339	69	32,669
Iron as Fe	36.0	194	114	266
Barium as Ba		0	0	
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	113,231	15,462	560	54,169
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0	0.0	0.0	0.0
Resistivity, ohms/m at 77° F.	0.087	0.491	22.50	0.150
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks

Form No. 3

By _____

Martin Water Laboratories, Inc.

P. O. BOX 1468
AONE 943-3234 OR 563-1040
MONAHANS, TEXAS 79756

406 W. ILLINOIS
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 10769
SAMPLE RECEIVED 10-4-76
RESULTS REPORTED 10-6-76

TO: Mr. Allen Roberts
P. O. Box 2760, Midland, Texas

COMPANY Bass Enterprises Prod. Co. LEASE Big Eddy Unit
FIELD OR POOL 1. 3. & 4. Big Eddy 2. Quahada Ridge
SECTION ___ BLOCK ___ SURVEY ___ COUNTY Eddy STATE N. M.
SOURCE OF SAMPLE AND DATE TAKEN:
NO. 1 Produced (Strawn) water - taken from Big Eddy Unit #10. 10-1-76
NO. 2 Produced (Morrow) water - taken from Big Eddy Unit #38. 10-1-76
NO. 3 Produced (Morrow) water - taken from Big Eddy Unit #39. 10-1-76
NO. 4 Produced (Atoka) water - taken from Big Eddy Unit #40. 10-1-76
REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0767	1.0120	1.0021	1.0665
pH When Sampled				
pH When Received	6.8	6.45	6.4	6.8
Bicarbonate as HCO_3	142	239	327	830
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	20,000	2,425	55	11,500
Calcium as Ca	6,160	640	12	3,600
Magnesium as Mg	1,118	200	6	608
Sodium and/or Potassium	36,065	5,036	144	16,293
Sulfate as SO_4	147	8	2	169
Chloride as Cl	69,599	9,339	69	32,669
Iron as Fe	36.0	104	114	266
Barium as Ba		0	0	
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	113,231	15,462	560	54,169
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0	0.0	0.0	0.0
Resistivity, ohms/m at 77° F.	0.087	0.491	22.50	0.150
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				
Results Reported As Milligrams Per Liter				
Additional Determinations And Remarks				

Form No. 3

By ___

Martin Water Laboratories, Inc.

P. O. BOX 1468
AONE 943-3234 OR 563-1040
MONAHANS, TEXAS 79756

406 W. ILLINOIS
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 10769
SAMPLE RECEIVED 10-4-76
RESULTS REPORTED 10-6-76

TO: Mr. Allen Roberts
P. O. Box 2760, Midland, Texas

COMPANY Bass Enterprises Prod. Co. LEASE Big Eddy Unit
FIELD OR POOL 1. 3. & 4. Big Eddy 2. Quahada Ridge
SECTION ___ BLOCK ___ SURVEY ___ COUNTY Eddy STATE N. M.
SOURCE OF SAMPLE AND DATE TAKEN:
NO. 1 Produced (Strawn) water - taken from Big Eddy Unit #10. 10-1-76
NO. 2 Produced (Morrow) water - taken from Big Eddy Unit #38. 10-1-76
NO. 3 Produced (Morrow) water - taken from Big Eddy Unit #39. 10-1-76
NO. 4 Produced (Atoka) water - taken from Big Eddy Unit #40. 10-1-76
REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0767	1.0120	1.0021	1.0665
pH When Sampled				
pH When Received	6.8	6.45	6.4	6.8
Bicarbonate as HCO_3	142	239	327	830
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	20,000	2,425	55	11,300
Calcium as Ca	6,160	640	12	3,600
Magnesium as Mg	1,118	200	6	608
Sodium and/or Potassium	36,065	5,036	144	16,293
Sulfate as SO_4	147	8	2	169
Chloride as Cl	69,599	9,339	69	32,669
Iron as Fe	36.0	194	114	266
Barium as Ba		0	0	
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	113,231	15,462	560	54,169
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0	0.0	0.0	0.0
Resistivity, ohms/m at 77° F.	0.087	0.491	22.50	0.150
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks

Form No. 3

By _____

Martin Water Laboratories, Inc.

P. O. BOX 1468
AONE 943-3234 OR 563-1040
MONAHANS, TEXAS 79756

406 W. ILLINOIS
NIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 10769
SAMPLE RECEIVED 10-4-76
RESULT REPORTED 10-6-76

TO: Mr. Allen Roberts
P. O. Box 2760, Midland, Texas

COMPANY Bass Enterprises Prod. Co. LEASE Big Eddy Unit
FIELD OR POOL 1. 3. & 4. Big Eddy 2. Quahada Ridge
SECTION ___ BLOCK ___ SURVEY ___ COUNTY Eddy STATE N. M.

SOURCE OF SAMPLE AND DATE TAKEN:
NO. 1 Produced (Strawn) water - taken from Big Eddy Unit #10. 10-1-76
NO. 2 Produced (Morrow) water - taken from Big Eddy Unit #38. 10-1-76
NO. 3 Produced (Morrow) water - taken from Big Eddy Unit #39. 10-1-76
NO. 4 Produced (Atoka) water - taken from Big Eddy Unit #40. 10-1-76

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0767	1.0120	1.0021	1.0665
pH When Sampled				
pH When Received	6.8	6.45	6.4	6.8
Bicarbonate as HCO_3	142	239	327	830
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	20,000	2,425	55	11,500
Calcium as Ca	6,160	660	12	3,600
Magnesium as Mg	1,118	200	6	608
Sodium and/or Potassium	36,065	5,036	144	16,293
Sulfate as SO_4	147	8	2	169
Chloride as Cl	69,599	9,339	69	32,669
Iron as Fe	36.0	194	114	266
Barium as Ba		0	0	
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	113,231	15,462	560	54,169
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0	0.0	0.0	0.0
Resistivity, ohms/m at 77° F.	0.087	0.491	22.50	0.150
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				
Results Reported As Milligrams Per Liter				
Additional Determinations And Remarks				

Form No. 3

By _____

Martin Water Laboratories, Inc.

P. O. BOX 1468
HONE 943-3234 OR 563-1040
MONAHANS, TEXAS 79756

RESULT OF WATER ANALYSES

406 W. ILLINOIS
MIDLAND, TEXAS 79701
PHONE 683-4521

LABORATORY NO. 10769

TO: Mr. Allen Roberts
P. O. Box 2760, Midland, Texas

SAMPLE RECEIVED 10-4-76

RESULTS REPORTED 10-6-76

COMPANY Bass Enterprises Prod. Co. LEASE Big Eddy Unit

FIELD OR POOL 1. 3. & 4. Big Eddy 2. Quahada Ridge

SECTION ___ BLOCK ___ SURVEY ___ COUNTY Eddy STATE N. M.

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Produced (Strawn) water - taken from Big Eddy Unit #10. 10-1-76

NO. 2 Produced (Morrow) water - taken from Big Eddy Unit #38. 10-1-76

NO. 3 Produced (Morrow) water - taken from Big Eddy Unit #39. 10-1-76

NO. 4 Produced (Atoka) water - taken from Big Eddy Unit #40. 10-1-76

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES

	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0767	1.0120	1.0021	1.0665
pH When Sampled				
pH When Received	6.8	6.45	6.6	6.8
Bicarbonate as HCO_3	142	239	327	830
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	20,000	2,425	55	11,500
Calcium as Ca	6,160	660	12	3,600
Magnesium as Mg	1,118	200	6	608
Sodium and/or Potassium	36,065	5,036	144	16,293
Sulfate as SO_4	147	8	2	169
Chloride as Cl	69,599	9,339	69	32,669
Iron as Fe	36.0	194	114	266
Barium as Ba		0	0	
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	113,231	15,462	560	54,169
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0	0.0	0.0	0.0
Resistivity, ohms/m at 77° F.	0.087	0.491	22.50	0.150
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks

Form No. 3

By _____

Martin Water Laboratories, Inc.

P. O. BOX 1468
PHONE 943-3234 OR 563-1040
MONAHANS, TEXAS 79756

406 W. ILLINOIS
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 10769

TO: Mr. Allen Roberts
P. O. Box 2760, Midland, Texas

SAMPLE RECEIVED 10-4-76

RESULTS REPORTED 10-6-76

COMPANY Bass Enterprises Prod. Co. LEASE Big Eddy Unit

FIELD OR POOL 1. 3. & 4. Big Eddy 2. Quahada Ridge

SECTION ___ BLOCK ___ SURVEY ___ COUNTY Eddy STATE N. M.

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Produced (Strawn) water - taken from Big Eddy Unit #10. 10-1-76

NO. 2 Produced (Morrow) water - taken from Big Eddy Unit #38. 10-1-76

NO. 3 Produced (Morrow) water - taken from Big Eddy Unit #39. 10-1-76

NO. 4 Produced (Atoka) water - taken from Big Eddy Unit #40. 10-1-76

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0767	1.0120	1.0021	1.0665
pH When Sampled				
pH When Received	6.8	6.45	6.4	6.8
Bicarbonate as HCO_3	142	239	327	830
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	20,000	2,425	55	11,500
Calcium as Ca	6,160	660	12	3,600
Magnesium as Mg	1,118	200	6	608
Sodium and/or Potassium	36,065	5,036	144	16,293
Sulfate as SO_4	147	8	2	169
Chloride as Cl	69,599	9,339	69	32,669
Iron as Fe	36.0	194	114	266
Barium as Ba		0	0	
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	113,231	15,462	360	56,169
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0	0.0	0.0	0.0
Resistivity, ohms/m at 77° F.	0.087	0.491	22.50	0.150
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks

Form No. 3

By _____

Martin Water Laboratories, Inc.

P. O. BOX 1468
HONE 943-3234 OR 563-1040
HONAHANS, TEXAS 79756

406 W. ILLINOIS
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 10769
SAMPLE RECEIVED 10-4-76
RESULTS REPORTED 10-6-76

TO: Mr. Allen Roberts
P. O. Box 2760, Midland, Texas

COMPANY Bass Enterprises Prod. Co. LEASE Big Eddy Unit
FIELD OR POOL 1. S. & 6. Big Eddy 2. Quahada Ridge
SECTION ___ BLOCK ___ SURVEY ___ COUNTY Eddy STATE N. M.
SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Produced (Strawn) water - taken from Big Eddy Unit #10. 10-1-76
NO. 2 Produced (Morrow) water - taken from Big Eddy Unit #38. 10-1-76
NO. 3 Produced (Morrow) water - taken from Big Eddy Unit #39. 10-1-76
NO. 4 Produced (Atoka) water - taken from Big Eddy Unit #40. 10-1-76

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0767	1.0120	1.0021	1.0665
pH When Sampled				
pH When Received	6.8	6.45	6.4	6.8
Bicarbonate as HCO_3	142	239	327	830
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	20,000	2,425	55	11,500
Calcium as Ca	6,160	640	12	3,600
Magnesium as Mg	1,118	200	6	608
Sodium and/or Potassium	36,065	5,036	144	16,293
Sulfate as SO_4	147	8	2	169
Chloride as Cl	69,599	9,336	69	32,669
Iron as Fe	36.0	194	114	266
Barium as Ba		0	0	
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	113,231	15,462	560	54,169
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0	0.0	0.0	0.0
Resistivity, ohms/m at 77° F.	0.087	0.491	22.50	0.150
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks

Form No. 3

By _____

Martin Water Laboratories, Inc.

P. O. BOX 1468
PHONE 943-3234 OR 563-1040
MONAHANS, TEXAS 79756

406 W. ILLINOIS
MIDLAND, TEXAS 79701
PHONE 683-4621

RESULT OF WATER ANALYSES

LABORATORY NO. 10769
TO: Mr. Allen Roberts
P. O. Box 2760, Midland, Texas
SAMPLE RECEIVED 10-4-76
RESULTS REPORTED 10-6-76

COMPANY Bass Enterprises Prod. Co. LEASE Big Eddy Unit
FIELD OR POOL 1. 3. & 4. Big Eddy 2. Quahada Ridge
SECTION ___ BLOCK ___ SURVEY ___ COUNTY Eddy STATE N. M.
SOURCE OF SAMPLE AND DATE TAKEN:
NO. 1 Produced (Strawn) water - taken from Big Eddy Unit #10. 10-1-76
NO. 2 Produced (Morrow) water - taken from Big Eddy Unit #38. 10-1-76
NO. 3 Produced (Morrow) water - taken from Big Eddy Unit #39. 10-1-76
NO. 4 Produced (Atoka) water - taken from Big Eddy Unit #40. 10-1-76
REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES

	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0767	1.0120	1.0021	1.0665
pH When Sampled				
pH When Received	6.8	6.45	6.4	6.8
Bicarbonate as HCO_3	142	239	327	830
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	20,000	2,425	55	11,500
Calcium as Ca	6,160	660	12	3,600
Magnesium as Mg	1,118	200	6	608
Sodium and/or Potassium	36,065	5,036	144	16,293
Sulfate as SO_4	147	8	2	169
Chloride as Cl	69,599	9,339	69	32,669
Iron as Fe	36.0	194	114	266
Barium as Ba		0	0	
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	113,231	15,462	560	54,169
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0	0.0	0.0	0.0
Resistivity, ohms/m at 77° F.	0.087	0.491	22.30	0.250
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks

Form No. 3

By ___

Martin Water Laboratories

P. O. BOX 1468
MONAHANS, TEXAS 79756
PHONE 943-3234 OR 563-1040

RESULT OF WATER ANALYSES

406 W. ILLINOIS
MIDLAND, TEXAS 79701
PHONE 683-4521

LABORATORY NO. 1274107

TO: Mr. R. L. Thurman
P. O. Box 1178, Monahans, Texas

SAMPLE RECEIVED 12-16-74
RESULTS REPORTED 12-19-74

COMPANY Bass Enterprises Prod. Co. LEASE As listed

FIELD OR POOL 1 & 2. Parallel (Delaware) 3. Corral Canyon (Delaware)

SECTION ___ BLOCK ___ SURVEY ___ COUNTY Eddy STATE N. M.

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Produced water - taken from Federal Cobb #1, 12-7-74

NO. 2 Produced water - taken from Federal Rodke #1. 12-7-74

NO. 3 Produced water - taken from Continental Federal #1. ✓ 12-7-74 P.Ranger Sd.

NO. 4

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3 ✓	NO. 4
Specific Gravity at 60° F.	1.1951	1.1818	1.1068	
pH When Sampled				
pH When Received	5.8	6.15	7.35	
Bicarbonate as HCO_3	37	56	121	
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	93,000	79,000	25,250	
Calcium as Ca	32,600	30,400	8,300	
Magnesium as Mg	2,795	729	1,094	
Sodium and/or Potassium	84,481	78,993	53,929	
Sulfate as SO_4	236	322	186	
Chloride as Cl	196,012	177,548	100,847	
Iron as Fe	34.0	38.0	4.0	
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	316,161	288,048	164,477	
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0	0.0	0.0	
Resistivity, ohms/m at 77° F.	0.045	0.049	0.067	
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks In the above results we generally classify the Cobb #1 and Rodke #1 as being typical of Delaware waters that are common throughout the Basin. However, we do get some changes in a few of the fields in the northwest productive area of the Delaware Basin; therefore, the difference in the water from Continental Federal #1 may be due to some of these unusual Delaware waters and does not necessarily confirm that any foreign water is present. If you would contact me on this matter, we could possibly clarify the implications of these results.

Form No. 3

By _____
Waylan C. Martin, M. A.

Martin Water Laboratories

P. O. BOX 1468
MONAHANS, TEXAS 79756
PHONE 943-3234 OR 563-1040

RESULT OF WATER ANALYSES

406 W. ILLINOIS
MIDLAND, TEXAS 79701
PHONE 683-4521

LABORATORY NO. 1274107

TO: Mr. R. L. Thurman
P. O. Box 1178, Monahans, Texas

SAMPLE RECEIVED 12-16-74

RESULTS REPORTED 12-19-74

COMPANY Bass Enterprises Prod. Co. LEASE As listed

FIELD OR POOL 1 & 2. Parallel (Delaware) 3. Corral Canyon (Delaware)

SECTION ___ BLOCK ___ SURVEY ___ COUNTY Eddy STATE N. M.

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Produced water - taken from Federal Cobb #1. 12-7-74

NO. 2 Produced water - taken from Federal Rodke #1. 12-7-74

NO. 3 Produced water - taken from Continental Federal #1. 12-7-74 RAMSEY SD —

NO. 4

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.1951	1.1818	1.1068	
pH When Sampled				
pH When Received	5.8	6.15	7.35	
Bicarbonate as HCO_3	37	56	121	
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	93,000	79,000	25,250	
Calcium as Ca	32,600	30,400	8,300	
Magnesium as Mg	2,795	729	1,094	
Sodium and/or Potassium	84,481	78,993	53,929	
Sulfate as SO_4	236	322	186	
Chloride as Cl	196,012	177,548	100,847	
Iron as Fe	34.0	38.0	4.0	
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	316,161	288,048	164,477	
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0	0.0	0.0	
Resistivity, ohms/m at 77° F.	0.045	0.049	0.067	
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks In the above results we generally classify the Cobb #1 and Rodke #1 as being typical of Delaware waters that are common throughout the Basin. However, we do get some changes in a few of the fields in the northwest productive area of the Delaware Basin; therefore, the difference in the water from Continental Federal #1 may be due to some of these unusual Delaware waters and does not necessarily confirm that any foreign water is present. If you would contact me on this matter, we could possibly clarify the implications of these results.

Form No. 3

By _____
Waylan C. Martin, M. A.

Martin Water Laboratories

P. O. BOX 1468
MONAHANS, TEXAS 79756
PHONE 943-3234 OR 563-1040

RESULT OF WATER ANALYSES

406 W. ILLINOIS
MIDLAND TEXAS 79701
PHONE 683-4521

LABORATORY NO. 1274107

TO: Mr. R. L. Thurman
P. O. Box 1178, Monahans, Texas

SAMPLE RECEIVED 12-16-74

RESULTS REPORTED 12-19-74

COMPANY Bass Enterprises Prod. Co. LEASE As Listed

FIELD OR POOL 1 & 2. Parallel (Delaware) 3. Corral Canyon (Delaware)

SECTION ___ BLOCK ___ SURVEY ___ COUNTY Eddy STATE N. M.

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Produced water - taken from Federal Cobb #1, 12-7-74

NO. 2 Produced water - taken from Federal Rodke #1, 12-7-74

NO. 3 Produced water - taken from Continental Federal #1. ✓ 12-7-74 Ramsey Sd —

NO. 4

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3 ✓	NO. 4
Specific Gravity at 60° F.	1.1951	1.1818	1.1068	
pH When Sampled				
pH When Received	5.8	6.15	7.35	
Bicarbonate as HCO_3	37	56	121	
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	93,000	79,000	25,250	
Calcium as Ca	32,600	30,400	8,300	
Magnesium as Mg	2,795	729	1,094	
Sodium and/or Potassium	84,481	78,993	53,929	
Sulfate as SO_4	236	322	186	
Chloride as Cl	196,012	177,548	100,847	
Iron as Fe	34.0	38.0	4.0	
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	316,161	288,048	164,477	
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0	0.0	0.0	
Resistivity, ohms/m at 77° F.	0.045	0.049	0.067	
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks In the above results we generally classify the Cobb #1 and Rodke #1 as being typical of Delaware waters that are common throughout the Basin. However, we do get some changes in a few of the fields in the northwest productive area of the Delaware Basin; therefore, the difference in the water from Continental Federal #1 may be due to some of these unusual Delaware waters and does not necessarily confirm that any foreign water is present. If you would contact me on this matter, we could possibly clarify the implications of these results.

Form No. 3

By _____
Waylan C. Martin, M. A.

Martin Water Laboratories, Inc

P. O. BOX 1468
MONAHANS, TEXAS 79756
PHONE 943-3234 OR 563-1040

731 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 278230
SAMPLE RECEIVED 2-27-78
RESULTS REPORTED 2-28-78

TO: Mr. Allen Roberts
P.O.Box 2760, Midland, Texas

COMPANY Base Enterprise Production Co. LEASE Poker Lake Unit
FIELD OR POOL Poker Lake
SECTION ___ BLOCK ___ SURVEY ___ COUNTY Eddy STATE New Mexico
SOURCE OF SAMPLE AND DATE TAKEN:
NO. 1 Produced water - taken from Poker Lake Unit #42. 2-27-78
NO. 2
NO. 3
NO. 4
REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0539			
pH When Sampled				
pH When Received	6.82			
Bicarbonate as HCO_3	409			
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	9,900			
Calcium as Ca	3,280			
Magnesium as Mg	413			
Sodium and/or Potassium	27,016			
Sulfate as SO_4	195			
Chloride as Cl	48,293			
Iron as Fe	71.2			
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	79,606			
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0			
Resistivity, ohms/m at 77° F.	0.111			
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

Form No. 3

By _____

cc: Mr. Albert Gallas, Kermit

Waylan C. Martin, M. A.

Martin Water Laboratories, Inc

P. O. BOX 1468
MONAHANS, TEXAS 79756
PHONE 943-3234 OR 563-1040

RESULT OF WATER ANALYSES

731 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

TO: Mr. Allen Roberts
P.O.Box 2760, Midland, Texas

LABORATORY NO. 278230
SAMPLE RECEIVED 2-27-78
RESULTS REPORTED 2-28-78

COMPANY Bass Enterprise Production Co. LEASE Poker Lake Unit
FIELD OR POOL Poker Lake
SECTION ___ BLOCK ___ SURVEY ___ COUNTY Eddy STATE New Mexico
SOURCE OF SAMPLE AND DATE TAKEN:
NO. 1 Produced water - taken from Poker Lake Unit #42. 2-27-78
NO. 2
NO. 3
NO. 4
REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0539			
pH When Sampled				
pH When Received	6.82			
Bicarbonate as HCO_3	409			
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	9,900			
Calcium as Ca	3,280			
Magnesium as Mg	413			
Sodium and/or Potassium	27,016			
Sulfate as SO_4	195			
Chloride as Cl	48,292			
Iron as Fe	71.2			
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	79,606			
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0			
Resistivity, ohms/m at 77° F.	0.111			
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks: The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

Form No. 3

cc: Mr. Albert Gallas, Kermit

By _____

Waylan C. Martin, M. A.

Martin Water Laboratories, Inc

P. O. BOX 1468
MONAHANS, TEXAS 79756
PHONE 943-3234 OR 563-1040

RESULT OF WATER ANALYSES

731 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4621

TO: Mr. Allen Roberts
P.O.Box 2760, Midland, Texas

LABORATORY NO. 278230
SAMPLE RECEIVED 2-27-78
RESULTS REPORTED 2-28-78

COMPANY Bass Enterprise Production Co. LEASE Poker Lake Unit
FIELD OR POOL Poker Lake
SECTION ___ BLOCK ___ SURVEY ___ COUNTY Eddy STATE New Mexico
SOURCE OF SAMPLE AND DATE TAKEN:
NO. 1 Produced water - taken from Poker Lake Unit #42. 2-27-78
NO. 2
NO. 3
NO. 4
REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0539			
pH When Sampled				
pH When Received	6.82			
Bicarbonate as HCO_3	409			
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	9,900			
Calcium as Ca	3,280			
Magnesium as Mg	413			
Sodium and/or Potassium	27,016			
Sulfate as SO_4	195			
Chloride as Cl	48,393			
Iron as Fe	71.2			
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	79,606			
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0			
Resistivity, ohms/m at 77° F.	0.111			
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

Form No. 3

By _____

cc: Mr. Albert Gallas, Kermit

Waylan C. Martin, M. A.

Martin Water Laboratories, Inc

P. O. BOX 1468
PHONE 943-3234 OR 563-1040
MONAHANS, TEXAS 79756

406 W. ILLINOIS
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 10769 (pg. 2)
SAMPLE RECEIVED 10-4-76
RESULTS REPORTED 10-5-76

TO: Mr. Allen Roberts
P. O. Box 2760, Midland, Texas

COMPANY Bass Enterprises Prod. Co. Big Eddy Unit
FIELD OR POOL Big Eddy
SECTION ___ BLOCK ___ SURVEY ___ COUNTY Eddy STATE N. M.
SOURCE OF SAMPLE AND DATE TAKEN
NO. 1 Produced (Morrow) water - taken from Big Eddy Unit #41. 10-1-76
NO. 2 Produced (Morrow) water - taken from Big Eddy Unit #44 10-1-76
NO. 3
NO. 4
REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0358	1.0339		
pH When Sampled				
pH When Received	7.0	6.6		
Bicarbonate as HCO_3	1,171	117		
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	4,800	5,600		
Calcium as Ca	1,440	1,800		
Magnesium as Mg	292	267		
Sodium and/or Potassium	16,663	15,168		
Sulfate as SO_4	8	410		
Chloride as Cl	28,408	26,987		
Iron as Fe	238	178		
Barium as Ba	0			
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	47,982	44,749		
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0	0.0		
Resistivity, ohms/m at 77° F.	0.167	0.177		
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks: We have previous records on all of the above except well #44, which shows to be reasonably comparable to the other Morrow waters except for the sulfate that is somewhat high. However, we have encountered some higher sulfates on Morrow waters on previous occasions. Other than the fact that we show wide fluctuations in the proportions of natural connate water and condensed water vapor, we show no discrepancy in the analyses of the waters.

Form No. 3

By
Waylan C. Martin, M. A.

Martin Water Laboratories, Inc.

P. O. BOX 1468
PHONE 943-3234 OR 563-1040
MONAHANS, TEXAS 79756

406 W. ILLINOIS
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

10769 (pg. 2)

TO: Mr. Allen Roberts
P. O. Box 2760, Midland, Texas

LABORATORY NO. 10769 (pg. 2)
SAMPLE RECEIVED 10-4-76
RESULTS REPORTED 10-6-76

COMPANY Bass Enterprises Prod. Co. LEASE Big Eddy Unit
FIELD OR POOL Big Eddy
SECTION ___ BLOCK ___ SURVEY ___ COUNTY Eddy STATE N. M.
SOURCE OF SAMPLE AND DATE TAKEN:
NO. 1 Produced (Morrow) water - taken from Big Eddy Unit #41. 10-1-76
NO. 2 Produced (Morrow) water - taken from Big Eddy Unit #44 10-1-76
NO. 3
NO. 4
REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0358	1.0339		
pH When Sampled				
pH When Received	7.0	6.6		
Bicarbonate as HCO_3	1,171	117		
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	4,800	5,600		
Calcium as Ca	1,440	1,800		
Magnesium as Mg	292	267		
Sodium and/or Potassium	16,663	15,168		
Sulfate as SO_4	8	410		
Chloride as Cl	28,408	26,987		
Iron as Fe	238	178		
Barium as Ba	0			
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	47,982	44,749		
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0	0.0		
Resistivity, ohms/m at 77° F.	0.167	0.177		
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks: We have previous records on all of the above except well #44, which above to be reasonably comparable to the other Morrow waters except for the sulfate that is somewhat high. However, we have encountered some higher sulfates on Morrow waters on previous occasions. Other than the fact that we show wide fluctuations in the proportions of natural connate water and condensed water vapor, we show no discrepancy in the analyses of the waters.

Form No. 3

By
Waylan C. Martin, M. A.

Martin Water Laboratories, Inc

P. O. BOX 1468
PHONE 943-3234 OR 563-1040
MONAHANS, TEXAS 79756

406 W. ILLINOIS
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 10769 (pg. 2)

TO: Mr. Allen Roberts
P. O. Box 2760, Midland, Texas

SAMPLE RECEIVED 10-4-76

RESULTS REPORTED 10-6-76

COMPANY Bass Enterprises Prod. Co. Big Eddy Unit

FIELD OR POOL Big Eddy

SECTION ___ BLOCK ___ SURVEY ___ COUNTY Eddy STATE N. M.

SOURCE OF SAMPLE AND DATE TAKEN

NO. 1 Produced (Morrow) water - taken from Big Eddy Unit #41. 10-1-76

NO. 2 Produced (Morrow) water - taken from Big Eddy Unit #44 10-1-76

NO. 3

NO. 4

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0358	1.0339		
pH When Sampled				
pH When Received	7.0	6.6		
Bicarbonate as HCO_3	1,171	117		
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	4,800	5,600		
Calcium as Ca	1,440	1,800		
Magnesium as Mg	292	267		
Sodium and/or Potassium	16,663	13,168		
Sulfate as SO_4	8	410		
Chloride as Cl	28,408	26,987		
Iron as Fe	238	178		
Barium as Ba	0			
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	47,982	44,749		
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0	0.0		
Resistivity, ohms/m at 77° F.	0.167	0.177		
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks: We have previous records on all of the above except well #44, which shows to be reasonably comparable to the other Morrow waters except for the sulfate that is somewhat high. However, we have encountered some higher sulfates on Morrow waters on previous occasions. Other than the fact that we show wide fluctuations in the proportions of natural connate water and condensed water vapor, we show no discrepancy in the analyses of the waters.

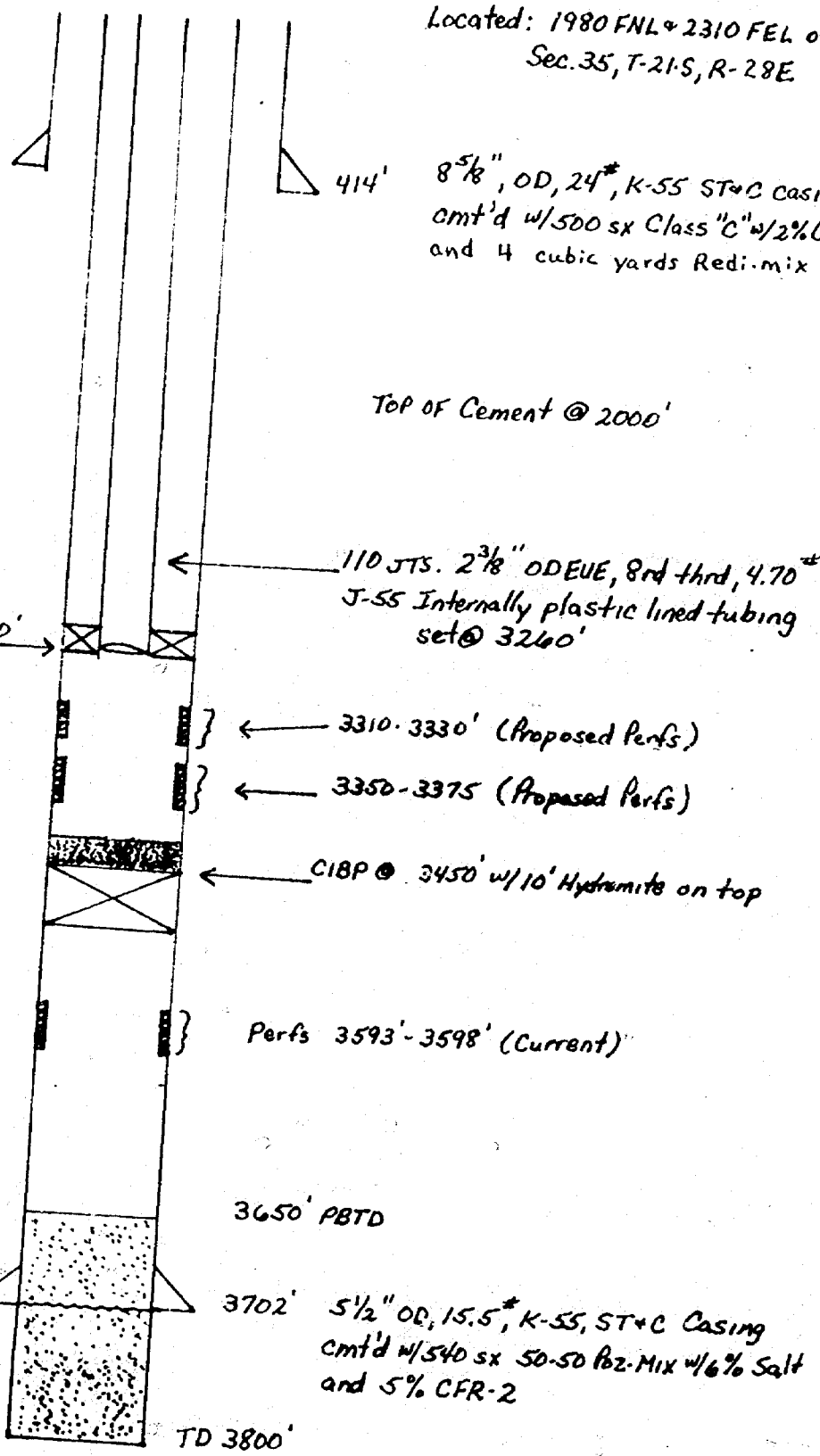
Form No. 3

By _____
Waylan C. Martin, M. A.

PROPOSED SALTWATER DISPOSAL WELL
BIG EDDY UNIT No. 56
INDIAN FLATS FIELD
EDDY COUNTY, NEW MEXICO

Located: 1980 FNL & 2310 FEL of
Sec. 35, T-21-S, R-28E

Elevation: 3186 GL
3197 KB



BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
EXHIBIT NO. 3
CASE NO. 6160
Submitted by Bass Enterprises Prod. Co.
Hearing Date Feb 22, 1978

BIG EDDY UNIT NO. 56
EDDY CO., NEW MEXICO

1. FIELD:
Indian Flats Delaware

2. NAME & LOCATION OF INJECTION WELL:
Big Eddy Unit No. 56
1980' FNL & 2310' FEL of
Section 35, T-21S, R-28E
Unit letter - G
Eddy County, New Mexico

3. NAME & DEPTH OF ZONE:
Delaware Sand 3310'
Proposed perforations - 3310'-3330' and 3350'-3375'
Injection Interval: 3310-3375

4. KIND OF FLUID INJECTED:
Produced saltwater.
Anticipated Volume Injected: 350 BWPD

SOURCE OF FLUID:

Big Eddy Unit #7	(Morrow)
Big Eddy Unit #8	(Strawn)
Big Eddy Unit #10	(Strawn)
Federal Cobb #1	(Delaware)
Federal Rodke #2	(Delaware)
Big Eddy Unit #47	(Delaware)
Big Eddy Unit #49	(Morrow)
Big Eddy Unit #41	(~~Morrow~~) (Atoka)
Big Eddy Unit #38	(Morrow)
Big Eddy Unit #39	(Morrow)
Big Eddy Unit #40	(Atoka)
Continental Federal	(Delaware)
Poker Lake Unit #42	(Atoka)
Big Eddy Unit #53	(Morrow)
Big Eddy Unit #54	(Morrow)
Federal Rodke #1	(Delaware)

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
EXHIBIT NO. 5
CASE NO. 6160
Submitted by Bass Enterprises Prod. Co.
Hearing Date Feb 22, 1978

zones in the area, plus the relative location of the proposed salt water injection zone.

You will note the salt water disposal sand is colored in blue and the upper of the two producing sands is colored in green.

Q. And I gather there is a lower producing zone.

A. Right. The lower zone is not colored.

Q. Okay, this is -- are we submitting this to give a representative illustration of the proposed salt water disposal relative to the producing formations in the area?

A. Yes, that's right.

Q. What kind of fluid will be injected?

A. Produced salt water.

Q. I've now handed you what's marked Exhibit Five and ask you to state what this shows.

A. This in Exhibit Number Five, Item Four, we have tabulated the wells and the formation from which these wells are produced, where we will gather water to be disposed of in the proposed injection well.

Q. Okay, so the source of the fluids is what, what is shown opposite each --

A. Yes. The source of fluid is the formations and the wells which are tabulated there. These -- these are scattered wells which we operate. We propose to gather

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this water, transport it by truck to this central location where we will dispose of it.

Q. What volume of salt water do you anticipate is going to be injected initially?

A. The initial volume will be approximately 350 barrels of water per day; however, we do anticipate additional development in the future, so that the volume could very well increase.

Q. Do you expect that you will have to inject this water by gravity or under pressure, or what?

A. We believe it will be under pressure.

Q. Do you have the equipment necessary for injection under pressure?

A. Yes, we do. It is not presently on the location but we will install it.

Q. Do you propose to install tubing in connection with this proposed salt water disposal?

A. Yes, we do.

Q. Will the casing tubing annulus be filled with an inner fluid?

A. Yes, it will.

Q. Will a pressure gauge be attached to the annulus or do you propose that the annulus be left open at the surface in order to determine leakage?

A. We propose to install a pressure gauge on the

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annulus.

Q. What pressures are you anticipating?

A. We are not certain. The zone is not perforated, so we do not have any injectivity test; however, we understand that there's a State guideline which limits wellhead injection pressure to .2 psi per foot of depth and if the Commission so desires, we would certainly stay within that limit.

Q. All right, Mr. Wallace, in your opinion is the well cased and cemented in such a manner that there will be no danger to the oil or the gas or fresh water reservoirs which might be encountered by the well?

A. Yes.

Q. Have these exhibits been prepared by you or under your supervision?

A. Yes.

Q. Will Bass Enterprises Production Company notify the Commission of the date of commencement of injection operations and will it keep accurate records and report monthly to the Commission on the volumes of fluid injected, and if injected under pressure, the injection pressure?

A. Yes, we will.

Q. In your opinion will approval of the application by Bass Enterprises prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative

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rights?

A. Yes, sir.

MR. COFFIELD: I move the admission of the exhibits.

MR. STAMETS: These exhibits will be admitted.

MR. COFFIELD: I have no further questions on direct.

CROSS EXAMINATION

BY MR. STAMETS:

Q. Mr. Wallace, I presume you are unaware of Commission Memorandum 3-77, which says that all applications for water injection-salt water disposal-secondary recovery the same must be accompanied by a tabulation of all wells within a half a mile of a proposed injection well, and a summary of the strings of casing and cementing on each of those wells, the producing intervals, and a schematic of any P&A well within that half mile limit.

A. We are unaware of it.

MR. COFFIELD: We are unaware of it.

Q. Okay. I see only three wells on your plat that are -- appear to be within a half mile of the proposed injection well.

A. Yes, sir.

Q. I presume there would be no difficulty in your

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acquiring this data and submitting it subsequent to this hearing?

A. No, sir, no problem.

Q. And we do have a copy of the memo here if you'd like to make a copy.

I don't believe there are any plugged and abandoned wells within that half mile radius.

A. No, sir.

Q. Let me check. To your knowledge, is the cement on each of these producing wells well above the injection level?

A. Each of the three wells?

Q. Yes.

A. No, sir, it is not.

Q. It is not?

A. No.

Q. In which well is it not?

A. In the Big Eddy #41.

Q. That's the well to the south?

A. Yes.

Q. Okay, do you know where the cement is in that hole?

A. No, I do not.

Q. But you think it's not above the proposed injection?

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A. Right. In drilling the well we set eight and five-eighths casing in the top of the Delaware and then drilled to the Morrow, and I would assume that the cement was designed to cover the Wolfcamp in the subject well, the cementing program.

Q. So it's possible that that Number Four well could serve as a conduit for water out of this salt water disposal sand into other Delaware Sands.

A. Yes, sir, it is certainly possible. What we would propose to do is install and get a pressure gauge on the annulus between the five and a half and the eight and five-eighths and at such time as we saw pressure on this annulus, we would perform some type of remedial work on the well to cement across this interval.

At the present time this well was producing about four million cubic feet of gas per day and we do not want to jeopardize the well at the present time.

Q. What was the volume of production?

A. About four million cubic feet per day.

Q. How old is that well?

A. I'm not certain. It was just recompleted. You'll notice there's a correction on your plat. It was just recompleted from the Morrow to the Atoka.

Q. Do you have any idea of the projected life of that Atoka zone?

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A. No, sir.

Q. Have you made any calculations on the potential for migration of injected water in this salt water disposal sand?

A. No, I haven't.

Q. So you have no idea when, if at all, such fluid might affect Well Number 41?

A. No, I do not.

Q. But you would be willing to test that periodically?

A. Oh, yes, sir, certainly.

Q. Would it be preferable to Bass to have this salt water disposal authority expire periodically unless there is demonstration of the soundness of Well Number Four, would that be preferable to an out and out denial of the application?

A. Yes, sir.

MR. STAMETS: Any other questions of the witness? Oh, I'm sorry, this upper zone was naturally salt water bearing?

A. Yes, sir.

Q. Do you have an analysis of the water in that zone, in the disposal zone?

A. No, we do not. We've never -- never run a production test on the water -- on the zone.

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Q. In general is the Delaware usually pretty salty?

A. Yes, sir.

Q. How about an analysis of the disposed fluid?

A. We have analyses on most of the -- we have analyses on water from most of the source wells, but not all of them. We would be glad to supply the Commission with those.

Q. Okay, we'd like to have those as well.

MR. STAMETS: Any other questions of the witness?

He may be excused.

MR. COFFIELD: Point of information on the analyses. Is that something that you need to have submitted to you before ruling on this matter?

MR. STAMETS: I would prefer it, although it's not an absolute necessity. If they are available, I don't see any reason to delay --

MR. COFFIELD: Okay.

MR. STAMETS: -- submitting those.

If there is nothing further the case will be taken under advisement.

(Hearing concluded.)

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Phone (505) 982-9212

REPORTER'S CERTIFICATE

I, Sally Walton Boyd, a Certified Shorthand Reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and the same is a true and correct record of the said proceedings, prepared to the best of my knowledge, skill, and ability.

Sally Walton Boyd
Sally Walton 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. 6160, heard by me on 3-23, 1978.

Richard L. Stamets, Examiner
New Mexico Oil Conservation Commission

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General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

REPORTER'S CERTIFICATE

I, Sally Walton Boyd, a Certified Shorthand Reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and the same is a true and correct record of the said proceedings, prepared to the best of my knowledge, skill, and ability.

Sally Walton Boyd
Sally Walton 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. 6160, heard by me on 2-23, 1978.

Richard L. Stamets, Examiner
New Mexico Oil Conservation Commission

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BIG EDDY UNIT NO. 56
EDDY CO., NEW MEXICO

1. FIELD:
Indian Flats Delaware

2. NAME & LOCATION OF INJECTION WELL:
Big Eddy Unit No. 56
1980' FNL & 2310' FEL of
Section 35, T-21S, R-28E
Unit letter - G
Eddy County, New Mexico

3. NAME & DEPTH OF ZONE:
Delaware Sand 3310'
Proposed perforations - 3310'-3330' and 3350'-3375'
Injection Interval: 3310-3375

4. KIND OF FLUID INJECTED:
Produced saltwater.
Anticipated Volume Injected: 350 BWPD to start

SOURCE OF FLUID:

Big Eddy Unit #7	(Morrow)
Big Eddy Unit #8	(Strawn)
Big Eddy Unit #10	(Strawn)
Federal Cobb #1	(Delaware)
Federal Rodke #2	(Delaware)
Big Eddy Unit #47	(Delaware)
Big Eddy Unit #49	(Morrow)
Big Eddy Unit #41	(~~Morrow~~)(Atoka)
Big Eddy Unit #38	(Morrow)
Big Eddy Unit #39	(Morrow)
Big Eddy Unit #40	(Atoka)
Continental Federal	(Delaware)
Poker Lake Unit #42	(Atoka)
Big Eddy Unit #53	(Morrow)
Big Eddy Unit #54	(Morrow)
Federal Rodke #1	(Delaware)

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
EXHIBIT NO. 5
CASE NO. 6160
Submitted by Bass Enterprises Prod Co
Hearing Date Feb 22, 1978

CASE 6158: Application of C. H. Berry for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the NE/4 of Section 15, Township 24 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6159: Application of Texaco Inc., for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Drinkard and Wantz-Granite Wash production in the wellbore of its A. H. Blinebry Federal Well No. 38 located in Unit J of Section 19, Township 22 South, Range 38 East, Lea County, New Mexico.

CASE 6160: Application of Bass Enterprises Production Co., for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Delaware formation through the perforated interval from 3310 feet to 3375 feet in its Big Eddy Unit Well No. 56, located in Unit G of Section 35, Township 21 South, Range 28 East, Indian Flats-Delaware Pool, Eddy County, New Mexico.

CASE 6161: Application of Tenneco Oil Company for two waterflood projects, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project on its Leonard Federal Lease by the injection of water into the Queen formation through one well in Unit O of Section 11, and on its Leonard Brothers Lease through two wells, in Units I and M, respectively, of Section 14, all in Township 26 South, Range 37 East, Leonard Queen Pool, Lea County, New Mexico. Applicant further seeks the establishment of an administrative procedure for the addition of injection wells and the conversion of existing wells to injection at both orthodox and unorthodox locations without further notice and hearing.

CASE 6162: Application of Continental Oil Company for an unorthodox location and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Jack B-30 Well No. 2 to be located 330 feet from the North line and 1725 feet from the East line of Section 30, Township 24 South, Range 37 East, Jalmat Gas Pool, Lea County, New Mexico, the NE/4 of said Section 30 to be simultaneously dedicated to the aforesaid well and to Well No. 5 in Unit H.

CASE 6163: Application of Continental Oil Company for amendment of Commission Order No. R-3863, Lea County, New Mexico. Applicant, in the above-styled cause, seeks to substitute its Anderson Ranch Unit Wells No. 6 located in Unit X of Section 2 and Nos. 3 and 10, located in Units A and H, respectively, of Section 11, all in Township 16 South, Range 32 East, for the initial injection wells authorized by said order in its Anderson Ranch-Wolfcamp Waterflood Project, Anderson Ranch-Wolfcamp Pool, Lea County, New Mexico.

CASE 6164: Application of Shell Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Tubb, Wantz-Abo, and Brunson-Ellenburger production in the wellbore of its Shell State Section 2 Well No. 15 located in Unit K of Section 2, Township 21 South, Range 37 East, Lea County, New Mexico.

CASE 6165: Application of Shell Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Drinkard, Hare-McKee, and Brunson-Ellenburger production in the wellbore of its Shell State Section 2 Well No. 3 located in Unit U of Section 2, Township 21 South, Range 37 East, Lea County, New Mexico.

CASE 6166: Application of Odessa Natural Corporation for rescission of Order No. R-5601, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks a hearing at which any interested party could appear and show cause why Order No. R-5601, which granted a special well classification to applicant's ARCO-Little Fed. Well No. 1, located in Unit D of Section 32, Township 24 North, Range 3 West, Rio Arriba County, New Mexico, should not be rescinded.

CASE 6141: Application of Paul Slayton for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Seven Rivers formation thru the open-hole interval from 528 feet to 547 feet in his Hastie Well No. 7 located in Unit L of Section 18, Township 17 South, Range 28 East, Empire Field, Eddy County, New Mexico.

Case 6160
SF
Eddy

Application of Bass Enterprises Production Co. for saltwater disposal, Eddy County, N Mex

Applicant in the above styled cause, seeks authority to dispose of produced salt water into the Delaware formation through the perforated interval from 3310 feet to 3375 feet in its Big Eddy Unit Well No. 56, located in Unit G of Section 35, Township 21 South, Range 28 East, Indian Flats-Delaware Pool, Eddy County, New Mexico.

called in by Conrad Coffield
9:45 am Jan 27, 1978.

DRAFT

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 6160

Order No. R- 5693

APPLICATION OF BASS ENTERPRISES PRODUCTION
CO., FOR SALT WATER DISPOSAL, EDDY COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 22, 1978 at Santa Fe, New Mexico, before Examiner, Richard L. Stamets.

NOW, on this _____ day of _____, 1978, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Bass Enterprises Production Co., is the owner and operator of the Big Eddy Unit Well No. 56, located in Unit G of Section 35, Township 21 South, Range 28 East, NMPM, Indian Flats-Delaware Pool, Eddy County, New Mexico.

(3) That the applicant proposes to utilize said well to dispose of produced salt water into the Delaware formation, with injection into the perforated interval from approximately 3310 feet to 3375 feet.

(4) That the injection should be accomplished through 2 3/8 -inch plastic lined tubing installed in a packer set at approximately 3260 feet; that the casing-tubing annulus should be filled with an inert fluid; and that a pressure gauge or approved leak detection device should be attached to the

annulus or the annulus be left open in order to determine leakage in the casing, tubing, or packer.

(5) That the injection well or system should be equipped with a pressure limiting switch or acceptable substitute which will limit the wellhead pressure on the injection well to no more than 662 psi unless the ~~Secretary-Director of the Commission~~ Director of the Oil Conservation Division of the New Mexico Energy and Minerals Department should administratively authorize a higher pressure.

(6) That the operator should notify the supervisor of the Artesia district office of the ~~Commission~~ Division of the date and time of the installation of disposal equipment and periodic testing required under terms of this order so that the same may be inspected.

(7) That the operator should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

(8) That the applicant's Big Eddy Unit Well No. 41 located in Unit J of said Section 35 is located within one-half mile of the proposed injection well and is not cemented opposite the disposal zone.

(9) That said Big Eddy Unit Well No. 41 could serve as an avenue of escape ~~of~~ for injected waters from the disposal zone to other zones.

(10) That to prevent said migration of injected waters into zones other than the disposal zone the applicant should periodically monitor the 8 5/8-inch x 5 1/2-inch casing annulus for detection of injected fluid and, upon such detection, immediately cease injection or repair said Big Eddy Unit Well No. 41.

(11) That in no event should injection into said well continue for a period in excess of two years unless said Big Eddy Unit Well No. 41 shall have been cemented across the injection zone.

So ordered

IT IS THEREFORE ORDERED:

(1) That the applicant, Bass Enterprises Production Co., is hereby authorized to utilize its Big Eddy Unit Well No. 56, located in Unit G of Section 35, Township 21 South, Range 28 East, NMPM, Indian Flats-Delaware Pool, Eddy County, New Mexico, to dispose of produced salt water into the Delaware formation, injection to be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 3260 feet, with injection into the perforated interval from approximately 3310 feet to 3375 feet;

PROVIDED HOWEVER, that the tubing shall be plastic-lined; that the casing-tubing annulus shall be filled with an inert fluid; and that a pressure gauge shall be attached to the annulus or the annulus shall be equipped with an approved leak detection device or the annulus be left open in order to determine leakage in the casing, tubing, or packer;

PROVIDED FURTHER, that the authority ~~to inject disposal produced salt water~~ granted by this order shall expire ipso facto two years from the date of first injection unless the operator shall properly cement the Big Eddy Unit Well No 41 located in Unit J of said Section 35 across the injection zone.

(3) That the applicant shall determine the pressure in the 8 5/8-inch×5 1/2-inch casing-casing annulus in its Big Eddy Unit Well No. 41 located in Unit letter J of said Section 35.

(5) That upon initiation of injection into said Unit Well No. 56, the applicant shall conduct quarterly pressure tests on said casing-casing annulus in said Unit Well No. 41.

(6) Upon a finding of a pressure increase in said casing-casing annulus, the operator shall proceed immediately to cement the 5 1/2 casing in said Unit Well No. 41 in such a manner as to effectively ~~cement~~ off the injection interval or ~~to~~ cease injection into said Unit Well No. 56.

(7) That the operator shall notify the supervisor of the Artesia district office of the ~~Commission~~ of the date and time of the initial pressure test and every fourth test thereafter to be conducted in accordance with Orders No. (4) and (5) above in order that the same may be witnessed.

(8) The operator shall maintain the records of such tests in order that they may be reviewed by ~~Commission~~ personnel upon reasonable request.

(9) That the operator shall notify the supervisor of the Artesia district office of the ~~Commission~~ of the date and time of the installation of disposal equipment so that the same may be inspected.

(10) That the operator shall immediately notify the supervisor of the ~~Commission's~~ Artesia district office of the failure of the tubing, casing, or packer, in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

(11) That the applicant shall submit monthly reports of its disposal operations in accordance with Rules 704 and 1120 of the ~~Commission~~ Rules and Regulations.

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

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

State of New Mexico
New Mexico Oil Conservation Commission

Lucero Chairman
Arnold Member
Ramey-Member
and Division Director

CASE 6161: TENNECO OIL COMPANY FOR TWO WATERFLOOD PROJECTS, LEA COUNTY, NEW MEXICO

Case Number

6161

Application

Transcripts.

Small Exhibits

ETC.

Case 6161

BEFORE THE

OIL CONSERVATION COMMISSION OF NEW MEXICO

IN THE MATTER OF THE APPLICATION
OF TENNECO OIL COMPANY FOR
WATERFLOOD PROJECT, LEA COUNTY,
NEW MEXICO

JAN 31 1978
CONSERVATION COMM.
Santa Fe, N.M.

A P P L I C A T I O N

COMES NOW Tenneco Oil Company and applies to the Oil Conservation Commission of New Mexico for authority to install and operate a waterflood project and for administrative procedures for expansion of said project in its South Leonard Lease and in support thereof would show the commission:

1. That Applicant seeks permission to institute a waterflood project in the South Leonard Lease consisting of Sections 11, Section 12, all of Section 13 except the SE/4 SW/4 and all of Section 14 except the SW/4SW/4, all in Township 26 South, Range 37 East, NMPM, Lea County, New Mexico for the injection of water into the Penrose-Queen formation.

2. Applicant attaches hereto and incorporates by reference Exhibit "A" being all the required exhibits to be submitted in accordance with Rule 701 of the Commission Rules.

3. That the establishment of a waterflood project is timely, will result in the recovery of otherwise unrecoverable oil, thereby preventing waste and will not impair the correlative rights of others.

4. Applicant further requests that administrative procedures be authorized whereby modification or expansion of the project including the drilling of additional injection wells

Case 6161

and/or producing wells, and the conversion of existing wells to injection at both orthodox and unorthodox locations may be approved without further notice and hearing.

WHEREFORE applicant respectfully requests this matter be set for hearing before the Commission's duly appointed examiner and that after notice and hearing as required by law, the Commission enter its order approving the application as requested.

Respectfully submitted,

TENNECO OIL COMPANY

By _____
Kellahin & Fox
P. O. Box 1769
Santa Fe, New Mexico 87501

ATTORNEYS FOR APPLICANT

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 6161
Order No. R-5675

APPLICATION OF TENNECO OIL COMPANY FOR
TWO WATERFLOOD PROJECTS AND AN ADMINISTRATIVE
PROCEDURE, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 22, 1978, at Santa Fe, New Mexico, before Examiner, Richard L. Stamets.

NOW, on this 21st day of March, 1978, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Tenneco Oil Company, seeks authority to institute a waterflood project on its Leonard Federal Lease by the injection of water into the Queen formation through one well in Unit O of Section 11, and on its Leonard Brothers Lease through two wells, in Units I and M, respectively, of Section 14, all in Township 26 South, Range 37 East, Leonard-Queen Pool, Lea County, New Mexico.

(3) That wells within the proposed project areas experience rapid declines in production rates and require the institution of secondary recovery for continued production.

(4) That the proposed waterflood projects should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

(5) That injection into any well authorized under the terms of this order should be through internally coated tubing set in a packer to be located within approximately 100 feet of the uppermost perforation or, in the case of an open-hole completion, the casing shoe.

(6) That the casing-tubing annulus in each injection well should be filled with an inert fluid, and that a pressure gauge or approved leak detection device should be attached to the annulus or the annulus should be left open in order to determine leakage in the casing, tubing, or packer.

(7) That the injection wells or system should be equipped with a pressure limiting switch or other acceptable device which will limit the surface injection pressure to no more than 680 pounds unless the Secretary-Director of the Commission should administratively authorize a higher pressure.

(8) That there are five wells, as set out on Exhibit A to this order, which are located within or immediately adjacent to the boundaries of the proposed projects which may or may not be plugged in such a manner that will assure that they will not serve as channels for injected water to migrate from the Queen formation to other formations or to the surface.

(9) That to prevent migration of injected water from the Queen formation, formation injection pressure at wells within one half mile of any well identified on said Exhibit A should be limited to hydrostatic pressure until such time as the wells on said Exhibit A have been replugged or it shall otherwise be demonstrated to the satisfaction of the Secretary-Director of the Commission that the same will not serve as avenues of escape for such waters.

(10) That the wells within the project should be equipped to facilitate periodic testing of the annular space between strings of production and surface casing.

(11) That the operator should take all other steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface from injection, producing, or plugged and abandoned wells.

(12) That approval of the subject application should result in the recovery of additional volumes of oil from the proposed projects, thereby preventing waste.

(13) That the applicant further seeks the establishment of an administrative procedure for the addition of injection wells and the conversion of existing wells to injection at both orthodox and unorthodox locations without further notice and hearing.

(14) That the establishment of such an administrative procedure would permit the more efficient operation of the proposed project.

(15) That any injection well authorized by such an administrative procedure should be subject to all of the requirements and limitations contained in this order.

(16) That the application for waterflood projects and an administrative procedure should be approved.

IT IS THEREFORE ORDERED:

(1) That the applicant, Tenneco Oil Company, is hereby authorized to institute a waterflood project on its Leonard Federal Lease by the injection of water into the Queen formation through its Leonard Federal Well No. 6 in Unit O of Section 11, and to institute another waterflood project on its Leonard Brothers Lease by the injection of water into the Queen formation through its Leonard Brothers Well No. 2 and Well No. 7, located in Units I and M, respectively, of Section 13, all in Township 26 South, Range 37 East, Leonard-Queen Pool, Lea County, New Mexico.

(2) That injection into any well on either of said leases shall be through internally coated tubing installed in a packer to be located within approximately 100 feet of the uppermost perforation or, in the case of an open-hole completion, the casing shoe.

(3) That the casing-tubing annulus in each injection well shall be filled with an inert fluid and a pressure gauge or approved leak detection device shall be attached to the annulus or the annulus allowed to remain open in order to determine leakage in the casing, tubing, or packer.

(4) That the injection wells or system shall be equipped with a pressure limiting switch or other acceptable device which will limit the surface injection pressure to no more than 680 pounds.

(5) That the Secretary-Director of the Commission may administratively authorize a pressure limitation in excess of that set out in Order No. (4) above upon a showing by the operator that such higher pressure will not result in fracturing of the confining strata.

(6) That the applicant shall not inject water into the Queen formation through any well located within one half mile of any of the five wells identified on Exhibit A attached hereto and by reference made a part hereof, at a pressure greater than hydrostatic until such well has been replugged or it has been shown to the satisfaction of the Secretary-Director of the Commission that such well will not serve as an avenue of escape for waters injected into the Queen formation, and he has authorized a higher than hydrostatic pressure.

(7) That the wells within the project area shall be equipped with risers or in another acceptable manner such as to facilitate the periodic testing of the bradenhead for pressure or fluid production.

(8) That the operator shall immediately notify the supervisor of the Commission district office at Hobbs of the failure of the tubing or packer in any of said injection wells, the leakage of water or oil from or around any producing well, the leakage of water or oil from or around any plugged and abandoned well within the project area, or any other evidence of fluid migration from the injection zone, and shall take such timely steps as may be necessary or required to correct such failure or leakage.

(9) That the subject waterflood projects are hereby designated the Tenneco Oil Company Leonard Federal Waterflood Project and Leonard Brothers Waterflood Project, respectively, and shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

(10) That monthly progress reports of the waterflood projects herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1115 of the Commission Rules and Regulations.

(11) The Secretary-Director of the Commission is hereby authorized to approve such additional producing wells and injection wells at orthodox and unorthodox locations within the boundaries of applicant's Leonard Federal and Leonard Brothers Leases in Sections 11, 12, 13, and 14, Township 26 South, Range 37 East, NMPM, as may be necessary to complete an efficient production and injection pattern, provided said wells are drilled no closer than 330 feet to any lease line nor closer than 10 feet to any quarter-quarter section or subdivision inner boundary. To obtain such approval, the project operator shall file proper application with the Commission, which application, if it seeks authorization to convert additional wells to injection or to drill additional production or injection wells shall include the following:

(a) A plat showing the location of the proposed well, all wells within the project area, and offset operators, locating wells which offset the project area.

(b) A schematic drawing of the proposed well which fully describes the casing, tubing, perforated interval, depth, and a demonstration that any proposed injection well will meet construction, pressure and monitoring provisions of Orders Nos. (2), (3), (4), (6), and (7) of this Order or the equivalent.

(c) A letter stating that all offset operators to the proposed well have been furnished a complete copy of the application and the date of notification.

The Secretary-Director of the Commission may approve the proposed well if, within 20 days after receiving the application, no objection to the proposal is received. The Secretary-Director may grant immediate approval, provided waivers of objection are received from all offset operators.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

PHIL R. LUCERO, Chairman

EMERY C. ARNOLD, Member

JOE D. RAMEY, Member & Secretary

S E A L

jr/

Operator Name	Lease	Well No.	Ut.	Sec.	Twp.	Rge.
Ralph Lowe	Self	2	E	7	26S	38E
Stanolind Oil Co.	Leonard Oil Co.	2	A	12	26S	37E
Midwest Refining Co.	Farnsworth	19	M	12	26S	37E
Tenneco Oil Co.	Leonard Bro.	14	B	14	26S	37E
Midwest Refining Co.	Farnsworth	19	M	14	26S	37E

Case No. 6161
Order No. R-5675

Exhibit A

Tenneco Oil
A Tenneco Company

Lincoln Tower Building
1860 Lincoln Street • Suite 1200
Denver, Colorado 80203
(303) 292-9920

March 7, 1978

Mr. Richard L. Stamets
Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

RE: Tenneco Oil Company
Waterflood Hearing (2/22/78)
South Leonard Queen Pool
Lea County, New Mexico

Dear Mr. Stamets:

Attached is a copy of page 3 of "EXHIBIT 2 AMENDED" which includes additional data not presented during the hearing on February 22, 1978. These additional data pertain to the casing program of the Midwest Refining Farnsworth #19 well in Unit M, Section 12, Township 26S, Range 37E, of Lea County and are being forwarded in accordance with your telephone request of March 6. If we can provide any additional information to assist you in your ruling on our request, please contact Hugh Wilbanks in our Denver office at (303) 758-7130.

Yours very truly,

TENNECO OIL COMPANY

D. D. Myers

D. D. Myers
Division Production Manager

DDM/da
Enclosure

EXHIBIT 2 AMENDED

TABULAR SUMMARY OF SURROUNDING WELLS

WELL IDENTIFICATION						
Operator	Bettis, Boyle, and Stovall	Stanolind Oil Co.	Humble Oil & Refg. Co.	Midwest Refining	Humble Oil & Refg. Co.	The Petroleum Corp.
Lease	Leonard Federal	Leonard Oil Co.	Leonard Federal	Farnsworth	Leonard Federal	Tenneco Federal
Well Number	7	2	1	19	1	1
LOCATION						
Unit	P	A	E	M	M	N
Section	11	12	12	12	12	12
Township	26S	26S	26S	26S	26S	26S
Range	37E	37E	37E	37E	37E	37E
SURFACE CASING						
Size (in.)	13 3/8	13 3/8	13 3/8	20	13 3/8	11 3/4
Setting Depth (ft.)	522	507	595	165	483	390
Sacks Cement	575	500	450	None	400	350
Cement Top (ft.)	Surface*	Surface*	Surface *	None	Surface*	Surface*
Hole Size (in.)			17 1/4 est.			
INTERMEDIATE CSG.						
Size (in.)	9 5/8	9 5/8	9 5/8	15 1/2	9 5/8	8 5/8
Setting Depth (ft.)	3727	3747	4225	529	3020	3790
Sacks Cement	1200	590	4000	50	2060	500
Cement Top (ft.)	1219	1524*	Surface*	314*	Surface*	1469*
Hole Size (in.)		12 1/4 est.	12 1/2 est.	17 1/2 est.		
LONG STRING			None			
Size (in.)	7	5 1/2		8 1/4[a]	5 1/2	5 1/2
Setting Depth (ft.)	9410	9845		3792	11,969	11,852
Sacks Cement	200	500		90	810	700
Cement Top (ft.)	7840*	6440*		2493*	8185*	7084*
Hole Size (in.)				9 est.		
TOTAL DEPTH (ft.)	9530	11,235	12,535	4115	11,969	11,854
PRODUCING INTERVAL (ft.)	P&A	P&A	P&A	P&A	P&A	Ellenburger (11,634'-11,828')

*Theoretical calculation based on hole size, sacks of cement used, and a yield of 1.18 cubic feet of fill per sack of cement.
**Required data not available. Insufficient data available to permit estimation.
[a] 12 1/2 inch casing set at 1050'. Cementing data not available. 10 inch casing set at 2800' with 75 sacks cement.

Midwest Refining Farnsworth 19, M, 12, 26S, 37E

-3-

Intermediate Csg.		
Size (in.)	12 ½	10
Setting Depth (ft.)	1050	2800
Sacks Cement	50 est.	75
Cement Top (ft.)	857*	2476*
Hole Size (in.)	15 est.	12 ¼ est.

EXHIBIT 2 AMENDED

TABULAR SUMMARY OF SURROUNDING WELLS

WELL IDENTIFICATION						
Operator	Bettis, Boyle, and Stovall	Stanolind Oil Co.	Humble Oil & Refg. Co.	Midwest Refining	Humble Oil & Refg. Co.	The Petroleum Corp.
Lease	Leonard Federal	Leonard Oil Co.	Leonard Federal	Farnsworth	Leonard Federal	Tenneco Federal
Well Number	7	2	1	19	1	1
LOCATION						
Unit	P	A	E	M	M	N
Section	11	12	12	12	12	12
Township	26S	26S	26S	26S	26S	26S
Range	37E	37E	37E	37E	37E	37E
SURFACE CASING						
Size (in.)	13 3/8	13 3/8	13 3/8	20	13 3/8	11 3/4
Setting Depth (ft.)	522	507	595	165	483	390
Sacks Cement	575	500	450	None	400	350
Cement Top (ft.)	Surface*	Surface*	Surface *	None	Surface*	Surface*
Hole Size (in.)			17 1/4 est.			
INTERMEDIATE CSG.						
Size (in.)	9 5/8	9 5/8	9 5/8	15 1/2	9 5/8	8 5/8
Setting Depth (ft.)	3727	3747	4225	529	3020	3790
Sacks Cement	1200	590	4000	50	2060	500
Cement Top (ft.)	1219	1524*	Surface*	314*	Surface*	1469*
Hole Size (in.)		12 1/4 est.	12 1/2 est.	17 1/2 est.		
LONG STRING			None			
Size (in.)	7	5 1/2		8 1/4[a]	5 1/2	5 1/2
Setting Depth (ft.)	9410	9845		3792	11,969	11,852
Sacks Cement	200	500		90	810	700
Cement Top (ft.)	7840*	6440*		2493*	8185*	7084*
Hole Size (in.)				9 est.		
TOTAL DEPTH (ft.)	9530	11,235	12,535	4115	11,969	11,854
PRODUCING INTERVAL (ft.)	P&A	P&A	P&A	P&A	P&A	Ellenburger (11,634'-11,828')

*Theoretical calculation based on hole size, sacks of cement used, and a yield of 1.18 cubic feet of fill per sack of cement.
**Required data not available. Insufficient data available to permit estimation.
[a] 12 1/2 inch casing set at 1050'. Cementing data not available. 10 inch casing set at 2800' with 75 sacks cement.

Midwest Refining Farnsworth 19, M, 12, 26S, 37E

-3-

Intermediate Csg.		
Size (in.)	12 ½	10
Setting Depth (ft.)	1050	2800
Sacks Cement	50 est.	75
Cement Top (ft.)	857*	2476*
Hole Size (in.)	15 est.	12 ¼ est.

TENNECO OIL COMPANY

SOUTH LEONARD QUEEN

WATERFLOOD HEARING

FEBRUARY 22, 1978

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
Tenneco EXHIBIT NO. A
CASE NO. 6161
Submitted by Hugh Wilbanks
Hearing Date 22 Feb 78

TABLE OF CONTENTS

		Page
EXHIBIT 1.	Plat of Proposed Injection Wells and Surrounding Wells	1
EXHIBIT 2.	Tabular Summary of Surrounding Wells	2
EXHIBIT 4.	Well Schematics of Proposed Injection Wells	11
EXHIBIT 5.	Well Schematics of Surrounding Plugged and Abandoned Wells	14
EXHIBIT 6.	Miscellaneous Injection Information	29
EXHIBIT 7.	Water Analysis	30
EXHIBIT 8.	Fracture Gradients - Queen/Penrose Formation	33
EXHIBIT 9.	Letter from Office of State Engineer Defining Location of Fresh Water	34

EXHIBIT 2

TABULAR SUMMARY OF SURROUNDING WELLS

WELL IDENTIFICATION						
Operator	Getty Oil Co.	Amerada Pet. Corp.	Tenneco Oil Co.	Tenneco Oil Co.	Tenneco Oil Co.	Tenneco Oil Co.
Lease	Riggs "B"	C.C. Cagle "C"	Leonard Federal	Leonard Federal	Leonard Federal	Leonard Federal
Well Number	5	2	1	3	2	6
LOCATION						
Unit	I	O	J	K	M	N
Section	1	3	11	11	11	11
Township	26S	26S	26S	26S	26S	26S
Range	37E	37E	37E	37E	37E	37E
SURFACE CASING						
Size (in.)	8 5/8	8 5/8	10 3/4	10 3/4	10 3/4	8 5/8
Setting Depth (ft.)	412	223	169	279	206	511
Sacks Cement	300	**	75	100	75	525
Cement Top (ft.)	Surface	**	Surface	Surface	56*	Surface*
INTERMEDIATE CSG.	None	None	None		None	None
Size (in.)				7		
Setting Depth (ft.)				3342		
Sacks Cement				450		
Cement Top (ft.)				**		
LONG STRING		None				
Size (in.)	5 1/2		5 1/2	4 1/2 liner	7	5 1/2
Setting Depth (ft.)	3366		2891	3178-3642	3350	3608
Sacks Cement	330		350	75	525	940
Cement Top (ft.)	375		Surface	3178	379	Surface*
TOTAL DEPTH (ft.)	3367	3500	3436	3642	3437	3608
PRODUCING INTERVAL (ft.)	P&A	D&A	Queen (3400-3436)	Penrose (3498-3552)	Queen (3400-3437)	Queen (3412-3448) Proposed wtr. inj. well.

*Theoretical calculation based on hole size, sacks of cement used, and a yield of 1.18 cubic feet of fill per sack of cement.
**Required data not available. Insufficient data available to permit estimation.

EXHIBIT 2

TABULAR SUMMARY OF SURROUNDING WELLS

WELL IDENTIFICATION						
Operator	Bettis, Boyle, and Stovall	Stanolind Oil Co.	Humble Oil & Refg. Co.	Midwest Refining	Humble Oil & Refg. Co.	The Petroleum Corp.
Lease	Leonard Federal	Leonard Oil Co.	Leonard Federal	Farnsworth	Leonard Federal	Tenneco Federal
Well Number	7	2	1	19	1	1
LOCATION						
Unit	P	A	E	M	M	N
Section	11	12	12	12	12	12
Township	26S	26S	26S	26S	26S	26S
Range	37E	37E	37E	37E	37E	37E
SURFACE CASING						
Size (in.)	13 3/8	13 3/8	13 3/8	20	13 3/8	11 3/4
Setting Depth (ft.)	522	507	585	165	483	390
Sacks Cement	575	500	450	None	400	350
Cement Top (ft.)	Surface*	Surface*	**	**	Surface*	Surface*
INTERMEDIATE CSG.						
Size (in.)	9 5/8	9 5/8	9 5/8	15 1/2	9 5/8	8 5/8
Setting Depth (ft.)	3727	3747	4225	529	3020	3790
Sacks Cement	1200	590	4000	50	2060	500
Cement Top (ft.)	1219	**	**	**	Surface*	1469*
LONG STRING			None			
Size (in.)	7	5 1/2		8 1/4[a]	5 1/2	5 1/2
Setting Depth (ft.)	9410	9845		3792	11,969	11,852
Sacks Cement	200	500		90	810	700
Cement Top (ft.)	7840*	6440*		**	8185*	7084*
TOTAL DEPTH (ft.)	9530	11,235	12,535	4115	11,969	11,854
PRODUCING INTERVAL (ft.)	P&A	P&A	P&A	P&A	P&A	Ellenburger (11,634'-11,828')

*Theoretical calculation based on hole size, sacks of cement used, and a yield of 1.18 cubic feet of fill per sack of cement.
**Required data not available. Insufficient data available to permit estimation.
[a] 12 1/2 inch casing set at 1050'. Cementing data not available. 10 inch casing set at 2800' with 75 sacks cement.

EXHIBIT 2

TABULAR SUMMARY OF SURROUNDING WELLS

WELL IDENTIFICATION						
Operator	Forest Oil Corp.	Texas Pacific Oil Co.	Tenneco Oil Company	Tenneco Oil Co.	Tenneco Oil Co.	Tenneco Oil Co.
Lease	Leonard Federal	Leonard Federal	Leonard Brothers	Leonard Brothers	Leonard Brothers	Leonard Brothers
Well Number	1	1	3	2	4	11
LOCATION						
Unit	P	E	G	I	J	K
Section	12	13	13	13	13	13
Township	26S	26S	26S	26S	26S	26S
Range	37E	37E	37E	37E	37E	37E
SURFACE CASING						
Size (in.)	13 3/8	13 3/8	13 3/8	8 5/8	8 5/8	8 5/8
Setting Depth (ft.)	494	422	409	510	513	513
Sacks Cement	360	350	400	400	550	500
Cement Top (ft.)	**	**	Surface*	Surface	Surface	Surface*
INTERMEDIATE CSG.			None	None	None	None
Size (in.)	8 5/8	8 5/8				
Setting Depth (ft.)	3765	3790				
Sacks Cement	1350	2410				
Cement Top (ft.)	**	**				
LONG STRING	None					
Size (in.)		5 1/2	9 5/8	5 1/2	5 1/2	5 1/2
Setting Depth (ft.)		6980	4199	3595	3557	3812
Sacks Cement		775	4000	1850	1140	800
Cement Top (ft.)		**	Surface*	Surface*	Surface*	Surface*
TOTAL DEPTH (ft.)	12,125	9772	9861	3595	3557	3812
PRODUCING INTERVAL (ft.)	D&A	San Andres Water Source Well (3963-4444)	Queen, Penrose (3398-3524)	Queen (3446-3466)	Penrose (3477-3524)	Penrose (3509-3551)

*Theoretical calculation based on hole size, sacks of cement used, and a yield of 1.18 cubic feet of fill per sack of cement.
**Required data not available. Insufficient data available to permit estimation.

EXHIBIT 2

TABULAR SUMMARY OF SURROUNDING WELLS

WELL IDENTIFICATION						
Operator	Tenneco Oil Co.	Texas-Pacific Oil Co.	Tenneco Oil Co.	Tenneco Oil Co.	Tenneco Oil Co.	Tenneco Oil Co.
Lease	Leonard Brothers	S.Leonard Queen Unit	Leonard Brothers	Leonard Brothers	Leonard Brothers	Leonard Federal
Well Number	7	1	5	1	14	5
LOCATION						
Unit	M	N	O	P	B	I
Section	13	13	13	13	14	14
Township	26S	26S	26S	26S	26S	26S
Range	37E	37E	37E	37E	37E	37E
SURFACE CASING						
Size (in.)	8 5/8	10 3/4	8 5/8	8 5/8	8 5/8	10 3/4
Setting Depth (ft.)	517	292	512	505	265	209
Sacks Cement	500	100	520	310	225	120
Cement Top (ft.)	Surface*	Surface	Surface	Surface*	Surface*	Surface
INTERMEDIATE CSG.	None	None	None	None	None	
Size (in.)						8 5/8
Setting Depth (ft.)						1115
Sacks Cement						75
Cement Top (ft.)						**
Long String					None	
Size (in.)	5 1/2	7	5 1/2	5 1/2		7
Setting Depth (ft.)	3832	3250	3608	3620		3369
Sacks Cement	1010	400	950	900		75
Cement Top (ft.)	Surface*	342	Surface*	Surface*		**
TOTAL DEPTH (ft.)	3832	3500	3608	3621	3453	3437
PRODUCING INTERVAL (ft.)	Queen (3368-3388 3393-3412) Proposed Wtr. Inj. Well	Queen,Penrose Wtr.Inj.Well (3381-3474)	Penrose (3480-3553)	Queen (3454-3497) Proposed wtr. Inj. well	P&A	Queen (3432-3437)

*Theoretical calculation based on hole size, sacks of cement used, and a yield of 1.18 cubic feet of fill per sack of cement.
**Required data not available. Insufficient data available to permit estimation.

EXHIBIT 2

TABULAR SUMMARY OF SURROUNDING WELLS

WELL IDENTIFICATION						
Operator	Tenneco Oil Co.	Midwest Refining	Bettis, Boyle, and Stovall	Tenneco Oil Co.	Tenneco Oil Co.	El Paso Natural Gas Company
Lease	Leonard Federal	Farnsworth	Leonard Federal	Leonard Federal	Leonard Federal	Rhodes GSU
Well Number	10	19	8	8	9	8
LOCATION						
Unit	J	M	M	O	P	J
Section	14	14	14	14	14	15
Township	26S	26S	26S	26S	26S	26S
Range	37E	37E	37E	37E	37E	37E
SURFACE CASING						
Size (in.)	8 5/8	16	7	13 3/8	8 5/8	8 5/8
Setting Depth (ft.)	471	554	400	422	505	635
Sacks Cement	520	25	170	450	520	300
Cement Top (ft.)	Surface*	**	Surface*	Surface*	Surface*	Surface*
INTERMEDIATE CSG.	None		None	None	None	None
Size (in.)		13				
Setting Depth (ft.)		1184				
Sacks Cement		80				
Cement Top (ft.)		**				
LONG STRING						
Size (in.)	5 1/2	10 3/4	4 1/2	9 5/8	5 1/2	4 1/2
Setting Depth (ft.)	3595	2852	2701	3842	3551	3200
Sacks Cement	1200	75	100	1300	1100	400
Cement Top (ft.)	Surface*	**	1731*	Surface*	Surface*	1218*
TOTAL DEPTH (ft.)	3597	3877	3100	10,650	3551	3200
PRODUCING INTERVAL (ft.)	Queen (3379-3447)	D&A	Yates (2701-3100)	Queen (3453-3490)	Queen (3380-3440)	Yates (2774-3102)

*Theoretical calculation based on hole size, sacks of cement used, and a yield of 1.18 cubic feet of fill per sack of cement.
**Required data not available. Insufficient data available to permit estimation.

EXHIBIT 2

TABULAR SUMMARY OF SURROUNDING WELLS

WELL IDENTIFICATION						
Operator	El Paso Natural Gas Company	Texaco, Inc.	Texas-Pacific Oil Co.	Leonard Oil Co.	Texas-Pacific Oil Co.	Texas-Pacific Oil Co.
Lease	Rhodes GSU	Rhodes "A"	S.Leon.Queen Unit	Parker	S.Leon.Queen Unit	S. Leon.Queen Unit
Well Number	25	2	2	2	6	11
LOCATION						
Unit	O	J	A	G	H	I
Section	15	22	23	23	23	23
Township	26S	26S	26S	26S	26S	26S
Range	37E	37E	37E	37E	37E	37E
SURFACE CASING						
Size (in.)	8 5/8	15 1/2	10 3/4	8 5/8	12 1/2	13 3/8
Setting Depth (ft.)	635	255	200	300	160	168
Sacks Cement	300	200	75	125	**	50
Cement Top (ft.)	Surface*	**	Surface	**	**	Surface*
INTERMEDIATE CSG.	None			None		
Size (in.)		10 3/4	8 5/8		8	8 5/8
Setting Depth (ft.)		1150	2145		1230	1214
Sacks Cement		500	50		100	100
Cement Top (ft.)		**	**		628*	364*
LONG STRING						
Size (in.)	4 1/2	7 5/8	7	5 1/2	7	7
Setting Depth (ft.)	3240	3100	3254	3345	3250	3246
Sacks Cement	400	125	75	250	100	100
Cement Top (ft.)	1163*	**	**	**	2117*	2114*
TOTAL DEPTH (ft.)	3240	3280	3427	3620	3570	3482
PRODUCING INTERVAL (ft.)	Yates (2938-3119)	Rhodes Storage Area(3130-3206)	Queen Wtr.Inj.Well (3254-3427)	P&A	Queen Wtr.Inj.Well (3250-3570)	Queen Wtr.Inj.Well (3246-3482)

*Theoretical calculation based on hole size, sacks of cement used, and a yield of 1.18 cubic feet of fill per sack of cement.
**Required data not available. Insufficient data available to permit estimation.

7 7/8 hole
4 1/2 csg 3687
250 50/50 poz
w/ 2% gel
8 # salt/sack
275 Hal Lite
thru DV tool at 1032
circ 10 sx

EXHIBIT 2

TABULAR SUMMARY OF SURROUNDING WELLS

WELL IDENTIFICATION						
Operator	Herman J. Ledbetter	Texas-Pacific Oil Co.	Texas-Pacific Oil Co.	Texas-Pacific Oil Co.	Texas-Pacific Oil Co.	Texas-Pacific Oil Co.
Lease	Jay Federal	S.Leon.Queen Unit	S.Leon.Queen Unit	S.Leon.Queen Unit	S.Leon.Queen Unit	S.Leon.Queen Unit
Well Number	1	5	4	3	7	8
LOCATION						
Unit	A	B	C	D	E	F
Section	24	24	24	24	24	24
Township	26S	26S	26S	26S	26S	26S
Range	37E	37E	37E	37E	37E	37E
SURFACE CASING						
Size (in.)	8 5/8	8 5/8	9 5/8	8 5/8	13 3/8	12 1/2
Setting Depth (ft.)	285	300	299	307	170	250
Sacks Cement	125	200	250	120	**	**
Cement Top (ft.)	Surface*	Surface	Surface	Surface	**	**
INTERMEDIATE CSG.	None	None	None	None		
Size (in.)					8 5/8	8 5/8
Setting Depth (ft.)					1240	1210
Sacks Cement					100	50
Cement Top (ft.)					**	**
LONG STRING						
Size (in.)	4 1/2	5 1/2	7	5 1/2	7	7[a]
Setting Depth (ft.)	3687	3245	3250	3250	3230	3249
Sacks Cement	525	400	500	400	100	100
Cement Top (ft.)	1161	Surface	Surface	Surface	**	**
TOTAL DEPTH (ft.)	3692	3477	3445	3457	3522	3523
PRODUCING INTERVAL (ft.)	Queen, Penrose (3460-3576)	Queen (3245-3477)	Queen (3250-3445)	Queen, Penrose (3260-3457)	Queen, Penrose (3250-3522)	Queen, Penrose Wtr.Inj.Well (3409-3508)

*Theoretical calculation based on hole size, sacks of cement used and a yield of 1.18 cubic feet of fill per sack of cement.
**Required data not available. Insufficient data available to permit estimation.
[a] 4 1/2" liner from 3091'-3569'. Cemented with 100 sacks.

EXHIBIT 2

TABULAR SUMMARY OF SURROUNDING WELLS

WELL IDENTIFICATION						
Operator	Texas-Pacific Oil Co.	Texas-Pacific Oil Co.	Texas-Pacific Oil Co.	Texas-Pacific Oil Co.	Ralph Lowe	Ralph Lowe
Lease	S.Leon.Qn.Unit	S.Leon.Qn.Unit	S.Leon.Qn.Unit	S.Leon.Qn.Unit	Self	Self
Well Number	9	10	12	15	1	2
LOCATION						
Unit	G	H	L	M	M	E
Section	24	24	24	24	6	7
Township	26S	26S	26S	26S	26S	26S
Range	37E	37E	37E	37E	38E	38E
SURFACE CASING						
Size (in.)	8 5/8	7 5/8	12 1/2	10 3/4	13 3/8	13 3/8
Setting Depth (ft.)	295	1005	160	298	705	605
Sacks Cement	150	350	50	150	500	300
Cement Top (ft.)	Surface	Surface	**	Surface	**	**
INTERMEDIATE CSG.	None	None		None	None	None
Size (in.)			8 5/8			
Setting Depth (ft.)			1190			
Sacks Cement			100			
Cement Top (ft.)			**			
LONG STRING					None	None
Size (in.)	5 1/2	4 1/2	7	5 1/2		
Setting Depth (ft.)	3250	3620	3250	3348		
Sacks Cement	400	300	100	400		
Cement Top (ft.)	Surface	1072*	**	Surface		
TOTAL DEPTH (ft.)	3573	3620	3505	3540	3475	3976
PRODUCING INTERVAL (ft.)	Queen,Penrose (3250-3573)	Queen,Penrose Wtr.Inj.Well (3495-3612)	Queen (3417-3505)	Queen Wtr.Inj.Well (3303-3540)	D&A	D&A

*Theoretical calculation based on hole size, sacks of cement used, and a yield of 1.18 cubic feet of fill per sack of cement.
**Required data not available. Insufficient data available to permit estimation.

EXHIBIT 2

TABULAR SUMMARY OF SURROUNDING WELLS

WELL IDENTIFICATION			
Operator	Forest Oil Corp.	Yates Pet. Corp.	Ralph Lowe
Lease	Lowe Federal	Powell Federal	Haralson
Well Number	1	1	1
LOCATION			
Unit	L	L	D
Section	7	18	19
Township	26S	26S	26S
Range	38E	38E	38E
SURFACE CASING			
Size (in.)	13 3/8	8 5/8	10 3/4
Setting Depth (ft.)	473	398	693
Sacks Cement	340	250	200
Cement Top (ft.)	Surface*	Surface*	Surface*
INTERMEDIATE CSG.		None	None
Size (in.)	9 5/8		
Setting Depth (ft.)	3895		
Sacks Cement	1500		
Cement Top (ft.)	**		
LONG STRING			None
Size (in.)	5 1/2	5 1/2	
Setting Depth (ft.)	12,948	3733	
Sacks Cement	1390	125	
Cement Top (ft.)	**	2877*	
TOTAL DEPTH (ft.)	12,950	3733	3750
PRODUCING INTERVAL (ft.)	P&A	Penrose (3596-3637)	D&A

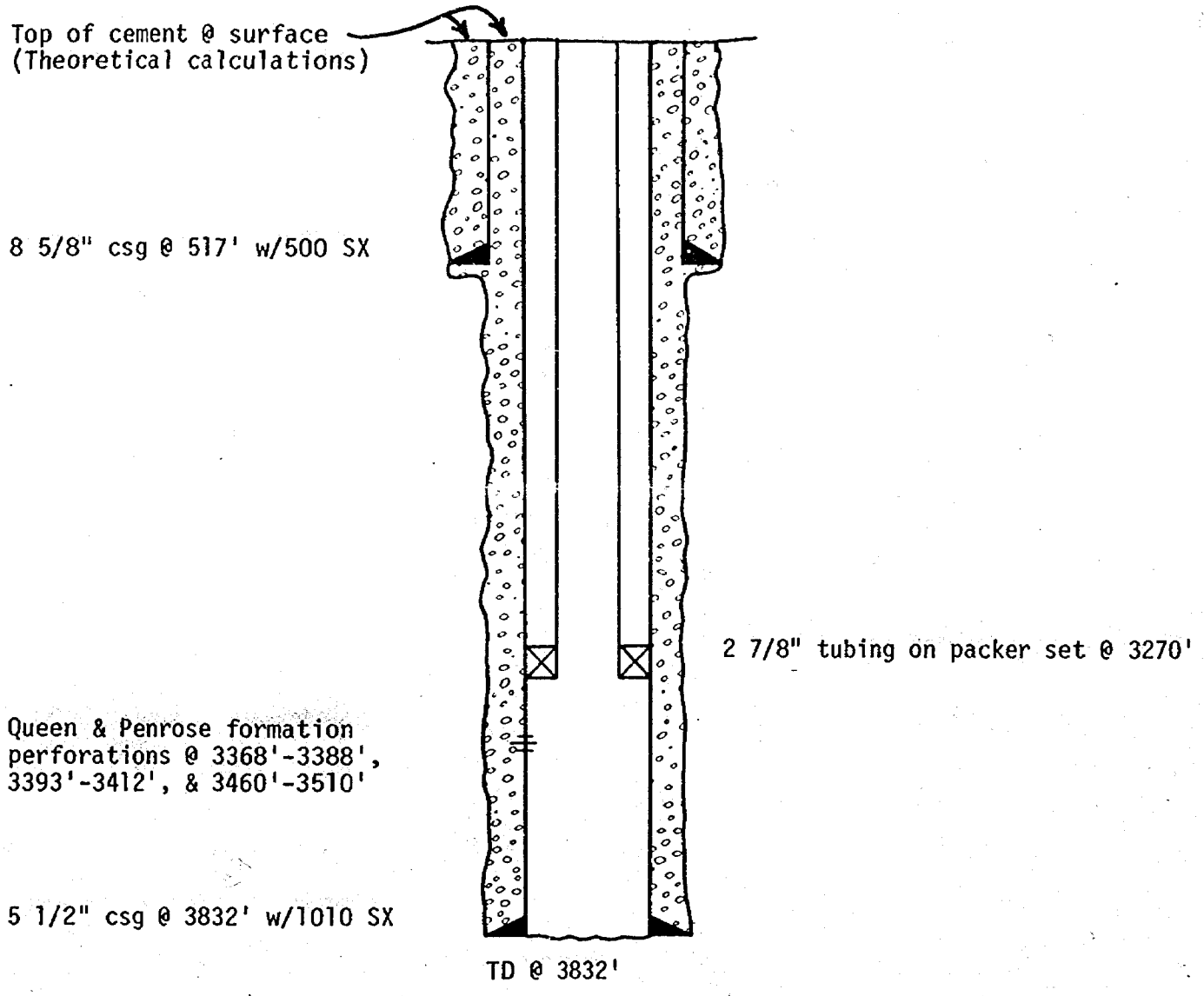
*Theoretical calculation based on hole size, sacks of cement used, and a yield of 1.18 cubic feet of fill per sack of cement.
**Required data not available. Insufficient data available to permit estimation.

EXHIBIT 4

Inj wells

TENNECO OIL COMPANY
SOUTH LEONARD AREA
WELL SCHEMATICS

TENNECO OIL CO.
LEONARD BROTHERS 7-M
SEC. 13, T26S R37E



PROPOSED WATER INJECTION WELL
(Shown in injection configuration)

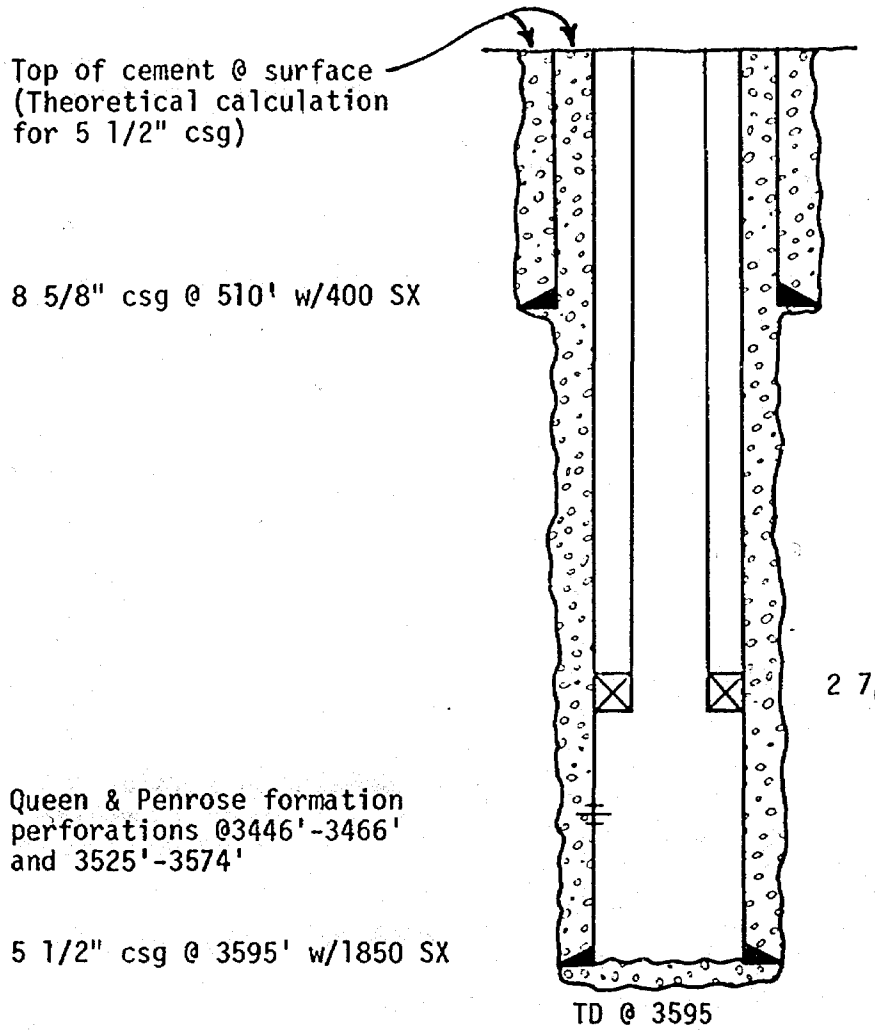
EXHIBIT 4

TENNECO OIL COMPANY

SOUTH LEONARD AREA

WELL SCHEMATICS

TENNECO OIL CO.
LEONARD BROTHERS 2 - I
SEC. 13, T26S R37E



PROPOSED WATER INJECTION WELL
(Shown in injection configuration)

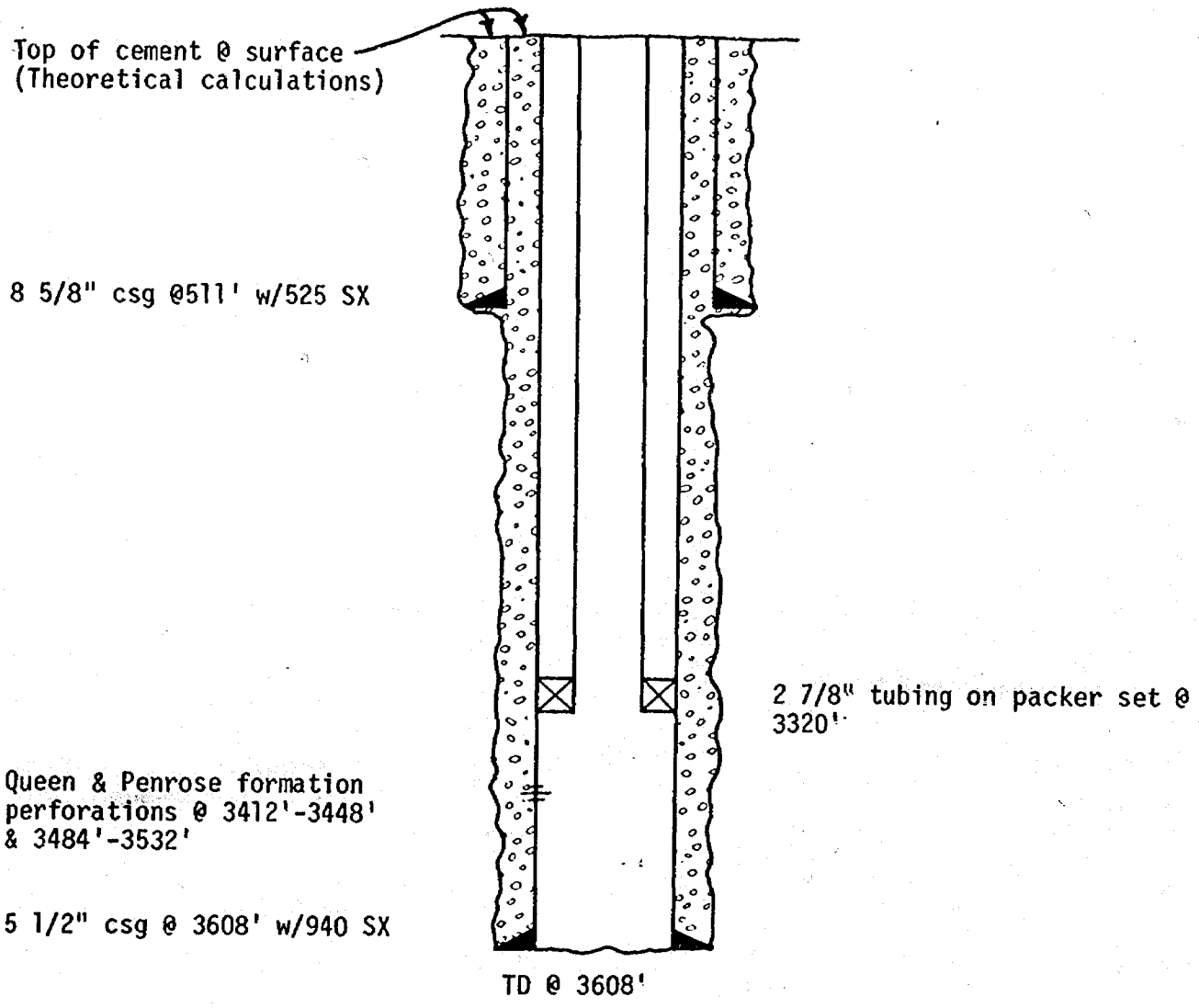
EXHIBIT 4

TENNECO OIL COMPANY

SOUTH LEONARD AREA

WELL SCHEMATICS

TENNECO OIL CO.
LEONARD FEDERAL 6 - ~~N~~ O
SEC. 11, T26S R37E



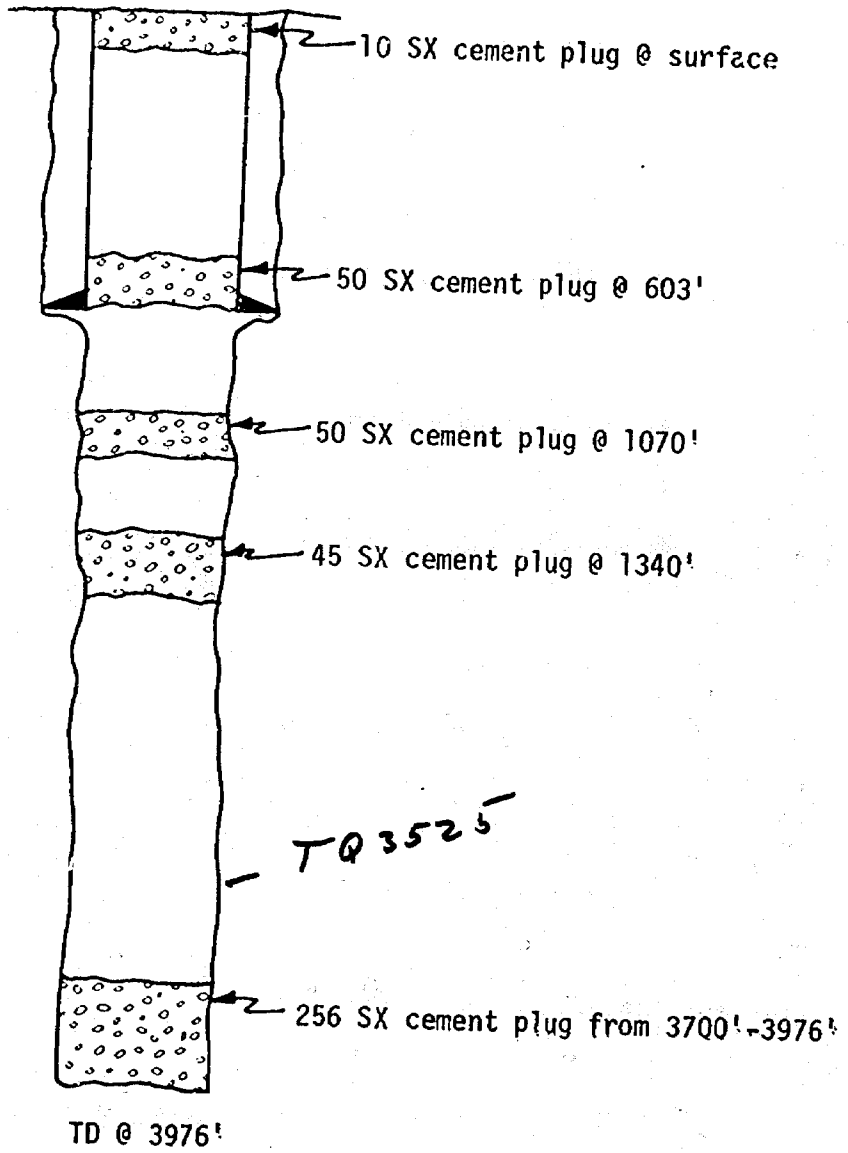
PROPOSED WATER INJECTION WELL
(Shown in injection configuration)

5 B-d wells

EXHIBIT 5

TENNECO OIL COMPANY
SOUTH LEONARD AREA
WELL SCHEMATICS

RALPH LOWE
SELF 2-E
SEC. 7, T26S R38E



Note: Mud was placed between all cement plugs.

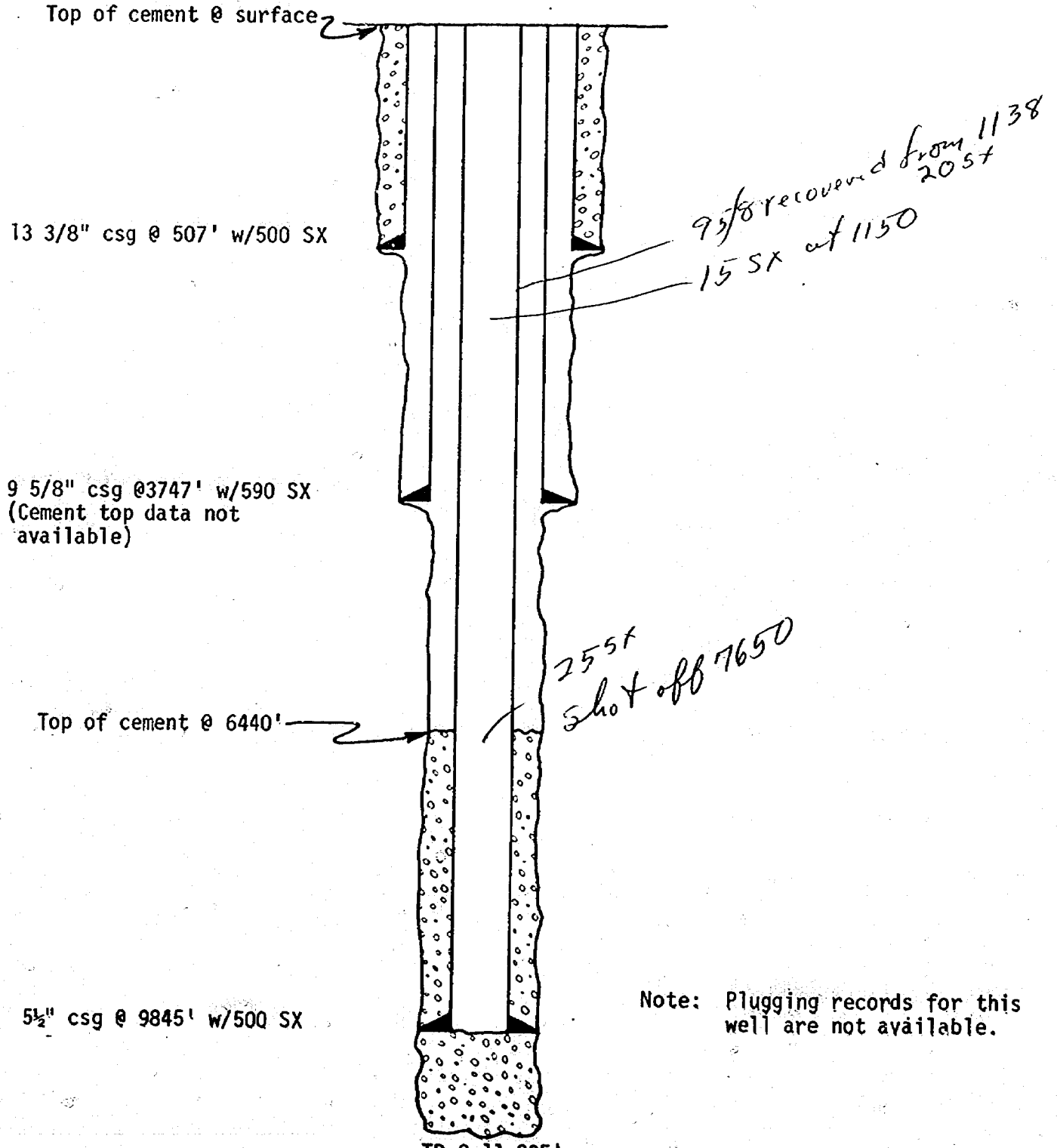
EXHIBIT 5

TENNECO OIL COMPANY

SOUTH LEONARD AREA

WELL SCHEMATICS

STANOLIND OIL CO.
LEONARD OIL CO. 2-A
SEC. 12, T 26S R 37E



Note: Plugging records for this well are not available.

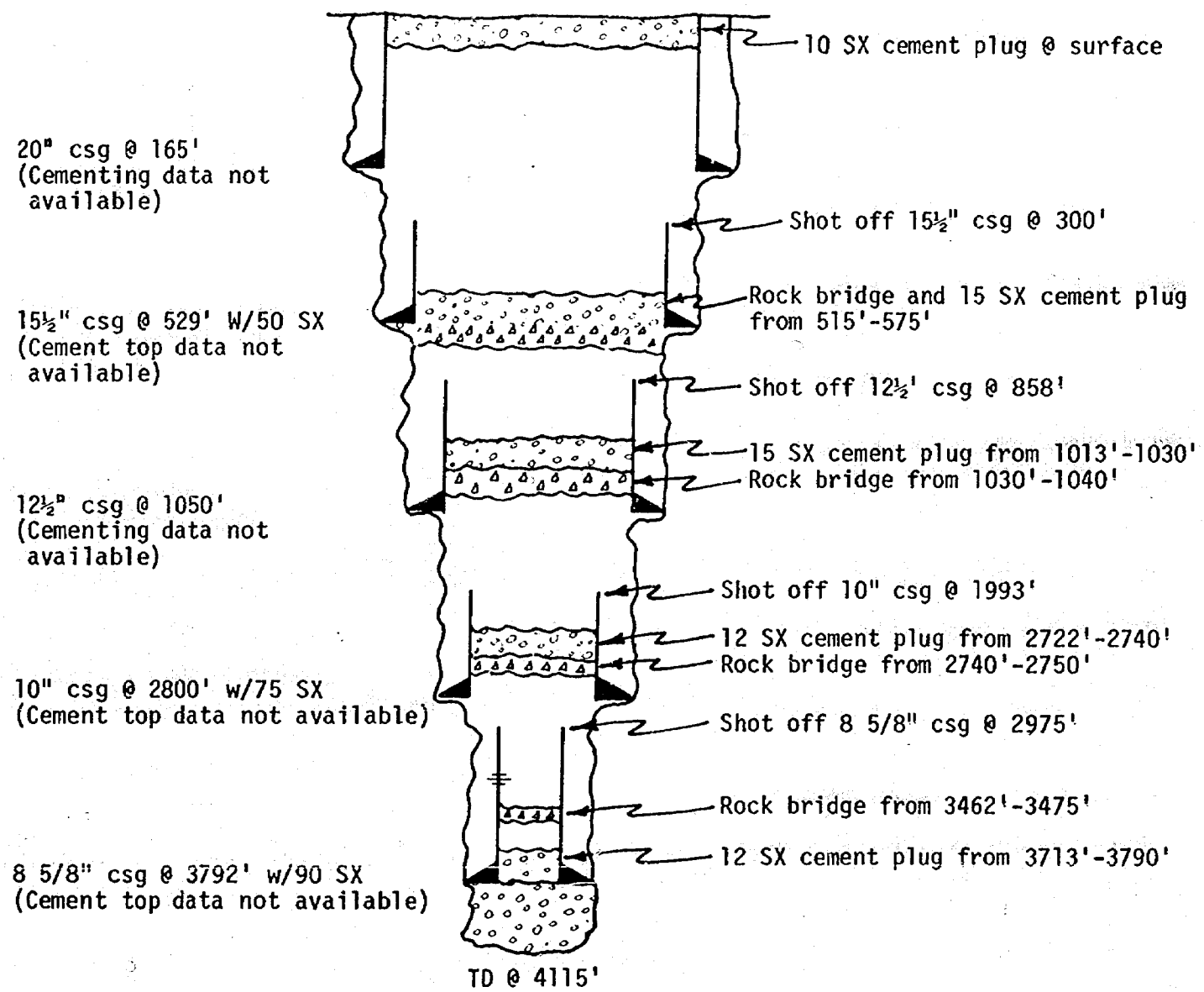
EXHIBIT 5

TENNECO OIL COMPANY

SOUTH LEONARD AREA

WELL SCHEMATICS

MIDWEST REFINING
FARNSWORTH 19-M
SEC. 12, T26S R37E



Note: Mud was placed between all cement plugs.

EXHIBIT 5

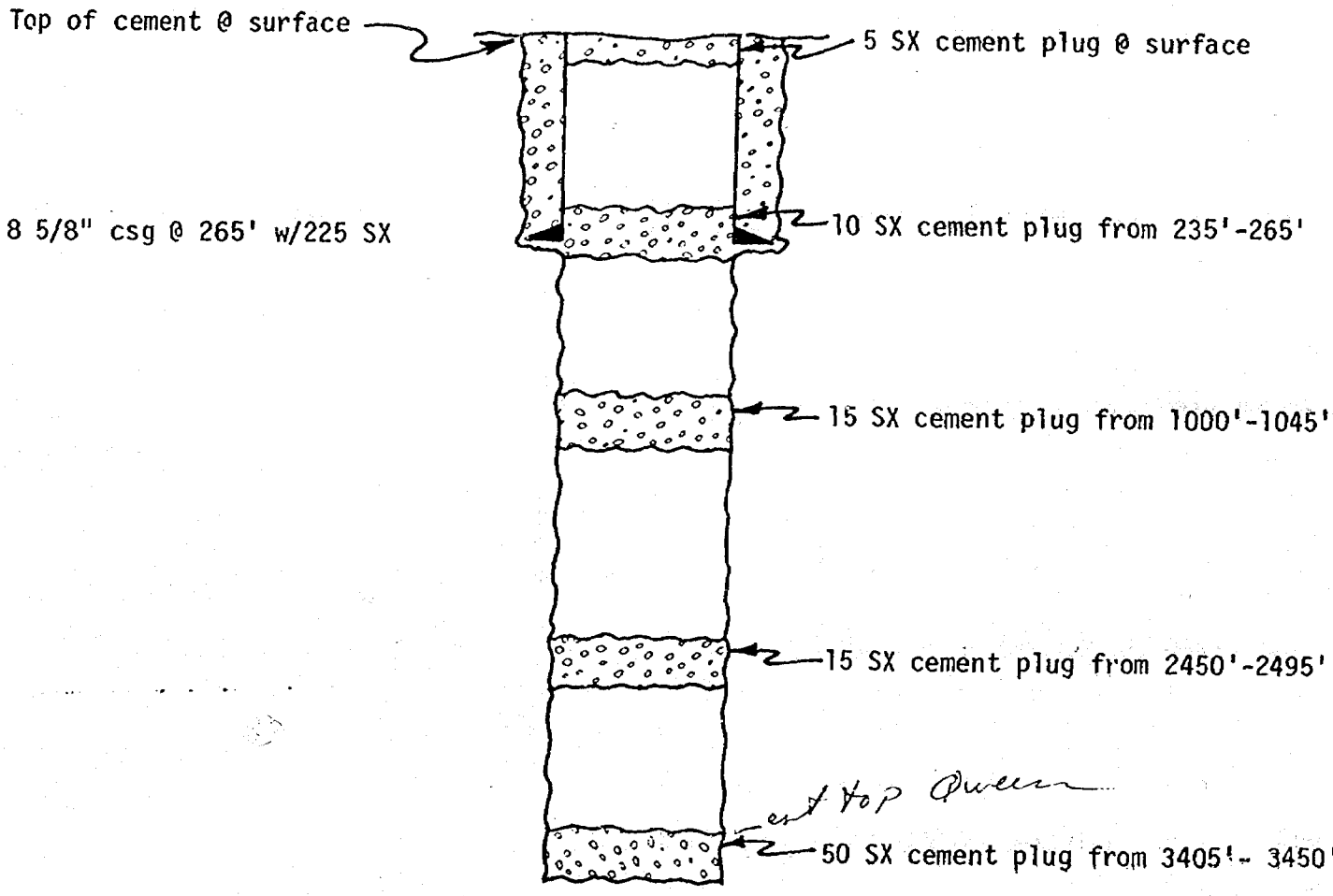
TENNECO OIL COMPANY

SOUTH LEONARD AREA

WELL SCHEMATICS

Filed to reenter June 1977

TENNECO OIL CO.
LEONARD BROTHERS 14-B
SEC. 14, T26S R37E



TD @ 3453'

EXHIBIT 5

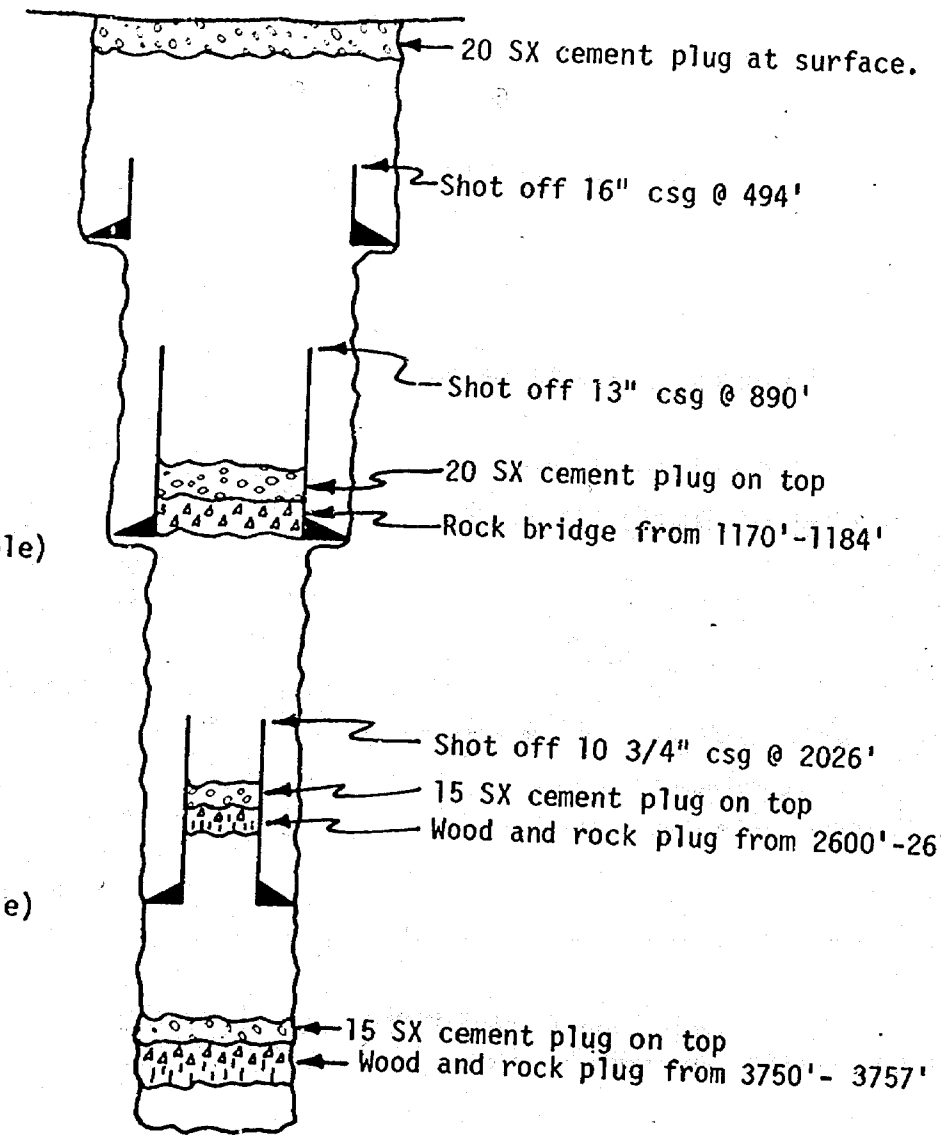
TENNECO OIL COMPANY

SOUTH LEONARD AREA

WELL SCHEMATICS

MIDWEST REFINING
FARNSWORTH 19-M
SEC. 14, T26S R37E

Mon. for oil
Try to replug



16" csg @ 554' w/25 SX
(Cement top data not available)

13" csg @ 1184' w/80 SX
(Cement top data not available)

10 3/4" csg @ 2852' W/75 SX
(Cement top data not available)

TD @ 3877'

No file

EXHIBIT 5

Check file

TENNECO OIL COMPANY

SOUTH LEONARD AREA

WELL SCHEMATICS

HUMBLE OIL & REFINING CO.

LEONARD FEDERAL 1-M

SEC. 12, T26S R37E

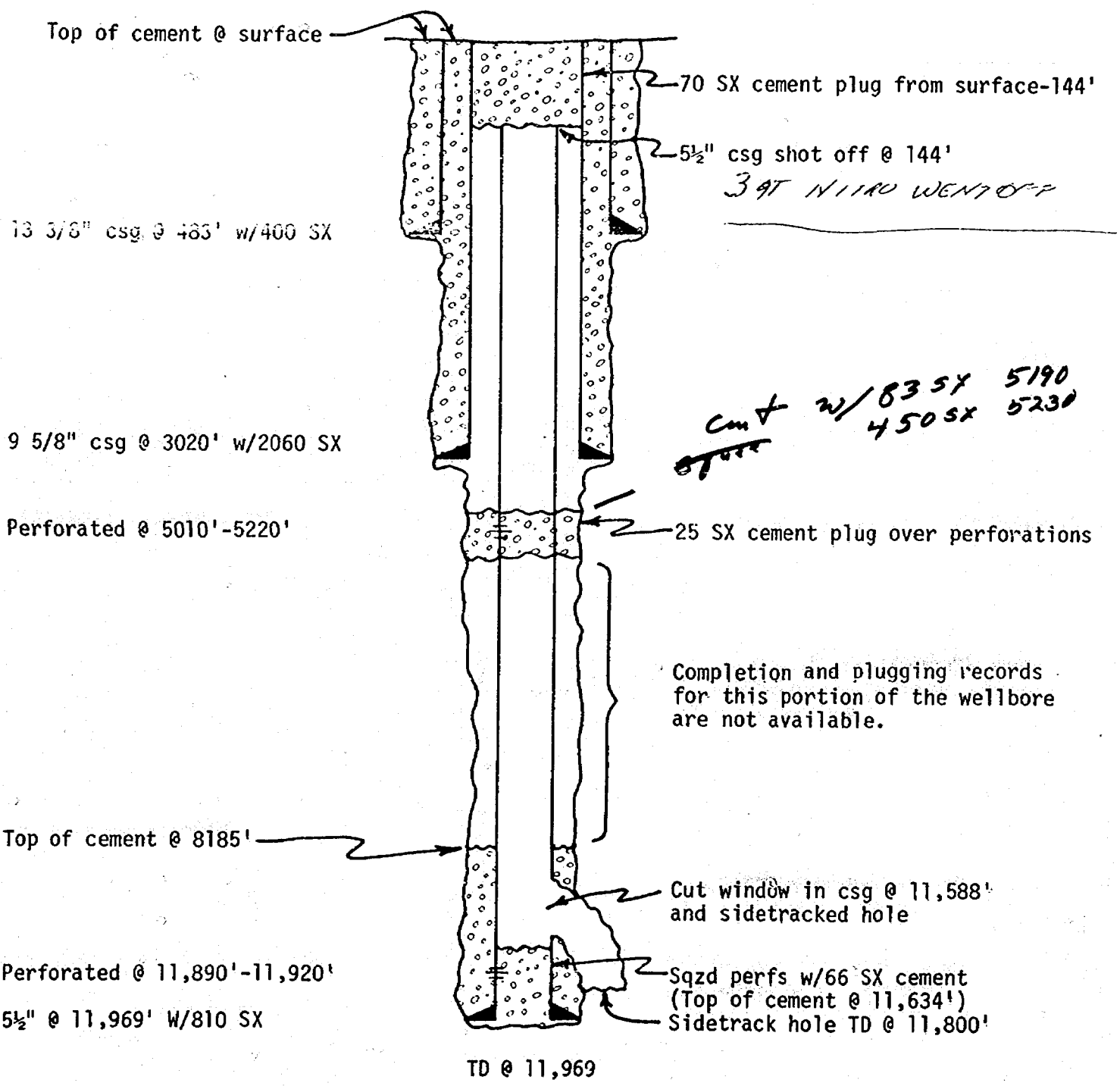


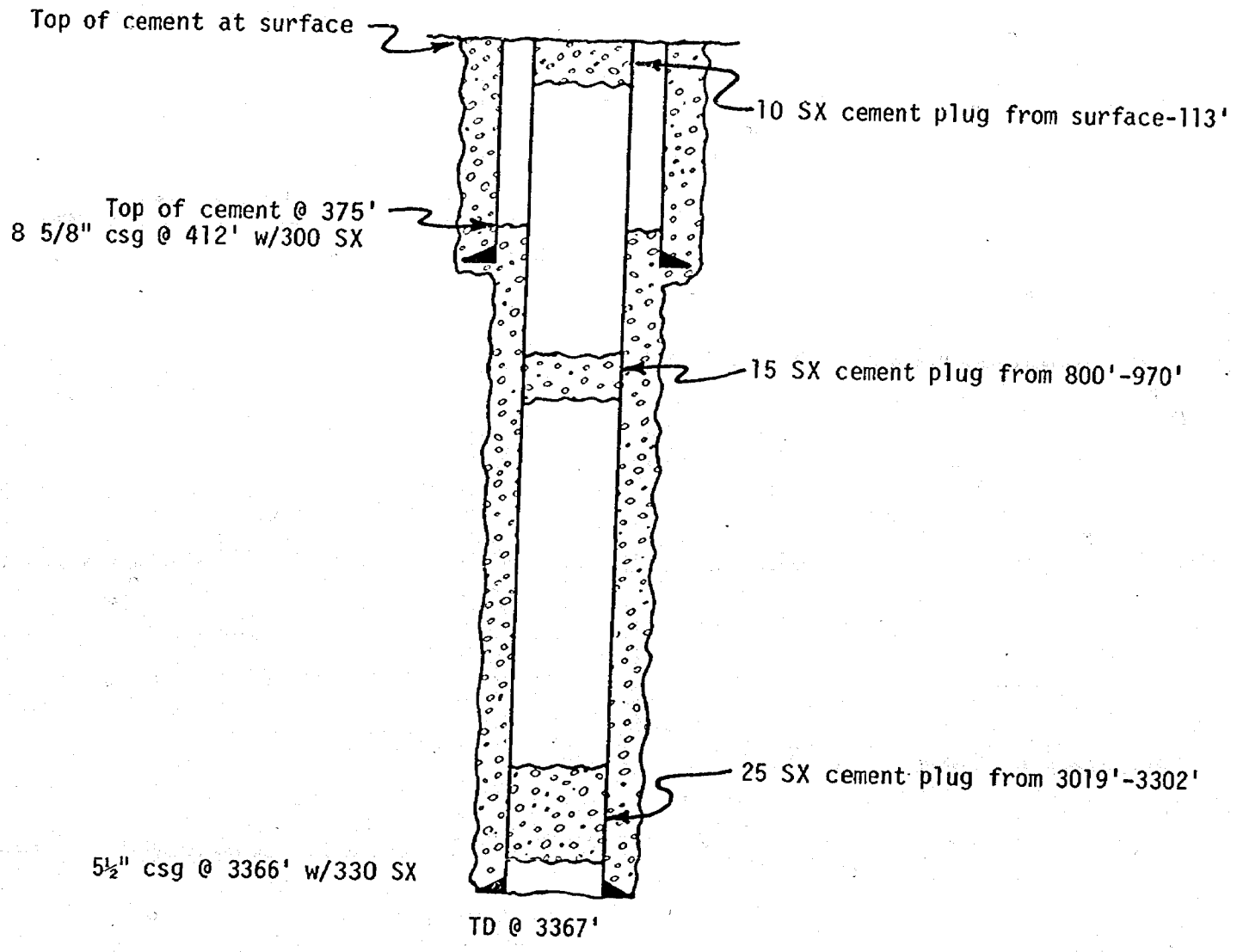
EXHIBIT 5

TENNECO OIL COMPANY

SOUTH LEONARD AREA

WELL SCHEMATICS

GETTY OIL CO
RIGGS "B" 5-I
SEC. 1, T26S R37E



Note: Mud was placed between all cement plugs.

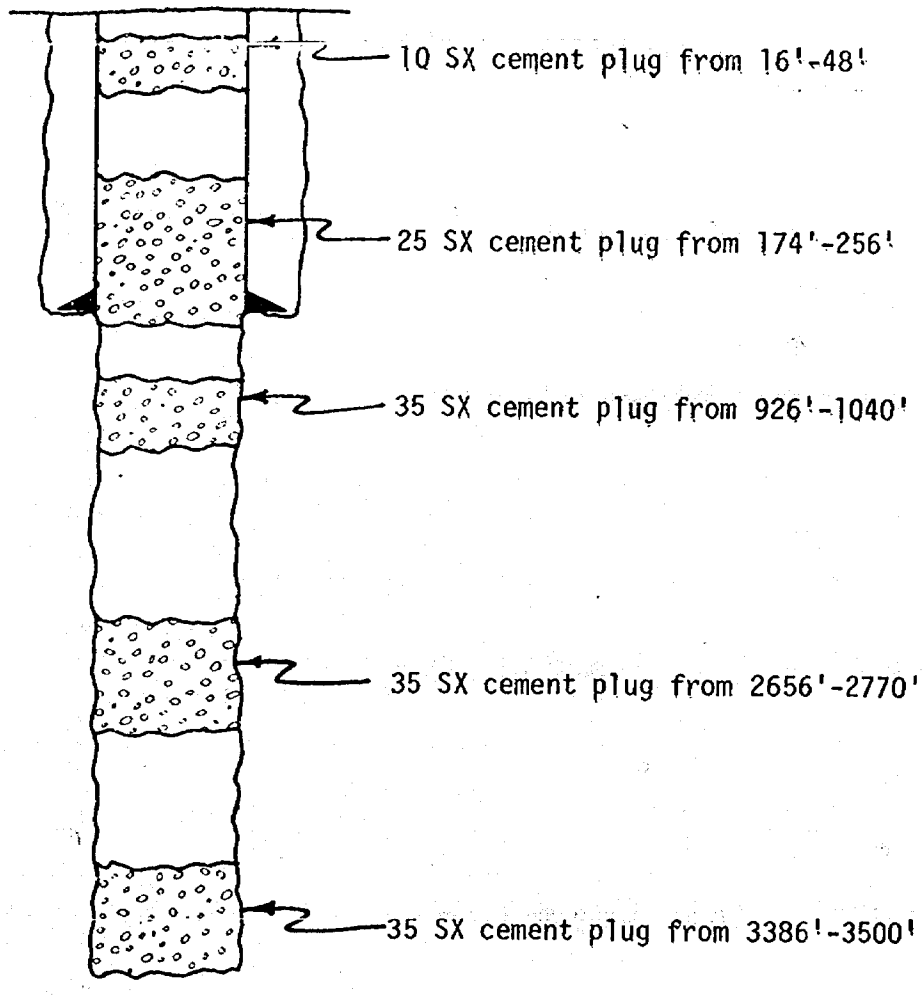
EXHIBIT 5

TENNECO OIL COMPANY

SOUTH LEONARD AREA

WELL SCHEMATICS

AMERADA PETROLEUM CORP.
C. C. CAGLE "C" 2-O
SEC 3, T26S R37E



8 5/8" csg @ 223'
(Cementing data not available)

TD @ 3500'

EXHIBIT 5

TENNECO OIL COMPANY

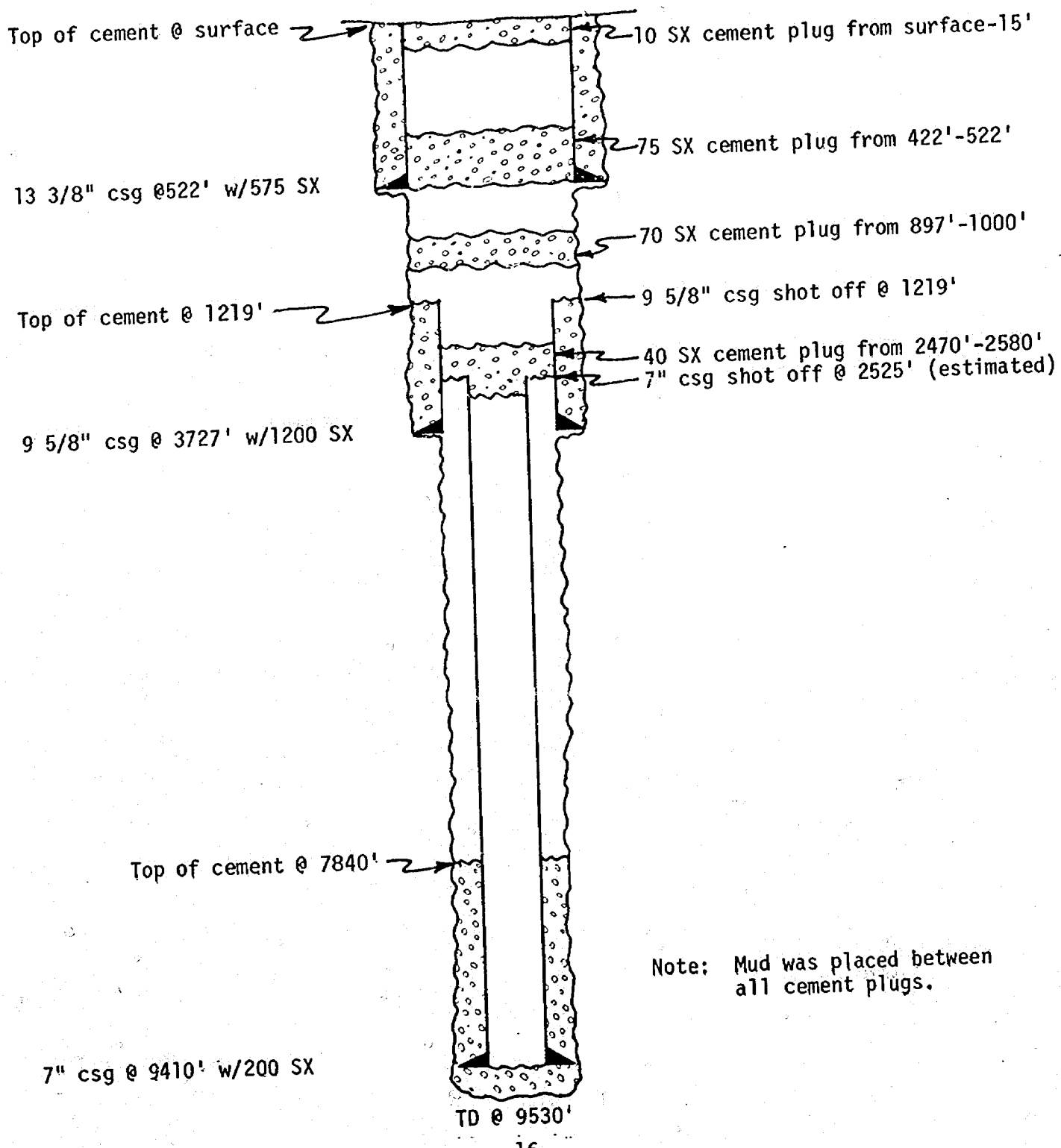
SOUTH LEONARD AREA

WELL SCHEMATICS

BETTIS, BOYLE & STOVALL

LEONARD FEDERAL 7-P

SEC. 11, T26S R37E



Note: Mud was placed between all cement plugs.

EXHIBIT 5

TENNECO OIL COMPANY

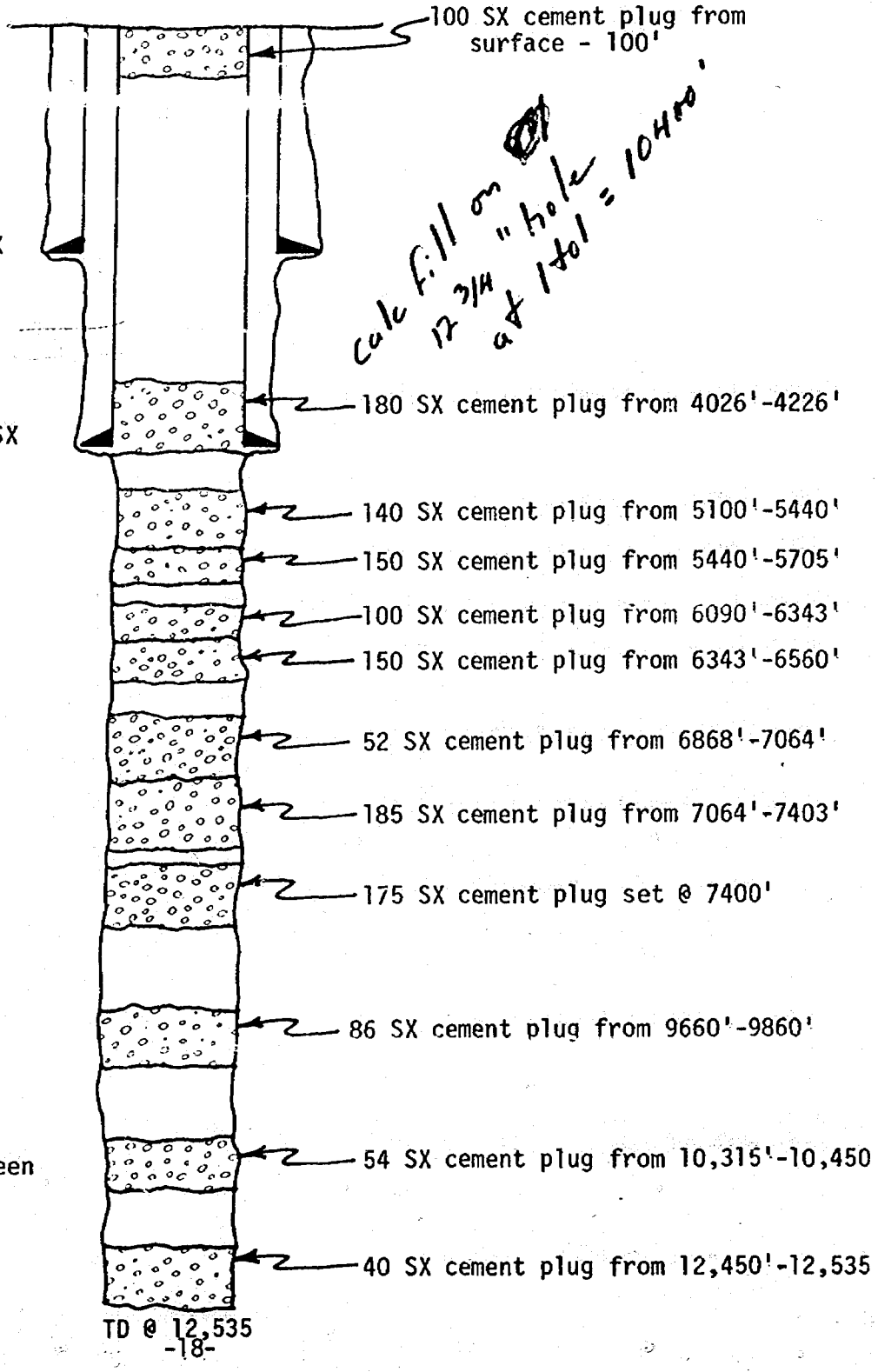
SOUTH LEONARD AREA

WELL SCHEMATICS

HUMBLE OIL & REFINING CO.

LEONARD FEDERAL 1-E

SEC. 12, T26S R37E



Note: Mud was placed between all cement plugs.

EXHIBIT 5

TENNECO OIL COMPANY

SOUTH LEONARD AREA

WELL SCHEMATICS

FOREST OIL CORP.
LEONARD FEDERAL 1-P
SEC. 12, T26S R37E

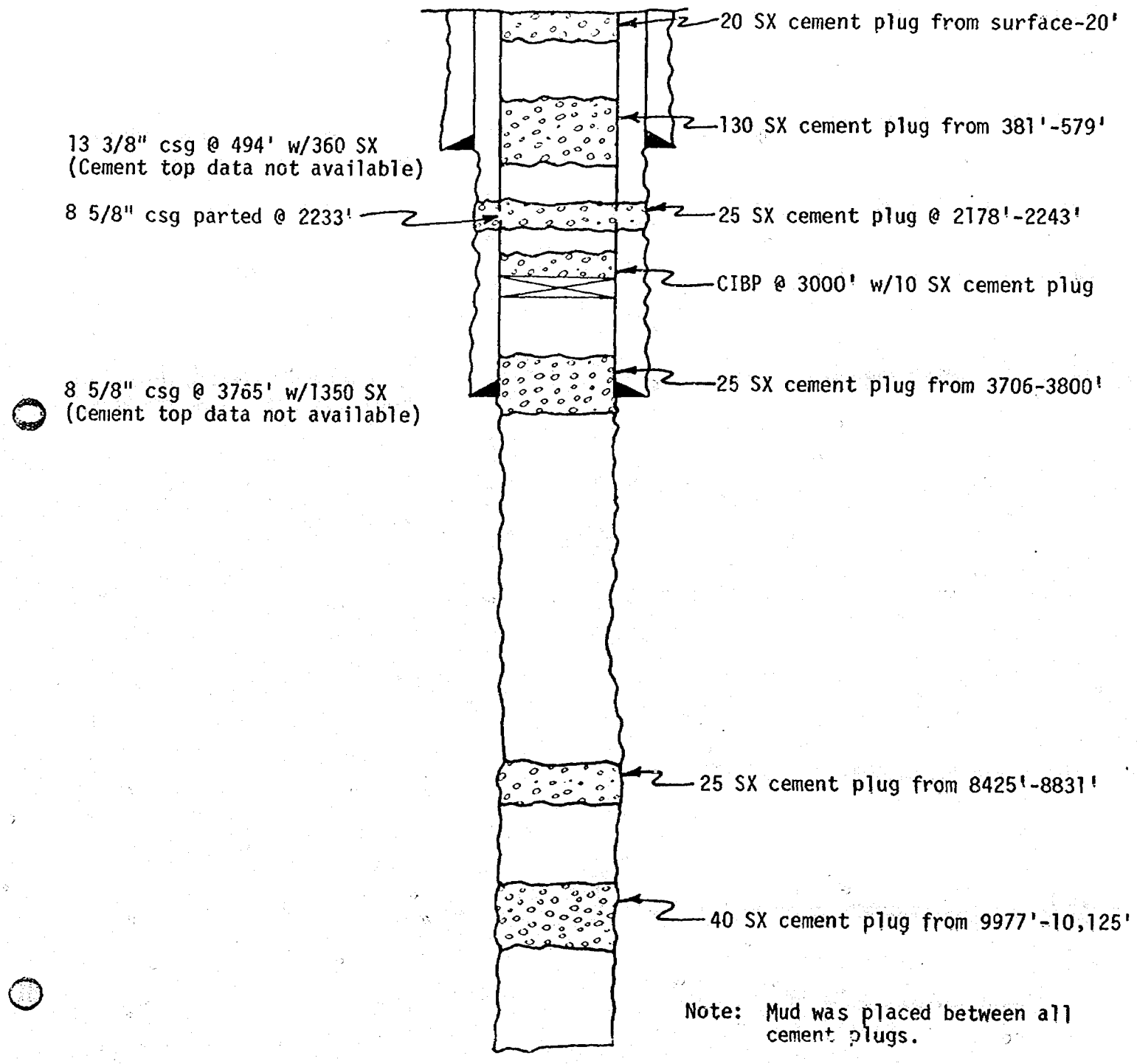


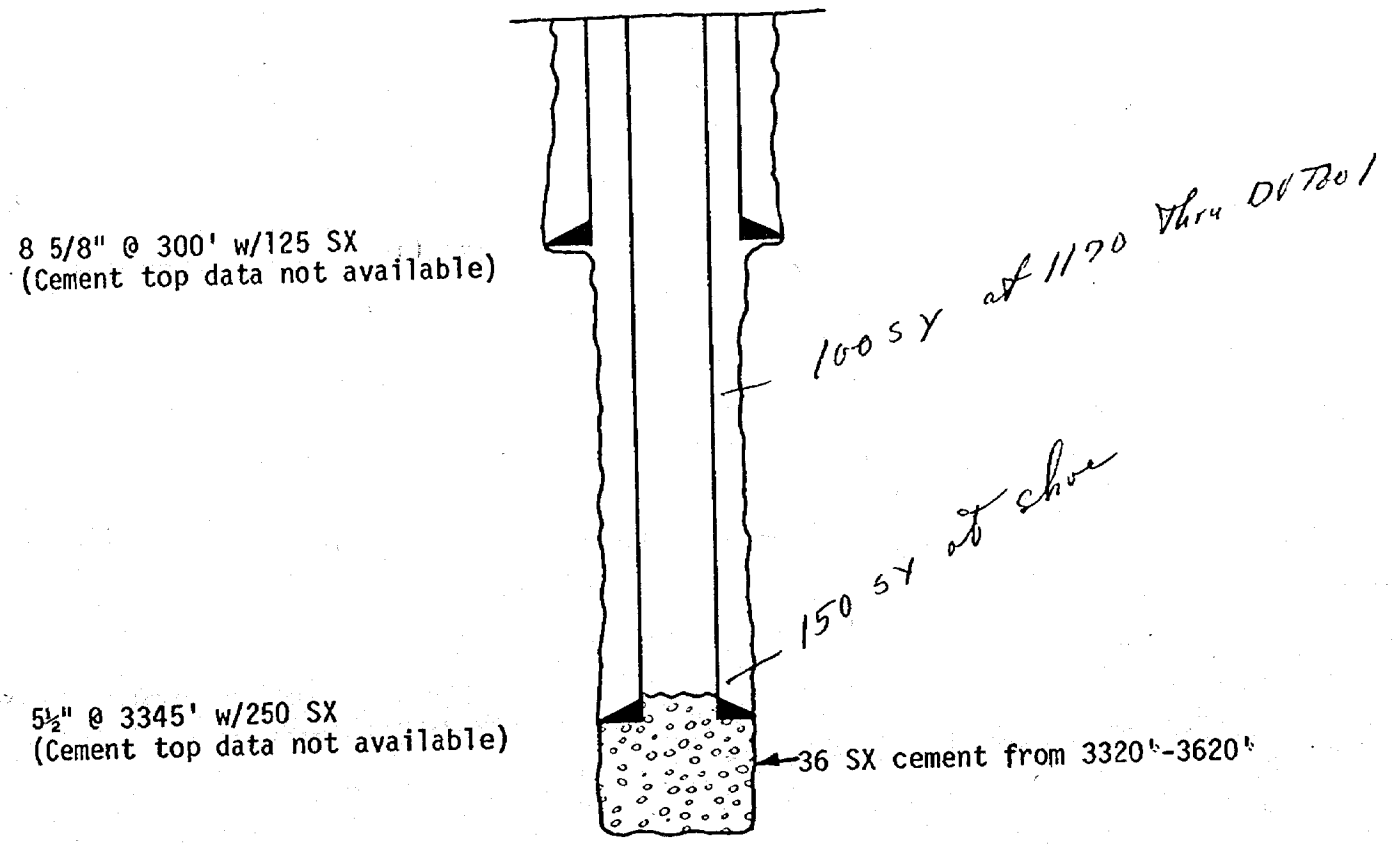
EXHIBIT 5

TENNECO OIL COMPANY

SOUTH LEONARD AREA

WELL SCHEMATICS

LEONARD OIL CO.
PARKER 2-G
SEC. 23, T26S R37E



Note: Plugging records for this well are not available.

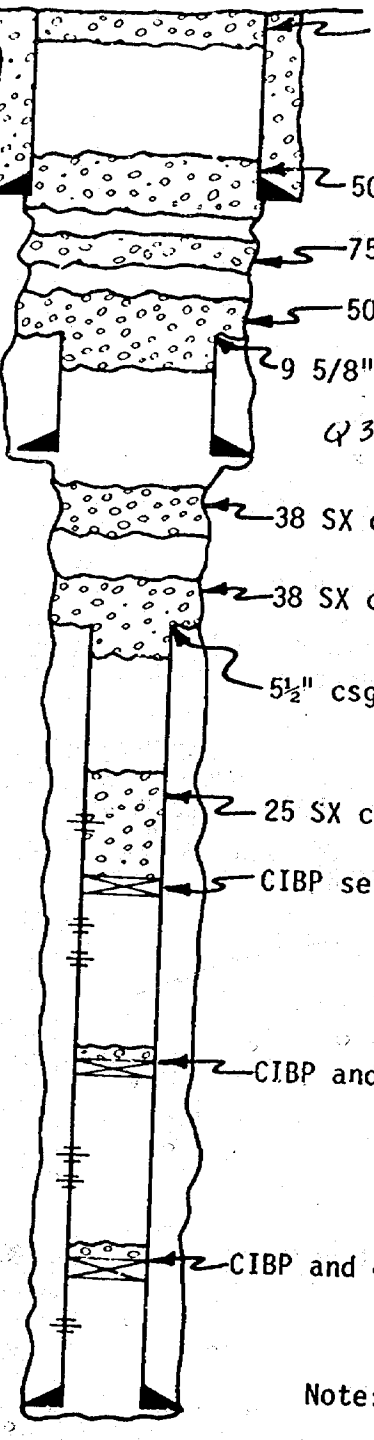
EXHIBIT 5

TENNECO OIL COMPANY

SOUTH LEONARD AREA

WELL SCHEMATICS

FOREST OIL CORP.
LOWE FEDERAL 1-L
SEC. 7, T26S R38E



Top of cement @ surface

13 3/8" csg @ 473' W/340 SX

9 5/8" csg @ 3895' w/1500 SX
(Cement top data not available)

Perforated 9865'-9915'

Perforated 9926'-9941' and
9953'-9972'

Perforated 12,692'-12,705' and
12,736'-12778'

Perforated from 12,860'-12,913'

5½" csg @ 12,948' w/1390 SX
(Cement top data not available)

14 SX cement plug from surface to 17

50 SX cement plug from 440'-502'

75 SX cement plug from 972'-1072'

50 SX cement plug from 1465'-1532'

9 5/8" csg shot off @ 1514'

Q 3450

38 SX cement plug from 3964'-4030'

38 SX cement plug from 4286'-4386'

5½" csg shot off @ 4330'

25 SX cement plug from 9695'-9916'

CIBP set @ 9916'

CIBP and one sack cement @ 10,020'

CIBP and one sack cement @ 12,822'

TD @ 12,950'

Note: Mud was placed between all cement plugs

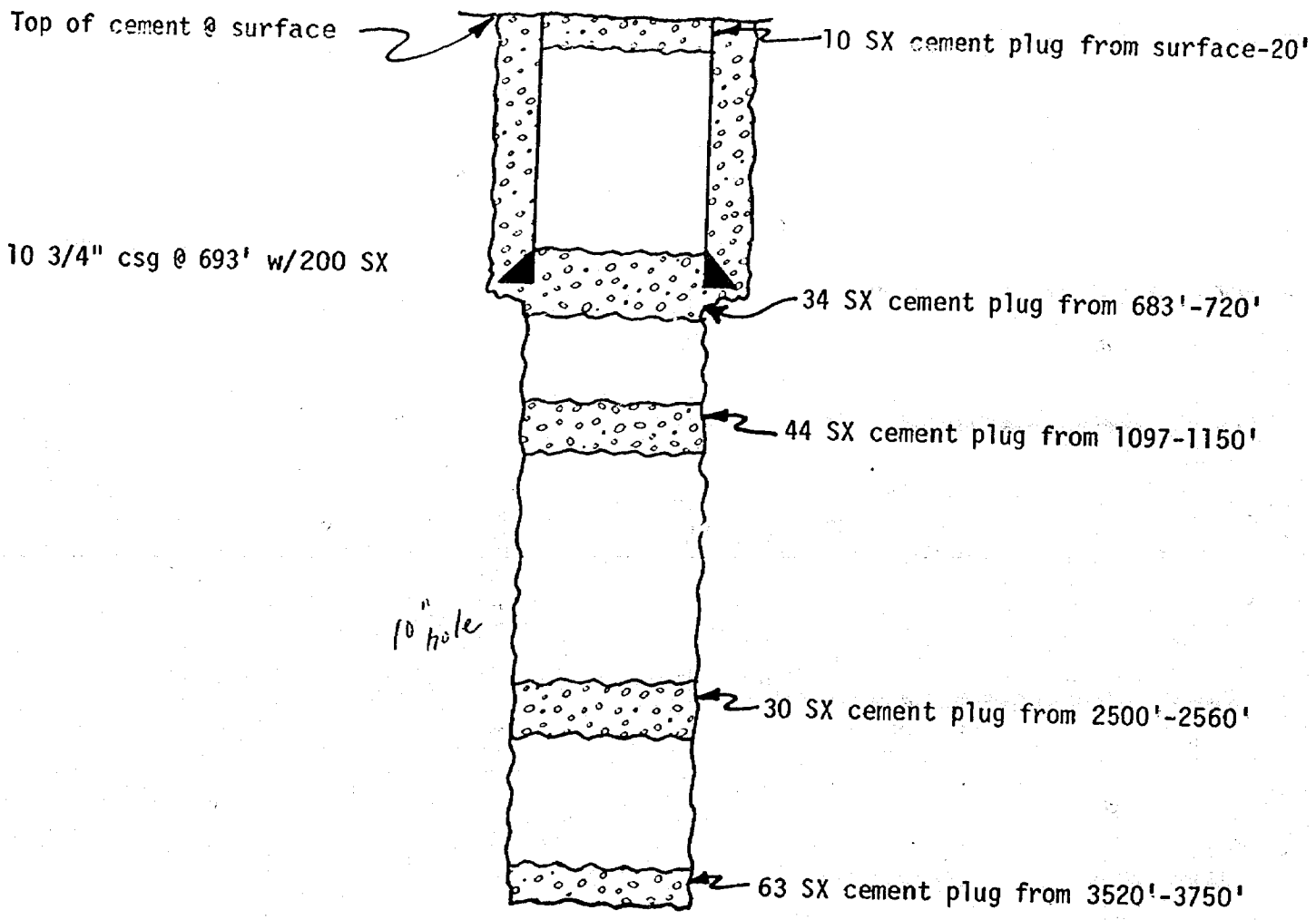
EXHIBIT 5

TENNECO OIL COMPANY

SOUTH LEONARD AREA

WELL SCHEMATICS

RALPH LOWE
HARALSON 1-D
SEC. 19, T26S R38E



Note: Mud was placed between all cement plugs.

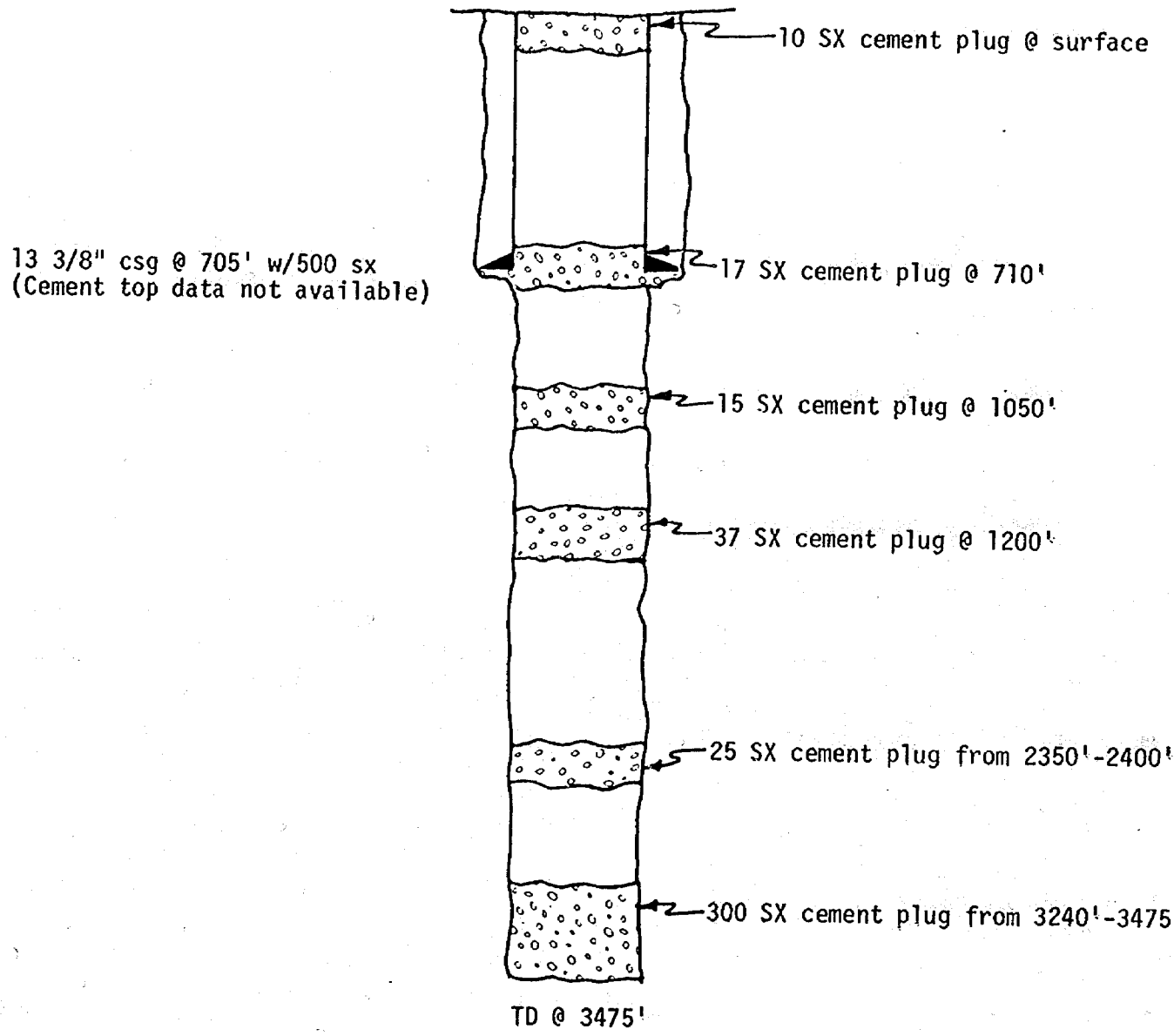
EXHIBIT 5

TENNECO OIL COMPANY

SOUTH LEONARD AREA

WELL SCHEMATICS

RALPH LOWE
SELF I-M
SEC. 6, T26S R38E



Note: Mud was placed between all cement plugs.

EXHIBIT 6

MISCELLANEOUS INJECTION
INFORMATION

I. Injection Zones

Name	Queen	Penrose
Depth	3400'	3500'

II. Injection Fluid

Type: Salt Water

Sources: 1. Produced water from Queen and Penrose formations.

2. Salt water from the San Andres formation in the interval 3900-4500'.

III. Injection Data

Anticipated Injection Pressure: 750 psig

Anticipated Injection Volume

Maximum Per Well: 1244 BWPD

Average Per Well: 848 BWPD

IV. Water Analysis

Water analyses for the following wells are included in Exhibit No. 7:

Operator	Well	Well Status	Zone of Completion
Tenneco Oil Co.	Leonard Federal 6-O,Sec.11	Producing	Queen
Tenneco Oil Co.	Leonard Brothers 5-O Sec.13	Producing	Penrose
Texas-Pacific Oil Co.	Leonard Federal 1-E,Sec.13	Water Source well	San Andres

EXHIBIT 7
WATER ANALYSIS

SOUTHWESTERN LABORATORIES

FORT WORTH - DALLAS - HOUSTON - MIDLAND - BEAUMONT - TEXARKANA

CONSULTING, ANALYTICAL CHEMISTS
AND TESTING ENGINEERS

Midland Texas 12-15-77 File No. C-1950-W

Report of tests on Water

To Tenneco Oil Company **Date Rec'd.** 12-7-77

Received from

Identification Marks Leonard Federal, Well #6

	Mg/L
Calcium	100
Magnesium	789
Sodium (calc.)	7963
Carbonate	None
Bicarbonate	3977
Sulfate	525
Chloride	12056
Total Dissolved Solids (calc.)	23422
Hardness (as $CaCO_3$)	4500

3cc Tenneco Oil Co.

-30-

SOUTHWESTERN LABORATORIES

Jack H Baulm

Lab. No. 30323

Our letters and reports are for the exclusive use of the clients to whom they are addressed. The use of our names must receive our prior written approval. Our letters and reports apply only to the samples tested and are not necessarily indicative of the qualities of identical or similar products.

EXHIBIT 7
WATER ANALYSIS

SOUTHWESTERN LABORATORIES

FORT WORTH · DALLAS · HOUSTON · MIDLAND · BEAUMONT · TEXARKANA

CONSULTING, ANALYTICAL CHEMISTS
AND TESTING ENGINEERS

Midland, Texas 12-15-77 File No. C-1950-W

Report of tests on Water

To Tenneco Oil Company Date Rec'd. 12-7-77

Received from

Identification Marks Leonard Brothers, Well #5

	Mg/L
Calcium	3040
Magnesium	3741
Sodium (calc.)	18153
Carbonate	None
Bicarbonate	93
Sulfate	3223
Chloride	41840
Total Dissolved Solids (calc.)	70044
Hardness (as $CaCO_3$)	23000

3cc Tenneco Oil Co.

SOUTHWESTERN LABORATORIES

Jack H Baxter

Lab. No. 30323

Our letters and reports are for the exclusive use of the clients to whom they are addressed. The use of our names must receive our prior written approval. Our letters and reports apply only to the samples tested and are not necessarily indicative of the qualities of identical or similar products.

EXHIBIT 7
WATER ANALYSIS

SOUTHWESTERN LABORATORIES

FORT WORTH · DALLAS · HOUSTON · MIDLAND · BEAUMONT · TEXARKANA

CONSULTING, ANALYTICAL CHEMISTS
AND TESTING ENGINEERS

Midland Texas 12-28-77 File No. C-1950-W

Report of tests on Water

To Tenneco Oil Company Date Rec'd. 12-27-77

Received from

Identification Marks Texas Pacific Water Supply Well, 12-27-77

	Mg/L	M.EQ./L
Calcium	920	45.91
Magnesium	291	23.89
Sodium (calc.)	2936	127.69
Carbonate	None	
Bicarbonate	747	12.25
Sulfate	2657	55.27
Chloride	4609	129.97
Total Dissolved Solids (calc.)	11787	
Hardness (as CaCO3)	3500	

3cc Tenneco Oil Company

SOUTHWESTERN LABORATORIES

-32-

Lab. No. 30334

Our letters and reports are for the exclusive use of the clients to whom they are addressed. The use of our names must receive our prior written approval. Our letters and reports apply only to the samples tested and are not necessarily indicative of the qualities of identical or similar products.

EXHIBIT 8
FRACTURE GRADIENTS - QUEEN/PENROSE FORMATION
SOUTH LEONARD QUEEN FIELD
LEA COUNTY, NEW MEXICO

WELL NAME	TOP PERFORATION	DATE OF FRAC TREATMENT	ISI PRESSURE	FORMATION FRAC GRADIENT	SURFACE FRAC GRADIENT	FORMATION
Leonard Brothers 1	3454	10/10/76	800	.665	.232	Queen
Leonard Brothers 2	3446	3/13/77	1100	.752	.319	Queen
Leonard Brothers 3	3398	9/06/77	750	.654	.221	Queen/Penrose
Leonard Brothers 4	3477	9/10/77	700	.634	.201	Penrose
Leonard Brothers 5	3480	9/14/77	1100	.749	.316	Penrose
Leonard Brothers 7	3368	11/08/77	900	.700	.267	Queen
Leonard Brothers 11	3451	11/12/77	700	.636	.203	Penrose
Leonard Federal 3	3498	9/27/77	450	.562	.129	Penrose
Leonard Federal 6	3412	8/24/77	400	.550	.117	Queen
Leonard Federal 8	3453	8/08/77	900	.694	.261	Queen
Leonard Federal 9	3380	8/15/77	700	.640	.207	Queen
Leonard Federal 10	3379	8/29/77	520	.587	.154	Queen
Average	3433	--	752	.652	.219	--

EXHIBIT 9

STATE OF NEW MEXICO

STATE ENGINEER OFFICE

ROSWELL

S. E. REYNOLDS
STATE ENGINEER

ADDRESS CORRESPONDENCE TO:
P. O. BOX 1717
ROSWELL, NEW MEXICO
88201

January 9, 1978

Tenneco Oil Company
Penthouse 720 South Colorado Blvd.
Denver, Colorado 80222

Attention Mr. Hugh Wilbanks:

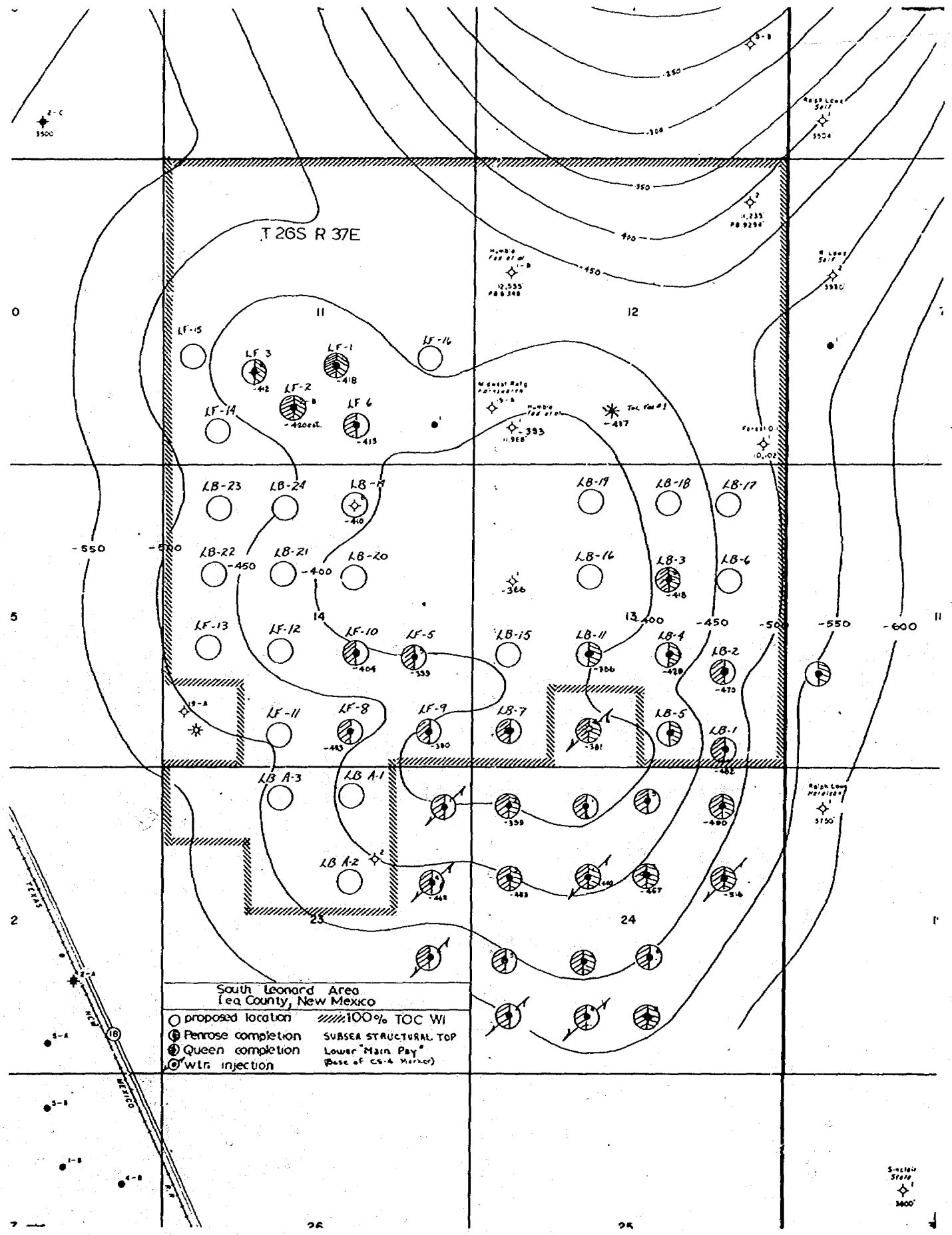
Dear Mr. Wilbanks:

In accordance with our telephone conversation of January 5, 1978 regarding the fresh water zones in the Leonard Queen pool in Township 26 South, Range 37 East of Lea County, New Mexico, please be advised that in this area fresh water is produced from the alluvium, the Triassic and in some sections the Rustler. The deepest formation producing fresh water is the Rustler formation which produces from about 1050 feet. Based on records available to me there is no water below the salt section in the area which contains water with less than 10,000 ppm total dissolved solids.

Yours truly,

James I. Wright
Asst. District Supervisor

JIW*td


T 26S R 37E
LF-15
LF-16
LF-14
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LB-23
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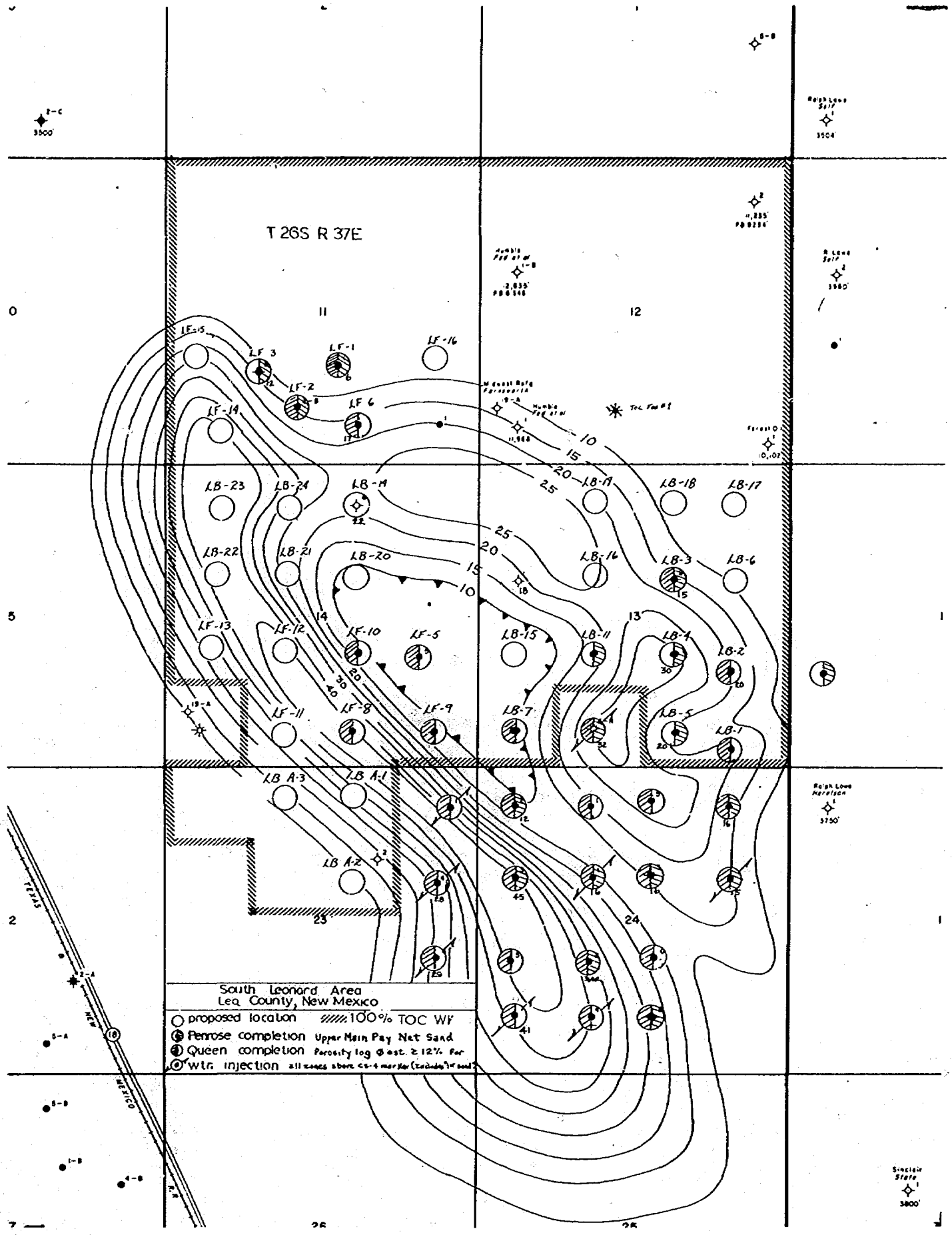
LB-1
LB A-3
LB A-1
LB A-2
-550
-500
-450
-400
-350
-300
-250
-600
South Leonard Area
Lea County, New Mexico
proposed location
Penrose completion
Queen completion
W.I.I. injection
100% TOC WI
SUBSEA STRUCTURAL TOP
Lower "Main Pay"
(Base of CS-A Marker)
TEXAS
NEW MEXICO


T 26S R 37E
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LB-23
LB-24
LB-A
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LB-18
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LB-22
LB-21
LB-20
LB-16
LB-3
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LF-13
LF-12
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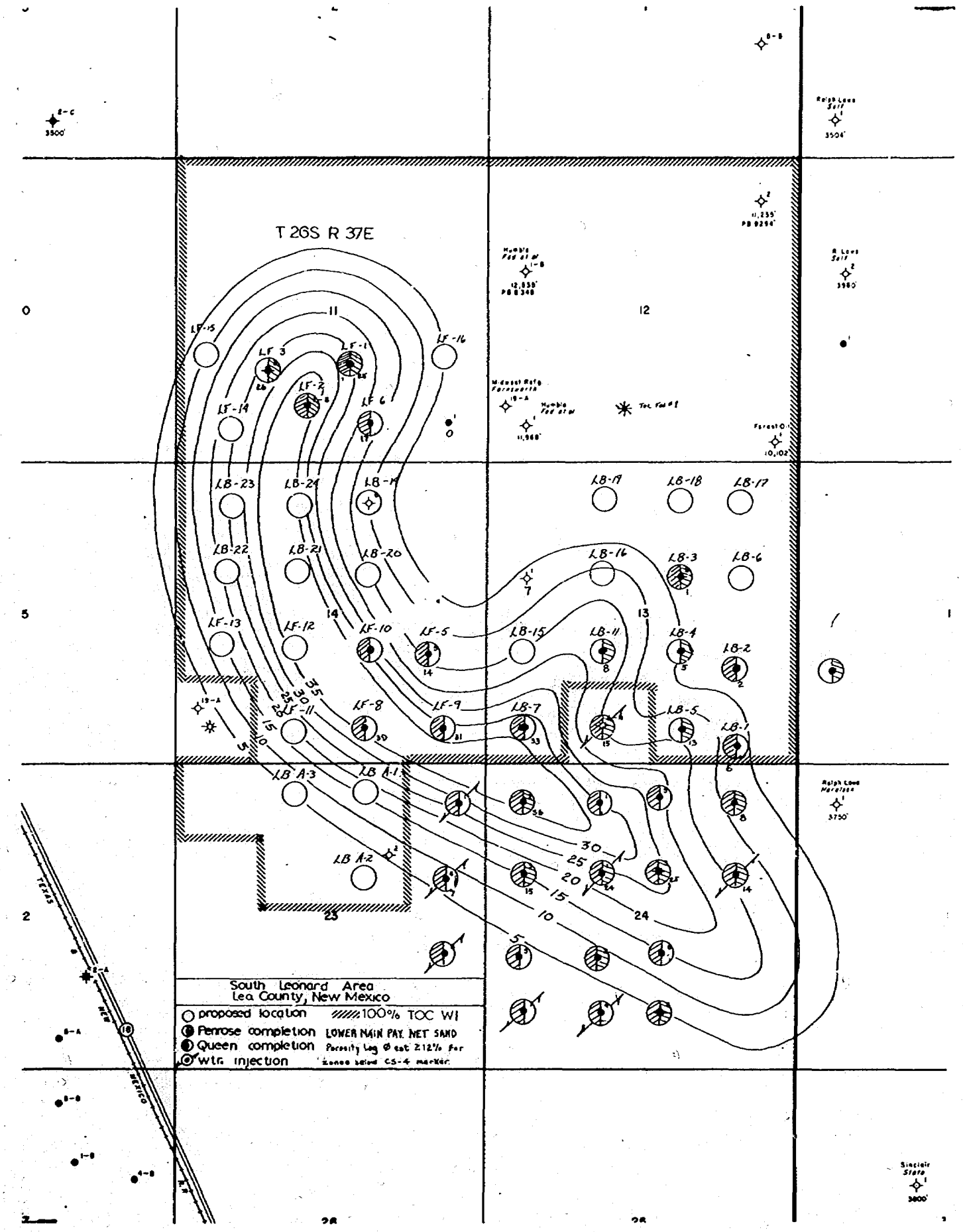
LB-2
LF-11
LF-8
LF-9
LB-7
LB-5
LB-1
LB A-3
LB A-1
LB A-2
10
15
20
25
30
40
45
South Leonard Area
Lea County, New Mexico
proposed location
100% TOC WI
Penrose completion Upper Main Pay Net Sand
Queen completion Porosity log Ø est. ≥ 12% Por
Wtr. injection all zones above CS-1 marker (excluding 1st sand)


T 26S R 37E
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LF-2
LF 6
LB-14
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LB-19
LB-18
LB-17
LB-16
LB-3
LB-6
LF-13
LF-12
LF-10
LF-5
LB-15
LB-11
LB-4
LB-2
LF-11
LF-8
LF-9
LB-7
LB-5
LB-1
LB A-3
LB A-1
LB A-2
11
12
13
14
25
24
Humble Fed of M 1-B
12,838' PB 8348
Midwest Refg Farnsworth 19-A
Humble Fed of M 1
11,988'
Tex. Fed #1
11,235' PB 9296'
Ralph Lowe Self 1 3504'
R. Lowe Self 2 3980'
Forest O. 1 10,102'
Ralph Lowe Marrison 1 3750'
Sinclair State 1 3800'
TEXAS
NEW MEXICO
South Leonard Area
Lea County, New Mexico
proposed location
Penrose completion
Queen completion
wtr. injection
100% TOC WI
LOWER MAIN PAY NET SAND
Porosity Log Ø cut 2.12% for
Zones tied CS-4 marker

T 26S R 37E

11

12

13

14

23

24

25

LF-15 LF-16 LF-1 LF-2 LF-3 LF-19 LF 6

LB-23 LB-24 LB-21 LB-22 LB-20 LB-19 LB-18 LB-17 LB-16 LB-3 LB-4 LB-2 LB-1 LB-15 LB-11 LB-7 LB-5

LF-13 LF-12 LF-10 LF-5 LF-11 LF-8 LF-9

LB A-3 LB A-1 LB A-2

Humble Fed et al 1-B 12,838' PB 9348

Humble Fed et al 19-A 35' Est. from 29 lng 11,968'

Tex. Fed #1 25' East From G.R. only

Forest O.C. 10,102'

Ralph Lowe Self 2 3504'

Ralph Lowe Self 2 3980'

Ralph Lowe Haralson 1 3750'

Sinclair State 1 3800'

TEXAS NEW MEXICO

South Leonard Area
Lea County, New Mexico

○ proposed location
Ⓟ Penrose completion
Ⓠ Queen completion
Ⓦ W.I. injection

100% TOC WI

ISOPACH-
PENROSE NET SAND
Porosity log Ø est ≥ 12%

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
TENNECO EXHIBIT NO. C-4
CASE NO. 6161
Submitted by H. Wilbanks
Hearing Date 22 Feb 78

SOUTH LEONARD QUEEN UNIT

SUMMARY DATA

Operator: Texas Pacific Oil Company
Date Unit Was Formed: September, 1968
Date Injection Began: January, 1969

Cumulative Oil Recovery to 1-1-78	1,137,653 STBO
Estimated Primary Production	672,000 STBO
Secondary Recovery to 1-1-78	465,653 STBO

Current Oil Recovery = 1.69 x Primary Recovery
Estimated Ultimate Oil Recovery = 1.90 x Primary Recovery
= 1,276,800 STBO

Cumulative Water Injection to 1-1-78	4,978,472 BW

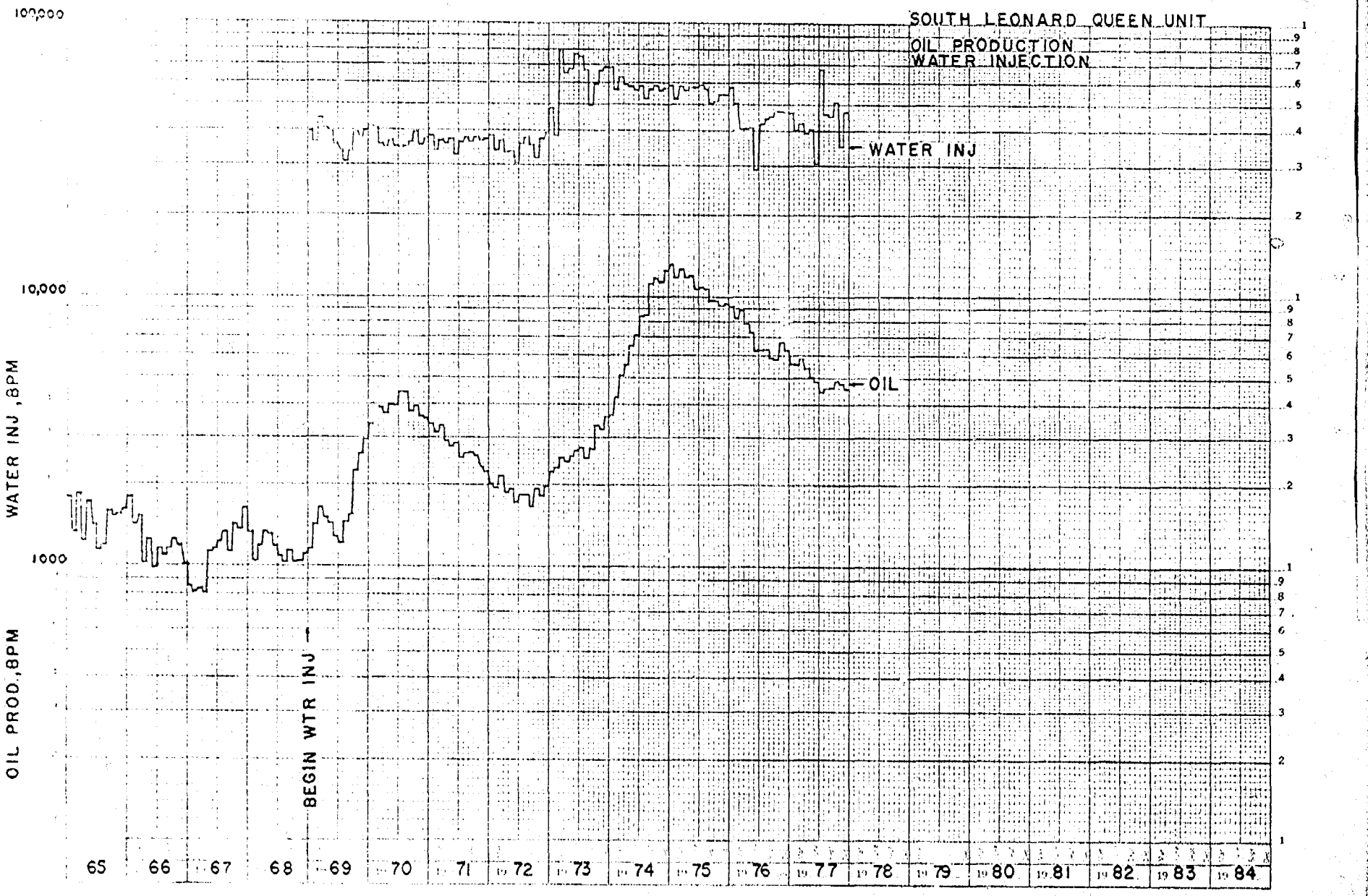
Current Production Rate (12-77)	147 BOPD
Current Injection Rate (12-77)	1,510 BWPD

Producing Wells	8
Injection Wells	6
Shut-In Injection Wells	2
Total Wells	16

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
TENNECO EXHIBIT NO. D
CASE NO. 6161
Submitted by H. Wilbanks
Hearing Date 22 Feb 78

0

2-14-78


SOUTH LEONARD QUEEN UNIT
OIL PRODUCTION
WATER INJECTION
WATER INJ
OIL
BEGIN WTR INJ
WATER INJ, BPM
OIL PROD, BPM
100,000
10,000
1000
65
66
67
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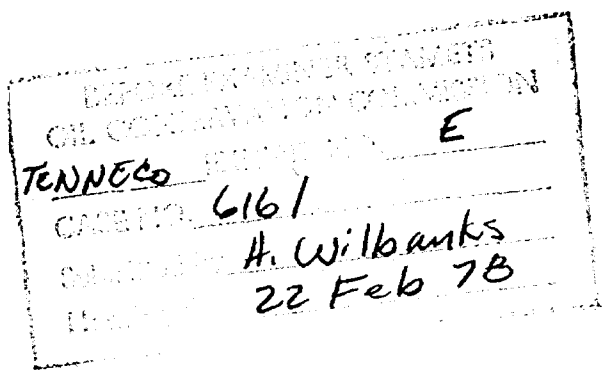
84


E
TENNECO
6161
H. Wilbanks
22 Feb 78

TENNECO OIL COMPANY

SOUTH LEONARD QUEEN POOL
SUMMARY DATA

Cumulative Oil Recovery to 1-1-78	116,678 STBO
Current Production Rate (12-77)	291 BOPD

Producing Wells	13
Shut-in producing wells	2
Total Wells	15
Staked Locations	23

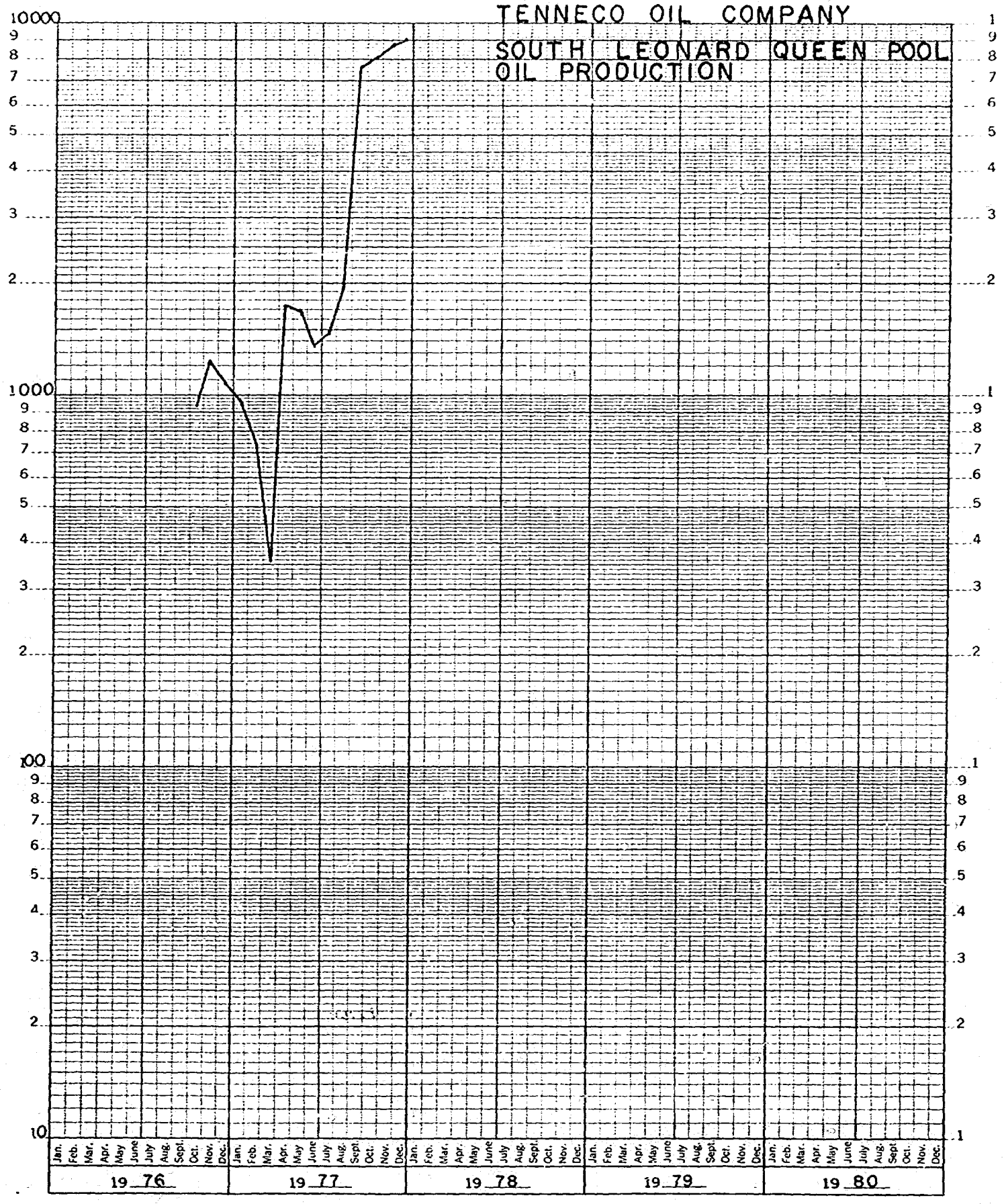
BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
TENNECO EXHIBIT NO. F
CASE NO. 6161
Submitted by H. Wilbanks
Hearing Date 22Feb78

2-14-78

TENNECO OIL COMPANY

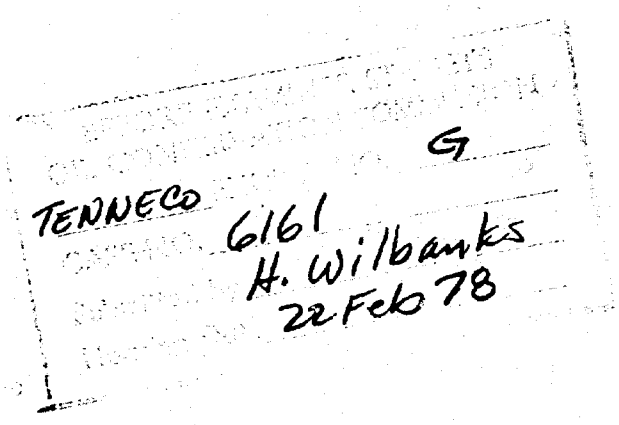
SOUTH LEONARD QUEEN POOL

OIL PRODUCTION



K+E 5 YEARS BY MONTHS x 3 LOG CYCLES
KEUFFEL & ESSER CO. MADE IN U.S.A.

46 6690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TENNECO
6161
H. Wilbanks
22 Feb 78

EXHIBIT 2 AMENDED

TABULAR SUMMARY OF SURROUNDING WELLS

WELL IDENTIFICATION						
Operator	Getty Oil Co.	Amerada Pet. Corp.	Tenneco Oil Co.	Tenneco Oil Co.	Tenneco Oil Co.	Tenneco Oil Co.
Lease	Riggs "B"	C.C. Cagle "C"	Leonard Federal	Leonard Federal	Leonard Federal	Leonard Federal
Well Number	5	2	1	3	2	6
LOCATION						
Unit	I	O	J	K	M	N
Section	1	3	11	11	11	11
Township	26S	26S	26S	26S	26S	26S
Range	37E	37E	37E	37E	37E	37E
SURFACE CASING						
Size (in.)	8 5/8	8 5/8	10 3/4	10 3/4	10 3/4	8 5/8
Setting Depth (ft.)	412	223	169	279	206	511
Sacks Cement	300	75 est..	75	100	75	525
Cement Top (ft.)	Surface	9*	Surface	Surface	56*	Surface*
Hole size (in.)		12 1/4 est.				
INTERMEDIATE CSG.	None	None	None		None	None
Size (in.)				7		
Setting Depth (ft.)				3342		
Sacks Cement				450		
Cement Top (ft.)				1335*		
Hole Size (in.)				9 7/8 est.		
LONG STRING		None				
Size (in.)	5 1/2		5 1/2	4 1/2 liner	7	5 1/2
Setting Depth (ft.)	3366		2891	3178-3642	3350	3608
Sacks Cement	330		350	75	525	940
Cement Top (ft.)	375		Surface	3178	379	Surface*
TOTAL DEPTH (ft.)	3367	3500	3436	3642	3437	3608
PRODUCING INTERVAL (ft.)	P&A	D&A	Queen (3400-3436)	Penrose (3498-3552)	Queen (3400-3437)	Queen (3412-3448) Proposed wtr. inj. well.

*Theoretical calculation based on hole size, sacks of cement used, and a yield of 1.18 cubic feet of fill per sack of cement.
**Required data not available. Insufficient data available to permit estimation.

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
Tenneco EXHIBIT NO. A-5
CASE NO. 6161
Submitted by Hugh Wilbanks
Hearing Date 22 Feb 78

EXHIBIT 2 AMENDED

TABULAR SUMMARY OF SURROUNDING WELLS

WELL IDENTIFICATION						
Operator	Bettis, Boyle, and Stovall	Stanolind Oil Co.	Humble Oil & Refg. Co.	Midwest Refining	Humble Oil & Refg. Co.	The Petroleum Corp.
Lease	Leonard Federal	Leonard Oil Co.	Leonard Federal	Farnsworth	Leonard Federal	Tenneco Federal
Well Number	7	2	1	19	1	1
LOCATION						
Unit	P	A	E	M	M	N
Section	11	12	12	12	12	12
Township	26S	26S	26S	26S	26S	26S
Range	37E	37E	37E	37E	37E	37E
SURFACE CASING						
Size (in.)	13 3/8	13 3/8	13 3/8	20	13 3/8	11 3/4
Setting Depth (ft.)	522	507	595	165	483	390
Sacks Cement	575	500	450	None	400	350
Cement Top (ft.)	Surface*	Surface*	Surface *	None	Surface*	Surface*
Hole Size (in.)			17 1/4 est.			
INTERMEDIATE CSG.						
Size (in.)	9 5/8	9 5/8	9 5/8	15 1/2	9 5/8	8 5/8
Setting Depth (ft.)	3727	3747	4225	529	3020	3790
Sacks Cement	1200	590	4000	50	2060	500
Cement Top (ft.)	1219	1524*	Surface*	314*	Surface*	1469*
Hole Size (in.)		12 1/4 est.	12 1/2 est.	17 1/2 est.		
LONG STRING			None			
Size (in.)	7	5 1/2		8 1/4[a]	5 1/2	5 1/2
Setting Depth (ft.)	9410	9845		3792	11,969	11,852
Sacks Cement	200	500		90	810	700
Cement Top (ft.)	7840*	6440*		2493*	8185*	7084*
Hole Size (in.)				9 est.		
TOTAL DEPTH (ft.)	9530	11,235	12,535	4115	11,969	11,854
PRODUCING INTERVAL (ft.)	P&A	P&A	P&A	P&A	P&A	Ellenburger (11,634'-11,828')

*Theoretical calculation based on hole size, sacks of cement used, and a yield of 1.18 cubic feet of fill per sack of cement.
**Required data not available. Insufficient data available to permit estimation.
[a] 12 1/2 inch casing set at 1050'. Cementing data not available. 10 inch casing set at 2800' with 75 sacks cement.

EXHIBIT 2 AMENDED

TABULAR SUMMARY OF SURROUNDING WELLS

WELL IDENTIFICATION						
Operator	Forest Oil Corp.	Texas Pacific Oil Co.	Tenneco Oil Company	Tenneco Oil Co.	Tenneco Oil Co.	Tenneco Oil Co.
Lease	Leonard Federal	Leonard Federal	Leonard Brothers	Leonard Brothers	Leonard Brothers	Leonard Brothers
Well Number	1	1	3	2	4	11
LOCATION						
Unit	P	E	G	I	J	K
Section	12	13	13	13	13	13
Township	26S	26S	26S	26S	26S	26S
Range	37E	37E	37E	37E	37E	37E
SURFACE CASING						
Size (in.)	13 3/8	13 3/8	13 3/8	8 5/8	8 5/8	8 5/8
Setting Depth (ft.)	494	422	409	510	513	513
Sacks Cement	360	350	400	400	550	500
Cement Top (ft.)	Surface*	Surface*	Surface*	Surface	Surface	Surface*
Hole Size (in.)	17 1/4 est.	17 1/4 est.				
INTERMEDIATE CSG.			None	None	None	None
Size (in.)	8 5/8	8 5/8				
Setting Depth (ft.)	3765	3790				
Sacks Cement	1350	2410				
Cement Top (ft.)	Surface*	Surface*				
Hole size (in.)	12 1/4 est.	12 1/4 est.				
LONG STRING	None					
Size (in.)		5 1/2	9 5/8	5 1/2	5 1/2	5 1/2
Setting Depth (ft.)		6980	4199	3595	3557	3812
Sacks Cement		775	4000	1850	1140	800
Cement Top (ft.)		1356*	Surface*	Surface*	Surface*	Surface*
Hole Size (in.)		7 3/4 est.				
TOTAL DEPTH (ft.)	12,125	9772	9861	3595	3557	3812
PRODUCING INTERVAL (ft.)	D&A	San Andres Water Source Well (3963-4444)	Queen, Penrose (3398-3524)	Queen (3446-3466)	Penrose (3477-3524)	Penrose (3509-3551)

*Theoretical calculation based on hole size, sacks of cement used, and a yield of 1.18 cubic feet of fill per sack of cement.
**Required data not available. Insufficient data available to permit estimation.

EXHIBIT 2 AMENDED

TABULAR SUMMARY OF SURROUNDING WELLS

WELL IDENTIFICATION						
Operator	Tenneco Oil Co.	Texas-Pacific Oil Co.	Tenneco Oil Co.	Tenneco Oil Co.	Tenneco Oil Co.	Tenneco Oil Co.
Lease	Leonard Brothers	S.Leonard Queen Unit	Leonard Brothers	Leonard Brothers	Leonard Brothers	Leonard Federal
Well Number	7	1	5	1	14	5
LOCATION						
Unit	M	N	O	P	B	I
Section	13	13	13	13	14	14
Township	26S	26S	26S	26S	26S	26S
Range	37E	37E	37E	37E	37E	37E
SURFACE CASING						
Size (in.)	8 5/8	10 3/4	8 5/8	8 5/8	8 5/8	10 3/4
Setting Depth (ft.)	517	292	512	505	265	209
Sacks Cement	500	100	520	310	225	120
Cement Top (ft.)	Surface*	Surface	Surface	Surface*	Surface*	Surface
INTERMEDIATE CSG.	None	None	None	None	None	
Size (in.)						8 5/8
Setting Depth (ft.)						1115
Sacks Cement						75
Cement Top (ft.)						413*
Hole Size (in.)						9 7/8 est:
Long String					None	
Size (in.)	5 1/2	7	5 1/2	5 1/2		7
Setting Depth (ft.)	3832	3250	3608	3620		3369
Sacks Cement	1010	400	950	900		75
Cement Top (ft.)	Surface*	342	Surface*	Surface*		2122*
Hole Size (in.)						7 7/8 est.
TOTAL DEPTH (ft.)	3832	3500	3608	3621	3453	3437
PRODUCING INTERVAL (ft.)	Queen (3368-3388 3393-3412) Proposed Wtr. Inj. Well	Queen,Penrose Wtr.Inj.Well (3381-3474)	Penrose (3480-3553)	Queen (3454-3497) Proposed wtr. Inj. well	P&A	Queen (3432-3437)

*Theoretical calculation based on hole size, sacks of cement used, and a yield of 1.18 cubic feet of fill per sack of cement.
**Required data not available. Insufficient data available to permit estimation.

EXHIBIT 2 AMENDED

TABULAR SUMMARY OF SURROUNDING WELLS

WELL IDENTIFICATION						
Operator	Tenneco Oil Co.	Midwest Refining	Bettis, Boyle, and Stovall	Tenneco Oil Co.	Tenneco Oil Co.	El Paso Natural Gas Company
Lease	Leonard Federal	Farnsworth	Leonard Federal	Leonard Federal	Leonard Federal	Rhodes GSU
Well Number	10	19	8	8	9	8
LOCATION						
Unit	J	M	M	O	P	J
Section	14	14	14	14	14	15
Township	26S	26S	26S	26S	26S	26S
Range	37E	37E	37E	37E	37E	37E
SURFACE CASING						
Size (in.)	8 5/8	16	7	13 3/8	8 5/8	8 5/8
Setting Depth (ft.)	471	554	400	422	505	635
Sacks Cement	520	25	170	450	520	300
Cement Top (ft.)	Surface*	516*	Surface*	Surface*	Surface*	Surface*
Hole Size (in.)		20 est.				
INTERMEDIATE CSG.	None		None	None	None	None
Size (in.)		13				
Setting Depth (ft.)		1184				
Sacks Cement		80				
Cement Top (ft.)		828*				
Hole Size (in.)		14 3/4 est.				
LONG STRING						
Size (in.)	5 1/2	10 3/4	4 1/2	9 5/8	5 1/2	4 1/2
Setting Depth (ft.)	3595	2852	2701	3842	3551	3200
Sacks Cement	1200	75	100	1300	1100	400
Cement Top (ft.)	Surface*	2382*	1731*	Surface*	Surface*	1218*
Hole Size (in.)		12 1/4 est.				
TOTAL DEPTH (ft.)	3597	3877	3100	10,650	3551	3200
PRODUCING INTERVAL (ft.)	Queen (3379-3447)	D&A	Yates (2701-3100)	Queen (3453-3490)	Queen (3380-3440)	Yates (2774-3102)

*Theoretical calculation based on hole size, sacks of cement used, and a yield of 1.18 cubic feet of fill per sack of cement.
**Required data not available. Insufficient data available to permit estimation.

EXHIBIT 2 AMENDED

TABULAR SUMMARY OF SURROUNDING WELLS

WELL IDENTIFICATION						
Operator	El Paso Natural Gas Company	Texaco, Inc.	Texas-Pacific Oil Co.	Leonard Oil Co.	Texas-Pacific Oil Co.	Texas-Pacific Oil Co.
Lease	Rhodes GSU	Rhodes "A"	S.Leon.Queen Unit	Parker	S.Leon.Queen Unit	S. Leon.Queen Unit
Well Number	25	2	2	2	6	11
LOCATION						
Unit	O	J	A	G	H	I
Section	15	22	23	23	23	23
Township	26S	26S	26S	26S	26S	26S
Range	37E	37E	37E	37E	37E	37E
SURFACE CASING						
Size (in.)	8 5/8	15 1/2	10 3/4	8 5/8	12 1/2	13 3/8
Setting Depth (ft.)	635	255	200	300	160	168
Sacks Cement	300	200	75	125	50 est.	50
Cement Top (ft.)	Surface*	Surface*	Surface	Surface*	76*	Surface*
Hole Size (in.)		17 1/2 est.		12 1/4 est.	17 1/4 est.	
INTERMEDIATE CSG.	None			None		
Size (in.)		10 3/4	8 5/8		8	8 5/8
Setting Depth (ft.)		1150	2146		1230	1214
Sacks Cement		500	50		100	100
Cement Top (ft.)		Surface*	1678*		628*	364*
Hole Size (in.)		14 est.	9 7/8 est.			
LONG STRING						
Size (in.)	4 1/2	7 5/8	7	5 1/2	7	7
Setting Depth (ft.)	3240	3100	3254	3345	3250	3246
Sacks Cement	400	125	75	250	100	100
Cement Top (ft.)	1163*	2413*	2007*	1642*	2117*	2114*
Hole size (in.)		9 7/8 est.	7 7/8 est.	7 7/8 est.		
TOTAL DEPTH (ft.)	3240	3280	3427	3620	3570	3482
PRODUCING INTERVAL (ft.)	Yates (2938-3119)	Rhodes Storage Area(3130-3206)	Queen Wtr.Inj.Well (3254-3427)	P&A	Queen Wtr.Inj.Well (3250-3570)	Queen Wtr.Inj.Well (3246-3482)

*Theoretical calculation based on hole size, sacks of cement used, and a yield of 1.18 cubic feet of fill per sack of cement.
**Required data not available. Insufficient data available to permit estimation.

EXHIBIT 2 AMENDED

TABULAR SUMMARY OF SURROUNDING WELLS

WELL IDENTIFICATION						
Operator	Herman J. Ledbetter	Texas-Pacific Oil Co.	Texas-Pacific Oil Co.	Texas-Pacific Oil Co.	Texas-Pacific Oil Co.	Texas-Pacific Oil Co.
Lease	Jay Federal	S.Leon.Queen Unit	S.Leon.Queen Unit	S.Leon.Queen Unit	S.Leon.Queen Unit	S.Leon.Queen Unit
Well Number	1	5	4	3	7	8
LOCATION						
Unit	A	B	C	D	E	F
Section	24	24	24	24	24	24
Township	26S	26S	26S	26S	26S	26S
Range	37E	37E	37E	37E	37E	37E
SURFACE CASING						
Size (in.)	8 5/8	8 5/8	9 5/8	8 5/8	13 3/8	12 1/2
Setting Depth (ft.)	285	300	299	307	170	250
Sacks Cement	125	200	250	120	50 est.	50 est.
Cement Top (ft.)	Surface*	Surface	Surface	Surface	79*	166*
Hole Size (in.)					17 1/4 est.	17 1/4 est.
INTERMEDIATE CSG.	None	None	None	None		
Size (in.)					8 5/8	8 5/8
Setting Depth (ft.)					1240	1210
Sacks Cement					100	50
Cement Top (ft.)					954*	1023*
Hole Size (in.)					12 1/4 est.	11 1/2 est.
LONG STRING						
Size (in.)	4 1/2	5 1/2	7	5 1/2	7	7[a]
Setting Depth (ft.)	3687	3245	3250	3250	3230	3249
Sacks Cement	525	400	500	400	100	100
Cement Top (ft.)	1161	Surface	Surface	Surface	1274*	1293*
Hole size (in.)					7 3/4 est.	7 3/4 est.
TOTAL DEPTH (ft.)	3692	3477	3445	3457	3522	3523
PRODUCING INTERVAL (ft.)	Queen, Penrose (3460-3576)	Queen (3245-3477)	Queen (3250-3445)	Queen, Penrose (3260-3457)	Queen, Penrose (3250-3522)	Queen, Penrose Wtr.Inj.Well (3409-3508)

*Theoretical calculation based on hole size, sacks of cement used and a yield of 1.18 cubic feet of fill per sack of cement.
**Required data not available. Insufficient data available to permit estimation.
[a] 4 1/2" liner from 3091'-3569'. Cemented with 100 sacks.

EXHIBIT 2 AMENDED

TABULAR SUMMARY OF SURROUNDING WELLS

WELL IDENTIFICATION						
Operator	Texas-Pacific Oil Co.	Texas-Pacific Oil Co.	Texas-Pacific Oil Co.	Texas-Pacific Oil Co.	Ralph Lowe	Ralph Lowe
Lease	S.Leon.Qn.Unit	S.Leon.Qn.Unit	S.Leon.Qn.Unit	S.Leon.Qn.Unit	Self	Self
Well Number	9	10	12	15	1	2
LOCATION						
Unit	G	H	L	M	M	E
Section	24	24	24	24	6	7
Township	26S	26S	26S	26S	26S	26S
Range	37E	37E	37E	37E	38E	38E
SURFACE CASING						
Size (in.)	8 5/8	7 5/8	12 1/2	10 3/4	13 3/8	13 3/8
Setting Depth (ft.)	295	1005	160	298	705	605
Sacks Cement	150	350	50	150	500	300
Cement Top (ft.)	Surface	Surface	76*	Surface	Surface*	58*
Hole size (in.)			17 1/4 est.		17 1/4 est.	17 1/4 est.
INTERMEDIATE CSG.	None	None		None	None	None
Size (in.)			8 5/8			
Setting Depth (ft.)			1190			
Sacks Cement			100			
Cement Top (ft.)			816*			
Hole size (in.)			11 1/2 est.			
LONG STRING					None	None
Size (in.)	5 1/2	4 1/2	7	5 1/2		
Setting Depth (ft.)	3250	3620	3250	3348		
Sacks Cement	400	300	100	400		
Cement Top (ft.)	Surface	1072*	1294*	Surface		
Hole size (in.)			7 3/4 est.			
TOTAL DEPTH (ft.)	3573	3620	3505	3540	3475	3978
PRODUCING INTERVAL (ft.)	Queen,Penrose (3250-3573)	Queen,Penrose Wtr.Inj.Well (3495-3612)	Queen (3417-3505)	Queen Wtr.Inj.Well (3303-3540)	D&A	D&A

*Theoretical calculation based on hole size, sacks of cement used, and a yield of 1.18 cubic feet of fill per sack of cement.
**Required data not available. Insufficient data available to permit estimation.

EXHIBIT 2 AMENDED

TABULAR SUMMARY OF SURROUNDING WELLS

WELL IDENTIFICATION			
Operator	Forest Oil Corp.	Yates Pet. Corp.	Ralph Lowe
Lease	Lowe Federal	Powell Federal	Haralson
Well Number	1	1	1
LOCATION			
Unit	L	L	D
Section	7	18	19
Township	26S	26S	26S
Range	38E	38E	38E
SURFACE CASING			
Size (in.)	13 3/8	8 5/8	10 3/4
Setting Depth (ft.)	473	398	693
Sacks Cement	340	250	200
Cement Top (ft.)	Surface*	Surface*	Surface*
INTERMEDIATE CSG.		None	None
Size (in.)	9 5/8		
Setting Depth (ft.)	3895		
Sacks Cement	1500		
Cement Top (ft.)	Surface*		
Hole size (in.)	12 1/4 est.		
LONG STRING			None
Size (in.)	5 1/2	5 1/2	
Setting Depth (ft.)	12,948	3733	
Sacks Cement	1390	125	
Cement Top (ft.)	6455*	2877*	
Hole size (in.)	8 3/4 est.		
TOTAL DEPTH (ft.)	12,950	3733	3750
PRODUCING INTERVAL (ft.)	P&A	Penrose (3596-3637)	D&A

*Theoretical calculation based on hole size, sacks of cement used, and a yield of 1.18 cubic feet of fill per sack of cement.
**Required data not available. Insufficient data available to permit estimation.

EXHIBIT 9

STATE OF NEW MEXICO

STATE ENGINEER OFFICE

ROSWELL

S. E. REYNOLDS
STATE ENGINEER

ADDRESS CORRESPONDENCE TO:
P. O. BOX 1717
ROSWELL, NEW MEXICO
88201

January 9, 1978

Tenneco Oil Company
Penthouse 720 South Colorado Blvd.
Denver, Colorado 80222

Attention Mr. Hugh Wilbanks:

Dear Mr. Wilbanks:

In accordance with our telephone conversation of January 5, 1978 regarding the fresh water zones in the Leonard Queen pool in Township 26 South, Range 37 East of Lea County, New Mexico, please be advised that in this area fresh water is produced from the alluvium, the Triassic and in some sections the Rustler. The deepest formation producing fresh water is the Rustler formation which produces from about 1050 feet. Based on records available to me there is no water below the salt section in the area which contains water with less than 10,000 ppm total dissolved solids.

Yours truly,

James I. Wright
Asst. District Supervisor

JIW*td

EXHIBIT 8
FRACTURE GRADIENTS - QUEEN/PENROSE FORMATION
SOUTH LEONARD QUEEN FIELD
LEA COUNTY, NEW MEXICO

WELL NAME	TOP PERFORATION	DATE OF FRAC TREATMENT	ISI PRESSURE	FORMATION FRAC GRADIENT	SURFACE FRAC GRADIENT	FORMATION
Leonard Brothers 1	3454	10/10/76	800	.665	.232	Queen
Leonard Brothers 2	3446	3/13/77	1100	.752	.319	Queen
Leonard Brothers 3	3398	9/06/77	750	.654	.221	Queen/Penrose
Leonard Brothers 4	3477	9/10/77	700	.634	.201	Penrose
Leonard Brothers 5	3480	9/14/77	1100	.749	.316	Penrose
Leonard Brothers 7	3368	11/08/77	900	.700	.267	Queen
Leonard Brothers 11	3451	11/12/77	700	.636	.203	Penrose
Leonard Federal 3	3498	9/27/77	450	.562	.129	Penrose
Leonard Federal 6	3412	8/24/77	400	.550	.117	Queen
Leonard Federal 8	3453	8/08/77	900	.694	.261	Queen
Leonard Federal 9	3380	8/15/77	700	.640	.207	Queen
Leonard Federal 10	3379	8/29/77	520	.587	.154	Queen
Average	3433	--	752	.652	.219	--

EXHIBIT 7
WATER ANALYSIS

SOUTHWESTERN LABORATORIES

FORT WORTH · DALLAS · HOUSTON · MIDLAND · BEAUMONT · TEXARKANA

CONSULTING, ANALYTICAL CHEMISTS
AND TESTING ENGINEERS

Midland Texas 12-28-77 File No. C-1950-W

Report of tests on Water

To Tenneco Oil Company Date Rec'd. 12-27-77

Received from

Identification Marks Texas Pacific Water Supply Well, 12-27-77

	Mg/L	M.EQ./L
Calcium	920	45.91
Magnesium	291	23.89
Sodium (calc.)	2936	127.69
Carbonate	None	
Bicarbonate	747	12.25
Sulfate	2657	55.27
Chloride	4609	129.97
Total Dissolved Solids (calc.)	11787	
Hardness (as CaCO3)	3500	

3cc Tenneco Oil Company

SOUTHWESTERN LABORATORIES

Jack H Barton

Lab. No. 30334

Our letters and reports are for the exclusive use of the clients to whom they are addressed. The use of our names must receive our prior written approval. Our letters and reports apply only to the samples tested and are not necessarily indicative of the qualities of identical or similar products.

EXHIBIT 7
WATER ANALYSIS

SOUTHWESTERN LABORATORIES

FORT WORTH - DALLAS - HOUSTON - MIDLAND - BEAUMONT-TEXARKANA

CONSULTING, ANALYTICAL CHEMISTS
AND TESTING ENGINEERS

Midland, Texas 12-15-77 File No. C-1950-W

Report of tests on Water

To Tenneco Oil Company Date Rec'd. 12-7-77

Received from

Identification Marks Leonard Brothers, Well #5

	Mg/L
Calcium	3040
Magnesium	3741
Sodium (calc.)	18153
Carbonate	None
Bicarbonate	93
Sulfate	3223
Chloride	41840
Total Dissolved Solids (calc.)	70044
Hardness (as $CaCO_3$)	23000

3cc Tenneco Oil Co.

SOUTHWESTERN LABORATORIES

Jack H Baxter

Lab. No. 30323

Our letters and reports are for the exclusive use of the clients to whom they are addressed. The use of our names must receive our prior written approval. Our letters and reports apply only to the samples tested and are not necessarily indicative of the qualities of identical or similar products.

EXHIBIT 7
WATER ANALYSIS

SOUTHWESTERN LABORATORIES

FORT WORTH · DALLAS · HOUSTON · MIDLAND · BEAUMONT · TEXARKANA

CONSULTING, ANALYTICAL CHEMISTS
AND TESTING ENGINEERS

Midland, Texas 12-15-77 File No. C-1950-W

Report of tests on Water

To Tenneco Oil Company Date Rec'd. 12-7-77

Received from

Identification Marks Leonard Federal, Well #6

	Mg/L
Calcium	100
Magnesium	789
Sodium (calc.)	7963
Carbonate	None
Bicarbonate	3977
Sulfate	525
Chloride	12056
Total Dissolved Solids (calc.)	23422
Hardness (as $CaCO_3$)	4500

3cc Tenneco Oil Co.

-30-

SOUTHWESTERN LABORATORIES

Jack H Barton

Lab. No. 30323

Our letters and reports are for the exclusive use of the clients to whom they are addressed. The use of our names must receive our prior written approval. Our letters and reports apply only to the samples tested and are not necessarily indicative of the qualities of identical or similar products.

EXHIBIT 6

MISCELLANEOUS INJECTION
INFORMATION

I. Injection Zones

Name	Queen	Penrose
Depth	3400'	3500'

II. Injection Fluid

Type: Salt Water

Sources: 1. Produced water from Queen and Penrose formations.

2. Salt water from the San Andres formation in the interval 3900-4500'.

III. Injection Data

Anticipated Injection Pressure: 750 psig

Anticipated Injection Volume

Maximum Per Well: 1244 BWPD

Average Per Well: 848 PWPD

IV. Water Analysis

Water analyses for the following wells are included in Exhibit No. 7:

Operator	Well	Well Status	Zone of Completion
Tenneco Oil Co.	Leonard Federal 6-0,Sec.11	Producing	Queen
Tenneco Oil Co.	Leonard Brothers 5-0 Sec.13	Producing	Penrose
Texas-Pacific Oil Co.	Leonard Federal 1-E,Sec.13	Water Source well	San Andres

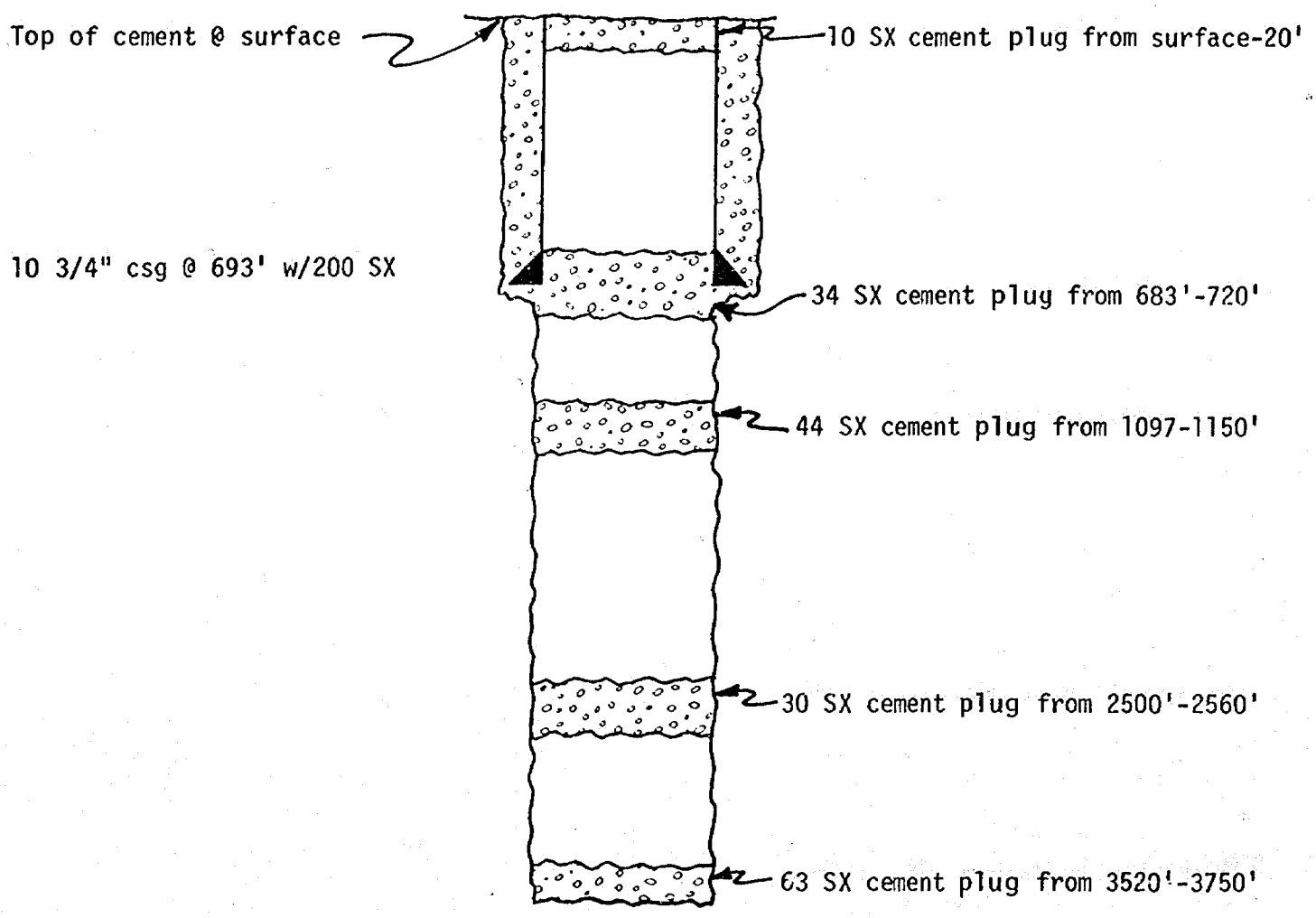
EXHIBIT 5

TENNECO OIL COMPANY

SOUTH LEONARD AREA

WELL SCHEMATICS

RALPH LOWE
HARALSON 1-D
SEC. 19, T26S R38E



Note: Mud was placed between all cement plugs.

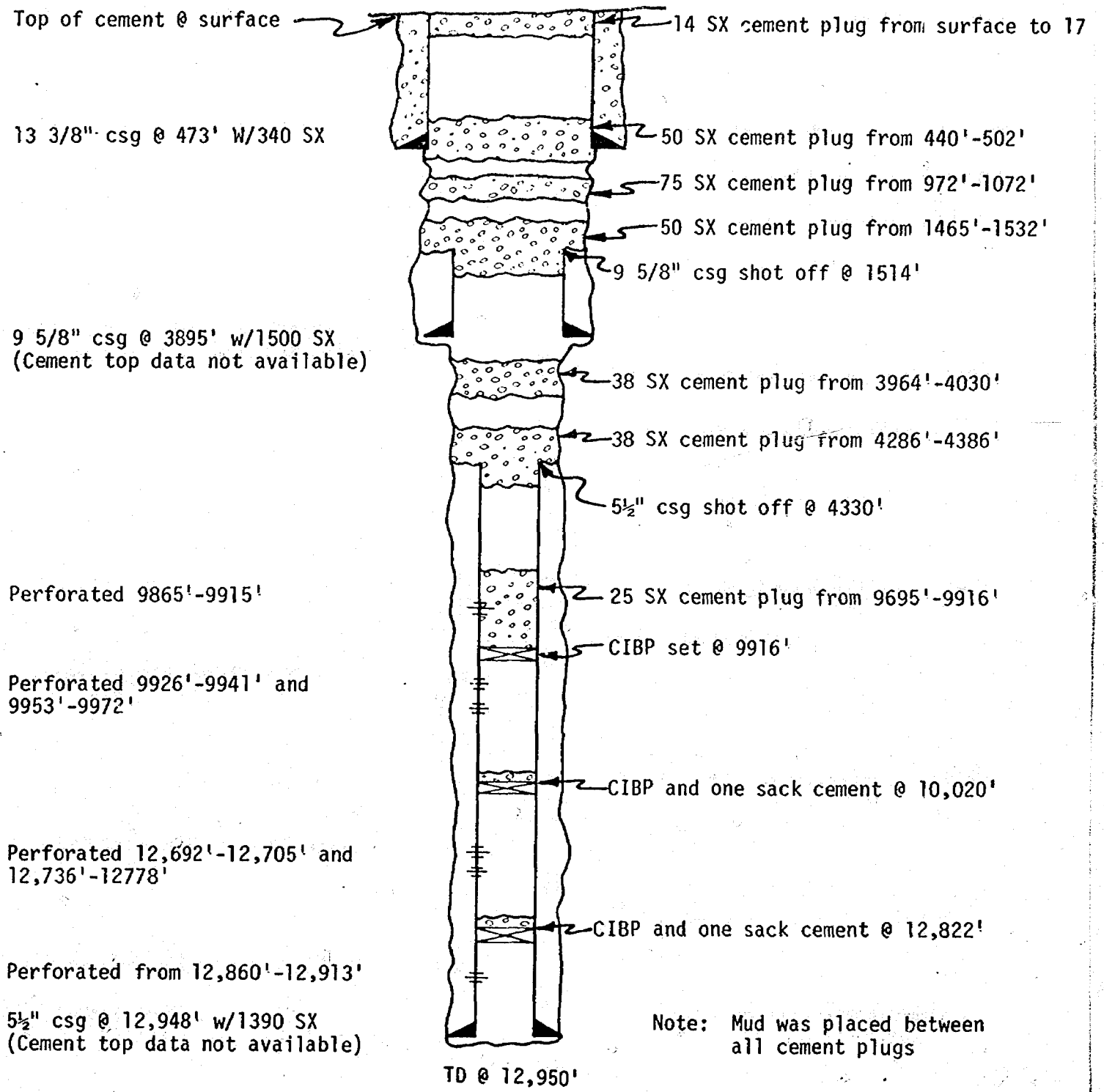
EXHIBIT 5

TENNECO OIL COMPANY

SOUTH LEONARD AREA

WELL SCHEMATICS

FOREST OIL CORP.
LOWE FEDERAL 1-L
SEC. 7, T26S R38E



Note: Mud was placed between all cement plugs

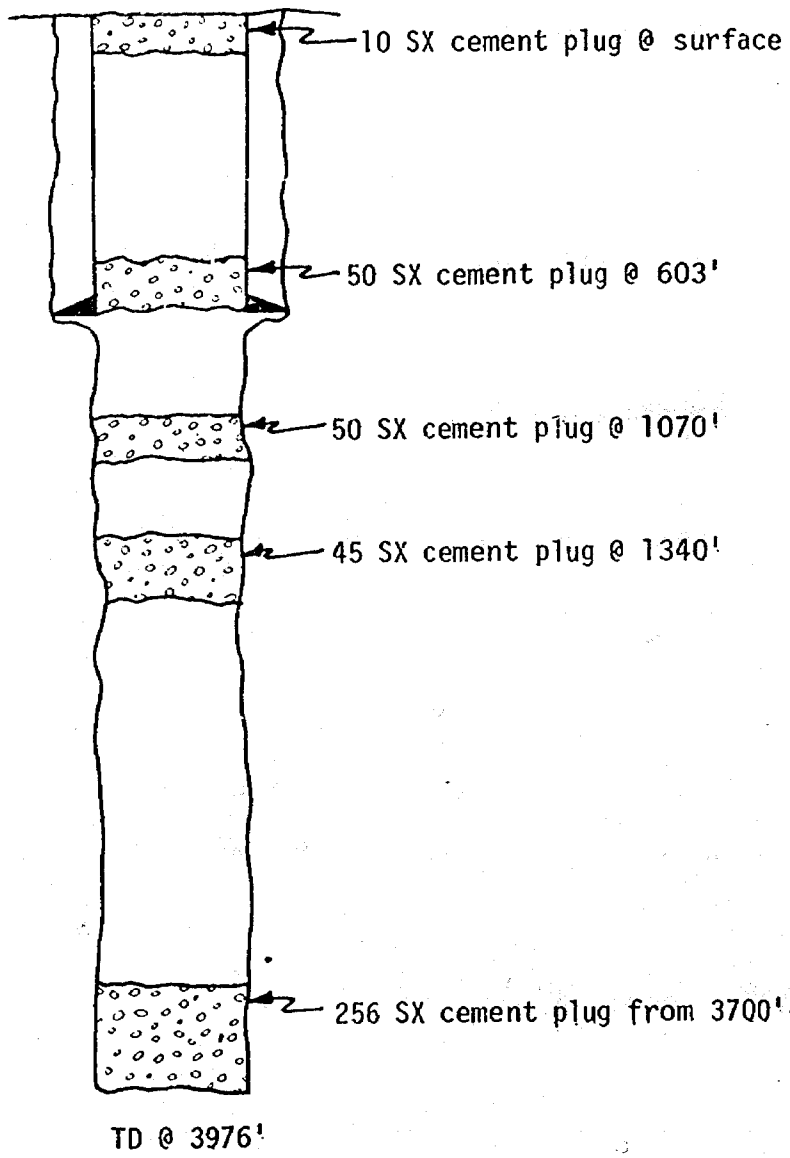
EXHIBIT 5

TENNECO OIL COMPANY

SOUTH LEONARD AREA

WELL SCHEMATICS

RALPH LOWE
SELF 2-E
SEC. 7, T26S R38E



Note: Mud was placed between all cement plugs.

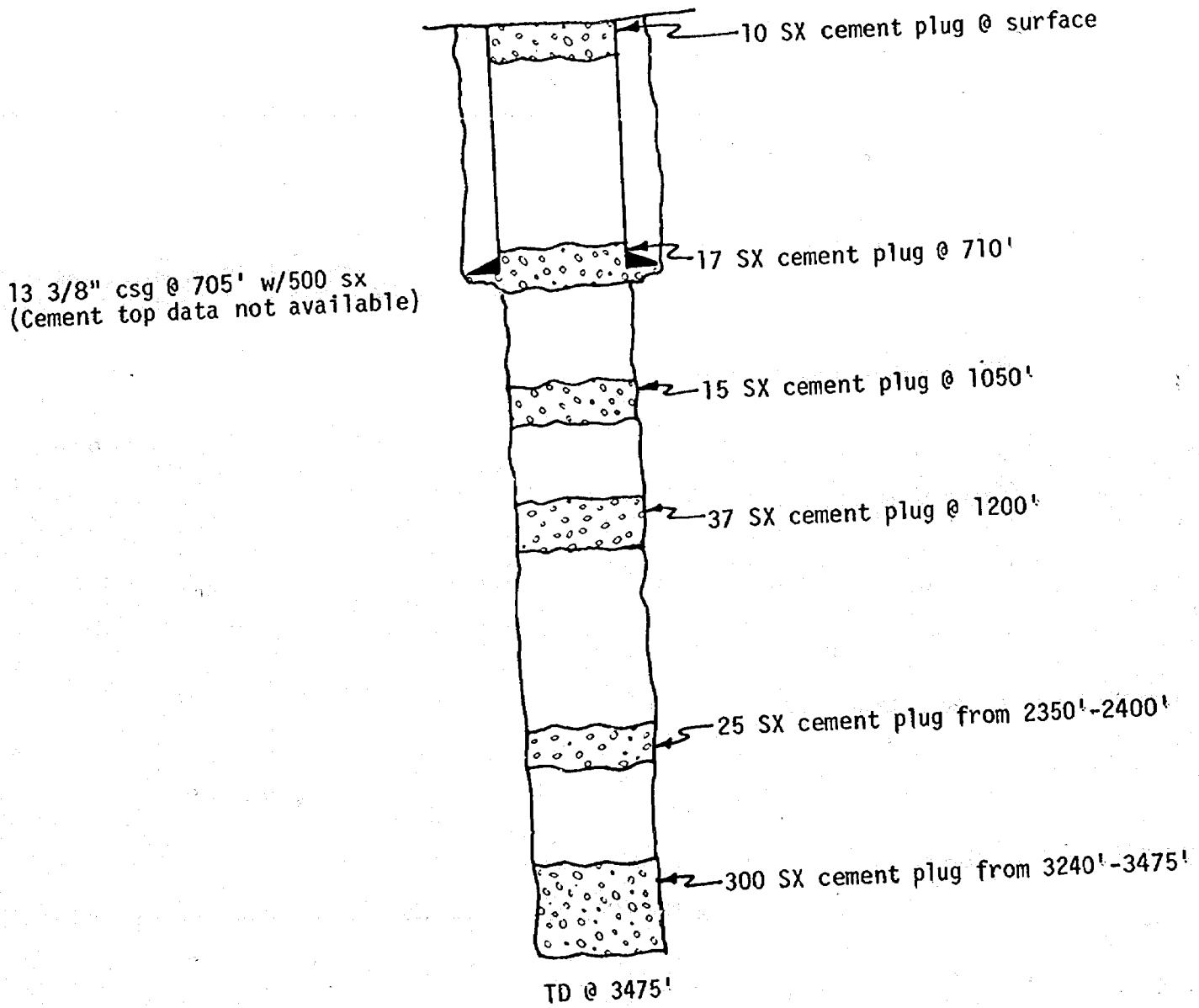
EXHIBIT 5

TENNECO OIL COMPANY

SOUTH LEONARD AREA

WELL SCHEMATICS

RALPH LOWE
SELF I-M
SEC. 6, T26S R38E



Note: Mud was placed between all cement plugs.

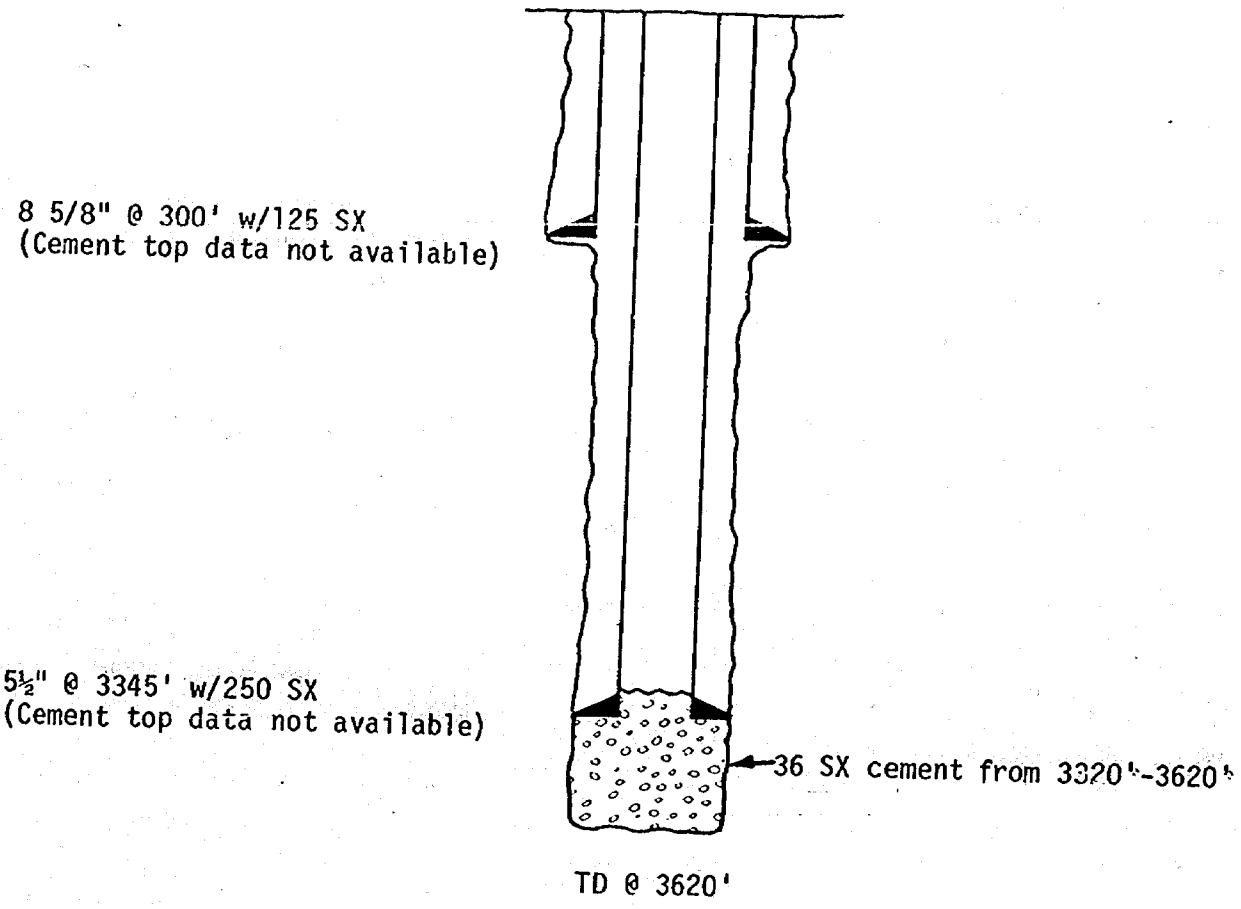
EXHIBIT 5

TENNECO OIL COMPANY

SOUTH LEONARD AREA

WELL SCHEMATICS

LEONARD OIL CO.
PARKER 2-G
SEC. 23, T26S R37E



Note: Plugging records for this well are not available.

EXHIBIT 5

TENNECO OIL COMPANY

SOUTH LEONARD AREA

WELL SCHEMATICS

MIDWEST REFINING
FARNSWORTH 19-M
SEC. 14, T26S R37E

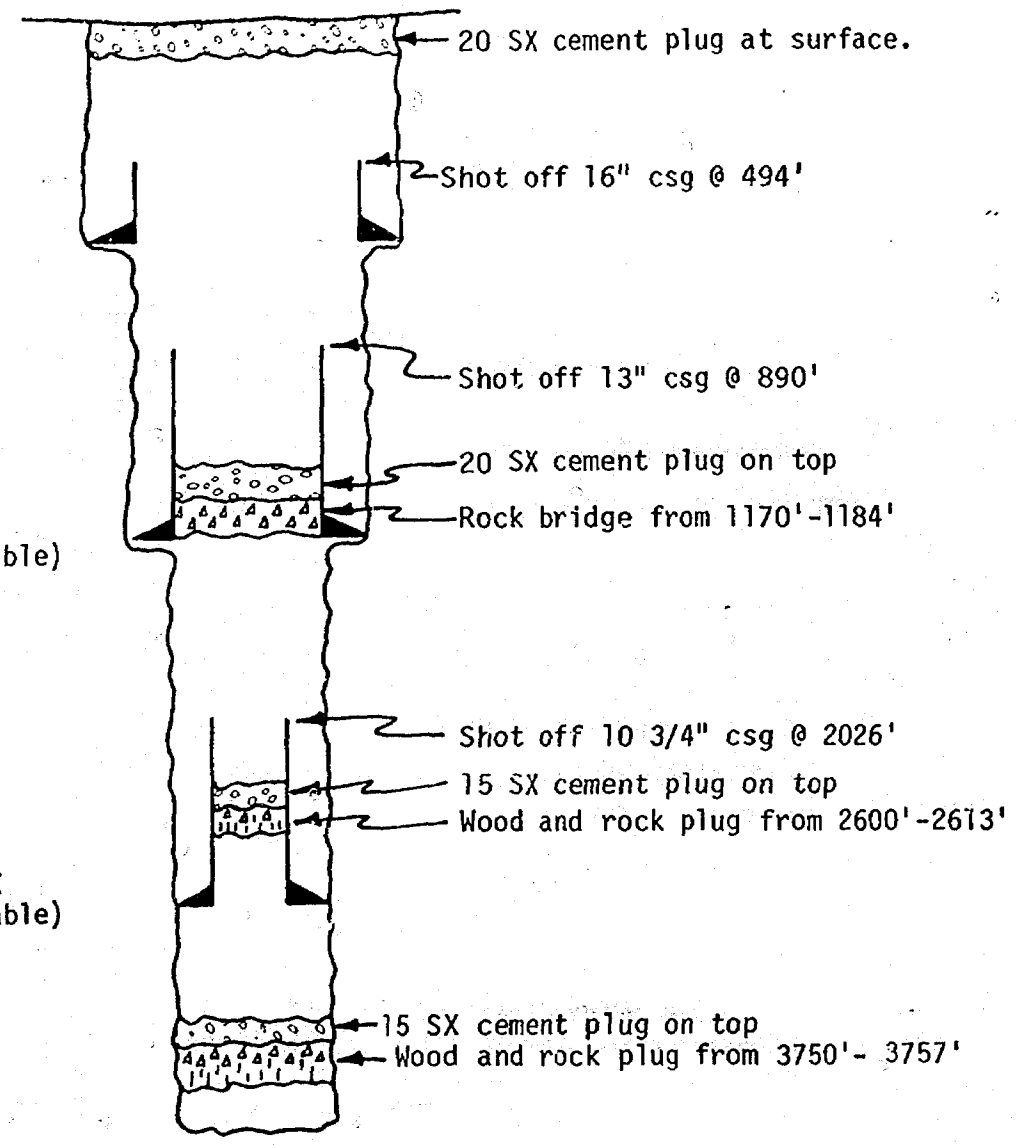


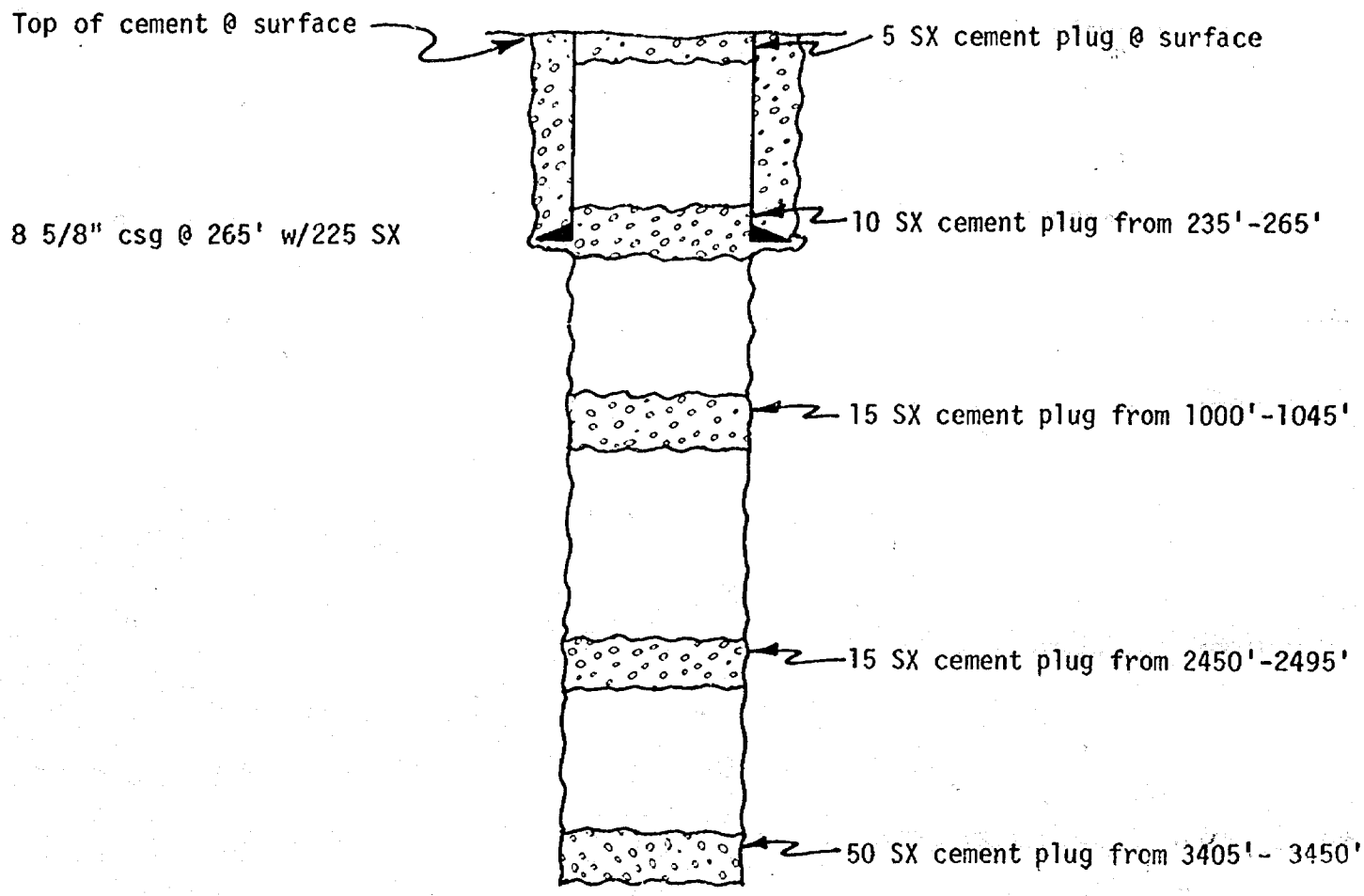
EXHIBIT 5

TENNECO OIL COMPANY

SOUTH LEONARD AREA

WELL SCHEMATICS

TENNECO OIL CO.
LEONARD BROTHERS 14-B
SEC. 14, T26S R37E



TD @ 3453'

EXHIBIT 5

TENNECO OIL COMPANY

SOUTH LEONARD AREA

WELL SCHEMATICS

FOREST OIL CORP.

LEONARD FEDERAL 1-P

SEC. 12, T26S R37E

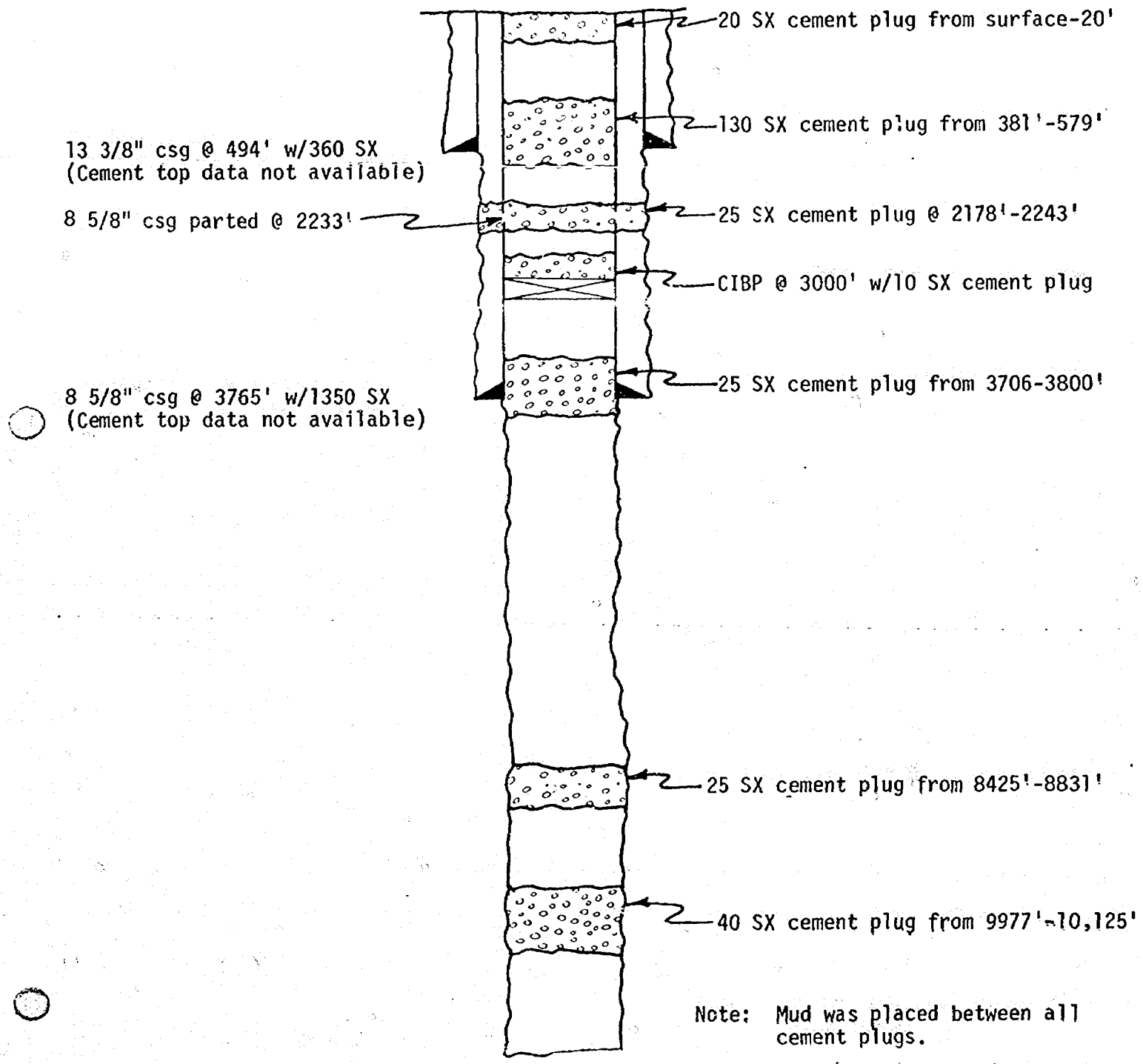


EXHIBIT 5

TENNECO OIL COMPANY

SOUTH LEONARD AREA

WELL SCHEMATICS

HUMBLE OIL & REFINING CO.

LEONARD FEDERAL 1-M

SEC. 12, T26S R37E

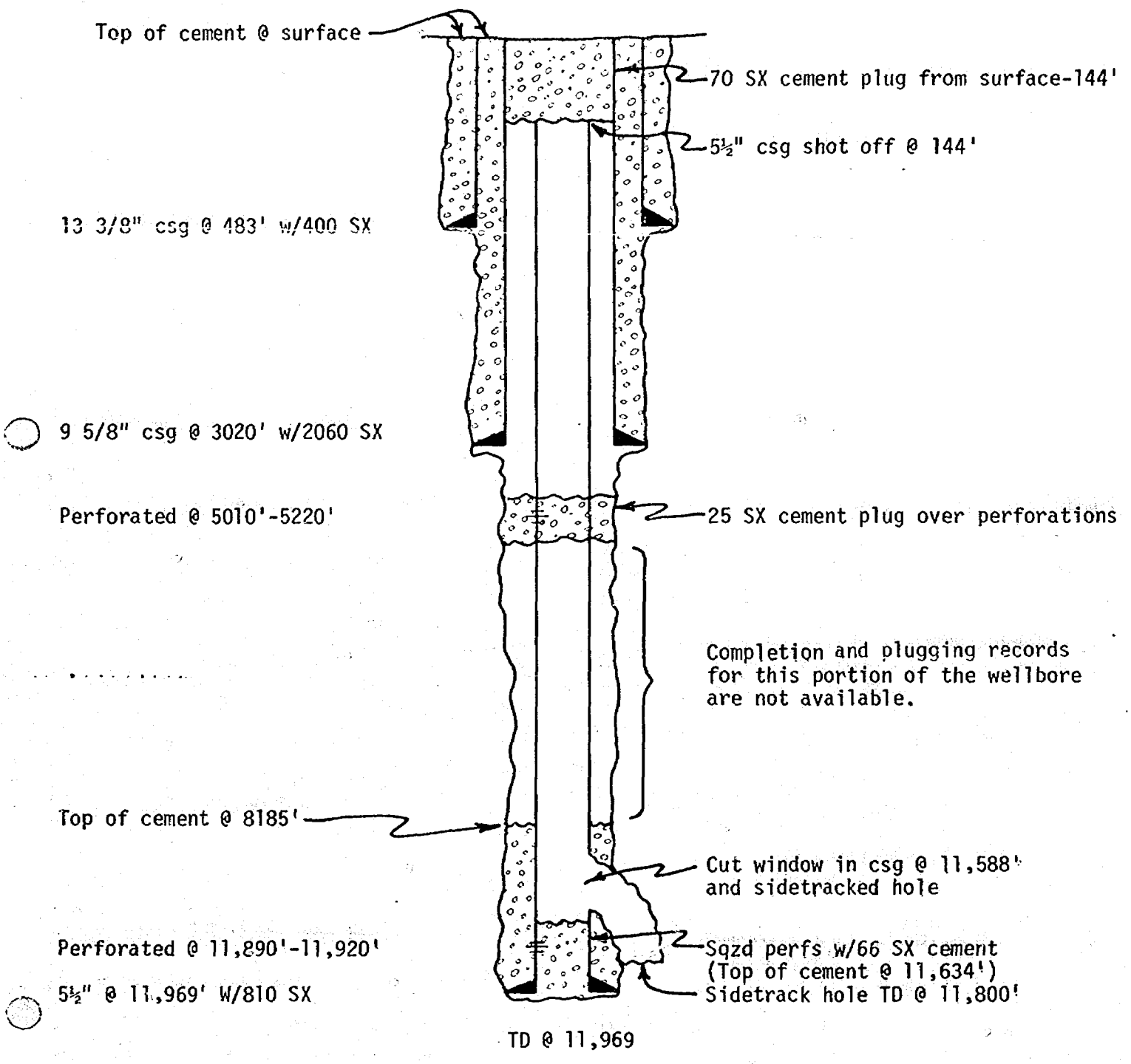


EXHIBIT 5

TENNECO OIL COMPANY

SOUTH LEONARD AREA

WELL SCHEMATICS

HUMBLE OIL & REFINING CO.
LEONARD FEDERAL 1-M
SEC. 12, T26S R37E

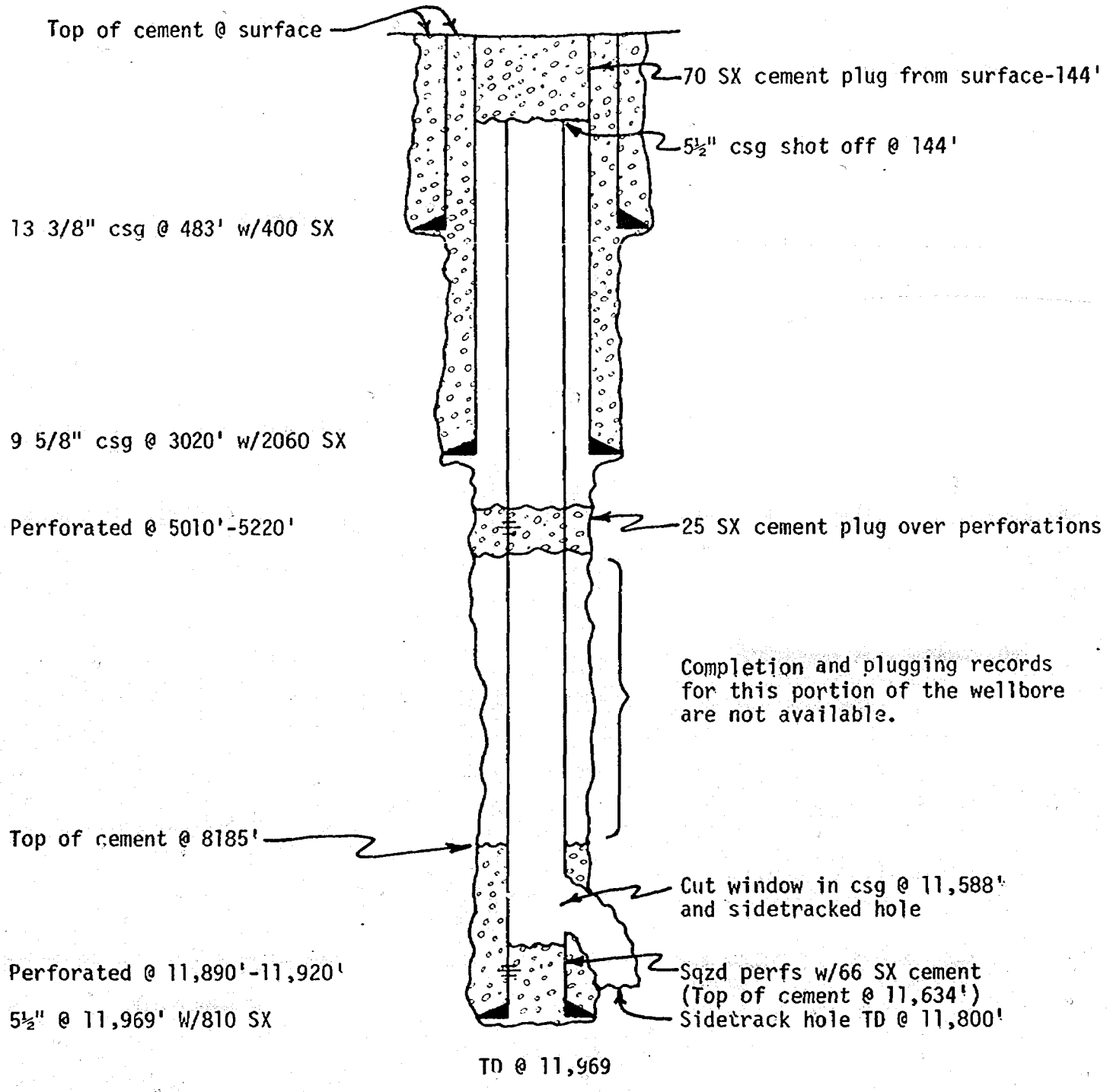


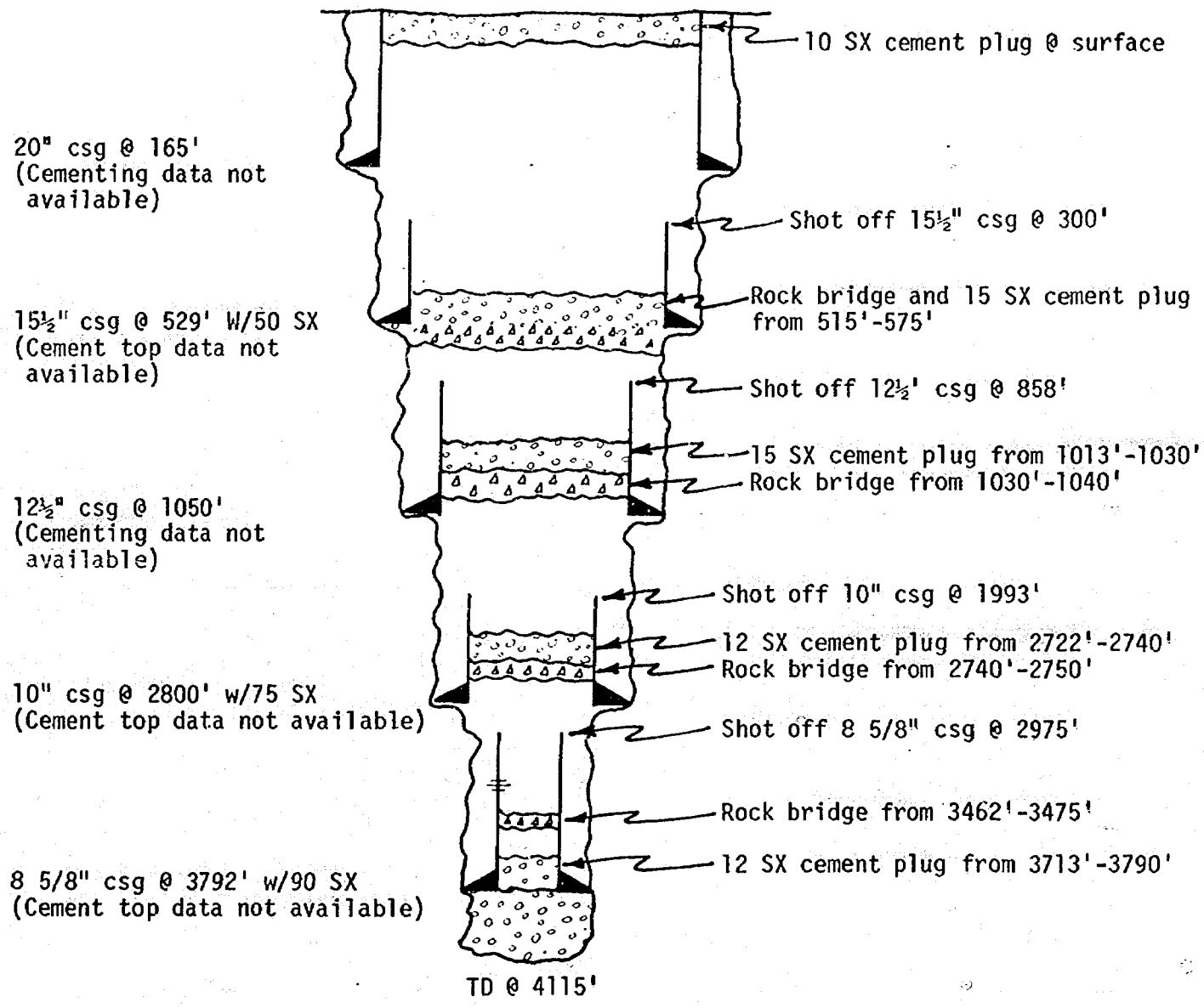
EXHIBIT 5

TENNECO OIL COMPANY

SOUTH LEONARD AREA

WELL SCHEMATICS

MIDWEST REFINING
FARNSWORTH 19-M
SEC. 12, T26S R37E



Note: Mud was placed between all cement plugs.

EXHIBIT 5

TENNECO OIL COMPANY

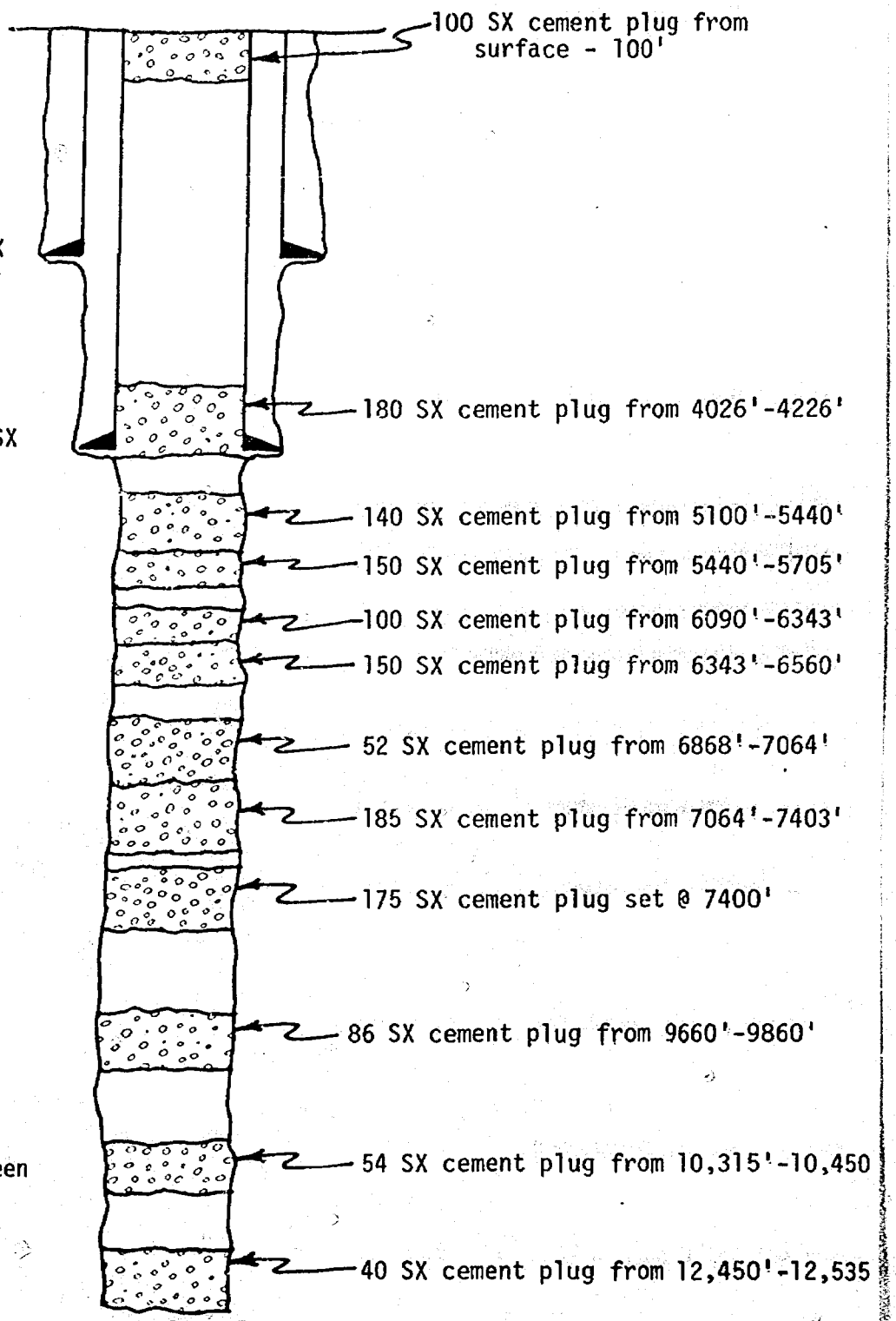
SOUTH LEONARD AREA

WELL SCHEMATICS

HUMBLE OIL & REFINING CO.

LEONARD FEDERAL 1-E

SEC. 12, T26S R37E



Note: Mud was placed between all cement plugs.

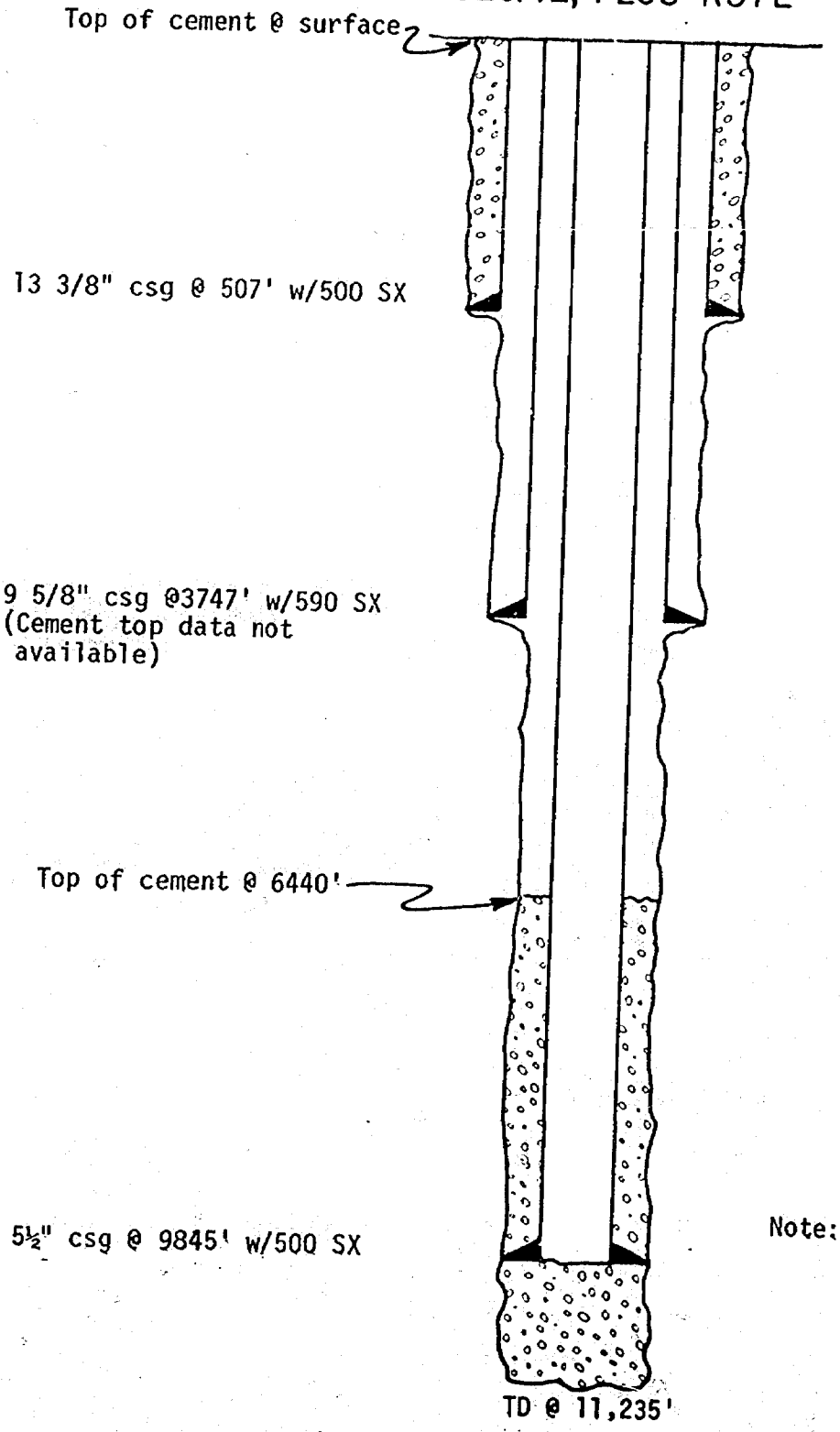
EXHIBIT 5

TENNECO OIL COMPANY

SOUTH LEONARD AREA

WELL SCHEMATICS

STANOLIND OIL CO.
LEONARD OIL CO. 2-A
SEC. 12, T 26S R37E



Note: Plugging records for this well are not available.

EXHIBIT 5

TENNECO OIL COMPANY

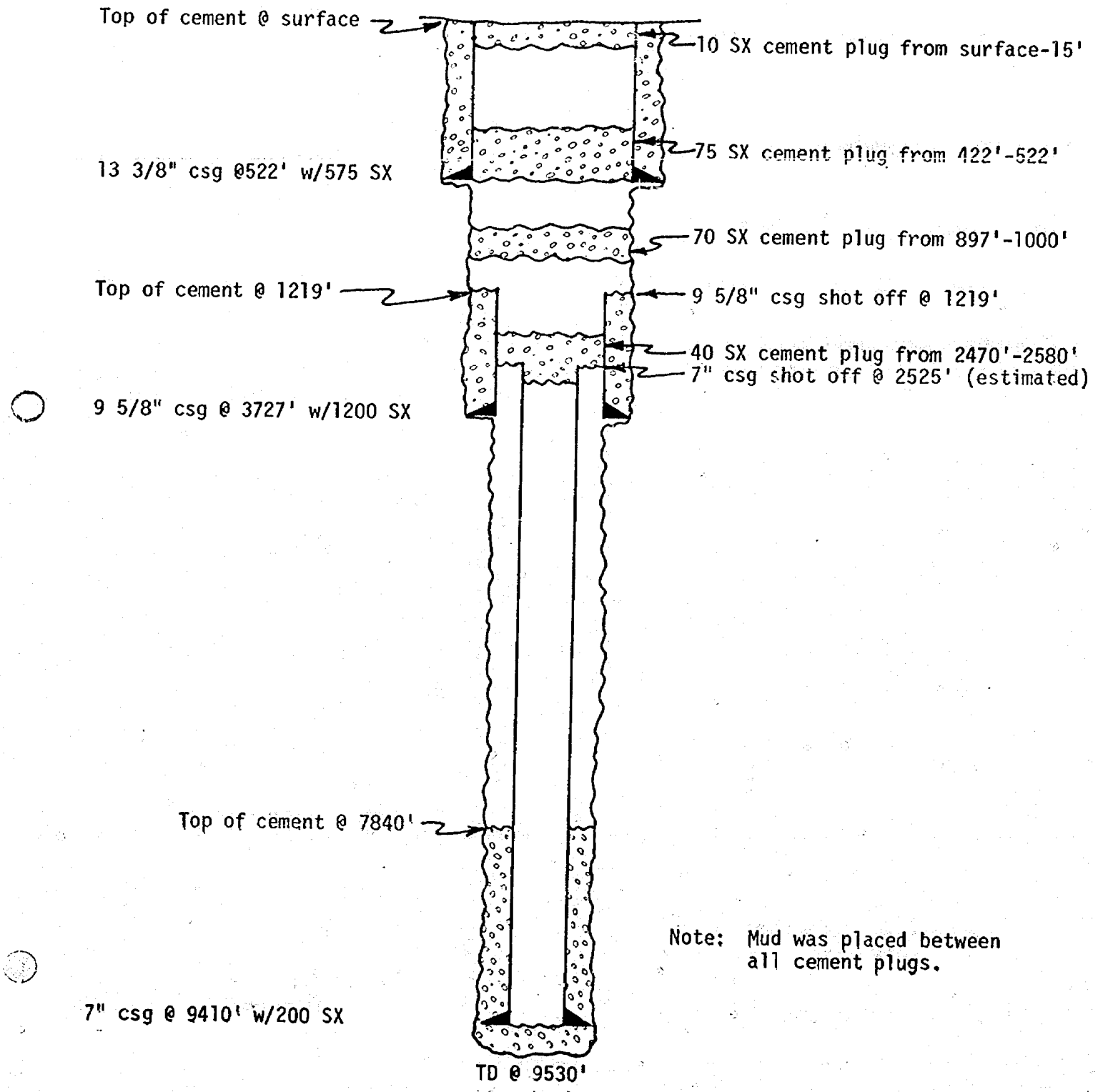
SOUTH LEONARD AREA

WELL SCHEMATICS

BETTIS, BOYLE & STOVALL

LEONARD FEDERAL 7-P

SEC. 11, T26S R37E



Note: Mud was placed between all cement plugs.

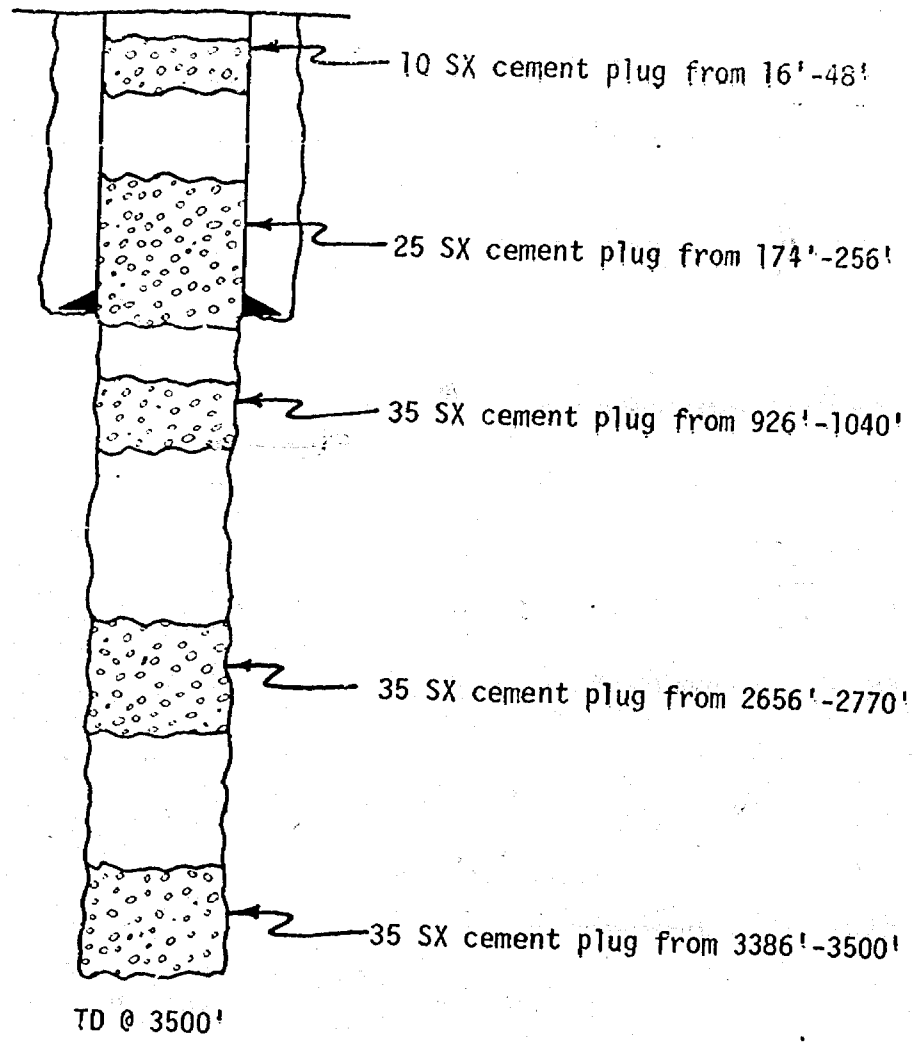
EXHIBIT 5

TENNECO OIL COMPANY

SOUTH LEONARD AREA

WELL SCHEMATICS

AMERADA PETROLEUM CORP.
C. C. CAGLE "C" 2-O
SEC 3, T26S R37E



8 5/8" csg @ 223'
(Cementing data not available)

TD @ 3500'

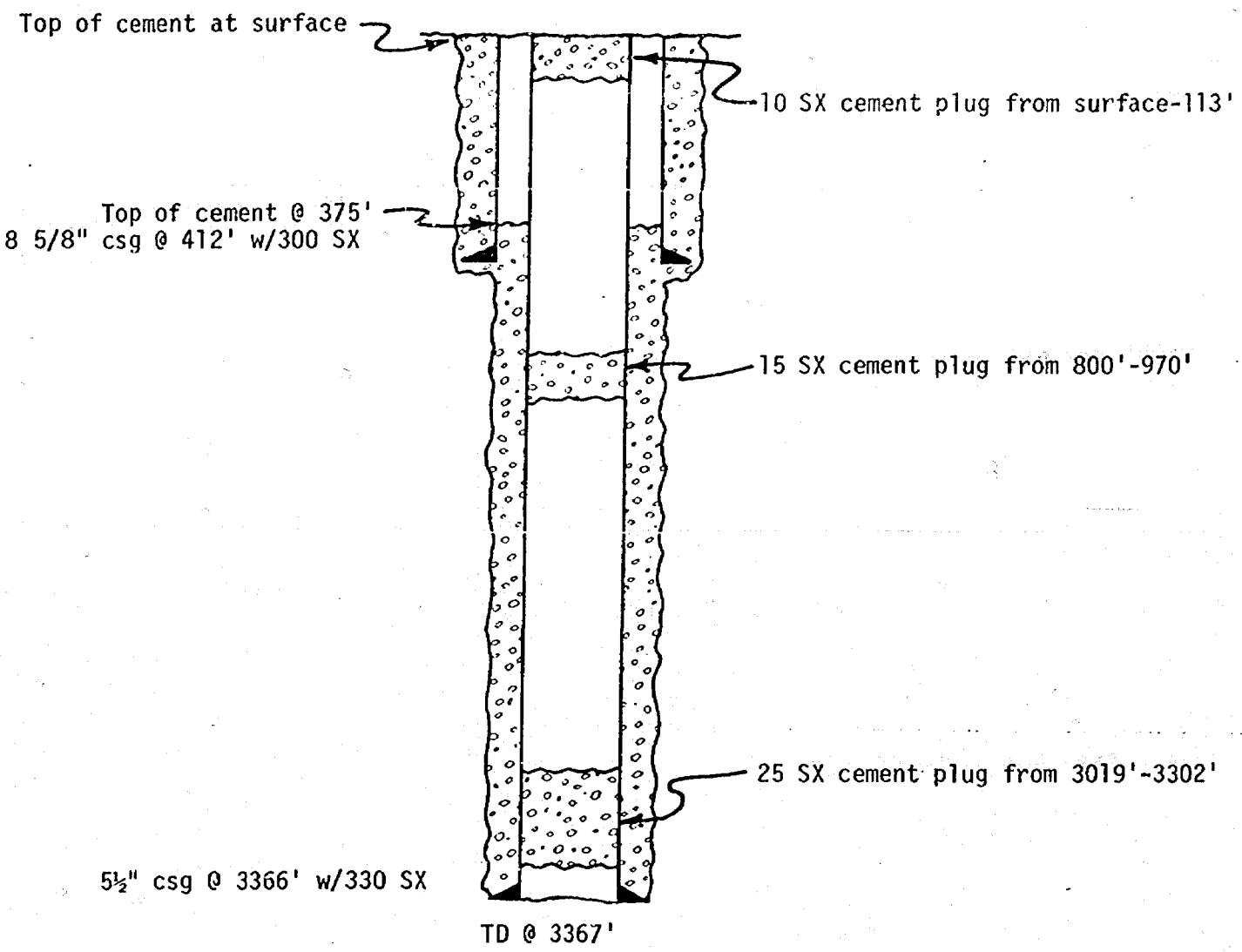
EXHIBIT 5

TENNECO OIL COMPANY

SOUTH LEONARD AREA

WELL SCHEMATICS

GETTY OIL CO
RIGGS "B" 5-I
SEC. 1, T26S R37E



Note: Mud was placed between all cement plugs.

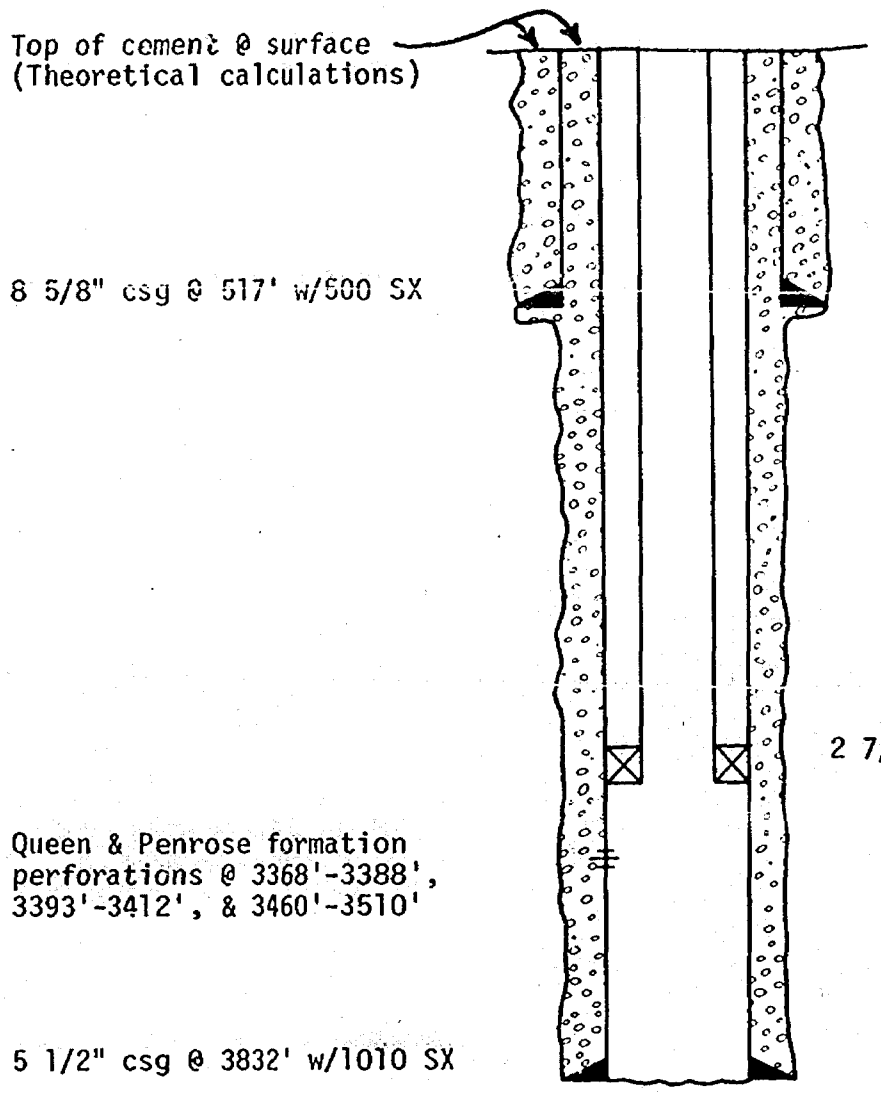
EXHIBIT 4

TENNECO OIL COMPANY

SOUTH LEONARD AREA

WELL SCHEMATICS

TENNECO OIL CO.
LEONARD BROTHERS 7-M
SEC. 13, T26S R37E



PROPOSED WATER INJECTION WELL
(Shown in injection configuration)

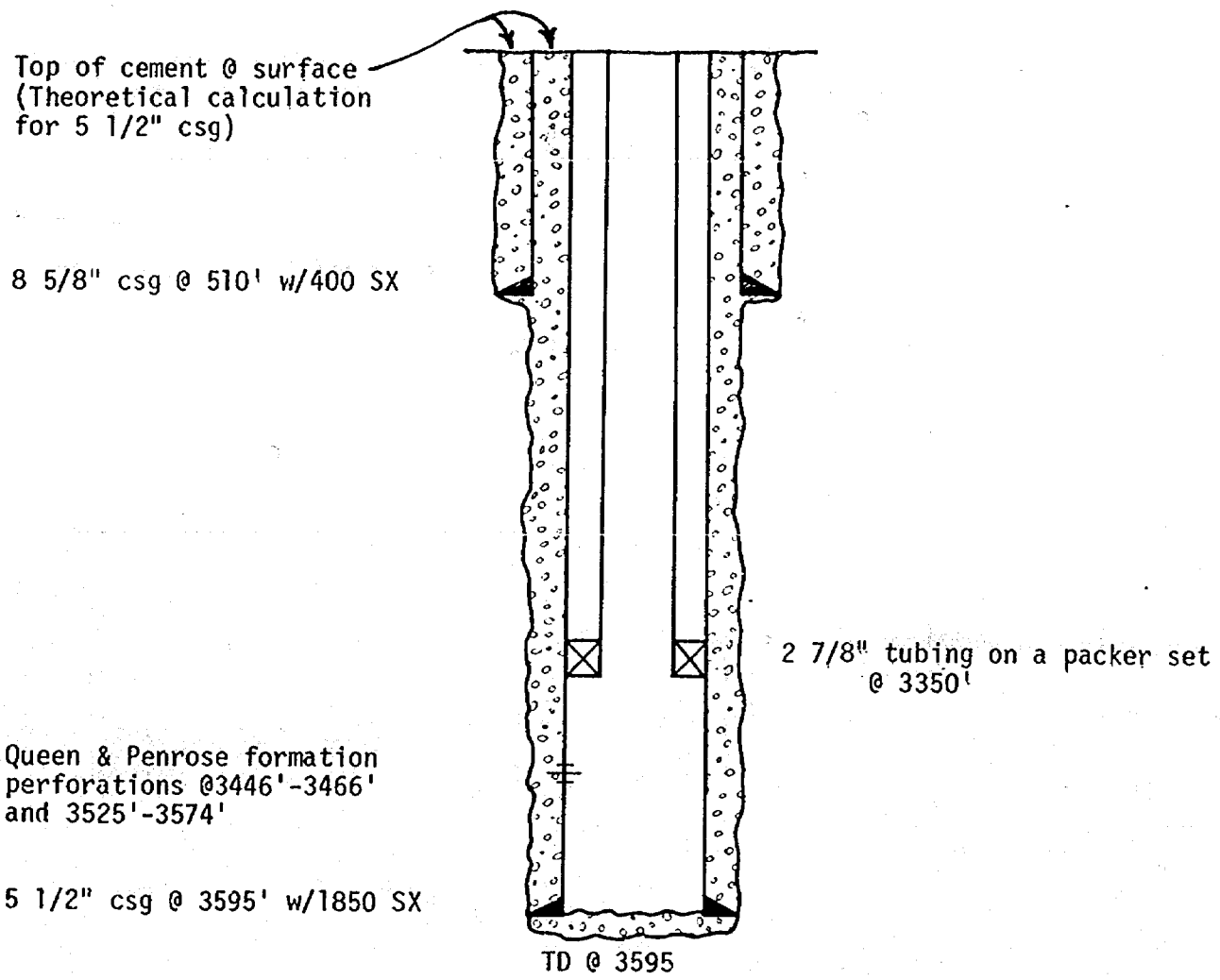
EXHIBIT 4

TENNECO OIL COMPANY

SOUTH LEONARD AREA

WELL SCHEMATICS

TENNECO OIL CO.
LEONARD BROTHERS 2 - I
SEC. 13, T 26S R37E



PROPOSED WATER INJECTION WELL
(Shown in injection configuration)

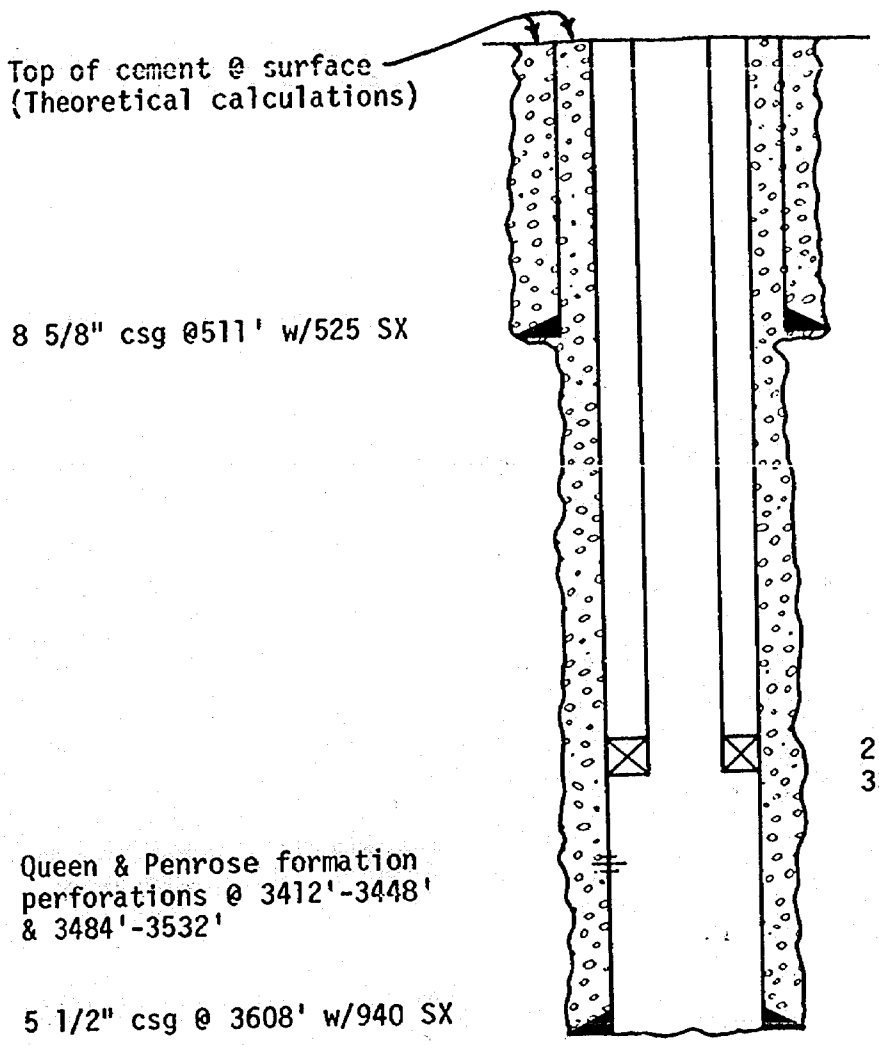
EXHIBIT 4

TENNECO OIL COMPANY

SOUTH LEONARD AREA

WELL SCHEMATICS

TENNECO OIL CO.
LEONARD FEDERAL 6 - N
SEC. 11, T26S R37E



PROPOSED WATER INJECTION WELL
(Shown in injection configuration)

EXHIBIT 2

TABULAR SUMMARY OF SURROUNDING WELLS

WELL IDENTIFICATION			
Operator	Forest Oil Corp.	Yates Pet. Corp.	Ralph Lowe
Lease	Lowe Federal	Powell Federal	Haralson
Well Number	1	1	1
LOCATION			
Unit	L	L	D
Section	7	18	19
Township	26S	26S	26S
Range	38E	38E	38E
SURFACE CASING			
Size (in.)	13 3/8	8 5/8	10 3/4
Setting Depth (ft.)	473	398	693
Sacks Cement	340	250	200
Cement Top (ft.)	Surface*	Surface*	Surface*
INTERMEDIATE CSG.		None	None
Size (in.)	9 5/8		
Setting Depth (ft.)	3895		
Sacks Cement	1500		
Cement Top (ft.)	**		
LONG STRING			None
Size (in.)	5 1/2	5 1/2	
Setting Depth (ft.)	12,948	3733	
Sacks Cement	1390	125	
Cement Top (ft.)	**	2877*	
TOTAL DEPTH (ft.)	12,950	3733	3750
PRODUCING INTERVAL (ft.)	P&A	Penrose (3596-3637)	D&A

*Theoretical calculation based on hole size, sacks of cement used, and a yield of 1.18 cubic feet of fill per sack of cement.
**Required data not available. Insufficient data available to permit estimation.

EXHIBIT 2

TABULAR SUMMARY OF SURROUNDING WELLS

WELL IDENTIFICATION						
Operator	Texas-Pacific Oil Co.	Texas-Pacific Oil Co.	Texas-Pacific Oil Co.	Texas-Pacific Oil Co.	Ralph Lowe	Ralph Lowe
Lease	S.Leon.Qn.Unit	S.Leon.Qn.Unit	S.Leon.Qn.Unit	S.Leon.Qn.Unit	Self	Self
Well Number	9	10	12	15	1	2
LOCATION						
Unit	G	H	L	M	H	E
Section	24	24	24	24	6	7
Township	26S	26S	26S	26S	26S	26S
Range	37E	37E	37E	37E	38E	38E
SURFACE CASING						
Size (in.)	8 5/8	7 5/8	12 1/2	10 3/4	13 3/8	13 3/8
Setting Depth (ft.)	295	1005	160	298	705	605
Sacks Cement	150	350	50	150	500	300
Cement Top (ft.)	Surface	Surface	**	Surface	**	**
INTERMEDIATE CSG.	None	None		None	None	None
Size (in.)			8 5/8			
Setting Depth (ft.)			1190			
Sacks Cement			100			
Cement Top (ft.)			**			
LONG STRING					None	None
Size (in.)	5 1/2	4 1/2	7	5 1/2		
Setting Depth (ft.)	3250	3620	3250	3348		
Sacks Cement	400	300	100	400		
Cement Top (ft.)	Surface	1072*	**	Surface		
TOTAL DEPTH (ft.)	3573	3620	3505	3540	3475	3976
PRODUCING INTERVAL (ft.)	Queen,Penrose (3250-3573)	Queen,Penrose Wtr.Inj.Well (3495-3612)	Queen (3417-3505)	Queen Wtr.Inj.Well (3303-3540)	D&A	D&A

*Theoretical calculation based on hole size, sacks of cement used, and a yield of 1.18 cubic feet of fill per sack of cement.
**Required data not available. Insufficient data available to permit estimation.

EXHIBIT 2

TABULAR SUMMARY OF SURROUNDING WELLS

WELL IDENTIFICATION						
Operator	Herman J. Ledbetter	Texas-Pacific Oil Co.	Texas-Pacific Oil Co.	Texas-Pacific Oil Co.	Texas-Pacific Oil Co.	Texas-Pacific Oil Co.
Lease	Jay Federal	S.Leon.Queen Unit	S.Leon.Queen Unit	S.Leon.Queen Unit	S.Leon.Queen Unit	S.Leon.Queen Unit
Well Number	1	5	4	3	7	8
LOCATION						
Unit	A	B	C	D	E	F
Section	24	24	24	24	24	24
Township	26S	26S	26S	26S	26S	26S
Range	37E	37E	37E	37E	37E	37E
SURFACE CASING						
Size (in.)	8 5/8	8 5/8	9 5/8	8 5/8	13 3/8	12 1/2
Setting Depth (ft.)	285	300	299	307	170	250
Sacks Cement	125	200	250	120	**	**
Cement Top (ft.)	Surface*	Surface	Surface	Surface	**	**
INTERMEDIATE CSG.	None	None	None	None		
Size (in.)					8 5/8	8 5/8
Setting Depth (ft.)					1240	1210
Sacks Cement					100	50
Cement Top (ft.)					**	**
LONG STRING						
Size (in.)	4 1/2	5 1/2	7	5 1/2	7	7[a]
Setting Depth (ft.)	3687	3245	3250	3250	3230	3249
Sacks Cement	525	400	500	400	100	100
Cement Top (ft.)	1161	Surface	Surface	Surface	**	**
TOTAL DEPTH (ft.)	3692	3477	3445	3457	3522	3523
PRODUCING INTERVAL (ft.)	Queen, Penrose (3460-3576)	Queen (3245-3477)	Queen (3250-3445)	Queen, Penrose (3260-3457)	Queen, Penrose (3250-3522)	Queen, Penrose Wtr.Inj.Well (3409-3508)

*Theoretical calculation based on hole size, sacks of cement used and a yield of 1.18 cubic feet of fill per sack of cement.
**Required data not available. Insufficient data available to permit estimation.
[a] 4 1/2" liner from 3091'-3569'. Cemented with 100 sacks.

EXHIBIT 2

TABULAR SUMMARY OF SURROUNDING WELLS

WELL IDENTIFICATION						
Operator	El Paso Natural Gas Company	Texaco, Inc.	Texas-Pacific Oil Co.	Leonard Oil Co.	Texas-Pacific Oil Co.	Texas-Pacific Oil Co.
Lease	Rhodes GSU	Rhodes "A"	S.Leon.Queen Unit	Parker	S.Leon.Queen Unit	S. Leon.Queen Unit
Well Number	25	2	2	2	6	11
LOCATION						
Unit	O	J	A	G	H	I
Section	15	22	23	23	23	23
Township	26S	26S	26S	26S	26S	26S
Range	37E	37E	37E	37E	37E	37E
SURFACE CASING						
Size (in.)	8 5/8	15 1/2	10 3/4	8 5/8	12 1/2	13 3/8
Setting Depth (ft.)	635	255	200	300	160	168
Sacks Cement	300	200	75	125	**	50
Cement Top (ft.)	Surface*	**	Surface	**	**	Surface*
INTERMEDIATE CSG.	None			None		
Size (in.)		10 3/4	8 5/8		8	8 5/8
Setting Depth (ft.)		1150	2146		1230	1214
Sacks Cement		500	50		100	100
Cement Top (ft.)		**	**		628*	364*
LONG STRING						
Size (in.)	4 1/2	7 5/8	7	5 1/2	7	7
Setting Depth (ft.)	3240	3100	3254	3345	3250	3246
Sacks Cement	400	125	75	250	100	100
Cement Top (ft.)	1163*	**	**	**	2117*	2114*
TOTAL DEPTH (ft.)	3240	3280	3427	3620	3570	3482
PRODUCING INTERVAL (ft.)	Yates (2938-3119)	Rhodes Storage Area(3130-3206)	Queen Wtr.Inj.Well (3254-3427)	P&A	Queen Wtr.Inj.Well (3250-3570)	Queen Wtr.Inj.Well (3246-3482)

*Theoretical calculation based on hole size, sacks of cement used, and a yield of 1.18 cubic feet of fill per sack of cement.
**Required data not available. Insufficient data available to permit estimation.

EXHIBIT 2

TABULAR SUMMARY OF SURROUNDING WELLS

WELL IDENTIFICATION						
Operator	Tenneco Oil Co.	Midwest Refining	Bettis, Boyle, and Stovall	Tenneco Oil Co.	Tenneco Oil Co.	El Paso Natural Gas Company
Lease	Leonard Federal	Farnsworth	Leonard Federal	Leonard Federal	Leonard Federal	Rhodes GSU
Well Number	10	19	8	8	9	8
LOCATION						
Unit	J	M	H	O	P	J
Section	14	14	14	14	14	15
Township	26S	26S	26S	26S	26S	26S
Range	37E	37E	37E	37E	37E	37E
SURFACE CASING						
Size (in.)	8 5/8	16	7	13 3/8	8 5/8	8 5/8
Setting Depth (ft.)	471	554	400	422	505	635
Sacks Cement	520	25	170	450	520	300
Cement Top (ft.)	Surface*	**	Surface*	Surface*	Surface*	Surface*
INTERMEDIATE CSG.	None		None	None	None	None
Size (in.)		13				
Setting Depth (ft.)		1184				
Sacks Cement		80				
Cement Top (ft.)		**				
LONG STRING						
Size (in.)	5 1/2	10 3/4	4 1/2	9 5/8	5 1/2	4 1/2
Setting Depth (ft.)	3595	2852	2701	3842	3551	3200
Sacks Cement	1200	75	100	1300	1100	400
Cement Top (ft.)	Surface*	**	1731*	Surface*	Surface*	1218*
TOTAL DEPTH (ft.)	3597	3877	3100	10,650	3551	3200
PRODUCING INTERVAL (ft.)	Queen (3379-3447)	D&A	Yates (2701-3100)	Queen (3453-3490)	Queen (3380-3440)	Yates (2774-3102)

*Theoretical calculation based on hole size, sacks of cement used, and a yield of 1.18 cubic feet of fill per sack of cement.
**Required data not available. Insufficient data available to permit estimation.

EXHIBIT 2

TABULAR SUMMARY OF SURROUNDING WELLS

WELL IDENTIFICATION						
Operator	Tenneco Oil Co.	Texas-Pacific Oil Co.	Tenneco Oil Co.	Tenneco Oil Co.	Tenneco Oil Co.	Tenneco Oil Co.
Lease	Leonard Brothers	S.Leonard Queen Unit	Leonard Brothers	Leonard Brothers	Leonard Brothers	Leonard Federal
Well Number	7	1	5	1	14	5
LOCATION						
Unit	M	N	O	P	B	I
Section	13	13	13	13	14	14
Township	26S	26S	26S	26S	26S	26S
Range	37E	37E	37E	37E	37E	37E
SURFACE CASING						
Size (in.)	8 5/8	10 3/4	8 5/8	8 5/8	8 5/8	10 3/4
Setting Depth (ft.)	517	292	512	505	265	209
Sacks Cement	500	100	520	310	225	120
Cement Top (ft.)	Surface*	Surface	Surface	Surface*	Surface*	Surface
INTERMEDIATE CSG.	None	None	None	None	None	
Size (in.)						8 5/8
Setting Depth (ft.)						1115
Sacks Cement						75
Cement Top (ft.)						**
Long String					None	
Size (in.)	5 1/2	7	5 1/2	5 1/2		7
Setting Depth (ft.)	3832	3250	3608	3620		3369
Sacks Cement	1010	400	950	900		75
Cement Top (ft.)	Surface*	342	Surface*	Surface*		**
TOTAL DEPTH (ft.)	3832	3500	3608	3621	3453	3437
PRODUCING INTERVAL (ft.)	Queen (3368-3388 3393-3412) Proposed Wtr. Inj. Well	Queen,Penrose Wtr.Inj.Well (3381-3474)	Penrose (3480-3553)	Queen (3454-3497) Proposed wtr. Inj. well	P&A	Queen (3432-3437)

*Theoretical calculation based on hole size, sacks of cement used, and a yield of 1.18 cubic feet of fill per sack of cement.
**Required data not available. Insufficient data available to permit estimation.

EXHIBIT 2

TABULAR SUMMARY OF SURROUNDING WELLS

WELL IDENTIFICATION						
Operator	Forest Oil Corp.	Texas Pacific Oil Co.	Tenneco Oil Company	Tenneco Oil Co.	Tenneco Oil Co.	Tenneco Oil Co.
Lease	Leonard Federal	Leonard Federal	Leonard Brothers	Leonard Brothers	Leonard Brothers	Leonard Brothers
Well Number	1	1	3	2	4	11
LOCATION						
Unit	P	E	G	I	J	K
Section	12	13	13	13	13	13
Township	26S	26S	26S	26S	26S	26S
Range	37E	37E	37E	37E	37E	37E
SURFACE CASING						
Size (in.)	13 3/8	13 3/8	13 3/8	8 5/8	8 5/8	8 5/8
Setting Depth (ft.)	494	422	409	510	513	513
Sacks Cement	360	350	400	400	550	500
Cement Top (ft.)	**	**	Surface*	Surface	Surface	Surface*
INTERMEDIATE CSG.			None	None	None	None
Size (in.)	8 5/8	8 5/8				
Setting Depth (ft.)	3765	3790				
Sacks Cement	1350	2410				
Cement Top (ft.)	**	**				
LONG STRING	None					
Size (in.)		5 1/2	9 5/8	5 1/2	5 1/2	5 1/2
Setting Depth (ft.)		6980	4199	3595	3557	3812
Sacks Cement		775	4000	1850	1140	800
Cement Top (ft.)		**	Surface*	Surface*	Surface*	Surface*
TOTAL DEPTH (ft.)	12,125	9772	9861	3595	3557	3812
PRODUCING INTERVAL (ft.)	D&A	San Andres Water Source Well (3963-4444)	Queen, Penrose (3398-3524)	Queen (3446-3466)	Penrose (3477-3524)	Penrose (3509-3551)

*Theoretical calculation based on hole size, sacks of cement used, and a yield of 1.18 cubic feet of fill per sack of cement.
**Required data not available. Insufficient data available to permit estimation.

EXHIBIT 2

TABULAR SUMMARY OF SURROUNDING WELLS

WELL IDENTIFICATION						
Operator	Bettis, Boyle, and Stovall	Stanolind Oil Co.	Humble Oil & Refg. Co.	Midwest Refining	Humble Oil & Refg. Co.	The Petroleum Corp.
Lease	Leonard Federal	Leonard Oil Co.	Leonard Federal	Farnsworth	Leonard Federal	Tenneco Federal
Well Number	7	2	1	19	1	1
LOCATION						
Unit	P	A	E	M	M	N
Section	11	12	12	12	12	12
Township	26S	26S	26S	26S	26S	26S
Range	37E	37E	37E	37E	37E	37E
SURFACE CASING						
Size (in.)	13 3/8	13 3/8	13 3/8	20	13 3/8	11 3/4
Setting Depth (ft.)	522	507	595	165	483	390
Sacks Cement	575	500	450	None	400	350
Cement Top (ft.)	Surface*	Surface*	**	**	Surface*	Surface*
INTERMEDIATE CSG.						
Size (in.)	9 5/8	9 5/8	9 5/8 ?	15 1/2	9 5/8 ?	8 5/8
Setting Depth (ft.)	3727	3747	4225 •	529	3020 •	3790
Sacks Cement	1200	590	4000	50	2060	500
Cement Top (ft.)	1219	**	**	**	Surface*	1469*
LONG STRING						
Size (in.)	7	5 1/2	None	8 1/4[a]	5 1/2	5 1/2
Setting Depth (ft.)	9410	9845		3792 ?	11,969	11,852
Sacks Cement	200	500		90 •	810	700
Cement Top (ft.)	7840*	6440*		**	8185*	7084*
TOTAL DEPTH (ft.)	9530	11,235	12,535	4115	11,969	11,854
PRODUCING INTERVAL (ft.)	P&A	P&A	P&A	P&A	P&A	Ellenburger (11,634'-11,828')

*Theoretical calculation based on hole size, sacks of cement used, and a yield of 1.18 cubic feet of fill per sack of cement.
**Required data not available. Insufficient data available to permit estimation.
[a] 12 1/2 inch casing set at 1050'. Cementing data not available. 10 inch casing set at 2800' with 75 sacks cement.

EXHIBIT 2

TABULAR SUMMARY OF SURROUNDING WELLS

WELL IDENTIFICATION						
Operator	Getty Oil Co.	Amerada Pet. Corp.	Tenneco Oil Co.	Tenneco Oil Co.	Tenneco Oil Co.	Tenneco Oil Co.
Lease	Riggs "B"	C.C. Cagle "C"	Leonard Federal	Leonard Federal	Leonard Federal	Leonard Federal
Well Number	5	2	1	3	2	6
LOCATION						
Unit	I	O	J	K	M	N
Section	1	3	11	11	11	11
Township	26S	26S	26S	26S	26S	26S
Range	37E	37E	37E	37E	37E	37E
SURFACE CASING						
Size (in.)	8 5/8	8 5/8	10 3/4	10 3/4	10 3/4	8 5/8
Setting Depth (ft.)	412	223	169	279	206	511
Sacks Cement	300	**	75	100	75	525
Cement Top (ft.)	Surface	**	Surface	Surface	56*	Surface*
INTERMEDIATE CSG.	None	None	None		None	None
Size (in.)				7		
Setting Depth (ft.)				3342		
Sacks Cement				450		
Cement Top (ft.)				**		
LONG STRING		None				
Size (in.)	5 1/2		5 1/2	4 1/2 liner	7	5 1/2
Setting Depth (ft.)	3366		2891	3178-3642	3350	3608
Sacks Cement	330		350	75	525	940
Cement Top (ft.)	375		Surface	3178	379	Surface*
TOTAL DEPTH (ft.)	3367	3500	3436	3642	3437	3608
PRODUCING INTERVAL (ft.)	P&A	D&A	Queen (3400-3436)	Penrose (3498-3552)	Queen (3400-3437)	Queen (3412-3448) Proposed wtr. inj. well.

*Theoretical calculation based on hole size, sacks of cement used, and a yield of 1.18 cubic feet of fill per sack of cement.
**Required data not available. Insufficient data available to permit estimation.

R 37 E

Texas Pacific
Gulf
Cont'l.
(Allied 2/3 D.R.)
ARCO
Allied
Burleson & Huff
Tenneco
Burleson & Huff
Texas Pacific
Reserve Oil
33
Un. Texas
34
35
Texas Pacific
Un. Texas
El Paso Nat. Gas
Amerada et al
B. Lankford Jr.
J. M.
Tex Poc
Pan Am
4
3
2
Texas Pacific
E.P.N.G.
El Paso Nat. Gas
El Paso Nat. Gas
Tenneco
E.P.N.G.
Cons'd
9
10
11
El Paso Nat. Gas
El Paso Nat. Gas
Tenneco
E.P.N.G.
LF-3
LF-1
LF-2
LF-6
E. P. N. G.
El Paso Nat. Gus
E. P. N. G.
Tenneco
E. P. N. G.
E. P. N. G.
16
15
14
E. P. N. G.
E. P. N. G.
El Paso Nat. Gas
Tenneco
LF-10
LF-8
Bettis, Boyle & Stovall
E. P. N. G.
E. P. N. G.
H. P. Hubbard
E. P. N. G.
Texaco
Tenneco
E. P. N. G.
MOBERLY-RHODES UNIT
EL PASO NAT. (OPER.)
21
22
23
E. P. N. G.
TEXAS
PACIFIC
E. P. N. G.
Texaco
Texaco
T
26
S

T 26 S

R 37 E

LEA COUNTY

E. P. N. G.
El Paso Nat. Gas
Tenneco
Texaco
H. P. Hubbard
Sea Sand
Marathon
Koch
TEXAS PACIFIC
Un. Tex.
Texaco et al
Longhorn Ser. & Drlg
MOBERLY-RHODES UNIT
EL PASO NAT. (OPER.)
RHODES (YATES) UNIT
TEXACO (OPER.)
LF-1
LF-2
LF-3
LF-6
LF-8
LF-10
NEW MEXICO
TEXAS

9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 33 34 35

PRODUCI

- DEVONIAN
- TANSILL YATES 7 RIVERS
- 7 RIVERS QUEEN GRAYBURG
- BLINEBRY

R 38 E

T 25 S

T 26 S

Gulf

Tenneco

Getty

Getty

Marcio Inc.

Tenneco

Howell Speor

Tenneco

Ledbetter Res.

Ledbetter Res.

OPERATED BY TEXAS PACIFIC
SOUTH LEONARD
QUEEN UNIT

LB-1

LB-2

LB-3

LB-4

LB-5

LB-7

LB-11

36

31

32

6

5

12

7

8

13

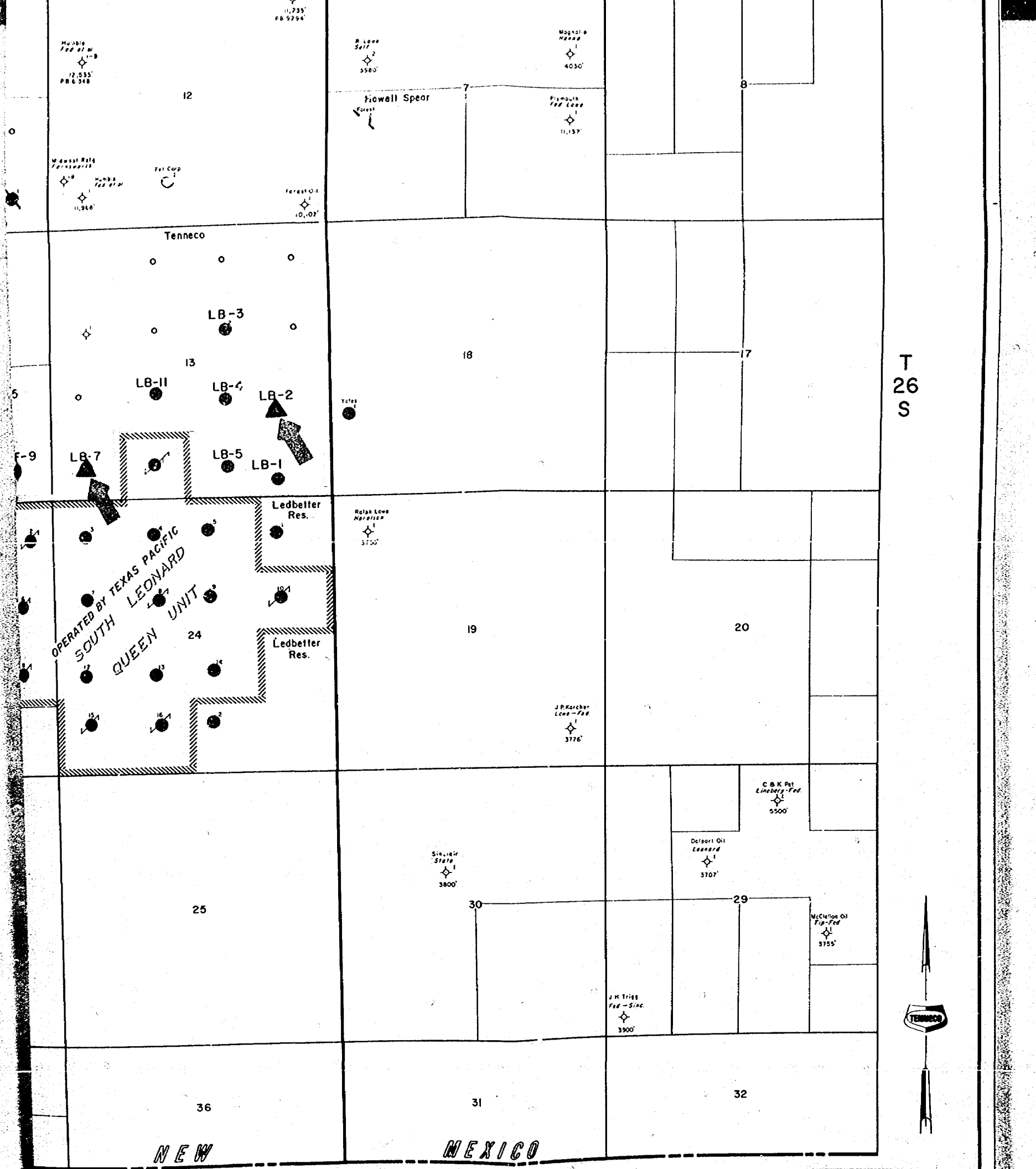
18

17

24

19

20



NG ZONE LEGEND

- FUSSELMAN
- TUBB DRINKARD
- YATES 7 RIVERS
- RHODES STORAGE AREA
- QUEEN
- GLORIETA
- ELLENBURGER
- PROPOSED INJECTION WELL
- ABANDONED PRODUCER

-1-

TENNECO OIL COMPANY
SUBSIDIARY OF TENNECO INC.

SOUTH LEONARD AREA
LEA COUNTY, NEW MEXICO

EXHIBIT 1
Plat of Proposed Injection Wells and Surrounding Wells

SCALE IN FEET
1000 500 0 1000 2000

DENVER, COLORADO

TABLE OF CONTENTS

		Page
EXHIBIT 1.	Plat of Proposed Injection Wells and Surrounding Wells	1
EXHIBIT 2.	Tabular Summary of Surrounding Wells	2
EXHIBIT 4.	Well Schematics of Proposed Injection Wells	11
EXHIBIT 5.	Well Schematics of Surrounding Plugged and Abandoned Wells	14
EXHIBIT 6.	Miscellaneous Injection Information	29
EXHIBIT 7.	Water Analysis	30
EXHIBIT 8.	Fracture Gradients - Queen/Penrose Formation	33
EXHIBIT 9.	Letter from Office of State Engineer Defining Location of Fresh Water	34

Case 6161

TENNECO OIL COMPANY

SOUTH LEONARD QUEEN

WATERFLOOD HEARING

FEBRUARY 22, 1978

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
22 February 1978

EXAMINER HEARING

IN THE MATTER OF:

Application of Tenneco Oil Company for two waterflood projects, Lea County, New Mexico.

CASE 6161

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Commission: Lynn Teschendorf, Esq.
Legal Counsel for the Commission
State Land Office Building
Santa Fe, New Mexico

For the Applicant: W. Thomas Kellahin, Esq.
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I N D E X

HUGH WILBANKS

Direct Examination by Mr. Kellahin	3
Cross Examination by Mr. Stamets	19
Cross Examination by Mr. Ramey	23

E X H I B I T S

Applicant Exhibit A through A-5	19
Applicant Exhibit B-1 and B-2	19
Applicant Exhibit C-1 through C-4	19
Applicant Exhibit D	19
Applicant Exhibit E	19
Applicant Exhibit F	19
Applicant Exhibit G	19
Applicant Exhibit H	19
Applicant Exhibit I	19

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MR. STAMETS: Case 6161.

MS. TESCHENDORF: Case 6161. Application of Tenneco Oil Company for two waterflood projects, Lea County, New Mexico.

MR. KELLAHIN: Tom Kellahin of Kellahin and Fox, Santa Fe, New Mexico, appearing on behalf of Tenneco Oil Company, and I have one witness to be sworn.

MR. STAMETS: Will you stand and be sworn, please?

(Witness sworn.)

HUGH WILBANKS

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

DIRECT EXAMINATION

BY MR, KELLAHIN:

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

A. My name is Hugh Wilbanks. I'm employed by Tenneco Oil Company as a reservoir engineer.

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

A. No, I have not.

Q. For the benefit of the Examiner would you plese tell us when and where you obtained your degree?

A. I obtained a Bachelor's degree in Aerospace Engineering from the University of Texas at Austin in 1968.

Q. Subsequent to obtaining your degree where were you employed and in what capacity?

A. I worked for Exxon Company in south Texas for two and a half years as a reservoir engineer. For the past eight months I've been employed by Tenneco as a reservoir engineer in Denver, Colorado.

Q. During your employment by Exxon and Tenneco as a reservoir engineer have you received any schooling with regards to waterflood projects and reservoir engineering in general?

A. Yes. I attended a three-week Exxon reservoir engineering school in 1975. In 1976 I attended a one-week school in logging and formation evaluation with Exxon. In September of this past year I attended a one-week Tenneco school on waterflooding.

Q. All right. Have you made a study of and are you familiar with the facts surrounding this particular application?

A. Yes, I am.

MR. KELLAHIN: We tender Mr. Wilbanks as an

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expert in the field of reservoir engineering.

MR. STAMETS: We will consider the witness qualified.

Q. (Mr. Kellahin continuing.) Mr. Wilbanks, will you please refer to what has been marked as Applicant Exhibit A and turn to page one of that exhibit, identify the plat, and tell us what Tenneco is seeking to accomplish.

A. This plat is a plat of proposed injection wells and surrounding wells nearby the Tenneco acreage in South Leonard Queen Area.

Tenneco seeks here to gain authority to commence to institute a waterflood project on the Leonard Federal Lease by injection of water into the Queen formation through Leonard Federal Well No. 6, which is noted by the orange arrow, and its Leonard Brothers Lease through Leonard Brothers Well No. 2 and No. 7, all of these in Township 26 South, Range 37 East of Lea County.

Tenneco also seeks the establishment of administrative procedure for the addition of injection wells and the conversion of existing wells to injection status at both orthodox and unorthodox locations without further notice and hearing.

Q. What does the yellow border represent, Mr. Wilbanks?

Q. The yellow border represents the outline of

the acreage that we seek to gain permission to waterflood.

Q. That boundary represents the total limits of the waterflood project after it's been fully developed, does it not?

A. That's correct.

Q. Okay. At this time the boundary units are composed, I understand, of two Federal leases?

A. Yes.

Q. Would you describe for us the acreage involved in each of the leases?

A. Okay. The Leonard Federal lease is comprised of the south half of Section 11 and the south half of Section 14, with the exception of the southwest quarter of the southwest quarter.

The Leonard Brothers lease is the remaining acreage inside the yellow boundary, and that would be the north half of 11, all of 12, all of 13, with the exception of the southeast of the southwest, and the north half of 14.

Q. I note on your plat that there is a waterflood project operated by the Texas Pacific Company, called the South Leonard Queen Unit, immediately adjacent to your proposed unit on the south. What, in your opinion, will be the effect of your proposed waterflood project on that waterflood?

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A. We don't anticipate having any effect on that waterflood at all. It's a mature flood in the later stages of its producing life. The oil that has been moved in that area has been done so for quite awhile. We don't expect to have any effect on their waterflood.

Q. Will your flood be operating in cooperation with their flood?

A. They are aware of this hearing; they're aware of our plans to obtain permission to waterflood, and they have voiced no objections to our plans at all.

Q. In fact, you've obtained a written waiver from Texas Pacific, have you not?

A. Yes, sir.

Q. All right. With regards to your proposed unit, Mr. Wilbanks, what is the average production in barrels of oil per day?

A. Of our --

Q. Yes, sir.

A. The current production is almost 300 barrels per day from the wells that we have completed right now, the wells that are marked by the pink dots.

Q. That's total production?

A. Total production.

Q. In your opinion is it necessary to implement the waterflood project now?

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A. Yes, it is.

Q. Why?

A. The best production in our wells comes from wells that are located close to the South Leonard Queen Unit. In other words, we are seeing the benefits from the injection in their unit. The reservoir is at a higher pressure in this area. The recent completions near their Number 1 injection well, which is their well farthest to the north, those completions have come in flowing for a period of up to about a month; whereas the rest of the wells in the field are on pump.

This indicates to us that only by waterflooding and at the same time maintaining and possibly increasing the reservoir pressure will we be able to economically recover the oil that remains.

Q. In your opinion, Mr. Wilbanks, will the implementation of this waterflood project immediately result in the recovery of secondary reserves that would not otherwise be recovered?

A. Yes, it will. The low pressures that we're seeing in some parts of the field indicate that solution gas is being lost from the oil, reducing its mobility and the chances of recovering some of that oil. By injecting now we will reduce the pressure loss, maintain more gas in solution, increase the mobility of the oil and therefore

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achieve a greater recovery and increase our sweep efficiencies at the same time.

Q. Would you please refer to page two of -- or the exhibit commencing on page two of Exhibit A and identify it.

A. Page two of Exhibit A is a tabular summary of the pertinent data in the surrounding wells. The well locations are given. In addition to that we note the surface casing, intermediate casing, and long string data in regards to cementing string, setting depths. The total depths of the wells, and the producing intervals of each well.

Q. All right. Will you please refer to the exhibits commencing on page eleven of Exhibit A and identify them?

A. The exhibits commencing on page eleven though pages -- through page thirteen are schematics of the three wells that initially propose to convert to injection service.

Beginning on page fourteen are the schematics of the plugged and abandoned wells within a half mile radius of the boundaries of the Tenneco acreage.

Q. Mr. Wilbanks, what is to be the zone of injection? You indicated the Queen formation?

A. That's correct. In this area the Queen form-

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ation, or what's called by the -- or prorated by the State as the Queen formation, is really made up of two distinguishable horizons, the Queen and the Penrose. That is to be the zone injection.

Q. In your study of this area, Mr. Wilbanks, in your analysis of the offsetting wells, are you aware of any wells in which there are mechanical defects or any problems that would cause the migration of the injected fluids to go into any other than the Queen formation?

A. There are several wells in this area that were drilled in the 1920s. Records as to the nature of the abandonment of these wells were not available to us, if they exist at all. It is possible that in some of these wells there may be potential problems; however, we -- in the wells that we have identified that fit this description are not near any wells that we intend to inject in.

Q. Would you please refer to page fourteen and identify the schematics that are commencing on that page of Exhibit A?

A. Okay. Those schematics are schematics of the plugged and abandoned wells that lie within one-half mile of the boundaries of the Tenneco acreage.

Q. And --

MR. STAMETS: What would be real helpful would be to go through those things and identify the unit letter

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that these wells are in while we have the witness here. It might save a phone call subsequent to the hearing.

A. Okay, that unit letter is right under the company name. It's on page fourteen.

MR. STAMETS: Is that the letter that follows the well number?

A. Yes, sir.

MR. STAMETS: Okay, very good. I'm sorry, I wasn't observant.

Q. (Mr. Kellahin continuing.) Would you turn to page twenty-one of Exhibit A and identify that exhibit?

A. Is that 21?

Q. 29.

A. 29, okay. 29, page 29 is exhibit six. This is miscellaneous injection information requested by the State of New Mexico,detailing injection zone, the type of fluid to be injected; that is, salt water, both water produced in the Queen and the Penrose formations, and salt water from the San Andres formation below those.

Also the anticipated injection pressure and some anticipated injection volume. In addition to that a list of wells for which water analyses are included, also, on that page.

Q. You have subsequent exhibits that make reference to the injection pressure with regards to this unit,

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do you not, Mr. Wilbanks?

A. Yes.

Q. Let's come to those in a minute, then, and the Exhibit on page thirty of the Exhibit A represents what?

A. This is an analysis of the water produced from Leonard Federal Well No. 6 and it's meant to be a representation of water produced from the Queen formation.

Q. In your opinion is it such a representation?

A. Yes, it is.

Q. All right, page thirty-one.

A. This is an analysis of water produced from the Leonard Brothers Well No. 5. This is water produced from the Penrose formation.

Q. Page thirty-two.

A. This is an analysis of water from the Texas Pacific water supply well, water taken from the San Andres formation.

Q. All right. Let's refer to page thirty-three and have you identify that attachment to Exhibit A.

A. Page thirty-three details the fracture gradients as determined by initial shut in pressure during frac treatment on all wells in the Tenneco acreage.

Q. You are aware, are you not, Mr. Wilbanks, of the pressure limitations imposed by the Commission, are you not?

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A. Yes, I am.

Q. And are you going to be able to operate this unit under that limitation?

A. We propose to operate the waterflood project at a nominal injection pressure of 750 pounds. This is equal to the average surface fracture gradient of point two-one-nine, as calculated or shown on that sheet. We feel that the limit of point two psi per foot of depth is fine on an average basis, but that the formation fracture gradients need to be determined on a by-well basis, and that is what we intend to do.

The determination of surface fracture gradient from initial shut-in pressure on fracture treatment is a fairly inaccurate way of determining what the actual formation fracture gradient is. A better way is to determine the frac gradient through a step rate test after injection has begun and both the pressure and the rate in the well have stabilized.

This should be done on a by-well basis and a -- we feel that a flat point two psi per foot limitation for the field is not in this case a good rule to apply. You'll notice that in three wells there the calculated surface frac gradient is below point two psi per foot.

That points out that the fracture gradient needs to be determined on a by-well basis in the most accu-

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rate method that we have available and that is the step rate test.

Q. Mr. Wilbanks, you would have no objection, I assume, if the Commission's order provided their normal limitation on pressure and that as you come to the wells that require a greater pressure, that through an administrative process you could submit to them the step rate tests and obtain permission to inject at a higher pressure but at a pressure that does not exceed the fracture gradient?

A. That is correct.

Q. Please refer to page number thirty-four and identify it.

A. Page number thirty-four is a letter from Mr. James Wright of the State Engineer's Office stating that the water in consideration here, both produced water from the Queen and Penrose formations and the water taken from the San Andres are in his opinion -- contain fewer than 10,000 parts per million total dissolved solids. In fact, everything below the Rustler formation at about 1000 feet contains more than the State's requirement.

Q. So the proposed waterflood project shows no potential of contamination of fresh water sources?

A. That is correct.

Q. All right, sir. Would you turn to what we have marked as Applicant Exhibit A-2, 3, and 4 and identify

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those?

A. Exhibits A-2, 3, and 4 are condensated neutron formation density logs of the three wells that we propose to convert initially to injection service.

On those logs are marked the formation tops as we determined them, showing the Queen and Penrose formations.

Q. Would you please refer to what we've marked as Applicant Exhibit A-5 and identify it?

A. This is pretty much the same as Exhibit two, or at least a part of Exhibit One, Summary Table Number Two. This exhibit was amended to include data that was estimated in cases where we did not have hole sizes and in a couple of cases where I did not have the number of sacks of cement that were used to cement the strings. We estimated what those were and then calculated what the theoretical tops of the cement would be.

Q. Okay. If I understand you correctly, Exhibit A-1 in the pamphlet, commencing on page two, shows the tabular summary of surrounding wells.

A. Yes, it does.

Q. And that there are a number of wells in which you have indicated by a single asterisk or a double asterisk theoretical calculations or that certain data was not available.

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A. That's correct.

Q. Now, Exhibit A-5 supplements that information.

A. Yes, it does.

Q. To indicate for those wells in which you have made calculations how you reached those calculations.

A. Yes.

Q. And second of all, where the information was not available, a method making certain assumptions whereby you could calculate the tops of the cement involved?

A. That's correct.

Q. Please refer to what we have marked as Applicant Exhibit B-1 and identify it.

A. Exhibit B-1 is a cross section trending northeast/southwest across the Queen and Penrose formations, showing the main pay of the Queen sand and the Penrose sand to be continuous across the field.

Q. And would you identify Applicant Exhibit B-2?

A. B-2 is a stratigraphic cross section, east/west across the field, showing the Queen main pay and the Penrose formation showing the sand to be continuous.

Q. All right. With regards to your waterflood project, what conclusions do you draw from Exhibits B-1 and B-2?

A. We conclude that by instituting a waterflood project, that we can effectively sweep the oil in the

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Queen and Penrose formations.

Q. Refer to what we've marked as Exhibit C-1.

A. C-1 is a subsea structural map of the top of the lower main pay of the Queen sand.

Q. Okay, and C-2?

A. C-2 is an Isopach of the upper main pay of the Queen sand.

Q. C-3?

A. Isopach of the lower main pay in the Queen sand.

Q. And C-4?

A. An Isopach of the Penrose.

Q. What's the reason for Exhibits C-1 through C-4, Mr. Wilbanks?

A. To show the stringerization of the sands and to show the continuous nature of the sands in the area.

Q. Okay. Exhibit D, would you please identify it?

A. Exhibit D is a summary data sheet for the South Leonard Queen Unit, showing the operator, dates of formation of the unit, date injection began, cumulative recoveries and estimated ultimate recoveries, current production rates, and the current well status.

Q. Exhibit E, please.

A. Exhibit E is a plot of the production of the

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oil and water injection in the South Leonard Queen Unit.

Q. Exhibit F.

A. Exhibit F is a summary data sheet on cumulative oil recovery and current production for Tenneco wells in the South Leonard Queen Pool.

Q. It's cumulative oil recovery to January 1st, 1978, is that correct?

A. Correct.

Q. Exhibit G?

A. Exhibit G is a plot of monthly oil production for the total Tenneco wells in the South Leonard Queen Pool.

Q. Okay. Would you turn now to what we've marked as Exhibit H and identify it?

A. Exhibit H is a one-inch to one thousand-foot scale map of Tenneco acreage that was shown on page one of Exhibit A-1. This shows Tenneco completions that currently exist in the South Leonard Queen Pool. It shows the three wells that we propose to convert to injection status and the open circles represent State locations that may or may not be drilled.

Q. Have you prepared and do you have with you a plat showing your anticipated pattern of development after the unit has been fully developed?

A. Yes. This is a tentaive plan. We're still in the development drilling stage. If we are successful and

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develop it to what we think is its fullest potential, it will be developed on a five-spot pattern.

Q. Let me mark that as Exhibit letter H.

MR. STAMETS: We've got a letter H.

Q. Or I.

You're anticipating a development based on a five-spot injection pattern, are you not?

A. That is correct.

Q. Okay. Mr. Wilbanks, were exhibits A through I either prepared by you directly or compiled under your direction and supervision?

A. Yes, they were.

Q. In your opinion will approval of this application be in the best interests of conservation, the prevention of waste, and the protection of correlative rights?

A. Yes, it will.

MR. KELLAHIN: We move the introduction of our exhibits, Mr. Examiner, and that concludes our direct examination.

MR. STAMETS: These exhibits will be admitted.

CROSS EXAMINATION

BY MR. STAMETS:

Q. I presume you will be available for questions after the examiner has an opportunity to review all of

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this date, adequately review all of this data?

A. Yes, I will.

Q. I believe your testimony was that while some of the wells shown in your tabular summary and in the schematics may not be adequately cemented or completed, none of those wells was located within one-half mile of your initial set of injection wells, is that correct?

A. Yes, sir, the ones that we have been able to determine. There are some that we don't have full data on and were denied access to the data, that we're not sure about.

Q. So really you've submitted a lot more data here than we would call for in our memo 3-77.

A. What we did was submit data on all wells within the boundary of the Tenneco acreage and all wells within one-half mile of that boundary as requested in the proposed Rule 701, I believe.

Q. For clarification purposes the Commission is only requesting that extensive data within one-half mile of any proposed injection well.

A. Well, we -- what we had hoped to do is gain permission at this time such that we would not have to come back for a hearing at a later date, so we wanted to give you information on all wells so that we could convert anything within our acreage to an injection well at a later

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date without having to have a re-hearing.

Q. Okay. I gather that you're still in the process of developing this acreage.

A. Yes, sir.

Q. Okay, when did Tenneco drill the first well on these upon these acreage?

A. The first well drilled was Leonard Brothers Well No. 1. That well was drilled in October of 1976.

Q. Okay, and what kind of potential did you get on that well?

A. That well potentialed at around 100 barrels a day; I'm not sure of the exact number. It dropped off quite rapidly. It's currently producing about ten barrels a day.

Q. Okay, and what's your experience, say, then with your most recently -- recent completion?

A. The most recent -- recent completion is Leonard Brothers Well No. 11, located just to the north of the Texas Pacific water injection well. That well flowed approximately 200 barrels a day initially. It was a flowing well for about a month and I believe it is having a pumping unit put on it at this time.

Q. And what about the Leonard Federal Well No. 10. Is that a fairly recent completion?

A. That well was completed in the middle of 1977. The well is not a prolific well. It's capable of five to

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ten barrels a day. We're getting the fringes; we're getting away from where we're seeing the benefit of the injection to the south. The wells to the northwest, the Leonard Federal 1, 2, 3, and 6, are all poor wells.

Q. So if you didn't have these good wells close to the South Leonard Queen Unit waterflood, your actual average daily production would be much less than what shows?

A. That's correct.

Q. Okay. And if I understood you correctly, you indicated you would abide by the .2 of a pound per foot of depth until such time as you're ready to take a step rate test that might show a higher potential -- still higher fracture gradient?

On page thirty-three of Exhibit A there are some very, very low fracture gradients, such as on the Leonard Federal Well No. 6; point one-one-seven. How do you account for such low gradients?

A. We really don't know the reason for that at this time, but the procedures that we will use to determine what the actual fracture gradient is from the step rate test will be such that we will not be fracturing the formation until such time as we determine a more accurate figure. The recommended procedure is that a two or three hundred pound margin of safety be used under what is calculated as the fracture pressure.

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Q. Two or three hundred pounds?

A. Yes, sir, so in this case the fracture pressure is four hundred pounds surface injection pressure. In this case we drop back to probably two hundred pounds injection pressure until the rate and pressure has stabilized. At that point run the step rate test and determine what the actual frac gradient is.

Q. I presume the injection wells will be completed with internally coated tubing, the annulus to be loaded until you put a gauge on it or allow it to stay open?

A. Yes, sir, that is correct.

Q. Okay.

CROSS EXAMINATION

BY MR. RAMEY:

Q. Mr. Wilbanks, you don't happen to know what the injection pressure is for the Texas Pacific Unit?

A. I know what they report to the State. The figure they report to the State is 1170 pounds.

Q. It seems to be over the fracture -- most of the fracture pressures you're reporting?

A. Yes, sir.

MR. STAMETS: Any other questions of the witness? He may be excused. Anything further in this case?

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MR. KELLAHIN: No, sir.

MR. STAMETS: We'll take the case under advisement.

(Hearing concluded.)

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REPORTER'S CERTIFICATE

I, Sally Walton Boyd, a Certified Shorthand Reporter, DO HEREBY CERTIFY that the foreging and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me and the same is a full and correct record prepared by me to the best of my knowledge, skill, and ability.

Sally Walton Boyd
Sally Walton 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. 6161 heard by me on 2-23, 1978.

Richard L. Stamets, Examiner
New Mexico Oil Conservation Commission

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PRODUCING DEPARTMENT
CENTRAL UNITED STATES
MIDLAND DIVISION

FEB 20 1978
CONSERVATION COMM.

TEXACO
PETROLEUM PRODUCTS

February 17, 1978

TEXACO INC.
P. O. BOX 3109
MIDLAND, TEXAS 79701

FLUID INJECTION APPLICATION
TENNECO OIL COMPANY
LEONARD QUEEN WATERFLOOD
LEONARD QUEEN, SOUTH POOL
LEA COUNTY, NEW MEXICO

Case 6161 R-25

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

Attention: Mr. Joe D. Ramey

Gentlemen:

Texaco Inc. has been advised by Tenneco Oil Company of its application to conduct fluid injection operations in the Leonard Queen, South Pool as a new project named the Leonard Queen Waterflood. Tenneco has advised that they will flood the Queen and Penrose formations within the area encompassed in Sections 11, 12, 13, 14 and 23 of T-26-S, R-37-E. This hearing will be heard before the New Mexico Oil Conservation Commission on February 22, 1978, as Case No. 6161.

Texaco Inc., as an offset lease holder, waives objection to the application.

Yours very truly,

D. T. McCreary
Division Manager

By M. A. Sirgo, Jr.
M. A. Sirgo, Jr.
Division Petroleum Engineer

PHD/lt

cc: Tenneco Oil Company
The Galleria-Penthouse
720 South Colorado Blvd.
Denver, CO 80222

This is recycled paper

Case 6161

JASON W. KELLAHIN
ROBERT E. FOX
W. THOMAS KELLAHIN

KELLAHIN and FOX
ATTORNEYS AT LAW
500 DON GASPAR AVENUE
P. O. BOX 1769
SANTA FE, NEW MEXICO 87501

TELEPHONE 982-4315
AREA CODE 505

January 31, 1978

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

Re: Tenneco
South Leonard Waterflood Project

Dear Dan:

Please set the enclosed application for hearing on February 22, 1978.

Very truly yours,

W. T. Kellahin

W. Thomas Kellahin

CC: Mr. Millard Carr
Mr. J. M. Lacey

WTK:kfm

Enclosure

Case 6161

BEFORE THE

OIL CONSERVATION COMMISSION OF NEW MEXICO

IN THE MATTER OF THE APPLICATION
OF TENNECO OIL COMPANY FOR
WATERFLOOD PROJECT, LEA COUNTY,
NEW MEXICO

MAR 31 1972

A P P L I C A T I O N

COMES NOW Tenneco Oil Company and applies to the Oil Conservation Commission of New Mexico for authority to install and operate a waterflood project and for administrative procedures for expansion of said project in its South Leonard Lease and in support thereof would show the commission:

1. That Applicant seeks permission to institute a waterflood project in the South Leonard Lease consisting of Sections 11, Section 12, all of Section 13 except the SE/4 SW/4 and all of Section 14 except the SW/4SW/4, all in Township 26 South, Range 37 East, NMPM, Lea County, New Mexico for the injection of water into the Penrose-Queen formation.

2. Applicant attaches hereto and incorporates by reference Exhibit "A" being all the required exhibits to be submitted in accordance with Rule 701 of the Commission Rules.

3. That the establishment of a waterflood project is timely, will result in the recovery of otherwise unrecoverable oil, thereby preventing waste and will not impair the correlative rights of others.

4. Applicant further requests that administrative procedures be authorized whereby modification or expansion of the project including the drilling of additional injection wells

Case 6161

and/or producing wells, and the conversion of existing wells to injection at both orthodox and unorthodox locations may be approved without further notice and hearing.

WHEREFORE applicant respectfully requests this matter be set for hearing before the Commission's duly appointed examiner and that after notice and hearing as required by law, the Commission enter its order approving the application as requested.

Respectfully submitted,

TENNECO OIL COMPANY

By _____

Kellahin & Fox
P. O. Box 1769
Santa Fe, New Mexico 87501

ATTORNEYS FOR APPLICANT

Case 6161

BEFORE THE

OIL CONSERVATION COMMISSION OF NEW MEXICO

IN THE MATTER OF THE APPLICATION
OF TENNECO OIL COMPANY FOR
WATERFLOOD PROJECT, LEA COUNTY,
NEW MEXICO

JAN 31 1978

CONSERVATION COM
Santa Fe

A P P L I C A T I O N

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Case 6161

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Respectfully submitted,

TENNECO OIL COMPANY

By _____

Kellahin & Fox
P. O. Box 1769
Santa Fe, New Mexico 87501

ATTORNEYS FOR APPLICANT

EXHIBIT 2 AMENDED

TABULAR SUMMARY OF SURROUNDING WELLS

WELL IDENTIFICATION						
Operator	Getty Oil Co.	Amerada Pet. Corp.	Tenneco Oil Co.	Tenneco Oil Co.	Tenneco Oil Co.	Tenneco Oil Co.
Lease	Riggs "B"	C.C. Cagle "C"	Leonard Federal	Leonard Federal	Leonard Federal	Leonard Federal
Well Number	5	2	1	3	2	6
LOCATION						
Unit	I	O	J	K	M	N
Section	1	3	11	11	11	11
Township	26S	26S	26S	26S	26S	26S
Range	37E	37E	37E	37E	37E	37E
SURFACE CASING						
Size (in.)	8 5/8	8 5/8	10 3/4	10 3/4	10 3/4	8 5/8
Setting Depth (ft.)	412	223	169	279	206	511
Sacks Cement	300	75 est..	75	100	75	525
Cement Top (ft.)	Surface	9*	Surface	Surface	56*	Surface*
Hole size (in.)		1[illegible] est.				
INTERMEDIATE CSG.	None	No	None		None	None
Size (in.)				7		
Setting Depth (ft.)				3342		
Sacks Cement				450		
Cement Top (ft.)				1335*		
Hole Size (in.)				9 7/8 est.		
LONG STRING		None				
Size (in.)	5 1/2		5 1/2	4 1/2 liner	7	5 1/2
Setting Depth (ft.)	3366		2891	3178-3642	3350	3608
Sacks Cement	330		350	75	525	940
Cement Top (ft.)	375		Surface	3178	379	Surface*
TOTAL DEPTH (ft.)	3367	3500	3436	3642	3437	3608
PRODUCING INTERVAL (ft.)	P&A	D&A	Queen (3400-3436)	Penrose (3498-3552)	Queen (3400-3437)	Queen (3412-3448) Proposed wtr. inj. well.

*Theoretical calculation based on hole size, sacks of cement used, and a yield of 1.18 cubic feet of fill per sack of cement.
**Required data not available. Insufficient data available to permit estimation.

Exhibit 2
Case 6161

EXHIBIT 2 AMENDED

TABULAR SUMMARY OF SURROUNDING WELLS

WELL IDENTIFICATION Operator	Bettis, Boyle, and Stovall	Stanolind Oil Co.	Humble Oil & Refg. Co.	Midwest Refining	Humble Oil & Refg. Co.	The Petroleum Corp.
Lease	Leonard Federal	Leonard Oil Co.	Leonard Federal	Farnsworth	Leonard Federal	Tenneco Federal
Well Number	7	2	1	19	1	1
LOCATION						
Unit	P	A	E	M	M	N
Section	11	12	12	12	12	12
Township	26S	26S	26S	26S	26S	26S
Range	37E	37E	37E	37E	37E	37E
SURFACE CASING						
Size (in.)	13 3/8	13 3/8	13 3/8	20	13 3/8	11 3/4
Setting Depth (ft.)	522	507	595	165	483	390
Sacks Cement	575	500	450	None	400	350
Cement Top (ft.)	Surface*	Surface*	Surface *	None	Surface*	Surface*
Hole Size (in.)			17 1/4 est.			
INTERMEDIATE CSG.						
Size (in.)	9 5/8	9 5/8	9 5/8	15 1/2	9 5/8	8 5/8
Setting Depth (ft.)	3727	3747	4225	529	3020	3790
Sacks Cement	1200	590	4000	50	2060	500
Cement Top (ft.)	1219	1524*	Surface*	314*	Surface*	1469*
Hole Size (in.)		12 1/4 est.	12 1/2 est.	17 1/2 est.		
LONG STRING			None			
Size (in.)	7	5 1/2		8 1/4[a]	5 1/2	5 1/2
Setting Depth (ft.)	9410	9845		3792	11,969	11,852
Sacks Cement	200	500		90	810	700
Cement Top (ft.)	7840*	6440*		2493*	8185*	7084*
Hole Size (in.)				9 est.		
TOTAL DEPTH (ft.)	9530	11,235	12,535	4115	11,969	11,854
PRODUCING INTERVAL (ft.)	P&A	P&A	P&A	P&A	P&A	Ellenburger (11,634'-11,828')

*Theoretical calculation based on hole size, sacks of cement used, and a yield of 1.18 cubic feet of fill per sack of cement.
**Required data not available. Insufficient data available to permit estimation.
[a] 12 1/2 inch casing set at 1050'. Cementing data not available. 10 inch casing set at 2800' with 75 sacks cement.

EXHIBIT 2 AMENDED

TABULAR SUMMARY OF SURROUNDING WELLS

WELL IDENTIFICATION						
Operator	Forest Oil Corp.	Texas Pacific Oil Co.	Tenneco Oil Company	Tenneco Oil Co.	Tenneco Oil Co.	Tenneco Oil Co.
Lease	Leonard Federal	Leonard Federal	Leonard Brothers	Leonard Brothers	Leonard Brothers	Leonard Brothers
Well Number	1	1	3	2	4	11
LOCATION						
Unit	P	E	G	I	J	K
Section	12	13	13	13	13	13
Township	26S	26S	26S	26S	26S	26S
Range	37E	37E	37E	37E	37E	37E
SURFACE CASING						
Size (in.)	13 3/8	13 3/8	13 3/8	8 5/8	8 5/8	8 5/8
Setting Depth (ft.)	494	422	409	510	513	513
Sacks Cement	360	350	400	400	550	500
Cement Top (ft.)	Surface*	Surface*	Surface*	Surface	Surface	Surface*
Hole Size (in.)	17 1/4 est.	17 1/4 est.				
INTERMEDIATE CSG.			None	None	None	None
Size (in.)	8 5/8	8 5/8				
Setting Depth (ft.)	3765	3790				
Sacks Cement	1350	2410				
Cement Top (ft.)	Surface*	Surface*				
Hole size (in.)	12 1/4 est.	12 1/4 est.				
LONG STRING	None					
Size (in.)		5 1/2	9 5/8	5 1/2	5 1/2	5 1/2
Setting Depth (ft.)		6980	4199	3595	3557	3812
Sacks Cement		775	4000	1850	1140	800
Cement Top (ft.)		1356*	Surface*	Surface*	Surface*	Surface*
Hole Size (in.)		7 3/4 est.				
TOTAL DEPTH (ft.)	12,125	9772	9861	3595	3557	3812
PRODUCING INTERVAL (ft.)	D&A	San Andres Water Source Well (3963-4444)	Queen, Penrose (3398-3524)	Queen (3446-3466)	Penrose (3477-3524)	Penrose (3509-3551)

*Theoretical calculation based on hole size, sacks of cement used, and a yield of 1.18 cubic feet of fill per sack of cement.
**Required data not available. Insufficient data available to permit estimation.

EXHIBIT 2 AMENDED

TABULAR SUMMARY OF SURROUNDING WELLS

WELL IDENTIFICATION						
Operator	Tenneco Oil Co.	Texas-Pacific Oil Co.	Tenneco Oil Co.	Tenneco Oil Co.	Tenneco Oil Co.	Tenneco Oil Co.
Lease	Leonard Brothers	S.Leonard Queen Unit	Leonard Brothers	Leonard Brothers	Leonard Brothers	Leonard Federal
Well Number	7	1	5	1	14	5
LOCATION						
Unit	M	N	O	P	B	I
Section	13	13	13	13	14	14
Township	26S	26S	26S	26S	26S	26S
Range	37E	37E	37E	37E	37E	37E
SURFACE CASING						
Size (in.)	8 5/8	10 3/4	8 5/8	8 5/8	8 5/8	10 3/4
Setting Depth (ft.)	517	292	512	505	265	209
Sacks Cement	500	100	520	310	225	120
Cement Top (ft.)	Surface*	Surface	Surface	Surface*	Surface*	Surface
INTERMEDIATE CSG.	None	None	None	None	None	
Size (in.)						8 5/8
Setting Depth (ft.)						1115
Sacks Cement						75
Cement Top (ft.)						413*
Hole Size (in.)						9 7/8 est:
Long String					None	
Size (in.)	5 1/2	7	5 1/2	5 1/2		7
Setting Depth (ft.)	3832	3250	3608	3620		3369
Sacks Cement	1010	400	950	900		75
Cement Top (ft.)	Surface*	342	Surface*	Surface*		2122*
Hole Size (in.)						7 7/8 est.
TOTAL DEPTH (ft.)	3832	3500	3608	3621	3453	3437
PRODUCING INTERVAL (ft.)	Queen (3368-3388 3393-3412) Proposed Wtr. Inj. Well	Queen,Penrose Wtr.Inj.Well (3381-3474)	Penrose (3480-3553)	Queen (3454-3497) Proposed wtr. Inj. well	P&A	Queen (3432-3437)

*Theoretical calculation based on hole size, sacks of cement used, and a yield of 1.18 cubic feet of fill per sack of cement.
**Required data not available. Insufficient data available to permit estimation.

EXHIBIT 2 AMENDED

TABULAR SUMMARY OF SURROUNDING WELLS

WELL IDENTIFICATION						
Operator	Tenneco Oil Co.	Midwest Refining	Bettis, Boyle, and Stovall	Tenneco Oil Co.	Tenneco Oil Co.	El Paso Natural Gas Company
Lease	Leonard Federal	Farnsworth	Leonard Federal	Leonard Federal	Leonard Federal	Rhodes GSU
Well Number	10	19	8	8	9	8
LOCATION						
Unit	J	M	M	O	P	J
Section	14	14	14	14	14	15
Township	26S	26S	26S	26S	26S	26S
Range	37E	37E	37E	37E	37E	37E
SURFACE CASING						
Size (in.)	8 5/8	16	7	13 3/8	8 5/8	8 5/8
Setting Depth (ft.)	471	554	400	422	505	635
Sacks Cement	520	25	170	450	520	300
Cement Top (ft.)	Surface*	516*	Surface*	Surface*	Surface*	Surface*
Hole Size (in.)	None	20 est.	None	None	None	None
INTERMEDIATE CSG.						
Size (in.)		13				
Setting Depth (ft.)		1184				
Sacks Cement		80				
Cement Top (ft.)		828*				
Hole Size (in.)		14 3/4 est.				
LONG STRING						
Size (in.)	5 1/2	10 3/4	4 1/2	9 5/8	5 1/2	4 1/2
Setting Depth (ft.)	3595	2852	2701	3842	3551	3200
Sacks Cement	1200	75	100	1300	1100	400
Cement Top (ft.)	Surface*	2382*	1731*	Surface*	Surface*	1218*
Hole Size (in.)		12 1/4 est.				
TOTAL DEPTH (ft.)	3597	3877	3100	10,650	3551	3200
PRODUCING INTERVAL (ft.)	Queen (3379-3447)	D&A	Yates (2701-3100)	Queen (3453-3490)	Queen (3380-3440)	Yates (2774-3102)

*Theoretical calculation based on hole size, sacks of cement used, and a yield of 1.18 cubic feet of fill per sack of cement.
**Required data not available. Insufficient data available to permit estimation.

EXHIBIT 2 AMENDED

TABULAR SUMMARY OF SURROUNDING WELLS

WELL IDENTIFICATION						
Operator	El Paso Natural Gas Company	Texaco, Inc.	Texas-Pacific Oil Co.	Leonard Oil Co.	Texas-Pacific Oil Co.	Texas-Pacific Oil Co.
Lease	Rhodes GSU	Rhodes "A"	S.Leon.Queen Unit	Parker	S.Leon.Queen Unit	S. Leon.Queen Unit
Well Number	25	2	2	2	6	11
LOCATION						
Unit	O	J	A	G	H	I
Section	15	22	23	23	23	23
Township	26S	26S	26S	26S	26S	26S
Range	37E	37E	37E	37E	37E	37E
SURFACE CASING						
Size (in.)	8 5/8	15 1/2	10 3/4	8 5/8	12 1/2	13 3/8
Setting Depth (ft.)	635	255	200	300	160	168
Sacks Cement	300	200	75	125	50 est.	50
Cement Top (ft.)	Surface*	Surface*	Surface	Surface*	76*	Surface*
Hole Size (in.)		17 1/2 est.		12 1/4 est.	17 1/4 est.	
INTERMEDIATE CSG.	None			None		
Size (in.)		10 3/4	8 5/8		8	8 5/8
Setting Depth (ft.)		1150	2146		1230	1214
Sacks Cement		500	50		100	100
Cement Top (ft.)		Surface*	1678*		628*	364*
Hole Size (in.)		14 est.	9 7/8 est.			
LONG STRING						
Size (in.)	4 1/2	7 5/8	7	5 1/2	7	7
Setting Depth (ft.)	3240	3100	3254	3345	3250	3246
Sacks Cement	400	125	75	250	100	100
Cement Top (ft.)	1163*	2413*	2007*	1642*	2117*	2114*
Hole size (in.)		9 7/8 est.	7 7/8 est.	7 7/8 est.		
TOTAL DEPTH (ft.)	3240	3280	3427	3620	3570	3482
PRODUCING INTERVAL (ft.)	Yates (2938-3119)	Rhodes Storage Area(3130-3206)	Queen Wtr.Inj.Well (3254-3427)	P&A	Queen Wtr.Inj.Well (3250-3570)	Queen Wtr.Inj.Well (3246-3482)

*Theoretical calculation based on hole size, sacks of cement used, and a yield of 1.18 cubic feet of fill per sack of cement.
**Required data not available. Insufficient data available to permit estimation.

EXHIBIT 2 AMENDED

TABULAR SUMMARY OF SURROUNDING WELLS

WELL IDENTIFICATION						
Operator	Herman J. Ledbetter	Texas-Pacific Oil Co.	Texas-Pacific Oil Co.	Texas-Pacific Oil Co.	Texas-Pacific Oil Co.	Texas-Pacific Oil Co.
Lease	Jay Federal	S.Leon.Queen Unit	S.Leon.Queen Unit	S.Leon.Queen Unit	S.Leon.Queen Unit	S.Leon.Queen Unit
Well Number	1	5	4	3	7	8
LOCATION						
Unit	A	B	C	D	E	F
Section	24	24	24	24	24	24
Township	26S	26S	26S	26S	26S	26S
Range	37E	37E	37E	37E	37E	37E
SURFACE CASING						
Size (in.)	8 5/8	8 5/8	8 5/8	8 5/8	13 3/8	12 1/2
Setting Depth (ft.)	285	300	299	307	170	250
Sacks Cement	125	200	250	120	50 est.	50 est.
Cement Top (ft.)	Surface*	Surface	Surface	Surface	79*	166*
Hole Size (in.)					17 1/4 est.	17 1/4 est.
INTERMEDIATE CSG.	None	None	None	None		
Size (in.)					8 5/8	8 5/8
Setting Depth (ft.)					1240	1210
Sacks Cement					100	50
Cement Top (ft.)					954*	1023*
Hole Size (in.)					12 1/4 est.	11 1/2 est.
LONG STRING						
Size (in.)	4 1/2	5 1/2	7	5 1/2	7	7[a]
Setting Depth (ft.)	3687	3245	3250	3250	3230	3249
Sacks Cement	525	400	500	400	100	100
Cement Top (ft.)	1161	Surface	Surface	Surface	1274*	1293*
Hole size (in.)					7 3/4 est.	7 3/4 est.
TOTAL DEPTH (ft.)	3692	3477	3445	3457	3522	3523
PRODUCING INTERVAL (ft.)	Queen, Penrose (3460-3576)	Queen (3245-3477)	Queen (3250-3445)	Queen, Penrose (3260-3457)	Queen, Penrose (3250-3522)	Queen, Penrose Wtr.Inj.Well (3409-3508)

*Theoretical calculation based on hole size, sacks of cement used and a yield of 1.18 cubic feet of fill per sack of cement.
**Required data not available. Insufficient data available to permit estimation.
[a] 4 1/2" liner from 3091'-3569'. Cemented with 100 sacks.

EXHIBIT 2 AMENDED

TABULAR SUMMARY OF SURROUNDING WELLS

WELL IDENTIFICATION						
Operator	Texas-Pacific Oil Co.	Texas-Pacific Oil Co.	Texas-Pacific Oil Co.	Texas-Pacific Oil Co.	Ralph Lowe	Ralph Lowe
Lease	S.Leon.Qn.Unit	S.Leon.Qn.Unit	S.Leon.Qn.Unit	S.Leon.Qn.Unit	Self	Self
Well Number	9	10	12	15	1	2
LOCATION						
Unit	G	H	L	M	M	E
Section	24	24	24	24	6	7
Township	26S	26S	26S	26S	26S	26S
Range	37E	37E	37E	37E	38E	38E
SURFACE CASING						
Size (in.)	8 5/8	7 5/8	12 1/2	10 3/4	13 3/8	13 3/8
Setting Depth (ft.)	295	1005	160	298	705	605
Sacks Cement	150	350	50	150	500	300
Cement Top (ft.)	Surface	Surface	76*	Surface	Surface *	58*
Hole size (in.)			17 1/4 est.		17 1/4 est.	17 1/4 est.
INTERMEDIATE CSG.	None	None		None	None	None
Size (in.)			8 5/8			
Setting Depth (ft.)			1190			
Sacks Cement			100			
Cement Top (ft.)			816*			
Hole size (in.)			11 1/2 est.			
LONG STRING					None	None
Size (in.)	5 1/2	4 1/2	7	5 1/2		
Setting Depth (ft.)	3250	3620	3250	3348		
Sacks Cement	400	300	100	400		
Cement Top (ft.)	Surface	1072*	1294*	Surface		
Hole size (in.)			7 3/4 est.			
TOTAL DEPTH (ft.)	3573	3620	3505	3540	3475	3976
PRODUCING INTERVAL (ft.)	Queen,Penrose (3250-3573)	Queen,Penrose Wtr.Inj.Well (3495-3612)	Queen (3417-3505)	Queen Wtr.Inj.Well (3303-3540)	D&A	D&A

*Theoretical calculation based on hole size, sacks of cement used, and a yield of 1.18 cubic feet of fill per sack of cement.
**Required data not available. Insufficient data available to permit estimation.

EXHIBIT 2 AMENDED

TABULAR SUMMARY OF SURROUNDING WELLS

WELL IDENTIFICATION			
Operator	Forest Oil Corp.	Yates Pet. Corp.	Ralph Lowe
Lease	Lowe Federal	Powell Federal	Haralson
Well Number	1	1	1
LOCATION			
Unit	L	L	D
Section	7	18	19
Township	26S	26S	26S
Range	38E	38E	38E
SURFACE CASING			
Size (in.)	13 3/8	8 5/8	10 3/4
Setting Depth (ft.)	473	398	693
Sacks Cement	340	250	200
Cement Top (ft.)	Surface*	Surface*	Surface*
INTERMEDIATE CSG.		None	None
Size (in.)	9 5/8		
Setting Depth (ft.)	3895		
Sacks Cement	1500		
Cement Top (ft.)	Surface*		
Hole size (in.)	12 1/4 est.		
LONG STRING			None
Size (in.)	5 1/2	5 1/2	
Setting Depth (ft.)	12,948	3733	
Sacks Cement	1390	125	
Cement Top (ft.)	6455*	2877*	
Hole size (in.)	8 3/4 est.		
TOTAL DEPTH (ft.)	12,950	3733	3750
PRODUCING INTERVAL (ft.)	P&A	Penrose (3596-3637)	D&A

*Theoretical calculation based on hole size, sacks of cement used, and a yield of 1.18 cubic feet of fill per sack of cement.
**Required data not available. Insufficient data available to permit estimation.

SOUTH LEONARD QUEEN UNIT

SUMMARY DATA

Operator: Texas Pacific Oil Company
Date Unit Was Formed: September, 1968
Date Injection Began: January, 1969

Cumulative Oil Recovery to 1-1-78	1,137,653 STBO
Estimated Primary Production	672,000 STBO
Secondary Recovery to 1-1-78	465,653 STBO

Current Oil Recovery = 1.69 x Primary Recovery
Estimated Ultimate Oil Recovery = 1.90 x Primary Recovery
= 1,276,800 STBO

Cumulative Water Injection to 1-1-78	4,978,472 BW

Current Production Rate (12-77)	147 BOPD
Current Injection Rate (12-77)	1,510 BWPD

Producing Wells	8
Injection Wells	6
Shut-In Injection Wells	2
Total Wells	16

2-14-78

SOUTH LEONARD QUEEN UNIT
OIL PRODUCTION
WATER INJECTION

WATER INJ., BPM

OIL PROD., BPM

100,000
10,000
1000

WATER INJ
OIL
BEGIN WTR INJ

65 66 19 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84

TENNECO OIL COMPANY

SOUTH LEONARD QUEEN POOL
SUMMARY DATA

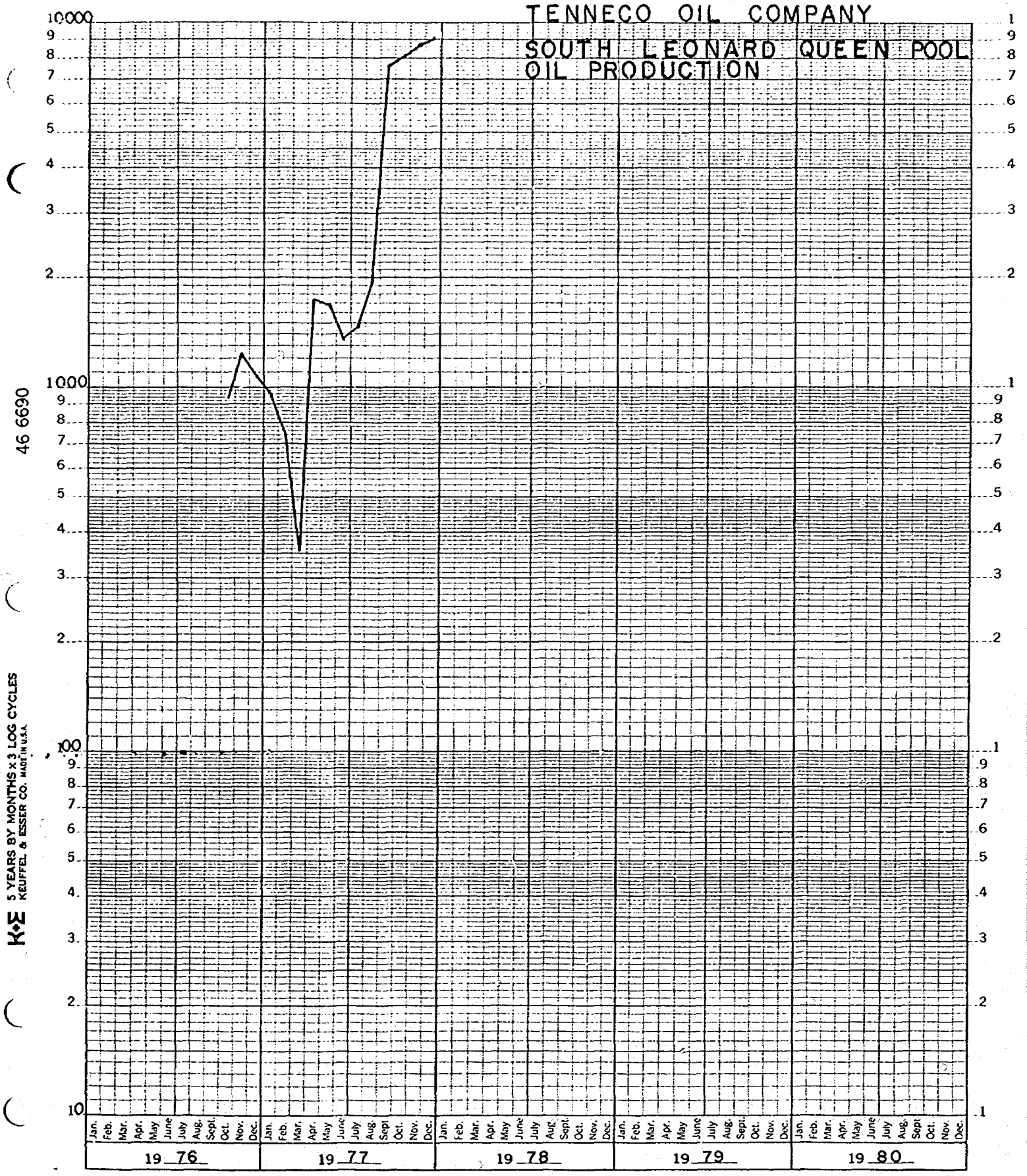
Cumulative Oil Recovery to 1-1-78	116,678 STBO
Current Production Rate (12-77)	291 BOPD

Producing Wells	13
Shut-in producing wells	2
Total Wells	15
Staked Locations	23

2-14-78

TENNECO OIL COMPANY

SOUTH LEONARD QUEEN POOL
OIL PRODUCTION



46 6690

KE 5 YEARS BY MONTHS x 3 LOG CYCLES
KEUFFEL & ESSER CO. MADE IN U.S.A.

CASE 6158: Application of C. H. Berry for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the NE/4 of Section 15, Township 24 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6159: Application of Texaco Inc., for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Drinkard and Wantz-Granite Wash production in the wellbore of its A. H. Blinebry Federal Well No. 38 located in Unit J of Section 19, Township 22 South, Range 38 East, Lea County, New Mexico.

CASE 6160: Application of Bass Enterprises Production Co., for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Delaware formation through the perforated interval from 3310 feet to 3375 feet in its Big Eddy Unit Well No. 56, located in Unit G of Section 35, Township 21 South, Range 28 East, Indian Flats-Delaware Pool, Eddy County, New Mexico.

CASE 6161: Application of Tenneco Oil Company for two waterflood projects, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project on its Leonard Federal Lease by the injection of water into the Queen formation through one well in Unit O of Section 11, and on its Leonard Brothers Lease through two wells, in Units I and M, respectively, of Section 14, all in Township 26 South, Range 37 East, Leonard Queen Pool, Lea County, New Mexico. Applicant further seeks the establishment of an administrative procedure for the addition of injection wells and the conversion of existing wells to injection at both orthodox and unorthodox locations without further notice and hearing.

CASE 6162: Application of Continental Oil Company for an unorthodox location and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Jack B-30 Well No. 2 to be located 330 feet from the North line and 25 feet from the East line of Section 30, Township 24 South, Range 37 East, Jalmat Gas Pool, Lea County, New Mexico, the NE/4 of said Section 30 to be simultaneously dedicated to the aforesaid well and to Well No. 5 in Unit H.

CASE 6163: Application of Continental Oil Company for amendment of Commission Order No. R-3863, Lea County, New Mexico. Applicant, in the above-styled cause, seeks to substitute its Anderson Ranch Unit Wells No. 6 located in Unit X of Section 2 and Nos. 3 and 10, located in Units A and H, respectively, of Section 11, all in Township 16 South, Range 32 East, for the initial injection wells authorized by said order in its Anderson Ranch-Wolfcamp Waterflood Project, Anderson Ranch-Wolfcamp Pool, Lea County, New Mexico.

CASE 6164: Application of Shell Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Tubb, Wantz-Abo, and Brunson-Ellenburger production in the wellbore of its Shell State Section 2 Well No. 15 located in Unit K of Section 2, Township 21 South, Range 37 East, Lea County, New Mexico.

CASE 6165: Application of Shell Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Drinkard, Hare-McKee, and Brunson-Ellenburger production in the wellbore of its Shell State Section 2 Well No. 3 located in Unit U of Section 2, Township 21 South, Range 37 East, Lea County, New Mexico.

CASE 6166: Application of Odessa Natural Corporation for rescission of Order No. R-5601, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks a hearing at which any interested party could appear and show cause why Order No. R-5601, which granted a special well classification to applicant's ARCO-Little Fed. Well No. 1, located in Unit D of Section 32, Township 24 North, Range 3 West, Rio Arriba County, New Mexico, should not be rescinded.

CASE 6141: Application of Paul Slayton for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Seven Rivers formation thru the open-hole interval from 528 feet to 547 feet in his Hastie Well No. 7 located in Unit L of Section 18, Township 17 South, Range 28 East, Empire Field, Eddy County, New Mexico.

DRAFT

RLS/jr

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 6161

Order No. R- 5675

APPLICATION OF TENNECO OIL COMPANY
FOR TWO WATERFLOOD PROJECTS AND AN
ADMINISTRATIVE PROCEDURE, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 22, 19 78, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this _____ day of March, 19 78, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Tenneco Oil Company, seeks authority to institute a waterflood project on its Leonard Federal Lease by the injection of water into the Queen formation through one well in Unit O of Section 11, and on its Leonard Brothers Lease through two wells, in Units I and M, respectively, of Section 14, all in Township 26 South, Range 37 East, Leonard-Queen Pool, Lea County, New Mexico.

(3) That wells within the proposed project areas experience rapid declines in production rates and require the institution of secondary recovery for continued production.

(4) That the proposed waterflood projects should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

(5) That injection into any well authorized under the terms of this order should be through internally coated tubing set in a packer to be located within approximately 100 feet of the uppermost perforation or, in the case of an open-hole completion, the casing shoe.

(6) That the casing-tubing annulus in each injection well should be filled with an inert fluid, and that a pressure gauge or approved leak detection device should be attached to the annulus or the annulus should be left open in order to determine leakage in the casing, tubing, or packer.

(7) That the injection wells or system should be equipped with a pressure limiting switch or other acceptable device which will limit the surface injection pressure to no more than 680 pounds unless the Secretary-Director of the Commission should administratively authorize a higher pressure.

(8) That there are five wells, as set out on Exhibit A to this order, which are located within or immediately adjacent to the boundaries of ~~said~~ the proposed projects which may or may not be plugged in such a manner that will assure that they will not serve as channels for injected water to migrate from the Queen formation to other formations or to the surface.

(9) That to prevent migration of injected water from the Queen formation, formation injection pressure at wells within one half mile of any well identified on said Exhibit A should be limited to hydrostatic pressure until such time as the wells on said Exhibit A have been replugged or it shall otherwise be demonstrated

to the satisfaction of the Secretary-Director of the Commission that the same will not serve as avenues ~~for~~ of escape ~~of~~ for such waters.

(10) That the wells within the project should be equipped to facilitate periodic testing of the annular space between strings of production and surface casing.

(11) That the operator should take all other steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface from injection, producing, or plugged and abandoned wells.

(12) That approval of the subject application should result in the recovery of additional volumes of oil from the proposed projects, thereby preventing waste.

(13) That the applicant further seeks the establishment of an administrative procedure for the addition of injection wells and the conversion of existing wells to injection at both orthodox and unorthodox locations without further notice and hearing.

(14) That the establishment of such an administrative procedure would permit the more efficient operation of the proposed project.

(15) That any injection well authorized by such an administrative procedure should be subject to all of the requirements and limitations contained in this order.

(16) That the application for waterflood projects and an administrative procedure should be approved.

IT IS THEREFORE ORDERED:

(1) That the applicant, Tenneco Oil Company, is hereby authorized to institute a waterflood project on its Leonard Federal Lease by the injection of water into the Queen formation through its Leonard Federal Well No. 6 in Unit O of Section 11, to institute another waterflood project and on its Leonard Brothers Lease by the injection of water into the Queen formation through its Leonard Brothers Well No. 2 and

Well No. 7, located in Units I and M, respectively, ~~in~~ of Section 13 ~~18~~, all in Township 26 South, Range 37 East, Leonard-Queen Pool, Lea County, New Mexico.

(2) That injection into any well on either of said leases shall be through internally coated tubing installed in a packer to be located within approximately 100 feet of the uppermost perforation or, in the case of an open-hole completion, the casing shoe.

(3) That the casing-tubing annulus in each injection well shall be filled with an inert fluid and a pressure gauge or approved leak detection device shall be attached to the annulus or the annulus allowed to remain open in order to determine leakage in the casing, tubing, or packer.

(4) That the injection wells or system shall be equipped with a pressure limiting switch or other acceptable device which will limit the surface injection pressure to no more than 680 pounds.

(5) That the Secretary-Director of the Commission may administratively authorize a pressure limitation in excess of that set out in Order No. (4) above upon a showing by the operator that such higher pressure will not result in fracturing of the confining strata.

(6) That the applicant shall not inject water into the Queen formation through any well located within one half mile of any of the five wells identified on Exhibit A attached hereto and by reference made a part hereof, at a pressure greater than hydrostatic until such well has been replugged or it has been shown to the satisfaction of the Secretary-Director of the Commission THAT SUCH WELL will not serve as an avenue of escape for waters injected into the Queen formation, and he has authorized a higher than hydrostatic pressure.

(7) That the wells within the project area shall be equipped with risers or in another acceptable manner such as to facilitate the periodic testing of the bradenhead for pressure or fluid production.

(8) That the operator shall immediately notify the supervisor of the Commission district office at Hobbs of the failure of the tubing or packer in any of said injection wells, the leakage of water or oil from or around any producing well, the leakage of water or oil from or around any plugged and abandoned well within the project area, or any other evidence of fluid migration from the injection zone, and shall take such timely steps as may be necessary or required to correct such failure or leakage.

(9) That the subject waterflood projects are hereby designated the Tenneco Oil Company Leonard Federal Waterflood Project and Leonard Brothers Waterflood Project, respectively, and shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

(10) That monthly progress reports of the waterflood projects herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1115 of the Commission Rules and Regulations.

(11) The Secretary-Director of the Commission is hereby authorized to approve such additional producing wells and injection wells at orthodox and unorthodox locations within the boundaries of applicant's Leonard Federal and Leonard Brothers leases in Sections 11, 12, 13, and 14, Township 26 South, Range 37 East, NMPM, as may be necessary to complete an efficient production and injection pattern, provided said wells are drilled no closer than 330 feet to any lease line nor closer than 10 feet to any quarter-quarter section or subdivision inner boundary. To obtain such approval, the project operator shall file proper application with the Commission, which application, if it seeks authorization to

convert additional wells to injection or to drill additional production or injection wells shall include the following:

(a) A plat showing the location of the proposed well, all wells within the project area, and offset operators, locating wells which offset the project area.

(b) A schematic drawing of the proposed well which fully describes the casing, tubing, perforated interval, depth, and a demonstration that any proposed injection well will meet construction, pressure and monitoring provisions of Orders Nos. (2), (3), (4), (6), and (7) of this Order or the equivalent.

(c) A letter stating that all offset operators to the proposed well have been furnished a complete copy of the application and the date of notification.

The Secretary-Director of the Commission may approve the proposed well if, within 20 days after receiving the application, no objection to the proposal is received. The Secretary-Director may grant immediate approval, provided waivers of objection are received from all offset operators.

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

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

Operator Name	Lease	Well No.	Ut.	Sec.	TWP.	Rge
Ralph Lowe	Self	2	E	7	26S	38E
Stanolind Oil Co.	Leonard Oil Co.	2	A	12	26S	37E
Midwest Refining Co.	Farnsworth	19	M	12	26S	37E
Tenneco Oil Co.	Leonard Bro.	14	B	14	26S	37E
Midwest Refining Co.	Farnsworth	19	M	14	26S	37E

Case No. 6161
Order No. R-

Exhibit A

CASE 6162: CONTINENTAL OIL COMPANY FOR AN UNORTHODOX LOCATION AND SIMULTANEOUS DEDICATION, LEA COUNTY, NEW MEXICO

Case Number

6162

Application

Transcripts.

Small Exhibits

ETC.

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General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
22 February 1978

EXAMINER HEARING

IN THE MATTER OF:

Application of Continental Oil Company for an unorthodox location and simultaneous dedication, Lea County, New Mexico.

CASE 6162

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Commission: Lynn Teschendorf, Esq.
LEGAL COUNSEL FOR THE COMMISSION
State Land Office Building
Santa Fe, New Mexico

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

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Phone (505) 982-9212

I N D E X

VICTOR T. LYON

Direct Examination by Mr. Kellahin 3

E X H I B I T S

Applicant Exhibit One, Location plat 7

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Phone (505) 982-9212

MR. STAMETS: Call now case 6162.

MS. TESCHENDORF: Case 6162. Application of Continental Oil Company for an unorthodox location and simultaneous dedication, Lea County, New Mexico.

MR. STAMETS: Call for appearances.

MR. KELLAHIN: Tom Kellahin of Kellahin & Fox, Santa Fe, New Mexico, appearing on behalf of Continental Oil Company, and I have one witness.

(Witness sworn.)

VICTOR T. LYON

being called as a witness on behalf of Continental Oil Company, and having been duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR, KELLAHIN:

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

A. My name is Victor T. Lyon and I am employed by Continental Oil Company as Conservation Coordinator in the Hobbs Division office, located in Hobbs, New Mexico.

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

A. Yes, I have.

MR. KELLAHIN: If the Examiner please, we tender Mr. Lyon as an expert witness.

MR. STAMETS: Mr. Lyon is considered qualified.

Q. (Mr. Kellahin continuing.) Mr. Lyon, would you refer to what we've marked as Applicant Exhibit Number One, identify it and tell us what Continental is seeking?

A. Case Number 6162 is the application of Continental Oil Company for approval of an unorthodox location for its Jack B-30 Well No. 2 in the Jalmat Gas Pool and for authority to allocate jointly to Wells Nos. 1 and 2 the Jalmat Gas Proration Unit, consisting of the northeast quarter of Section 30, Township 23 South, Range -- excuse me, 24 South, Range 37 East, Lea County, New Mexico.

I think, Mr. Examiner, that the advertisement is in error in that it refers to the joint dedication -- simultaneous dedication of Wells 2 and 5, and the well in Unit H should be Well No. 1.

MR. STAMETS: Is there a Well No. 5 in Unit H?

A. No.

MR. STAMETS: Is there a Well No. 5 in the entire northeast quarter of Section 30?

A. No.

MR. KELLAHIN: No.

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Phone (505) 982-9212

MR. STAMETS: I don't call that a fatal error. I believe we can live with that. I will correct my copy of the docket to Well No. 1 and we'll go from there.

A. Okay. Exhibit Number 1 is a location and ownership plat showing the Lockhart B-30 lease outlined in red, consisting of the northeast quarter of Section 30, Township 24 South, Range 37 East.

The proposed well, No. 2, is shown circled in red and located 330 feet from the north line, 1725 feet from the east line of Section 30.

The dashed line to the west and north of the Jack B-30 lease is the boundary of the Cooper-Jal Unit operated by Reserve Oil and Gas, in which the Langlie-Mattix and the Jalmat Pools are unitized for secondary recovery operations.

The dot/dash line to the north and east of the lease is the boundary of the Langlie-Jack Unit, which is operated by Continental Oil Company for waterflooding of the Langlie-Mattix Pool.

You will note that Doyle Hartman has drilled a well in Section 19 located 330 feet from the south line, 990 feet from the east line of Section 19. This well is completed as a gas well in the Langlie-Mattix Pool, a direct offset to our Jack B-30 lease. We feel that in order to protect our correlative rights, that we should drill

a Langlie-Mattix well and that we should locate it an equal distance from the property line and rather than have a head-to-head offset, we have staggered the offset location so that any drainage will be compensated by counter-drainage.

Q. Mr. Lyon, let me ask you on this Hartman well, that is producing from the Langlie-Mattix, is it not?

A. Yes, it is.

Q. And that well is at a standard footage location for the Langlie-Mattix?

A. Yes, it is.

Q. All right. Now, have you discussed this well in the southwest quarter of the southwest quarter -- that's a dry hole, is it?

A. Southwest quarter of the southwest --

Q. This one here (indicating).

A. Southwest quarter of the southeast quarter of 19?

Q. I'm sorry, yes, sir.

A. That well, I believe, is owned by Cities Service and is a Jalmat gas well.

Q. All right. Please continue.

A. We would like to dually complete this well in the Langlie-Mattix and the Jalmat and the well is not at a standard location for the Jalmat as a gas well, since the pool rules require that it be located 660 feet from the

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proration unit, and therefore we are requesting approval of the non-standard location in the Jalmat Pool for this well.

We are also requesting that the gas allowable from the Jalmat Pool be allocated jointly to Wells Nos. 1 and 2. No. 1 is located 1650 feet from the north line and 990 feet from the east line of Section 30.

Well No. 1 was reclassified to marginal status on April 1st, 1974, and in December, 1977, the well produced 8201 MCF as compared to non-marginal allocation of 13492, so there is available allowable for both wells.

Q. You indicated you wanted a joint allocation for the -- was the Jalmat production from those two wells?

A. Jalmat production, and we would also like permission to produce the assigned allowable in any proportion between the two wells.

Q. In your opinion, Mr. Lyon, will approval of this application be in the best interests of conservation, the prevention of waste and the protection of correlative rights?

A. Yes, it will.

MR. KELLAHIN: If Your Honor please, we move the introduction of Exhibit Number One.

MR. STAMETS: Exhibit One will be admitted.

MR. KELLAHIN: That concludes our examination.

MR. STAMETS: Mr. Lyon, what's the order num-

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ber which originally approved the nonstandard unit dedicated to Jack No. 1?

A. At the time that proration unit was formed, the standard unit was 160 acres and it was a standard unit at the beginning of gas prorationing in the Jalmat Pool.

MR. STAMETS: Okay. Any other questions for the witness? He may be excused. Anything further in this case?

We'll take the case under advisement.

(Hearing concluded.)

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REPORTER'S CERTIFICATE

I, Sally Walton Boyd, a Certified Shorthand Reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and that the same is a true and correct record of the said proceedings, prepared by me to the best of my knowledge, skill, and ability.

Sally Walton Boyd
Sally Walton 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. 6162, heard by me on 2-23, 1978.

Richard L. Stamets, Examiner
New Mexico Oil Conservation Commission

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General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 - SANTA FE
87501

DIRECTOR
JOE D. RAMEY

LAND COMMISSIONER
PHIL R. LUCERO

STATE GEOLOGIST
EMERY C. ARNOLD

March 28, 1978

Mr. Tom Kellahin
Kellahin & Fox
Attorneys at Law
Post Office Box 1769
Santa Fe, New Mexico

Re: CASE NO. 6162
ORDER NO. R-5658-A

Applicant:

Continental Oil Company

Dear Sir:

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

Yours very truly,

JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCC x
Artesia OCC x
Aztec OCC

Other

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 6162
Order No. R-5658-A

APPLICATION OF CONTINENTAL OIL COMPANY
FOR AN UNORTHODOX GAS WELL LOCATION AND
SIMULTANEOUS DEDICATION, LEA COUNTY,
NEW MEXICO.

NUNC PRO TUNC ORDER

BY THE COMMISSION:

It appearing to the Commission that Order No. R-5658, dated March 8, 1978, does not correctly state the intended order of the Commission:

IT IS THEREFORE ORDERED:

(1) That Finding No. (3) on Page 1 of Order No. R-5658 is hereby corrected to read in its entirety as follows:

"(3) That the NE/4 of said Section 30 is to be simultaneously dedicated to said well and to applicant's Jack B-30 Well No. 1-H in Unit H of said Section 30."

(2) That Order No. (2) on Page 2 of Order No. R-5658 is hereby corrected to read in its entirety as follows:

"(2) That the NE/4 of said Section 30 shall be simultaneously dedicated to the above-described well and to applicant's Jack B-30 Well No. 1-H located in Unit H of said Section."

(3) That this order shall be effective nunc pro tunc as of March 8, 1978.

DONE at Santa Fe, New Mexico, on this 21st day of March, 1978.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

PHIL R. LUCERO, Chairman

EMERY C. ARNOLD, Member

JOE D. RAMEY, Member & Secretary

S E A

jr/

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 · SANTA FE
87501

DIRECTOR
JOE D. RAMEY

LAND COMMISSIONER
PHIL R. LUCERO

STATE GEOLOGIST
EMERY C. ARNOLD

March 9, 1978

Re: CASE NO. 6162
ORDER NO. R-5658

Mr. Tom Kellahin
Kellahin & Fox
Attorneys at Law
Post Office Box 1769
Santa Fe, New Mexico

Applicant:

Continental Oil Company

Dear Sir:

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

Yours very truly,

JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCC x
Artesia OCC x
Aztec OCC

Other

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 6162
Order No. R-5658

APPLICATION OF CONTINENTAL OIL COMPANY
FOR AN UNORTHODOX GAS WELL LOCATION AND
SIMULTANEOUS DEDICATION, LEA COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 22, 1978, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 8th day of March, 1978, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Continental Oil Company, seeks approval of an unorthodox gas well location for its Jack B-30 Well No. 2 to be located 330 feet from the North line and 1725 feet from the East line of Section 30, Township 24 South, Range 37 East, NMPM, Jalmat Gas Pool, Lea County, New Mexico.

(3) That the NE/4 of said Section 30 is to be simultaneously dedicated to said well and to applicant's Jack B-30 Well No. 5 in Unit H of said Section 30.

(4) That a well at said unorthodox location will better enable applicant to protect its correlative rights under said proration unit.

(5) That no offset operator objected to the proposed unorthodox location.

(6) That approval of the subject application will afford the applicant the opportunity to produce its just and equitable share of the gas in the subject pool, will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and will otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That an unorthodox gas well location is hereby approved for the Continental Oil Company Jack B-30 Well No. 2 to be located at a point 330 feet from the North line and 1725 feet from the East line of Section 30, Township 24 South, Range 37 East, NMPM, Jalmat Gas Pool, Lea County, New Mexico.

(2) That the NE/4 of said Section 30 shall be simultaneously dedicated to the above-described well and to applicant's Jack B-30 Well No. 5 located in Unit H of said Section.

(3) That the allowable assigned to said proration unit may be produced by either of said wells in any proportion.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

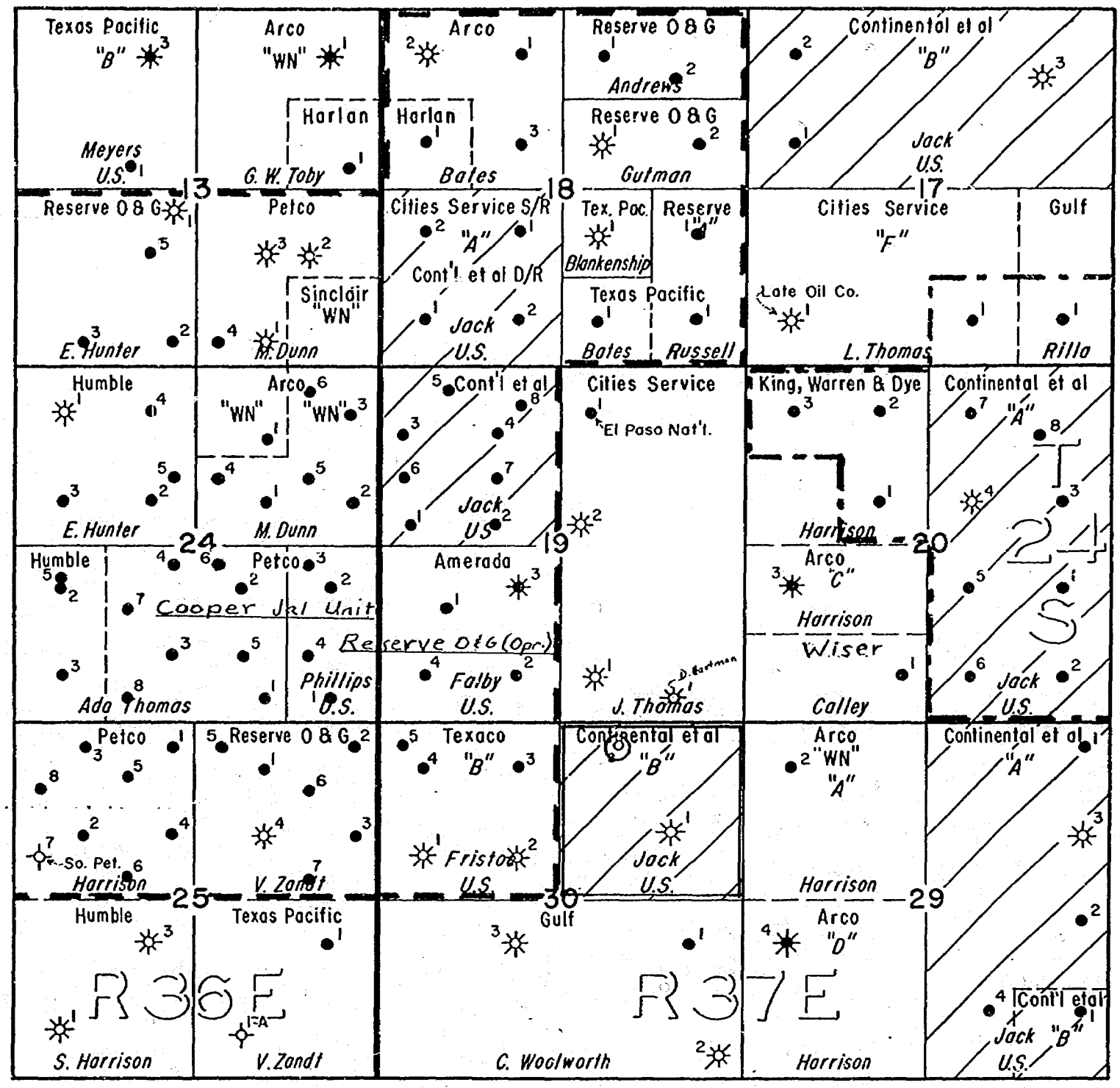
PHIL R. LUCERO, Chairman

EMERY C. ARNOLD, Member

JOE D. RAMEY, Member & Secretary

S E A L

jr/



BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
EXHIBIT NO. 1
CASE NO. 6162
Submitted by Conoco
Hearing Date 2-22-78

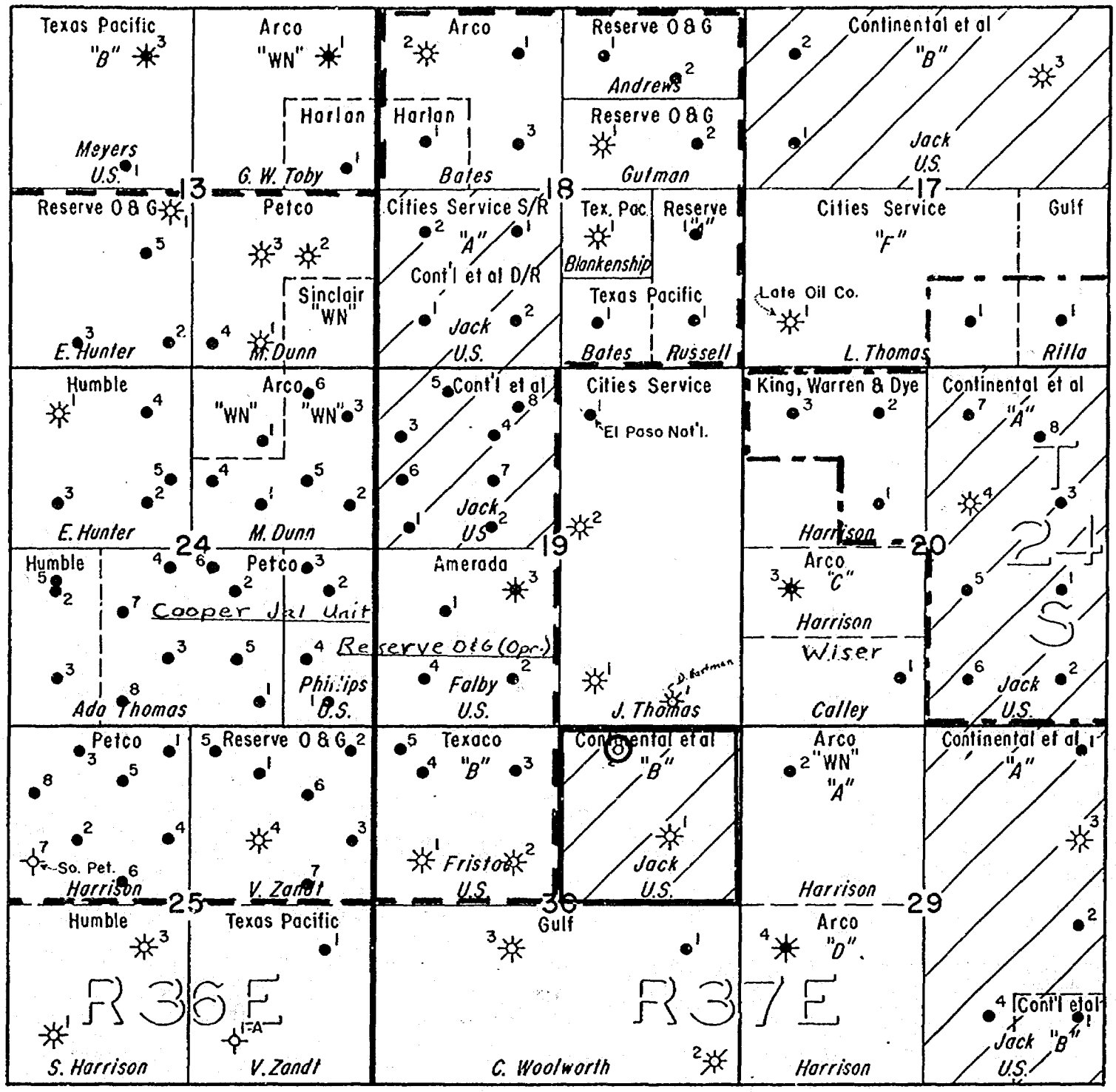
CONTINENTAL OIL COMPANY

PRODUCTION DEPARTMENT

HOBBS DISTRICT

Lea County, New Mexico

SCALE



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CONTINENTAL OIL COMPANY

PRODUCTION DEPARTMENT

HOBBS DISTRICT

Lea County, New Mexico

SCALE

Exhibit 1
Case 6162

CASE 6158: Application of O. H. Berry for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the NE/4 of Section 15, Township 24 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6159: Application of Texaco Inc., for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Drinkard and Wantz-Granite Wash production in the wellbore of its A. H. Blinebry Federal Well No. 38 located in Unit J of Section 19, Township 22 South, Range 38 East, Lea County, New Mexico.

CASE 6160: Application of Bass Enterprises Production Co., for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Delaware formation through the perforated interval from 3310 feet to 3375 feet in its Big Eddy Unit Well No. 56, located in Unit G of Section 35, Township 21 South, Range 28 East, Indian Flats-Delaware Pool, Eddy County, New Mexico.

CASE 6161: Application of Tenneco Oil Company for two waterflood projects, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project on its Leonard Federal Lease by the injection of water into the Queen formation through one well in Unit O of Section 11, and on its Leonard Brothers Lease through two wells, in Units I and M, respectively, of Section 14, all in Township 26 South, Range 37 East, Leonard Queen Pool, Lea County, New Mexico. Applicant further seeks the establishment of an administrative procedure for the addition of injection wells and the conversion of existing wells to injection at both orthodox and unorthodox locations without further notice and hearing.

CASE 6162: Application of Continental Oil Company for an unorthodox location and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Jack B-30 Well No. 2 to be located 330 feet from the North line and 1725 feet from the East line of Section 30, Township 24 South, Range 37 East, Jalmat Gas Pool, Lea County, New Mexico, the NE/4 of said Section 30 to be simultaneously dedicated to the aforesaid well and to Well No. 5 in Unit H.

CASE 6163: Application of Continental Oil Company for amendment of Commission Order No. R-3863, Lea County, New Mexico. Applicant, in the above-styled cause, seeks to substitute its Anderson Ranch Unit Wells No. 6 located in Unit X of Section 2 and Nos. 3 and 10, located in Units A and H, respectively, of Section 11, all in Township 16 South, Range 32 East, for the initial injection wells authorized by said order in its Anderson Ranch-Wolfcamp Waterflood Project, Anderson Ranch-Wolfcamp Pool, Lea County, New Mexico.

CASE 6164: Application of Shell Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Tubb, Wantz-Abo, and Brunson-Ellenburger production in the wellbore of its Shell State Section 2 Well No. 15 located in Unit K of Section 2, Township 21 South, Range 37 East, Lea County, New Mexico.

CASE 6165: Application of Shell Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Drinkard, Hare-McKee, and Brunson-Ellenburger production in the wellbore of its Shell State Section 2 Well No. 3 located in Unit U of Section 2, Township 21 South, Range 37 East, Lea County, New Mexico.

CASE 6166: Application of Odessa Natural Corporation for rescission of Order No. R-5601, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks a hearing at which any interested party could appear and show cause why Order No. R-5601, which granted a special well classification to applicant's ARCO-Little Fed. Well No. 1, located in Unit D of Section 32, Township 24 North, Range 3 West, Rio Arriba County, New Mexico, should not be rescinded.

CASE 6141: Application of Paul Slayton for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Seven Rivers formation thru the open-hole interval from 528 feet to 547 feet in his Hastie Well No. 7 located in Unit L of Section 18, Township 17 South, Range 28 East, Empire Field, Eddy County, New Mexico.

Dockets Nos. 9-78 and 11-78 are tentatively set for hearing on March 8 and March 22, 1978. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - FEBRUARY 22, 1978

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

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

CASE 6150: In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the amendment of Rules 311, 312, 1117, and 1118 of the Commission Rules and the revision of Forms C-117-A and C-117-B, all for the purpose of regulating the handling and reporting of tank bottoms, sediment oil, miscellaneous hydrocarbons, and the operation of treating plants.

CASE 6151: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Vega Petroleum Corporation, American Employers' Insurance Company, and all other interested parties to appear and show cause why the North Caprock Queen Unit No. 1 Well No. 5Y located in Unit E of Section 8, Township 13 South, Range 32 East, Lea County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6152: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Al Greer, American Employers' Insurance Company, and all other interested parties to appear and show cause why the Thompson Well No. 1 located in Unit N of Section 10, Township 30 North, Range 11 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6153: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Mints-Kenaston and all other interested parties to appear and show cause why the L. A. McCoy Well No. 1 located in Unit B of Section 28, Township 30 North, Range 12 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6154: Application of Read & Stevens, Inc. for a unit agreement, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for its Calumet Ranch Unit Area comprising 5,760 acres, more or less, of Federal, State, and fee lands in Township 12 South, Range 27 East, Chaves County, New Mexico.

CASE 6155: Application of Gulf Oil Corporation for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the N/2 of Section 28, Township 23 South, Range 26 East, South Carlsbad Field, Eddy County, New Mexico, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6144: (Readvertised)

Application of Southland Royalty Company for two unorthodox locations and two non-standard gas proration units, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for two 120-acre non-standard gas proration units comprising the S/2 SE/4 of Section 10 and the SW/4 SW/4 of Section 11, and comprising the SE/4 SW/4 and the S/2 SE/4 of Section 11, all in Township 28 North, Range 11 West, Fulcher Kutz-Pictured Cliffs Pool, San Juan County, New Mexico, each of said units to be dedicated to a well drilled at an unorthodox location thereon.

CASE 6156: Application of Southland Royalty Company for an unorthodox location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its East Well No. 5A to be located 1120 feet from the South line and 1790 feet from the West line of Section 24, Township 31 North, Range 12 West, Blanco-Mesaverde Gas Pool, San Juan County, New Mexico.

CASE 6157: Application of Supron Energy Corporation for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 160-acre non-standard gas proration unit comprising the SW/4 of Section 13, Township 16 South, Range 33 East, Lea County, New Mexico, to be dedicated to a Morrow gas well test to be drilled thereon.

Case 6167

CONOCO

L. P. Thompson
Division Manager

E. L. Oshlo
Assistant Division Manager

Production Department
Hobbs Division
North American Production

Continental Oil Company
P.O. Box 460
1001 North Turner
Hobbs, New Mexico 88240
(505) 393-4141

JAN 19 1978

OIL CONSERVATION COMM.

January 16, 1978

New Mexico Oil Conservation Commission (3)
P.O. Box 2088
Santa Fe, New Mexico 87501

Attention Mr. Joe D. Ramey, Secretary-Director

Gentlemen:

Non-Standard Location - Jack B-30 No. 2-B-30-24-37, Lea County, New Mexico

We have filed applications with the U.S. Geological Survey to drill the Jack B-30 Well No. 2 at a location 330' FNL and 1725' FEL of Section 30, T-24-S, R-37-E, Lea County, New Mexico. This well is projected to the Langlie Mattix Pool. The location was selected to meet the offset of the Doyle Hartman, Adele Sowell Well No. 1 located 330' FSL and 990' FEL of Section 19, T-24-S, R-37-E. It is our present intention to dually complete this well in the Langlie Mattix Pool and the Jalmat Pool. Very likely, both wells will be gas wells.

The proposed location is non-standard for the Jalmat Gas Pool, and it is respectfully requested that approval of this location be given because of the circumstances described above. Copy of this application is being furnished to each of the offset operators.

If the situation described above does not qualify this exception for administrative approval, please set this matter for hearing on the earliest available examiner docket.

Yours very truly,

VTL/jj
Enc
CC: New Mexico Oil Conservation Commission - Hobbs, New Mexico
U.S. Geological Survey - Hobbs, New Mexico
Offset Operators (List attached)
C. F. Ellis - Houston, Texas
F. O. Hull - Houston, Texas
J. W. Kellahin - Santa Fe, New Mexico

Case 6162

JACK B-30 NO. 2
OFFSET OPERATORS
ADDRESS LIST

Atlantic Richfield Company
Box 1710
Hobbs, New Mexico 88240

Cities Service Oil Company
Box 1919
Midland, Texas 79701

Gulf Oil Company
Box 670
Hobbs, New Mexico 88240

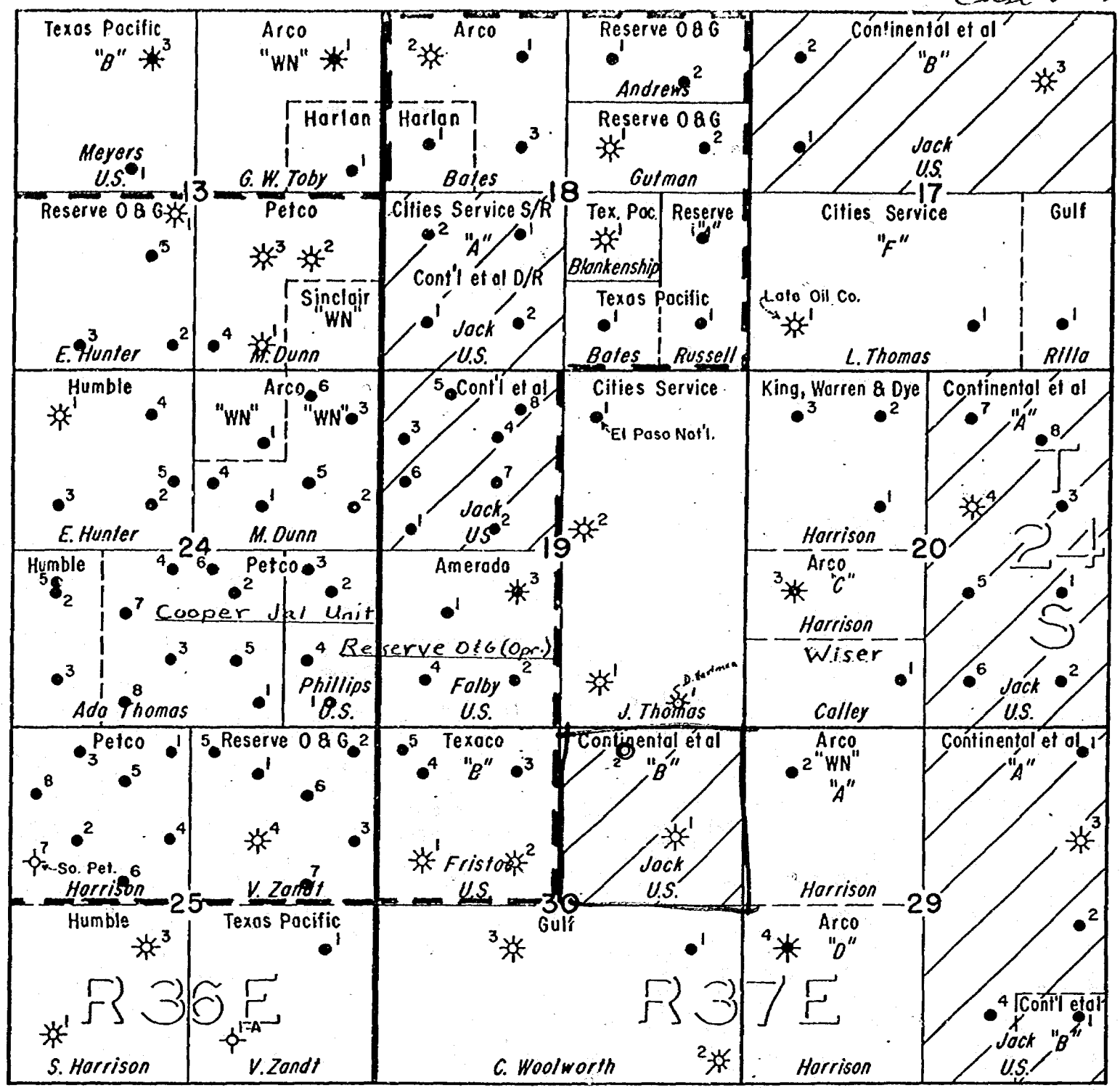
Doyle Hartman
508 C&K Petroleum Building
Midland, Texas 79701

Reserve Oil & Gas Company
201 First Savings Building
Midland, Texas 79701

Wiser Oil Company
Box 2467
Hobbs, New Mexico 88240

1/16/78

Case 6162


Texas Pacific "B" Meyers U.S.
Arco "WN" Harlan G. W. Toby
Arco Harlan Bates
Reserve O & G Andrews
Reserve O & G Gutman
Continental et al "B" Jack U.S.
13
18
17
Reserve O & G E. Hunter
Petco Sinclair "WN" M. Dunn
Cities Service S/R "A" Cont'l et al D/R Jack U.S.
Tex. Pac. Blankenship
Reserve "A"
Texas Pacific Bates Russell
Cities Service "F" Lato Oil Co. L. Thomas
Gulf Rilla
Humble E. Hunter
Arco "WN" "WN" M. Dunn
Cont'l et al Jack US
Cities Service El Paso Nat'l.
King, Warren & Dye Harrison
Continental et al "A"
24
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Humble
Petco Cooper Jal Unit
Amerada
Reserve O & G (Opr.) Falby U.S.
Phillips U.S.
Ada Thomas
J. Thomas
Arco "C" Harrison
Wiser Calley
Jack U.S.
Petco
Reserve O & G
Texaco "B" Fristoe U.S.
Continental et al "B" Jack U.S.
Arco "WN" "A" Harrison
Continental et al "A" Cont'l et al Jack "B" U.S.
So. Pet. Harrison
V. Zandt
25
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Humble S. Harrison
Texas Pacific V. Zandt
Gulf C. Woolworth
Arco "D" Harrison
R 36 E
R 37 E
N
CONTINENTAL OIL COMPANY
PRODUCTION DEPARTMENT
HOBBS DISTRICT
Lea County, New Mexico
SCALE

Case 6162

conoco

L. P. Thompson
Division Manager

E. L. Oshlo
Assistant Division Manager

Production Department
Hobbs Division
North American Production

Continental Oil Company
P.O. Box 460
1001 North Turner
Hobbs, New Mexico 88240
(505) 393-4141

JAN 19 1978
CONSERVATION COM...

January 16, 1978

New Mexico Oil Conservation Commission (3)
P.O. Box 2088
Santa Fe, New Mexico 87501

Attention Mr. Joe D. Ramey, Secretary-Director

Gentlemen:

Non-Standard Location - Jack B-30 No. 2-B-30-24-37, Lea County, New Mexico

We have filed applications with the U.S. Geological Survey to drill the Jack B-30 Well No. 2 at a location 330' FNL and 1725' FEL of Section 30, T-24-S, R-37-E, Lea County, New Mexico. This well is projected to the Langlie Mattix Pool. The location was selected to meet the offset of the Doyle Hartman, Adele Sowell Well No. 1 located 330' FSL and 990' FEL of Section 19, T-24-S, R-37-E. It is our present intention to dually complete this well in the Langlie Mattix Pool and the Jalmat Pool. Very likely, both wells will be gas wells.

The proposed location is non-standard for the Jalmat Gas Pool, and it is respectfully requested that approval of this location be given because of the circumstances described above. Copy of this application is being furnished to each of the offset operators.

If the situation described above does not qualify this exception for administrative approval, please set this matter for hearing on the earliest available examiner docket.

Yours very truly,

VTL/jj
Enc
CC: New Mexico Oil Conservation Commission - Hobbs, New Mexico
U.S. Geological Survey - Hobbs, New Mexico
Offset Operators (List attached)
C. F. Ellis - Houston, Texas
F. O. Hull - Houston, Texas
J. W. Kellahin - Santa Fe, New Mexico

Case 6162

JACK B-30 NO. 2
OFFSET OPERATORS
ADDRESS LIST

Atlantic Richfield Company
Box 1710
Hobbs, New Mexico 88240

Cities Service Oil Company
Box 1919
Midland, Texas 79701

Gulf Oil Company
Box 670
Hobbs, New Mexico 88240

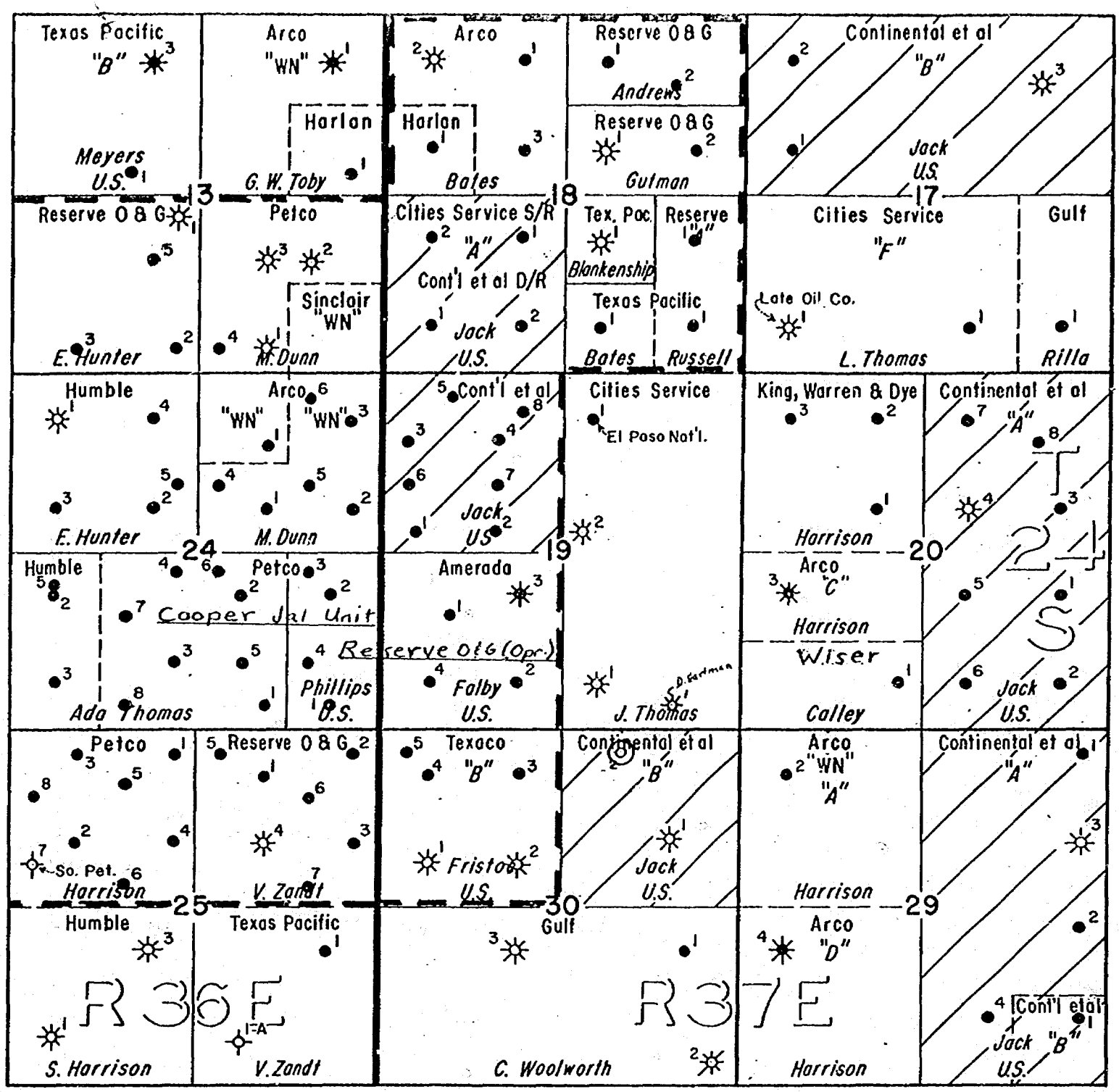
Doyle Hartman
508 C&K Petroleum Building
Midland, Texas 79701

Reserve Oil & Gas Company
201 First Savings Building
Midland, Texas 79701

Wiser Oil Company
Box 2467
Hobbs, New Mexico 88240

1/16/78

Case 6162



CONTINENTAL OIL COMPANY

PRODUCTION DEPARTMENT

HOBBS DISTRICT

Lea County, New Mexico

N

SCALE

Case 6112

CONOCO

L. P. Thompson
Division Manager

E. L. Oshlo
Assistant Division Manager

Production Department
Hobbs Division
North American Production

Continental Oil Company
P.O. Box 460
1001 North Turner
Hobbs, New Mexico 88240
(505) 393-4141

January 16, 1978

New Mexico Oil Conservation Commission (3)
P.O. Box 2088
Santa Fe, New Mexico 87501

Attention Mr. Joe D. Ramey, Secretary-Director

Gentlemen:

Non-Standard Location - Jack B-30 No. 2-B-30-24-37, Lea County, New Mexico

We have filed applications with the U.S. Geological Survey to drill the Jack B-30 Well No. 2 at a location 330' FNL and 1725' FEL of Section 30, T-24-S, R-37-E, Lea County, New Mexico. This well is projected to the Langlie Mattix Pool. The location was selected to meet the offset of the Doyle Hartman, Adele Sowell Well No. 1 located 330' FSL and 990' FEL of Section 19, T-24-S, R-37-E. It is our present intention to dually complete this well in the Langlie Mattix Pool and the Jalmat Pool. Very likely, both wells will be gas wells.

The proposed location is non-standard for the Jalmat Gas Pool, and it is respectfully requested that approval of this location be given because of the circumstances described above. Copy of this application is being furnished to each of the offset operators.

If the situation described above does not qualify this exception for administrative approval, please set this matter for hearing on the earliest available examiner docket.

Yours very truly,

L. P. Thompson

VTL/jj
Enc
CC: New Mexico Oil Conservation Commission - Hobbs, New Mexico
U,S. Geological Survey - Hobbs, New Mexico
Offset Operators (List attached)
C. F. Ellis - Houston, Texas
F. O. Hull - Houston, Texas
J. W. Kellahin - Santa Fe, New Mexico

Case 6162

JACK B-30 NO. 2
OFFSET OPERATORS
ADDRESS LIST

Atlantic Richfield Company
Box 1710
Hobbs, New Mexico 88240

Cities Service Oil Company
Box 1919
Midland, Texas 79701

Gulf Oil Company
Box 670
Hobbs, New Mexico 88240

Doyle Hartman
508 C&K Petroleum Building
Midland, Texas 79701

Reserve Oil & Gas Company
201 First Savings Building
Midland, Texas 79701

Wiser Oil Company
Box 2467
Hobbs, New Mexico 88240

1/16/78

Texas Pacific "B" Meyers U.S. 1 3
Arco "WN" 1
Harlon G. W. Toby 1
Arco 2 1
Harlon Bates 1 3
Reserve O & G 1 Andrews 2
Reserve O & G 1 Gutman 2
Continental et al "B" 2 1 3 Jack U.S.
13
18
17
Reserve O & G 1 5 E. Hunter 3 2
Petco 3 2 4 M. Dunn 1
Sinclair "WN"
Cities Service S/R "A" 2 1
Cont'l et al D/R 1 Jack U.S. 2
Tex. Pac. 1 Blankenship
Reserve "A" 1
Texas Pacific 1 Bates 1 Russell 1
Cities Service "F"
Late Oil Co. 1 L. Thomas 1
Gulf 1 Rilla
Humble 1 4 5 E. Hunter 3 2
Arco 6 "WN" 1 "WN" 3 4 5 M. Dunn 1 2
Cont'l et al 5 3 8 4 6 7 1 Jack US 2
Cities Service 1 El Paso Nat'l. 2
King, Warren & Dye 3 2 Harrison 1
Continental et al "A" 7 8 4 3 5 1 Jack U.S. 6 2
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Humble 5 6 2 4 6 Petco 3 2 2 7 Cooper Jal Unit 3 5 4 Reserve O&G (Opr.) Phillips U.S. 1 Ado Thomas 3 8 1
Amerada 3 1 Folby 4 2 U.S.
J. Thomas 1
Arco 3 "C" Harrison Wiser Calley 1
Petco 3 1 8 5 2 4 7 So. Pet. 6 Harrison
5 Reserve O & G 2 1 6 4 3 7 V. Zandt
5 Texaco 4 "B" 3 1 Fristoe 2 U.S.
Continental et al 2 "B" 1 Jack U.S.
Arco 2 "WN" "A" Harrison
Continental et al "A" 1 3 2 4 Cont'l et al 1 Jack "B" U.S.
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29
Humble 3 1
Texas Pacific 1 I-A
Gulf 3 1
Arco "D" 4
R 36 E
R 37 E
S. Harrison
V. Zandt
C. Woolworth 2
Harrison

N

CONTINENTAL OIL COMPANY

PRODUCTION DEPARTMENT

HOBBS DISTRICT

Lea County, New Mexico

SCALE

Case 6162

L. P. Thompson
Division Manager

E. L. Oshlo
Assistant Division Manager

Production Department
Hobbs Division
North American Production

Continental Oil Company
P.O. Box 460
1001 North Turner
Hobbs, New Mexico 88240
(505) 393-4141

January 31, 1978

New Mexico Oil Conservation Commission (3)
P.O. Box 2088
Santa Fe, New Mexico 87501

Attention Mr. Joe D. Ramey, Secretary-Director

Gentlemen:

Jack B-30 No. 2-C-30-24-37, Lea County, New Mexico - Joint Allocation of Acreage

Informal application dated January 16, 1978 requested approval of a non-standard location for Jack B-30 Well No. 2, to be located 330' FNL and 1725' FEL of Section 30, T-24-S, R-37-E, Lea County, New Mexico. This matter is to be set for hearing on the earliest available examiner docket.

It is respectfully requested that the application be expanded to include permission to allocate jointly for gas proration purposes from the Jalmat Pool the 160 acres, consisting of the NE/4 Section 30, T-24-S, R-37-E. The other well on this proration unit is the Jack B-30 Well No. 1, located 1650' FNL and 990' FEL of the same section.

Granting of this portion of the application will permit greater flexibility in producing the allowable from the gas proration unit. Your modification of the application as described will be sincerely appreciated.

Yours very truly,

VTL/jj
Enc
CC:
C. F. Ellis - Houston
F. O. Hull - Houston
J. W. Kellahin - Santa Fe

Case 6162

CONOCO

L. P. Thompson
Division Manager

E. L. Oshlo
Assistant Division Manager

Production Department
Hobbs Division
North American Production

Continental Oil Company
P.O. Box 460
1001 North Turner
Hobbs, New Mexico 88240
(505) 393-4141

January 31, 1978

New Mexico Oil Conservation Commission (3)
P.O. Box 2088
Santa Fe, New Mexico 87501

Attention Mr. Joe D. Ramey, Secretary-Director

Gentlemen:

Jack B-30 No. 2-C-30-24-37, Lea County, New Mexico - Joint Allocation of Acreage

Informal application dated January 16, 1978 requested approval of a non-standard location for Jack B-30 Well No. 2, to be located 330' FNL and 1725' FEL of Section 30, T-24-S, R-37-E, Lea County, New Mexico. This matter is to be set for hearing on the earliest available examiner docket.

It is respectfully requested that the application be expanded to include permission to allocate jointly for gas proration purposes from the Jalmat Pool the 160 acres, consisting of the NE/4 Section 30, T-24-S, R-37-E. The other well on this proration unit is the Jack B-30 Well No. 1, located 1650' FNL and 990' FEL of the same section.

Granting of this portion of the application will permit greater flexibility in producing the allowable from the gas proration unit. Your modification of the application as described will be sincerely appreciated.

Yours very truly,

VTL/jj
Enc
CC:
C. F. Ellis - Houston
F. O. Hull - Houston
J. W. Kellahin - Santa Fe

Case 6162

CONOCO

L. P. Thompson
Division Manager

E. L. Oshlo
Assistant Division Manager

Production Department
Hobbs Division
North American Production

Continental Oil Company
P.O. Box 460
1001 North Turner
Hobbs, New Mexico 88240
(505) 393-4141

January 31, 1978

New Mexico Oil Conservation Commission (3)
P.O. Box 2088
Santa Fe, New Mexico 87501

Attention Mr. Joe D. Ramey, Secretary-Director

Gentlemen:

Jack B-30 No. 2-C-30-24-37, Lea County, New Mexico - Joint Allocation of Acreage

Informal application dated January 16, 1978 requested approval of a non-standard location for Jack B-30 Well No. 2, to be located 330' FNL and 1725' FEL of Section 30, T-24-S, R-37-E, Lea County, New Mexico. This matter is to be set for hearing on the earliest available examiner docket.

It is respectfully requested that the application be expanded to include permission to allocate jointly for gas proration purposes from the Jalmat Pool the 160 acres, consisting of the NE/4 Section 30, T-24-S, R-37-E. The other well on this proration unit is the Jack B-30 Well No. 1, located 1650' FNL and 990' FEL of the same section.

Granting of this portion of the application will permit greater flexibility in producing the allowable from the gas proration unit. Your modification of the application as described will be sincerely appreciated.

Yours very truly,

L P Thompson

VTL/jj
Enc
CC:
C. F. Ellis - Houston
F. O. Hull - Houston
J. W. Kellahin - Santa Fe

Memo

From

R. L. STAMETS
TECHNICAL
SUPPORT CHIEF

To

Addition

Applicant seeks to
simultaneously dedicate
the NE/4 of Sec 30
to the Jack B-30 Wells
No. 1-H and 2-B in
Section 30-24-37.

In addition to
NSL on attached letter

OIL CONSERVATION COMMISSION-SANTA FE

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO 6162

Order No. R- 5658

APPLICATION OF CONTINENTAL OIL COMPANY
FOR AN UNORTHODOX GAS WELL LOCATION AND SIMULTANEOUS DEDICATION
LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 22, 19 78, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this ____ day of _____, 19 78, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Continental Oil Company, seeks approval of an unorthodox gas well location for its Jack B-30 Well No 2 to be located 330 feet from the North line and 1725 feet from the East line of Section 30, Township 24 South, Range 37 East, NMPM, ~~to test the formation~~ Jalmat Gas Pool Pool, Lea County, New Mexico.

(3) That the NE/4 of said Section 30 is to be simultaneously dedicated to the applicant's Jack B-30 Well well and to ~~Well~~ No. 5 in Unit H of said Section 30. Said ~~above~~

(4) That a well at said unorthodox location will better enable applicant to ~~produce the gas underlying the proration unit.~~ protect its correlative rights under said proration unit

(5) That no offset operator objected to the proposed unorthodox location.

(6) That approval of the subject application will afford the applicant the opportunity to produce its just and equitable share of the gas in the subject pool, will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and will otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That an unorthodox gas well location ~~for the~~ _____ ~~the~~ Continental Oil Company, Jack B-30 Well No. 2 ~~formation~~ is hereby approved for ~~a well~~ to be located at a point 330 feet from the North line and 1725 feet from the East line of Section 30, Township 24 South, Range 37 East NMPM, Jalmat Gas Pool, Lea County, New Mexico.

(2) That the NE/4 of said Section 30 shall be dedicated simultaneously to the above-described well, and to applicant's Jack B-30 located Well No. 5 in Unit H of said Section.

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

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

(3) That the allowable assigned to said proration unit may be produced by either of said wells in any proportion.

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 6162
Order No. R-5658

APPLICATION OF CONTINENTAL OIL COMPANY
FOR AN UNORTHODOX GAS WELL LOCATION AND
SIMULTANEOUS DEDICATION, LEA COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 22, 1978, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 8th day of March, 1978, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Continental Oil Company, seeks approval of an unorthodox gas well location for its Jack B-30 Well No. 2 to be located 330 feet from the North line and 1725 feet from the East line of Section 30, Township 24 South, Range 37 East, NMPM, Jalmat Gas Pool, Lea County, New Mexico.

(3) That the NE/4 of said Section 30 is to be simultaneously dedicated to said well and to applicant's Jack B-30 Well No. 5 in Unit H of said Section 30.

(4) That a well at said unorthodox location will better enable applicant to protect its correlative rights under said proration unit.

(5) That no offset operator objected to the proposed unorthodox location.

(6) That approval of the subject application will afford the applicant the opportunity to produce its just and equitable share of the gas in the subject pool, will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and will otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That an unorthodox gas well location is hereby approved for the Continental Oil Company Jack B-30 Well No. 2 to be located at a point 330 feet from the North line and 1725 feet from the East line of Section 30, Township 24 South, Range 37 East, NMPM, Jalmat Gas Pool, Lea County, New Mexico.

(2) That the NE/4 of said Section 30 shall be simultaneously dedicated to the above-described well and to applicant's Jack B-30 Well No. 5 located in Unit H of said Section.

(3) That the allowable assigned to said proration unit may be produced by either of said wells in any proportion.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

PHIL R. LUCERO, Chairman

EMERY C. ARNOLD, Member

JOE D. RAMEY, Member & Secretary

S E A L

jr/

6162

2/16/78

PROPOSED TESTIMONY - CASE NO. 6162, NMOCC EXAMINER DOCKET - FEBRUARY 22, 1978

CASE NO. 6162 is the application of Continental Oil Company for approval of an unorthodox location for its Jack B-30 Well No. 2, and for authority to allocate jointly to Wells Nos. 1 & 2 the Jalmat Gas Proration Unit, consisting of the NE/4 of Section 30, T-24-S, R-37-E, Lea County, New Mexico.

EXHIBIT NO. 1 is a location and ownership plat showing the Jack B-30 lease and the wells located on it, the location and ownership of leases and wells within the immediately surrounding area. Jack B-30 lease is shown outlined in red and consists of the NE/4 Section 30. Well No. 1 is shown located in Unit "H" of Section 30; and Well No. 2, circled in red, is shown as it is proposed to be located, 330' FNL and 1725' FEL of Section 30. The dashed line in the Northwest portion of the plat is the boundary of the Cooper Jal Unit operated by Reserve Oil & Gas in which both the Langlie Mattix and Jalmat Pools are unitized for secondary recovery operations. The dot-dash boundary in the East portion of the plat is the boundary of the Langlie Jack Unit which is operated by Continental Oil Company for secondary recovery operations in the Langlie Mattix Pool. Doyle Hartman has drilled a well to the Langlie Mattix located 330' FSL and 990' FEL of Section 19, a direct offset to our Jack B-30 lease. This well is completed as a gas well, and in the month of November 1977 produced 24,063 MCF gas, no liquids, according to the November statistical report. In order to protect our Jack B-30 lease from drainage from this well, we feel it is necessary to locate the offset well an equal distance from that boundary. Rather than place the well directly offsetting it, we have staggered the location so that the drainage is compensated by counter-drainage. We also desire to dually complete this well in the Langlie Mattix and Jalmat Pools. Application for dual completion will be submitted for administrative approval. Jack B-30 No. 1 was reclassified to marginal status on April 1, 1974. In December 1977, the well produced 8,201 MCF gas, as compared to a non-marginal allocation of 13,492 MCF.

In my opinion, the granting of this application will result in the prevention of waste and will protect correlative rights.

VTL/jj

CASE 6163: CONTINENTAL OIL COMPANY FOR AMENDMENT OF COMMISSION ORDER NO. R-3863, LEA COUNTY, NEW MEXICO

Case Number

6163

Application

Transcripts.

Small Exhibits

ETC.

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 6163
Order No. R-3863-A

APPLICATION OF CONTINENTAL OIL COMPANY
FOR AMENDMENT OF COMMISSION ORDER NO.
R-3863, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 22, 1978, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 8th day of March, 1978, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That Commission Order No. R-3863 entered on October 28, 1969, authorized a waterflood project in the Anderson Ranch Unit Area, Anderson Ranch-Wolfcamp Pool, Lea County, New Mexico.

(3) That said project was designated the Continental Anderson Ranch Wolfcamp Waterflood Project.

(4) That injection was never initiated in said project.

(5) That the applicant, Continental Oil Company, seeks to substitute its Anderson Ranch Unit Wells No. 6 located in Unit X of Section 2, and Nos. 3 and 10, located in Units A and H, respectively, of Section 11, all in Township 16 South, Range 32 East, for the initial injection wells authorized by said order in said project.

(6) That such substitution will permit the more efficient operation of said project.

(7) That injection into each of said wells should be through internally coated tubing set in a packer to be located as close as practicable to the uppermost casing perforation and well below the top of the cement protecting such casing.

(8) That the casing-tubing annulus in each injection well should be filled with an inert fluid, and that a pressure gauge or approved leak detection device should be attached to the annulus or the annulus should be left open in order to determine leakage in the casing, tubing, or packer.

(9) That the injection wells or system should be equipped with a pressure-limiting switch or other acceptable device which will limit the surface injection pressure to no more than 1940 pounds unless the Secretary-Director of the Commission should administratively authorize a higher pressure.

(10) That the wells within the project should be equipped to facilitate periodic testing of the annular space between strings of production and surface casing.

(11) That the operator should take all other steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface from injection, producing, or plugged and abandoned wells.

(12) That the application should be approved.

IT IS THEREFORE ORDERED:

(1) That the applicant, Continental Oil Company, is hereby authorized to substitute its Anderson Ranch Unit Wells No. 6 located in Unit X of Section 2, and Nos. 3 and 10, located in Units A and H, respectively, of Section 11, all in Township 16 South, Range 32 East, NMPM, for the initial injection wells in the Continental Anderson Ranch Wolfcamp Waterflood Project, Anderson Ranch-Wolfcamp Pool, Lea County, New Mexico, as authorized under the provisions of Commission Order No. R-3863 entered October 28, 1969.

(2) That injection into the Wolfcamp interval in each of said substitute wells shall be through internally coated tubing installed in a packer set as close as practicable to the uppermost casing perforation and well below the cement protecting such casing.

(3) That the casing-tubing annulus in each injection well shall be filled with an inert fluid and a pressure gauge or approved leak detection device shall be attached to the annulus or the annulus allowed to remain open in order to determine leakage in the casing, tubing, or packer.

(4) That the injection wells or system shall be equipped with a pressure-limiting switch or other acceptable device which will limit the surface injection pressure to no more than 1940 pounds.

(5) That the Secretary-Director of the Commission may administratively authorize a pressure limitation in excess of that set out in Order No. (4) above upon a showing by the operator that such higher pressure will not result in fracturing of the confining strata.

(6) That the wells within the project area shall be equipped with risers or in another acceptable manner such as to facilitate the periodic testing of the bradenhead for pressure or fluid production.

(7) That the operator shall immediately notify the supervisor of the Commission district office at Hobbs of the failure of the tubing or packer in any of said injection wells, the leakage of water or oil from or around any producing well, the leakage of water or oil from or around any plugged and abandoned well within the project area, or any other evidence of fluid migration from the injection zone, and shall take such timely steps as may be necessary or required to correct such failure or leakage.

(8) That monthly progress reports of the waterflood project herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1115 of the Commission Rules and Regulations.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

PHIL R. LUCERO, Chairman

EMERY C. ARNOLD, Member

JOE D. RAMEY, Member & Secretary

S E A L

jr/

sid morrish reporting service
General Court Reporting Service
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Phone (505) 982-9212

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
22 February 1978

EXAMINER HEARING

IN THE MATTER OF:

Application of Continental Oil Company for amendment of Commission Order No. R-3863, Lea County, New Mexico.

CASE 6163

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Commission: Lynn Teschendorf, Esq.
Legal Counsel for the Commission
State Land Office Building
Santa Fe, New Mexico

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

I N D E X

LOWELL B. DECKERT

Direct Examination by Mr. Kellahin	3
Cross Examination by Mr. Ramey	13

E X H I B I T S

Applicant Exhibit One, Plat	14
Applicant Exhibit Two, Plat	14
Applicant Exhibit Three, Tabulation	14
Applicant Exhibit Four, a, b, c, Diagrams	14
Applicant Exhibit Five, Structure Map	14
Applicant Exhibit Six, a, b, c, Diagrams	14
Applicant Exhibit Seven, a, b, c, Diagrams	14
Applicant Exhibit Eight, Water Analysis	14

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MR. STAMETS: Call Case 6163.

MS. TESCHENDORF: Case 6163. Application of Continental Oil Company for amendment of Commission Order No. R-3863, Lea County, New Mexico.

MR. KELLAHIN: Tom Kellahin of Kellahin and Fox, appearing on behalf of Continental Oil, and I have one witness.

MR. STAMETS: Will you stand and be sworn, please?

(Witness sworn.)

LOWELL B. DECKERT

being called as a witness on behalf of Continental Oil Company, and having been duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. KELLAHIN:

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

A. My name is Lowell B. Deckert. I'm employed by Continental Oil Company as a staff engineer in the Hobbs Division office.

Q. How do you spell your last name?

A. D-E-C-K-E-R-T.

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Q. Mr. Deckert, have you previously testified before this Commission?

A. No, I have not.

Q. For the benefit of the Examiner would you indicate for us when and where you obtained your degree?

A. I graduated in 1952 with a Bachelor of Science degree in petroleum engineering from the University of Tulsa.

Q. Are you a registered petroleum engineer?

A. Yes, I am, in the State of New Mexico.

Q. And since graduation from Tulsa in '52 where have you been employed and in what capacity?

A. I have been involved in -- as a petroleum engineer for twenty-four years; five years with Charter Oil Company in locations in Arkansas, Louisiana, Illinois; nineteen years with Continental Oil Company in Oklahoma, Texas, and New Mexico, and I have spent nine years in New Mexico.

Q. Have you made a study of and are you familiar with the facts surrounding this particular application?

A. Yes, I have.

MR. KELLAHIN: We tender Mr. Deckert as an expert in the field of petroleum engineering.

MR. STAMETS: The witness is considered qualified.

Q. (Mr. Kellahin continuing) Would you identify what we have marked as Conoco Exhibit Number One, identify it, and explain to us what you're seeking to accomplish?

A. Okay. Continental Oil Company is making application for amendment of Order Number R-3863 to substitute injection wells in the Anderson Ranch Wolfcamp waterflood project authorized by that order, issued October 28th, 1969.

We want to substitute Unit Wells Nos. 3, 6, and 10 in place of Wells Nos. 4 and 5 that were authorized in that order.

Q. Exhibit Number One outlines in orange triangles the three wells which you want to substitute for Wells 4 and 5, does it not?

A. It does.

Q. While we have this plat before us, Mr. Deckert, let's do a couple of other things.

Would you identify for us those wells that are currently producing?

A. Okay, the current Wolfcamp production is from Wells Nos. 17, Well 2, and 13.

We also have two Devonian wells producing in this unit, Wells Nos. 1 and 14, and one Morrow gas well, No. 7.

Q. Let's do the Devonian wells again. Which ones were the Devonian wells?

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A. Nos. 1 and 14.

Q. Okay, and there is one Morrow well, No. 7?

A. Yes.

Q. Now, which wells contributed -- will contribute water production to be used in the injection well?

A. Okay, all four of the Wolfcamp wells and the two Devonian producers.

Q. What does the hash line represent on the exhibit?

A. Okay, the hash line indicates the boundary of the Anderson Ranch Unit, and you'll notice that the Anderson Ranch Unit consists of the southwest quarter of Section 1, the south half of Section 2, Section 11, and in its entirety, the west half of Section 12, the west half of the northwest of Section 13, and the north half of Section 14.

You will also notice that by letter symbol we've indicated the past and present producing formation of all wells within two miles of the proposed injectors.

Q. All right, sir, would you refer to Exhibit Number Two and identify it?

A. Exhibit Number Two is a well location and ownership plat showing the Anderson RAnch Unit and wells within one-half mile of the three proposed waterflood injection wells, and there again, the unit boundary is shown

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by dashed line.

The three proposed injection wells are shown by red triangles.

Q. I note that you have two salt water disposal wells on this unit.

A. That is correct.

Q. Describe for us the salt water disposal well numbered 8.

A. No. 8 is no longer in use as a salt water disposal well. It was injecting in the Lower Wolfcamp for a period of time, but we discontinued its use in 1964 and we started using Well No. 16, which would be in Proration Unit T in Section 2, and it is disposing of water in the Lower Wolfcamp.

Q. Are you currently using that as a disposal well?

A. No. 16 is, yes.

Q. What affect will the proposed injection wells have on the volume of water to be disposed of in the salt water well?

A. Well, hopefully we will initially be able to direct all the water that's going to disposal to the three injection wells.

Q. All right. Refer to Exhibit Number Three and identify it.

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A. Exhibit Number Three is a tabulation showing the pertinent well data, such as location, depths, producing intervals, and casing setting information for all wells within one-half mile of the proposed injectors.

Q. In your study of those offsetting wells, Mr. Deckert, and your compilation of Exhibit Number Three, have you become aware of any wells that will require remedial work to avoid the migration of the injected fluids out of the Wolfcamp formation?

A. No, I haven't.

Q. Would you identify Exhibits Four, A, B, and C?

A. Exhibits Four-A, Four-B, and Four-C are schematic wellbore drawings for the three plugged wells within one-half mile of the proposed injectors, and I might identify where these are located for your benefit.

Anderson Ranch Unit No. 9 would be in proration unit D of Section 12.

Gulf Oil Company's Lea CR State No. 1 is located in proration unit P of Section 2.

And Gulf Oil Company's Lea CR State No. 2 is located in proration unit O of Section 2.

MR. STAMETS: Is that the one with the gas well symbol there on the center of 76?

A. No, it would be the one right below it.

Oh, I'm sorry, okay, so one would be -- I'm

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off --

MR. STAMETS: No. 2 would be in Unit I.

A. Okay, No. 1 would be in Q, would it not?

MR. STAMETS: Well -- let's hold it a second.

A. Okay.

MR. STAMETS: These long sections get --

A. Yeah, right.

MR. STAMETS: Is this location No. 2?

A. No, it's this right here (indicating) so it would be R.

MR. STAMETS: Okay, that's going to be -- that will be O. That's O, and No. 1 is in P. Is that right?

A. Correct, uh-huh.

MR. STAMETS: Okay.

Q. (Mr. Kellahin continuing.) Would you identify Exhibit Number Five, Mr. Deckert?

A. Exhibit Number Five is a structural map contoured on the top of the Saunders limestone member of the Wolfcamp formation.

Q. Has Continental ever placed this flood into operation?

A. No.

Q. What is the purpose of Exhibit Number Five?

A. Okay, Exhibit Number Five is to illustrate the structural positions of the three injection wells and

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the remaining Wolfcamp producers in this Anderson Ranch Unit.

Q. Originally Wells Nos. 4 and 5 were scheduled to be injection wells. At this time you would eliminate them as injection and you will eventually use them as production wells?

A. That's -- that is correct.

Q. Okay.

Would you turn to Exhibits 6, A, B, and C.

A. Exhibit 6-A, 6-B, and 6-C are gamma ray neutron log sections of the three proposed injection wells and they illustrate the top of the Wolfcamp formation and the Wolfcamp perforated intervals in these wells.

Q. Would you identify Exhibits 7-A, B, and C?

A. Exhibits 7-A, 7-B, and 7-C are schematic wellbore drawings for the three proposed waterflood injection wells showing casing installation, well depths, perforations, and proposed tubing and packer installation.

Q. Do you propose to use internally coated tubing in the injection wells?

A. Well, yes, we do.

Q. And what type of installation will you place at the surface to monitor the wells?

A. Well, we propose to fill the casing tubing annulus with corrosion inhibitive fluid and place a pressure

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gauge on the annulus to monitor it.

Q. Would you refer to Exhibit Eight and identify it?

A. Exhibit Eight is a laboratory analysis of the proposed injection water; that is a mixture of Wolfcamp and Devonian produced water.

Q. Have you examined the separate analysis of the Wolfcamp water?

A. Yes, I have.

Q. And will the Wolfcamp water and the Devonian water be compatible with other produced water?

A. I would have every reason to believe so.

Q. Would you indicate to us the proposed volumes for injection into the well, into the injection well?

A. We propose to initiate a Wolfcamp waterflood by converting the three shutin wells located the east side of the reservoir to injection service. We plan to use the approximately 1800 barrels of produced water a day for flooding. This produced water is currently being disposed of in Anderson Ranch Unit No. 16, this is a salt water disposal well, in the lower Wolfcamp that is below the oil-water contact, and 80 to 180 feet below our Wolfcamp producing intervals.

The twenty-five year Wolfcamp producing history indicates water influx from the northeast side of the

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reservoir, whereas the performance of the wells on the south and west side of the reservoir indicate a depletion drive mechanism.

The proposed water injection program should augment the limited natural water encroachment with the principal benefit to be realized at the five Wolfcamp producers along the west side of the reservoir.

The location of injectors along the east side will allow us to monitor and evaluate the injection effects at the middle row of Wolfcamp wells.

Q. What's your current combined rate of production on the Wolfcamp wells?

A. The four active Wolfcamp wells produce at a combined rate of 150 barrels of oil, 125 barrels of water per day, with a 1420-to-1 gas/oil ratio.

Q. And what is your Wolfcamp production?

A. The cumulative Wolfcamp production to January 1st, 1978 totals 2,494,000 barrels of oil.

Q. In your opinion, Mr. Deckert, will the initiation of this waterflood project for the Wolfcamp formation result in the recovery of resources that would not otherwise be recovered?

A. Yes, we estimate the proposed Wolfcamp waterflood will provide at least 250,000 barrels of additional reserves.

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Q. Were Exhibits One through Eight prepared by you or under your direction and supervision?

A. Yes.

Q. In your opinion, Mr. Deckert, will the approval of this application prevent waste and protect correlative rights.

A. Yes, it will.

MR. KELLAHIN: That concludes our direct examination.

MR. STAMETS: Did I miss an injection pressure in there somewhere?

Q. (Mr. Kellahin continuing.) Did you intend to inject this under pressure, Mr. Deckert?

A. Initially I imagine this will probably go in under vacuum and we -- it will probably require pressure later, but I would think that we could stay within the two-tenths pressure limitation that you all are looking at.

MR. STAMETS: Okay. Any other questions of the witness?

MR. RAMEY: One question.

MR. STAMETS: Mr. Ramey.

CROSS EXAMINATION

BY MR. RAMEY:

Q. Mr. Deckert, on your Exhibit 7-B you show

an injection packer at 9013. Is that correct?

A. Yes.

Q. That's correct?

A. Yes.

Q. Some 600 feet above the --

A. Yes.

Q. Any reason for that?

A. Yes, the reason for that, there was a quantity of tubine we had in the well.

Q. All right.

A. I had the same question when I saw it first.

MR. KELLAHIN: We will tender Applicant's Exhibits One through Eight in evidence.

MR. STAMETS: Applicant's Exhibits One through Eight will be admitted.

Anything further in this case?

MR. KELLAHIN: No, sir.

MR. STAMETS: If there is nothing further the case will be taken under advisement.

(Hearing concluded.)

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REPORTER'S CERTIFICATE

I, SALLY WALTON BOYD, a Certified Shorthand Reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and that the same is a true and correct record of the said proceedings, prepared by me to the best of my knowledge, skill, and ability.

Sally Walton Boyd

Sally Walton 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. 6163, heard by me on 3-23, 1978.

Richard L. Stamets, Examiner
New Mexico Oil Conservation Commission

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OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 · SANTA FE
87501

DIRECTOR
JOE D. RAMEY

LAND COMMISSIONER
PHIL R. LUCERO

STATE GEOLOGIST
EMERY C. ARNOLD

March 9, 1978

Re: CASE NO. 6163
ORDER NO. R-3863-A

Mr. Tom Kellahin
Kellahin & Fox
Attorneys at Law
Post Office Box 1769
Santa Fe, New Mexico 87501

Applicant:

Continental Oil Company

Dear Sir:

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

Yours very truly,

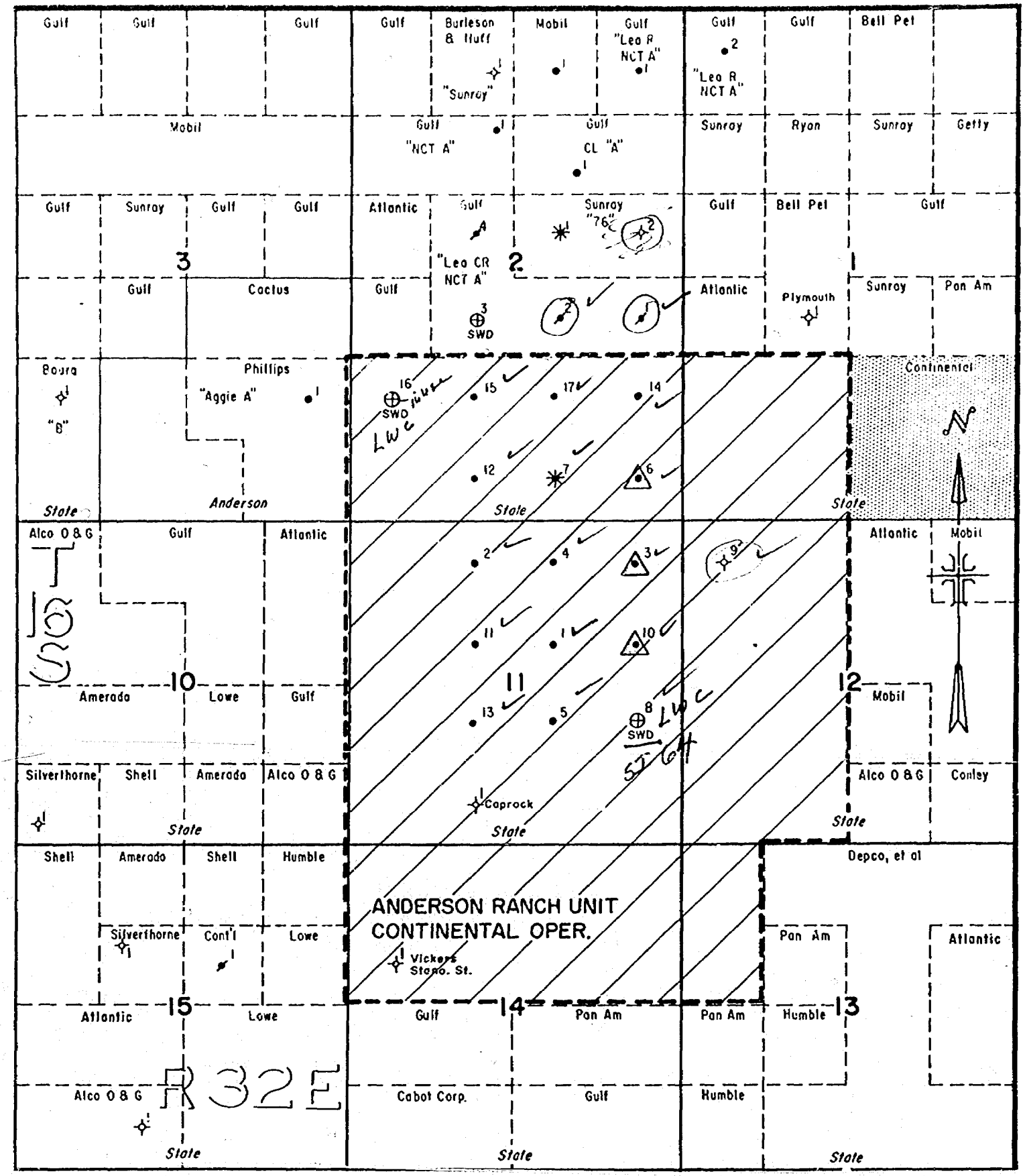
JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCC x
Artesia OCC x
Aztec OCC

Other



R 32 E

△ PROPOSED INJECTION WELLS

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
EXHIBIT NO. 2
CASE NO. 6163
Submitted by Conoco
Hearing Date 2-22-78

CONTINENTAL OIL COMPANY

PRODUCTION DEPARTMENT — HOBBS DIVISION

ANDERSON RANCH UNIT

LEA COUNTY, NEW MEXICO

EXHIBIT NO. 2

SCALE
0' 1000' 2000'

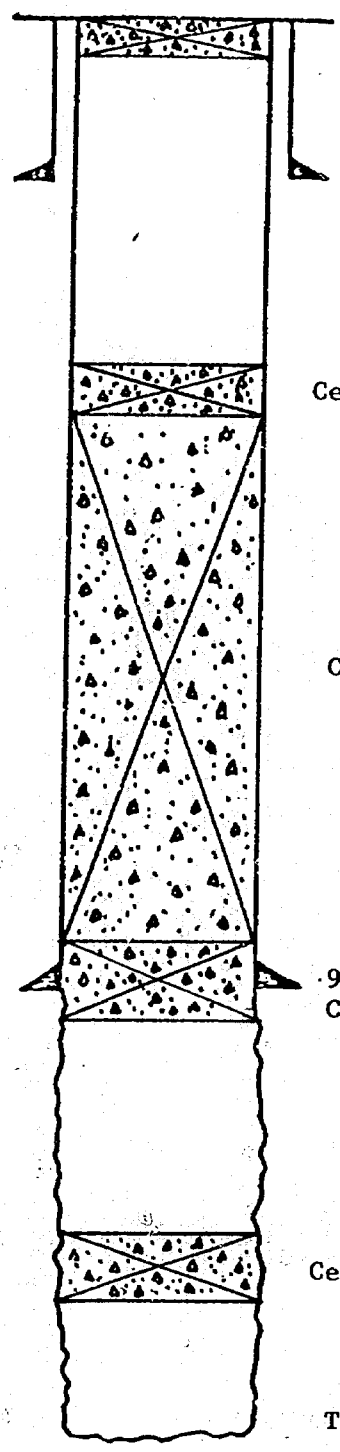
Operator	Well	Location	Producing Interval'	T.D.'	Casing Size"	Casing Depth'	Cement Sacks	Cement Top'
Conoco	Anderson Ranch Unit #1	1980' FNL & 1980' FEL, Sec. 11, T-16S, R-32E	13,374-13,474	13,775 PB-13508	13 3/8 9 5/8 7" 5" liner	379 4189 12250 12202-13541	400 3040 1180 100	Surface 800 8670 12410'
	Anderson Ranch Unit #2	660' FNL & 1980' FWL, Sec 11, T-16S, R-32E	9,785-9,859	13,703 PB-9,930	13 3/8 9 5/8 5 1/2	556 4214 13700	550 4400 1675	Surface Surface 8315
	Anderson Ranch Unit #4	1980' FEL & 660' FNL, Sec 11, T-16S, R-32E	9,760-9,828	9,914 PB-9866	13 3/8 9 5/8 7"	559 4200 9913	500 3775 258	Surface 1400 7990
	Anderson Ranch Unit #5	1980' FEL & 1980' FSL, Sec 11, T-16S, R-32E	9,742-9,884	10,010 PB-9,889	13 3/8 9 5/8 7"	528 4230 10002	500 5350 362	Surface 790 7290
	Anderson Ranch Unit #7	660' FSL & 1980' FEL, Sec 2, T-16S, R-32E	12,104-12,138	13,568 PB-12250	13 3/8 9 5/8 5 1/2	615 4248 13567	500 4825 1570	Surface 400 8852
	Anderson Ranch Unit #8	1980' FSL & 660' FEL, Sec 11, T-16S, R-32E	9,970-10,335	10,689 PB-10600	13 3/8 9 5/8 5 1/2	606 4027 13688	500 3565 2378	Surface Surface 7460
	Anderson Ranch Unit #11	1980' FNL & 1980' FWL, Sec 11, T-16S, R-32E	9,734-9,860	9,950 PB-9,868	13 3/8 8 5/8 5 1/2	600 4200 9948	250 2672 676	Surface 770 6320
	Anderson Ranch Unit #12	660' FSL & 1980' FWL, Sec 2, T-16S, R-32E	9702-9722 9812-9858	9,865 PB-9863	13 3/8 8 5/8 5 1/2	610 4209 9864	500 2380 205	Surface 135 8840
	Anderson Ranch Unit #14	1980' FSL & 660' FEL, Sec 2, T-16S, R-32E	13,351 - 13,392	13,460 PB-13410	13 3/8 8 5/8 5 1/2	597 4200 13459	500 3187 1190	Surface Surface 6550

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
EXHIBIT NO. 3
CASE NO. 6163
Submitted by Conoco
Hearing Date 2-22-78

EXHIBIT 3

Operator	Well	Location	Producing Interval'	T.D.'	Casing Size"	Casing Depth'	Cement Sacks	Cement Top'
Conoco	Anderson Ranch Unit #17	1980' FSL & 1980' FEL, Sec 2, T-16S, R-32E	9635-9785	9,967 PB-9790	13 3/8 8 5/8 5 1/2	617 4196 9966	500 2515 258	Surface Surface 8625
	Anderson Ranch Unit #13	1980' FSL & 1980' FWL, Sec 11, T-16S, R-32E	9754-9886	13,567 PB-9900	13 3/8 8 5/8 5 1/2	627 4239 13565	500 2675 1570	Surface 1130 6830
	Anderson Ranch Unit #15	1980' FSL & 1980' FWL, Sec 2, T-16S, R-32E	9682-9862 9883-9893	13,500 PB-13200	13 3/8 8 5/8 5 1/2	601 4199 13498	550 3200 1150	Surface Surface 7912
	Anderson Ranch Unit #9 (plugged & abandoned)	660' FNL & 660' FWL, Sec 11, T-16S, R-32E	none	10,280	13 3/8 9 5/8	613 4180	500 3980	Surface Surface
Gulf	Lea "CR" State (NCT-A) #2 (plugged & abandoned)	3300' FSL & 1980' FEL, Sec 2, T-16S, R-32E	none	13,363	13 3/8 9 5/8 5 1/2	628 4190 13362	650 3200 1125	Surface Surface 9855
	Lea "CR" State (NCT-A) #1 (plugged & abandoned)	3300' FSL & 660' FEL, Sec 2, T-16S, R-32E	none	9,875	13 3/8 9 5/8 5 1/2	628 4195 9874	650 2870 300	Surface Surface 7500

CONTINENTAL OIL COMPANY
Anderson Ranch Unit No. 9
660' FNL & FWL, Sec. 11
T16S, R32E, Elev. 4279' DF



Cement plug: 10 sx

13 3/8", 48# at 613' cmt w/500 sx circ.

Cement plug: 1300'-1700', 100 sx

Cement plug: 1700'-4130', 750 sx

9 5/8", 36-40#, at 4180' cmt w/3980 sx. Circ.
Cement plug: 4130'-4230', 25 sx

Cement plug: 9715'-9815'

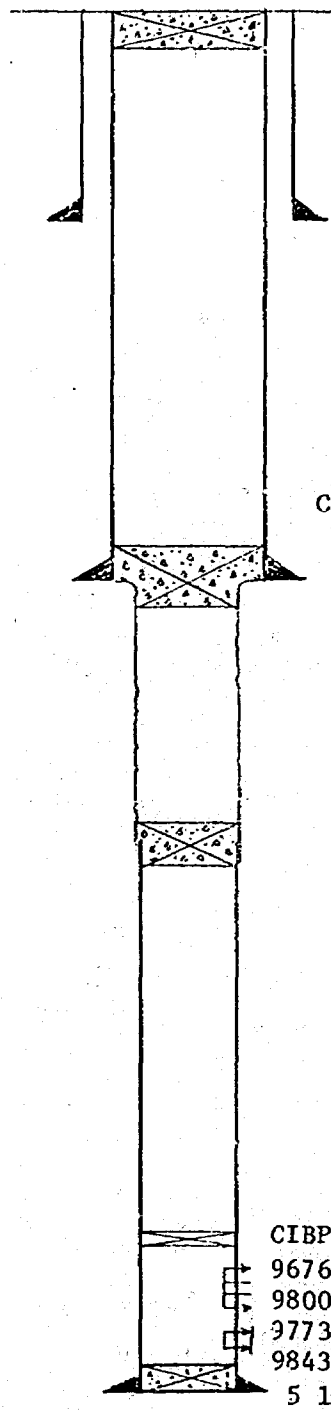
TD 10,280'

Plugging completed:
11-29-64

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMI SION
EXHIBIT NO. 4a
CASE NO. 6163
Submitted by Conoco
Hearing Date 2-22-78

EXHIBIT 4a

GULF OIL CORPORATION
Lea "CR" State (NCT-A) #1
3300' FSL & 660' FEL, Sec 2, T16S, R32E
Elev: 4288' DF



Cement plug: Surface 50', 25 sx

13 3/8", 48# at 628' w/650 sx circ.

Cement plug: 4150'-4250', 50 sx

9 5/8", 36-40# at 4195' w/2870 sx circ.

5 1/2" cut at 4972' and pulled

Cement plug: 4920'-5020', 35 sx

CIBP at 9600'
9676'
9800' 2 JSPF
9773'
9843' Squeezed

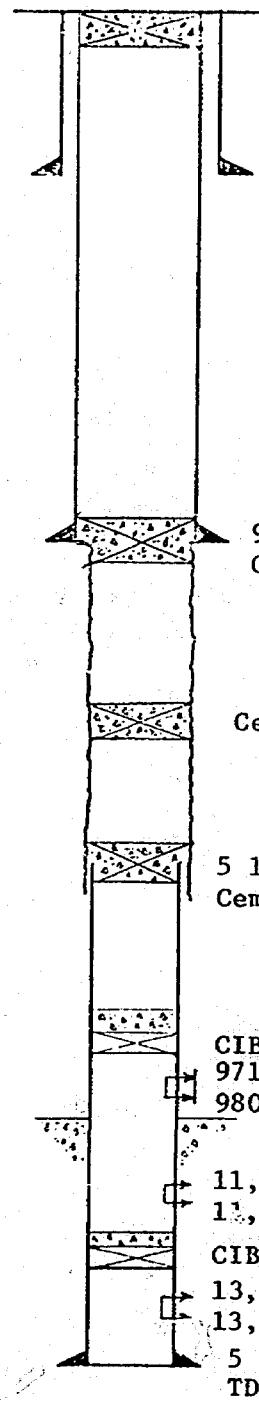
5 1/2", 15.5 - 17# at 9874' w/300 sx
PBTD 9818'
TD 9875'

Plugging Completed:
12-9-70

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
EXHIBIT NO. 46
CASE NO. 6163
Submitted by Conoco
Hearing Date 2-22-78

EXHIBIT 4b

GULF OIL CORPORATION
Lea "CR" State (NCT-A) #2
3300' FSL & 1980' FEL, Sec. 2, T16S, R32E
Lea County, N.M. Elev: 4271' DF



Cement plug: 50' - surface, 19 sx

13 3/8", 48# at 628' w/650 sx circ.

9 5/8", 36#-40# at 4190/ w/3200 sx circ.
Cement plug: 4140'-4240', 34 sx.

Cement plug: 5600'-5700', 30 sx

5 1/2" cut at 5990' and pulled
Cement plug: 5940'-6040', 21 sx.

CIBP at 9500 capped w/6 sx cmt
9718
9803 Squeezed
TOC 9855'
11,172'
11,449'

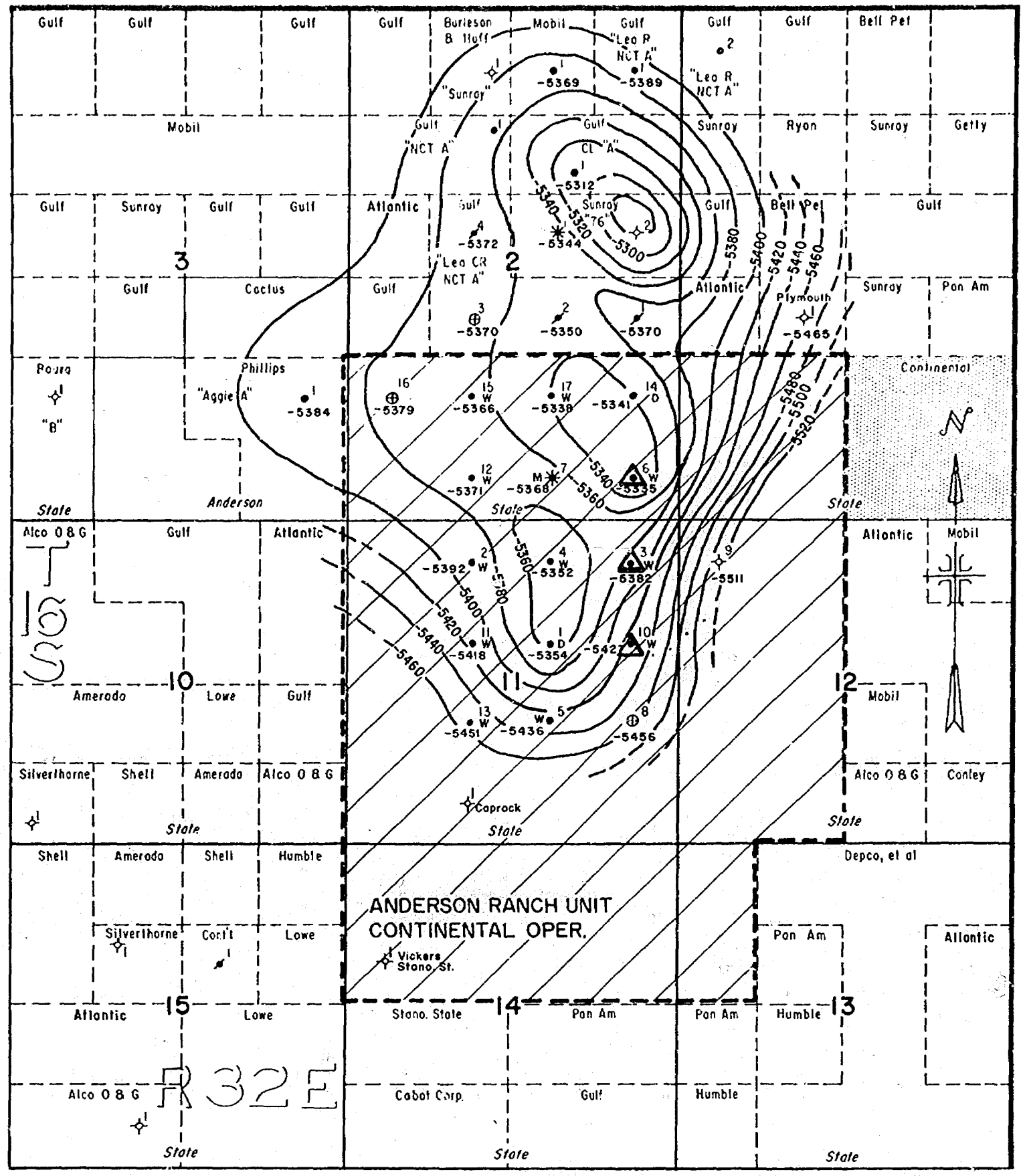
CIBP at 11,550' capped w/2 sx cmt
13,290'
13,330'

5 1/2", 15.5 - 17# at 13,362 w/1125 sx
TD 13,363'

Plugging completed:
3-25-74

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
EXHIBIT NO. 4c
CASE NO. 6163
Submitted by Conoco
Hearing Date 2-22-75

EXHIBIT 4c


ANDERSON RANCH UNIT
CONTINENTAL OPER.
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Gulf
Mobil
Burleson & Huff
"Sunray"
"Leo R NCT A"
Sunray
Ryon
Getty
Bell Pet
"NCT A"
CL "A"
Atlantic
"76"
"Leo CR NCT A"
Cactus
Plymouth
Pon Am
Continental
Phillips
"Aggie A"
Boyd
"B"
State
Anderson
Alco O & G
Amerada
Lowe
Shell
Humble
Conley
Caprock
Depco, et al
Silverthorne
Conti
Vickers Stano. St.
Stano. State
Cabot Corp.
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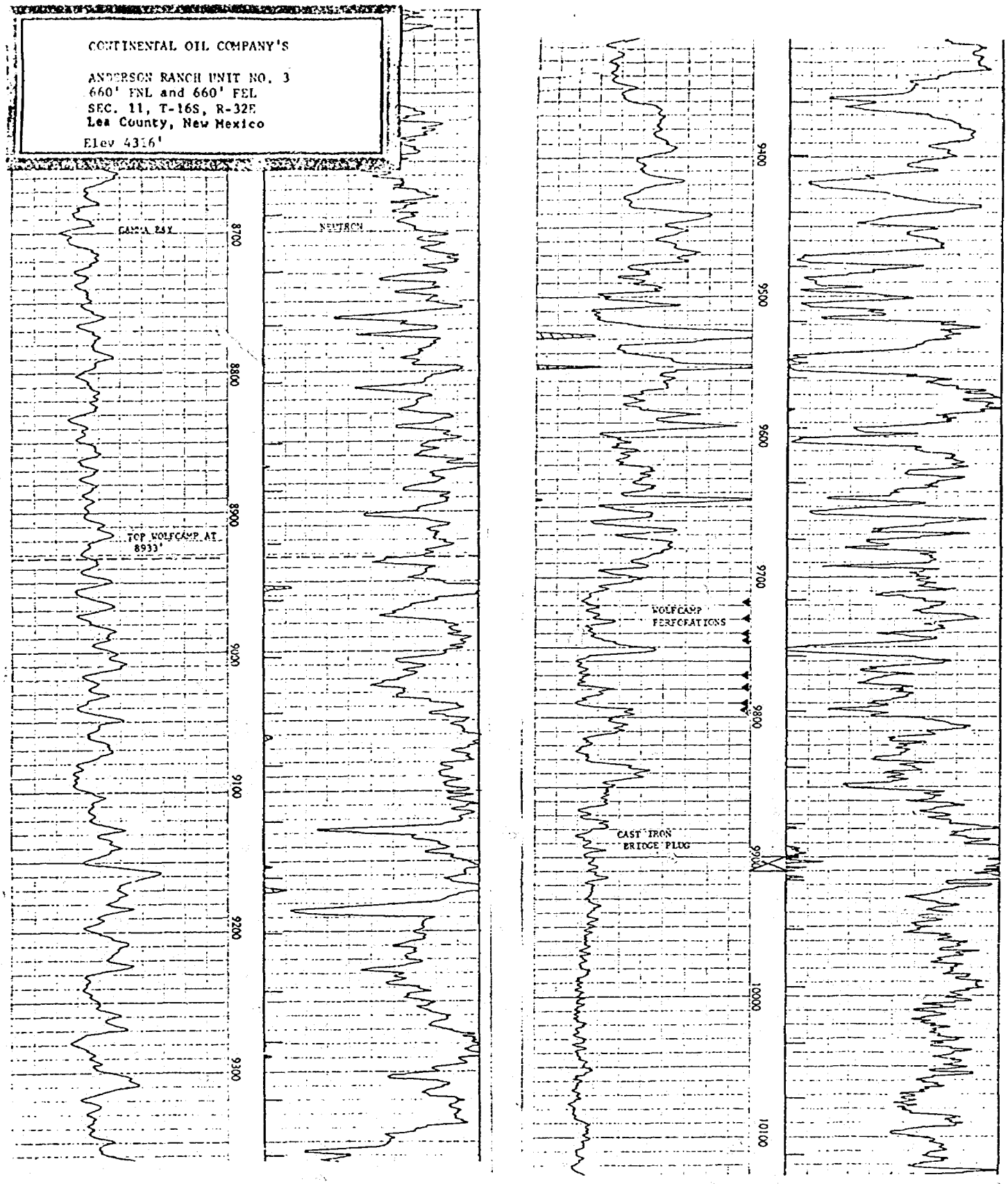
-6300
-6320

CONTINENTAL OIL COMPANY'S

ANDERSON RANCH UNIT NO. 3
660' FNL and 660' FEL
SEC. 11, T-16S, R-32E
Lea County, New Mexico

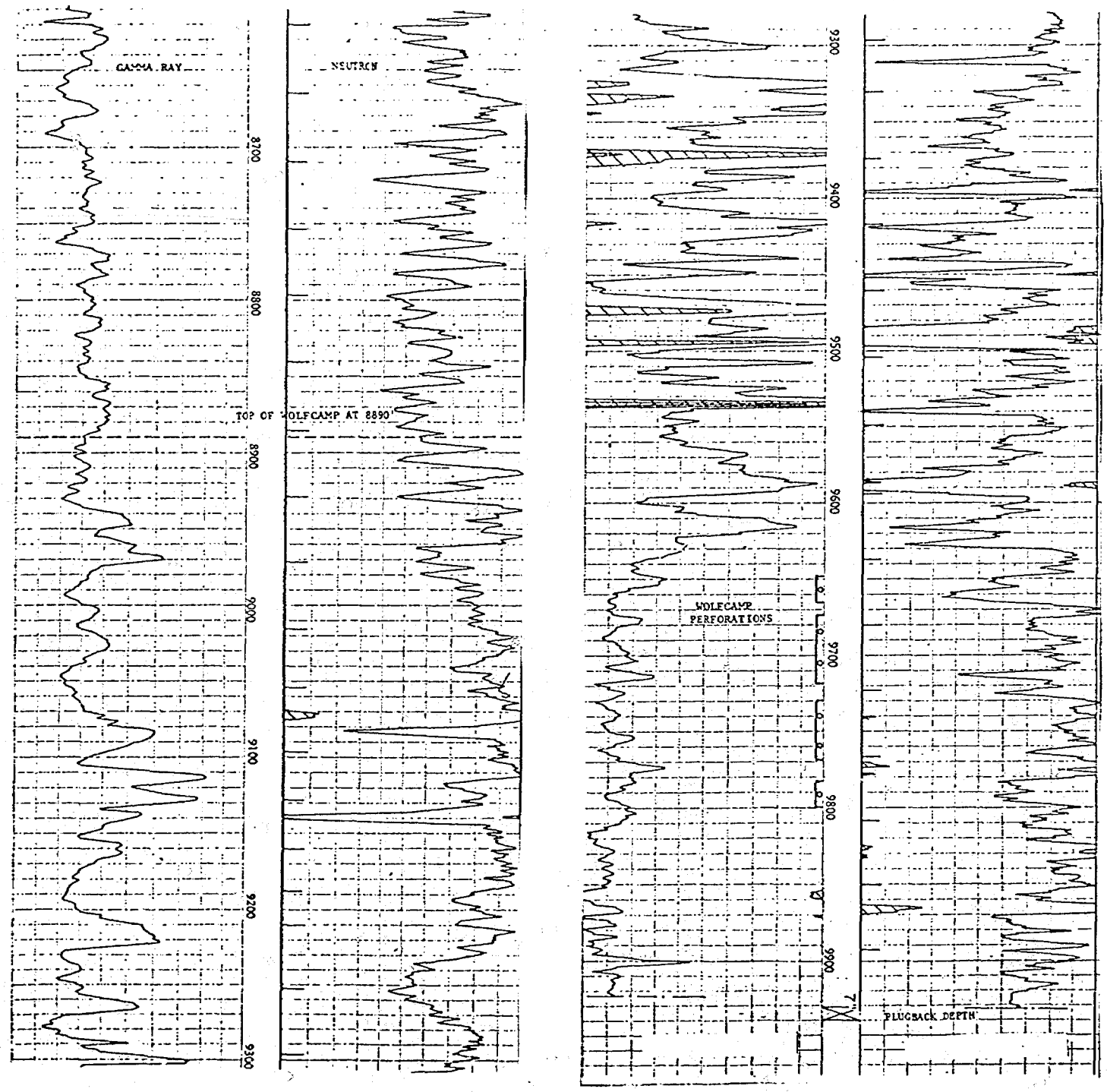
Elev 4316'



BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
EXHIBIT NO. 6a
CASE NO. 6163
Submitted by Conoco
Hearing Date 2-22-78

EXHIBIT 6a

CONTINENTAL OIL COMPANY
ANDERSON RANCH UNIT NO. 6
660' FSL & 660' FEL
SEC. 2, T-16S, R-32E
Lea County, New Mexico
Elev. 4293'

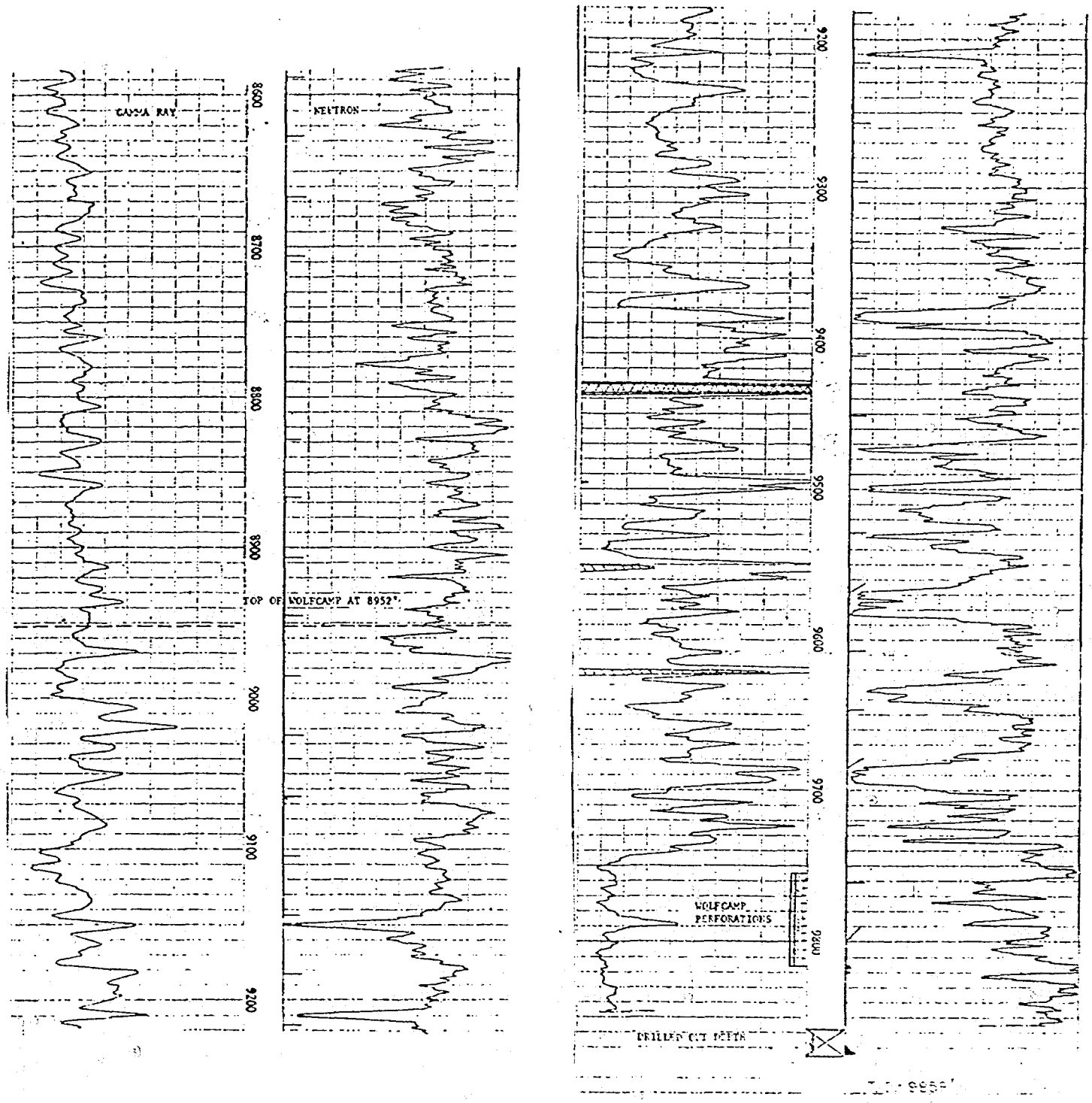


BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
EXHIBIT NO. 6B
CASE NO. 6163
Submitted by Conoco
Hearing Date 2-22-78

EXHIBIT 6b

CONTINENTAL OIL COMPANY
ANDERSON RANCH UNIT NO. 10
1980' FNL & 660' FEL
Sec. 11, T16-S, R32E
Lea County, New Mexico

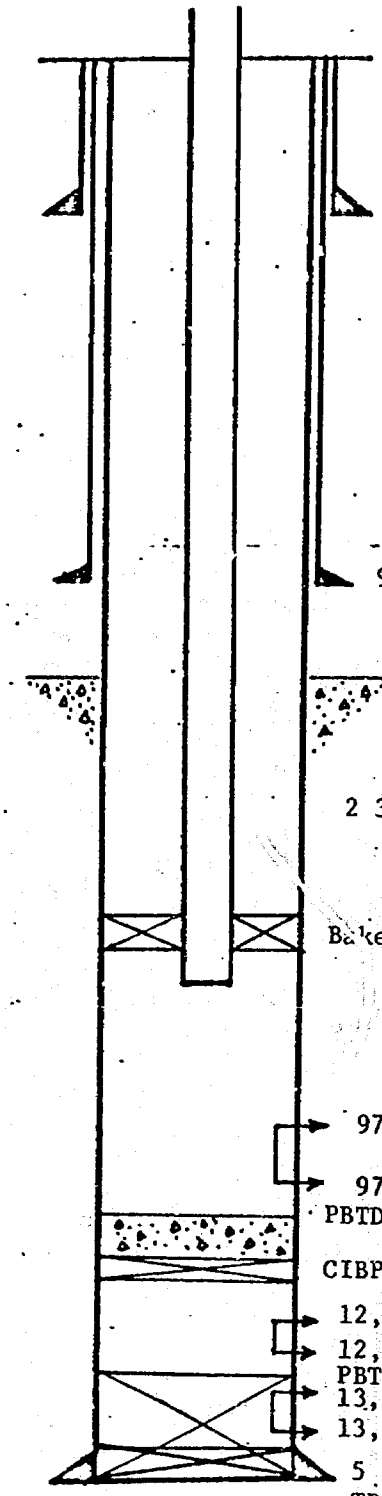
Elev. 4309'



BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
EXHIBIT NO. 6c
CASE NO. 6163
Submitted by Conoco
Hearing Date 2-22-78

EXHIBIT 6c

CONTINENTAL OIL COMPANY
Anderson Ranch Unit #3
660' FNL & 660' FEL, Sec. 11, T16S, R32E
Elev: 4316'DF "0"-13' AGL



13 3/8" OD at 559' w/500 sx (circ.)

9 5/8", 40# at 4222' w/2357 sx (circ.)

TOC 5600'

2 3/8", 4.7#, J-55 8rd IPC at 9650'

Baker Lok-set pkr at 9650'

9717'
Wolfcamp perfs: 9717, 29, 40, 45, 70, 78, 90 & 95 w/1 JSPF
9795'
PBTD at 9808'

CIBP at 9900'

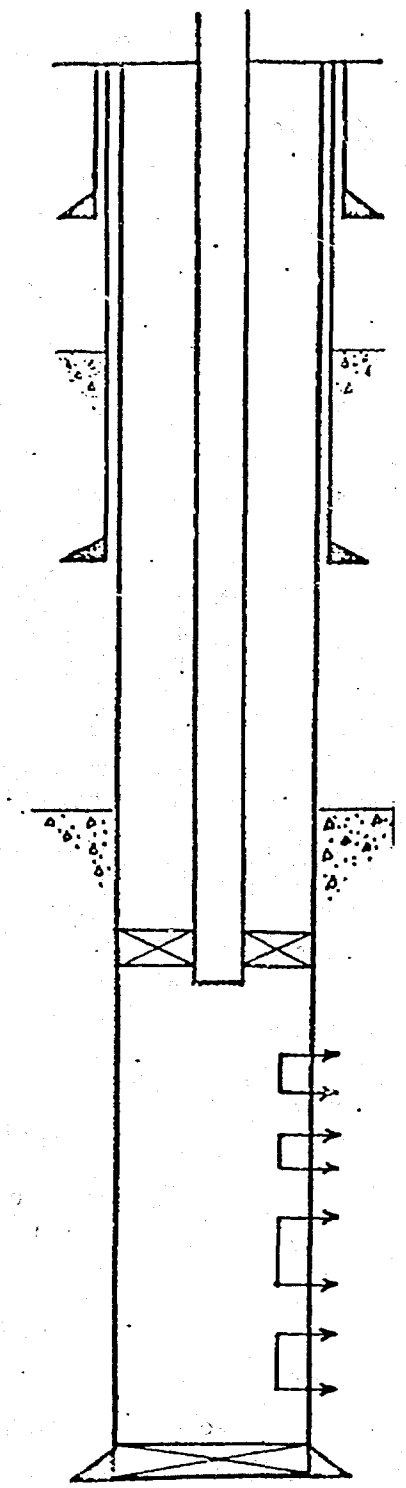
12,148
12,207 Morrow perfs: 12,148-12,168; 12, 197'-12,207'
PBTD 13,010'
13,370'
13,537'

5 1/2", 17-20-23# at 13,540' w/1518 sx
TD 13,540'

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
EXHIBIT NO. 7A
CASE NO. 6163
Submitted by Conoco
Hearing Date 2-22-78

PROPOSED

EXHIBIT 7a



CONTINENTAL OIL COMPANY
ANDERSON RANCH UNIT NO. 6
660' FSL & 660' FEL, Section 2
T-16S, R-32E, Lea County, New Mexico

Elev: 4292' "O" 12' AGL

13 3/8" OD casing at 535' set with 500 sx. (circ)

TOC - 930'

9 5/8", 36 & 40# casing at 3910' set with 3565 sacks.

2 7/8" 6.5#, J-55 8rd IPC tubing at 9013'

TOC - 8548'

Baker Lock-set packer at 9013'

9648'
9666'

9674'
9718'

9730'
w/156 shots
9769'

9783'
w/68 shots
9800'

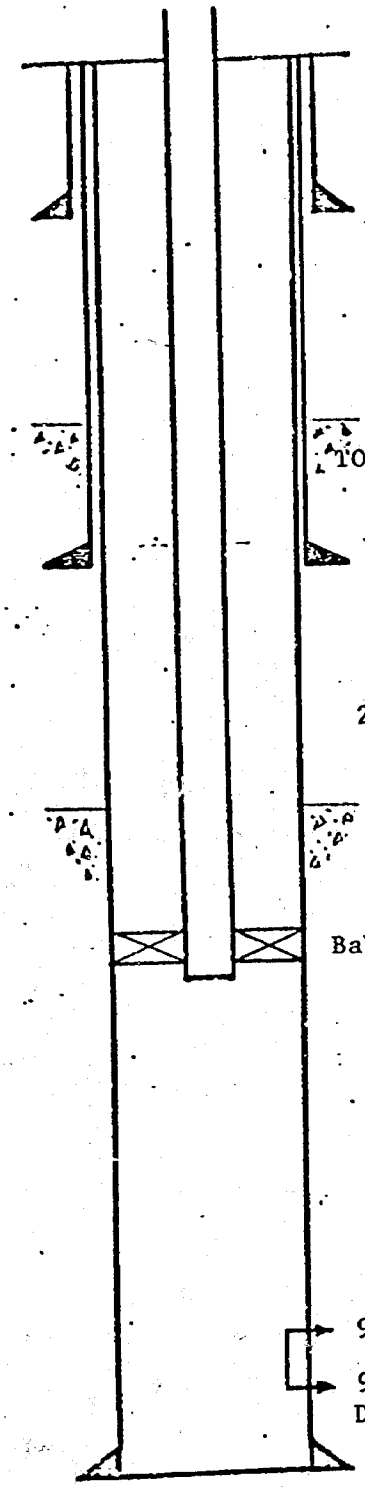
P.D. 9932'
7", 23, 26 & 29# casing at 9980' set with 183 sacks.

T. D. 9980'

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
EXHIBIT NO. 7B
CASE NO. 6163
Submitted by Conoco
Hearing Date 2-22-78

EXHIBIT 7b

CONTINENTAL OIL COMPANY
Anderson Ranch Unit #10
1980' FNL & 660' FEL, Sec 11, T16S, R32E
Elev: 4308' DF
"0" - 12' AGL



13 3/8", 48# csg at 616' set w/500 sx. (circ.)

TOC - 1750'

9 5/8", 40# csg at 4191' set w/5875 sx

2 7/8", 6.5#, J-55 8rd I.P.C. tbg at 9700'

TOC 8277'

Baker Lock-set pkr at 9700'

9755'
Wolfcamp perfs
9815'

DOD 9858'

5 1/2" 15.5# & 17# csg at 9874' set w/205 sx.

TD 9875'

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
EXHIBIT NO. 7C
CASE NO. 6163
Submitted by Conoco
Hearing Date 2-22-78

PROPOSED

EXHIBIT 7c

NALCO

ANALYTICAL SERVICE LABORATORY REPORT

WATER ANALYSIS

Company: CONOCO OIL COMPANY
HOBBS, NEW MEXICO
DIST. 6-5

Date Printed 30-Jun-77
Analysis No. 77V1259,B
Date Sampled 5-25-77
Date Received 6-20-77

Sample Marked: ARU DISPOSAL DEV & WC (INJECTION WATER)

WATER ANALYSIS

DISSOLVED SOLIDS CATIONS	mg/l	meq/l	RESULTS AS COMPOUNDS	mg/l
Sodium,Na(calc.)	20200.	877.		
Calcium,Ca	1520.	76.0	as CaCO3	3800.
Magnesium,Mg	389.	32.0	as CaCO3	1600.
Barium,Ba	.0	.0	as BaSO4	.0
Sum of Cations	22100.	985.		
ANIONS				
Chloride,Cl	33400.	940.	as NaCl	55000.
Sulfate,SO4	1690.	35.2	as Na2SO4	2500.
Carbonate,CO3			as CaCO3	
Bicarbonate,HCO3	590.	9.7	as CaCO3	484.
Sum of Anions	35700.	985.		
TDS CALCULATED	57800.			
Total Iron,Fe	1.5	.1	as Fe	1.5
Acid to Phen,CO2	24.6	.6	as CaCO3	56.0

OTHER PROPERTIES		CaCO3 STABILITY (Index)		CaSO4 SOLUBILITY (meq/l)
pH (units)	6.8	-.2	@ 70F	-33.5
Spec Gravity	1.030	.5	@120F	-33.4
Turbidity (jtu)	1.6	1.2	@170F	-30.5

Remarks:

3 E. G. QUINN
M. G. HARKER

P. O. BOX 87 • SUGAR LAND, TEXAS 77478

NALCO trademarks of Nalco Chemical Company.

NALCO CHEMICAL COMPANY
REGIONAL ANALYTICAL LABORATORIES

2111 E. Dominguez St. Carson, CA 90745
6216 W. 66th Place Chicago, Illinois 60638
Box 16A Paulsboro, NJ 08066
Box 87 Sugar Land, TX 77478

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
EXHIBIT NO. 8
CASE NO. 6163
Submitted by Conoco
Hearing Date 2-22-78

EXHIBIT 8

CASE 6158: Application of O. H. Berry for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the NE/4 of Section 15, Township 24 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6159: Application of Texaco Inc., for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Drinkard and Wantz-Granite Wash production in the wellbore of its A. H. Blinebry Federal Well No. 38 located in Unit J of Section 19, Township 22 South, Range 38 East, Lea County, New Mexico.

CASE 6160: Application of Bass Enterprises Production Co., for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Delaware formation through the perforated interval from 3310 feet to 3375 feet in its Big Eddy Unit Well No. 56, located in Unit G of Section 35, Township 21 South, Range 28 East, Indian Flats-Delaware Pool, Eddy County, New Mexico.

CASE 6161: Application of Tenneco Oil Company for two waterflood projects, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project on its Leonard Federal Lease by the injection of water into the Queen formation through one well in Unit O of Section 11, and on its Leonard Brothers Lease through two wells, in Units I and M, respectively, of Section 14, all in Township 26 South, Range 37 East, Leonard Queen Pool, Lea County, New Mexico. Applicant further seeks the establishment of an administrative procedure for the addition of injection wells and the conversion of existing wells to injection at both orthodox and unorthodox locations without further notice and hearing.

CASE 6162: Application of Continental Oil Company for an unorthodox location and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Jack B-30 Well No. 2 to be located 330 feet from the North line and 1725 feet from the East line of Section 30, Township 24 South, Range 37 East, Jalmat Gas Pool, Lea County, New Mexico, the NE/4 of said Section 30 to be simultaneously dedicated to the aforesaid well and to Well No. 5 in Unit H.

CASE 6163: Application of Continental Oil Company for amendment of Commission Order No. R-3863, Lea County, New Mexico. Applicant, in the above-styled cause, seeks to substitute its Anderson Ranch Unit Wells No. 6 located in Unit X of Section 2 and Nos. 3 and 10, located in Units A and H, respectively, of Section 11, all in Township 16 South, Range 32 East, for the initial injection wells authorized by said order in its Anderson Ranch-Wolfcamp Waterflood Project, Anderson Ranch-Wolfcamp Pool, Lea County, New Mexico.

CASE 6164: Application of Shell Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Tubb, Wantz-Abo, and Brunson-Ellenburger production in the wellbore of its Shell State Section 2 Well No. 15 located in Unit K of Section 2, Township 21 South, Range 37 East, Lea County, New Mexico.

CASE 6165: Application of Shell Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Drinkard, Hare-McKee, and Brunson-Ellenburger production in the wellbore of its Shell State Section 2 Well No. 3 located in Unit U of Section 2, Township 21 South, Range 37 East, Lea County, New Mexico.

CASE 6166: Application of Odessa Natural Corporation for rescission of Order No. R-5601, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks a hearing at which any interested party could appear and show cause why Order No. R-5601, which granted a special well classification to applicant's ARCO-Little Fed. Well No. 1, located in Unit D of Section 32, Township 24 North, Range 3 West, Rio Arriba County, New Mexico, should not be rescinded.

CASE 6141: Application of Paul Slayton for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Seven Rivers formation thru the open-hole interval from 528 feet to 547 feet in his Hastie Well No. 7 located in Unit L of Section 18, Township 17 South, Range 28 East, Empire Field, Eddy County, New Mexico.

Dockets Nos. 9-78 and 11-78 are tentatively set for hearing on March 8 and March 22, 1978. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - FEBRUARY 22, 1978

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

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

CASE 6150: In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the amendment of Rules 311, 312, 1117, and 1118 of the Commission Rules and the revision of Forms C-117-A and C-117-B, all for the purpose of regulating the handling and reporting of tank bottoms, sediment oil, miscellaneous hydrocarbons, and the operation of treating plants.

CASE 6151: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Vega Petroleum Corporation, American Employers' Insurance Company, and all other interested parties to appear and show cause why the North Caprock Queen Unit No. 1 Well No. 5Y located in Unit E of Section 8, Township 13 South, Range 32 East, Lea County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6152: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Al Greer, American Employers' Insurance Company, and all other interested parties to appear and show cause why the Thompson Well No. 1 located in Unit N of Section 10, Township 30 North, Range 11 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6153: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Mints-Kenaston and all other interested parties to appear and show cause why the L. A. McCoy Well No. 1 located in Unit B of Section 28, Township 30 North, Range 12 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6154: Application of Read & Stevens, Inc. for a unit agreement, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for its Calumet Ranch Unit Area comprising 5,760 acres, more or less, of Federal, State, and fee lands in Township 12 South, Range 27 East, Chaves County, New Mexico.

CASE 6155: Application of Gulf Oil Corporation for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the N/2 of Section 28, Township 23 South, Range 26 East, South Carlsbad Field, Eddy County, New Mexico, 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6144: (Readvertised)

Application of Southland Royalty Company for two unorthodox locations and two non-standard gas proration units, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for two 120-acre non-standard gas proration units comprising the S/2 SE/4 of Section 10 and the SW/4 SW/4 of Section 11, and comprising the SE/4 SW/4 and the S/2 SE/4 of Section 11, all in Township 28 North, Range 11 West, Fulcher Kutz-Pictured Cliffs Pool, San Juan County, New Mexico, each of said units to be dedicated to a well drilled at an unorthodox location thereon.

CASE 6156: Application of Southland Royalty Company for an unorthodox location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its East Well No. 5A to be located 1120 feet from the South line and 1790 feet from the West line of Section 24, Township 31 North, Range 12 West, Blanco-Mesaverde Gas Pool, San Juan County, New Mexico.

CASE 6157: Application of Supron Energy Corporation for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 160-acre non-standard gas proration unit comprising the SW/4 of Section 13, Township 16 South, Range 33 East, Lea County, New Mexico, to be dedicated to a Morrow gas well test to be drilled thereon.

Case 6163

1-31-75

Application of Continental Oil Co. for amendment of Commission Order No R-3863. Applicant seeks to substitute its Anderson Ranch Unit Wells No 6-X 2-16S-32E and 3A and 10H in 11-16S-32E for the initial injection wells authorized by said order in its Anderson Ranch-Wolfcamp Waterflood Project, ~~Lea County, New~~ Anderson Ranch-Wolfcamp Pool, Lea County, New Mexico.

RLS

Case 6163

CONOCO

L. P. Thompson
Division Manager

E. L. Oshlo
Assistant Division Manager

Production Department
Hobbs Division
North American Production

Continental Oil Company
P.O. Box 460
1001 North Turner
Hobbs, New Mexico 88240
(505) 393-4141

January 31, 1978

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

Attention Mr. Joe D. Ramey, Secretary-Director

Gentlemen:

Applications for Hearing at the February 22, 1978 Examiner Hearing

Enclosed in triplicate is application for amendment of Order No. R-3863 for substitution on injection wells in our Anderson Ranch Wolfcamp Waterflood Project on the Anderson Ranch Unit, Lea County, New Mexico. ~~Also enclosed is application for permission to allocate jointly the Jalmat~~ gas allowable between Jack B-30 Wells Nos. 1 and 2 in Section 30, T-24-S, R-37-E, Lea County, New Mexico. This is an additional request to that which was made by letter application dated January 16, 1978, for non-standard location for Jack B-30 Well No. 2. Please set these matters for hearing on the February 22, 1978 docket.

Yours very truly,

VTL/jj
Enc
CC:
C. F. Ellis - Houston
F. O. Hull - Houston
J. W. Kellahin - Santa Fe

Case 6163

BEFORE THE OIL CONSERVATION COMMISSION

OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF CONTINENTAL OIL COMPANY FOR AMENDMENT OF ORDER NO. R-3863 FOR THE SUBSTITUTION OF ANDERSON RANCH UNIT WELLS 3, 6, AND 10, AS THE INJECTION WELLS IN THE ANDERSON RANCH WOLFCAMP POOL WATERFLOOD PROJECT, LEA COUNTY, NEW MEXICO, PREVIOUSLY AUTHORIZED BY SAID ORDER.

APPLICATION

CONTINENTAL OIL COMPANY, Applicant, hereby requests the amendment of Order No. R-3863 for the substitution of Anderson Ranch Unit Wells Nos. 3, 6, and 10, as the injection wells for the Anderson Ranch Wolfcamp Pool Waterflood Project, Lea County, New Mexico, previously authorized by said order, and in support thereof would show:

1. A waterflood project in the Anderson Ranch Wolfcamp Pool, located on the applicant's Anderson Ranch Unit, was authorized by Order No. R-3863, entered in Case No. 4236 on October 28, 1969.

2. The wells authorized for conversion to injection were Wells Nos. 4 and 5, located, respectively, in Units "B" and "J" of Section 11, T-16-S, R-32-E, Lea County, New Mexico.

3. For various reasons the waterflood project authorized by said order was never placed in operation.

4. Applicant now desires to place a waterflood project in operation in the said pool on the Anderson Ranch Unit, but desires to substitute the following wells as the injection wells for the project;

Anderson Ranch Unit Well No. 3, Unit "A", Section 11
Anderson Ranch Unit Well No. 6, Unit "P", Section 2
Anderson Ranch Unit Well No. 10, Unit "H", Section 11

all in T-16-S, R-32-E, Lea County, New Mexico.

5. That the granting of this application will result in the prevention of waste and will not impair correlative rights.

WHEREFORE, applicant respectfully requests that this matter be set for hearing before the Commission's duly appointed examiner, and upon hearing an order be entered modifying Order No. R-3863 as described above.

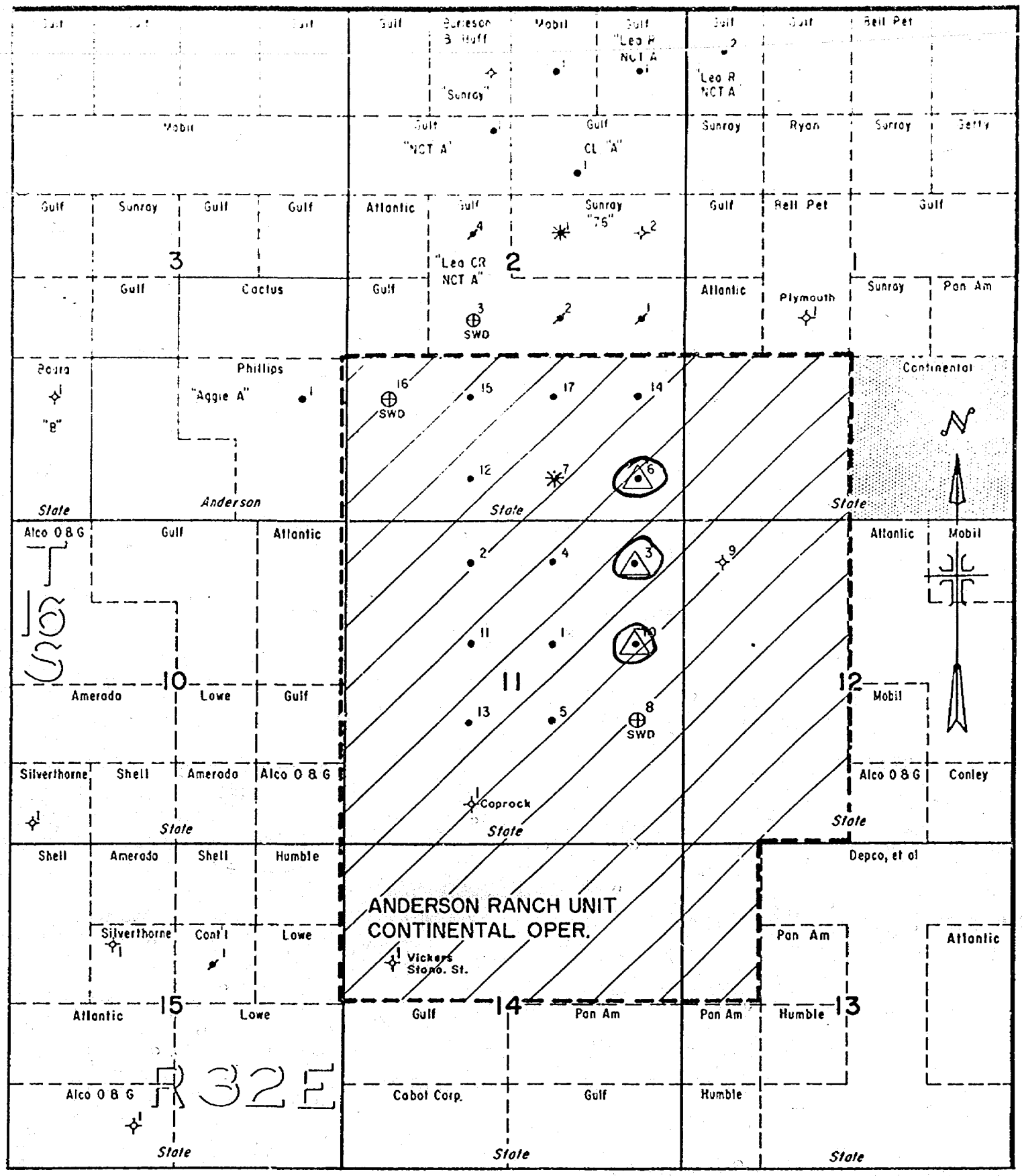
Respectfully submitted,

CONTINENTAL OIL COMPANY

By _____
L. P. THOMPSON, Division Manager

jj

Case 6163



△ PROPOSED INJECTION WELLS

CONTINENTAL OIL COMPANY

PRODUCTION DEPARTMENT — HOBBS DIVISION

ANDERSON RANCH UNIT

LEA COUNTY, NEW MEXICO

SCALE
0' 1000' 2000'

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 6163
Order No. R-3863-A

APPLICATION OF CONTINENTAL OIL
COMPANY FOR AMENDMENT OF COMMISSION
ORDER NO. R-3863, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 22, 1978, at Santa Fe, New Mexico, before Examiner Richdard L. Stamets.

NOW, on this _____ day of March, 1978, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That Commission Order No. R-3863 entered on October 28, 1969, authorized a waterflood project in the Anderson Ranch Unit Area, Anderson Ranch-Wolfcamp Pool, Lea County, New Mexico.

(3) That said project was designated the Continental Anderson Ranch Wolfcamp Waterflood Project.

(4) That the applicant, Continental Oil Company, seeks to substitute its Anderson Ranch Unit Wells No. 6 located in Unit X of Section 2, and Nos. 3 and 10, located in Units A and H, respectively, of Section 11, all in Township 16 South, Range 32 East, for the initial injection wells authorized by said order in said project.

(4) That injection was never initiated in said project

(6) That such substitution will permit the more efficient operation of said project.

(7) That injection into each of said wells should be through internally coated tubing set in a packer to be located as close as practicable to the uppermost casing perforation and well below the top of the cement protecting such casing.

(8) That the casing-tubing annulus in each injection well should be filled with an inert fluid, and that a pressure gauge or approved leak detection device should be attached to the annulus or the annulus should be left open in order to determine leakage in the casing, tubing, or packer.

(9) That the injection wells or system should be equipped with a pressure-limiting switch or other acceptable device which will limit the surface injection pressure to no more than 1940 pounds unless the Secretary-Director of the Commission should administratively authorize a higher pressure.

(10) That the wells within the project should be equipped to facilitate periodic testing of the annular space between strings of production and surface casing.

(11) That the operator should take all other steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface from injection, producing, or plugged and abandoned wells.

(12) That the application should be approved.

IT IS THEREFORE ORDERED:

(1) That the applicant, Continental Oil Company, is hereby authorized to substiture its Anderson Ranch Unit Wells No. 6 located in Unit X of Section 2, and Nos. 3 and 10, located in Units A and H, respectively, of Section 11, all in Township 16 South, Range 32 East, NMPM, for the initial injection wells in the Continental Anderson Ranch Wolfcamp Waterflood Project, Anderson

Ranch-Wolfcamp Pool, Lea County, New Mexico, as authorized under the provisions of Commission Order No. R-3863 entered October 28, 1969.

(2) That injection into the Wolfcamp interval in each of said substitute wells shall be through internally coated tubing installed in a packer set as close as practicable to the uppermost perforation ~~shoe~~ and well below the cement protecting such casing.

(3) That the casing-tubing annulus in each injection well shall be filled with an inert fluid and a pressure gauge or approved leak detection device shall be attached to the annulus or the annulus allowed to remain open in order to determine leakage in the casing, tubing, or packer.

(4) That the injection wells or system shall be equipped with a pressure-limiting switch or other acceptable device which will limit the surface injection pressure to no more than 1940 pounds.

(5) That the Secretary-Director of the Commission may administratively authorize a pressure limitation in excess of that set out in Order No. (4) above upon a showing by the operator that such higher pressure will not result in fracturing of the confining strata.

(6) That the wells within the project area shall be equipped with risers or in another acceptable manner such as to facilitate the periodic testing of the bradenhead for pressure or fluid production.

(7) That the operator shall immediately notify the supervisor of the Commission district office at Hobbs of the failure of the tubing or packer in any of said injection wells, the leakage of water or oil from or around any producing well, the leakage of water or oil from or around any plugged and abandoned well within the project area, or any other evidence of fluid migration from the injection zone, and shall take such timely steps as may be necessary or required to correct such failure or leakage.

(8) That monthly progress reports of the waterflood project herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1115 of the Commission Rules and Regulations.

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

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