

CASE NO.
3232

Application,
TRANSCRIPTS,
SMALL Exhibits
ETC.

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO

May 10, 1965

C
O
P
Y

Mr. Neil Watson
Watson & Watson
Attorneys at Law
Carper Building
Artesia, New Mexico

Dear Sir:

Enclosed herewith is Commission Order No. R-2908, entered in Case No. 3232, approving the Vilas P. Sheldon Old Loco Unit Waterflood Project.

Injection is to be through the six authorized injection wells which shall be equipped with tubing and packers. In the case of wells into which selective injection into two zones is effected, the lower zone is to be flooded through the tubing under a packer and the upper zone through the casing-tubing annulus, provided however, that prior to such use the casing must be pressure-tested to a minimum of 2000 psi. In the event said casing cannot withstand such pressure test, injection into the upper zone shall also be through tubing and under a packer. The Artesia District Office of the Commission is to be notified of the date and hour the pressure tests are to be commenced.

As to allowable, our calculations indicate that when all of the authorized injection wells have been placed on active injection, the maximum allowable which this project will be eligible to receive under the provisions of Rule 701-E-3 is 672 barrels per day.

Please report any error in this calculated maximum allowable immediately, both to the Santa Fe office of the commission and the appropriate district proration office.

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO

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Mr. Neil Watson
Watson & Watson
Carper Building
Artesia, New Mexico

C In order that the allowable assigned to the project may be kept current, and in order that the operator may fully benefit from the allowable provisions of Rule 701, it behooves him to promptly notify both of the aforementioned Commission offices by letter of any change in the status of wells in the project area, i.e., when active injection commences, when additional injection or producing wells are drilled, when additional wells are acquired through purchase or unitization, when wells have received a response to water injection, etc.

O Your cooperation in keeping the Commission so informed as to the status of the project and the wells therein will be appreciated.

Very truly yours,

P
A. L. PORTER, Jr.
Secretary-Director

Y ALP/DSM/ir

Enclosure

cc: Mr. Frank Irby
State Engineer Office
Santa Fe, New Mexico

Oil Conservation Commission Offices in
Hobbs and Artesia, New Mexico

Case 3232

Heard 4-7-65

Rec. 4-27-65

1. Grant Sheldon as waterflood art
requested.

2. Injection wells will be as follows:

Kersey - Cornell #18

SESE 32-17-29

- Mary. Dabbs - Cornell #1

SESW 32-17-29

Conoco - #32

#2

SENE - - -

Collier - Cornell #1

NWSW - - -

Collier - Kersey - #1

SENW - - -

Collier - - - #3

NWNW - - -

Rule 281

Frank H.

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. 3232
Order No. R-2908

APPLICATION OF VILAS P. SHELDON
FOR A WATERFLOOD PROJECT, EDDY
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on April 7, 1965, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 10th day of May, 1965, 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, Vilas P. Sheldon, seeks permission to institute a waterflood project in the Old Loco Unit Area, Grayburg Jackson and Loco Hills Pools, by the injection of water into the Grayburg formation through six injection wells in Section 32, Township 17 South, Range 29 East, NMPM, Eddy County, New Mexico.

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

(4) That the proposed waterflood project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

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CASE No. 3232

Order No. R-2908

(5) That the subject application should be approved and the project should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That the applicant, Vilas P. Sheldon, is hereby authorized to institute a waterflood project in the Old Loco Unit Area, Grayburg Jackson and Loco Hills Pools, by the injection of water into the Grayburg formation through the following-described six wells in Section 32, Township 17 South, Range 29 East, NMPM, Eddy County, New Mexico:

Kersey Cowell State Well No. 18 located in the SE/4 SE/4
Kersey Macy T-C Well No. 1 located in the SE/4 SW/4
Conoco State S 32 Well No. 2 located in the SE/4 NE/4
Collier Cowell State Well No. 1 located in the NW/4 SW/4
Collier Kerr McGee State Well No. 1 located in the SE/4 NW/4
Collier Kerr McGee State Well No. 3 located in the NW/4 NW/4

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

(3) That monthly progress reports of the waterflood project herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

(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


Jack M. Campbell
JACK M. CAMPBELL, Chairman

Guyton B. Hays
GUYTON B. HAYS, Member

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

esr/

CONSULTING GEOLOGIST AND
REGISTERED LAND SURVEYOR

VILAS P. SHELDON
801 WEST TEXAS
ARTESIA, NEW MEXICO

VALUATIONS, APPRAISALS,
GEOLOGICAL REPORTS, SURVEYS

March 15, 1965

Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Gentlemen:

It is hereby requested that a hearing be set to consider this application being made by the Operator, Vilas P. Sheldon, for approval of the "Old Loco Unit", Eddy County, New Mexico.

The Old Loco Unit is to consist of the S/2 SE/4 of Section 31 and all of Section 32, Township 17 South, Range 29 East, N.M.P.M., consisting of 720 acres more or less. Plat of the area is enclosed. Also enclosed is one copy of the Unit Agreement.

It is also desired that this letter be considered as an application for approval of a waterflood secondary recovery project encompassing the 720 acre unitized area.

It is proposed to flood the area using the following designated wells for the purpose of injecting water. Permission to so do is requested.

✓ Kersey	Cowell State	B 5084	SE SE	32-17-29
✓ Kersey	Macy-Tallmade-Cowell	B 4918	SE SW	32-17-29
✓ Conoco	State S#2	E 4201	SE NE	32-17-29
✓ Collier	Cowell State #1	B 4918	NW SW	32-17-29
✓ Collier	Kerr McGee State 1	E 537	SE NW	32-17-29
✓ Kincaid & Watson	Durham State 1	OG 181	NW NE	32-17-29 <i>working</i>

We do not believe the waterflood project as proposed will adversely affect anyone. It is thought that the project will promote conservation and that it will prevent physical waste of oil and gas.

If additional information is needed, please advise.

Sincerely,


Vilas P. Sheldon

ld

Encs.

DOCKET MAILED

Date 3/24/65
OK

DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.
PHONE 325-1182

SANTA FE, N. M.
PHONE 983-3971

ALBUQUERQUE, N. M.
PHONE 243-6691

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
April 7, 1965

EXAMINER HEARING

IN THE MATTER OF:

APPLICATION OF VILAS P. SHELDON FOR A UNIT
AGREEMENT, EDDY COUNTY, NEW MEXICO

Case No. 3231

APPLICATION OF VILAS P. SHELDON FOR A
WATERFLOOD PROJECT, EDDY COUNTY, NEW MEXICO

Case No. 3232

BEFORE:

ELVIS A. UTZ

TRANSCRIPT OF HEARING

MR. UTZ: Case Number 3231.

MR. DURRETT: Application of Vilas P. Sheldon for a unit agreement, Eddy County, New Mexico.

MR. WATSON: If the Examiner please, we'd like to consolidate Applications 3231 and 3232, and consider the testimony and the exhibits in each case as in the consolidated case.

MR. UTZ: Cases Number 3231 and 3232 will be consolidated insofar as testimony is concerned. Separate orders will be written on each case.

MR. WATSON: Neil B. Watson of Watson & Watson, Artesia, New Mexico, attorneys representing the applicant. We have Mr. V. P. Sheldon, the applicant, as a witness.

* * *

V I L A S P. S H E L D O N, the witness, having been duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. WATSON:

Q State your name and occupation, please, sir.

A Vilas P. Sheldon, independent geologist.

Q You are the applicant in these two cases, are you not?

A Yes, sir, I am.

Q Have you appeared before the Commission previously?

A I have.

Q Have your qualifications been accepted here as of heretofore?

A Yes, sir.

Q In connection with the applications for a unit agreement and for a secondary recovery program by waterflood, I hand you Applicant's Exhibits 1 and 1A and ask you to state what they are, please, sir.

A They are photographic copies of a generally circularized map, up to date, showing the development, the lease ownership and the surrounding area. Exhibit 1, I believe, is legible and can be read. The Exhibit 1A was thrown in to show the structural contours on top of the Red sand.

Q The area of the proposed unit is outlined in red?

A Yes, sir.

Q And the plats involved show the boundaries of the unit--all of the wells in the unit?

A Yes.

Q Does it also show the location of all wells within a radius of two miles?

A Yes.

Q Do Plats 1 and 1A show the names of the lessees and give the location of the wells within a radius of two miles?

A It does, yes.

Q I hand you Applicant's Exhibit 2 and ask you to state what this is, please, and what it shows.

A Exhibit 2 is a map of the unit area and the direct offsetting owners and the direct offsetting wells on a different scale from Exhibit 1, putting in detail the relationship of this unit and the direct offsetting wells. It also has the six proposed input wells marked.

Q The injection wells are identified how?

A By a purple circle around the well spot.

Q Mr. Sheldon, I hand you Exhibit 3 and ask you to state what that is, please.

A Exhibit 3 is a photostatic copy of the unit agreement for the Old Loco unit area.

Q I hand you Exhibit 4 and ask you to explain what that shows.

A Exhibit 4 is a copy of the unit operating agreement for the Old Loco area, together with the various exhibits.

Q As to the unit agreement as identified here, and the unit operating agreement, have copies been presented to a representative of the Commissioner of Public Lands of the State of New Mexico?

A Yes, and the unit agreement has been approved as to form and content.

Q I hand you Exhibit 5, Mr. Sheldon, and ask you to state what that is, please.

A Exhibit 5 is a plat on a large scale, showing the sixteen wells involved, the layout of the injection wells, with notations as to possible future wells that we might possibly want to drill in the future, depending on how the flood works.

Q I hand you Exhibit 6 and ask you to state what that is and what that shows, and from where the information was obtained.

A Exhibit 6 is a data sheet--engineer data sheet showing by wells the production as of a current date; the rate of production as of January, 1965 and notations as to the present producing zones. The data was secured from the records compiled by the New Mexico Engineering Committee.

Q What are the present producing zones you propose to waterflood?

A We will go to Zones 5 and 6, which are two basal sands of the Grayburg formation, Middle Permian age, sometimes known as Metex and Premier.

Q When were these wells drilled that are in the area?

A Various dates. I believe for the first one it possibly dates back to 1945.

Q I hand you Exhibit 7 and ask--

A Most of the wells were drilled in 1958. I am looking at the completion dates. The first well was 1940; the last 1962. Most of them were in 1958.

Q Referring to Applicant's Exhibit 7, please state what that is, sir.

A That is another engineering data sheet entitled "Parameters," showing by tract number the production, the estimated primary reserve, the total primary--and by that phrase I mean to say it's the total expected primary production that would be achieved up to an economic limit of one-half barrel per well per day, as determined by extrapolation of production data on semi log paper.

Q Does this show the basis of determining the percentage of interest of the various owners in that unit?

A That is the basis of the tract participation figures. The formula used was 100% total expected primary production.

Q Are there any wells in this area now that is proposed to be waterflooded, that are still economic wells from the standpoint of production and cost of production?

A Yes. If you want a yes-or-no answer, yes.

Q What is the situation with regard to most of the wells?

A Average production, I believe I figured, was 2.4



barrels per well per day at the present time. It isn't on an operator's overhead; it's questionable whether it is economic. There are two or three wells still making enough oil to be interesting, and there's probably several wells which are just being operated because someone forgot to shut them down.

Q I hand you Exhibit 8 and ask you to state what that is.

A Exhibit 8 is a photostat of the gamma neutron log on Miller & Smith Texas Gulf Well Number 1, showing thereon Zones 5 and 6 and also showing the unitized formations as tied in with the unit agreement. In other words, this shows what the unit agreement unitizes.

Q From your study of the area, is this more or less typical of the other wells in the area?

A Yes. The unit comprises just one section of 720 acres. As shown by the gamma neutron logs the wells are very similar. There is some variation in depth, but not much.

Q I hand you Exhibit 9 and ask you to state if you prepared this, and ask you to state what this represents.

A Exhibit 9 is another set of engineering data, mostly concerning the size of the well bore, the size of the oil string, the number of sacks with which the oil strings were cemented, total depth of the well and calculated cement top. It was compiled from the records in the Oil Conservation



Commission office in Santa Fe.

Q This shows the casing in the wells?

A Yes, it shows the depth casing was set in each well, size of casing, number of sacks it was cemented with, and theoretical fill-up, and also the condition of the casing when it was put in the well--not now.

Q I hand you Applicant's Exhibit 10 and ask you to state if you prepared that, and what it is, please.

A I prepared Exhibit 10. It is a schematic drawing showing the situation that will pertain to the injection wells as to where casing is set in relation to the producing zones, also the relationship that the salt section has to the surface pipe. I might say that the pipes in all cases, with the exception of the old 1940 well, which well will have to be re-worked, and we will re-work it before we inject, out of necessity--the other wells are cased to total depth and cemented with adequate cement to theoretically fill out to above the zones in question. The surface pipe is set at approximately 300 feet, which puts it in the top of the salt section, and was cemented with enough cement to fill to the surface. I was the geologist on most of those wells at the time they were drilled, and we did cement to the surface, and our casing point was the top of the salt. It came at about 300 feet.

Q I hand you Applicant's Exhibits 11 and 12 and 13,

and ask you to state what those are, Mr. Sheldon.

A They are radioactive gamma neutron logs.

Q On what wells?

A The Collier Kerr-McGee Number 1 and Number 3 and the Miller and Smith-Brown Number 1, all of which wells are proposed as water injection wells.

Q Do you have any other logs, Mr. Sheldon?

A I don't have any other logs with me today. The logs are available, with the exception of the one old 1940 well--there are gamma neutron logs available. I'm sorry I don't have all of them here today.

Q Where do you propose to obtain the water for your waterflooding program?

A Well, we have not been able to find an adequate source of local water, so it is our plan and firm intention of buying water from Caprock Water Company. It so happens--it isn't pertinent, perhaps, but it so happens that their line goes across this area, and they have already left a connection for future use.

Q Do you have a contract with Caprock?

A We have an unexecuted contract--in other words, they have tendered us one which is acceptable but it hasn't been signed yet.

Q What amount of water do you anticipate using in

dearnley-meier recording service inc.

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

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this project?

A We are thinking in terms of 2,000 barrels per day, at first, to get the initial load up, and I suppose it will continue to be about that rate. At first we will have to buy all of the water, and as time goes on we will be re-cycling produced water--we will re-cycle all produced water.

Q What other plans do you have as to the method by which you would undertake this waterflood project? In what area would you start your operations?

A We are asking for approval of six input wells, and our pattern has been laid out--we propose to actually start with the three northwest wells; the well in the northwest northwest; and northwest southwest, and the southwest northeast. And then as soon as we work out line agreements with our people to the south and east, we will go ahead with the three line wells.

Q Do you anticipate any necessity for any line agreements other than to the south and east?

A No. We think that line agreements to the south and east will be adequate--adding to the north and west certain things; line agreements are necessary on account of the permeability situation. It does not seem that anyone has been able to complete a well to that direction--it has been tried.

Q Have you furnished the representatives of the

State Engineer's Office with copies of your letter application to the Commission, and with your exhibits that were attached thereto?

A Yes.

Q Do you have any further statement to make with respect to either the application for approval of the Old Loco unit or the application for the proposed secondary recovery program by waterflood?

A No, I don't believe I have anything more to offer at this time.

MR. WATSON: Do you have any questions, sir?

MR. UTZ: Do you want to offer your exhibits at this time?

MR. WATSON: Yes--I offer Exhibits 1 through 13, I believe it is. We had an Exhibit 14, but he didn't offer it.

MR. UTZ: Exhibits 1 through 13 will be entered into the record of this case.

CROSS-EXAMINATION

MR. UTZ: Mr. Sheldon, Exhibit 10 is a schematic injection well completion. Was this the plan you intend to use on all the injection wells?

A Yes, sir.

Q And water injection will be through tubing run

through a packer?

A Yes, sir, except that as we flood both Zones 5 and 6 we will be pumping water down the annulus also.

Q Which zone will be in the annulus? Is that the Metex zone?

A Yes, the Metex is Zone 5. It will be that or a dual string situation, and on one well, the Collier Leonard, I'm sure it will take a dual string, and that one happens to have seven-inch in it, which we can do, because I don't think that casing is adequate. I'm going somewhat on a hunch, but I suspect it will be a dual string.

Q Is it your intent to test the casing before injecting into the wells?

A Yes, we will so stipulate--certainly.

Q And the injection water will be classified as fresh water?

A It will at first--yes, it will.

Q And it might become a little more saline?

A I'm sure the return water will be brine.

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

MR. IRBY: Frank Irby, State Engineer's Office.
Mr. Sheldon, you said this water at the start would be fresh, and I presume this is coming from Caprock's well field over

deanley-meier reporting service, inc.

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in Lea County, rather than Red Lake?

A I believe it's coming from Red Lake.--Yes, it is, Mr. Irby.

Q Then this isn't considered fresh water--Red Lake?

A Perhaps I should stand corrected. I don't know. I feel you are quite right--it's probably quite jippy.

Q Now, all these wells are intended as dual injectors --each of the six?

A Yes, sir, by the schematic method if possible; and if we have casing leaks and so on we will take care of it by--

Q Additional tubing?

A Additional tubing.

Q And packer?

A And packer.

Q I think I note a slight discrepancy between the names applied to the injection wells in the application and those on your Exhibit 9. Maybe it's my lack of understanding.

A No, it isn't. The March 15th application lists the Kincaid & Watson in the northwest northeast, and we have substituted--what have we substituted?

Q Do you need this exhibit?

A This one ought to show it. The northwest northeast has been substituted for the--I mean the northwest northwest has been substituted for the northwest northeast.

You are certainly right, Mr. Irby.

MR. WATSON: May we amend the application to show that we substituted that well in the northwest northwest, 32-17-29, for--what was the description of that well?

MR. SHELDON: It's Kerr-McGee Number 3.

MR. WATSON: --Kerr-McGee Number 3 in place of the Kincaid Watson Durham State Number 1; and the location will be the northwest quarter of the northwest quarter of Section 32, 17-29. We would like to amend the application accordingly, sir.

MR. UTZ: Then the proper well is the northwest northwest?

MR. SHELDON: Yes.

MR. UTZ: Which exhibit are these wells listed on?

MR. IRBY: It's Number 9.

MR. WATSON: They are shown also on Exhibit 2, as circled.

MR. UTZ: Does Exhibit 2 show the proper locations?

MR. SHELDON: Yes, Exhibit 2 shows the proper locations.

MR. UTZ: Does Exhibit 9 differ from that?

MR. WATSON: No, sir, Exhibit 9 shows all the wells, and shows the injection wells.

MR. UTZ: Well, Exhibits 2 and 9 do show the

dearnley-meier reporting services inc.

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proper locations?

MR. WATSON: Yes. May I examine Exhibit 5 for just a moment? That also shows the right locations.

MR. UTZ: You are requesting at this time, five injection well approvals?

MR. SHELDON: Six.

MR. UTZ: All right, sir. Does that get it straightened out, Mr. Irby?

MR. IRBY: Yes, that straightens it out. The only discrepancy is between the last well listed on the application and those as shown on Exhibits 1 and 9. So I think that's all clear. Mr. Sheldon, what is the anticipated life of this flood?

A Four years, Mr. Irby.

Q What is the individual well injection expected?

A Approximately 450 barrels per day.

Q And what is the anticipated injection pressure?

A Based on waterfloods in neighboring areas, we don't think it will go higher than 1500 pounds.

Q And I presume the casing test you referred to a few moments ago will exceed the 1500 PSI?

A Yes, it will.

MR. IRBY: That's all the questions I have. Thank you.

dearnley-meier
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MR. UTZ: Are there other questions of the witness?
... Is there anything further in this case?

MR. WATSON: No, sir.

MR. UTZ: The witness may be excused. Are there any statements to be made in this case?

MR. IRBY: Mr. Examiner, may I have the privilege of making a copy of Exhibit 9?

MR. UTZ: You can make copies of all of them if you want to, Mr. Irby. The case will be taken under advisement. We will recess until one-thirty.

* * *

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, ELIZABETH K. HALE, Notary Public and Court Reporter, do hereby certify that proceedings in the foregoing case were taken and transcribed by me, and that the foregoing is a true and correct transcript of proceedings to the best of my knowledge, skill and ability.

IN WITNESS WHEREOF, my hand and seal of office this 10th day of April, 1965.

Elizabeth K. Hale
Notary Public

My commission expires
May 23, 1968.

I do hereby certify that the foregoing is
a complete record of the proceedings in
the 1st trial hearing of Case No. 3231-532
held at Albuquerque, New Mexico, April 7, 1965.

Theresa A. [Signature]
New Mexico Oil Conservation Commission

Docket No. 10-65

DOCKET: EXAMINER HEARING - WEDNESDAY - APRIL 7, 1965

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

The following cases will be heard before Elvis A. Utz, Examiner,
or A. L. Porter, Jr., Alternate Examiner:

CASE 3225: Application of Harold L. Runnels for directional drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to directionally drill his Millard Eidson B Well No. 3, the surface location of which is 660 feet from the South line and 1980 feet from the East line of Section 26, Township 16 South, Range 35 East, Shoebar Field, Lea County, New Mexico. Applicant proposes to set a whipstock at 6800 feet and directionally drill in a northwesterly direction bottoming said well at a true vertical depth of approximately 10,400 feet in the Permian-Pennsylvanian pay at a point not closer than 330 feet to the North and West lines of the SW/4 SE/4 of said Section 26.

CASE 3226: Application of Skelly Oil Company for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the Grayburg Jackson Pool in its Dow Unit Area, by the injection of water into the Premier (Grayburg) and San Andres formations through six wells located in Section 22, Township 17 South, Range 31 East, Eddy County, New Mexico.

CASE 3227: Application of Texaco Inc. for a triple completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the triple completion (combination) of its C. H. Weir "B" Well No. 6 located in Unit P of Section 11, Township 20 South, Range 37 East, Lea County, New Mexico, to produce oil from the Skaggs Glorieta Pool through 2 7/8 inch casing, gas from the Skaggs Drinkard Pool through 1.61 inch ID tubing installed in a parallel string of 2 7/8 inch casing, and gas from the East Weir Blinbry Pool through the tubing-casing annulus, both strings of 2 7/8 inch casing being cemented in a common well-bore.

CASE 3228: Application of Texaco Inc. for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the Skaggs Pool by the injection of water into the Grayburg formation through nine wells in Sections 7, 12, and 13, Township 20 South, Range 37 East, Lea County, New Mexico.

Examiner Hearing - April 7, 1965

CASE 3229: Application of Pan American Petroleum Corporation for a dual completion and a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the dual completion (conventional) of its South Mattix Unit Well No. 18 located in Unit G of Section 22, Township 24 South, Range 37 East, Lea County, New Mexico, to produce gas from the Lower Paddock Formation and oil from the Blinebry Formation, Fowler field, through parallel strings of tubing. Applicant, further seeks approval of a Fowler-Lower Paddock non-standard gas proration unit for said well, comprising the NE/4, E/2 NW/4, and E/2 SE/4, of said Section 22.

CASE 3002: In the matter of Case No. 3002 being reopened pursuant (Reopened) to the provisions of Order No. R-2684, which order established temporary 320-acre spacing for the Fowler-Lower Paddock Gas Pool, Lea County, New Mexico, for a period of one year. All interested parties may appear and show cause why said pool should not be developed on 160-acre spacing units.

CASE 3230: Application of The British-American Oil Producing Company for an unorthodox location and a non-standard gas unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of an unorthodox gas well location for its North Wilson Deep Unit Well No. 1 located 560 feet from the South line and 1980 feet from the East line of Section 31, Township 20 South, Range 36 East; applicant further seeks approval of a non-standard Morrow gas unit to be dedicated to said well, said unit comprising the SE/4 of Section 31 and the SW/4 of Section 32, Township 20 South, Range 36 East, Lea County, New Mexico.

CASE 3231: Application of Vilas P. Sheldon for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Old Loco Unit Area comprising 720 acres, more or less, of State lands in Sections 31 and 32, Township 17 South, Range 29 East, Eddy County, New Mexico.

CASE 3232: Application of Vilas P. Sheldon for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the Grayburg Jackson and Loco Hills Pools in the Old Loco Unit Area by the injection of water into the Lovington and Grayburg formations through six injection wells in Section 32, Township 17 South, Range 29 East, Eddy County, New Mexico.

- 3 -

Examiner Hearing - April 7, 1965

CASE 3233: Application of Tidewater Oil Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the East Eumont Unit Area comprising 5,535 acres, more or less, of Federal, State and Fee lands in Townships 18, 19, and 20 South, Range 37 East, Lea County, New Mexico.

CASE 3234: Application of Tidewater Oil Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the Eumont Pool, Lea County, New Mexico, in its East Eumont Unit Area by the injection of water into the Yates, Seven Rivers and Queen formations through 69 wells in said unit area.

**EXHIBIT B TO UNIT AGREEMENT
OLD LOGD UNIT, EDDY COUNTY, NEW MEXICO**

Tract No.	Description	Acres	Serial No. and Lease Date	Basic Royalty	Lessee of Record	Overriding Royalty	Working Interest Owner and Percentage	Working Interest Percent Participation of Tract in Unit
1	SW/4 SW/4 32-17-29	40	B-2023 7-10-33	1/8th	Tenneco Oil Co.	Texas Gulf Tenneco	1/16th* Villas P Sheldon 1/16th R D Collier	50% 50% 2.39
2	SW/4 NE/4 32-17-29	40	B-2023 7-10-33	1/8th	Miller & Smith	Texas Gulf	1/16th Miller & Smith	100% 10.80
3	NW/4 SW/4 32-17-29	40	B-4918 9-10-35	1/8th	Geo M Cowell	George M Cowell Miller & Smith	1/16th R D Collier 1/32nd	100% 2.39
4	NE/4 SW/4 32-17-29	40	B 4918 9-10-35	1/8th	Miller & Smith	O H Randel P J Vidal	1/16th Miller & Smith 5%	100% 4.57
5	SE/4 SW/4 32-17-29	40	B 4918 9-10-35	1/8th				
6	NE/4 SE/4 32-17-29	40	B-5084 10-10-35	1/8th	P J Vidal	P J Vidal J W Eichman	7/64 1/64 R D Collier	100% 11.38
7	SW/4 SE/4 32-17-29	40	B-5084 10-10-35	1/8th	Miller & Smith	R L Delager	1/16 Miller & Smith	100% 14.35
8	SE/4 SE/4 32-17-29	40	B-5084 10-10-35	1/8th				
9	NW NW, NE NW, SE NW 32-17-29	120	E-537	1/8th	Kerr McGee Oil Industries, Inc	Kerr McGee	1/8 Neil B Watson R D Collier John P Caubape Jr Margaret Hightower	1/16 9/16*** 4/16 2/16 11.20
10	S/2 SE/4 32-17-29 SE NE, NW SE 32-17-29	160	E-4201 9-11-50	1/8th	Continental Oil Co	Conoco	1/4 Vilas P Sheldon R D Collier	50% 50% 12.00
11	SW/4 NW/4 32-17-29	40	E-7640 12-15-53	1/8th	Leonard Oil Co	Leonard Oil Co	1/16** Jeff M Hickox R D Collier H M Marlow	1/16 12/16 3/16 2.39
12	NE/4 NE/4 32-17-29	40	E 7654 12-15-53	1/8th	Miller & Smith	Donald Brown	1/16 Miller & Smith	100% 4.09
13	NW/4 NE/4 32-17-29	40	OG 181 9-16-56	1/8th	Kincaid & Watson	Humble O & G	1/8 Durham Drig Co R L Burrow Dalevco Oils Kincaid & Watson	50% 9% 8% 33% 3.42

* ORR is 1/8th when production is above 20 BOPD
 ** ORR is 1/8th when production is above 25 BOPD
 *** Collier 9/16th interest subject to Oil Payment (Valley Steel Co.) payable out of 1/4th of W.I. oil

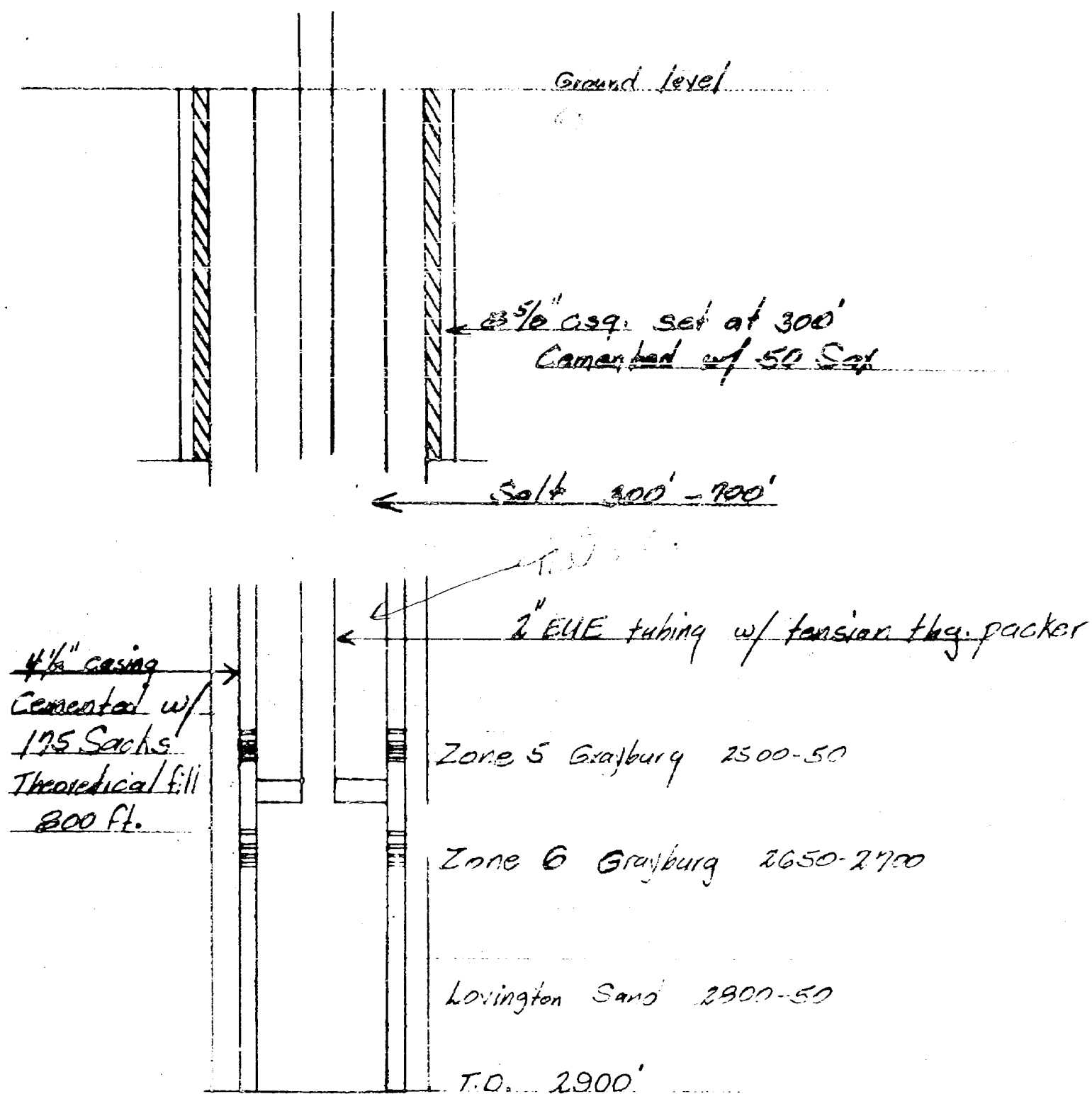
1828	1829	1830	1831	1832	1833	1834	1835	1836	1837	1838	1839	1840	1841	1842	1843	1844	1845	1846	1847	1848	1849	1850	1851	1852	1853	1854	1855	1856	1857	1858	1859	1860	1861	1862	1863	1864	1865	1866	1867	1868	1869	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900
1828	1829	1830	1831	1832	1833	1834	1835	1836	1837	1838	1839	1840	1841	1842	1843	1844	1845	1846	1847	1848	1849	1850	1851	1852	1853	1854	1855	1856	1857	1858	1859	1860	1861	1862	1863	1864	1865	1866	1867	1868	1869	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900

OLD LOGS UNIT
Baldy County, New Mexico

INTRA SUMMARY

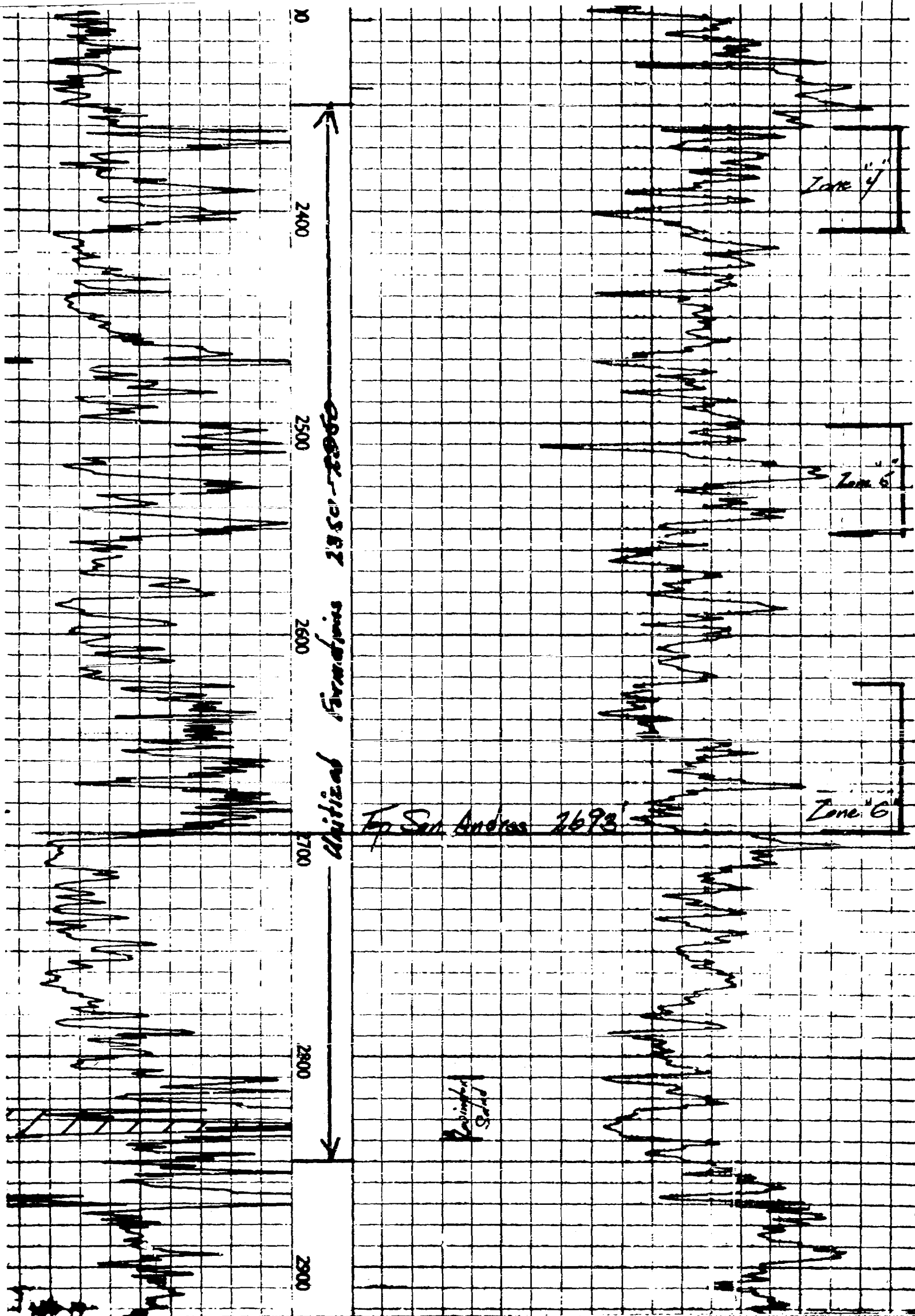
Operator	Well	Location	Production to 12-31-63	Production as of 3-31-63	Total Depth	Current Production January 1965	Producing Zones (* Better)	
Miller & Smith	Brown New Gulf Rimmed Delager	NE NE SW NE NE SW SW NE	11,522 27,381 11,166 31,546	4.787 11.605 4.120 12.826	2900 3100 3015 2766	58 70 72 165	615 822 243 319	6 (5 1s gas) 5 and 6 5 and 6 5 and 6
Kearney	Connell 1B Navy T-C	SE SE SE SW	21,303 38,335	9.023 16.533	2791 2636	56 33	188 32	5 and 6* 5 (not to 6)
Conoco	State 1 State 2 Sec. 31	NW NE SE NE S/2 SE 1/4	10,246 14,798 0	4.141 6.220	2750 2730	34 34	222 146	6 6
Collier	Deer McGee 1 Deer McGee 2 Deer McGee 3 Leonard 1 Connell 1 Vidal 1	SE NW NE NW NW NW SE NW NW SW NE SE	13,268 8,368 6,639 4,111 6,380 28,191	11.501 1.314 2.788 11.255	2735 2680 2790 2738 2727 2755	68 68 68 44 41 238	242 242 242 59 385	5 and 6* 5 and 6* 5 and 6* 5 and 6* 6 5 and 6
Klineald & Watson	State 1	NW NE	8,705	3.587	2637	39	1662	6 (5 1s gas)
Pennaco	Connell 1	SW SW	0		3104			Shows 5 & 6
Totals			242,965	100.000		1128		

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. 6
CASE NO. 30 31 32 32



BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. 10
CASE NO. 3231-3232

Schematic Injection Well Completion
OLD LOCO UNIT, Eddy Co.



GAMMA-NEUTRON
 BEFORE EXAMINER UTZ
 OIL CONSERVATION COMMISSION
 EXHIBIT NO. 3
 CASE NO. 3231-3252

MILLER AND SMITH TEXAS GULF WELL #1
 SW 1/4 NE 1/4 32-17S-29E Eddy County
 Old Loco Unit, Eddy County, New Mexico

PARAMETERS - OLD LAND UNIT

Tract	Description	Acres	Serial No.	Production 3-31-63	Est. Primary Recovery after 3/31/63 * Before Economic Limit	Total Primary	% Total Primary
1	SW 1/4 SW 1/4 32-17-29	40	11-2023	0	7,000	7,000	2.39
2	SW 1/4 NE 1/4 32-17-29	40	11-2023	26,714	4,983	31,697	10.80
3	NW 1/4 SW 1/4 32-17-29	40	11-4916	6,418	1,086	7,504	2.55
4	NE 1/4 SW 1/4 32-17-29	40	11-4916	10,174	5,222	15,396	4.97
5	SE 1/4 SW 1/4 32-17-29	40	11-4916	38,059	0	38,059	12.97
6	NE 1/4 SE 1/4 32-17-29	40	11-5084	25,910	7,470	33,380	11.38
7	SW 1/4 SE 1/4 32-17-29	40	11-5084	29,525	12,007	41,532	14.39
8	SE 1/4 SE 1/4 32-17-29	40	11-5084	20,772	2,280	23,052	7.85
9	NW NW 1/4, NE NW 1/4, SE NW 1/4 32-17-29	120	11-537	26,475	6,354	32,829	11.20
10	S 1/2 SE 1/4 31-17-29 SE NW 1/4, NW SE 1/4 32-17-29	160	11-4201	23,851	11,389	35,240	12.00
11	SW 1/4 NW 1/4 32-17-29	40	11-7640	3,026	3,984	7,010	2.39
12	NE 1/4 NW 1/4 32-17-29	40	11-7664	11,020	984	12,004	4.09
13	NW 1/4 NE 1/4 32-17-29	40	03-181	8,258	1,782	10,040	3.42
				230,202	63,221	293,423	100.00

BEFORE EXAMINER UTZ
CIL CONSERVATION COMMISSION
EXHIBIT NO. 7
CASE NO. 3111