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2665

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Application, Transcript,  
and 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. 2605  
Order No. R-2300

APPLICATION OF AMERADA PETROLEUM  
CORPORATION FOR A QUADRUPLE COM-  
PLETION, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on July 26, 1962, at Santa Fe, New Mexico, before Elvis A. Utz, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 2nd day of August, 1962, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Elvis A. Utz, 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, Amerada Petroleum Corporation, seeks permission to complete its L. G. Warlick "A" Well No. 2, located in Unit J, Section 19, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico, as a quadruple completion (tubing-less) in the Penrose-Skelly, Paddock, Blinbry, and Drinkard Pools with the production of oil from all zones to be through parallel strings of 2 7/8-inch casing cemented in a common well bore.

(3) That the mechanics of the proposed quadruple completion are feasible and in accord with good conservation practices.

(4) That approval of the subject application will neither cause waste nor impair correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Amerada Petroleum Corporation, is hereby authorized to complete its L. G. Warlick "A" Well No. 2,

-2-  
CASE No. 2605  
Order No. R-2300

located in Unit J of Section 19, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico, as a quadruple completion (tubing-less) in the Penrose-Skelly, Paddock, Blinebry, and Drinkard Pools with the production of oil from all zones through parallel strings of 2 7/8-inch casing cemented in a common well bore.

PROVIDED HOWEVER, That the applicant shall complete, operate, and produce said well in accordance with the provisions of Rule 112-A of the Commission Rules and Regulations.

PROVIDED FURTHER, That the applicant shall take zone segregation tests upon completion and annually thereafter during the Gas-Oil Ratio Test Period for the Drinkard formation.

(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.

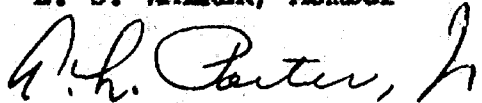
STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION



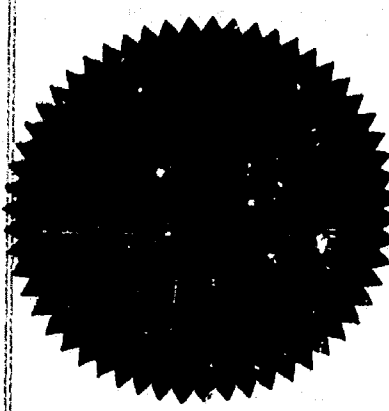
EDWIN L. MECHEM, Chairman



E. S. WALKER, Member



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



esr/

GOVERNOR  
EDWIN L. MECHEM  
CHAIRMAN

State of New Mexico  
Oil Conservation Commission

LAND COMMISSIONER  
E. S. JOHNNY WALKER  
MEMBER



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

P. O. BOX 871  
SANTA FE

August 2, 1962

Mr. Jason Kellahin  
Kellahin & Fox  
Attorneys at Law  
Box 1713  
Santa Fe, New Mexico

Re: CASE NO. 2605  
ORDER NO. R-2300  
APPLICANT:  
Amarada Petroleum Corporation

Dear Sir:

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

Very truly yours,

A. L. PORTER, Jr.  
Secretary-Director

ir/

Carbon copy of order also sent to:

Hobbs OCC x  
Artesia OCC     
Aztec OCC   

OTHER

Case 2605

Heard 7-26-62

Rec. 7-27-62

1. Grant Amerasia request for  
a Quadruple completion for ~~its~~ their  
L. L. Warlick "A" #2, J. 19-215-37E.

1. Completion zones will be:

Pemrose Shelly - Oil

Raddock - Oil

Blindby - Oil.

Drunkard - Oil.

3. 4 strings of 2 $\frac{7}{8}$  casing will be  
set one to each zone.

4. Type completion is ~~conventional~~  
"Submersible"

5. Usual Deal Order otherwise.

Emmett W. J.

DOCKET: EXAMINER HEARING - THURSDAY, JULY 26, 1962

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

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

- CASE 2603: Application of Pan American Petroleum Corporation for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order force-pooling all mineral interests in a gas proration unit comprising the S/2 of Section 30, Township 29 North, Range 10 West, Basin-Dakota Gas Pool, San Juan County, New Mexico.
- CASE 2604: Application of Sunray DX Oil Company for permission to dispose of salt water, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks permission to dispose of salt water into the San Andres formation through its Nancy Watson Well No. 2, located 1980 feet from the South line and 660 feet from the West line of Section 31, Township 8 South, Range 34 East, Roosevelt County, New Mexico.
- CASE 2605: Application of Amerada Petroleum Corporation for approval of a quadruple completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to complete its L. G. Warlick "A" Well No. 2 located in Unit J of Section 19, Township 21 South, Range 37 East, Lea County, New Mexico, as a quadruple completion (tubingless) in the Penrose-Skelly, Paddock, Blinebry, and Drinkard Pools, with the production of oil from all zones to be through parallel strings of 2 7/8-inch casing cemented in a common well bore.
- CASE 2606: Application of Texas Crude Oil Company for permission to directionally drill, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to directionally drill its Ohio State Well No. 1-22. Said well has a surface location 1980 feet from the North line and 1980 feet from the West line of Section 22, Township 10 South, Range 36 East, Lea County; the proposed bottom-hole location of said well will be in the South Crossroads-Devonian Pool at a point 1650 feet from the North line and 1980 feet from the West line of said Section 22.

- CASE 2607: Application of Newmont Oil Company for special rules for its Square Lake Pool Waterflood Project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an amendment of Orders Nos. R-1110, R-1110-A, R-1110-B and R-1110-C defining the horizontal limits of its Square Lake Pool Waterflood Project in Eddy County, New Mexico, establishing rules for the expansion of said waterflood project, and providing for capacity allowables in said project area.
- CASE 2608: Application of Southwest Production Company for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order force-pooling all mineral interests in a gas proration unit comprising the S/2 of Section 5, Township 30 North, Range 11 West, Basin-Dakota Gas Pool, San Juan County, New Mexico.
- CASE 2609: Application of Southwest Production Company for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order force-pooling all mineral interests in a gas proration unit comprising the E/2 of Section 8, Township 30 North, Range 11 West, Basin-Dakota Gas Pool, San Juan County, New Mexico.
- CASE 2610: Application of Southwest Production Company for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order force-pooling all mineral interests in a gas proration unit comprising the E/2 of Section 9, Township 30 North, Range 11 West, Basin-Dakota Gas Pool, San Juan County, New Mexico.
- CASE 2611: Application of Southwest Production Company for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order force-pooling all mineral interests in a gas proration unit comprising the W/2 of Section 9, Township 30 North, Range 11 West, Basin-Dakota Gas Pool, San Juan County, New Mexico.

*Case 26-85*

KELLAHIN AND FOX  
ATTORNEYS AT LAW  
54 1/2 EAST SAN FRANCISCO STREET  
POST OFFICE BOX 1713  
SANTA FE, NEW MEXICO

JUL 3 1962 PM 1 16

July 2, 1962

Oil Conservation Commission of  
New Mexico  
P. O. Box 871  
Santa Fe, New Mexico

Gentlemen:

Enclosed is the application of Amerada Petroleum Corporation for a multiple completion of its L. G. Warlick "A" No. 2 well.

It is requested that, if possible, this application be set for hearing before the Commission's Examiner on July 25 or the final examiner hearing in July.

Would you please let me know when the case has been set for hearing?

Yours very truly,

*Jason W. Kellahin*  
Jason W. Kellahin

JWK:ss  
Encl.

*Worked  
Miles  
7/13/62  
M*



DOCKET: EXAMINER HEARING - THURSDAY, JULY 26, 1962

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

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

- CASE 2603: Application of Pan American Petroleum Corporation for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order force-pooling all mineral interests in a gas proration unit comprising the S/2 of Section 30, Township 29 North, Range 10 West, Basin-Dakota Pool, San Juan County, New Mexico.
- CASE 2604: Application of Sunray DX Oil Company for permission to dispose of salt water, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks permission to dispose of salt water into the San Andres formation through its Nancy Watson Well No. 2, located 1980 feet from the North line and 660 feet from the West line of Section 31, Township 8 South, Range 34 East, Roosevelt County, New Mexico.
- CASE 2605: Application of Amerada Petroleum Corporation for approval of a quadruple completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to complete its L. G. Warlick "A" Well No. 2 located in Unit J of Section 19, Township 21 South, Range 37 East, Lea County, New Mexico, as a quadruple completion (tubingless) in the Penrose-Skelly, Paddock, Blinebry, and Drinkard Pools, with the production of oil from all zones to be through parallel strings of 2 7/8-inch casing cemented in a common well bore.
- CASE 2606: Application of Texas Crude Oil Company for permission to directionally drill, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to directionally drill its Ohio State Well No. 1-22. Said well has a surface location 1980 feet from the North line and 1980 feet from the West line of Section 22, Township 10 South, Range 36 East, Lea County; the proposed bottom-hole location of said well will be in the South Crossroads-Devonian Pool at a point 1650 feet from the North line and 1980 feet from the West line of said Section 22.

Docket No. 22-62

CASE 2607: Application of Newmont Oil Company for special rules for its Square Lake Pool Waterflood Project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an amendment of Orders Nos. R-1110, R-1110-A, R-1110-B and R-1110-C defining the horizontal limits of its Square Lake Pool Waterflood Project in Eddy County, New Mexico, establishing rules for the expansion of said waterflood project, and providing for capacity allowables in said project area.

CASE 2608: Application of Southwest Production Company for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order force-pooling all mineral interests in a gas proration unit comprising the S/2 of Section 5, Township 30 North, Range 11 West, Basin-Dakota Gas Pool, San Juan County, New Mexico.

CASE 2609: Application of Southwest Production Company for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order force-pooling all mineral interests in a gas proration unit comprising the E/2 of Section 8, Township 30 North, Range 11 West, Basin-Dakota Gas Pool, San Juan County, New Mexico.

CASE 2610: Application of Southwest Production Company for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order force-pooling all mineral interests in a gas proration unit comprising the E/2 of Section 9, Township 30 North, Range 11 West, Basin-Dakota Gas Pool, San Juan County, New Mexico.

CASE 2611: Application of Southwest Production Company for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order force-pooling all mineral interests in a gas proration unit comprising the W/2 of Section 9, Township 30 North, Range 11 West, Basin-Dakota Gas Pool, San Juan County, New Mexico.

iqg/

June 29, 1942

RECEIVED  
JUL 1 1942

IN THE MATTER OF THE APPLICATION OF  
AMERADA PETROLEUM CORPORATION FOR AN  
ORDER PERMITTING THE MULTIPLE COM-  
PLETION OF ITS L. G. WARLICK "A" NO. 2  
LOCATED IN UNIT J, SEC. 19, T-21-S,  
R-37-E, LEA COUNTY, NEW MEXICO, IN THE  
PENROSE SKELLY, PADDOCK, BLINEBRY AND  
DRINKARD OIL POOLS.

CASE NO. \_\_\_\_\_

### APPLICATION

Applicant, Amerada Petroleum Corporation, states that

1. Applicant is the operator and part owner of L. G. Warlick "A" lease described as the N/2 of the SE/4 of Sec. 19, T-21-S, R-37-E, Lea County, New Mexico.
2. Applicant proposes the completion of its L. G. Warlick "A" No. 2 located in Unit J, Sec. 19, T-21-S, R-37-E as a Penrose Skelly, Paddock, Blinebry, and Drinkard Oil Well.
3. Four strings of 2 7/8" casing will be cemented in a common well bore with top cement being above all potential pays.
4. All standards adopted by the Commission concerning completion and producing practices will be adhered to. Such completion will maintain separation in the several common sources of supply in a manner that will prevent waste and protect the rights of all parties concerned.
5. A multiple completion has not previously been approved between the zones under consideration.
6. Copies of the Commission's Multiple Completion Form, Plat of Area and Schematic Diagram of the proposed installation are attached.

Applicant requests that this matter be set for hearing, that notice of the hearing be given as required by law, and that, upon completion of the hearing the Commission issue its order authorizing the above proposals.

Respectfully Submitted

AMERADA PETROLEUM CORPORATION

By Jason W. Kellahin  
KELLAHIN & FOX  
P.O. Box 1713  
Santa Fe, New Mexico

Attorneys for Applicant

## NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

5-1-61

## APPLICATION FOR MULTIPLE COMPLETION

Operator <b>Amerada Petroleum Corporation</b>		County <b>Lea</b>	Date <b>June 29, 1962</b>
Address <b>Drawer "D"-Monument, New Mexico</b>		Lease <b>I. G. Wadsworth WAM</b>	Well No. <b>2</b>
Location of Well <b>J</b>	Unit <b>19</b>	Township <b>21S</b>	Range <b>37E</b>

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 ☐ NO ☒
2. If answer is yes, identify one such instance: Order No. \_\_\_\_\_; Operator, Lease, and Well No.:

3. The following facts are submitted:	Upper Zone	Intermediate Zone	Lower Zone
a. Name of Pool and Formation	<b>Penrose Skelly-Obg.</b>	<b>Paddock</b>	<b>Blinsbry</b>
b. Top and Bottom of Pay Section (Perforations)	<b>Approx. 3750' to 3800'</b>	<b>Approx. 5170' to 5180'</b>	<b>Approx. 5590' to 5950'</b>
c. Type of production (Oil or Gas)	<b>Oil</b>	<b>Oil</b>	<b>Oil</b>
d. Method of Production (Flowing or Artificial Lift)	<b>Flow</b>	<b>Flow</b>	<b>Flow</b>

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

- Yes 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.
- Yes 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.
- No 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.\*
- No 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.

<b>Gulf Oil Corporation</b>	<b>P. O. Box 1150</b>	<b>Midland, Texas</b>
<b>W. H. Perry</b>	<b>3301 S. 5th Street</b>	<b>Abilene, Texas</b>

6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES ☐ NO ☒. If answer is yes, give date of such notification \_\_\_\_\_.

CERTIFICATE: I, the undersigned, state that I am the District Superintendent of the Amerada Petroleum Corp. (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.

D. C. Cappu

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 perforation unit in either or both of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

Page 2 attached

## NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

## APPLICATION FOR MULTIPLE COMPLETION

5-1-61

Operator <b>Amerada Petroleum Corporation</b>		County <b>Lea</b>	Date <b>June 29, 1962</b>
Address <b>Deer "D" Monument, New Mexico</b>		Lease <b>L. G. Warlick "A"</b>	Well No. <b>2</b>
Location of Well Unit <b>J</b>	Section <b>19</b>	Township <b>21N</b>	Range <b>37E</b>

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 \_\_\_\_\_ NO \_\_\_\_\_
2. If answer is yes, identify one such instance: Order No. \_\_\_\_\_; Operator, Lease, and Well No.:

3. The following facts are submitted:	Upper Zone	Intermediate Zone	Lower Zone
a. Name of Pool and Formation	<b>Drinkard</b>		
b. Top and Bottom of Pay Section (Perforations)	<b>Approx. 6600' to 6650'</b>		
c. Type of production (Oil or Gas)	<b>Oil</b>		
d. Method of Production (Flowing or Artificial Lift)	<b>Flow</b>		

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

- \_\_\_\_\_ 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.
- \_\_\_\_\_ 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.
- \_\_\_\_\_ 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.\*
- \_\_\_\_\_ 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.

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

CERTIFICATE: I, the undersigned, state that I am the \_\_\_\_\_ of the \_\_\_\_\_ (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.

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 perforation unit in either or both of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

R 36 E			R 37 E		
Cont'l 10E	Tidewater 13 10E 20E Marshall Penrose 10E	Tidewater 18 10E Gulf Penrose 20E 10PS 30E 40PS 10PS Olson Blount 10PS Ohio 10PS	Texaco 50PS 30D 40E-PS 10D 20B-T Weatherly Drilyn Orig. 10PS-BG 10E-PS 20D 10T-D 40D Weatherly Penrose 10BG-D 20T-D 10D	Pack Oil 10D Sun 30D Lockhart Hardy	Cont'l 17 40T-D 30B-D 20E-D 10D
Lockhart	Marshall Gulf 24 10E Leonard	Penrose 19 10E-BG Amarada 10D Worlick Amarada Worlick "A" Perry 30PS 10PS 50P-B 40P 20B-D Elliott Fed.	Sunray 10D Randle 50BG-D 30PS-D 40PS-P 10PS 20P-D Hardy Mobil	Redman 10PS 50BG 30D 20D Amarada & Redman 40E-PS 10D 10BG-D Randle "A" Ohio 30D 10PS 20D Hardy 30D 10PS 40D 50BG Hardy	Sinclair 20 20T-D 10BG-D York
Gulf 20PS 10E Mattern Gulf 25	20E 10A Ramsey St. B Sinclair 30A 10E 20A 40E Brownlee	20 10E 20D-B Pan Am "C" 10P-B Sunrise Unit	Texaco 30 40E 60P-BG-D 50PS-P 20B 30D Henderson Gulf 10PS 10PS 80B 110PS 50E-PS 40T 60D Mattern "B"	20PS 30B 60P-D 10PS 40PS 50D Hardy Sinclair 10D 20PS 30T-D W. Turner Sinclair 20PS 10PS 40D 30BG-D H. Turner	29 20PS-D 10PS-BG 10T-D Lindam Sunray 20PS-D 10D Hardy Ohio 10D 30BG-T Turner Pan Am 20D 10E-D 30BG-T Turner

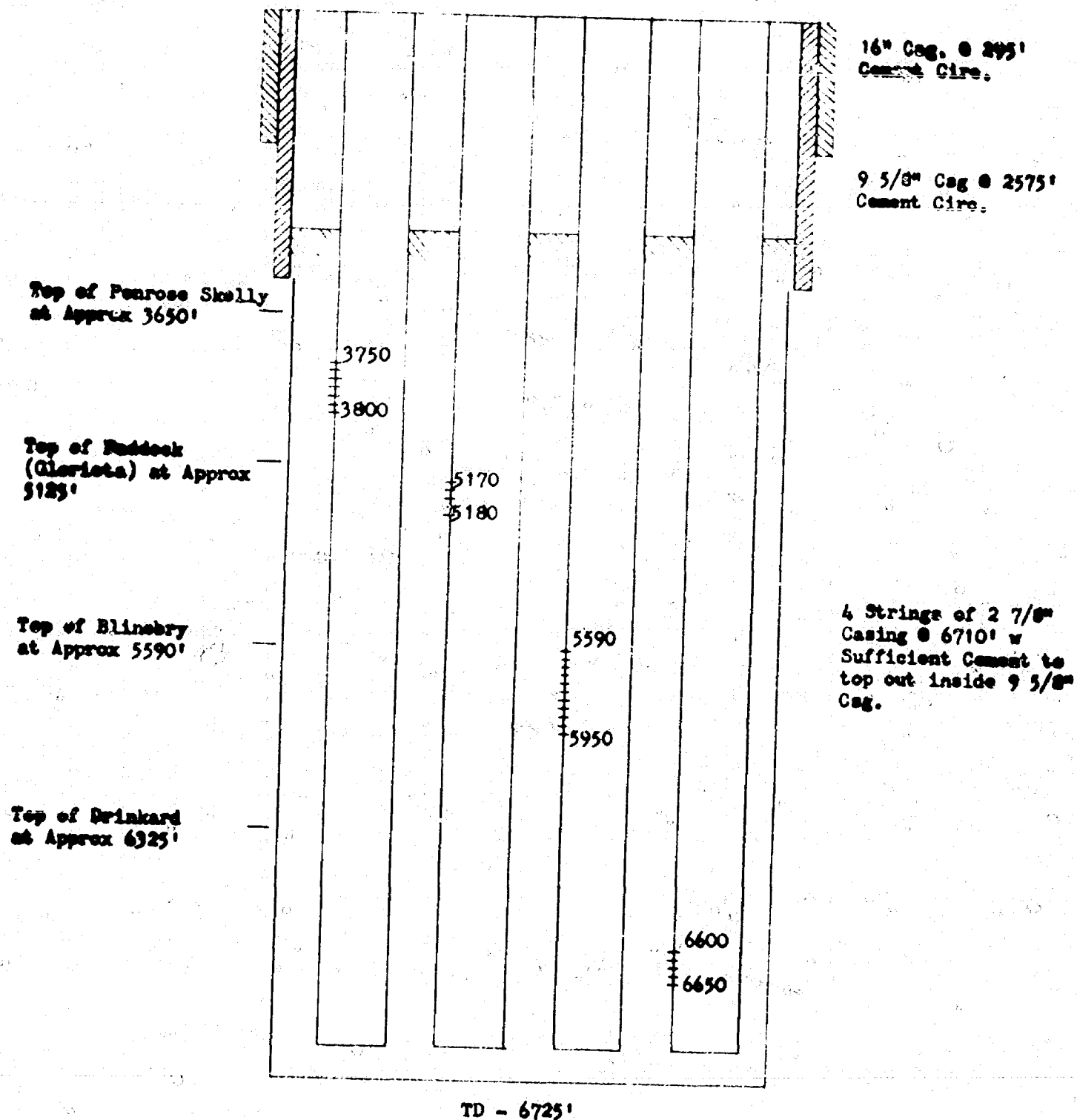
AMERADA PETROLEUM CORP

1 INCH = 2000 FT

E - Eumont  
A - Arrowhead  
PS - Penrose Skelly  
P - Paddock  
B - Blinbry Oil  
BG - Blinbry Gas  
T - Tubb  
D - Drinkard

FIELD West Lance Area  
STATE  
COUNTY

AMERADA PETROLEUM CORPORATION  
 Schematic Diagram of Multiple Completion  
 L. G. Warlick "A" No. 2  
 Unit J, Sec. 19, T-21-S, R-37-E  
 Lea County, New Mexico



R 36 E				R 37 E			
Cont'l 10E Lockhart	Tidewater 13 10E 20E Marshall Penrose 10E Marshall		Tidewater 18 10E Gulf Penrose 20E 10PS 30E 40PS 10PS Wilson-Blount 10PS Ohio 10PS		Texaco 50PS 30D 40E-PS 10D 200-T Weatherly Dixie Oil 10PS-80 10T-D 20D Lockhart		Arch Oil 10D 30D 300 20E-D Lockhart Hardy
	Gulf 24 10E Leonard		Penrose 19 10E-80 Amerada Amerada 10D Worlick Amerada 20		Rodman 10PS 5000 30D 20D Sunray Amerada & Rodman 40E-PS 10D 1000-U Randle Randle "A"		Sinc. 20 20T-D 1000-D York
	Gulf 20PS 10E Mattern Gulf 25		Gulf 10E 200-D Pan Am "CK" 10P-D Eunice Unit Taxaco 40E 60P-80-D 50PS-P 200 30D Henderson Gulf 10PS 10PS 800 110PS 500-PS 40PS 60D Mattern "B"		Gulf 5000-D 80PS-D 40PS-P 10PS 20P-D Hardy Mobil 20PS 300 60P-D 10PS 40PS 50D Hardy Sinclair 10D 20PS 30T-D W. Turner Sinclair 20PS 10PS 50D 3000-D H. Turner		Hardy 200 10PS 200 Hardy 30D 10PS 5000 Hardy 20PS-D 10PS-80 10T-D Lindam Sunray 20PS-D 10D Hardy Ohio 10D 3000-T Turner Pan Am 20D 10E-D 3000-T Turner

AMERADA PETROLEUM CORP

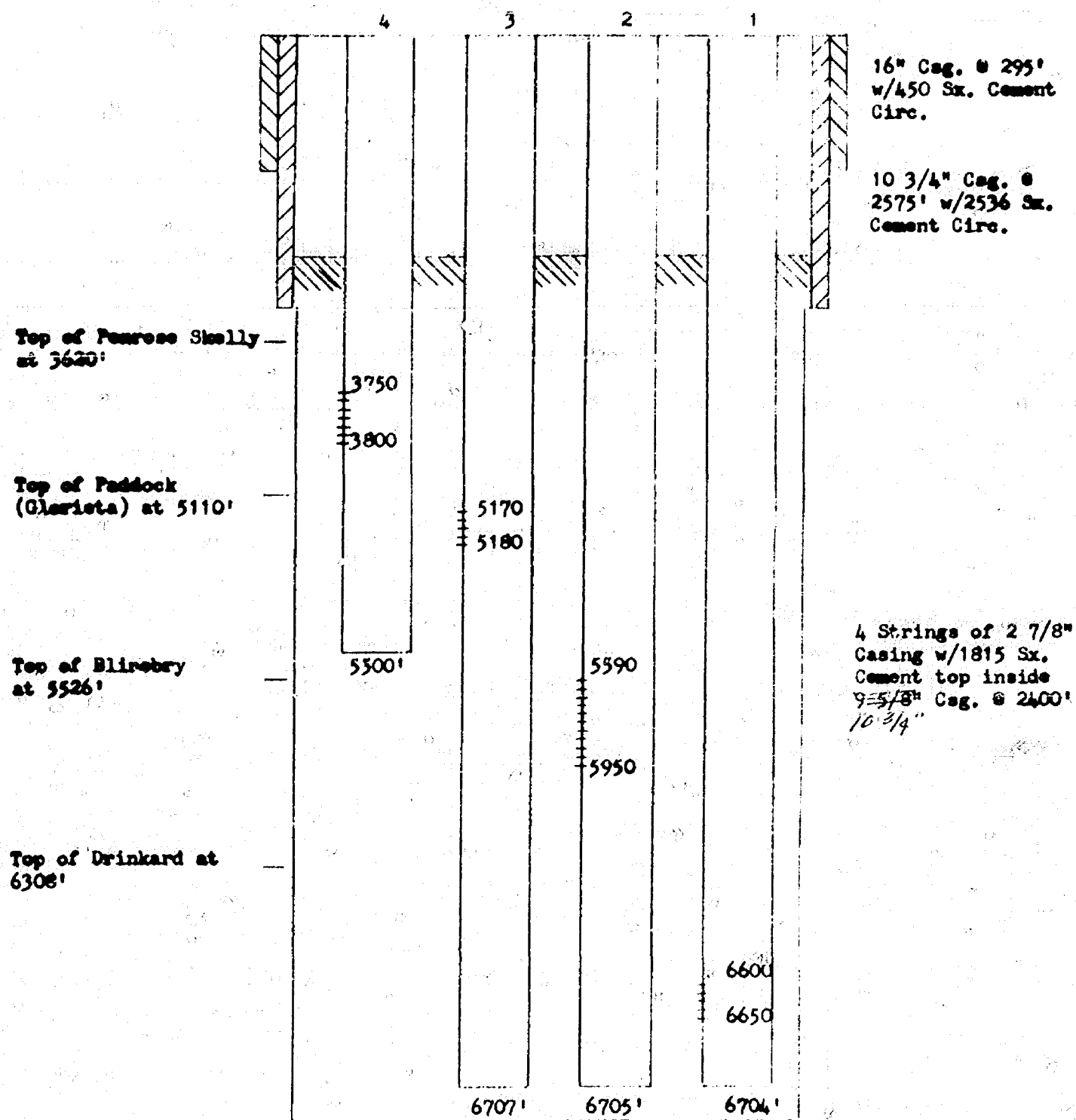
1 INCH = 2000 FT

E - Eunice  
A - Arrowhead  
PS - Penrose Skelly  
P - Paddock  
B - Blinbry Oil  
BG - Blinbry Gas  
T - Tubb  
D - Drinkard

FIELD West Eunice Area  
STATE New Mexico  
COUNTY Lea



AMERADA PETROLEUM CORPORATION  
 Schematic Diagram of Multiple Completion  
 L. G. Warlick "A" No. 2  
 Unit J, Sec. 19, T-21-S, R-37-E  
 Lea County, New Mexico



Case No. 6710  
 EX No. 3

TD - 6710'

BEFORE THE  
OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico

July 26, 1962

EXAMINER HEARING

IN THE MATTER OF:

Application of Amerada Petroleum Corpora-  
tion for approval of a quadruple comple-  
tion, Lea County, New Mexico. Applicant,  
in the above-styled cause, seeks per-  
mission to complete its L. G. Warlick "A"  
Well No. 2 located in Unit J of Section  
19, Township 21 South, Range 37 East, Lea  
County, New Mexico, as a quadruple comple-  
tion (tubingless) in the Penrose-Skelly,  
Paddock, Blinebry, and Drinkard Pools,  
with the production of oil from all zones  
to be through parallel strings of 2 7/8-  
inch casing cemented in a common well bore.

CASE NO.  
2605

BEFORE: Elvis A. Utz, Examiner

TRANSCRIPT OF PROCEEDINGS

MR. UTZ: Case 2605.

MR. DURRETT: Application of Amerada Petroleum Corpora-  
tion for approval of a quadruple completion, Lea County, New Mexico.

MR. KELLAHIN: Jason Kellahin, Kellahin & Fox, Santa Fe,  
representing the Applicant. We have one witness I would like to  
have sworn.

(Witness sworn.)

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

DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.  
PHONE 325-1182

ALBUQUERQUE, N. M.  
PHONE 243-6691



A. E. SNYDER,

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you state your name, please?

A A. E. Snyder.

Q By whom are you employed and in what position?

A I'm employed by Amerada Petroleum Corporation as division engineer in Hobbs, New Mexico.

Q Mr. Snyder, have you testified before the Oil Conservation Commission of New Mexico and had your qualifications made a matter of record?

A Yes, sir.

MR. KELLAHIN: Are the witness's qualifications acceptable?

MR. UTZ: Yes, they are.

Q (by Mr. Kellahin) Mr. Snyder, are you familiar with the application of Amerada in Case 2605?

A Yes, sir.

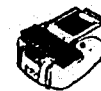
Q Will you state briefly what Amerada proposes in this case?

A This application is for the purpose of receiving approval for a quadruple completion. It's Warlick "A" Well No. 2 located in Unit J, Section 19, Township 21 South, Range 37 East, Lea

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County, New Mexico.

Q Do you have a plat showing the area involved in this application?

A Yes.

(Whereupon Applicant's Exhibit 1 marked for identification.)

Q Referring to what has been marked as Exhibit No., would you identify that exhibit and discuss the information shown thereon?

A Exhibit No. 1 is a plat showing the area involved in this application and the location of the proposed well, Warlick "A" No. 2, is shown circled in red. The location and producing zones of all other wells within about a mile and a half radius of this well are shown on the plat. The plat in general covers sections of Township 21 South, Ranges 36 and 37 East, Lea County, New Mexico.

Q Now, in what zones does Amerada propose to complete this well?

A Our proposed zones of completion are in the Penrose-Skelly or in the Grayburg formation, in the Paddock formation, the Blinbry formation, and the Drinkard formation.

Q Is it anticipated that oil will be produced from each of these zones?

A Yes, sir, they should all be oil productive.

Q What is the status of the well at the present time?

A The well has been drilled. We have just finished setting



and cementing the four strings of small casing in the hole.

Q Do you have a log of the well?

A Yes, sir.

(Whereupon Applicant's  
Exhibit No. 2 marked  
for identification)

Q Referring to what has been marked as Amerada's Exhibit No. 2, would you identify that exhibit and discuss the information that has been marked on it?

A Exhibit No. 2 is a combination gamma ray and sonic log of the well. On this log I have marked the tops of the zones in question. You will notice that 3620 feet, the top of the Penrose-Skelly field is marked. This is actually the top of the Grayburg zone. I have also shown the proposed perforations in the Penrose-Skelly formation. Now, these perforations all may be changed somewhat as we perforate. Some of them may be water productive and we may have to squeeze off and come up higher in the zone or some maybe high ratio, or we may have to squeeze off and go deeper in the zone. On the log I have marked the Paddock at 1510, also showing proposed perforations there, and at 5526 we show the top of the Blinbry formation as determined by this Commission order sometime in the past; and the proposed Blinbry perforations are also marked there. And at 6308 we have marked the top of the Drinkard zone and the proposed Drinkard perforations are shown.

Q Now, you have a schematic diagram showing the completion of this well?

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A Yes, sir.

(Whereupon Applicant's  
Exhibit No. 3 marked  
for identification)

Q Referring to what has been marked as Amerada's Exhibit No. 3, will you discuss the information shown on that exhibit?

A Exhibit 3 is merely a schematic diagram of the equipment that has been set in the well, again showing the proposed perforation and the various zones. Starting from the top, we have our 16-inch surface casing set at 295 feet, cemented with 450 sacks, and the cement did circulate to the surface. Then we set 10 3/4-inch casing at 2575 feet, cemented it with 2536 sacks, and that cement also circulated to the surface. Then we drilled a 9 7/8-inch hole to total depth of 6710 feet and set four strings of 2 7/8-inch casing in those. Casing string No. 1 on the right was set at a depth of 6704 feet.

Casing string No. 2 was set at 6705. String No. 3 was set at 6707, and No. 4 string was set at 550 feet. Now, we cemented down the three long strings of casing simultaneously with 1815 sacks of cement. By temperature survey, top of cement was at 2400 feet, which brings it back up inside the 10 3/4-inch casing 175 feet, so that all zones in the entire well bore are protected by cement.

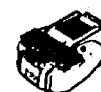
MR. UTZ: How far did it come back up into the 10 3/4, did you say?

A One hundred and seventy-five feet.

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Q (by Mr. Kellahin) In other words, the entire well bore is protected by cement, is that correct?

A Yes, sir.

Q Now, Mr. Snyder, in your opinion, will this type of completion fully and adequately protect the zones involved from communication?

A Yes, sir, we feel that it will.

Q How will the perforations be made for these strings?

A Each one of these strings of casing will necessarily be perforated individually from the other strings. At the time that we perforate any one string, we will have gamma ray source in all three of the other strings and actually locate the other three strings of casing so that the perforating will be done away from the other three strings of casing in the well. And this is an approved procedure. We have used it some twenty-five times and have had no failures in it as far as perforating more than one string of casing at the time.

Q Is this a completion that has been approved by the Commission in the past?

A Yes, sir.

Q Are there other completions of this type in the vicinity of this well?

A Yes, sir.

Q Would you name one of them, or could you?

A Our Amerada's Warlick "A" No. 1 located in the Northeast



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Southeast of Section 19, 21 South, 37 East, was recently completed in this manner.

Q In your opinion would the approval of this application be in the interest of conservation and the prevention of waste?

A Yes, sir.

Q Do you have anything to add to your testimony, Mr. Snyder?

A No, I believe that's all.

Q Were Exhibits 1, 2, and 3 prepared by you or under your supervision?

A Yes, sir.

MR. KELLAHIN: At this time I would like to offer in evidence Exhibits 1, 2 and 3.

MR. UTZ: Without objection, Exhibits 1, 2, and 3 will be entered in the record.

(Whereupon Applicant's Exhibits 1, 2, and 3 admitted in evidence.)

MR. KELLAHIN: That's all the questions I have of the witness, Mr. Utz.

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Snyder, are you familiar with the process of completing or cementing these small strings of casing that some operators use by circulating as you did and then going back in and squeezing around the pay zone?





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A Yes, sir, we have found it necessary to do that in some instances; many times it has not been necessary.

Q You don't do that as a usual practice at all?

A Not as a usual practice.

Q How do you determine it's necessary?

A When we make these perforations, we make just a few shots at the top and bottom of the zone that we anticipate perforating in all the different zones and pressure tests to see if we get any type of communication between any of the zones. If we find we do have communication, then we squeeze and re-perforate and run the test again, until we find that we do not have communication between any of the zones.

Q I notice on your Exhibit No. 3 you scratched out 9 5/8 and put 10 3/4-inch.

A Yes, sir.

Q Actually you have a 9 7/8-inch hole there, do you not?

A Yes, sir, a 9 7/8-inch hole, but the last casing above that was the 10 3/4-inch.

Q Do you have any idea what the GORs are in these various zones?

A I can give you an idea of what we expect based on what we found on the well east offset to this.

Q I would like the GOR and the pressure and type of crude, if you have them there.

A Okay, in the Warlick "A" No. 1 the immediate east offset



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to this well, our Paddock was low there, some 30 feet low and was water bearing, so we did not make a completion in it. It is higher in this well, and we anticipate that it will be productive. We did not have any other Paddock completions in that immediate area, so I could not furnish you at this time gas-oil ratio or pressure information on the Paddock zone. The Penrose-Skelly should produce crude oil with a gravity of about 37 degrees and a gas-oil ratio of something less than 2,000 probably about 1500-to-one. The bottomhole pressure in that zone is 1196 pounds.

Q Is that a sweet crude?

A No, sir, the Penrose-Skelly is a sour crude. The Blinebry zone, we anticipate that it will produce oil about 39 degrees API, and the gas-oil ratio probably will be on the order of 5,000. The reservoir pressure in the Blinebry is about 2,070 pounds. We anticipate the Drinkard zone will produce oil with a gravity of about 41 degrees API with a gas-oil ratio of about 2,000, and it has a bottomhole pressure of 1325 pounds. The Drinkard and the Blinebry are both sweet crudes.

MR. UTZ: Any other questions of the witness?

The witness may be excused.

(Witness excused.)

MR. UTZ: Any statements in this case?

The case will be taken under advisement.

\* \* \* \*



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

I, MARIANNA MEIER, NOTARY PUBLIC in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached transcript of proceedings was reported by me in stenotype and that the same was reduced to typewritten transcript under my personal supervision and contains a true and correct record of said proceedings, to the best of my knowledge, skill and ability.

*Marianna Meier*  
 NOTARY PUBLIC

My Commission Expires:

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I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 2605, heard by me on July 26, 1962.

*James G. [Signature]*, Examiner  
 New Mexico Oil Conservation Commission

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