CASE 7247: GETTY OIL COMPANY FOR A GAS WELL CLASSIFICATION, LEA COUNTY, NEW MEXICO

3)

# Case No.

# 7247

Application

Transcripts

Small Exhibits

E T C



LARRY KEHOE SECRETARY

# ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

July 20, 1981

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

| Mr. Willi              | am F. Carr  | \$    |
|------------------------|-------------|-------|
| Campbell,<br>Attorneys | Russ        | ck    |
| Post Offi              | Ge Boy 3300 |       |
| Santa Fe,              | New Mexico  | 87501 |

Re: CASE NO. 7247
ORDER NO. R=6725

Applicant:

Getty Oil Company

Dear Sir:

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

JOE D. RAMEY Director

JDR/fd

Copy of order also sent to:

Hobbs OCD X
Artesia OCD X
Aztec OCD

Other

#### STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT DIL CONSERVATION DIVISION

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

CASE NO. 7247 Order No. R-6725 NOMENCLATURE

APPLICATION OF GETTY OIL COMPANY FOR A GAS WELL CLASSIFICATION, LEA-COUNTY. NEW MEXICO.

#### ORDER OF THE DIVISION

#### BY THE DIVISION:

4

This cause came on for hearing at 9 a.m. on May 6, 1981, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 16th day of July, 1981, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

#### FINDS:

- (1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Getty Gil Company, seeks the reclassification of its State 29-J Well No. 1, an oil well located in Unit J of Section 29, Township 24 South, Range 33 East, as a retrograde gas condensate well with the 5/2 of said Section 29 to be dedicated to the well.
- (3) That maid State 29-J Well No. 1 was plugged back and completed in the Wolfcamp formation on November 3, 1980.
- (4) That based upon the completion gas-liquid ratio, the Division classified said well as an oil well and created the East Triste Draw-Wolfcamp Pool, therefor, by its Order No. R-6623, effective April 1, 1981.
- (5) That the evidence presented establishes that the State 29-3 Well No. 1 produces from a retrograde gas condensate reservoir.

|-2-|Case No. 7247 |Order No. R-6725

- (6) That suid East Triate Draw-Wolfcemp Pool should be redesignated as a gas reservoir and extended to include the entire S/2 of said Section 29.
- (7) That approval of the application and redesignation of eaid pool will not cause waste nor violate correlative rights.

#### IT IS THEREFORE ORDERED:

- (1) That the East Triste Draw-Wolfcamp Pool as previously defined and described is hereby redesignated as a gas pool rether than an uil pool.
- (2) That said East Triste Draw-Wolfcamp Pool is hereby extended to include therein the SW/4 of Section 29, Township 24 South, Range 33 East, NMPM, Lea County, New Mexico.
- (3) That the effective date of this order and the redesignation and extension included therein shall be June 1, 1981.
- (4) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

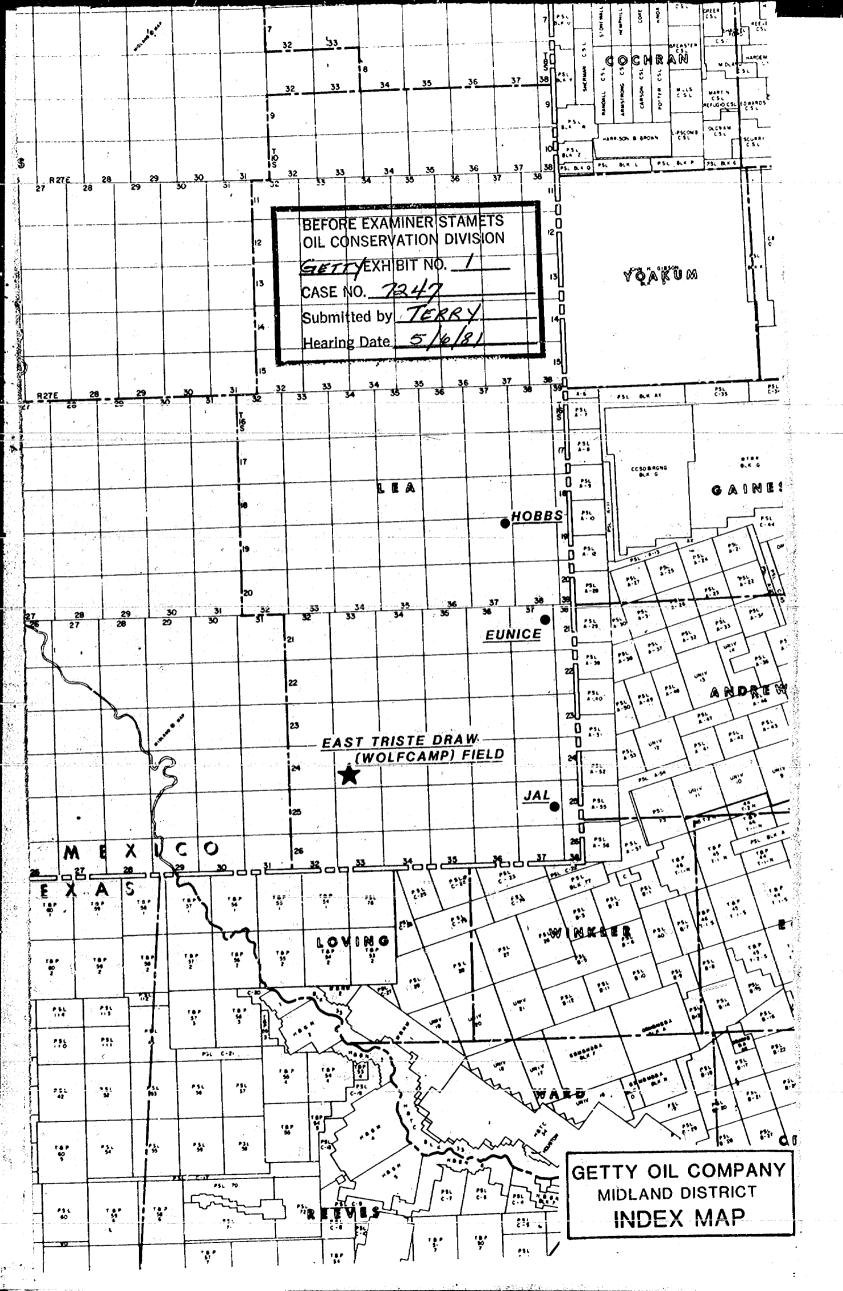
DONE at Santa Fe, New Mexico, on the day and year herein-

STATE OF NEW MEXICO OIL CONSERVATION DIVISION

JOE D. NAMEY

SEAL

fd/



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| e<br>Kansi   |  | 36 LE  | A COUNTY, NEW ME  | XICO 1  | Geffy Gif<br>7 . i . 86<br>LG 5549<br>937 Jh   | Толлас<br>. H.B.P.<br>В-399                          |   | 1              |
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BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION

GETTY EXHIBIT NO. 2

CASE NO. 7347

Submitted by TERRY

Hearing Date 5/6/8/

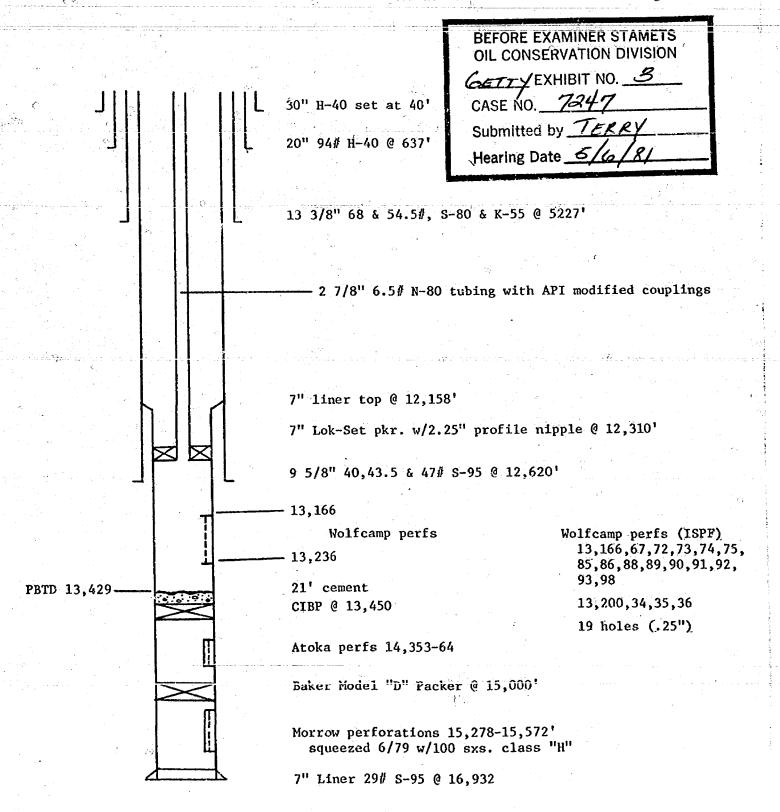


Getty Oil Company

Well Diagram: Getty State 29 "J" Well No. 1

Central Exploration and Production Division

Measurements taken from KB 23.5' above ground level.



### **@etty**

Getty Oil Company

Central Exploration and Production Division WEEKLY AVERAGE PRODUCTION

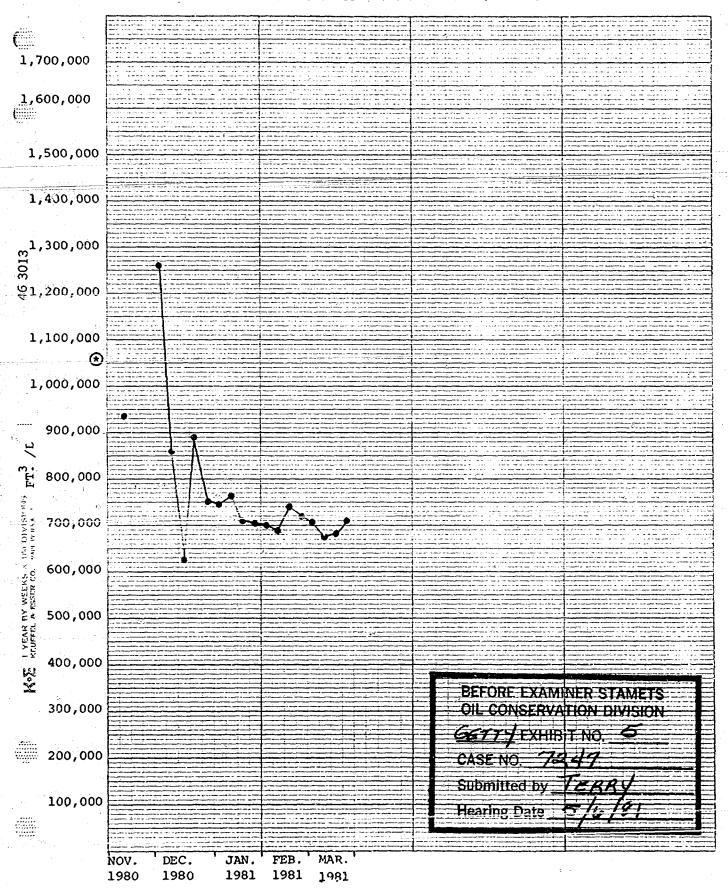
GETTY STATE 29 "J" No. 1 DATE GAS 1 CHOKE FTP WATER1 GOR 11/3/80 Initial Clean-Up and Testing 11/10/80 2270 11/64 113 936,083 8284 11/17/80 Shut-In\* 11/24/80 Shut-In\*\* 12/1/80 10/64 3260 117 3 1,263,600 10,800 12/8/80 11/64 2550 106 862,000 14 8132 12/15/80 10/64 2770 98 624,000 0 6367 12/22/80 11/64 2065 94 892,600 2.6 9496 12/29/80 11/64 1993 87 749,800 6 8618 1/5/81 11/64 1886 .87 િ 9.ેંડ્રે^. 8583 746,700 1/12/81 11/64 1740 82 763,500 8.7 9311 1/19/81 11/64 1920 85 712,100 4.4 8378 1/26/81 11/64 1820 75 705,600 5 9408 2/2/81 11/64 1725 81 702,300 3.1 8670 2/9/81 11/64 1945 73 689,500 1 9445 2/16/81 11/64 1735 82 743,500 3 9067 2/23/81 11/64 1700 76 720,100 8.6 9475 3/2/81 11/64 1620 73 708,000 9.4 9699 3/9/81 11/64 2010 675,100 78 6 8655 3/16/81 11/64 1753 74 681,700 11 9212 3/23/81 11/64 1600 74 711,800 8.5 9619

<sup>\*</sup> Shut-in 192 hours for pressure build-up maximum surface 5800 psi

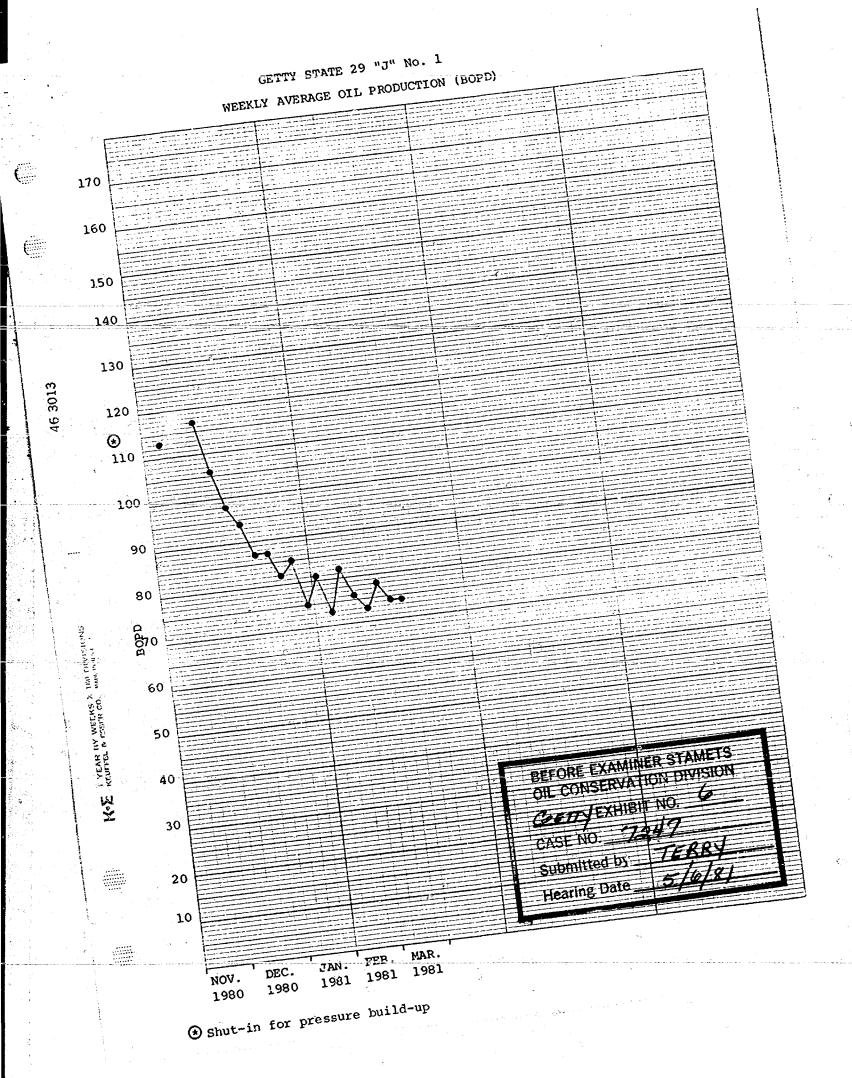
<sup>\*\*</sup> Shut-in 388 hours for pressure build-up maximum surface 6300 psi. BHP9123 psi

l Daily Rates

GETTY STATE 29 "J" No. 1 WEEKLY AVERAGE GAS PRODUCTION (FT.  $^3$ PD)



★ Shut-in for pressure build-up



> Reservoir Fluid Study GETTY OIL COMPANY State 29-"J" No. 1 Well Lea County, New Mexico RFL 80853

> > BEFORE EXAMINER STAMETS OIL CONSERVATION DIVISION CASE NO. 7347

Submitted by MC Decuer

Hearing Date 5/6

March 3, 1981

#### CORE LABORATORIES, INC.



Getty Oil Company P. O. Box 730 Hobbs, NM 88240

P. L. Moses
Manager

Attention: Mr. Jim Micikas

Subject: Reservoir Fluid Study
State 29-"J" No. 1 Well
Lea County, New Mexico
RFL 80853

#### Gentlemen:

Separator gas and liquid samples were collected from the State 29-"J" No. 1 Well by our representative on November 14, 1980. The samples were delivered to our laboratory in Dallas, where a reservoir fluid study was performed. The results of the study are presented on the following pages.

Before being sampled, the well was flowed for three days and gas and liquid rates were constantly monitored. The average gas-liquid ratio during this three-day test was 7975 standard cubic feet of separator gas per barrel of stock tank liquid. In the laboratory, it was determined that this ratio was equivalent to 5921 standard cubic feet of gas per barrel of separator liquid at 84°F. The compositions of the separator products were measured, and the well stream composition was calculated on the basis of the producing gas-liquid ratio.

The separator gas and liquid were physically recombined in the producing ratio and the resulting mixture was examined in a visual cell at the reservoir temperature of 200°F. The fluid was found to be a rich gas condensate system which had a dew point pressure of 5763 psig. Comparison of this pressure to the reported reservoir pressure of 9950 psig shows that the reservoir gas is highly undersaturated. The pressure-volume relations of the reservoir fluid were measured over a wide pressure range, and are reported on page three. The deviation factor of the gas was calculated at the dew point pressure and at all pressures above the dew point.

The reservoir fluid was subjected to a constant volume depletion process, during which the volume of retrograde liquid was measured at each depletion pressure. The maximum volume of retrograde liquid observed was 17.1 percent of the hydrocarbon pore space at 2100 psig.

Page Two

Getty Oil Company State 29-"J" No. 1 Well

The above information was sent to you in preliminary form on February 3, and we were instructed to hold the samples. Since the reservoir fluid is a rich gas condensate system with a large amount of retrograde liquid, it is recommended that a complete depletion study should be performed. This would provide you with the fluid data necessary to perform accurate reservoir engineering calculations. Please let us know if you want us to continue the study or if the samples should be discarded.

Very truly yours,

CORE LABORATORIES, INC.

James R. Fortner
Assistant Manager

Reservoir Fluid Analysis

JRF:JB:km 6cc: Addressee

**2**2

|   |  | Page 1 of 6  |
|---|--|--|
| · · · · · · · · · · · · · · · · · · ·     |  | File RFL 80853   |
| Company Getty 011 Company                 | Date Sampled                             | November 14, 1980  |
| Well State 29-"J" No. 1                   | County                                   | Lea  |
| FieldUndesignated                         | State                                    | New Mexico   |
| FORMATION                                 | CHARACTERIST                             | ICS  |
| Formation Name                            | Wa                                       | lfcamp   |
| Date First Well Completed                 |  | tober 27 , 1980  |
| Original Reservoir Pressure               | <u> </u>                                 | PSIG @ Ft.   |
| Original Produced Gas-Liquid Ratio        | #####                                    | SCF/Bb1  |
| Production Rate                           | 13                                       |  |
| Separator Pressure and Temperature        |  | PSIG °F.   |
|   | <u> </u>                                 | the state of the s |
| Liquid Gravity at 60°F.                   | _54                                      |  |
| Datum                                     | WAN ACMEDIA CONTO                        | Ft. Subsea   |
|   | CHARACTERISTIC                           | 사람들이 가장 하는 것이 없는 것이다.  |
| Elevation                                 |  | 20 GL Ft.  |
| Total Depth                               |  | 13429 Ft.  |
| Producing Interval                        |  | 166-13236 Ft.  |
| Tubing Size and Depth                     | <u>2-</u>                                | 7/8 In. to 12310 Ft.   |
| Open Flow Potential                       | er er er er er er er er er er er er er e | MMSCF/Day  |
| Last Reservoir Pressure                   | 99                                       | 50 PSIG @ 13201 Ft.  |
| Date *                                    |  | cember 5 , 1980  |
| Reservoir Temperature                     |  | 0 °F. 6 13201 Ft.  |
| Status of Well                            | Sh                                       | ut in  |
| Pressure Gauge                            | Am                                       | erada  |
|   | ING CONDITIONS                           | *  |
| Flowing Tubing Pressure                   | 22                                       | 00 PSIG  |
| Flowing Bottom Hole Pressure              |  | PSIG   |
| Primary Separator Pressure                | 79                                       | O PSIG   |
| Primary Separator Temperature             | 84                                       |  |
| Secondary Separator Pressure              |  | PSIG   |
| Secondary Separator Temperature           |  | °F.  |
| Field Stock Tank Liquid Gravity           | 54                                       | °API @ 60°F.   |
| Primary Separator Gas Production Rate     |  | 2.8 MSCF/Day   |
| Pressure Base 15.0                        |  |  |
| Temperature Base 60                       | °F.                                      | •  |
| Compressibility Factor (Fpy) 1.0          |  |  |
| Gas Gravity (Laboratory) 0.60             |  |  |
| Gas Gravity Factor (F <sub>o</sub> ) 1.23 |  |  |
|   |  | 8.22 Bbls/Day  |
| Stock Tank Liquid Production Rate 6 60    |  |  |
| Primary Separator Gas/Stock Tank Liquid   |  |  |
|   |  | 5.39 Bbls/MMSCF  |
| Sampled-by-                               | <u>Te</u>                                | fteller, Inc.  |

#### REMARKS:

These analyses, opinions or interpretations are based on observations and material supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and emissions excepted); but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representations as to the productivity, proper operation, or profitableness of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.

<sup>\*3-</sup>day averages.

Page 2 of b

File RFL 80853

Well State 29-"J" No. 1

# HYDROCARBON ANALYSES OF SEPARATOR PRODUCTS AND CALCULATED WELL STREAM

|                                       | · · · · · · · · · · · · · · · · · · · | and the second of the second o | 0          | Well Stre   | 2m             |
|---------------------------------------|---------------------------------------|--|------------|-------------|----------------|
| i i i i i i i i i i i i i i i i i i i | Separator Liquid,<br>Mol Percent      | Separator<br>Mol Percent   | Gas<br>GPM | Mol Percent | GPM            |
| Component                             | 79                                    | 0.00   | •          | 0.00        |                |
|                                       | 0.00                                  |  |            | 0.14        |                |
| Hydrogen Sulfide                      | 0.08                                  | 0.15   |            | 0.67        |                |
| Carbon Dioxide                        | 0.05                                  | 0.77   |            | 75.19       |                |
| Nitrogen                              | 19.27                                 | 84.32  | 2,618      | 9.62        | 2.623<br>1.142 |
| Methane                               | 9.77                                  | 9.60<br>3.26   | 0.915      | 4.07        | 0.257          |
| Ethane                                | 9.03                                  | 0.47   | 0.157      | 0.77        | 0.514          |
| Propane                               | 2.58                                  | 0.85   | 0.273      | 1.60        | 0.187          |
| iso-Butane                            | 6.22                                  | 0.19   | 0.071      | 0.50        | 0.259          |
| n-Butane                              | 2.37                                  | 0.20   | 0.074      | 0.70        | 0.403          |
| iso-Pentane                           | ₹3.80                                 | 0.11   | 0.046      | 0.96        | 3.708          |
| n-Pentane                             | 6.14                                  | 0.08   | 0.037      | 5.78        | 9.093          |
| Hexanes                               | 40.69                                 | 100.00   | 4.191      |             | 3.002          |
| Heptanes plus                         | 100.00                                | 100.00   | 61         |             |                |

| Properties of Heptanes plus API gravity @ 60°F. Density, Gm/Cc @ 60°F. | $\frac{46.7}{0.7931}$ 161 | 103                                      | 0.793<br>161 |
|--|---------------------------|--|--------------|
| Molecular weight   | -                         | en en en en en en en en en en en en en e |              |

Calculated separator gas gravity (air=1.000) = 0.668

Calculated gross heating value for separator gas = 1198 BTU.

per cubic foot of dry gas @ 15.025 psia and 60°F.

per cubic foot of dry gas collected @ 790 psig and 84 °F.

Primary separator gas collected @ 790 psig and 84 °F.

Primary separator liquid collected @ 790 psig and 84 °F.

Primary separator liquid collected 5921 SCF/Bbl @ 84°F.

Primary separator gas/separator liquid ratio

Primary separator liquid/stock tank liquid ratio

Primary separator liquid/stock tank liquid ratio

Primary separator gas/well stream ratio

Primary separator gas/well stream ratio

| Page_ | 3         | of          | 6     |
|-------|-----------|-------------|-------|
| File_ | RFL 80853 | }           |       |
| Well  | State 29- | :<br>-"J" 1 | No. 1 |

### PRESSURE-VOLUME RELATIONS AT 200°F. (Constant Composition Expansion)

| Pressure, PSIG          | Relative<br>Volume | Deviation Factor,  |
|-------------------------|--------------------|--|
| 10000                   | 0.8453             | 1.421  |
| 9500                    | 0.8557             | 1.367  |
| 9000                    | 0.8711             | 1.318  |
| 8500                    | 0.8844             | 1.264  |
| 8000                    | 0.8974             | 1.207  |
| 7500                    | 0.9169             | 1.157  |
| 7000                    | 0.9365             | 1.103  |
| 6600                    | 0.9540             | 1.060  |
| 6200                    | 0.9740             | 1.016  |
| 6000                    | 0.9852             | 0.995  |
| 5800                    | 0.9977             | 0.974  |
| 5763 Dew Point Pressure | 1.0000             | 0.970*   |
| 5600                    | 1.0110             |  |
| 5400                    | 1.0261             |  |
| 5000                    | 1.0605             | •  |
| 4700                    | 1.0935             | eng minger, mie awy i mily einskrift in vill 1970 intrae.    |
| 4200                    | 1.1618             |  |
| 3700                    | 1.2576             |  |
| 3200                    | 1.3995             |  |
| 2700                    | 1.6180             | $(\mathcal{A}_{i})_{i=1}^{n}$ . The second $\mathcal{A}_{i}$ |
| 2200                    | 1.9656             |  |
| 1700                    | 2.5596             |  |
| 1363                    | 3,2373             |  |
| 1142                    | 3.9071             |  |
| § 992                   | 4.5357             |  |

\*Gas formation volume factor = 1.754 MSCF/Bb1.

| Page_ | 4        | _of     | 6   |
|-------|----------|---------|-----|
| File_ | RFL 8085 | 3       |     |
| Well_ | State 29 | -"J" No | . 1 |

#### RETROGRADE CONDENSATION DURING GAS DEPLETION AT 200°F.

| Pressure, PSIG |              | grade Liquid<br>f Hydrocarbo | Volume,<br>n Pore Space |
|----------------|--------------|------------------------------|-------------------------|
| 5763 Dew Point | Pressure     | 0.0                          |                         |
| 5600           | •            | 0.5                          |                         |
| 5400           |              | 1.3                          |                         |
| 5000           |              | 4.0                          |                         |
| 4800 First Dep | letion Level | 6.2                          | •                       |
| 3900           |              | 13.5                         | والمراجع والمتناور      |
| 3000           |              | 16.6                         | e e                     |
| 2100           |              | 17.1                         | 4                       |
| 1300           |              | 16.1                         | $\mathcal{C}$           |
| 700            | 4.           | 14.9                         |                         |
| 0              |              | 12.9                         |                         |

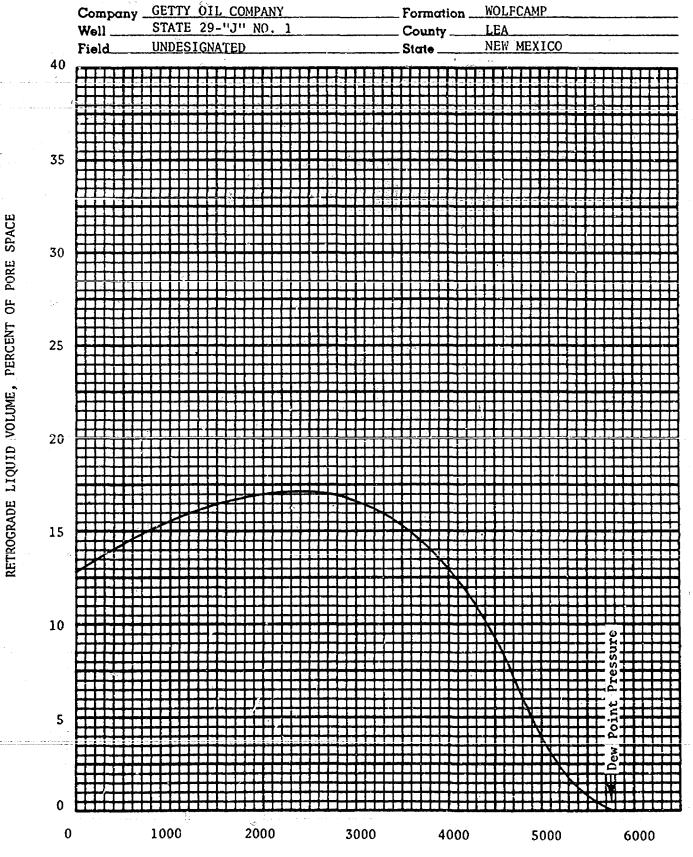
These analyses, opinions or interpretations are based on observations and material supplied by the client to whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and emissions excepted); but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representations as to the productivity, proper operation, or profitablemess of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.

Page 5 of 6 File RFL 80853

|  | \$28 cm  | DALLAS, TEAT                            |   | <i>.</i> .                                       |
|--|--|---|---|--|
|  |  | DEVIATION FACTOR,                       | Z                                       | •  |
|  |  | DEVIATION 17                            | WOLFCAMP                                |  |
|  |  | Forma                                   | tion Wolf-                              |  |
|  | YMAGN  | Count                                   | LEA VICTO                               |  |
|  | GETTY OIL COMPANY  | Count                                   | Y NEW MEXICO                            | TITLE!   |
| Company  | amate /9   | State                                   |   | ######   |
| Well   | UNDESIGNATED   |   |   | <del>*************************************</del> |
| Field  | INDESTRUCTION  |   |   | HITTHH .   |
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|  | 0  | , <del>~</del>                          | PRESSURE, PSIG                          |  |
|  |  |   |   |  |
|  |  |   |   |  |

Page 6 of 6 File RFL 80853

RETROGRADE LIQUID VOLUME



PRESSURE, PSIG

### **@etty**

Getty Oil Company

Central Exploration and Production Division P.O. Box 730 Hobbs, NM 88240

May 8, 1981

OIL CONSERVATION DIVISION

MAY 370 1981.

Mr. Richard L. Stamets Technical Support Chief Oil Conservation Division New Mexico Department of Energy and Minerals P.O. Box 2088 Santa FE, NM 87501

RECEIVED

Re: State 29 J Well No. 1, Lea County, New Mexico

Dear Mr. Stamets:

There was some confusion concerning Getty Oil Company's recommendation of the maximum efficient rate of production from the above-referenced well as presented in our testimony at the examiner hearing on May 6, 1981. We would like to offer some additional comments which may clear up some of the confusion.

As you will recall, in response to one of your questions it was stated that production from the well had not been restricted due to regulatory constraints and that presently a daily allowable of approximately 750 MCP of gas per day would be sufficient. In further testimony it was recommended that no limit be set for daily production from the well based upon our belief that ultimate recoverable reserves from the reservoir is not rate sensitive. We feel that we submitted exhibits at the hearing which supports this conclusion.

While we would have no objection to a maximum allowable of 750 MCF per day at this time, we feel that this could be unduly restrictive in the future. Although, at present we are only producing approximately 750 MCF per day, in the future we may need to produce the well at a higher rate to prevent the well bore from loading up with liquid. Also, as was pointed out in response to one of your questions, there may be other wells in the pool in the future with higher deliverability than that of the State 29 J Well No. 1. In fact, the State 29 J was produced at a rate in excess of 1,250 MCF per day for a period of time, which was in excess of the well's casing head gas allowable at the time.

We would contine to recommend that no limit be set for daily production from the State 29 J Well no. 1 and future wells in the pool. However, if the Oil Conservation Division should see fit to impose a limit then we would recommend that

Mr. Richard L. Stamets May 8, 1981 Page 2

this limit be no less than 1,250 MCF per day and that a provision for administrative approval for increasing the limit be included as a part of the order.

Yours very truly,

GETTY OIL COMPANY

Herman W. Terry
Area Engineer

HWT/lwm

cc: Mr. J. E. Eakin-Midland Mr. W. F. Carr-Campbell, Byrd, & Black

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Pege 1

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
6 May 1981

#### EXAMINER HEARING

IN THE MATTER OF:

Application of Getty Oil Company for ) a gas well classification, Lea County, New Mexico.

**CASE** 7247

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

APPEARANCES

For the Oil Conservation Division:

Ernest L. Padilla, Esq. Legal Counsel to the Division State Land Office Bldg. Santa Fe, New Mexico 37501

For the Applicant:

William F. Carr, Esq.
CAMPBELL, BYRD, & BLACK
Jefferson Place
Santa Fe, New Mexico 87501

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| 1  |  | 2                        |                                       |
|----|--|--------------------------|---------------------------------------|
| 2  | INDEX  |                          |                                       |
| 3  |  | ·                        |                                       |
| 4  | HERMAN W. TERRY                              |                          |                                       |
| 5  | Direct Examination by Mr. Carr               | 3                        |                                       |
| 6  | Cross Examination by Mr. Stamets             | ···· 8                   |                                       |
| 7  |  |                          | e e e e e e e e e e e e e e e e e e e |
| 8  | JOHN C. McDERMOTT                            |                          |                                       |
| 9  | Direct Examination by Mr. Carr               | 9                        | . *                                   |
|    |  |                          | (                                     |
| 10 | Cross Examination by Mr. Stamets             | 14                       |                                       |
| 11 |  |                          |                                       |
| 12 |  | The second of the second |                                       |
| 13 |  |                          |                                       |
| 14 | EXHIBITS                                     | . ₹                      |                                       |
| 15 |  |                          |                                       |
| 16 | Applicant Exhibit One, Map                   | 5 <sub>5</sub> ,         |                                       |
| 17 | Applicant Exhibit Two, Plat                  | 6                        |                                       |
| 18 | Applicant Exhibit Three, Diagrammatic Sketch | 6                        |                                       |
| 19 | Applicant Exhibit Four, Tabulation           | 7                        |                                       |
| 20 | Applicant Exhibit Five, Graph                |                          |                                       |
| 21 |  | 7                        |                                       |
|    | Applicant Exhibit Six, Graph                 | •                        |                                       |
| 22 | Applicant Exhibit Seven, Reservoir Study     | 11                       |                                       |
| 23 | Applicant Exhibit Eight, Cross Section       | 12                       | er<br>Solo                            |
| 24 |  |                          |                                       |
| 25 |  |                          |                                       |

| 1    |   | <b>3</b>   |
|------|---|--|
| 2    |   | MR. STAMETS: Call next Case 7247.  |
| 3    |   | MR. PADILLA: Application of Getty Oil  |
| 4    | Company for a gas wel   | l classification, Lea County, New Mexico.  |
| 5    | <u> </u>  | MR. CARR: May it please the Examiner,  |
| 6 -  | my name is William F.   | Carr, with the law firm, Campbell,   |
| 7    |   | a Fe, appearing on behalf of the applican  |
| 8    |   | We have two witnesses who need to be   |
|      |   | we have two withesses who heed to be   |
| 9    | sworn.  |  |
| 10   |   | and the state of the state of the state of the state of the state of the state of the state of the state of the<br>The state of the state |
| 11   |   | (Witnesses sworn.)   |
| 12   |   |  |
| 13   | e e   | HERMAN W. TERRY  |
| 14   | haing called ac a with  | ness and being duly sworn upon his oath,   |
| re . |   |  |
| 15   | testified as follows,   | to-wit:  |
| 16   |   |  |
| 17   | en en skriver en er fill former i de en en en en en en en en en en en en en | DIRECT EXAMINATION   |
| 18   | BY MR. CARR:  | an arrewy sinkli song a salah salah salah salah salah salah salah salah salah salah salah salah salah salah sa<br>Salah salah sa   |
| 19   | Q.  | Will you please state your full name   |
| 20   | and place of residenc   | • 6<br><b>e?</b>   |
| 21   | <b>A.</b>   | Herman W. Terry. I reside in Hobbs,  |
|      |   | Action (1. 1011).  |
| 22   | New Mexico.   |  |
| 23   | <b>Q</b>  | Mr. Terry, by whom are you employed  |
| 24   | and in what capacity?   |  |
| 25   |   | I'm employed by Getty Oil Company as   |

Alter Fill

۶.

```
Area Engineer for the Hobbs area.
                          Have you previously testified before
    this Commission and had your qualifications as a petroleum
    engineer made a matter of record?
                          Yes, I have.
6
                          Are you familiar with the application
7
    filed in this case?
                          Yes, sir, I am.
                           Are you familiar with the subject well?
10
                          Yes, sir, I am.
11
                           MR. CARR: Are the witness' qualifications
12
     acceptable?
13
                           MR. STAMETS: They are.
14
                           Will you please state what Getty seeks
15
     with this application?
16
                           We are seeking to have the State 29-J
17
    Well No. 1 reclassified from an oil well to a gas well, the
ĬŜ
     well being located in Unit J of Section 29, Township 24 South,
19
     Range 33 East.
20
                           Will you please provide the Examiner
21
     with a brief history of the subject well?
22
                           Yes, sir. The well was drilled to a
23
     TD of 17652 feet, completed in the Morrow.
24
                           The well was later recompleted to the
25
```

Atoka and neither of these completions produced gas in commercial quantities. The well was then recompleted to the Wolfcamp on October 27, 1980, through perforations 13166 to 13236. What is the present status of this well? The present -- presently the well is classified as a Wolfcamp oil well. It's been placed in the 10 East Christy Draw Wolfcamp Oil Pool. 11 And it's being operated under the 12 statewide rules for oil wells, is that correct? 13 Yes, sir, that's correct. 14 Have you prepared or had prepared under 15 your direction and supervision certain exhibits for introduction in this case? 17 Yes, sir, I have. 18 Will you please refer to what's been 19 marked for identification as Getty Exhibit Number One and 20 explain to Mr. Stamets what this shows? 21 Exhibit Number One is an index map 22 showing the location of the subject well in Lea County, New 23 The well is located approximately 29 miles to the 24 northwest of Jal, New Mexico. 25

Will you now refer to Exhibit Number

Two and review this for Mr. Stamets?

A Exhibit Number Two is a land plat showing the location of the subject well, the Getty 29-J State No. 1, located 1980 from the south line and 1980 from the east line, Section 29, Township 24 South, Range 33 East, Lea County, New Mexico.

We also show an offset well that has recently been drilled and completed, the Getty 28 State No. 1 in the adjoining section.

The A-A' refers to a cross section which will be submitted later.

Are these the only two wells that are drilled into the Wolfcamp Pool which is the subject for this hearing?

A. Yes, sir, this is the only Wolfcamp wells in the near vicinity.

Will you now refer to Getty Exhibit Number Three and review this for Mr. Stamets?

Exhibit Number Three is a diagrammatic sketch of the State 29-J Well No. 1. It shows the way the well has been plugged back. It indicates the Wolfcamp perforations at 13166 to 13236.

This also shows the previous attempts to complete in the Morrow and the Atoka?

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14 15

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7 A. Yes, sir, it does. 3 Mr. Terry, will you now review the data contained on Exhibit Number Four? 5 Exhibit Number Four is a tabulation of a; weekly average production from the State 29-J Well No. 1. It shows the rates, these are average daily rates, showing the flowing tubing pressure, water production, gas production, oil production, water production, and producing GOR. 10 I now direct your attention to Exhibits, 11 Getty Exhibits Five and Six and ask that you explain these to 12 13 Exhibits Five and Six is the information 14 from the tabulation put into graphical form. We plotted 15 weekly average gas production, cubic feet per day versus 16 17 Exhibit Number Six is weekly average 18 oil production, barrels of oil per day, plotted versus time. 19 Mr. Terry, what conclusions can you 20 draw from this data? 21 Well, from this we can see that there 22 has been no drastic reduction in the producing capacity of 23 the well. Also the producing GOR, the gravity, the liquid 24 is consistent with -- with what would be expected from a 25 gas condensate reservoir rather than an oil pool.

```
What is the cumulative production from
         the well?
                               Cumulative production as of April 1st,
        1981, 10885 barrels of oil, 97,216 Mcf gas, 732 barrels of
                              Does Getty intend to call another; wit-
       ness at this hearing to discuss other engineering considerations?
                             Yes, sir, we do.
   10
                             Were Exhibits One through Six prepared
       by you or under your direction and supervision?
  11
  12
                   A.
                             Yes, sir, they were.
  13
                             MR. CARR: I'd like to offer Exhibits
      One through Six.
  14
  15
                            MR. STAMETS: These exhibits will be
 16
      admitted.
 17
                            MR. CARR: And I have nothing further
 18
      of Mr. Terry, on direct.
 19
20
                           CROSS EXAMINATION
21
     BY MR. STAMETS:
22
                           Mr. Terry, Exhibit Number Four shows
    production. Is that the capacity of this well or is that the
23
24
    limit based on Division allowables?
25
                          This is the capacity of the well, which
```

```
is, or this is as hard as we want to pull the well, which is
    within Division allowables.
                           So you're producing something on the
     order of less than 3/4 of a million a day?
                      Yes, sir, that's correct
. 7
                           And you feel that that's an appropriate
 8
     rate for this well?
 ŷ
                           Yes, sir, we do.
10
                           Okay.
11
                           MR. STAMETS: Any other questions of
12
     this witness? He may be excused.
13
                           MR. CARR: At this time I would call
    John McDermott.
14
15
16
                           JOHN MCDERMOTT
17
    being called as a witness and being duly sworn upon his oath,
18
     testified as follows, to-wit:
19
20
                           DIRECT EXAMINATION
21
     BY MR. CARR:
22
                           Mr. McDermott, will you state your full
23
     name and place of residence?
24
                           John C. McDermott, Midland, Texas.
                           By whom are you employed and in what
                 Q.
```

**\*** \

```
10
    capacity?
                           I'm with Getty Oil Company. I'm on the
    reservoir staff in Midland.
                          Have you previously testified before
6
    this Commission?
7
                           No, I have not.
                           Would you review for the Examiner your
    educational background and your work experience?
10
                           I graduated from Texas Tech University
    with a Bachelor's degree in petroleum engineering, and since
ĺĺ
12
    that time I've been with Getty in various engineering capacities,
13
    drilling, production, and reservoir.
14
                           Are you familiar with the well which
15
    is the subject of this hearing?
16
                           Yes, sir.
17
                           Are you familiar with the application
18
     filed in this case?
                           Yes, sir.
                           MR. CARR: Are the witness' qualifications
20
21
     acceptable?
22
                           MR. STAMETS: They are.
23
                           Have you prepared or had prepared
24
     certain exhibits for introduction in this case?
25
                           Yes, I have.
```

\*

Will you please refer to what's been marked as Getty Exhibit Number Seven, identify this, and explain what it is and what it shows?

A. Exhibit Seven is the fluids reservoir study done for Getty by CORE Laboratories in Dallas.

The first page of this exhibit summarizes the sampling procedures and results. Separator gas and liquid samples were collected from the well by Tefteller, Incorporated, of Midland on November 14th, 1980. They were taken by Tefteller to CORE Lab in Dallas for analysis and a P/Z study.

The separator gas and liquid were recombined to the producing GOR and placed in a visual cell at the reservoir temperature of 200 degrees Fahrenheit. The fluid exhibited a dew point pressure of 5763 psig. Comparing this with the original reservoir pressure of 9950 psig indicates that the fluid is highly undersaturated and existed originally as a single phase gas in the reservoir.

A constant volume depletion study was also done, which indicated a maximum retrograde liquid saturation of 17.1 percent at 2100 psig.

Page three of this exhibit gives the basic well data and the sampling conditions. The well was first completed in the Wolfcamp October 27th, 1980, through

| ı            | 12  |
|--------------|---|
| 2            | producing interval 13,166 to 13,236 feet. The stock tank      |
| 3            | liquid gravity was 54 degrees API, 60 degrees Fahrenheit and  |
| 4            | the separator gas to stock tank gas ratio was 7975 standard   |
| 5_           | cubic feet per barrel.  |
| 6            | Page four of the exhibit gives the                            |
| <b>7</b> , 1 | analysis of the liquid and the gas samples taken and the cal- |
| 8            | culated flowing well stream analysis.                         |
| 9            | Okay, the next page shows the pressure/                       |
| 10           | volume relationship, and 200 degrees Fahrenheit and indicates |
| 11           | a dew point pressure that was observed.                       |
| 12           | The next page is a tabulation of the                          |
| 13           | retrograde liquid saturation at various pressures below the   |
| 14           | dew point.  |
| 15           | The next two graphs are simply graphical                      |
| 16           | representations of data tabulated on the previous pages.      |
| 17           | Ω Mr. McDermott, will you now refer to                        |
| 18           | Getty Exhibit Number Eight and explain to the Examiner what   |
| 19           | this is and what it shows?                                    |
| 20           | A. Exhibit Eight is a two-well cross                          |
| 21           | section, A-A', referenced back to that Exhibit Two which      |
| 22           | showed the section line.                                      |
| <b>23</b>    | This exhibit was prepared and correlated                      |
| 24           | by our geological staff in Midland.                           |
| 25           | The well log on the left is that of the                       |

| 1  | 13 · · · · · · · · · · · · · · · · · · ·                      |
|----|---|
| 2  | State 29-J and the State 28 well log is on the right.         |
| 3  | And the purpose of presenting this                            |
| 4  | exhibit is to show that the porous interval that's perforated |
| 5  | in the 29-J is not present in the 28.                         |
| 6  | Q Is this evidence that you're dealing                        |
| 7  | with a small reservoir?                                       |
| 8  | A. Yes, it is.  |
| 9  | Q Do you have any other control in the                        |
| 10 | immediate area from which you could conclude the limits of    |
| 11 | the reservoir?  |
| 12 | A. No, we don't at this time.                                 |
| 13 | Q Do you have sufficient data to clearly                      |
| 14 | identify establish reservoir size?                            |
| 15 | A. No, we don't at this time.                                 |
| 16 | Q In your opinion would the reservoir be                      |
| 17 | rate sensitive?   |
| 18 | A. No, and I base that opinion on the                         |
| 19 | current calculated flowing bottom hole pressure of 3500 psig, |
| 20 | approximately, which is well below the dew point pressure of  |
| 21 | 5763, and production history to date shows no drastic decline |
| 22 | in gas deliverability.  |
| 23 | Q. Do you have a recommendation to make to                    |
| 24 | the Examiner concerning the maximum rates of withdrawal from  |
| 25 | this reservoir?   |

14 We recommend that no limit be placed on 3 a maximum rate. O In your opinion will granting this 5 application be in the best interest of conservation, the prevention of waste, and protection of correlative rights? Yes, sir. Have you reviewed Exhibits Seven and Eight and can you testify as to their accuracy? 10 Yes, sir, 11 MR. CARR: At this time, Mr. Stamets, 12 we would offer Getty Exhibits Seven and Eight. 13 MR. STAMETS: These exhibits will be 14 admitted. 15 MR, CARR: I have nothing further of 16 Mr. McDermott on direct. 17 18 CROSS EXAMINATION 19 BY MR. STAMETS: 20 Mr. McDermott, in cross examining Mr. Terry I felt that Getty was of the opinion that 750,000 a 21 day was an appropriate producing limit for this particular well, and then you indicated there should be no producing 23 24 limit. 25 I'm a little confused at what appears

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### CERTIFICATE

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

Sally W. Boyd COR

I do hereby certify that the foregoing is a complete record of the proceedings in , Examiner Oil Conservation Division

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION STATE LAND OFFICE BLDG. SANTA FE, NEW MEXICO 6 May 1981

### EXAMINER HEARING

IN THE MATTER OF:

Application of Getty Oil Company for ) a gas well classification, Lea County, New Mexico.

CASE 7247

BEFORE: Richard L. Stamets

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TRANSCRIPT OF HEARING

13 14

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APPEARANCES

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For the Oil Conservation Division:

Ernest L. Padilla, Esq. Legal Counsel to the Division State Land Office Bldg. Santa Fe, New Mexico 87501

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For the Applicant:

William F. Carr, Esq. CAMPBELL, BYRD, & BLACK Jefferson Place Santa Fe, New Mexico 87501

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| HERMAN W. TERRY  Direct Examination by Mr. Carr  Cross Examination by Mr. Stamets  JOHN C. McDERMOTT  Direct Examination by Mr. Carr  Cross Examination by Mr. Carr  Cross Examination by Mr. Stamets  14  EXHIBITS  Applicant Exhibit One, Map  Applicant Exhibit Two, Plat  Applicant Exhibit Three, Diagrammatic Sketch  Applicant Exhibit Four, Tabulation  Applicant Exhibit Five, Graph  Applicant Exhibit Six, Graph  Applicant Exhibit Six, Graph  Applicant Exhibit Six, Graph  Applicant Exhibit Six, Graph  Applicant Exhibit Six, Graph  Applicant Exhibit Six, Graph  Applicant Exhibit Six, Graph  Applicant Exhibit Six, Graph  Applicant Exhibit Six, Graph  Applicant Exhibit Six, Graph  Applicant Exhibit Seven, Reservoir Study  Applicant Exhibit Eight, Cross Section  12  | 1  |  |  |               | 2  |          |
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| JOHN C. McDERMOTT  Direct Examination by Mr. Carr  Cross Examination by Mr. Stamets  Cross Examination by Mr. Stamets  Mr. | 5  | Direct Exa   | mination by Mr   | . Carr        |  |          |
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| 23 Applicant Exhibit Eight, Cross Section 12   | 21 | Applicant Exhibit Six,   | Graph  |               | V. 7                                     |          |
| 24   | 22 | Applicant Exhibit Seve   | n, Reservoir S   | <b>£</b> udy  | 11                                       |          |
|  | 23 | Applicant Exhibit Eigh   | t, Cross Secti   | on            | 12                                       |          |
| 25   | 24 | <u> </u>   | and the second s | , <del></del> |  |          |
|  | 25 |  | te.  | 8             | en en en en en en en en en en en en en e |          |

1 MR. STAMETS: Call next Case 7247. 3 MR. PADILIA: Application of Getty 011 Company for a gas well classification, Lea County, New Mexico. 5 MR. CARR: May it please the Examiner, 6 my name is William F. Carr, with the law firm, Campbell, 7 Byrd, and Black, Santa Fe, appearing on behalf of the applicant. We have two witnesses who need to be 9 sworn. 10 11 (Witnesses sworn.) 12 13 HERMAN W. TERRY 14 being called as a witness and being duly sworn upon his oath, testified as follows, to-wit: 16 17 DIRECT EXAMINATION 18 BY MR. CARR: 19 Will you please state your full name 20 and place of residence? 21 Herman W. Terry. I reside in Hobbs, 22 New Mexico. 23 Mr. Terry, by whom are you employed 24 and in what capacity? I'm employed by Getty Oil Company as

| 1  | 4  |
|----|--|
| 2  | Area Engineer for the Hobbs area.                              |
| 3  | Q Have you previously testified before                         |
| 4  | this Commission and had your qualifications as a petroleum     |
| 5  | engineer made a matter of record?                              |
| 6  | A. Yes, I have.  |
| 7  | Q Are you familiar with the application                        |
| 8  | filed in this case?  |
| 9  | A. Yes, sir, I am.   |
| 10 | Q Are you familiar with the subject well?                      |
| 11 | A. Yes, sir, I am.   |
| 12 | MR. CARR: Are the witness' qualifications                      |
| 13 | acceptable?  |
| 14 | MR. STAMETS: They are.   |
| 15 | Q. Will you please state what Getty seeks                      |
| 16 | with this application?   |
| 17 | A. We are seeking to have the State 29-J                       |
| 18 | :Well No. 1 reclassified from an oil well to a gas well, the   |
| 19 | well being located in Unit J of Section 29, Township 24 South, |
| 20 | Range 33 East.   |
| 21 | Q Will you please provide the Examiner                         |
| 22 | with a brief history of the subject well?                      |
| 23 | A. Yes, sir. The well was drilled to a                         |
| 24 | TD of 17652 feet, completed in the Morrow.                     |
| 25 | The well was later recompleted to the                          |

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Mexico. The well is located approximately 29 miles to the

Will you now refer to Exhibit Number

northwest of Jal, New Mexico.

24

to complete in the Morrow and the Atoka?

1 Λ. 7 Yes, sir, it does. 3 Mr. Terry, will you now review the data contained on Exhibit Number Four? Exhibit Number Four is a tabulation of a:weekly average production from the State 29-J Well No. 1. It shows the rates, these are average daily rates, showing the flowing tubing pressure, water production, gas production, oil production, water production, and producing GOR. 10 I now direct your attention to Exhibits, 11 Getty Exhibits Five and Six and ask that you explain these to 12 13 Exhibits Five and Six is the information 14 from the tabulation put into graphical form. We plotted 15 weekly average gas production, cubic feet per day versus 17 Exhibit Number Six is weekly average 18. oil production, barrels of oil per day, plotted versus time. 19 Mr. Terry, what conclusions can you 20 draw from this data? 21 Well, from this we can see that there 22 has been no drastic reduction in the producing capacity of 23 the well. Also the producing GOR, the gravity, the liquid 24 is consistent with -- with what would be expected from a gas condensate reservoir rather than an oil pool.

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is, or this is as hard as we want to pull the well, which is 3 within Division allowables. So you're producing something on the 5 order of less than 3/4 of a million a day? 6 Yes, sir, that's correct. Aic o 7 And you feel that that's an appropriate 8 rate for this well? Yes, sir, we do. 10 Okay. 11 MR. STAMETS: Any other questions of 12 this witness? He may be excused. 13 MR. CARR: At this time I would call 14 John McDermott. 15 16 JOHN MCDERMOTT 17 being called as a witness and being duly sworn upon his oath, 18 testified as follows, to-wit: 19 20 DIRECT EXAMINATION 21 BY MR. CARR: 22 Mr. McDermott, will you state your full 23 name and place of residence? 24 John C. McDermott, Midland, Texas. By whom are you employed and in what

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10
2
    capacity?
3
                           I'm with Getty Oil Company. I'm on the
    reservoir staff in Midland.
                           Have you previously testified before
    this Commission?
 7
                           No, I have not.
8
                           Would you review for the Examiner your
    educational background and your work experience?
10
                           I graduated from Texas Tech University
11
    with a Bachelor's degree in petroleum engineering, and since
12
    that time I've been with Getty in various engineering capacities,
13
    drilling, production, and reservoir.
14
                           Are you familiar with the well which
15
    is the subject of this hearing?
16
                           Yes, sir.
17
                         Are you familiar with the application
18
    filed in this case?
19
                          Yes, sir.
20
                           MR. CARR: Are the witness' qualifications
21
    acceptable?
22
                           MR. STAMETS: They are.
23
                           Have you prepared or had prepared
                 Q.
    certain exhibits for introduction in this case?
25
                           Yes, I have.
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Q Will you please refer to what's been marked as Getty Exhibit Number Seven, identify this, and explain what it is and what it shows?

A. Exhibit Seven is the fluids reservoir study done for Getty by CORE Laboratories in Dallas.

The first page of this exhibit summarizes the sampling procedures and results. Separator gas and liquid samples were collected from the well by Tefteller, Incorporated, of Midland on November 14th, 1980. They were taken by Tefteller to CORE Lab in Dallas for analysis and a P/Z study.

The separator gas and liquid were recombined to the producing GOR and placed in a visual cell at the reservoir temperature of 200 degrees Fahrenheit. The fluid exhibited a dew point pressure of 5763 psig. Comparing this with the original reservoir pressure of 9950 psig indicates that the fluid is highly undersaturated and existed originally as a single phase gas in the reservoir.

A constant volume depletion study was also done, which indicated a maximum retrograde liquid saturation of 17.1 percent at 2100 psig.

Page three of this exhibit gives the basic well data and the sampling conditions. The well was first completed in the Wolfcamp October 27th, 1980, through

| 1  | 12  |
|----|---|
| 2  | producing interval 13,166 to 13,236 feet. The stock tank      |
| 3  | liquid gravity was 54 degrees API, 60 degrees Fahrenheit and  |
| 4  | the separator gas to stock tank gas ratio was 7975 standard   |
| 5  | cubic feet per barrel.  |
| 6  | Page four of the exhibit gives the                            |
| 7  | analysis of the liquid and the gas samples taken and the cal- |
| 8  | culated flowing well stream analysis.                         |
| 9  | Okay, the next page shows the pressure/                       |
| 10 | volume relationship, and 200 degrees Fahrenheit and indicates |
| 11 | a dew point pressure that was observed.                       |
| 12 | The next page is a tabulation of the                          |
| 13 | retrograde liquid saturation at various pressures below the   |
| 14 | dew point.  |
| 15 | The next two graphs are simply graphical                      |
| 16 | representations of data tabulated on the previous pages.      |
| 17 | Q Mr. McDermott, will you now refer to                        |
| 18 | Getty Exhibit Number Eight and explain to the Examiner what   |
| 19 | this is and what it shows?                                    |
| 20 | A Exhibit Eight is a two-well cross                           |
| 21 | section, A-A', referenced back to that Exhibit Two which      |
| 22 | showed the section line.                                      |
| 23 | This exhibit was prepared and correlate                       |
| 24 | by our geological staff in Midland.                           |

The well log on the left is that of the

State 29-J and the State 28 well log is on the right. And the purpose of presenting this exhibit is to show that the porous interval that's perforated in the 29-J is not present in the 28. Is this evidence that you're dealing with a small reservoir? Yes, it is. Do you have any other control in the immediate area from which you could conclude the limits of the reservoir? No, we don't at this time. Do you have sufficient data to clearly identify -- establish reservoir size? No, we don't at this time. In your opinion would the reservoir be rate sensitive? No, and I base that opinion on the current calculated flowing bottom hole pressure of 3500 psig, approximately, which is well below the dew point pressure of 5763, and production history to date shows no drastic decline in gas deliverability.

the Examiner concerning the maximum rates of withdrawal from this reservoir?

| 1  | 14   |
|----|--|
| 2  | A We recommend that no limit be placed on                  |
| .3 | a maximum rate.  |
| 4  | Q. In your opinion will granting this                      |
| 5  | application be in the best interest of conservation, the   |
| 6  | prevention of waste, and protection of correlative rights? |
| 7  | A. Yes, sir.   |
| 8  | Q. Have you reviewed Exhibits Seven and                    |
| 9  | Eight and can you testify as to their accuracy?            |
| 10 | A. Yes, sir.   |
| 11 | MR. CARR: At this time, Mr. Stamets,                       |
| 12 | we would offer Getty Exhibits Seven and Eight.             |
| 13 | MR. STAMETS: These exhibits will be                        |
| 14 | admitted.  |
| 15 | MR. CARR: I have nothing further of                        |
| 16 | Mr. McDermott on direct.                                   |
| 17 |  |
| 18 | CROSS EXAMINATION  |
| 19 | BY MR. STAMETS:  |
| 20 | Q. Mr. McDermott, in cross examining Mr.                   |
| 21 | Terry I felt that Getty was of the opinion that 750,000 a  |
| 22 | day was an appropriate producing limit for this particular |
| 23 | well, and then you indicated there should be no producing  |
| 24 | limit.   |
| 25 | I'm a little confused at what appears                      |

15 to be a dichotomy of answers. 3 Up to the rate we're producing at we're seeing no limit on the deliverability due to the retrograde affect. So if you had 750 limit and an option 7 to go higher with an application directly to the Division, would that resolve your problems? 9 Oh, for this well it would be. Other 10 wells in the same field, assuming we get some, might have 11 higher deliverability than this one. 12 MR. STAMETS: Any other questions of 13 this witness? He may be excused. 14 Anything further in this case? 15 MR. CARR: Nothing further. 16 MR. STAMETS: The case will be taken 17 under advisement. 18 19 (Hearing concluded.) 20 21 22 23 24 25

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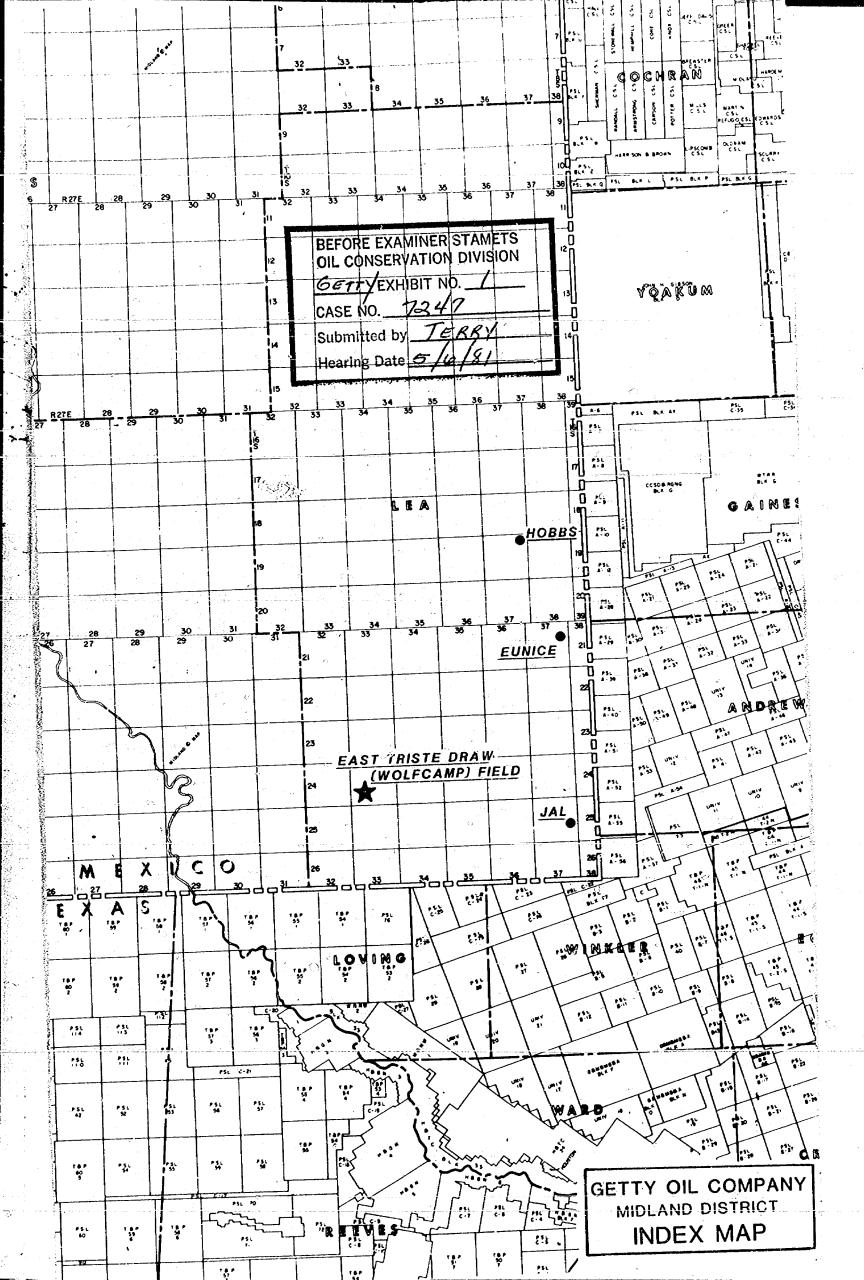
### CERTIFICATE

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

Sully W. Boy CSR

Oil Conservation Division Examiner

SALLY W. BOYD, C.S.
Rt. I Box 193-B
Sunta Fe, New Mexico 17301
Phone (503) 455-7409



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|                                   | Amaco<br>10 1 - 93<br>19202<br>4/5.                                       | State   | SEC. 28, T248,  | RSSE  | \$12 \$0 1 - 23 52   MTS<br>  2 - 1 - 61<br>  5 - 1 - 61<br>  \$160   | U.S. MI<br>DiamondE, Half, Inc. (\$) U.S.  |                     |
|                                   | Amece<br>10- 1- as  | LG 5510 Centi.  | LEA COUNTY, N   | H.Ö.P. 1 10 10 10   | MTS Pogo Prod.  | Superior   | S                   |
|                                   | 0' 1' 83<br>19202<br>⊚' BM  | State State   | \$10£0  | 8-732   | MTS 29127   | 19658  |                     |
|                                   | 25  | 11 3545 0 15 356<br>10 5105 0 16 30<br>10 16 16 17 30<br>10 17 16 | CAN CAR CAR   | 28 A  | [25 127<br>⊕ Success St. 155105 St | 26 10 24   | · ·                 |
| 77.00                             | R.S. Hell<br>Andre USA<br>O 10139<br>DA 7-1-66 U.S.                       | Serrie J  | T ®   | //%/>///://////////////////////////////   | 010244<br>Design MTS<br>La see MTS  | U.S.   |                     |
| imoco                             |   | ETTY 29 STATE "J"   |   | Geਨy<br>(Amoco)<br>3 - 1 - 91<br>1-5289   | Mobil SINGOII<br>2-1-82 In-1-89<br>1-6944   1-7138<br>37 56   14052   | Superior<br>1 - 1 - 94<br>19858  | 4                   |
| \$9202                            | 8E  | 80' FSL & 1980' FEI<br>C. 29, T248, R\$3E   | •   | O Trista - Se."   | 1 1 1 1 1   | 35   | ,                   |
|                                   | LE  | A COUNTY, NEW MI  | EXICO   | Gefty Oil<br>7. 1. 00<br>16.5549<br>937.15  | Tenneco<br>H.B.P.<br>B-399  | 33   | 1                   |
|                                   | Seen.   | fi 3514 4<br>10 5130<br>002 74 61   | Same  | Seeding   | Mobil 2-1-82 L-6944 State   | u.s. 🐃   | Ė.                  |
| HANL<br>tel                       | YONES PET.  | Gulf 18:182   |   | Delbourd Phillips   | Phillips  | HNG 12 Mesa Pet. (Michael)   |                     |
|                                   | 1+ (1+ #3<br>15312  | Gulf 1 1.182<br>2:1:84 15320  | Culf (1984) 71984 | 19659   | 19659   | .0   | F)                  |
|                                   | <b>1</b>  | mai d 6   | 5 A 4   | 4   | 3   | 2 Hing<br>Bell Lake<br>- St.   |                     |
| 5 S. W. W.                        |   | 1994 B  |   |   | 5   | 3  |                     |
| otes Pet.                         | U.S.  | U.S.<br>Dulf  | U.S.<br>Sun   | 2.5 ·   | U.S.<br>Sun   | Stote  | _                   |
| 1 · 83                            | Yotes Pet.<br> -  | 2 1 54 W  | 10 · 1 · 85   | 9-1-85<br>26078   | 9 -1 -95<br>26078   | C Mark annua 19899 - 8160 Cit  |                     |
| Salvas and a                      | 12  | unu A 7   | 8   | 9   | 10  | 10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10.737<br>10 |                     |
| well ales                         |   | nnu i   | _ Santana  Angie - 8449 El 3440 F0 5211 0-15611 U.S. 0(A41) - Si  |   |   | HNG<br>7:1-87<br>80406   |                     |
| 0/A 8 14 67                       | U.S.  | 2.U   | U.S. 0/A417-61  | U.S. Amer Quosers   | <i>G.</i> 5.  |  | <br> -<br> -        |
| iperior<br>                       | Meso Pet.<br>6 - 1 - 82<br>15911<br>5.81 John Fed<br>T0 5060<br>DAW 72 62 | Yoles Pel   | HNGOi)<br>10 /1- 85<br>24 994   | G.T.Abell, Eef.<br>6 7 7 81<br>1 - 6828<br>10 92  | Superior<br>8 - 3 - 65<br>26079   | Johnston<br>6-1-96 Amoco<br>8-6-48 12-1-83<br>   |                     |
| HI OTH                            | Superior 1  | 18 از سنه   | ΪŻ  | O<br>Par<br>Proper St. 16   | 150 424   | 14   | 1                   |
| 07 1996<br>170 4996               | 7- 1-82   Ratoil<br>15910   Union-Fed<br>LTO 4957<br>  OIA 9-18-18        | MWL 7   | Honkomer<br>Boss-fed  |   | 33 MO RAD U.S.  |  |                     |
| 101.0                             | Using Us  | U.S.  | U.S DAG S   | See 25  | Texaco  | U.S.   | +                   |
| Superior<br>1 · 1 · 62<br>15 • 12 | Union   Superior   7-1-62   15912   | Yates Pet.  | <b>⊗</b> 1°   | G,L Buckle<br>HNG Oil Her Mail 'An<br>(0- 1-85 '0-85 19 4 3 8 4 8 1 8 1 8 1 8 1 8 1 8 1 8 1 8 1 8 1 | 0.1.73  | Amoco<br>12 - 1 - 63<br>19623  |                     |
| Heill.Jr                          | Yotes   | 100 - 100 - 19  | HNG 04<br>10:1: 65<br>26:994<br>20  | HNG CHI 1, 1518<br>10 - 1 - 85 PA 6 - 20 - 60<br>263 94 94 6 - 20 - 60                              | 22  | 23   | 1                   |
| Yoles<br>  Pel                    |   | Mesa Pet.   | .\  |   | 8TA, etal<br>8 - 10 - 63  | . Hill & Macker  | <u> </u> ;          |



Getty Oil Company

Well Diagram: Getty State 29 "J" Well No. 1

Central Exploration and Production Division

Measurements taken from KB 23.5' above ground level.

BEFORE EXAMINER STAMETS OIL CONSERVATION DIVISION GETT EXHIBIT NO. 3 CASE NO. 7347 30" H-40 set at 401 Submitted by TERKY 20" 94# H-40 @ 6371 Hearing Date 13 3/8" 68 & 54.5#, S-80 & K-55 @ 5227' 2 7/8" 6.5# N-80 tubing with API modified couplings 7" liner top @ 12,158' 7" Lok-Set pkr. w/2.25" profile nipple @ 12,310' 9 5/8" 40,43.5 & 47# S-95 @ 12,620' 13,166 Wolfcamp perfs (ISPF) Wolfcamp perfs 13,166,67,72,73,74,75, 13,236 85,86,88,89,90,91,92, 93,98 21' cement PBTD 13,429 13,200,34,35,36 CIBP @ 13,450 19 holes (.25") Atoka perfs 14,353-64 Baker Model "D" Packer @ 15,000' Morrow perforations 15,278-15,572' squeezed 6/79 w/100 sxs. class "H" 7" Liner 29# S-95 @ 16,932

## **@etty**

Getty Oil Company

Central Exploration and Production Division WEEKLY AVERAGE PRODUCTION

GETTY STATE 29 "J" No. 1

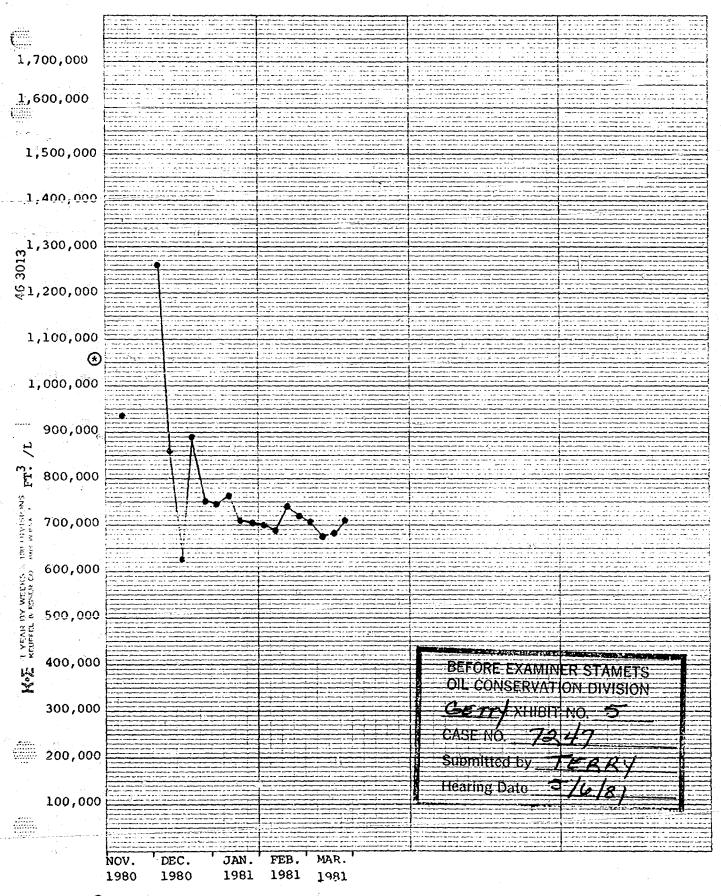
| DATE       | CHOKE        | FTP      | <u>01L</u> | <u>GAS</u> 1   | WATER | GOR    |
|------------|--------------|----------|------------|--|-------|--------|
| 11/3/80    | Initial Clea | n-Up and | Testing    | reservation of the second of t |       | 2      |
| 11/10/80   | 11/64        | 2270     | 113        | 936,083  | 1     | 8284   |
| 11/17/80 - | Shut-In*     | **       |            | *  |       |        |
| 11/24/80   | Shut-In**    |          |            |  |       |        |
| 12/1/80    | 10/64        | 3260     | 117        | 1,263,600  | 3     | 10,800 |
| 12/8/80    | 11/64        | 2550     | 106        | 862,000  | 14    | 8132   |
| 12/15/80   | 10/64        | 2770     | 98         | 624,000  | 0     | 6367   |
| 12/22/80   | 11/64        | 2065     | 94         | 892,600  | 2.6   | 9496   |
| 12/29/80   | 11/64        | 1993     | 87         | 749,800  | 6     | 8618   |
| 1/5/81     | 11/64        | 1886     | .87        | 746,700  | 9.3   | 8583   |
| 1/12/81    | 11/64        | 1740     | 82         | 763,500  | 8.7   | 9311   |
| 1/19/81    | 11/64        | 1920     | 85         | 712,100  | 4.4   | 8378   |
| 1/26/81    | 11/64        | 1820     | 75         | 705,600  | 5     | 9408   |
| 2/2/81     | 11/64        | 1725     | 81         | 702,300  | 3.1   | 8670   |
| 2/9/81     | 11/64        | 1945     | 73         | 689,500  | 1     | 9445   |
| 2/16/81    | 11/64        | 1735     | 82         | 743,500  | 3 ·   | 9067   |
| 2/23/81    | 11/64        | 1700     | 76         | 720,100  | 8.6   | 9475   |
| 3/2/81     | 11/64        | 1620     | 73         | 708,000  | 9.4   | 9699   |
| 3/9/81     | 11/64        | 2010     | 78         | 675,100  | 6     | 8655   |
| 3/16/81    | 11/64        | 1753     | 74         | 681,700  | 11    | 9212   |
| 3/23/81    | 11/64        | 1600     | 74         | 711,800  | 8.5   | 9619   |
|            |              |          |            |  |       |        |

<sup>\*</sup> Shut-in 192 hours for pressure build-up maximum surface 5800 psi

<sup>\*\*</sup> Shut-in 388 hours for pressure build-up maximum surface 6300 psi. BHP9123 psi

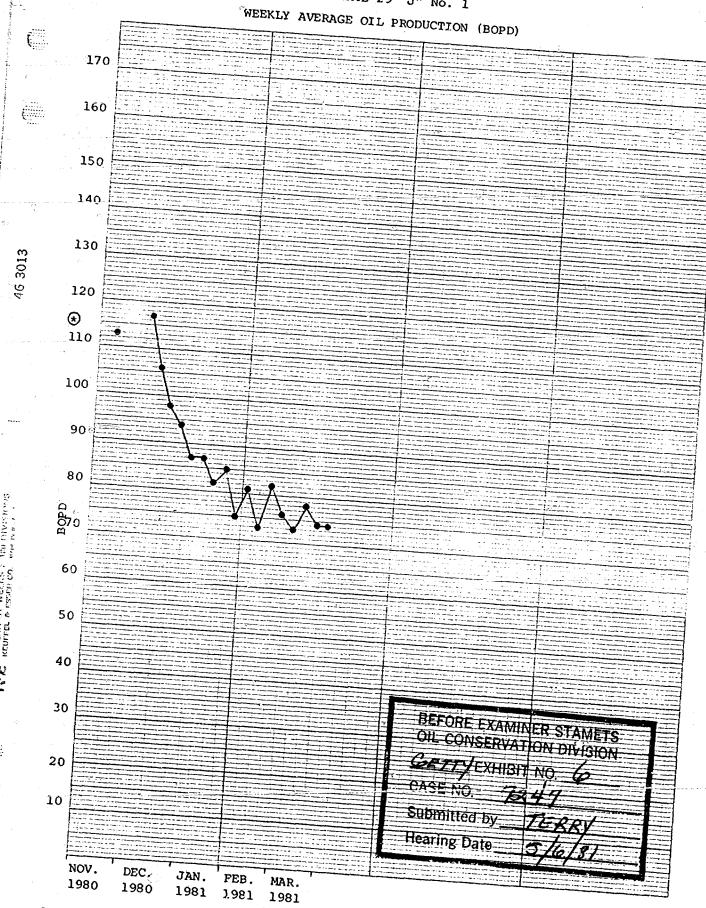
l Daily Rates

GETTY STATE 29 "J" No. 1 WEEKLY AVERAGE GAS PRODUCTION (FT. 3PD)



★ Shut-in for pressure build-up

GETTY STATE 29 "J" No. 1



★ Shut-in for pressure build-up

\*\*\*\*\*\*

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS 75247

GETTY OIL COMPANY
State 29-"J" No. 1 Well
Lea County, New Mexico
RFL 80853

BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION

CETTY EXHIBIT NO. 7

CASE NO. 7247
Submitted by Mc Deruser

Hearing Date 5/6/8/

March 3, 1981

CORE LABORATORIES, INC.



Getty Oil Company P. O. Box 730 Hobbs, NM 88240

P. L. Moses Manager Reservoir Fluid Analysis

Attention: Mr. Jim Micikas

Subject: Reservoix Fluid Study
State 29-"J" No. 1 Well
Lea County, New Mexico
RFL 80853

#### Gentlemen:

Separator gas and liquid samples were collected from the State 29-"J" No. 1 Well by our representative on November 14, 1980. The samples were delivered to our laboratory in Dallas, where a reservoir fluid study was performed. The results of the study are presented on the following pages.

Before being sampled, the well was flowed for three days and gas and liquid rates were constantly monitored. The average gas-liquid ratio during this three-day test was 7975 standard cubic feet of separator gas per barrel of stock tank liquid. In the laboratory, it was determined that this ratio was equivalent to 5921 standard cubic feet of gas per barrel of separator liquid at 84°F. The compositions of the separator products were measured, and the well stream composition was calculated on the basis of the producing gas-liquid ratio.

The separator gas and liquid were physically recombined in the producing ratio and the resulting mixture was examined in a visual cell at the reservoir temperature of 200°F. The fluid was found to be a rich gas condensate system which had a dew point pressure of 5763 psig. Comparison of this pressure to the reported reservoir pressure of 9950 psig shows that the reservoir gas is highly undersaturated. The pressure-volume relations of the reservoir fluid were measured over a wide pressure range, and are reported on page three. The deviation factor of the gas was calculated at the dew point pressure and at all pressures above the dew point.

The reservoir fluid was subjected to a constant volume depletion process, during which the volume of retrograde liquid was measured at each depletion pressure. The maximum volume of retrograde liquid observed was 17.1 percent of the hydrocarbon pore space at 2100 psig.

Getty 011 Company State 29-"J" No. 1 Well Page Two

The above information was sent to you in preliminary form on February 3, and we were instructed to hold the samples. Since the reservoir fluid is a rich gas condensate system with a large amount of retrograde liquid, it is recommended that a complete depletion study should be performed. This would provide you with the fluid data necessary to perform accurate reservoir engineering calculations. Please let us know if you want us to continue the study or if the samples should be discarded.

Very truly yours,

CORE LABORATORIES, INC.

James R. Fortner Assistant Manager

Reservoir Fluid Analysis

James R. Fortue

JRF:JB:km 6cc: Addressee

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## CORE LABORATORIES, INC. Petroleum Reservoir Engineering DALLAS, TEXAS 78247

|   | Page 1 of 6                              |
|---|--|
|   | File RFL 80853                           |
| Company Getty Oil Company Date                | Sampled November 14, 1980                |
| Well State 29-"J" No. 1 County                | y Lea "                                  |
| Field Undesignated State                      | New Mexico                               |
| FORMATION CHARAC                              | CTERISTICS                               |
| Formation Name                                | Wolfcamp                                 |
| Date First Well Completed                     | October 27 , 1980                        |
| Original Reservoir Pressure                   | PSIG @ Ft.                               |
| Original Produced Gas-Liquid Ratio            | SCF/Bb1                                  |
| Production Rate                               | 135 Bbls/Day                             |
| Separator Pressure and Temperature            | PSIG °F.                                 |
| Liquid Gravity at 60°F.                       | 54 °API                                  |
| Datum   | Ft, Subsea                               |
| WELL CHARACT                                  |  |
| Elevation                                     | 3520 GL Ft.                              |
| Total Depth                                   | PB13429 Ft.                              |
| Producing Interval                            | 13166-13236 Ft.                          |
|   | 2-7/8 In. to 12310 Ft.                   |
| Tubing Size and Depth                         | 2-7/8 In. to 12310 Ft. MMSCF/Day         |
| Open Flow Potential                           |  |
| Last Reservoir Pressure                       |  |
| Date  | December 5 , 1980<br>200 °F. @ 13201 Ft. |
| Reservoir Temperature                         |  |
| Status of Well                                | Shut in                                  |
| Pressure Gauge                                | Amerada                                  |
| SAMPLING CON                                  |  |
| Flowing Tubing Pressure                       | 2200 PSIG                                |
| Flowing Bottom Hole Pressure                  | PUIG                                     |
| Primary Separator Pressure                    | 790 PSIG                                 |
| Primary Separator Temperature                 | 84 °F.                                   |
| Secondary Separator Pressure                  | PSIG                                     |
| Secondary Separator Temperature               | °F.                                      |
| Field Stock Tank Liquid Gravity               | 54 °API @ 60°F.                          |
| Primary Separator Gas Production Rate         | 942.8 MSCF/Day                           |
| Pressure Base 15.025                          | PSIA                                     |
| Temperature Base 60                           | *F.                                      |
| Compressibility Factor (Fpv) 1.0752           |  |
| Gas Gravity (Laboratory) 0.668                |  |
| Gas Gravity Factor (Fg) 1.2235                |  |
| Stock Tank Liquid Production Rate @ 60°F.     | 118.22 Bbls/Day                          |
| Primary Separator Gas/Stock Tank Liquid Ratio |  |
| or  | 125.39 Bbls/MMSCF                        |
| Sampled by                                    | Tefteller, Inc.                          |
|   |  |

\*3-day averages.

REMARKS:

These enalyses, opinions or interpretations are based on observations and material supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and omissions excepted); but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representations as to the productivity, proper operation, or profitableness of any oil, gas or other mineral well or send in connection with which such report is used or relied upon.

# CORE LABORATORIES, INC. Petroloum Reservoir Engineering DALLAS, TEXAS 75247

|   | Page 1 of 6                    |
|---|--------------------------------|
|   | File Ri 80853                  |
| Company Getty Oil Company               | Date Sampled November 14, 1980 |
| Well State 29-"J" No. 1                 | County Lea                     |
| Field Undesignated                      | State New Mexico               |
|   |                                |
| FORMATION                               | CHARACTERISTICS                |
| Formation Name                          | Wolfcamp                       |
| Date First Well Completed               | October 27 , 1980              |
| Original Reservoir Pressure             | PSIG @ Ft.                     |
| Original Produced Gas-Liquid Ratio      | SCF/Bb1                        |
| Production Rate                         | 135 Bbls/Day                   |
| Separator Pressure and Temperature      | PSIG °F.                       |
| Liquid Gravity at 60°F.                 | 54 °API                        |
| Datum                                   | Ft. Subsea                     |
|   | HARACTERISTICS                 |
| Elevation                               | 3520 GL Ft.                    |
| Total Depth                             | PB13429 Ft.                    |
| Producing Interval                      | 13166-13236 Ft.                |
| Tubing Size and Depth                   | 2-7/8 In. to 12310 Ft.         |
| Open Flow Potential                     | MMSCF/Day                      |
| Last Reservoir Pressure                 | 9950 PSIG @ 13201 Ft.          |
| Date                                    | December 5 , 1980              |
| Reservoir Temperature                   | 200 °F. @ 13201 Ft.            |
| Status of Well                          | Shut in                        |
| Pressure Gauge                          | Amerada                        |
|   | NG CONDITIONS*                 |
| Plowing Tubing Pressure                 | 2200 PSIG                      |
| Flowing Bottom Hole Pressure            | PSIG                           |
| Primary Separator Pressure              | 790 PSIG                       |
| Primary Separator Temperature           | 84 °F.                         |
| Secondary Separator Pressure            | PSIQ                           |
| Secondary Separator Temperature         | °F.                            |
| Field Stock Tank Liquid Gravity         | 54 °API @ 60°F.                |
| Primary Separator Gas Production Rate   | 942.8 MSCF/Day                 |
| Pressure Base 15.0                      |                                |
| Temperature Base 60                     | °F.                            |
| Compressibility Factor (Fpv) 1.07       | 52                             |
| Gas Gravity (Laboratory) 0.66           | 8                              |
| Gas Gravity Factor (Fg) 1.22            |                                |
| Stock Tank Liquid Production Rate @ 60° |                                |
| Primary Separator Gas/Stock Tank Liquid |                                |
|   | or 125.39 Bb1s/MMSCF           |
| Sampled by                              | Tefteller, Inc.                |

### REMARKS:

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<sup>\*3-</sup>day averages.

# CORE LABORATORIES, INC. Astroloum Reservoir Engineering DALLAS, TEXAS 75247

Page 2

File RFL 80853

|  | <ul> <li>A control of the property of the control of the contr</li></ul> | We                         | ll Stat        | e 29-"J" No. 1                             |                |
|--|--|----------------------------|----------------|--|----------------|
| HYDROCARBON  | ANALYSES OF SEPARATOR  | PRODUCTS AND               | CALCULA        | TED WELL STREA                             | AM .           |
|  |  |                            | 8<br>6<br>:    | 7 6 e                                      |                |
|  | Separator Liquid,  | Separator                  | Gas .          | Well Stre                                  | eam            |
| Component  | Mol Percent  | Mol Percent                | GPM            | Mol Percent                                | GPM            |
| Hydrogen Sulfide   | 0.00   | 0.00                       |                | 0.00                                       |                |
| Carbon Dioxide   | 0.08   | 0.15                       |                | 0.14                                       |                |
| Nitrogen   | 0.05   | 0.77                       |                | 0.67                                       |                |
| Methane  | 19.27  | 84.32                      |                | 75.19                                      |                |
| Ethane   | 9.77   | 9.60                       | 2.618          | 9.62                                       | 2,623          |
| Propane  | 9.03   | 3.26                       | 0.915          | 4.07                                       | 1.142          |
| iso-Butane   | 2.58   | 0.47                       | 0.157          | 0.77                                       | 0.257          |
| n-Butane   | 6.22   | 0.85                       | 0.273          | 1.60                                       | 0.514          |
| iso-Pentane  | 2.37   | 0.19                       | 0.071          | 0.50                                       | 0.187          |
| n-Pentane  | 3.80   | 0.20                       | 0.074          | 0.70                                       | 0.259          |
| Hexanes  | 6.14   | 0.11                       | 0.046          | 0.96                                       | 0.403          |
| Heptanes plus  | 40.69<br>100.00  | $\frac{0.08}{100.00}$      | 0.037<br>4.191 | $\frac{5.78}{100.00}$                      | 3.708<br>9.093 |
|  |  |                            |                |  | •              |
| Properties of Hepta  |  |                            |                |  |                |
| API gravity @ 60°F   |  |                            |                | 0.702                                      |                |
| Density, Gm/Cc @ 6<br>Molecular weight   | 0°F. 0.7931<br>161   | 103                        | 4 1            | 0.793<br>161                               |                |
| Control of the contro | en en en en en en en en en en en en en e   |                            |                |  |                |
| Calculated gross he  | r gas gravity (air=1.0<br>ating value for separa<br>ry gas @ 15.025 psia a   | tor gas = 1                | 668<br>198 BTU | • • • • • • • • • • • • • • • • • • •      | V              |
| Primary separator<br>Primary separator 1   | <u> </u>   | 90 psig and<br>90 psig and |                | °F.  | en en en       |
| Primary separator 1  | as/separator liquid ra<br>iquid/stock tank liqui<br>as/well stream ratio   |                            |                | SCF/Bb1 @ 84<br>Bb1s @ 84°F.<br>MSCF/MMSCF |                |

These analyses, opinions or interpretations are based on observations and material supplied by the client to whom, and for whome exclusive and confidentia use, this report is made. The interpretations or opinions expressed represent the best judgement of fore Laboratories, Inc. (a)) errors and emissions excepted; but fore Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representations as to the productivity, proper operation, or profitableness of any oil, 94s or other mineral well or sand in connection with which such report is used or relied upon.

# CORE LABORATORIES, INC. Petroleum Reservoir Engineering DALLAS, TEXAS 75247

| Page  | 3 of 6             |
|-------|--------------------|
| File_ | RFL 80853          |
| Well_ | State 29-"J" No. 1 |

# PRESSURE-VOLUME RELATIONS AT 200°F. (Constant Composition Expansion)

| en en en en en en en en en en en en en e | Relative | Deviation Factor,  |
|--|----------|--|
| Pressure,                                | Volume   |  |
| PSIG                                     | 0.8453   | 1.421  |
| 10000                                    | 0.8557   | 1.367  |
| 950C                                     | 0.8711   | 1.318  |
| 9000                                     | 0.8844   | 1.264  |
| 8500                                     | 0.8974   | 1.207  |
| 8000                                     | 0.9169   | 1.157  |
| 7500                                     | 0.9365   | 1.103  |
| 7000                                     | 0.9540   | 1.060  |
| 6600                                     | 0.9740   | 1.016  |
| 6200                                     | 0.9852   | 0.995  |
| 6000                                     | 0.9977   | 0.974  |
| E000                                     | 1.0000   | 0.970*   |
| 5763 Dew Point Pressure                  | 1.0110   |  |
| <del>5600</del>                          | 1.0261   |  |
| 5400                                     | 1.0605   | ¥ •  |
| 5000                                     | 1.0935   |  |
| 4700                                     | 1.1618   |  |
| 4200                                     | 1.2576   | 15   |
| 3700                                     | 1.3995   |  |
| 3200                                     | 1.6180   |  |
| 2700                                     | 1.9656   | e  |
| 2200                                     | 2.5596   |  |
| 1700                                     | 3.2373   |  |
| 1363                                     | 3.9071   |  |
| 1142                                     | 4.5357   |  |
| 992                                      |          | And a substitute of the substi |

\*Gas formation volume factor = 1.754 MSCF/Bb1.

These analyses, opinions or interpretations are based on observations and material supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgement of Core Laboratories, Inc. (all errors and emissions use, this report is made. The interpretations or opinions expressed represent the best judgement of Core Laboratories, inc. and its officers and employees, assume no responsibility and make no warranty or representations as to the production excepted; but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representations as to the production excepted; but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representations as to the production excepted; but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representations as to the production excepted; but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representations as to the production excepted; but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representations as to the production of the production excepted in the production of the

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| Page_ | 4 of 0             |
|-------|--------------------|
| File_ | RFL 80853          |
| Well  | State 29-"J" No. 1 |

# RETROGRADE CONDENSATION DURING GAS DEPLETION AT 200°F.

### Retrograde Liquid Volume,

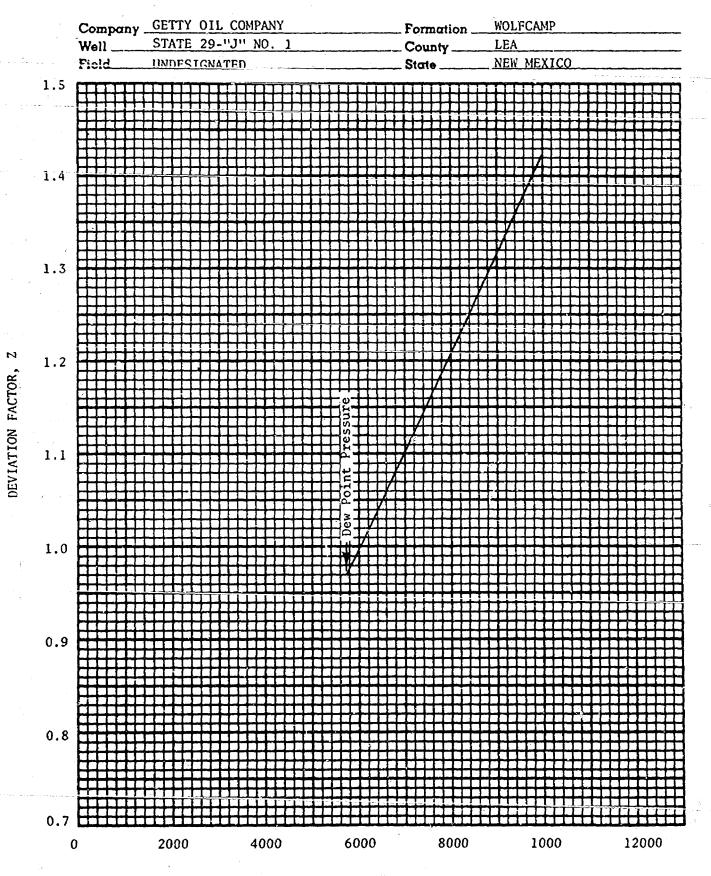
| Taring to the second of the se | Retrograde Liquid<br>ent of Hydrocarbon Pore Space |
|--|--|
| pressure, Perc   | Ent  |
| PSIG   | 0.0  |
| 5763 Dew Point Pressure  | 0.5  |
| 5763 Dew Form  | 1.3  |
| <del>5</del> 600   | 4.0  |
| 5400   | 5.2  |
| 5000<br>4800 First Depletion Le  | 13.5   |
| 4800 First Dep-  | 16.6   |
| 3900   | 17.1   |
| 3000   | 16.1   |
| 2100   | 14.9   |
| 1300   | 12.9   |
| 700  |  |
| 0  | •  |
|  |  |

These analyses, opinions or interpretations are based on observations and material supplied by the client to whom, and for whose exclusive and confidential supplied by the client to whom, and for whose exclusive and confidential supplied by the client to whom, and for whose exclusive and emissions of the productions of interpretations or opinions expressed represent the best judgment of Core Laboratories, inc. (all errors and emissions used to responsibility and make no marranty or representations as to the productions of the interpretations or opinions expressed represent the best judgment of Core Laboratories, inc. (all errors and emissions are based on observations and material supplied by the client to whom, and for whose exclusive and confidential exclusive the production of the productio

## CORE LABORATORIES, INC. Petroleum Reservoir Engineering DALLAS, TEXAS

Page 5 of 6 File RFL 80853

### DEVIATION FACTOR, Z

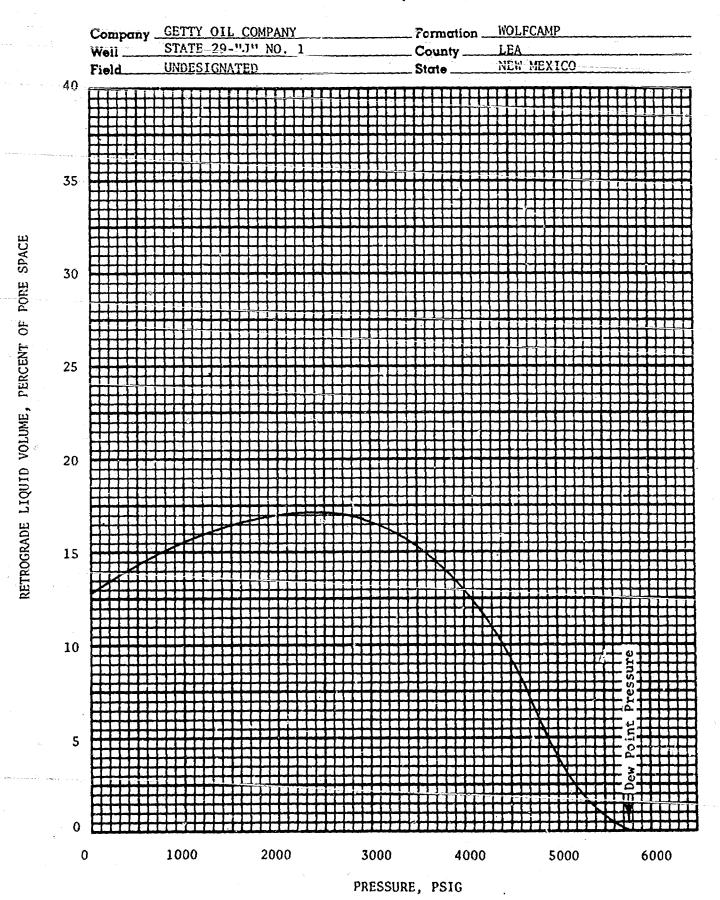


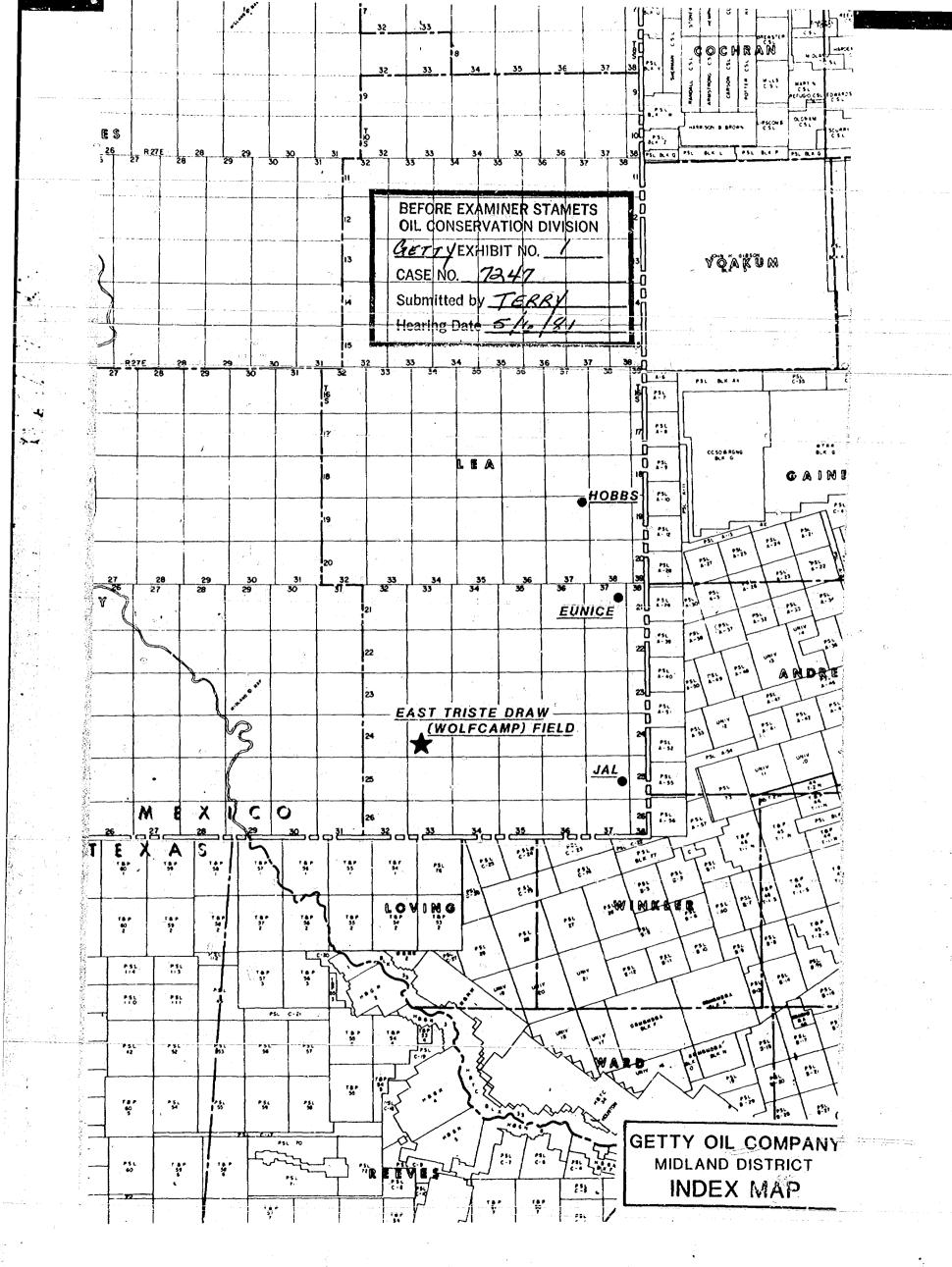
PRESSURE, PSIG

#### CORE LABORATORIES, INC Petroleum Reservoir Engineering DALLAS, TEXAS

Page 6 of 6 File RFL 80853

### RETROGRADE LIQUID VOLUME





| المراجعة المستعدد                | 162<br>300.<br>(2)<br>5,M  | di Sulf-Si  | Brianingho<br>Deepun 1<br>10 11649<br>16 Did 125 65 | Mark o  |  | 3 3  |   |   | •  |  |   |  |  |
|----------------------------------|--|---|---|---|--|--|---|---|--|--|---|--|--|
|                                  | )rig.  |   | Ø oa dies   | 1074-731-   |  | 1  | 10 5363<br>52 D/A12141                        |   | 33   |  | зс <u>ь</u><br>34                             | 5 . Buck 11                                      | 10 <u>11</u>                             |
|                                  | 39 114   | Sta U.S.  | te M I<br>'S'<br>''                                 | Sagar   | 794                                      | See  | <b></b>                                       |   |  |  |   | 80'4 3149 4.                                     |  |
|                                  |  | Yeles La  | 1175  | MIN ANNE PERM<br>Union<br>Union<br>Gulf   | I MEEA<br>Honde<br>SIR                   | nee chanse y   | N 84 11984                                    | HIBRID ARR  | NG OH  | MTS  | State Superior                                |  | \$1000 A115104                           |
| - 1                              | 1900   | ્રો<br>ફુંગુનું કુંગા <b>⊕</b>  | d Hondo<br>Neumonsed                                | Hep<br>K-2992<br>Henge ham bongs Hone<br>Grid the bongs Sin                             | + -                                      | Getty<br>3 · 1 · 37<br>10 · 4092<br>466 62 5               |   | 300 51 €  | G-3173<br>Moraniy<br>Disi<br>C-5-1-80 - 7<br>4 | Section 1                                  | 2-1-05<br>LG-3100<br>21240                    |  | PerPet,<br>- 1 - 62<br>6- 725<br>((건)    |
|                                  |  | 10.5832   | 792 X   | DI NW   |  | Gett<br>12 - 1 -<br>16 11                                  | · 65 · 6 · · · · · · · · · · · · · · · ·      |   |  |  | 3   | Mesone<br>Wesone<br>LG 3378                      | L-4399                                   |
| * !                              | nental<br>Hodes<br>889   | - 0351548   | Centinental<br>02839 *z                             | Fize (union) follows:   |  | Show<br>PAG Guilf  |   | M75<br>12 1 0:<br>10-095                            |  | MTS<br>5 - 1 - 81<br>1 - 3 4 70<br>- 10 12 | Store   |  | HBC<br>L<br>Stete                        |
| 7                                | irly<br>ihom   | Pationkomers Confinentalis  | (Union) Wimberly Gulf                               | ASAK EIngrow K 1918 Inc<br>A2.0 Mark Eta<br>Y 105204                                    | gram                                     | \$unroy 6x U 5471<br>W.M. 59 3912<br>TD 5710<br>8/45-10-62 |   | 11 55<br>11 55                                      | Getty<br>3-1-87<br>L6-4052<br>44582            |  | Yafes Pet<br>18 · 1 · 82<br>LG - 728<br>II EE |  | ordson () il<br>2: 1: 1: 1: 1:<br>163/98 |
|                                  | Sur la c<br>217<br>20 goz<br>12 herri<br>12  O2839 Pil<br>(Union)<br>entinentol<br>Parco C   | HBP 42 0<br>0553518 1<br>Union / 12                 | MA TOURS  | No.                                      |  |   | \$  |  |  | 10 1 MTS                                      |  | .S., MI<br>                              |
| τ.<br>ξ                          | Conti,<br>K.B.P.   | Gulf !Co  | ntinental 4   | State  Mobil  | <b>®</b>                                 | Srede  |   | Sea   |  |  | Store Saf 10                                  | Leis No<br>Belloin                               | on Stavena &                             |
| ેં                               | 551642 H   | mer i   | 0553642<br>  Jan<br>  Manherdy *                    | 9 1 81<br>1-8529<br>194- 1 2735   |  | 601F* (0-1-87<br>10-1-87<br>10-1-87<br>406 15              | R B Had<br>Hody 31<br>10 574 2<br>041 - 31 64 | Gal-Mon, etal.                                      | naifin   |  | MTS   | Richardee<br>2.1.4<br>063/9                      | 7 Oil Superior S<br>(1) 10-16-84         |
|                                  |  | onfinental 13-<br>HBF<br>0553642  |   | सक्ती ा8 ु,   | Ţ  | enneco 17—<br>if Lowe<br>0 5230<br>MB-14-63                | Mobil<br>4 1 82                               | Cel-Mon etoi 16                                     | 67<br>23                                       |  | 15<br>HNG Oil                                 | Edw.M.   | 14                                       |
|                                  | ١٥٠  | incgn<br>ieco U.S. M<br>C.F. James (S)  | Martinal<br>Martinal<br>Modey For                   | Stone   | - 13                                     | ©  <br>⊗'  | 10 20   |   | (MESA)   | OPER)                                      | 2·1:09<br>10·6337<br>672 ∰                    | 2.7.1<br>043774                                  | Stevens e<br>eto/Mi, o<br>Mi L Back E    |
| 100<br>100                       | 3.41   | Amaca<br>10-1-8:<br>19202<br>Osborn stat<br>Fed Bonourant   | · L   | Amoco<br>8 1 88<br>LG:3617<br>14 3 310 05   | 1 1                                      | G-4774 1 I   | Mobil<br>1 - 82<br>                           | HNG OIL   | MTS  | MTS  | Store   | -1128= Richo                                     | MI L Beck & Fold MI L Half, Inc (S)      |
|                                  |  | 10 5060<br>10 506 |   | 19 از به  |  | 270 25   | 100   | j   | 12 69  | 0 cks 10 Te 55<br>⊕ - ( 3e15)<br>→ AA.E    | 162 ∕@'                                       | T %  | 796                                      |
|                                  |  | C.F. James<br>Amoco<br>10 1 - 83<br>15702<br>U.S.   |   | . ji<br>Sama  |  | GETTY 28<br>1980' F81<br>8EC. 28,                          | L & .168                                      | O' FFI  | il,  | MTS MT                                     | CZ Jackson<br>S Unit                          |  | Richard<br>Son Oil<br>3-1-54             |
|                                  |  | Amoco<br>10-1- as   | <b>19</b> %   | Geffy<br>Lo-saje<br>Con   |  | LEA COU  | NTY, NE                                       | W MEXICO  |  | MTS  | MTS 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1     | U.S. M.<br>Dismond E. Half,                      | 063790<br>Inc.(\$) U.S.                  |
|                                  |  | ⊚ <sup>18M</sup><br>25  | 19 11 E   | 7kirklin (:-<br>Conf)-54- 5/0<br>El 3545 TD.<br>10 5108 DM:-<br>Dal5012 3O<br>OM:-23-61 | 10 10 10 10 10 10 10 10 10 10 10 10 10 1 |  | a a   | 200   | 2 - (6 - 80<br>L-8(i)<br>2025                  | 2-1-91<br>1-166<br>2-513<br>MTS            | Pago Prod.<br>9 1 - 87<br>16-4558<br>29112    | Super<br>1 - 1 -<br>19458                        | 84                                       |
| distribution (property)          | •  | Fed." R.B.Holl Angee-USA TOROGO BAT-1-66 U.S.   | 30.774  |   |  | 101000   | 1 600c  | 28  | <b>@A</b> '                                    | 2-1-4<br>1 5:40<br>125±1<br>⊗1             | Jennero<br>Suntan SI                          | 26   |  |
|                                  | Å  | moco Centri   | GETT  | 29 STATE  | سل                                       | 25 mg  | AP  | Some  |  | W, E                                       | LA SEE MTS                                    | U.S.   |  |
|                                  |  | 75 <b>6</b>   | 1980'<br>8EC. 2                                     | FOL & 1980'  <br>9. T249 De   | FEL                                      | 12 19  |   | (Amoco)<br>3 - 1 - 8)<br>L-5269<br>16 ft/           | 1  | Mobil<br>2-1-82<br>L-6944<br>37 #6         | 12NG O4<br>10-1-10<br>1-7138<br>114019        | Superio<br>1 - 1<br>19850                        | 14                                       |
|                                  |  | -36   | LEA CO  | DUNTY, NEW  | MEXIC                                    | 0 32   | -   | @ Tristq - S<br>33<br>Getty Oil<br>LC 5549<br>93718 |  | Tenneco<br>H.B.P.                          | <br>  <b>4</b><br>                            | 35   |  |
| 702                              | - DUI-   | State  St  |   | C   |  | State  | 14  | 997 <u>13</u>                                       |  | #-399<br>Mobil<br>2-1-82<br>1-6944 SA      | 4.15<br>4.4                                   |  |  |
|                                  |  | Yoles Pet.<br>E- 1 - 83<br>15317  | 7104  | Gulf  | الأطالة                                  | Gulf   | Mecker 6063                                   | Phillips  | 1984   | Phillip<br>1 - 1                           | 8.04 7 (2) (2) (3)<br>36                      | HNG 12 Meso Per to best of 12-15-80 Morrey 12-14 | (Michael)                                |
|                                  |  |   | mai .   | 1 6   |  | 5  |   | 4   |  | 19 <b>8</b> 53                             |   | 2  | ,•@¹                                     |
|                                  |  | U.S.  | NN4 7   |   |  | v.s.   |   |   |  | e,   |   | V  | 404                                      |
| Pet.<br>83                       |  | Yotes #\$4.<br>1- 1- 83<br>15318  | mm i  | Gulf<br>2 - 1 - 84  | 1  | Sun<br>10 · 1 · es<br>26299                                |   | Sun<br>9-1-es<br>26076                              |  | € U.S<br>Sun                               |   | Stelle   |  |
| Total section of the con-        |  | 8 <b>12</b>   | ון שמני   | 7   |  | 8  |   | 26076<br>9  |  | 25078                                      | 95  | C Hankamer 19999                                 | NG Dil<br>Rilloker Fey<br>Properties     |
| 101es<br>1-7ed<br>1984<br>114 67 |  | 2.9   | non 7   |   |  | Sentano<br>Annie-Bess<br>El 344<br>70 521<br>0el 50:       | <b>,</b> ⊗'                                   |   |  | 10   | I   | HNG<br>7-1-87                                    |  |
| ior<br>82                        |  | Meso Per.<br>8 - 1 - 92<br>15911  | \$ 1  | Yoles Pet   |  | U.S. DIA 4 17  | (-C)  | Amer. Quosare,<br>G.T. Abeq Est.                    |  | U.S.                                       |   | U.S.   |  |
| Jona                             | Superi   | ~~~13   |   | 18  |  | 10 71- 85<br>26 394  | (a)   | E-6828<br>1099                                      |  | fuperior<br>9 · 1 · 01<br>26079            |   | Amoco<br>19648 12-1-83<br>19623                  |  |
| 65<br>165                        | 7- 1 - 8<br>15910  | Patoil<br>Union-Fed.<br>\$10.4957<br>0/4.8-18-18  | une i   | , <b>~</b>  |  | 17<br>Konkam   | j   |   |  | 15 o                                       | MAP   | 14   |  |
| erior                            | Union<br>HBP   | U.S. Superior   | 404 /   | U.S.  |  | U.S. CAS   | ~   | State   | 25 33  | J. W.D.L. AND U.S.                         |   |  |  |
| - Jr   -                         | 071984   | 7- 1- 82<br>15912   | to the second                                       | Yafes Pet.<br>S- 1- 83<br>[5818   |  | HNC OH   |   | HNG Dis Horan                                       | Ol<br>elifeo<br>10 60                          | Texaco<br>6-7-73<br>75031                  |   | Amoco<br>12 - 1 - 83<br>18623                    |  |
| •                                | '  |   | ভা <b>ৰত বিশ্ব</b>                                  |   | · ····································   | HNG ON   | ı   | HNG Oil More  | 10 es  |  |   | 18623<br>Je 1                                    | <b>!</b>                                 |



Getty Oil Company

PBTD 13,429.

Well Diagram: Getty State 29 "J" Well No. 1

Central Exploration and Production Division Measurements taken from KB 23.5' above ground level. BEFORE EXAMINER STAMETS OIL CONSERVATION DIVISION GETTY EXHIBIT NO. 3 CASE NO. 30" H-40 set at 40' Submitted by TE 20" 94# H-40 @ 637' Hearing Date 13 3/8" 68 & 54.5#, S-80 & K-55 @ 5227 2 7/8" 6.5# N-80 tubing with API modified couplings 7" liner top @ 12,158' 7" Lok-Set pkr. w/2.25" profile nipple @ 12,310' 9 5/8" 40,43.5 & 47# S-95 @ 12,620' 13,166 Wolfcamp perfs Wolfcamp perfs (ISPF)

13,236

21' cement CIBP @ 13,450 13,166,67,72,73,74,75, 85,86,88,89,90,91,92, 93,98 13,200,34,35,36

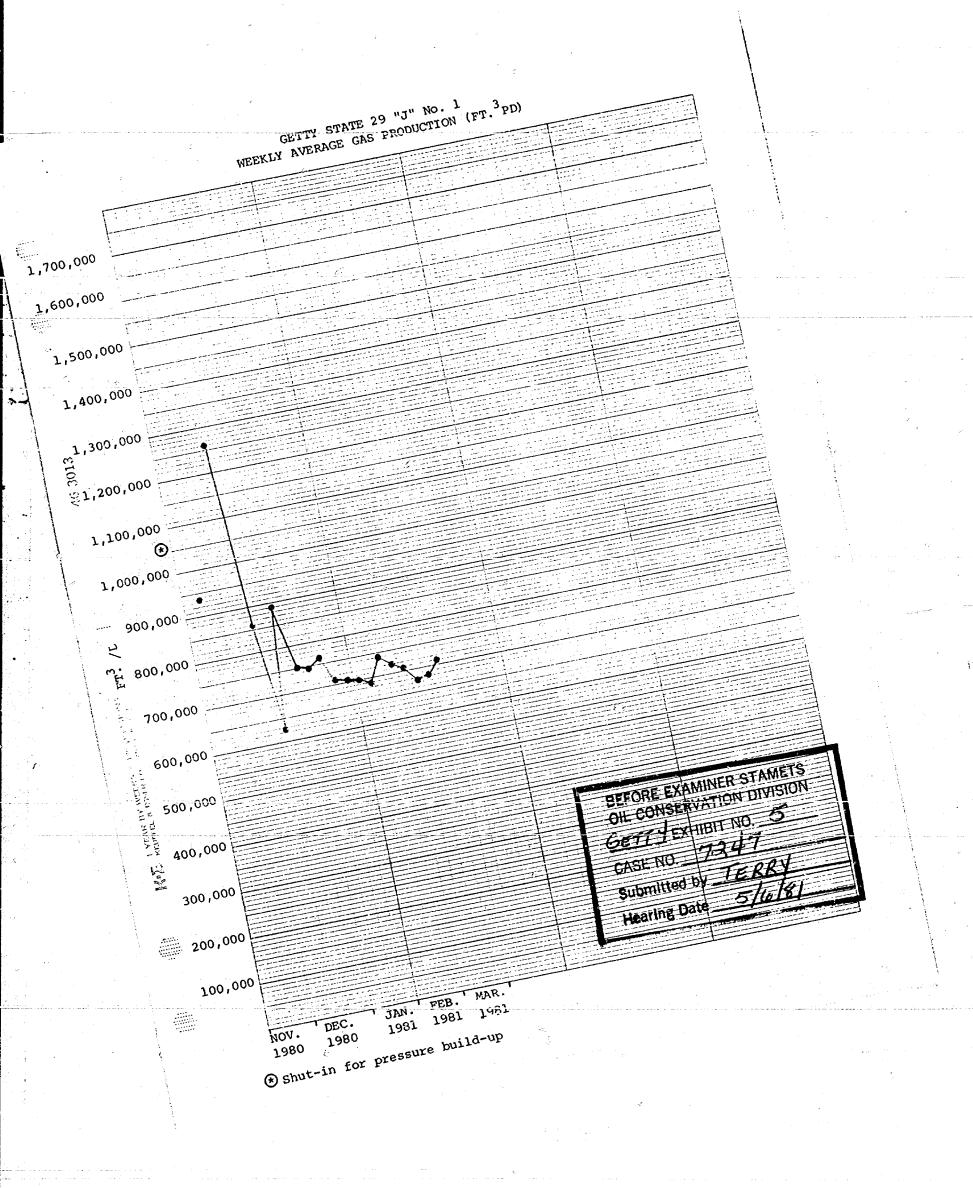
19 holes (.25")

Atoka perfs 14,353-64

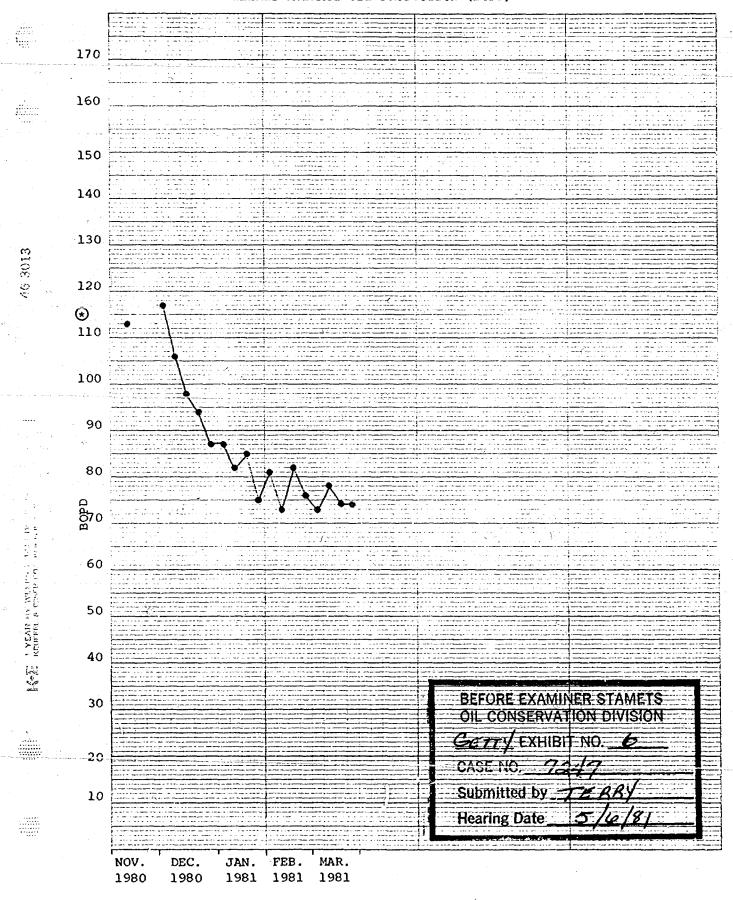
Baker Model "D" Packer @ 15,000'

Morrow perforations 15,278-15,572' squeezed 6/79 w/100 sxs. class "H"

7" Liner 29# S-95 @ 16,932



GETTY STATE 29 "J" No. 1
WEEKLY AVERAGE OIL PRODUCTION (BOPD)



♦ Shut-in for pressure build-up

1

Reservoir Fluid Study
GETTY OIL COMPANY
State 29-"J" No. 1 Well
Lea County, New Mexico
RFL 80853

BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION

GETY\_EXHIBIT NO. Y

CASE NO. 72 17

Submitted by Mc Dervent

Hearing Date 5/6/81

March 3, 1981

CORE LABORATORIES, INC.



Getty 011 Company P. O. Box 730 Hobbs, NM 88240

P. L. Moses Manager Reservoir Fluid Analysis

Attention: Mr. Jim Micikas

Subject: Reservoir Fluid Study
State 29-"J" No. 1 Well
Lea County, New Mexico
RFL 80853

#### Gentlemen:

Separator gas and liquid samples were collected from the State 29-"J" No. 1 Well by our representative on November 14, 1980. The samples were delivered to our laboratory in Dallas, where a reservoir fluid study was performed. The results of the study are presented on the following pages.

Before being sampled, the well was flowed for three days and gas and liquid rates were constantly monitored. The average gas-liquid ratio during this three-day test was 7975 standard cubic feet of separator gas per barrel of stock tank liquid. In the laboratory, it was determined that this ratio was equivalent to 5921 standard cubic feet of gas per barrel of separator liquid at 84°F. The compositions of the separator products were measured, and the well stream composition was calculated on the basis of the producing gas-liquid ratio.

The separator gas and liquid were physically recombined in the producing ratio and the resulting mixture was examined in a visual cell at the reservoir temperature of 200°F. The fluid was found to be a rich gas condensate system which had a dew point pressure of 5763 psig. Comparison of this pressure to the reported reservoir pressure of 9950 psig shows that the reservoir gas is highly undersaturated. The pressure-volume relations of the reservoir fluid were measured over a wide pressure range, and are reported on page three. The deviation factor of the gas was calculated at the dew point pressure and at all pressures above the dew point.

The reservoir fluid was subjected to a constant volume depletion process, during which the volume of retrograde liquid was measured at each depletion pressure. The maximum volume of retrograde liquid observed was 17.1 percent of the hydrocarbon pore space at 2100 psig.

The above information was sent to you in preliminary form on February 3, and we were instructed to hold the samples. Since the reservoir fluid is a rich gas condensate system with a large amount of retrograde liquid, it is recommended that a complete depletion study should be performed. This would provide you with the fluid data necessary to perform accurate reservoir engineering calculations. Please let us know if you want us to continue the study or if the samples should be discarded.

Very truly yours,

CORE LABORATORIES, INC.

James R. Fortner Assistant Manager

Reservoir Fluid Analysis

JRF:JB:km 6cc: Addressee

Control of the Contro

|  | •                | Page 1                                | _of6                                     |
|--|------------------|---------------------------------------|--|
|  |                  | File RFL 8                            | 0853                                     |
| Company Getty Oil Company              | _ Date Sampled   | November 14,                          | 1980                                     |
| Well State 29-"J" No. 1                | _ County         | Lea                                   |  |
| Field Undesignated                     | State            | New Mexico                            |  |
|  |                  |                                       | 7  |
| FORMATIO                               | N CHARACTERIST   | CICS                                  | •  |
| Formation Name                         | Wo               | lfcamp                                | en en en en en en en en en en en en en e |
| Date First Well Completed              |                  | tober 27                              | . 1980                                   |
| Original Reservoir Pressure            |                  | PSIG @                                | Ft.                                      |
| Original Produced Gas-Liquid Ratio     |                  | · · · · · · · · · · · · · · · · · · · | SCF/Bb1                                  |
| Production Rate                        | 13               | 35                                    | Bbls/Day                                 |
| Separator Pressure and Temperature     | -                | PSIG                                  | °F.                                      |
| Liquid Gravity at 60°F.                | 54               |                                       | *API                                     |
| Datum                                  |                  | <del></del>                           | Ft. Subsea                               |
| WELL                                   | CHARACTERISTIC   | CS                                    |  |
| Elevation                              | 3.5              | 20 GL                                 | Ft.                                      |
| Total Depth                            |                  | 313429                                | Ft.                                      |
| Producing Interval                     |                  | 3166-13236                            | Pt.                                      |
| Tubing Size and Depth                  |                  | -7/8 In. to                           | 12310 Pt.                                |
| Open Flow Potential                    |                  |                                       | MMSCF/Day                                |
| Last Reservoir Pressure                | <del>- 9</del> 9 | 50 PSIG @                             | 13201 Ft.                                |
| Date                                   |                  | cember 5                              | . 1980                                   |
| Reservoir Temperature                  |                  | 00 °F. @                              | 13201 Ft.                                |
| Status of Well                         |                  | nut in                                |  |
| Pressure Gauge                         |                  | nerada                                | · _ · · · · · · · · · · · · · · · · · ·  |
|  | ING CONDITIONS   |                                       |  |
| Flowing Tubing Pressure                |                  | 200                                   | PSIG                                     |
| Flowing Bottom Hole Pressure           |                  |                                       | PSIG                                     |
| Primary Separator Pressure             | 79               | 90                                    | PSIG                                     |
| Primary Separator Temperature          | 84               | <del></del>                           | °F.                                      |
| Secondary Separator Pressure           |                  | <del> </del>                          | PSIG                                     |
| Secondary Separator Temperature        |                  | <del></del>                           | °F.                                      |
| Field Stock Tank Liquid Gravity        | 54               | 4                                     | °API @ 60°F.                             |
| Primary Separator Gas Production Rate  |                  | 42.8                                  | MSCF/Day                                 |
|  | 025 PSIA         |                                       |  |
| Temperature Base 60                    | °F,              |                                       |  |
| · · · · · · · · · · · · · · · · · · ·  | 752              |                                       |  |
| Gas Gravity (Laboratory) 0.6           |                  | -                                     |  |
|  | 235              | •                                     |  |
| Stock Tank Liquid Production Rate @ 60 |                  | Ī8.22                                 | Bbls/Day                                 |
| Primary Separator Gas/Stock Tank Liqui | d Ratio 70       | 975                                   | SCF/Bb1                                  |
|  | or 13            | 25.39                                 | Bb1s/MMSCF                               |
| Sampled by                             |                  | efteller, Inc.                        |  |
| Dampred Di                             |                  | LICELLEL, LIICA                       |  |

REMARKS:

These analyses, opinions or interpretations are based on observations and material supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and emissions excepted); but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representations as to the productivity, proper operation, or profitableness of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.

<sup>\*3-</sup>day averages.

| and was the same of the first of the same | Page 1 of 6  |
|---|--|
| en en en en en en en en en en en en en e  | File RFL 80853   |
|   | 1116 KIR 00033   |
| Company Getty 011 Company   | Date Sampled November 14, 1980   |
| Well State 29-"J" No. 1   | County Lea   |
| Field Undesignated  | State New Mexico   |
|   |  |
| FGRMATIO  | ON CHARACTERISTICS   |
|   | A STATE OF THE STA |
| Formation Name  | Wolfcamp   |
| Date First Well Completed   | October 27 , 1980  |
| Original Reservoir Pressure   | PSIG @ Ft.   |
| Original Produced Gas-Liquid Ratio  | SCF/Bb1  |
| Production Rate   | 135 Bbls/Day   |
| Separator Pressure and Temperature  | PSIG °F.   |
| Liquid Gravity at 60°F.   | 54 °API  |
| Datum   | Ft. Subsea   |
| WELL  | CHARACTERISTICS  |
| Elevation   | 3520 GL Ft.  |
| Total Depth   | IB13429 Ft.  |
| Producing Interval  | 13166-13236 Ft.  |
| Tubing Size and Depth   | 2-7/8 In. to 12310 Ft.   |
| Open Flow Potential   | MMSCF/Day  |
| Last Reservoir Pressure   | 9950 PSIG @ 13201 Ft.  |
| Date  | December 5 , 1980  |
| Reservoir Temperature   | 200 °F. @ 13201 Ft.  |
| Status of Well  | Shut in  |
| Pressure Gauge  | Amerada  |
|   | LING CONDITIONS*   |
| Flowing Tubing Pressure   | 2200 PSIG  |
| Flowing Bottom Hole Pressure  | PSIG   |
| Primary Separator Pressure  | 790 PSIG   |
| Primary Separator Temperature   | 84 °F.   |
| Secondary Separator Pressure  | PSIG   |
| Secondary Separator Temperature   | °F.  |
| Field Stock Tank Liquid Gravity   | 54 °API @ 60°F.  |
| Primary Separator Gas Production Rate   | 942.8 MSCF/Day   |
|   | O25 PSIA   |
| Temperature Base 60   | °F.  |
|   | 0752   |
| Gas Gravity (Laboratory) 0.6  |  |
|   | 2235   |
| Stock Tank Liquid Production Rate @ 60  |  |
| Primary Separator Gas/Stock Tank Liqui  |  |
| TITUMELY SEPREBLUL SAB/SLUCK TRIK BIGHT   | or 125.39 Bbls/MMSCF   |
| Sampled by  | Tefteller, Inc.  |
| Sampled by  | rerrettet ', THC.  |

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<sup>\*3-</sup>day averages.

| File RFL 80853          |  |
|-------------------------|--|
|                         |  |
| Well State 29-"J" No. 1 |  |

#### HYDROCARBON ANALYSES OF SEPARATOR PRODUCTS AND CALCULATED WELL STREAM

|                        | Separator Liquid, | Separator   | Gas : | Well Str     | eam   |
|------------------------|-------------------|-------------|-------|--------------|-------|
| Component              | Mol Percent       | Mol Percent | GPM   | Mol Percent  | GPM   |
| Hydrogen Sulfide       | 0.00              | 0.00        |       | 0.00         |       |
| Carbon Dioxide         | 0.08              | 0.15        |       | <b>40.14</b> |       |
| Nitrogen               | 0.05              | 0.77        |       | 0.67         |       |
| Methane                | 19.27             | 84.32       |       | 75.19        |       |
| Ethane                 | 9.77              | 9.60        | 2.618 | 9.62         | 2.623 |
| Propane                | 9.03              | 3.26        | 0.915 | 4.07         | 1.142 |
| iso-Butane             | 2,58              | 0.47        | 0.157 | 0.77         | 0.257 |
| n-Butane               | 6.22              | 0.85        | 0.273 | 1.60         | 0.514 |
| iso-Pentane            | 2.37              | 0.19        | 0.071 | 0.50         | 0.187 |
| n-Pentane              | 3.80              | 0.20        | 0.074 | 0.70         | 0.259 |
| Hexanes                | 6.14              | 0.11        | 0.046 | 0.96         | 0.403 |
| Heptanes plus          | 40.69             | 0.08        | 0.037 | 5.78         | 3.708 |
|                        | 100.00            | 100.00      | 4.191 | 100.00       | 9.093 |
|                        |                   |             |       | 15           |       |
| Properties of Heptanes | plus              |             |       |              |       |
| API gravity @ 60°F.    | 46.7              |             |       | es.          |       |
| Density, Gm/Cc @ 60°F  |                   |             |       | 0.793        |       |
| Molecular weight       | 161               | 103         |       | 161          |       |

Calculated separator gas gravity (air=1.000) = 0.668
Calculated gross heating value for separator gas = 1198 BTU
per cubic foot of dry gas @ 15.025 psia and 60°F.

Primary separator gas collected @ 790 psig and 84 °F. Primary separator liquid collected @ 790 psig and 84 °F.

Primary separator gas/separator liquid ratio 5921 SCF/Bb1 @ 84°F.
Primary separator liquid/stock tank liquid ratio 1.347 Bb1s @ 84°F./Bb1
Primary separator gas/well stream ratio 859.73 MSCF/MMSCF

| Page | 3      | of     |     |   |  |
|------|--------|--------|-----|---|--|
| File | RFL 80 | 853    |     |   |  |
| Well | State  | 29-"J" | No. | ì |  |

### PRESSURE-VOLUME RELATIONS AT 200°F. (Constant Composition Expansion)

| Pressure, PSIG        | Relative<br>Volume                      | Deviation Factor, |
|-----------------------|---|-------------------|
| <u> </u>              | 0.8453                                  | 1.421             |
| 10000                 | 0.8557                                  | 1.367             |
| 9500                  | 0.8711                                  | 1.318             |
| 9000                  | 0.8844                                  | 1.264             |
| 8500                  |   | 1.207             |
| 8000                  | 0.8974                                  | 1.157             |
| 7500                  | 0.9169                                  | 1.103             |
| 7000                  | 0.9365                                  | 1.060             |
| 6600                  | 0.9540                                  | 1.016             |
| 6200                  | 0.9740                                  | 0.995             |
| 6000                  | 0.9852                                  | 0.974             |
| 5900                  | 0.9977                                  | 0.970*            |
| 5763 Dew Point Pressu | re 1.0000                               | 0.570             |
| 5600                  | 110270                                  |                   |
|                       | 1.0261                                  |                   |
| 5400                  | 1.0605                                  |                   |
| 5000                  | 1.0935                                  |                   |
| 4700                  |   |                   |
| 4200                  | 1.2576                                  |                   |
| 3700                  | 1.3995                                  |                   |
| 3200                  | 1.6180                                  |                   |
| 2700                  | 1.9656                                  |                   |
| 2200                  | 2.5596                                  |                   |
| 1700                  | 3.2373                                  |                   |
| 1363                  | 3.9071                                  |                   |
| 1142                  | 4.5357                                  |                   |
| 992                   | 1 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 |                   |

\*Gas formation volume factor = 1.754 MSCF/Bb1.

These analyses, opinions or interpretations are based on observations and material supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgement of Core Laboratories, inc. (all errors and emissions excepted); but Core Laboratories, inc. and its officers and employees, assume no responsibility and make no warranty or representations as to the productivity, proper operation, or profitableness of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.

| Page_ | 4                | of_ | 6     |
|-------|------------------|-----|-------|
| File_ | RFL 80853        |     |       |
|       | a atri a silitar |     |       |
| Well_ | State 29-        | 'J" | No. 1 |

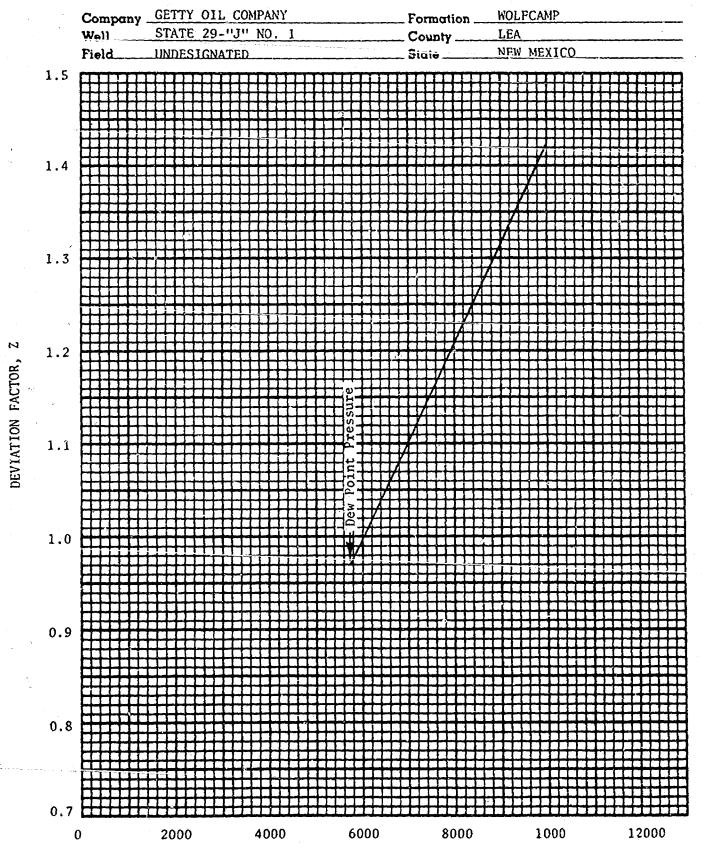
## RETROGRADE CONDENSATION DURING GAS DEPLETION AT 200°F.

| PSIG PSIG  | Retro<br>Percent o                     | grade Liqui<br>f Hydrocarb | d Volume | ,<br>Space |
|--|--|----------------------------|----------|------------|
| 5763 Dew Point Pre   |  | 0.0                        |          |            |
| 5600   |  | 7.9.7                      |          |            |
| 5400   |  | 0.5                        | ± :      |            |
| 5000   |  | 1.3                        | G:       | f.         |
|  |  | 4.0                        |          |            |
| 4800 First Depleti   | on Level                               | 6.2                        |          |            |
| 3900   |  | ·                          |          |            |
| 3000   | *                                      | 13.5                       |          |            |
| and the control of th | 6                                      | 16.6                       |          |            |
| 2100   | e e en e e e e e e e e e e e e e e e e | 17.1                       |          |            |
| 1300   |  | 16.1                       |          | i          |
| 700  |  |                            |          | 5"         |
| Ô  |  | 14.9                       |          |            |
| ories Victoria de Santonia de Carlos |  | 12.9                       | 7.,      |            |

use, this report is made. The interpretations are based on observations and material supplied by the client to whom, and for whose exclusive and confidential excepted; but Core Laboratories, Inc. and its officers and employees, ossume no responsibility and make no warranty or nepresentations as to the productivity, proper operation, or profitableness of any oil, gas or other mineral well or send in connection with which such report is used to the productions.

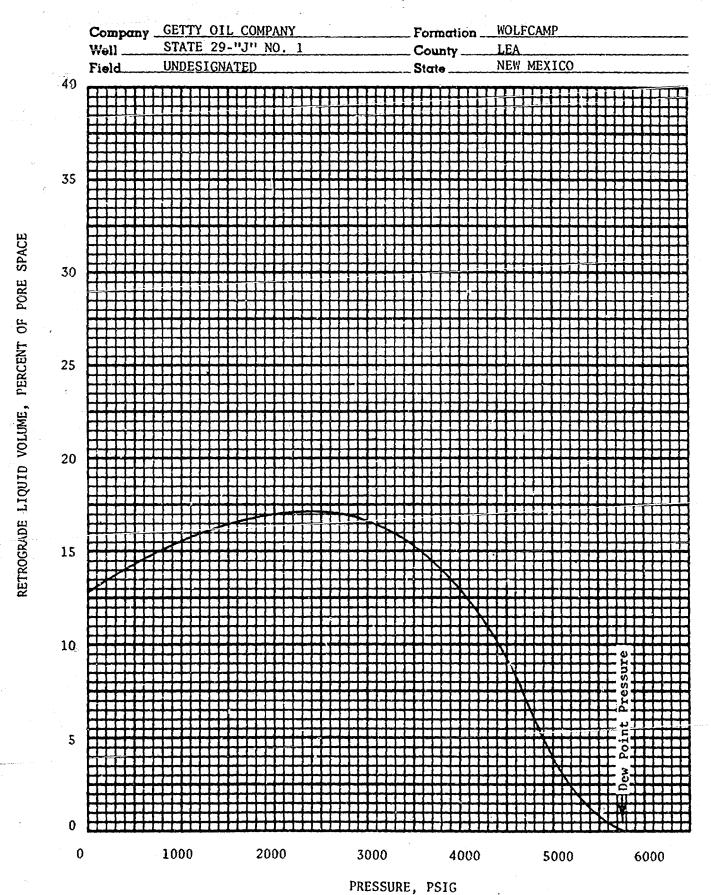
Page <u>5</u> of <u>6</u> File <u>RFL</u> 80853

#### DEVIATION FACTOR, Z



Page 6 of 6
File RFL 80853

#### RETROGRADE LIQUID VOLUME



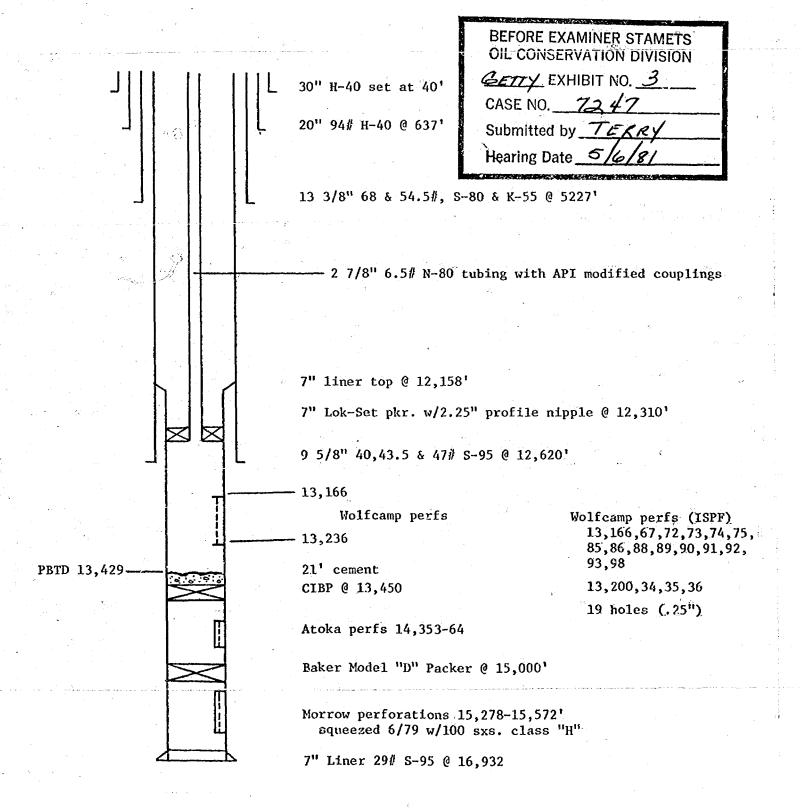


Getty Oil Company

Well Diagram: Getty State 29 "J" Well No. 1

Central Exploration and Production Division

Measurements taken from KB 23.5' above ground level.



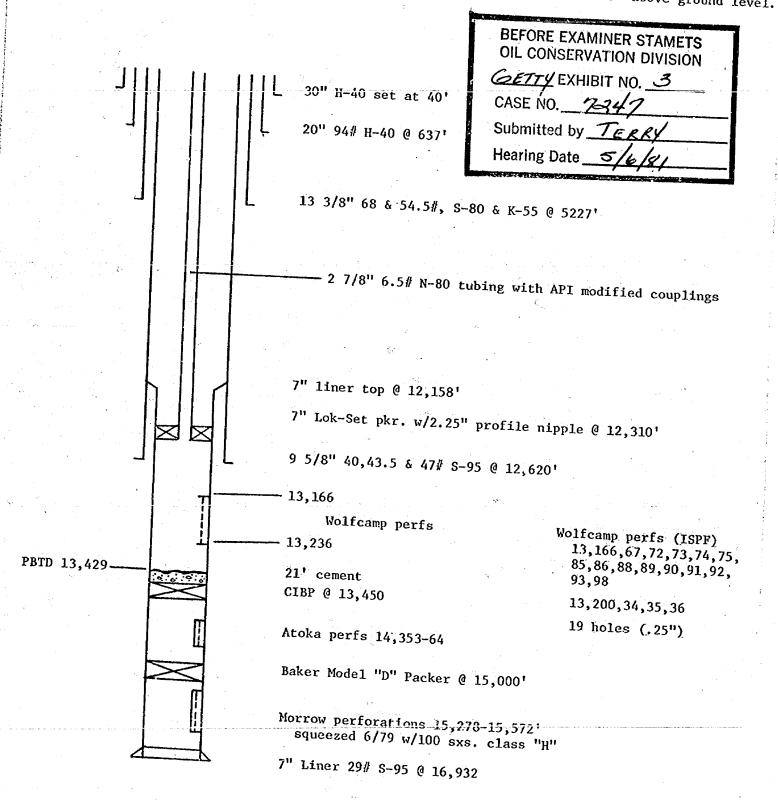


Getly Oil Company

Well Diagram: Getty State 29 "J" Well No. 1

Central Exploration and Production Division

Measurements taken from KB 23.5' above ground level.



Getty Oil Company

; ....

Well Diagram: Getty State 29 "J" Well No. 1

Central Exploration and Production Division

Measurements taken from KB 23.5' above ground level.

BEFORE EXAMINER STAMETS OIL CONSERVATION DIVISION GETTY EXHIBIT NO. 3 30" H-40 set at 40' CASE NO. 724 20" 94# H-40 @ 637' Submitted by TEKR Hearing Date 13 3/8" 68 & 54.5#, S-80 & K-55 @ 5227' 2 7/8" 6.5 € N-80 tubing with API modified couplings 7" liner top @ 12,158' 7" Lok-Set pkr. w/2.25" profile nipple @ 12,310' 9 5/8" 40,43.5 & 47# S-95 @ 12,620' 13,166 Wolfcamp perfs Wolfcamp perfs (ISPF) 13,166,67,72,73,74,75, 13,236 PBTD 13,429. 85,86,88,89,90,91,92, 21' cement CIBP @ 13,450 93,98 13,200,34,35,36 Atoka perfs 14,353-64 19 holes (.25") Baker Model "D" Packer @ 15,000' Morrow perforations 15,278-15,572 squeezed 6/79 w/100 sxs. class "H" 7" Liner 29# S-95 @ 16,932

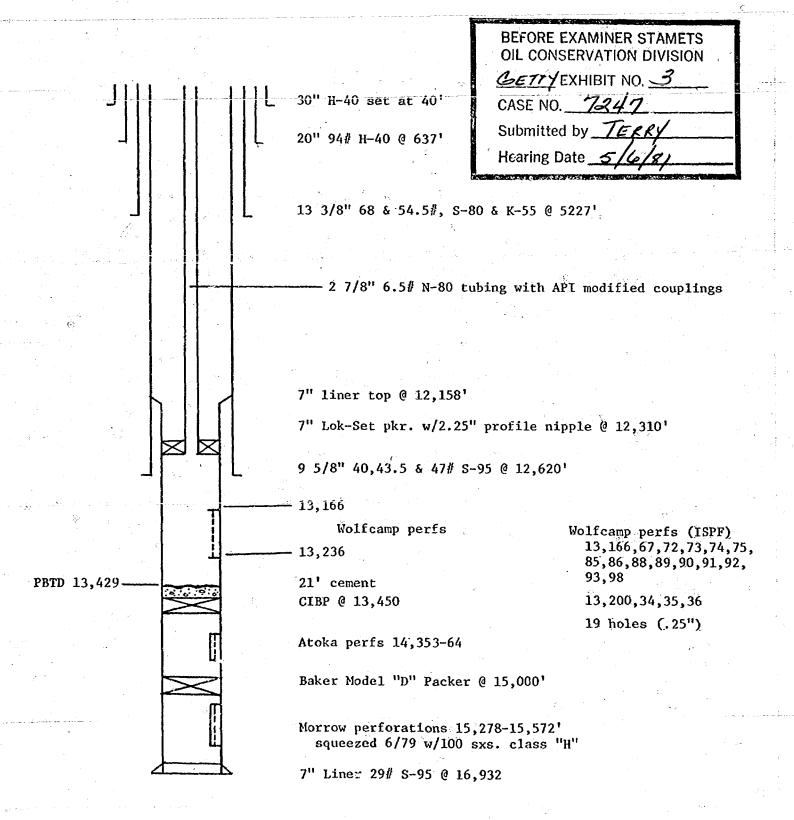


Gelly Oil Company

Well Diagram: Getty State 29 "J" Well No. 1

Central Exploration and Production Division

Measurements taken from KB 23.5' above ground level.



*-* '

- CASE 7244: Application of Crescent Energy Corp. for an unorthodox oil well location and non-standard oil pro-Application of Crescent Energy Corp. for an unorthodox oil well location and non-standard oil proration unit, Roosevelt county, New Mexico. Applicant, in the above-styled cause, seeks approval
  1980 feet from the East line of Section 32, Township 8 South, Range 37 East, Allison-Pennsylvanian
  Field, the SW/4 NE/4 and NW/4 SE/4 of said Section 32 to be dedicated to the well. CASE 7245:
- Application of The Superior Oil Company for compulsory pooling, Lea County, New Mexico. Application of The Superior Oil Company for compulsory pooling, Lea County, New Mexico.

  Applicant, in the above styled cause, seeks an order pooling all mineral interests in the Morrow well to be drilled at a standard location 21, Township 20 South, Range 35 East, to be dedicated to a drilline and completing said well and the allocation of the cost thereof as well as actual operating. 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 designation of applicant as operator of the well and a charge costs and charges for supervision, designation of the cost thereof as well as actual operate for risk involved in drilling said well. (This case will be dismissed.) CASE 7246:
- Application of Getty Oil Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Getty 32 State Com. Wall No. 1 located in Unit Coaf Section 32. Township 21 South Range 32 Fact to 1 Applicant, in the above-styled cause, seeks approval for the dual completion of its Getty 32 State Com. Well No. 1 located in Unit G of Section 32, Township 21 South, Range 32 East, to produce CASE 7247:
- Application of Getty Oil Company for a gas well classification, Lea County, New Mexico. Application of Getty Oil Company for a gas well classification, Lea County, New Mexico.
  Applicant, in the above-styled cause, seeks the reclassification of its State 29-J Well No. 1, an condensate well with the S/2 of said Section 29 to be dedicated to the well CASE 7248:
- Application of Inexco Oil Company for pool creation, special pool rules, and an oil discovery allowable, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the creation of ship 21 South. Range 26 East. and the promuleation of special rules therefor. including provisions Welfcamp oil pool for its Federal 10 State Com. Well No. 1 located in Unit L of Section 10, Township 21 South, Range 26 East, and the promulgation of special rules therefor, including provisions

  Applicant further socks the assignment of approximately 42 290 barrals of ship 21 South, Kange 26 East, and the promutgation of special rules therefor, including provision discovery allowable to the aforesaid well. CASE 7249:
- Application of Southland Royalty Company for compulsory pooling, Eddy County, New Mexico. Application of Southland Royalty Company for compulsory pooling, Eddy County, New Mexico.

  Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp and Pennsylvanian formations underlying the N/2 of Section 21. Township 18 South. Range 29 East Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the woltcan and Pennsylvanian formations underlying the N/2 of Section 21, Township 18 South, Range 29 East, Also to be considered and Pennsylvanian formations underlying the N/2 of Section 21, Township 18 South, Range 29 East, will be the cost of drilling and completing said well and the allocation of the cost of be considered well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well. CASE 7250:
- Application of Southland Royalty Company for compulsory pooling, Eddy County, New Mexico. Application of Southland Royalty Company for compulsory pooling, Eddy County, New Mexico.

  Applicant, in the above-styled cause, seeks an order Pecling all mineral interests in the Pennsylvanian formation underlying the N/2 of Section 22, Township 18 South, Range 29 East, to be dedicast of drilling and completing said well and the allocation of the cost thereof as well as actual cated to a well to be drilled at a standard location thereon. Also to be considered will be the constant of drilling and completing said well and the allocation of the cost thereof as well as actual a charge for risk involved in drilling said well. CASE 7251:
- Application of Southern Union Exploration Company of Texas for compulsory pooling, Rio Arriba County, Application of Southern Union Exploration Company of Texas for compulsory pooling, Rio Arriba Count New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the West Puerto Chianito-Mancos Oil Pool underlying all of Section 36. Township 24 North, Range 1 New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the West Puerto Chiquito-Mancos Oil Pool underlying all of Section 36, Township 24 North, Range 1 decided to its Mobil Federal Woll No. 1 drilled at a standard location thereon. All the West Puerto Chiquito-Mancos Oil Pool underlying all of Section 36, Township 24 North, Range 1 West, to be dedicated to its Mobil Federal Well No. 1 drilled at a standard location thereon. Also West, to be dedicated to its Mobil Federal Well No. 1 drilled at a standard location thereon. All to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applic to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well. CASE 7252:
- Application of Four Corners Gas Producers Association for designation of a tight formation, San Applicant in the showerestilled cause scale the designation Application of Four Corners Gas Producers Association for designation of a tight formation, San Juan and Rio Arriba Counties, New Mexico. Applicant, in the above-styled cause, seeks the designant of the Dakota formation underlying portions of Townships 24 and 25 North, Ranges 7, 8, 9, of the Natural Gas Policy Act and 18 CFR Section 271.701-705.

Dockets Nos. 16-81 and 17-81 are tentatively set for May 20 and June 3, 1981. Applications for hearing must be filed at least 22 days in advance of hearing date.

#### DOCKET: EXAMINER HEARING - WEDNESDAY - MAY 6, 1981

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:

- CASE 7235: Application of rublic Lands Exploration Inc. for a unit agreement, Guadalupe County, New Mexico.

  Applicant, in the above-styled cause, seeks approval for the U Connell Ranch Unit Area, comprising 640 acres, more of less, of State and fee lands in Township II North, Range 25 East, said unit being for the purpose of conducting an enhanced oil recovery project by the injection of steam.
- CASE 7236: Application of Belco Petroleum Corporation for a dual completion, Eddy County, New Mexico.

  Applicant, in the above-styled cause, seeks approval for the dual completion of its James Ranch
  Well No. 11 located in Unit E of Section 36, Township 22 South, Range 30 East, to produce gas
  from the Atoka and Morrow formations thru parallel strings of tubing.
- CASE 7237: Application of Conoco Inc. for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its State F-1 Well No. 10 located in Unit V of Section 1, Township 21 South, Range 36 East, to produce oil from the Hardy-Drinkard Pool and an undesignated Tubb pool thru parallel strings of tubing.
- CASE 7238: Application of Holly Energy, Inc. for directional drilling and an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to directionally drill its Salt Lake South Deep Well No. 1, the surface location of which is 2189 feet from the North line and 500 feet from the East line of Section 6, Township 21 South, Range 32 East, South Salt Lake-Morrow Gas Pool, in a northerly direction to bottom it within 150 feet of the center of Unit A (Lot 1) of said Section 6, Lots 1 thru 8 to be dedicated to the well.
- CASE 7239: Application of Troy Strickland and E. V. Isbell for a non-standard proration unit, San Juan County, New Nexico. Applicant, in the above-styled cause, seeks approval of a 75.5-acre non-standard proration unit comprising Lot 3 and that portion of Lot 4 North of the San Juan River mid-channel, all in Section 14, Township 29 North, Range 15 West, to be dedicated to a well to be drilled at a standard location thereon.
- CASE 7240: Application of El Pago Netural Cas Company for downhole commingling, San Juan County, New Mexico.

  Applicant, in the above-styled cause, seeks approval for the downhole commingling of Fruitland and Blanco-Pictured Cliffs production in the callbore of its Sunray B Well No. 6 located in Unit G of Section 1, Township 30 North, Range 10 West.
- CASE 7241: Application of Harvey E. Yates Company for an unorthodox gas well location, Lea County, New Mexico.

  Applicant, in the above-styled cause, seeks approval for the unorthodox Mississippian location of its Austin State 18 Well No. 1 to be drilled 1980 feet from the South line and 1650 feet from the East line of Section 18, Township 14 South, Range 36 East, the S/2 of said Section 18 to be dedicated to the well.
- CASE 7242: Application of Harvey E. Yates Company for an unorthodox gas well location, Lea County, New Mexico.

  Applicant, in the above-styled cause, seeks approval for the unorthodox Wolfcamp-Pennsylvanian location of its McDonald Well No. 1 to be crilled 660 feet from the South line and 990 feet from the East line of Section 33, Township 13 South, Range 36 East, the S/2 of said Section 33 to be dedicated to the well.
- CASE 7243: Application of Harvey E. Yates Company for compulsory pooling, Lea County, New Mexico.

  Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian and Mississippian formations underlying the S/2 of Section 33, Township 13 South, Range 36 East, for a gas completion and/or all mineral interests in the Devonian formation underlying the SE/4 SE/4 of said Section 33 for an oil completion. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.
- CASE 7217: (Continued from April 8, 1981, Examiner Hearing)

Application of Harvey E. Yates Company for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox Morrow location of its Travis Ohio State Com Well No. 1 to be drilled 660 feet from the South and West lines of Section 13, Township 18 South, Range 28 East, the S/2 of said Section 13 to be dedicated to the well.

## CAMPBELL, BYRD & BLACK, P.A. LAWYERS

JACK M. CAMPBELL
HARL D. BYRD
BRUCE D. BLACK
MICHAEL B. CAMPBELL
WILLIAM F. CARR
BRADFORD C. BERGE
WILLIAM G. WARDLE

JEFFERSON PLACE
SUITE I - IIO NORTH GUADALUPE
POST OFFICE BOX 2208

APR 15 1981

OIL CONSERVATION DIVISION

April 14, B981A FE

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

Case 7247

Re: Application of Getty Oil Company for a Gas Well Classification, Lea County, New Mexico

Dear Mr. Ramey:

Enclosed in triplicate is the application of Getty Oil Company in the above-referenced matter.

The applicant requests that this matter be included on the docket for the examiner hearing scheduled to be held on May 6, 1981.

Very truly yours,

William F. Carr

WFC:1r

**Enclosures** 

cc: Mr. Herman Terry

BEFORE THE

APR 15 1981

OIL CONSERVATION DIVISIONONSER VATION DIVISION

NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS

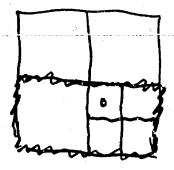
IN THE MATTER OF THE APPLICATION OF GETTY OIL COMPANY FOR A GAS WELL CLASSIFICATION. LEA COUNTY, NEW MEXICO.

Case 7247

#### APPLICATION

Comes now, GETTY OIL COMPANY, by and through its undersigned attorneys, and hereby makes an application for an order classifying applicant's State 20-J Well as a gas well, and in support thereof would show the following:

- 1. Applicant owns the working interest covering the S/2 of Section 29, Township 24 South, Range 33 East, N.M.P.M., Lea County, New Mexico.
- 2. Applicant heretofore received from the Oil Conservation Division a permit to drill a well at an orthodox location in the NW/4 SE/4 of said Section 29.
- 3. Applicant drilled its Getty State 29-J Well No. 1 at a location 1980 feet from the South and East lines of said Section 29 and completed said well in the Morrow formation.
- 4. The Morrow formation does not produce in commercial quantities and applicant has recompleted said well in the Wolfcamp formation through perforations from 13,166 feet to 13,236 feet.



- 5. Applicant believes that the Wolfcamp reservoir into which the Getty State 29-J Well No. 1 has been completed is a gas reservoir subject to retrograde condensation phenomenon.
- 6. The granting of this application will protect correlative rights and will provide for the maximum recovery of hydrocarbons, thereby preventing waste.

WHEREFORE, Applicant prays that this application be set for hearing on May 6, 1981, before the Division's duly appointed examiner and that after notice and hearing as required by law, the Division enter its order granting the application and making such other and further provisions as may be proper in the premises.

Respectfully submitted,
CAMPBELL, BYRD AND BLACK, P.A.

William R Carr

Post Office Box 2208

Santa Fe, New Mexico 87501 Attorneys for Applicant

#### BEFORE THE

APR 15 1981

OIL CONSERVATION DIVISION

DESCRIVATION DIVISION

NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS FE

IN THE MATTER OF THE APPLICATION OF GETTY OIL COMPANY FOR A GAS WELL CLASSIFICATION, HEA COUNTY, NEW MEXICO.

### APPLICATION

Comes now, GETTY OIL COMPANY, by and through its undersigned attorneys, and hereby makes an application for an order classifying applicant's State 20-J Well as a gas well, and in support thereof would show the following:

- 1. Applicant owns the working interest covering the S/2 of Section 29, Township 24 South, Range 33 East, N.M.P.M., Lea County, New Mexico.
- 2. Applicant heretofore received from the Oil Conservation Division a permit to drill a well at an orthodox location in the NW/4 SE/4 of said Section 29.
- Applicant drilled its Getty State 29-J Well No. 1 at a location 1980 feet from the South and East lines of said Section 29 and completed said well in the Morrow formation.
- 4. The Morrow formation does not produce in commercial quantities and applicant has recompleted said well in the Wolfcamp formation through perforations from 13,166 feet to 13,236 feet.

- 5. Applicant believes that the Wolfcamp reservoir into which the Getty State 29-J Well No. 1 has been completed is a gas reservoir subject to retrograde condensation phenomenon.
  - 6. The granting of this application will protect correlative rights and will provide for the maximum recovery of hydrocarbons, thereby preventing waste.

WHEREFORE, Applicant prays that this application be set for hearing on May 6, 1981, before the Division's duly appointed examiner and that after notice and hearing as required by law, the Division enter its order granting the application and making the Other and further provisions as may be proper in the premises.

Respectfully submitted,
CAMPBELL, BYRD AND BLACK, P.A.

y William Vir

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

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#### BEFORE THE

### OIL CONSERVATION DIVISION

## NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS

IN THE MATTER OF THE APPLICATION OF GETTY OIL COMPANY FOR A GAS WELL CLASSIFICATION, LEA COUNTY, NEW MEXICO.

Case 7247

#### APPLICATION

Comes now, GETTY OIL COMPANY, by and through its undersigned attorneys, and hereby makes an application for an order classifying applicant's State 20-J Well as a gas well, and in support thereof would show the following:

- 1. Applicant owns the working interest covering the S/2 of Section 29, Township 24 South, Range 33 East, N.M.P.M., Lea County, New Mexico.
- 2. Applicant heretofore received from the Oil Conservation Division a permit to drill a well at an orthodox location in the NW/4 SE/4 of said Section 29.
- 3. Applicant drilled its Getty State 29-J Well No. 1 at a location 1980 feet from the South and East lines of said Section 29 and completed said well in the Morrow formation.
- 4. The Morrow formation does not produce in commercial quantities and applicant has recompleted said well in the Wolfcamp formation through perforations from 13,166 feet to 13,236 feet.

- 5. Applicant believes that the Wolfcamp reservoir into which the Getty State 29-J Well No. 1 has been completed is a gas reservoir subject to retrograde condensation phenomenon.
- 6. The granting of this application will protect correlative rights and will provide for the maximum recovery of hydrocarbons, thereby preventing waste.

WHEREFORE, Applicant prays that this application be set for hearing on May 6, 1981, before the Division's duly appointed examiner and that after notice and hearing as required by law, the Division enter its order granting the application and making such other and further provisions as may be proper in the premises.

Respectfully submitted,
CAMPBELL, BYRD AND BLACK, P.A.

By William F. Carr

William F. Carr Post Office Box 2208

Santa Fe, New Mexico 87501 Attorneys for Applicant

#### STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

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

JAR

CASE NO. 7247

Order No. R- 6725

NOMENCLATURE

APPLICATION OF GETTY OIL COMPANY FOR A GAS WELL CLASSIFICATION, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on May 6, 1981, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this day of May, 1981, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

#### FINDS:

- (1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Getty Oil Company, seeks the reclassification of its State 29-J Well No. 1, an oil well located in Unit J of Section 29, Township 24 South, Range 33 East, as a retrograde gas condensate well with the 5/2 of said Section 29 to be dedicated to the well.

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(3) That said State 29- J Well No 1 was plugged back and completed in The Wolf camp formation on November 3, 1980. (4) That based upon the completion gas-liquid ratio The Division classified created the Cost Vriste Draw Wolfermp Pool thereform by its Order No R-6623, 5) That the evidence present & established That the State 29-J Well produces from a retrograde gas (6) that soid Cost Triste Draw-Wo. Pool should be recessionated as a gas reservoir and extended to include the entire 5/2 of said Section 29. (7) That opproved of the application and the redosignation of soid pool will 1700 cause weste por violate correlative

IT IS HEREFORE ORDERED: (1) That the Cast Triste Draw-Wolferms
Pool as previously defined and
described is hereby redosignated as
a gos pool rather than an oil pool. (2) That said Cost Triste Draw - Woldcamp Pool is hereby extended to include there in the Sw/4 of Section 29, Vowship 24 South, Range 33 Cast, NM PM, Len order the effective date of this order that the factor and the redesignation and extension included therein shall be June 1, 1981.