

CASE 3143: Application of TEXACO  
for a dual completion, Lea County, \_\_\_\_\_  
New Mexico.

---

CASE No.

3743

Application,  
TRANSCRIPTS,  
SMALL Exhibits  
ETC.

Case 3143

Heard. 11-12-64

Rec. 11-13-64

1. Grant Texas request for a  
dual completion (combination) for their  
H. H. Harris & Co., 65015 & 1750 E. lines - 35-125-386.  
In the Bronco Wolfcamp & Bronco-  
Siluro - Ser. oil Pools.

Thos. A. V. J.

DOCKET: EXAMINER HEARING - THURSDAY - NOVEMBER 12, 1964

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

The following cases will be heard before Daniel S. Nutter, Examiner, or Elvis A. Utz, Alternate Examiner.

CASE 3129: (Continued from the October 13, 1964 Examiner Hearing).  
Application of Shell Oil Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the West Wilson Deep Unit Area comprising 3360 acres, more or less, of State and Fee lands in Township 21 South, Range 34 East, Lea County, New Mexico.

CASE 3138: In the matter of the hearing called by the Oil Conservation Commission upon its own motion to consider exempting certain oil pools in Lea, Chaves, Roosevelt and Eddy Counties, New Mexico, from the gas-oil ratio testing requirements of Rule 301 of the Commission Rules and Regulations. The following pools will be considered for exemption:

ARTESIA DISTRICT

Atoka-San Andres	Leo-Queen-Grayburg, South
Atoka-Grayburg	Leslie Spring-San Andres
Benson-Yates, East	Linda-San Andres
Bitter Lakes-San Andres, South	Loco Hills-San Andres, South
Bitter Lakes-San Andres, West	Logan Draw-San Andres
Brown, Q. Gbr.	Malaga-Delaware
Brushy Draw-Delaware	McMillan Seven Rivers-Queen, East
Canyon-Wolfcamp	Millman-Seven Rivers, East
Carlsbad-Delaware	Palmillo-Seven Rivers
Cass Draw-Delaware	Parallel-Delaware
Cave (Gbr.)	Pecos-Delaware
Case-San Andres, West	Pecos-San Andres
Cedar Lake-Cisco	Penasco-San Andres
Chisum-Devonian	Penasco-Wolfcamp
Corral Canyon-Delaware	Quahada Ridge-Delaware
Cotton Draw-Brushy Canyon	Red Hills- Yates
Coyote-Queen	Red Lake-Queen-Grayburg, East
Dark Canyon-Delaware	Red Lake-Seven Rivers, South
Dayton-Abo	Remuda-Wolfcamp
Dayton-Grayburg, East	Round Tank-San Andres
Dayton-San Andres, West	Saladar-Yates
Diablo-San Andres	Sand Tank-Queen
Dog Canyon-Grayburg	Shugart-Bone Springs
Dos Hermanos, Yates-Seven Rivers	Shugart-Wolfcamp
Eagle Creek-San Andres	Square Lake Grayburg-San Andres, North
Empire Paddock	Sulphate Draw-Delaware
Empire-Yates-Seven Rivers, E.	Twin Lakes-Devonian
Four Mile Draw-San Andres	U. S. Delaware
Fren Paddock	Welch-Delaware
Hackberry-Seven Rivers	White Ranch Siluro-Devonian
Hackberry-Yates, North	White Ranch-Devonian, West
L. E. Ranch-San Andres	Windmill-San Andres

November 12 Examiner Hearing

HOBBS DISTRICT

Baish-Wolfcamp, North	Hume-Queen, West
Baum-Wolfcamp	Jenkins-Devonian
Bishop Canyon-Queen	Jenkins-San Andres
Bowers-Seven Rivers	King-Wolfcamp
Caprock-Wolfcamp, East	Lea-Yates
CLR-San Andres	Littman-San Andres
Corbin-Queen, South	Lone-Wolfcamp
Corbin-Yates	Lovington-San Andres
Crossroads-Mississippian	Lovington-San Andres, West
Crossroads-San Andres, West	Lynch-Yates, Middle
Dollarhide-Queen	Pearl-Pennsylvanian
Dublin-Devonian	Querecho Plains-Bone Springs
Echols-Devonian, East	Querecho Plains-Delaware
Echols-Devonian, North	Querecho Plains-Yates
Edson-Pennsylvanian	Teague-Devonian
Elliott-Abo	Teague-Ellenburger
Field Ranch-Wolfcamp	Teague Simpson
Gladia-Wolfcamp, South	Warren-Abo
Hume-Queen	Williams-Pennsylvanian, North
	Young-San Andres

CASE 3139: Application of Shell Oil Company for a dual completion and a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 160-acre non-standard gas proration unit comprising the S/2 SW/4, NE/4 SW/4, and SW/4 SE/4 of Section 3, Township 21 South, Range 37 East, Tubb Gas Pool, Lea County, New Mexico, to be dedicated to its Livingston Well No. 7 located in Unit V of said Section 3. Applicant further seeks approval of said well as a dual completion (conventional) to produce oil from the Drinkard Pool through 2-3/8 inch tubing and to produce gas from the Tubb Gas Pool through the casing-tubing annulus.

CASE 3140: Application of Caulkins Oil Company for a non-standard location and a dual completion, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval of an unorthodox location for its Breech B Well No. PD-123 to be located 700 feet from the North line and 1800 feet from the East line of Section 7, Township 26 North, Range 6 West, Rio Arriba County, New Mexico. Applicant further seeks authority to complete said well as a dual completion (conventional) to produce gas from the South Blanco-Pictured Cliffs Pool through 1-1/4 inch tubing and to produce gas from the Basin-Dakota Gas Pool through 2-3/8 inch tubing.

CASE 3141: Application of Caulkins Oil Company for a non-standard location and a dual completion, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval of an unorthodox location for its Breech C Well No. D-144 to be located 990 feet from the North line and 1,090 feet from the East line of Section 12, Township 26 North, Range 6 West, Rio Arriba County, New Mexico. Applicant further seeks authority to complete said well as a dual completion (conventional) to produce oil from the South Blanco-Tocito Pool through 2-3/8 inch tubing and to produce gas from the Basin-Dakota Gas Pool through 1-1/4 inch tubing.

November 12 Examiner Hearing

CASE 3142: Application of N. B. Hunt for a non-standard proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 280-acre non-standard gas proration unit comprising the SW/4, W/2 SE/4, and SE/4 SE/4 of Section 21, Township 21 South, Range 37 East, Eumont Gas Pool, Lea County, New Mexico, to be dedicated to his Wantz Well No. 2 located in Unit L of said Section 21. In the event all of said acreage is not approved for said Well No. 2, applicant seeks approval of another non-standard unit comprising the remaining acreage to be dedicated to his Wantz Well No. 1 in Unit A of said Section 21.

CASE 3143: Application of Texaco Inc. for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to complete its H. H. Harris Well No. 2 located in Unit O of Section 35, Township 12 South, Range 38 East, Lea County, New Mexico, as a dual completion (combination) to produce oil from the Bronco Wolfcamp Pool through 2-7/8 inch casing and to produce oil from the Bronco Siluro-Devonian Pool through tubing in a parallel string of 3-1/2 inch casing cemented in a common well bore.

CASE 3144: Application of Texaco Inc. for force-pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order force-pooling all mineral interests in the Drinkard Pool underlying the SE/4 of the SW/4 of Section 17, Township 22 South, Range 38 East, Lea County, New Mexico.

CASE 3145: Application of Sunray DX Oil Company for a dual completion and salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to complete its State "AS" Well No. 1 located in Unit G of Section 29, Township 11 South, Range 33 East, Lea County, New Mexico, as a dual completion to produce oil from the Pennsylvanian formation through tubing and to dispose of produced salt water down the production-intermediate casing annulus into the San Andres, Glorieta, and Tubb formations from 3840 feet to 8600 feet.

CASE 2660: (Reopened and continued from the October 28th Examiner Hearing)  
In the matter of Case No. 2660 being reopened pursuant to the provisions of Order No. R-2348-A, which continued the original order establishing 80-acre proration units for the Middle Lane-Pennsylvanian Pool, Lea County, New Mexico, for an additional year. All interested parties may appear and show cause why said pool should not be developed on 40-acre proration units.

TEXACO  
INC.

PETROLEUM PRODUCTS



October 15, 1964

DRAWER 728  
HOBBS, NEW MEXICO 88240

Pl: Ev

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

Attention: Mr. A. L. Porter, Jr.

Gentlemen:

TEXACO Inc. respectfully requests that a hearing be set to consider its application for a combination conventional-tubingless completion for the H.H. Harris Well No. 2. This well will be completed in the Bronco (Wolfcamp) Pool and Bronco (Siluro-Devonian) Pool, Lea County, New Mexico. In support of our application we wish to state the following facts:

1. TEXACO Inc. is the Operator of the H.H. Harris Lease containing 302.67 acres and consisting of the S/2 of Section 35, Township 12 South, Range 38 East, Lea County, New Mexico.
2. H.H. Harris Well No. 2 is located in Unit 0 of said Section 35.
3. The Siluro-Devonian zone will be an oil completion through casing perforations from approximately 11,792 feet to 11,833 feet.
4. The Wolfcamp zone will be an oil completion through casing perforations from approximately 9,000 feet to 9,040 feet.
5. The Wolfcamp zone is expected to require pumping and it will be produced through 2-7/8 inch casing cemented in a common well bore with 3-1/2 inch casing that will serve the Siluro-Devonian zone. The Siluro-Devonian zone is expected to flow and it will be produced through 1-1/2 inch tubing.

Attached is an Application for Multiple Completion and a plat of the H.H. Harris Lease. It is respectfully requested that this application be set for hearing on the first available hearing docket.

Yours very truly,

*C. L. Whigham*

C. L. Whigham  
Division Proration Engineer

WPY-bh

Attachments

DOCKET MAILED

Date 10-30-64

# NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

5-1-61

## APPLICATION FOR MULTIPLE COMPLETION

Operator TEXACO Inc.		County Lea		Date October 15, 1961
Address P.O. Box 728, Hobbs, New Mexico		Lease H. H. Harris		Well No. 2
Location or Well	Unit 0	Section 35	Township 12 South	Range 38 East

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

3. The following facts are submitted:	Upper Zone	Intermediate Zone	Lower Zone
a. Name of Pool and Formation	Bronco Wolfcamp		Bronco Siluro-Devonian
b. Top and Bottom of Pay Section (Perforations)	Est. 9000'-9040'		Est. 11,792'-11,833'
c. Type of production (Oil or Gas)	Oil		Oil
d. Method of Production (Flowing or Artificial Lift)	Pump		Flow

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

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

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

Livermore Drilling Co., 406 Lubbock National Bank Bldg., Lubbock, Texas

Operators Service Co., 201 West Bldg., Midland, Texas

Mrs. R.C. Lipscomb (Lipscomb Estate), 901 Alamo National Bldg., San Antonio, Texas

Tamarack Petroleum Co., 521 Midland Savings Bldg., Midland, Texas

Gulf Oil Corp., P.O. Box 1938, Roswell, New Mexico

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

CERTIFICATE: I, the undersigned, state that I am the Division Proration Engineer of the TEXACO Inc. (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

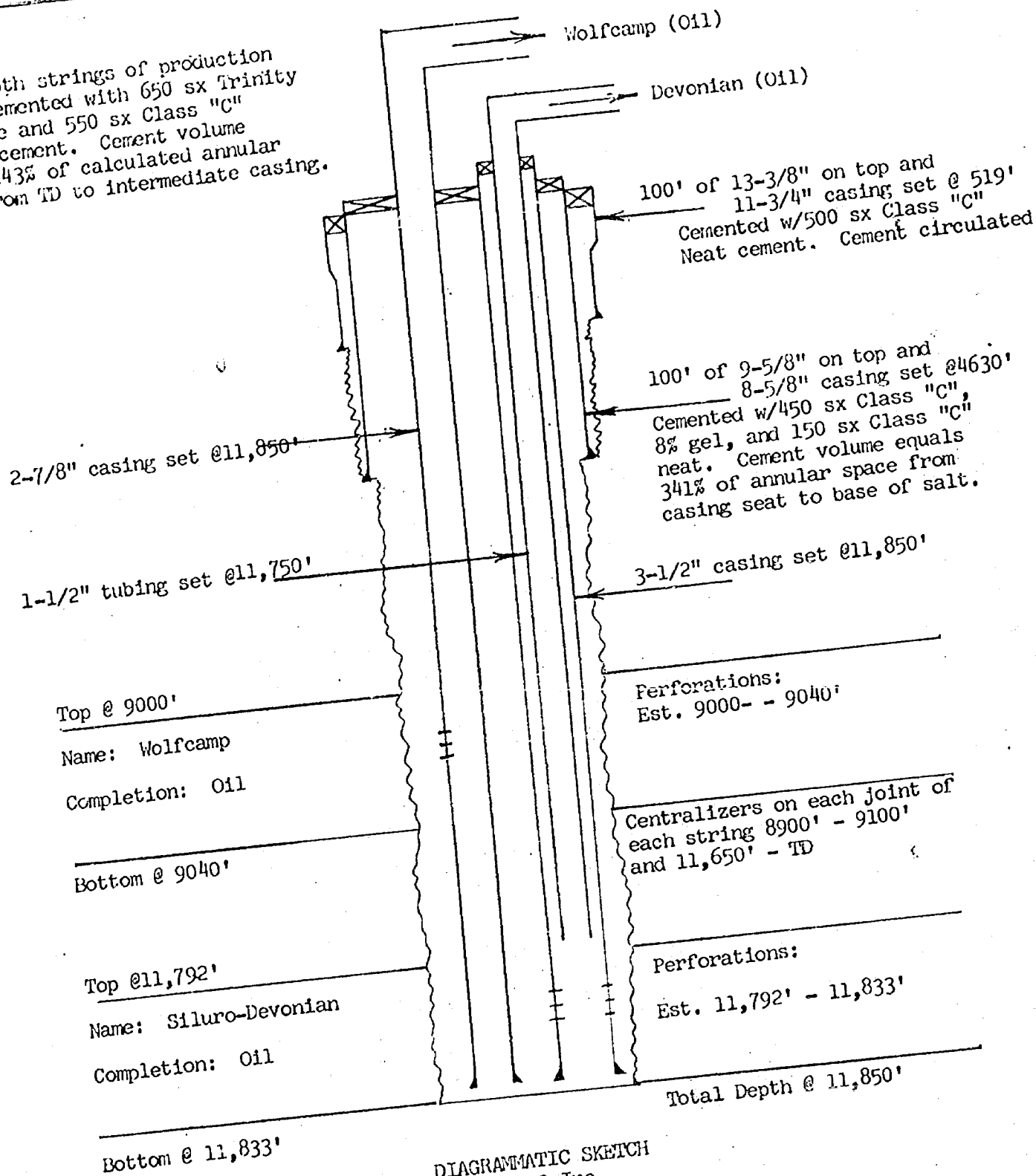
C.L. Whigham

*[Signature]*  
Signature

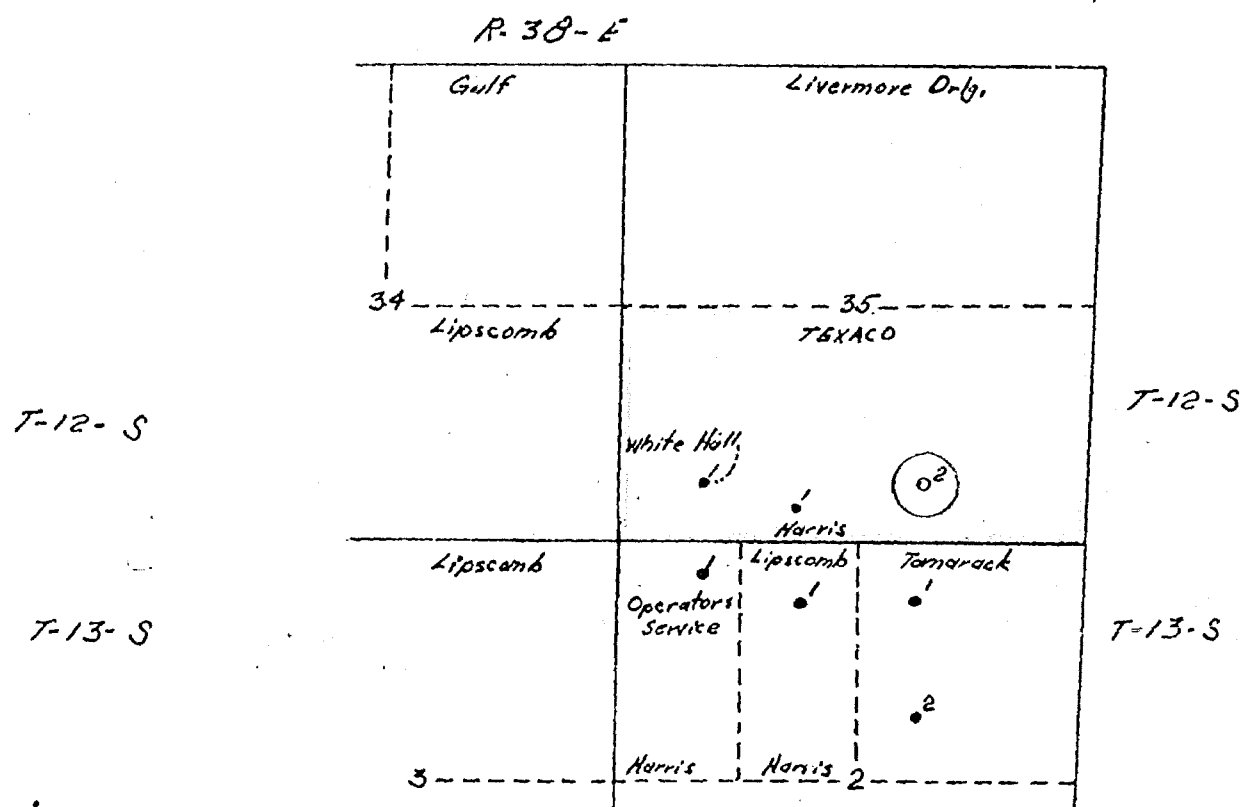
- \* Should waivers from all offset operators not accompany an application for administrative approval, the New Mexico Oil Conservation Commission will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If, after said twenty-day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed.
- NOTE: If the proposed multiple completion will result in an unorthodox well location and/or a non-standard proration unit in either or both of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.



NOTE: Both strings of production casing cemented with 650 sx Trinity Lite Wate and 550 sx Class "C" 4% gel, cement. Cement volume equals 143% of calculated annular space from TD to intermediate casing.



DIAGRAMMATIC SKETCH  
 TEXACO Inc.  
 H. H. Harris Well No. 2  
 Bronco (Wolfcamp & Siluro-Devonian) Pools  
 Lea County, New Mexico



TEXACO Inc.

Bronco (Wolfcamp & Siluro-Devonian) Pools  
Crude Characteristics

<u>Item</u>	<u>Wolfcamp</u>	<u>Siluro-Devonian</u>
Type Crude	Intermediate Sweet	Intermediate Sweet
Gravity (°API)	42.3	44.4°
BHP (psi)	2397	4176
GOR (cu. ft./bbl)	1145	132
Status	Pump	Flow
Corrosion	None	None
Paraffin	Slight	Slight

State of New Mexico  
Oil Conservation Commission



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

OTHER \_\_\_\_\_

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

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

CASE No. 3143  
Order No. R-2812

APPLICATION OF TEXACO INC.  
FOR A DUAL COMPLETION, LEA  
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on November 12, 1964, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 24th day of November, 1964, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Texaco Inc., seeks authority to complete its H. H. Harris Well No. 2, located in Unit O of Section 35, Township 12 South, Range 38 East, NMPM, Lea County, New Mexico, as a dual completion (combination) to produce oil from the Bronco-Wolfcamp Pool through 2 7/8-inch casing and to produce oil from the Bronco Siluro-Devonian Pool through 1 1/2-inch tubing in a parallel string of 3 1/2-inch casing cemented in a common well bore.

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

(4) That approval of the subject application will prevent waste and protect correlative rights.

-2-

CASE No. 3143

Order No. R-2812

IT IS THEREFORE ORDERED:

(1) That the applicant, Texaco Inc., is hereby authorized to complete its H. H. Harris Well No. 2, located in Unit O of Section 35, Township 12 South, Range 38 East, NMPM, Lea County, New Mexico, as a dual completion (combination) to produce oil from the Bronco-Wolfcamp Pool through 2 7/8-inch casing and to produce oil from the Bronco Siluro-Devonian Pool through 1 1/2-inch tubing in a parallel string of 3 1/2-inch casing cemented in a common well bore;

PROVIDED HOWEVER, that the applicant shall complete, operate, and produce said well in accordance with the provisions of Rule 112-A of the Commission Rules and Regulations insofar as said rule is not inconsistent with this order;

PROVIDED FURTHER, that the applicant shall take zone segregation tests upon completion and annually thereafter during the Annual Gas-Oil Ratio Test Period for the Bronco Siluro-Devonian Pool.

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

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

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

  
*Jack M. Campbell*  
JACK M. CAMPBELL, Chairman

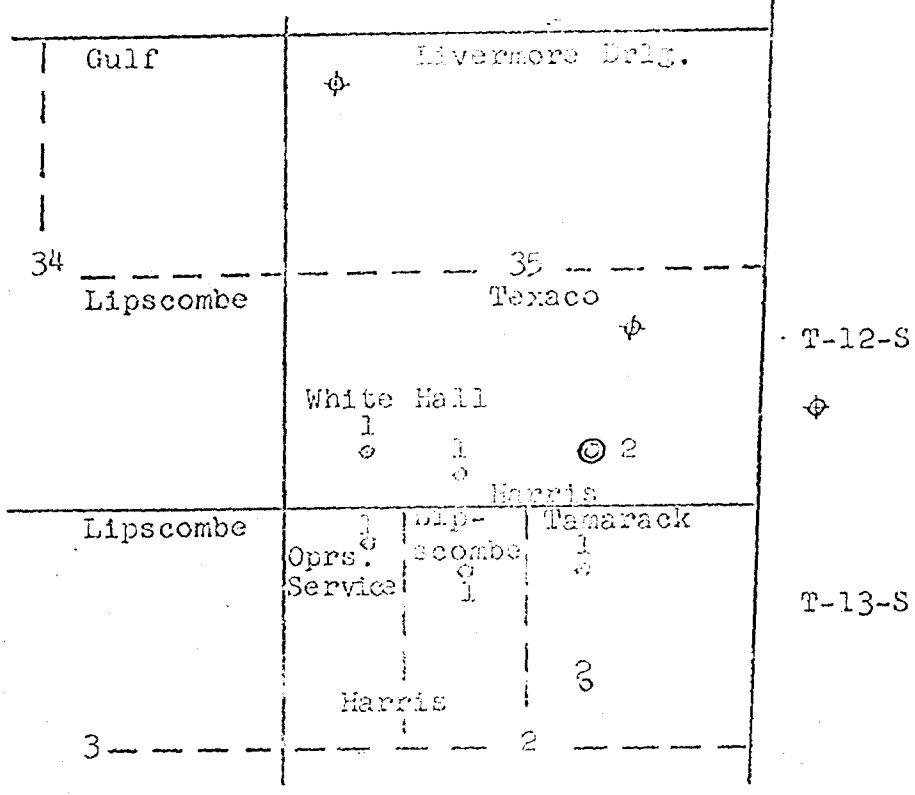
*E. S. Walker*  
E. S. WALKER, Member

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

esr/

BEFORE EXAMINER UTZ	
OIL CONSERVATION COMMISSION	
EXHIBIT NO.	1
CASE NO.	3143

R-38-E



TEXACO Inc.  
H. H. Harris lease  
Bronco Field

Scale: 1" = 2000'

OFFSET OPERATORS

Livermore Drilling Co-406 Lubbock Nat'l Bldg-Lubbock, Texas  
Operators Service Co-201 West Bldg-Midland, Texas  
Mrs. R. C. Lipscombe (Lipscombe Estate)-901 Alamo Nat'l Bldg-San Antonio, Texas  
Tamarack Petroleum Co-521 Midland Savings Bldg-Midland, Texas  
Gulf Oil Corp-Box 1938-Roswell, New Mexico

NOTE: Both strings of production casing cemented with 650 sx Trinity Lite Mate and 550 sx Class "C" 4% gel, cement. Cement volume equals 143% of calculated annular space from TD to intermediate casing.

**BEFORE EXAMINER UTZ**  
**OIL CONSERVATION COMMISSION**  
 Exhibit NO. 2  
 CASE NO. 3145

2-7/8" casing set @11,850'

1-1/2" tubing set @11,750'

Top @ 9000'

Name: Wolfcamp

Completion: Oil

Bottom @ 9040'

Top @11,792'

Name: Siluro-Devonian

Completion: Oil

Bottom @ 11,833'

Wolfcamp (Oil)

Devonian (Oil)

100' of 13-3/8" on top and 11-3/4" casing set @ 519' Cemented w/500 sx Class "C" Neat cement. Cement circulated

100' of 9-5/8" on top and 8-5/8" casing set @4630' Cemented w/450 sx Class "C", 8% gel, and 150 sx Class "C" neat. Cement volume equals 341% of annular space from casing seat to base of salt.

Perforations:  
 Est. 9000' - 9040'  
 9008' - ✓

Centralizers on each joint of each string 8900' - 9100' and 11,650' - TD

Perforations:  
 Est. 11,792' - 11,833'  
 11,831'

Total Depth @ 11,850'

DIAGRAMMATIC SKETCH  
 TEXACO Inc.  
 H. H. Harris Well No. 2  
 Bronco (Wolfcamp & Siluro-Devonian) Pools  
 Lea County, New Mexico



TEXACO Inc.

Bronco (Wolfcamp & Siluro-Devonian) Pools  
Crude Characteristics

<u>Item</u>	<u>Wolfcamp</u>	<u>Siluro-Devonian</u>
Type Crude	Intermediate Sweet	Intermediate Sweet
Gravity (°API)	42.3	44.4°
BHP (psi)	2397	4176
GOR (cu. ft./bbl)	1145	132
Status	Pump	Flow
Corrosion	None	None
Paraffin	Slight	Slight

BEFORE EXAMINER UTZ	
OIL CONSERVATION COMMISSION	
<i>Capt</i>	EXHIBIT NO. <u>3</u>
CASE NO.	<u>3143</u>

dearnley-meier reporting service, inc.

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

1120 SIMMS BLDG. • P. O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO



PAGE 1

BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
November 12, 1964

EXAMINER      HEARING

IN THE MATTER OF: Application of Texaco Inc. for  
a dual completion, Lea County, New Mexico.  
Applicant in the above-styled cause seeks  
authority to complete its H. H. Harris Well  
No. 2 located in Unit 0 of Section 35, Town-  
ship 12 South, Range 38 East, Lea County,  
New Mexico, as a dual completion (combination)  
to produce oil from the Bronco Siluro-  
Devonian Pool through tubing in a parallel  
string of 3 1/2 inch casing cemented in a  
common well bore.

Case No. 3143

BEFORE:      Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

TEXACO Inc.

Bronco (Wolfcamp & Siluro-Devonian) Pools  
Crude Characteristics

<u>Item</u>	<u>Wolfcamp</u>	<u>Siluro-Devonian</u>
Type Crude	Intermediate Sweet	Intermediate Sweet
Gravity (°API)	42.3	44.4°
BHP (psi)	2397	4176
GOR (cu. ft./bbl)	1145	132
Status	Pump	Flow
Corrosion	None	None
Paraffin	Slight	Slight

dearnley-meier recording service, inc.

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

1120 SIMMS BLDG. • P. O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO



MR. UTZ: The next case will be Case 3143.

MR. DURRETT: Application of Texaco Inc. for a dual completion, Lea County, New Mexico.

MR. KELLY: Booker Kelly of Gilbert, White and Gilbert, Santa Fe, appearing on behalf of the Applicant. I have one witness and ask that he be sworn.

(Witness sworn.)

(Whereupon, Applicant's Exhibits 1 through 3 marked for identification.)

CARL L. WHIGHAM, called as a witness, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. KELLY:

Q Would you state your name, position and employer, please?

A My name is Carl L. Whigham. I'm the Midland Division Proration Engineer for the Texaco Inc. located in Midland, Texas.

Q You have previously testified as an expert witness in front of this Commission?

A Yes, sir.

Q Would you briefly state what Texaco seeks by the application?

A Texaco, as the applicant in this case, seeks

dearnley-meier recording service, inc.

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

11720 SIMMS BLDG. • P. O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO



authority to dually complete its H. H. Harris Well Number 2 located in Unit O of Section 35, Township 12 South, Range 38 East, Lea County, New Mexico, as a dual completion in the Bronco Wolfcamp Pool, and the Bronco Siluro-Devonian Pool.

Q Referring to Exhibit 1, this shows the location of the well, is that correct?

A Yes.

Q Would you give a brief report of the present status of the well?

A This well has been completed, potential tests have been conducted.

Q What zones are you going to be producing in?

A The Bronco Siluro-Devonian and the Bronco Wolfcamp.

Q Are there any similar duals in the area?

A No, there are no other dual completions with these two particular reservoirs.

Q Referring to what has been marked Exhibit Number 2, the diagramatic sketch, would you explain the mechanics of your completion?

A Exhibit Number 2, the diagramatic sketch of this completion shows it has 13 3/8s surface casing extended to 100 feet, and below that 11 3/4-inch casing on down to 519 feet. This string of surface casing was cemented to the surface. The next string of casing, the intermediate, was set at 4,630

feet. The intermediate casing size was 9 5/8s and 8 5/8s. This casing was cemented with 450 sacks of Class C, 8 percent Gel, followed by 150 sacks of Class C Neat cement, and this amount was 341 percent of the annular space up to the base of the salt section; then the two production strings of casing were set, after reaching a total depth of 11,850 feet. 2 7/8s casing was set at 11,836 feet, and 3 1/2-inch casing was set at 11,847 feet.

Q The figures given on the sketch are your proposed. This was prepared before the well was completed?

A Right. I was about to explain that the casing was set at exactly the depths specified, when we submitted our application.

Q As you go through, would you explain the changes? And, we move that the exhibit be amended as the changes occur.

A Both strings of production casing were cemented with 650 sacks of Trinity light water cement, followed by 550 sacks of Class C-4 percent Gel cement.

This was calculated to be 143 percent of the volume to fill up to the intermediate casing. After cementation, the Wolfcamp reservoir was perforated at five points, 9,008, 9,016, 9,024, 9,031 and 9,035 feet. That will also be a correction to the perforations shown on the original exhibit, which was estimated to be between 9,000 and 9,040 feet.

dearnley-meier recording service, inc.

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

1120 SIMAS BLDG. • P. O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO



Then the Siluro-Devonian zone was perforated at three points, 11,827 feet, 11,829 feet and 11,831 feet. Then both of these zones were acidized, and potential tested.

Q You don't contemplate any communication between the two zones?

A No, the two zones will be produced through separate strings of casing. They are isolated, both by the casing string and the cement.

Q You have an Exhibit 3, showing the crude characteristics of the two zones. Would you briefly go through that?

A Yes, the two zones are rather similar with regard to the crude oil characteristics. Both crudes are classified as intermediate sweet; both of them have relatively high API gravities between 42 and 44. The bottom hole pressure in the Wolfcamp was measured to be 2397 psi., whereas the deeper Siluro-Devonian had a bottom hole pressure of 4176 psi.

The Wolfcamp zone has a higher gas-oil ratio than the Devonian. It's gas-oil ratio is 1145, whereas the Devonian has a gas-oil ratio of 132.

Our Exhibit Number 3 shows that the Wolfcamp zone will be pumped and the Siluro-Devonian zone will flow. Our production tests have indicated that the Devonian zone will probably also have to be pumped. It flowed on the test, but

dearnley-meier 1800 475 8200

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

1120 SIMMS BLDG. • P. O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO



the flowing tubing pressure was very low, so we expect to have to pump both zones. We expect no corrosion problems in either zone, and the paraffin problem will be minor from both upon this recovery.

Q The Exhibit 3 shows the crude characteristics are quite similar. Do you think that you would probably commingle them if you had administrative approval?

A That will be given due consideration and they will probably be commingled.

Q Do you have a log of the well available?

A I believe that there is one that was filed with the application. Would you like another one?

MR. UTZ: No, this is plenty.

Q (By Mr. Kelly) Would the granting of this application be in the best interest of the prevention of waste and would have no adverse effect on correlative rights, in your opinion?

A That's correct.

Q Were Exhibits 1 through 3 prepared by you or under your supervision?

A Yes.

MR. KELLY: I move the introduction of Exhibits 1 through 3.

MR. UTZ: Without objection Exhibits 1 through 3 will



be entered into the record of this case.

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

MR. KELLY: I have no further questions of the witness.

CROSS EXAMINATION

BY MR. UTZ:

Q As I understand your cementing program, the 2 7/8s and 3 1/2 was circulated from bottom up into and behind the intermediate stage?

A Yes, sir.

Q So you have a solid column of cement?

A Yes.

Q What was the location of this well, the footage location?

A 650 feet from the South line and 1750 feet from the East line of Section 35, that would be Unit O, 12 South, 38 East.

Q 12 South, 38 East?

A Yes, that's correct, Township 12 South, Range 38 East.

MR. UTZ: Are there other questions of the witness? The witness may be excused.

(Witness excused.)

MR. UTZ: Any statements in this case? The case

dearnley-meier  
SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS  
1120 SIMMS BLDG. • P. O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO



dearnley-meier recording service, inc.

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

1120 SIMMS BLDG. • P. O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO



will be taken under advisement.

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

I, ADA DEARNLEY, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission Examiner at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and ability.

IN WITNESS WHEREOF I have affixed my hand and notarial seal this 24th day of November, 1964.

*Ada Dearnley*  
Notary Public - Court Reporter

My Commission Expires:  
June 19, 1967

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 3143, heard by me on Nov. 12, 1964.  
*[Signature]*  
Examiner  
New Mexico Oil Conservation Commission