CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

May 22, 1964

RESERVOIR FLUID DIVISION

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
Texaco EXHIBIT NO. C
CASE NO. 3073

Texaco Inc.
P. O. Box 810
Farmington, New Mexico

Attention: Mr. A. G. Walsh

Subject: Reservoir Fluid Study
Navajo "AL" No. 1 Well
Undesignated (Tocito Dome) Field
San Juan County, New Mexico

Gentlemen:

Samples of separator liquid and vapor were collected from the subject well on May 6, 1964. These samples, together with a sample of stock tank liquid, were shipped to our Dallas laboratory for studies. The results of these studies are presented to you in this report.

The producing gas-liquid ratio measured in the field and after correction for the factors shown on page one of the report was 3290 cubic feet of separator gas at 14.7 psia and 60° F. per barrel of stock tank liquid at 60° F. In the laboratory this ratio was found to be equivalent to 3238 standard cubic feet of separator gas per barrel of separator liquid. The separator products were then physically recombined in this ratio and examined in a visual cell at the reservoir temperature of 159° F. The mixture exhibited a bubble point pressure of 5320 psig. This value is considerably above the reservoir pressure. When viewed at the reservoir pressure of approximately 3200 psig the system was found to be in two phases. Approximately 42 per cent of the system volume was liquid.

These results have been previously transmitted by telephone. The composition of the separator products and the stock tank liquids are presented on the following pages with the calculated composition of the producing

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well stream at the time the well was tested.

It was a pleasure to perform these tests for you. Should you have any questions, please do not hesitate to contact us.

Very truly yours,

Core Laboratoreis, Inc.
Reservoir Fluid Division

P. L. Moses
Operations Supervisor

PLM:jr

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Company	Texaco Inc.	Date Sampled	May 6, 1964
Well	Navajo "AL" No. 1	County	San Juan
Field	Undesignated (Tocito Dome)	State	New Mexico

FORMATION CHARACTERISTICS

Formation Name	Pennsylvanian-Barber Creek
Date First Well Completed	May 3, 1964
Original Reservoir Pressure	3214 PSIG @ 6285 Ft.
Original Produced Gas-Liquid Ratio	2911 SCF/Bbl
Production Rate	Bbls/Day
Separator Pressure and Temperature	PSIG ° F.
Liquid Gravity at 60° F.	° API
Datum	Ft. Subsea

WELL CHARACTERISTICS

Elevation	5763 DF Ft.
Total Depth	6910 Ft.
Producing Interval	6275-6302 Ft.
Tubing Size and Depth	2 - 3/8 In. to 6189 Ft.
Open Flow Potential	MMSCF/Day
Last Reservoir Pressure	3206 PSIG @ 6288 Ft.
Date	May 6, 1964
Reservoir Temperature	157 ° F. @ 6150 Ft.
Status of Well	
Pressure Gauge	

SAMPLING CONDITIONS

Flowing Tubing Pressure		1892 PSIA
Flowing Bottom Hole Pressure		2778 @ 6288 Ft. PSIA
Primary Separator Pressure		55 PSIG
Primary Separator Temperature		43 ° F.
Secondary Separator Pressure		PSIG
Secondary Separator Temperature		° F.
Field Stock Tank Liquid Gravity		° API @ 60° F.
Primary Separator Gas Production Rate		962.1 MSCF/Day
Pressure Base	14.7 PSIA	
Temperature Base	60 ° F.	
Compressibility Factor (F_{pv})	1.012	
Gas Gravity (Laboratory)	0.724	
Gas Gravity Factor (F_g)	1.1753	
Stock Tank Liquid Production Rate @ 60° F.		292.5 Bbls/Day
Primary Separator Gas/ Stock Tank Liquid Ratio		3290 SCF/Bbl
	or	304.0 Bbls/MMSCF
Core Laboratories, Inc., Engineer		

REMARKS:

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