

TABULATION OF DEVIATION SURVEYS

**BHP PETROLEUM (AMERICAS) INC.
GALLEGOS CANYON UNIT NO. 503
API NO. 30-045-28064**

<u>DEPTH</u>	<u>DEVIATION</u>
733'	1/2°
1585'	3/4°

AFFIDAVIT

This is to certify that to the best of my knowledge the above tabulation details the deviation tests taken in the BHP PETROLEUM (AMERICAS) INC.'S Gallegos Canyon Unit No. 503 located 1265' FSL & 1850' FEL of Section 18, T29N-R12W in San Juan County, New Mexico.

Signed

Beverly Comer
Beverly Comer

THE STATE OF TEXAS)

) SS.

COUNTY OF HARRIS)

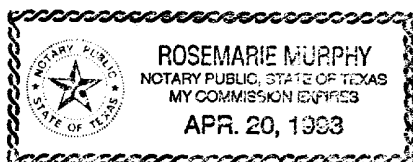
BEFORE ME, the undersigned authority, on this day personally appeared Beverly Comer known to me to be Production Technician for BHP Petroleum (Americas) Inc. and to be the person whose name is subscribed to the above statement, who, being by me duly sworn on oath, states that he has knowledge of the facts stated herein and that said statement is true and correct.

SUBSCRIBED AND SWORN TO before me, a Notary Public in and for said County and State this 10th day of April 1991.

Rosemarie Murphy
Notary Public

My Commission Expires

4/20/93



NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Basin Dakota Formation Dakota County San Juan
Initial I Annual _____ Special _____ Date of Test June 2, 1961
Company Pan American Petroleum Corporation Calleges Canyon Unit Well No. 96
Unit 0 Sec. 18 Twp. 29N Rge. 12W Purchaser _____
Casing 4 1/2 Wt. 9.5 I.D. 4.070 Set at 6186 Perf. 6042 To 6060
open ended
Tubing 2-3/8 Wt. 4.7 I.D. 1.995 Set at 6041 Perf. _____ To _____
Gas Pay: From 6032 To 6078 L 6041 xG .700(est) GL 4229 Bar.Press. 12
Producing Thru: Casing _____ Tubing I Type Well Single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 5-11-61 Packer None Reservoir Temp. 123° F

OBSERVED DATA

Tested Through (11000) (Choke) (11000) Type Taps _____

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Line) Size	(Choke) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI	Shut-In 22 days					2188		2167		
1.	2"	3/4"	537			705	60(est)	1200	60(est)	3 Hr.
2.										
3.										
4.										
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_w P_f}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	12.305		549	1.000	.9258	1.073	6743
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

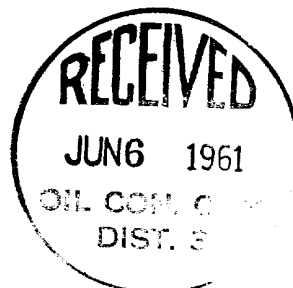
Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c _____ (1-e^{-s})

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 2179 P_c 4.748, 041

No.	P _w P _t (psia)	P _t ²	F _c Q	(F _c Q) ²	(F _c Q) ² (1-e ^{-s})	P _w ²	P _c ² -P _w ²	Cal. P _w	P _w P _c
1.						1,669,264	3,078,777		
2.									
3.									
4.									
5.									

Absolute Potential: 9330 MCFPD; n .75
COMPANY Pan American Petroleum Corporation
ADDRESS Box 400, Farmington, New Mexico
AGENT and TITLE L. H. Loner, Jr., Senior Petroleum Engineer
WITNESSED _____
COMPANY _____

REMARKS



INSTRUCTIONS

This form is to be used for reporting multi-point back pressure tests on gas wells in the State, except those on which special orders are applicable. Three copies of this form and the back pressure curve shall be filed with the Commission at Box 871, Santa Fe.

The log log paper used for plotting the back pressure curve shall be of at least three inch cycles.

NOMENCLATURE

- Q = Actual rate of flow at end of flow period at W. H. working pressure (P_w).
MCF/da. @ 15.025 psia and 60° F.
- P_c = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater.
psia
- P_w = Static wellhead working pressure as determined at the end of flow period.
(Casing if flowing thru tubing, tubing if flowing thru casing.) psia
- P_t = Flowing wellhead pressure (tubing if flowing through tubing, casing if
flowing through casing.) psia
- P_f = Meter pressure, psia.
- h_w = Differential meter pressure, inches water.
- F_g = Gravity correction factor.
- F_t = Flowing temperature correction factor.
- F_{pv} = Supercompressibility factor.
- n = Slope of back pressure curve.

Note: If P_w cannot be taken because of manner of completion or condition of well, then P_w must be calculated by adding the pressure drop due to friction within the flow string to P_t .