

## 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 X Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 6-21-61  
Company Adebe Oil Company Lease Nichols (KD) Well No. 1  
Unit K Sec. 11 Twp. 31N Rge. 13W Purchaser El Paso Natural Gas Company  
Casing 3-1/2" Wt. 13.34 I.D. 4.937 Set at 6700' Perf. 6530', 6531', 6532', 6533', 6534', 6535', 6536', 6537', 6538', 6539', 6540', 6541', 6542', 6543', 6544', 6545', 6546', 6547', 6548', 6549', 6550', 6551', 6552', 6553', 6554', 6555', 6556', 6557', 6558', 6559', 6560', 6561', 6562', 6563', 6564', 6565', 6566', 6567', 6568', 6569', 6570', 6571', 6572', 6573', 6574', 6575', 6576', 6577', 6578', 6579', 6580', 6581', 6582', 6583', 6584', 6585', 6586', 6587', 6588', 6589', 6590', 6591', 6592', 6593', 6594', 6595', 6596', 6597', 6598', 6599', 6600', 6601', 6602', 6603', 6604', 6605', 6606', 6607', 6608', 6609', 6610', 6611', 6612', 6613', 6614', 6615', 6616', 6617', 6618', 6619', 6620', 6621', 6622', 6623', 6624', 6625', 6626', 6627', 6628', 6629', 6630', 6631', 6632', 6633', 6634', 6635', 6636', 6637', 6638', 6639', 6640', 6641', 6642', 6643', 6644', 6645', 6646', 6647', 6648', 6649', 6650', 6651', 6652', 6653', 6654', 6655', 6656', 6657', 6658', 6659', 6660', 6661', 6662', 6663', 6664', 6665', 6666', 6667', 6668', 6669', 6670', 6671', 6672', 6673', 6674', 6675', 6676', 6677', 6678', 6679', 6680', 6681', 6682', 6683', 6684', 6685', 6686', 6687', 6688', 6689', 6690', 6691', 6692', 6693', 6694', 6695', 6696', 6697', 6698', 6699', 6700'  
Tubing 1-1/2" Wt. 2.75 I.D. 1-3/8 Set at 6633' Perf. -- To --  
Gas Pay: From 6525 To 6651 L 6633 xG .665 -GL 4411 Bar.Press. 12.0  
Producing Thru: Casing \_\_\_\_\_ Tubing X Type Well Gas/Gas - Dual  
Date of Completion: 5-25-61 Packer Yes Single-Bradenhead-G. G. or G.O. Dual  
Reservoir Temp. \_\_\_\_\_

## OBSERVED DATA

Tested Through (Prover) (Choke) (Meter)

Type Taps \_\_\_\_\_

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h <sub>w</sub>	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						1365		Factor		7 days
1.		3/4"	107		70	107	70			3 hours
2.										
3.										
4.										
5.										

## FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	Pressure psia	Flow Temp. Factor F <sub>t</sub>	Gravity Factor F <sub>g</sub>	Compress. Factor F <sub>pv</sub>	Rate of Flow Q-MCFPD @ 15.025 psia
1.	14.1605		119	.9905	.9498	1.012	1604
2.							
3.							
4.							
5.							

## PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.  
Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.  
P<sub>c</sub> \_\_\_\_\_ (1-e<sup>-s</sup>)

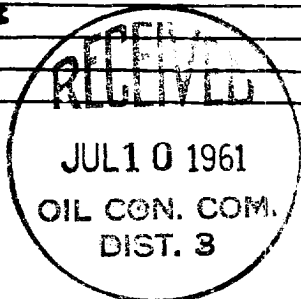
Specific Gravity Separator Gas \_\_\_\_\_  
Specific Gravity Flowing Fluid \_\_\_\_\_  
P<sub>c</sub> 1553 P<sub>c</sub> 2449

$$P_v = 453$$

No.	P <sub>w</sub> P <sub>t</sub> (psia)	P <sub>t</sub> <sup>2</sup>	F <sub>c</sub> Q	(F <sub>c</sub> Q) <sup>2</sup>	(F <sub>c</sub> Q) <sup>2</sup> (1-e <sup>-s</sup> )	P <sub>w</sub> <sup>2</sup>	P <sub>c</sub> <sup>2</sup> -P <sub>w</sub> <sup>2</sup>	Cal. P <sub>w</sub>	P <sub>w</sub> P <sub>c</sub>
1.	119	14.16	20.40	696.96	190.97	205.2	2243.8	453	.2917
2.									
3.									
4.									
5.									

Absolute Potential: 1.713 MCFPD; n .75COMPANY ADBE OIL COMPANYADDRESS 1223 Petroleum Life Building, Midland, TexasAGENT and TITLE A. T. Sindel, Vice-PresidentWITNESSED Lonnie KramerCOMPANY Adebe Oil 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.

$F_{pv}$  = Supercompressability 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  $P_t$ .