1-M. L. Kendrick 1-Bill Parrich

NEW MEXICO OIL CONSERVATION COMMISSION

SWP-152

MULTI-POINT BACK FRESSURE TEST FOR GAS WELLS  Revised 12-1-  Date of Test 1485  Date of Test 5/13/83  Date of Completion: Test 6/12  Date of Completion: Packer Test From Frees. Temp. Press. Temp. Press. Temp. Of Flow Of		2 <b>-EP163</b> , 1-D	, 21 P	<b>200,</b> I	nimin	gten						Form C-12
Annual   Special   Date of Test   \$\frac{1}{2}1					MULT	I-POINT B	ACK PRES	SURE TES	T FOR GAS	WELLS		Revised 12-1-5
Sec. 7   Top. 29 N   Rge. 10 N   Purchaser El Pese Metigral Gas Company	ool	Besin	Dakot	<b>A</b>	<u> </u>	Formation	Dak	ota		_County_	San .	luen
	nit	ial		Annu	al		Spec	ial		_Date of	Test	5/13/63
	ompa	any South	met P	roduct	ion C	ompany	Lease	Muhbo	11 Federa	1 Wel	1 No	1
sing 4  Wt. 10,50 I.D. 4,040 Set at 6512 Perf. 500 To 6425  s Pay: From 6405 To 6405 I. 5512 xG .67 -GL 4363.0 Bar.Press. 12.0  s Pay: From 6405 To 6405 I. 5512 xG .67 -GL 4363.0 Bar.Press. 12.0  s Pay: From 6405 To 6405 I. 5512 xG .67 -GL 4363.0 Bar.Press. 12.0  s pay: From 6405 To 6405 I. 5512 xG .67 -GL 4363.0 Bar.Press. 12.0  dducing Thru: Casing Tubing X Type Well Simple-6as  Single-Bradenhead-G. G. or G.O. Dual  Reservoir Temp.  OBSERVED DATA   Sted Through (Choke) Press. Diff. Temp. Press. Temp. Press. Temp. Ourstion (Line)  Size psig h, OF. psig O												
Series   S												-
Second   Packer   Tobing   X   Type Well   Single-Gas							\ <u></u>					
Single-Bradenhead-G. G. or G.O. Dual   Single-Bradenhea								•				
Coefficient		-									•	
Sted Through OBSERVED DATA  sted Through OFFIce (Choke) State (Prover) (Choke) Press. Diff. Temp. Press. Temp. Press. Temp. Of Flow Of Flow Size (Choke) Size psig hw Op. psig Op. psig Op. Hr.    1996	. <b></b> .	of Complet		21116		Paoles		Sin	gle-Brade	nhead-G.	G. or G	.O. Dual
Choke   Press   Diff   Tubing Data   Casing Data	ite	or complet	ion:_	<del></del>		Packe			Reservo	Tr remb.		
Flow Data			4					ED DATA				
(Prover) (Choke)   Press.   Diff.   Temp.   Press.   P	:ste	d Through				) <b>(EXCE</b> )	·			Туре Тар	)S	
Cline   Size   psig   hw   OF   psig   OF   psig   OF   Hr.		(Prover)				s. Diff.	Temp				<del></del>	Duration
Pressure	, l	(Line)					_					of Flow
Pick Calculations		Size	S	ize	psi	g h <sub>w</sub>	F.		F.		F.	L
FLOW CALCULATIONS  Coefficient  (24-Hour)			1			<del></del>					<b></b>	
FLOW CALCULATIONS  Coefficient  Pressure Flow Temp. Gravity Compress. Rate of Flow Temp.  (24-Hour) VhwPf psia Ft Fg Factor Fact	+	<del></del>	3/4		724		72-	224	72	998	<del> </del>	3 AT.
FLOW CALCULATIONS  Coefficient  Pressure Flow Temp. Gravity Compress. Rate of Flow Temp.  (24-Hour) VhwPf psia Ft Fg Factor Fact			<del> </del>		<del> </del>							·
FLOW CALCULATIONS  Coefficient  Pressure  Pressure  Flow Temp. Factor Fa												
Coefficient  (24-Hour)  (24-Hour)					<u> </u>						1	
PRESSURE CALCULATIONS  Liquid Hydrocarbon Ratio cf/bbl. Specific Gravity Separator Gas Specific Gravity Flowing Fluid Pc 2000 Pc 1000							FLOW CAL	CULATION	S			
PRESSURE CALCULATIONS  Liquid Hydrocarbon Ratio of bl. Specific Gravity Separator Gas Specific Gravity Flowing Fluid Pt (1-e-8)  Pw Pt (psia) Pt FcQ (FcQ)2 (FcQ)2 Pt (1-e-8)  Pw Pt (psia) Pt FcQ (FcQ)2 (FcQ)2 Pt Pt (1-e-8)  Pollute Potential:  Apany Cress 234 Pvtr. Club Place, Faraington, Now Monico Specific Gravity Flowing Fluid Pt Pt Pt (1-e-8)  The solute Potential:  The solution of the state of the st		Coeffici	ent			Pressure		- 1	•			
PRESSURE CALCULATIONS  Liquid Hydrocarbon Ratio cf/bbl. Specific Gravity Separator Gas Specify of Liquid Hydrocarbons deg. Specific Gravity Flowing Fluid Pc 1010 1020.1  Pw Pt (psia) Pt FcQ (FcQ) <sup>2</sup> (FcQ) <sup>2</sup> Pw <sup>2</sup> Pc-Pw Pt Pc	· ·	(21, -Hou	(מו	_ / h	<u></u>	neia					1	•
PRESSURE CALCULATIONS  Liquid Hydrocarbon Ratio cf/bbl. Specific Gravity Separator Gas Specific Gravity Flowing Fluid Pc 2029 p2 115.  Pw Pt (psia) Pt FcQ (FcQ) <sup>2</sup> (FcQ) <sup>2</sup> Pw Pc-Pw Cal. Pw Pt (psia) Pt Pt (psia) Pt	4-		u-)	V W	Pf			· 1				
Liquid Hydrocarbon Ratio cf/bbl.  vity of Liquid Hydrocarbons deg.  (1-e^-8)  Pw Pt FcQ (FcQ)^2 (FcQ)^2 Pw2 Pc-Pw Cal. Pw Fc  (1-e^-8)  Pt (psia)  Pt (psi	╀	12.3650		<del> </del>		2.50	• 700		.7463	1.00	<del></del>	49170
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Liquid Hydrocarbon Ratio cf/bbl.  vity of Liquid Hydrocarbons deg.  (1-e^-8)  Pw Pt FcQ (FcQ)^2 (FcQ)^2 Pw2 Pc-Pw Cal. Pw Fc  (1-e^-8)  Pt (psia)  Pt (psi												
Liquid Hydrocarbon Ratio cf/bbl.  vity of Liquid Hydrocarbons deg.  (1-e^-8)  Pw Pt FcQ (FcQ)^2 (FcQ)^2 Pw2 Pc-Pw Cal. Pw Fc  (1-e^-8)  Pt (psia)  Pt (psi	I	<del></del>		<u> </u>								
Pw Pt (psia) Pt FcQ (FcQ)2 (FcQ)2 Pw2 Pc-Pw Cal. Pw Pc						PR	ESSURE C	alcui ati	ONS			
Pw Pt (psia) Pt FcQ (FcQ)2 (FcQ)2 Pw2 Pc-Pw Cal. Pw Pc	Li	quid Hydro	carbo	n Rati	o		cf/bbl.					
Pw Pt (psia) Pt FcQ (FcQ) <sup>2</sup> (FcQ) <sup>2</sup> Pw <sup>2</sup> Pc-Pw Cal. Pw Pc (1-e-s) Pw Pc Pc Pc Pw Pc	vit	y of Liqui	.d Hyd:	rocarb	ons		deg.		Speci	fic Gravi	ty Flow	ring Fluid
Pw Pt (psia) Pt FcQ (FcQ)2 (FcQ)2 Pw2 Pc-Pw Cal. Pw Fc (1-e-s) 1020.1 30%.7 Pw Fc  Solute Potential:  Solute				(	т-е -	<del>/</del>		•	* C.			
Pt (psia)												
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REMARKS	MPA	NY								IIII	YLD	+

## 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  $\equiv$  Actual rate of flow at end of flow period at W. H. working pressure (P<sub>W</sub>). MCF/da. @ 15.025 psia and 60° F.
- Pc= 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
- Pt Flowing wellhead pressure (tubing if flowing through tubing, casing if flowing through casing.) psia
- $P_{f}$  Meter pressure, psia.
- $h_{\mbox{\scriptsize W}}\mbox{\scriptsize I}$  Differential meter pressure, inches water.
- $F_g = Gravity$  correction factor.
- $F_t$  Flowing temperature correction factor.
- F<sub>DV</sub> Supercompressability factor.
- n \_ \_ Slope of back pressure curve.

Note: If  $P_{\mathbf{W}}$  cannot be taken because of manner of completion or condition of well, then  $P_{\mathbf{W}}$  must be calculated by adding the pressure drop due to friction within the flow string to  $P_{\mathbf{L}}$ .

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