## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

		<b>.</b>		NEW	MEXICO	OIL CONS	SERVATION	COMMISS:	LON		
	CORRECT	D REPO	RT								Form C-122
				MIIT.TT	-POTNT R	ACK PRES	ear ague	T FOR GAS	S WELLS		Revised 12-1-55
Poo!	l	Eupon	<u> </u>	F	ormation	Que	en		_County_	<u> Ie</u>	<u> </u>
Init	tial	<del></del>	Annu	al		Spec	ial	ζ	_Date of	Test_{	3-13 to 8-17-56
Comp	pany nal	pert O	il Corp	ration	<u> </u>	Lease	MeQuatte	rs	Wel	l No	1
Unit	R.	_Sec	12 Tw	rp. <b>21</b>	<b>S</b> Rg	e. <u>36-</u> 1	Purc	haser <u>E</u>	1 Paso Na	tural (	Gas Company
Casi	ing 51	Wt	<b>1</b> . I	.D	Se	t at	3 <b>391</b> Pe	rf		_То	
	-										ess13_2
										-	_ <del></del>
		<b>u.</b> 0				7-11B,	Sin	gle-Brade	nhead-G.	G. or	G.O. Dual
Date	of Compl	etion:	12=	7-51	Packer	N	X10	Reservo	oir Temp.		
						OBSERV	ED DATA				
				<b>.</b>	<b>.</b>						
Te <b>s</b> t	ed Throug	h <u>(Pr</u>	over) (	Choke)	(Meter)				Type Tap	·s	<del> </del>
			Flow D				Tubing	Data	Casing D	ata	
NI.	Buones			1	Diff.	Temp.	Press.	Temp.	Press.	Temp.	
No.	(Line) Size		ifice) Size	psig	h <sub>w</sub>	°F•	ps <b>i</b> g	°F.	psig	⊃ <sub>F</sub> .	of Flow Hr.
SI				<u></u>			870		877		72
<u>[.]</u>			500	197	8.22	52 60	705		740	ļ	21.
2. 3.	<u>#</u>		500	250	8.22	60	639		681	<del> </del>	24
	<del></del>		500 500	181	2.02	64 75	740		753	<del> </del>	2h
5.	4	-	<u> </u>	110	ZaU-	75	790		797	<del> </del>	27
								_		<u> </u>	
	Coeffi	cient	<del> </del>	P.	ressure	LOW CAL	CULATION	S Gravity	Compre	60	Rate of Flow
No.	000111	010110	l	` `	coourc	Fac		Factor	Facto		Q-MCFPD
1	Fle (24-H	our)	√ h <sub>w</sub>	Pf	psia	F.		Fg	Fpv	_	@ 15.025 psia
	13.99	<u> </u>	118-8		<del>-</del> +	1.0078	<del></del>	•9 <u>1</u> 27	1.02		1.61/4
2.	13.99		132.0			1.000		9):27	1.02		1.802
3.	13.99		59.8			996		91,27	1.01		802
2. 3.	13.99		27.			985		9127	1.01		359
5.											
ravi	iquid Hyd ty of Liq		drocarb	o	PRE		alcu ati	Speci Speci		ty Flo	arator Gas wing Fluid
			\					- c		c	
No.	<b>1</b>		$P_{\mathbf{t}}^2 = \mathbf{F}$	Q	$(F_cQ)^2$	(F.	<sub>cQ)</sub> <sup>2</sup>	P <sub>w</sub> 2	$P_c^2 - P_w^2$	C	al. Pw

		দ	low Da	at.a			Tubing	Data	Casing I	lata	
	(Line)	(Cho	leo-k	Press.	Diff.	Temp.	Press.	Temp.	Press.	Temp.	Duration of Flow
ł	Size	•	ze	psig	h <sub>w</sub>	°F•	psig	°F.	psig	<sup>⊃</sup> F•	Hr.
							870		877	<u> </u>	72
	h	1.50	90	197	8.22	52	705		740		21
		1.50	00	250	8.22	52 60	639		681		24
	h	1.50	00	181	1.32	64	740		753		24
1	1	1.50	00	170	2.02	75	790		797		24
		L					L	<u></u> _	<u> </u>	<u> </u>	
					F	LOW CAL	CULATION	S			
T	Coeffici	ent		Pr	essure		Temp.	Gravity	Compre	ess.	Rate of Flow
•						Fac	tor	Factor	Facto	r	Q-MCFPD
١,	(24-Hou	r)  -	$\sqrt{h_{\mathbf{w}}^{\mathrm{p}}}$	$\mathbf{p_f}$	psia	F	t	$^{ extsf{F}}_{ extsf{g}}$	Fpv		@ 15.025 psia
	13,99		118.8	3		1.007	8	-9427	1.02	2	1.61/4
1	13.99		132.9	8		1,000		91,27	1.02	88	7.802
							_	91,27	3 03		0.00
$oldsymbol{\perp}$	13.99		59.8	9		996	2	9027	1_01	9	802
	13.99	ca rhon	27.0	Х.		985 SSURE C	ALCU ATI	91:27 ONS	1.01	7	359
vi			Ratio	ons	PRE	985 SSURE C	ALCU ATI	ONS Speci	fic Gravi	ty Sepa	359 arator Gas
L <b>v</b> i	13.99		Ratio	) Da		985 SSURE C	ALCU ATI	ONS Speci	fic Gravi	ty Sepa	359
L	13.99	d Hydro	Ratio	ons L-e-s)	cy Gas	SSURE C	ALCU ATI	ONS Speci	fic Gravi	ty Sepaty Flor	arator Gaswing Fluid
L vi	13.99 iquid Hydro ty of Liquid		Ratio	ons L-e-s)		SSURE C	ALCU ATI	ONS Speci	fic Gravi	ty Sepaty Flor	arator Gas_wing Fluid_
L vi	13.99	d Hydro	Ratio ocarbo	ons L-e-s)	cy Gas	SSURE C	ALCU ATI	ONS Speci Speci Pc	fic Gravi	ty Sepaty Flow	arator Gas wing Fluid Pw Pc 2 8861
L	iquid Hydrocty of Liquid	d Hydro	Ratio ocarbo (1	ons L-e-s)	cy Gas	SSURE C	ALCU ATI	ONS Speci Speci Pc Pw2	fic Gravi fic Gravi 890.2	ty Sepaty Flor	359  arator Gas_ wing Fluid_ 292.5  al. Pw Pc Pc 2 .8161
L	iquid Hydrocty of Liquid  Pt (psia)  718.2 652.2	Pt 515.8	Ratio ocarbo (1	ons L-e-s)	cy Gas	SSURE C cf/bbl. deg.  (F	ALCU ATI	ONS Speci Speci Pc Pw2 567.3 181.9 587.1	fic Gravi fic Gravi 890.2 P <sub>c</sub> -P <sub>w</sub> <sup>2</sup> 225.2 310.6	7 Separate Floring Total Technology    Call Total Technology    Call Total Technology    7534    6914    7666	359  arator Gas wing Fluid 292.5  al. Pw Pc 2 .8163 2 .7798
L	iquid Hydroty of Liquid  Pt (psia)  718.2 652.2	P <sub>t</sub> <sup>2</sup>	Ratio ocarbo (1	ons L-e-s)	(F <sub>c</sub> Q) <sup>2</sup>	SSURE C cf/bbl. deg.  (F	ALCU ATI	ONS Speci Speci Pc Pw2 567.3	fic Gravi fic Gravi 890.2 P <sub>c</sub> -P <sub>w</sub> <sup>2</sup>	ty Sepaty Flor	359  arator Gas_ wing Fluid  292.5  al. Pw Pc 2 .8163 2 .7798
L	iquid Hydrocty of Liquid  Pt (psia)  718.2 652.2	Pt 515.8	Ratio ocarbo (1	ons L-e-s)	(F <sub>c</sub> Q) <sup>2</sup>	SSURE C cf/bbl. deg.  (F	ALCU ATI	ONS Speci Speci Pc Pw2 567.3 181.9 587.1	fic Gravi fic Gravi 890.2 P <sub>c</sub> -P <sub>w</sub> <sup>2</sup> 225.2 310.6	7 Separate Floring Total Technology    Call Total Technology    Call Total Technology    7534    6914    7666	359  arator Gas_ wing Fluid_ 292.5  al. Pw Pc C C C C C C C C C C C C C C C C C C
L	Pt (psia) 718.2 652.2 753.2 803.2	Pt 515.8 1.25.1 567. 615.	Ratio ocarbo (1	D D D D D D D D D D D D D D D D D D D	(F <sub>c</sub> Q) <sup>2</sup>	SSURE C cf/bbl. deg.  (F	ALCU ATI	P <sub>w</sub> 2  567.3  181.9  587.1	fic Gravi fic Gravi 890.2 P <sub>c</sub> -P <sub>w</sub> <sup>2</sup> 225.2 310.6	7 Separate Floring Total	359  arator Gas_ wing Fluid_ 292.5  al. Pw Pc C C C C C C C C C C C C C C C C C C
L	Pt (psia) 718.2 652.2 753.2 803.2	Pt 515.8 1.25.1 567. 615.	Ratio ocarbo (1	OD DO D	(F <sub>c</sub> Q) <sup>2</sup>	SSURE C cf/bbl. deg.  (F (1	alcuiati cQ) <sup>2</sup> -e-s)	P <sub>w</sub> 2  567.3  181.9  587.1	fic Gravi fic Gravi 890.2 P <sub>c</sub> -P <sub>w</sub> <sup>2</sup> 225.2 310.6	7 Separate Floring Total	359  arator Gas_ wing Fluid  292.5  al. Pw Pc 2 .8163 2 .7798
L vi	Pt (psia) 718.2 652.2 753.2 lute Potent: ANY DALPO	Pt 515.8 1.25.1 567. Gus. on the contract of t	Ratio ocarbo (1	OD DO DE LIFE	(F <sub>c</sub> Q) <sup>2</sup>	SSURE C cf/bbl. deg.  (F (1	alcuiati cQ) <sup>2</sup> -e-s)	ONS Speci Speci Pc Pw2 567.3 181.9 587.1	fic Gravi fic Gravi 890.2 P <sub>c</sub> -P <sub>w</sub> <sup>2</sup> 225.2 310.6	7 Separate Floring Total	359  arator Gas_ wing Fluid  292.5  al. Pw Pc 2 .8163 2 .7798
L vi	Pt (psia) 718.2 652.2 753.2 803.2 lute Potent: ANY NALPO	Pt 515.8 1.25.1 567. Gus. on the contract of t	Ratio ocarbo (1  Fo	Q Dons Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q	(F <sub>c</sub> Q) <sup>2</sup>	SSURE C cf/bbl. deg.  (F (1	ALCUIATI  cQ) <sup>2</sup> -e-s)  n_1.00	ONS Speci Speci Pc Pw2 567.3 181.9 587.1	fic Gravi fic Gravi 890.2 P <sub>c</sub> -P <sub>w</sub> <sup>2</sup> 225.2 310.6	7 Separate Floring Total	359  arator Gas_ wing Fluid_ 292.5  al. Pw Pc C C C C C C C C C C C C C C C C C C

## 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. Takee 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 or 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.
- PcI 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater. psia
- PwT 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
- Pf Meter pressure, psia.
- hw Differential meter pressure, inches water.
- FgI Gravity correction factor.
- Ft Flowing temperature correction factor.
- $F_{DV}^{-}$  Supercompressability factor.
- n I Slope of back pressure curve.

Note: If  $P_W$  cannot be taken because of marmer 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  $P_{\rm c}$ .

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