SWP-119

i-EPNG H. L. Kendrick 1-EPNG Parrish

1-WD

2-F

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122 Revised 12-1-55

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Size   Size   psig   hw   Cp.   psig   Cp.	Pool	Besin I		Fo:	Formation Dakota				County San Juan				
Unit L Sec. 35 Twp. 27 N Rge. 11 N Purchaser El Paso Natural Gas Company  Casing 4 Wt. 10.50 I.D. 4.052 Set at 6630 Perf. 6438 To 6544  Tubing 1½ Wt. 2.75 I.D. 1.616 Set at 6540 Perf. To 6540  Gas Pay: From 6438 To 6544 L 6540 xG .67 TGL 4381.8 Bar.Press. 12.0  Producing Thru: Casing Tubing X Type Wells Single-Gas  Date of Completion: 8/25/62 Packer Single-Bradenhead-G. G. or G.O. Dual  Reservoir Temp.  Tested Through (Showson (Choke) (Member)  Type Taps  CESKEVED DATA  Type Taps  Thow Data Tubing Data Casing Data  (Frover) (Choke) Press. Diff. Temp. Press. Temp. Press. Temp. of Flow  Size Paig hw Op. paig Op. paig Op. paig Op. paig Op. Hole.  Size Paig hw Op. paig Op. paig Op. paig Op. paig Op. paig Op. Hole.  Size Paig hw Op. paig Op. pai	Initi	nitialXAnnual			l	Special				Date of Test 9/5/62			
Casing 4 Mt. 10.50 I.D. 4.052 Set at 6650 Perf. 6438 To 6544  Tubing 14 Mt. 2.75 I.D. 1.616 Set at 6540 Perf. To 6540  Gas Pay: From 6438 To 6544 L 6540 xG .67 GL 4381.8 Bar. Press. 12.0  Producing Thru: Casing Tubing X Type Well Single-Sas Single-Bradenhead-G. G. or G.O. Dual Reservoir Temp.  OBSERVED DATA  Tested Through (Baccara) (Choke) (Madean)  Flow Data Tubing Data Casing Data Casing Data  (Choke) Press. Diff. Temp. Press. Temp. Press. Temp. of Flow On G.Size Psig hy Op. psig Op. Hr.  Size Size psig hy Op. psig Op. psig Op. Hr.  Size Size psig hy Op. psig Op. psig Op. Hr.  Size Size psig hy Op. psig Op. Hr.  (24-Hour) No. (24-Hour)	Compa	ny South	west	Product	ion Co	)•	Lease	Douthit	Federal	Wel	1 No	4	
Tubing 14" Wt. 2.75 I.D. 1.616 Set at 6540 Perf. To 6540  Gas Pay: From 6438 To 6544 L 6540 xd .67	Unit	<b>L</b> S	ec3	<b>5</b> _Twp	. 27	N Rg	e. <u>11 v</u>	Purc	haser E	Paso Na	tural G	as Comp	any
Tubing 14" Wt. 2.75 I.D. 1.616 Set at 6540 Perf. To 6540  Gas Pay: From 6438 To 6544 L 6540 xd .67	Casin	2 42 W	t. 10	.50 I.	D. 4.	<b>052</b> Se	t at <b>66</b> !	<b>50</b> Pe	rf. 6438	3 _	To	6544	
Case   Pay: From   6438 To   6544													
Producing Thru:   Casing													
Date of Completion:   8/25/62   Packer   Reservoir Temp.		_											
Continue								Sin	gle-Brade	nhead-G.	G. or 0	6.0. Du	al
Type Taps	Date	of Complet	ion:_	8/25	/62	Packe	r	<del></del>	Reservo	ir Temp		<del>- , ,</del> ,	
Flow Data							OBSERV	ED DATA					
No.   (Prover) (Choke)   Press.   Diff.   Temp.   Press.   Temp.   Press.   Temp.   Of Flow   Size   Size   psig   h_w   O_F.   psig   O_F.	Teste	d Through	(Brace	<b>(C</b> )	hoke)	(Matheax)				Type Tap	s		
No.   (Prover) (Choke)   Press.   Diff.   Temp.   Press.   Temp.   Press.   Temp.   Of Flow   Size   Size   psig   h_w   O_F.   psig   O_F.				Flow Da	t.a			Tubing	Data	Casing I	ata	<u> </u>	
Size   Size   psig   hw   OP.   psig   OF.	$\top$		(Cho	oke)		Diff.	Temp.					1	
1986   1983   7 days   1.	No.		,		nsi <i>e</i>	h.	o <sub>F</sub> .	psig	o <sub>F</sub>	psig	o <sub>F</sub> .	1	
1.   3/4"   185	ST		<del>                                     </del>		7018	W						7_	dave
Second   S	1.		3/	4"	185		81		81				
FLOW CALCULATIONS									<del> </del>		<del> </del>	ļ	<del></del>
FLOW CALCULATIONS   FLOW CALCULATIONS   FLOW CALCULATIONS			<del>'</del>					<del> </del>	<del> </del>		<del> </del>	<del> </del>	
Pressure	5.									· · · · · · · · · · · · · · · · · · ·			
Coefficient													
No.   C24-Hour   V   NwPf   Psia   Factor   Fa		Cooffici	ont	1	Dr					Compre	88.	Rate o	f Flow
(24-Hour)	No.	Coefficient			_   [	essme							
1.   12.3650   197   .9804   .9463   1.018   2.300	110.	(24-Hour) 7/h.p.								•		@ 15.025 psia	
2.	<del></del>	·		γ					.9463	1.018		2,300	
PRESSURE CALCULATIONS	$\frac{1}{2}$	12.5030				_#2/							
PRESSURE CALCULATIONS  as Liquid Hydrocarbon Ratio cf/bbl. Specific Gravity Separator Gas	3.												
PRESSURE CALCULATIONS  as Liquid Hydrocarbon Ratio cf/bbl. Specific Gravity Separator Gas	4.												
As Liquid Hydrocarbon Ratio cf/bbl. Specific Gravity Separator Gas Specific Gravity Flowing Fluid P <sub>c</sub> 1998 P <sub>c</sub> 3992.0 Pw 769 P <sub>w</sub> 591.3  No. P <sub>w</sub> P <sub>t</sub> (psia) P <sub>t</sub> F <sub>c</sub> Q (F <sub>c</sub> Q) <sup>2</sup> (F <sub>c</sub> Q) <sup>2</sup> P <sub>w</sub> P <sub>c</sub> P <sub>c</sub>	5.			<u> </u>									
As Liquid Hydrocarbon Ratio cf/bbl. Specific Gravity Separator Gas Specific Gravity Flowing Fluid P <sub>c</sub> 1998 P <sub>c</sub> 3992.0 Pw 769 P <sub>w</sub> 591.3  No. P <sub>w</sub> P <sub>t</sub> (psia) P <sub>t</sub> F <sub>c</sub> Q (F <sub>c</sub> Q) <sup>2</sup> (F <sub>c</sub> Q) <sup>2</sup> P <sub>w</sub> P <sub>c</sub> P <sub>c</sub>				•		PR	ESSURE (	CALCULATI	ONS				
Page													
C (1-e-8) P <sub>C</sub> 1998 P <sub>C</sub> 3992.0  Pw 769 P <sub>W</sub> 591.3  No. P <sub>W</sub> P <sub>t</sub> (psia) P <sub>t</sub> F <sub>c</sub> Q (F <sub>c</sub> Q) <sup>2</sup> (F <sub>c</sub> Q) <sup>2</sup> P <sub>w</sub> P <sub>c</sub> <sup>2</sup> P <sub>c</sub> <sup>2</sup> Cal. P <sub>w</sub> P <sub>c</sub> 1. 591.3 3400.7 .384  2. 3. 4. 5.						<del></del>							
Pw   769   Pw   591.3	/2						deg.	•				.u.ru	
No. Pw Pt (psia) Pt FcQ (FcQ)2 (FcQ)2 Pw2 Pc-Pw Cal. Pw Pc I. September 1. September 2. Septembe	c				-e - <u>/</u> _	·	<del></del>	-	<u></u>				
No. Pt (psia)  Pt (psi													
No. Pt (psia)  Pt (psi		$P_{\mathbf{W}}$	,	,				2		_2 _2			
Pt (psia)  1.	No.		P <sub>1</sub>	t Fc	<b>Q</b>	$(F_cQ)^2$	'   ( <u>I</u>	[cQ)~	$P_{w}^{2}$	$P_{c}^{-}P_{w}^{z}$			Pw Pa
2.  3.  4.  5.  Absolute Potential: 2.599 MCFPD; n .75  COMPANY Southwest Production Company  ADDRESS 207 Petr. Club Plaza, Farmington, New Mexice  AGENT and TITLE George L. Hoffman, Production Engineer  WITNESSED Tom Grant  COMPANY El Paso Natural Gas Company		Pt (psia)					(-	L-e-s)		A 2AA 9		W	
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Absolute Potential: 2.599 MCFPD; n .75  COMPANY Seuthmest Production Company  ADDRESS 207 Petr. Club Plaza, Farmington, New Mexice  AGENT and TITLE George L. Heffman, Production Engineer  WITNESSED Tem Grant  COMPANY El Paso Natural Gas Company	3								····	<del>                                     </del>			
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COMPANY  ADDRESS  207 Petr. Club Plaza, Farmington, New Mexice  AGENT and TITLE  George L. Hoffman, Production Engineer  WITNESSED  Tom Grant  COMPANY  El Paso Natural Gas Company		lute Porent	ial:	2.8	<b>20</b>		MCFPD	: n	.75				
ADDRESS  AGENT and TITLE  WITNESSED  COMPANY  AGENT AND TITLE  George L. Hoffman, Production Engineer  Tom Grant  El Paso Natural Gas Company				Seu	thmest	Produc	tion Co	MANY					
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## 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 T Actual rate of flow at end of flow period at W. H. working pressure (Pw). MCF/da. @ 15.025 psia and 600 F.
- $P_c$ = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater. psia
- Pw 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
- Pf Meter pressure, psia.
- hw Differential meter pressure, inches water.
- Fg Gravity correction factor.
- Ft Flowing temperature correction factor.
- F<sub>DV</sub> Supercompressability factor.
- n I 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  $P_{\mathbf{t}}$ .