MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Size Size psig hw OF. psig OF.	Pool	Taracito	P. C.	Exter	sion F	ormation	Pietw	red Cliff	'e	County	Rio Ar	riba
Casing A Wt.	Init	ialX		Annu	al		Spec	ial		Date of	Test	8-8-56
Set at 3,672 Perf. 3492 To 3510	Comp	any Morthw	est Fr	oducti	on Cor	V •	Lease	N		Wel	.1 No	1-8
Set at 3,672 Perf. 3492 To 3510	Jnit	<u> </u>	Sec	8 Tw	p. 26	N Rg	e4	Purc	haser			
Ras Pay: From 3,492 To 3,510 L												3510
Type Margin Casing	'ubi	ng 11" W	t	.3# I	.D	Se	t at_3,	504 Pe	rf		То	
Tubing T	las	Pay: From_	3,492	_To	3,510	L	x	.G .650			Bar.Pr	ess. 12 PSIA
Case Completion: Case												
Plow Data	ate	of Complet	ion:	8-1-	-56	Packe	r	Sin	gle-Brade Reserve	enhead-G. oir Temp	G. or	G.O. Dual
Flow Data Tubing Data Casing Data												
Choke (Choke Crifice Size Press Diff Temp. Press Temp. Press Temp. Duration of Flow	est	ed Through	POU	Gibiz (Choke)	(1000)	X S.I.	7 days		Type Tap	s	
Coefficient										Casing D	ata	Ţ
	ا.٥	(Line)	(Orif	ice)			-		· ·		_	Duration of Flow
Second	+	Size	Si	ze	psig	h _w	o _F .	1	h .	l .		Hr.
FLOW CALCULATIONS Coefficient Pressure Flow Temp. Gravity Compress. Rate of Flow Temp. (24-Hour) Vhwpf psia Ft Fg Fpw @ 15.025 ps: 14.1605 402 1.0019 .9608 1.041 5704 PRESSURE CALCULATIONS S Liquid Hydrocarbon Ratio cf/bbl. Specific Gravity Separator Gas Specific Gravity Flowing Fluid Pc 1,043 Pc 1087.8 Pt Fg Fpw @ 15.025 ps: PRESSURE CALCULATIONS Specific Gravity Flowing Fluid Pc 1,043 Pc 1087.8 Pt (psia) Pt Fc (FcQ)2 (FcQ)2 (FcQ)2 Pw 2 Pc-Pw Cal. Pw Fc Pt (Te-Fs) Pt (psia) Pt Fc Rodotion Corporation Ratio Scotlate Froduction Corporation Ratio Separator Gas Specific Gravity Flowing Fluid Pc 1,043 Pc Pc Pc Pw Fc Pc Pc Pw Fc Pc Pc Pw Fc Pc Pw Fc Pc Pc Pw Fc Pc Pc Pw Fc Pc Pc Pw Fc Pc Pc Pw Pc Pc Pc Pc Pw Pc			3/4	4	390		58°		l	1	 	3 hrs.
FLOW CALCULATIONS Coefficient Pressure Flow Temp. Gravity Factor Facto												
FLOW CALCULATIONS Coefficient (24-Hour) (34-Hour) (35-20	<u>:</u>											
Coefficient Coefficient Pressure Flow Temp. Gravity Compress. Rate of Flow Q-MCFPD	<u>. </u>											
PRESSURE CALCUIATIONS S Liquid Hydrocarbon Ratio of/bbl. Specific Gravity Separator Gas Specific Gravity Flowing Fluid Pc 1,043 Pc 1087.8 Phy Pt (psia) Pt FcQ (FcQ) ² (FcQ) ² Pw Pt (psia) Pt (
PRESSURE CALCULATIONS Stiquid Hydrocarbon Ratio of bl. Specific Gravity Separator Gas Specific Gravity Flowing Fluid Pc 1,043 pc 1067.8 Phy Pt (psia) Pt FcQ (FcQ)2 (FcQ)2 Pw Pt (1-e-s) Pw Pt (1-e-s) Pw Pt (1-e-s) Pw Pt	٥.						Fac	tor	Factor	Compre Facto		
PRESSURE CALCULATIONS S Liquid Hydrocarbon Ratio cf/bbl. Specific Gravity Separator Gas Specific Gravity Flowing Fluid Pc 1,043 Pc 1087.8 O Pw Pt (psia) Pt Fc (FcQ) (FcQ) Pw Pc Pc Pc Pw Pc Pc Pw Pc	_		r)	√ h _w r	f		F.	t				@ 15.025 psia
PRESSURE CALCULATIONS Liquid Hydrocarbon Ratio cf/bbl. Specific Gravity Separator Gas Specific Gravity Flowing Fluid Pc 1,043 p2 1067.8 Pw Pt (psia) Pt FcQ (FcQ)2 (FcQ)2 Pw2 Pc-Pw Cal. Pw Pc Pc Pc Pc Pc Pw Pc	:	14,100)				402	1,001	'	,7008	1.04	<u>, , , , , , , , , , , , , , , , , , , </u>	5704
PRESSURE CALCULATIONS Liquid Hydrocarbon Ratio cf/bbl. Specific Gravity Separator Gas Specific Gravity Flowing Fluid Pc 1,043 p2 1067.8 Pw Pt (psia) Pt FcQ (FcQ)2 (FcQ)2 Pw2 Pc-Pw Cal. Pw Pc (1-e-s) 964.3 123.5 Solute Potential: 36,257 MCFPD; n .85 = 6.3565 MPANY Sorthwest Production Corporation DRESS 320 Simus Building, Albuquerque, New Mexico ENT and TITLE Glarence Wagner; Well Test Engineer												
S Liquid Hydrocarbon Ratio cf/bbl. Specific Gravity Separator Gas Specific Gravity Flowing Fluid Pc 1,043 pc 1087.8 Pw Pt (psia) Pt FcQ (FcQ)2 (FcQ)2 Pw2 Pc-Pw Cal. Pw Fc (1-e-s) Pt (psia) Pt Pc Pw Pc Pw Pc Pc Pw Pc Pc Pw Pc Pw Pc Pc Pc Pc Pw Pc Pc Pc Pc Pw Pc												
S Liquid Hydrocarbon Ratio cf/bbl. Avity of Liquid Hydrocarbons deg. C1-e-s) C1-e-s C2 (FcQ) ² (FcQ) ² (FcQ) ² Pw ² Pc-Pw Cal. C3-Pw Pt (psia) C4-e-s C5-Pw Pt (psia) C6-Pw Pt (psia)						PRI	ESSURE C	A CCUT ATTO	ONS			
Avity of Liquid Hydrocarbons deg. Specific Gravity Flowing Fluid P _c 1,043 p _c 1067.8 Pw Pt (psia) Pt F _c Q (F _c Q) ² (F _c Q) ² P _w P _c P _c -P _w Cal. P _w P _c P _c P _w P _c P _w P _c P _w P _c	. т.	land Urdan		Dot:						<i>64 - 0</i>	· C	
Pw Pt (psia) Pt FcQ (FcQ) ² (FcQ) ² Pw ² Pc-Pw Cal. Pw Pc Pc Pc Pc Pw Pc				ocarbo	ns				Speci	fic Chari	+ TT 127 01	ring Fluid
Pt (psia) Pt Fc (FcQ) (FcQ) Pw2 Pt (psia) Pt Fc (1-e-s) Pt (psia) Pt (psia) Pt Fc (1-e-s) Pt (psia) Pt (psi				(1	-е ^{-s} ∑				Pc	1,043	Pc1	087,8
Pt (psia)	\top	P _w								2 0	1	
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psolute Potential: 36,257 MCFPD; n.85 = 6.3565 MPANY Morthwest Production Corporation DDRESS 220 Since Building, Albuquerque, new Mexico ENT and TITLE Clarence Wagner; Well Test Engineer TNESSED	\pm	- C (Pola)					(1		964.3	123.5		8.51
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		_	WAT'	PRICT W	FEUAL!	MATT IS	ar rugii	sael.				
DMPANYREMARKS											3-3-	

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 Tactual 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
- PwT 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.
- F_g : Gravity correction factor.
- F_t Flowing temperature correction factor.
- Fpv 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_{+} .

PACIFIC NORTHWEST PIFELINE CORPORATION DRILLING DEPARTMENT

	CC	MPANY Forthwest Pr	oduction Corp.
	L	EASE WE	LL NO. 1-8
	DA	ATE OF TEST_8-8-56	
SHUT IN PRESSURE (PSIG): TUBI		s.I.PERIOD_	DAYS
SIZE BLOW NIPPLE 3/4° Choke ()	()		
FLOW THROUGH tribing	WORKING	PRESSURES FROM_ 64.6	ing
TIME: HOURS MINUTES PRESSURE	Q(MCFD) 5.025 PSIA & 60° F	WELLHEAD WORKING PRESSURE (PSIG)	TEMP
$\frac{34.5}{41.5}$ $\frac{360}{245}$ ${}$		998	-52 -55
		992	<u>52</u>
12 273		983	<u>52</u>
		983	52 54 -63 8)
30 268	eravity = ,650	97 <u>4</u> 970	54.
	5704 = Q		
	16,257 = AEP		-
START TEST AT 9:45 A.M.		AT 12:45 P.M.	
REMARKS: Slightly wet with d	miles and 10 the	rough out tests	
		-	
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	TESTED R	Y	to the law

G. R. Magner

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