

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS W.O.I.C. D.
ARTESIA, OFFICE

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 11-26-90			
Company Chevron U.S.A. INC.				Connection Vented				
Pool Wildcat Atoka				Formation Atoka				Unit
Completion Date 11-15-90		Total Depth 11,028		Plug Back TD 10,515		Elevation 3524.40KB		Farm or Lease Name Artesia St. Com.
Csq. Size 5 1/2	Wt. 17.	d	Set At 11,028	Perforations: From 10,297 To 10,328		Well No. 3		
Thq. Size 2 3/8	Wt. 4.7	d 1.995	Set At 10,210	Perforations: From OPEN To END		Unit F	Sec. 23	Twp. 18S
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 10,210		County Eddy		
Producing Thru TBC		Reservoir Temp. °F 177 @ 10,313		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2		State New Mexico
L *10,313	H 10,313	G _g .684	% CO ₂ .25	% N ₂ 1.17	% H ₂ S ---	Prover	Meter Run 6.065	Taps FLG

FLOW DATA							TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
SI							3090		PKR		144 hrs.
1.	6	X	2.000	400	12.00	85	2928		PKR		45 min.
2.	6	X	2.000	410	28.00	86	2810		PKR		1 hr.
3.	6	X	2.000	410	57.00	85	2635		PKR		1 hr.
4.	6	X	2.500	410	50.00	80	2260		PKR		1 hr.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	19.16	70.42	413.2	.9768	1.209	1.041	1,659
2.	19.16	108.86	423.2	.9759	1.209	1.043	2,567
3.	19.16	155.31	423.2	.9768	1.209	1.043	3,665
4.	30.31	145.46	423.2	.9813	1.209	1.043	5,456
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ 28.4 _____ Mcf/bbl.	
1.	.61	545	1.42	.922	A.P.I. Gravity of Liquid Hydrocarbons _____ 60.3 @ 60° _____ Deg.	
2.	.63	546	1.42	.919	Specific Gravity Separator Gas _____ .684 _____ X X X X X X X X	
3.	.63	545	1.42	.919	Specific Gravity Flowing Fluid _____ X X X X X	
4.	.63	540	.41	.919	Critical Pressure ***668 _____ P.S.I.A. _____ P.S.I.A.	
5.					Critical Temperature ***382 _____ R _____ R	

**

NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²
1	**	3175.1	10081.3	860.2
2	**	3095.3	9580.9	1360.6
3	**	3004.9	9029.4	1912.1
4	**	2816.4	7932.1	3009.4
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 3.636$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3.426$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 18.692$

Absolute Open Flow _____ 18,692 _____ Mcfd @ 15.025		Angle of Slope θ _____ 46.3	Slope, n _____ .954
---	--	-----------------------------	---------------------

Remarks: **=Mid-perfs Well made 19.00 BBLS 60.3 API GR. CONDENSATE
 ***= Cal. from known BHP's Well also made 1.2 BBLS H₂O
 ****=corrected to 1.12 % N₂

Approved By Division	Conducted By: Pro Well Testers	Calculated By: BM	Checked By: <i>W. J. Conley</i> BM CHEVRON
----------------------	-----------------------------------	----------------------	---