

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELLS

RECEIVED C-122
dated 9-1-65

SEP 7 1977

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 8-25-77		O.C.C. ARTESIA, OFFICE	
Company Depco, Inc. ✓						Connection None			
Pool Buffalo Valley Penn						Formation Morrow		Unit	
Completion Date 8-15-77		Total Depth 9137		Plug Back TD 9080		Elevation 3538.2 Gr.		Farm or Lease Name R & S State	
Csg. Size 4 1/2	Wt. 11.6	d	Set At 9136	Perforations: From 8874 To 8880		Well No. 1			
Thg. Size 2 3/8	Wt. 4.7	d	Set At 8769	Perforations: From To		Unit Sec. Twp. Rge. D 17 15 28			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At 8769		County Chaves	
Producing Thru Tubing		Reservoir Temp. °F 156 @ 8872		Mean Annual Temp. °F		Baro. Press. - P _a 13.2		State New Mexico	
L 8874	H	Gg 0.660	% CO ₂ 0.32	% N ₂ 0.84	% H ₂ S --	Prover		Meter Run	Taps

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							2359	88			
1.	3" x		1.500"	54	20	88	1685	90			1 Hr.
2.	3" x		1.500"	54	25	88	1431	94			1 Hr.
3.	3" x		1.500"	54	31	90	1119	94			1 Hr.
4.	3" x		1.500"	54	35	93	787	94			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							
2.	11.13	36.66	67.2	.9741	1.231	1.005	492
3.	11.13	40.99	67.2	.9741	1.231	1.005	550
4.	11.13	45.64	67.2	.9723	1.231	1.005	611
5.	11.13	48.50	67.2	.9697	1.231	1.005	648

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1.	0.10	548	1.45	0.991	A.P.I. Gravity of Liquid Hydrocarbons _____ None Produced _____ Deg.
2.	0.10	548	1.45	0.991	Specific Gravity Separator Gas _____ 0.660 _____ X X X X X X X X
3.	0.10	550	1.46	0.991	Specific Gravity Flowing Fluid _____ X X X X X _____ 0.660
4.	0.10	553	1.46	0.991	Critical Pressure _____ 670 _____ P.S.I.A. _____ 670 _____ P.S.I.A.
5.					Critical Temperature _____ 378 _____ R _____ 378 _____ R

P 3318.2 P ² 11011				
NO.	P _t ²	P	P ²	P ² - P ²
1	2883.9	2446.2	5984	5027
2	2085.7	2071.2	4290	6721
3	1281.9	1619.2	2622	8389
4	640.3	1205.2	1453	9558
5				

(1) $\frac{P^2}{P^2 - P^2} = \frac{11011}{9558}$

AOF = Q $\left[\frac{P^2}{P^2 - P^2} \right]^n = 695$

(2) $\left[\frac{P^2}{P^2 - P^2} \right]^n = 1.0733$

Absolute Open Flow _____ 695 _____ Mcfd @ 15.025	Angle of Slope θ _____ 63.5 _____	Slope, n _____ 0.499 _____
Remarks: _____		
Approved By Commission:	Conducted By: Martin & Reeves	Calculated By: Harrington
Checked By:		