

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

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 7/20/79			
Company AMOCO PRODUCTION COMPANY				Connection GAS COMPANY OF NEW MEXICO					
Pool BUFFALO PENN				Formation MORROW				Unit	
Completion Date 4/28/79		Total Depth 13715.		Plug Back TD 13660.		Elevation 3700.		Farm or Lease Name NELLIS FEDERAL	
Csg. Size 5.500	Wt. 20.0	d 4.778	Set At 13715.	Perforations: From 13330. To 13338.		Well No. 3			
Thq. Size 2.375	Wt. 4.7	d 1.995	Set At 13250.	Perforations: From 0 To 0.		Unit Sec. Twp. Rge. F 6 19S 33E			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE						Packer Set At 13178.		County LEA	
Producing Thru TUBING		Reservoir Temp. °F 178. @ 13334.		Mean Annual Temp. °F 60.0		Baro. Press. - P _a 13.2		State NEW MEXICO	
L 13334.	H 13334.	Gg 0.659	% CO ₂ 0.61	% N ₂ 0.84	% H ₂ S 0	Prover 0	Meter Run 4.0	Taps FLANGE	

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							1382.	64.			72.0
1.	4.03 x 1.750			405.	4.0	69.	1069.	65.	0.	0.	1.0
2.	4.03 x 1.750			415.	5.3	71.	937.	65.	0.	0.	1.0
3.	4.03 x 1.750			415.	10.2	77.	666.	65.	0.	0.	1.0
4.	4.03 x 1.750			420.	14.4	80.	510.	67.	0.	0.	1.0
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	14.93	40.90	418.2	0.9915	1.2318	1.0407	776.
2	14.93	47.59	428.2	0.9896	1.2318	1.0413	902.
3	14.93	66.22	428.2	0.9840	1.2318	1.0399	1246.
4	14.93	79.09	433.2	0.9813	1.2318	1.0397	1484.
5							

NO.	P _t	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1.	0.62	529.	1.42	0.923	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2.	0.64	531.	1.42	0.922	Specific Gravity Separator Gas _____ 0.659
3.	0.64	537.	1.44	0.925	Specific Gravity Flowing Fluid _____ X X X X X
4.	0.65	540.	1.45	0.925	Critical Pressure _____ 671. P.S.I.A.
5.					Critical Temperature _____ 374. R

P _c 1390. P _c ² 1932.				(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.2270$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.1966$	
NO	P _t ²	P _w	P _w ²	P _c ² - P _w ²			
1	1171.	1088.	1184.	749			
2	903.	962.	926.	1007.			
3	461.	719.	517.	1416.			
4	274.	598.	357.	1575.			
5							

Absolute Open Flow _____ 1775. Mcfd @ 15.025				Angle of Slope θ _____ 48.7		Slope, n _____ 0.877	
Remarks: _____							

Approved By <u>Commissioned by</u> Jerry Sexton	Conducted By: John West Engrg.	Calculated By: C.C. Weaver	Checked By: W.D. Magness
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Dist. 1, Supg.