

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

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 2-26-82	
Company Conoco, Inc.				Connection EL Paso Natural Gas		1980' FNL & 1980' FEL	
Pool Langlie Mattix				Formation Seven Rivers Queen		Unit G	
Completion Date 8-13-81		Total Depth 3704'		Plug Back TD 3680'		Elevation 3345' GL	
Farm or Lease Name Vaughn B-1		Well No. 9					
Csg. Size 5 1/2"	Wt. 15.5#	d 4.950	Set At 3704'	Perforations: From 3410' To 3568'			
Tbg. Size 2 3/8"	Wt. 4.7#	d 1.995	Set At 3592'	Perforations: From open To ended		Unit Sec. Twp. Rge. G 1 24S 36E	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At None		County Lea	
Producing Thru Casing		Reservoir Temp. °F 93 @ 3680'		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
State New Mexico							
L 3489'	H 3489'	Gg .692	% CO ₂ .63	% N ₂ 1.12	% H ₂ S .03	Prover -	Meter Run 4"
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							97		110		48 Hrs.
1.	4"	X 1.250"		33	3.24	38	34		108	(Stabilized)	30 min.
2.	4"	X 1.250"		34	12.25	45	34		104	"	45 min.
3.	4"	X 1.250"		34	25.00	46	34		101	"	30 min.
4.	4"	X 1.250"		35	51.64	48	34		96	"	30 min.
5.	4"	X 1.250"		37	88.36	50	34		89	"	45 min.

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	7.469	12.235	46.2	1.022	1.202	Nil	112
2	7.469	24.046	47.2	1.015	1.202	Nil	219
3	7.469	34.351	47.2	1.014	1.202	Nil	313
4	7.469	49.987	48.2	1.012	1.202	Nil	454
5	7.469	66.601	50.2	1.010	1.202	Nil	604

NO.	P _t	Temp. °R	T _t	Z	Gas Liquid Hydrocarbon Ratio None Mcf/bbl.
1	.07	498	1.29	Nil	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2	.07	505	1.31	Nil	Specific Gravity Separator Gas .692 X X X X X X X X
3	.07	506	1.31	Nil	Specific Gravity Flowing Fluid X X X X X
4	.07	508	1.32	Nil	Critical Pressure 668 P.S.I.A. _____ P.S.I.A.
5	.08	510	1.32	Nil	Critical Temperature 386 R _____ R

P _c 123.2 P _c ² 15.18					(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \underline{3.203}$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \underline{2.674}$	
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²				
1	2.23	121.2	14.69	0.49				
2	2.23	117.2	13.74	1.44				
3	2.23	114.2	13.04	2.14				
4	2.23	109.2	11.92	3.26				
5	2.23	102.2	10.44	4.74				

Absolute Open Flow 1,615 Mcfd @ 15.025					Angle of Slope θ 49.8		Slope, n 0.845	
---	--	--	--	--	-------------------------------------	--	-----------------------	--

Remarks: Tubing lagged off during first 5 minutes of test. Flowed well through casing to run test. No fluid produced during test.			
Approved By Commission:		Conducted By: Conoco - T.C. Aduddell EPN - R. Reston	Calculated By: Tom C. Aduddell
		Checked By:	