

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Form C-122
Revised 10-1-78

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 01-16-91	
Company Chevron U.S.A.			Connection Vented		
Pool Elmont			Formation Elmont Queen		Unit
Completion Date 12-29-90		Total Depth 7901	Plug Back TD 3840	Elevation 3502 G.L.	Form or Lease Name VCT-4 Bell Ramsey Com.
Csg. Size 5 1/2	Wt. 15.5	Set At 3928	Perforations From 3522 To 3628		Well No. 2
Thq. Size 2 3/8	Wt. 4.7	Set At 3444	Perforations From OPEN To END		Unit 34 Sec. 20S Twp. 37E
Type Well - Single - Braconnhead - G.C. or G.O. Multiple Single				Packer Set At 3444	County Lea
Producing Thru Tubing		Reservoir Temp. °F 109 @ 3522	Mean Annual Temp. °F 60	Baro. Press. - P _g 13.2	State New Mexico
L 3444	H 3444	G _g .702	% CO ₂ 4.57	% N ₂ 1.13	% H ₂ S --
				Prover	Meter Run 2.067
				Taps Flange	

FLOW DATA							TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. in. H ₂ O	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
51							193		PKR		24 hrs.
1.	2	X	.750"	32	19.00	45	182		PKR		1 hr.
2.	2	X	.750"	34	48.00	47	172		PKR		1 hr.
3.	2	X	.750"	39	87.00	46	159		PKR		1 hr.
4.	2	X	1.125"	41	20.00	48	147		PKR		1 hr.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h \cdot P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super. Compress. Factor, F _{pv}	Rate of Flow Q, Mscf
1.	2.709	29.31	45.2	1.015	1.194	1.001	96
2.	2.709	47.60	47.2	1.013	1.194	1.001	156
3.	2.709	67.39	52.2	1.014	1.194	1.001	221
4.	6.393	32.92	54.2	1.012	1.194	1.001	255
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	DRY GAS	Mcf/bbl.
1.	.06	505	1.32	.999	A.P.I. Gravity of Liquid Hydrocarbons	DRY	Deq.
2.	.06	507	1.32	.999	Specific Gravity Separator Gas	.702	X X X X X X X X
3.	.07	506	1.32	.999	Specific Gravity Flowing Fluid	X X X X X	
4.	.07	508	1.32	.999	Critical Pressure	*684	P.S.I.A. P.S.I.A.
5.					Critical Temperature	*382	R R

NO.	P _i ²	P _w	P _e ²	P _e ² - P _w ²
1		195.5	38.2	4.3
2		186.2	34.6	7.9
3		174.2	30.4	12.2
4		163.1	26.6	15.9
5				

(1) $\frac{P_e^2}{P_e^2 - P_w^2} = 3.484$

AOF = Q $\left[\frac{P_e^2}{P_e^2 - P_w^2} \right]^n = .563$

(2) $\left[\frac{P_e^2}{P_e^2 - P_w^2} \right]^n = 2.547$

Absolute Open Flow 563	Mcf @ 15.025	Angle of Slope θ 53.2	Slope, n .749
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Remarks: *=corrected to 4.57% CO₂ & 1.13% N₂
No fluid produced during test

Approved By Division	Conducted By: RM	Calculated By:	Checked By: RM
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