W MEXICO OIL CONSERVATION CO SION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test: XX Initial ☐ Annual ☐ Special			Test Date: 6-22-81	
Company: SHELL OIL COMPANY	Connection: NONE			Unit
Pool: CUSTER DEVONIAN	Formation: DEVONIAN			
Completion Date: 5-21-81	Total Depth: 12,9520'	Plug Back TD: 12,861'	Elevation: 3258' GL	Farm or Lease Name: STATE "B" COM
Csg. Size: 7" / Wt.: 23-26-29 / d: / Set At: 12,950'		Perforations: From 9646 To 9687		Well No.: 2
Tbg. Size: 2 7/8" / Wt.: 6.5 / d: / Set At:		Perforations: From To		Unit: J / Sec.: 36 / Twp.: 24S / Rge.: 36E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: SINGLE		Packer Set At: 9,550'		County: LEA
Producing Thru: TBG.	Reservoir Temp. °F: @ 160°	Mean Annual Temp. °F: 60°	Baro. Press. – P_a:	State: NEW MEXICO
L: 96.77 / H: 96.77 / Gg: .639	% CO_2:	% N_2: ?	% H_2S:	Prover: / Meter Run: 4.026 / Taps: FLOWING

FLOW DATA

NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	TUBING DATA Press. p.s.i.g.	TUBING DATA Temp. °F	CASING DATA Press. p.s.i.g.	CASING DATA Temp. °F	Duration of Flow
SI							2103	74°	SHUT-IN		72 hr
1.	4.026	x	1.500	210	6"	84°	2031	76°			1 hr
2.	4.026	x	1.500	210	22"	83°	1959	77°			1 hr
3.	4.026	x	1.500	600	33"	73°	1712	77°			1 hr
4.	4.026	x	1.500	605	74"	68°	1241	78°			1 hr
5.											

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	10.84	36.60	223.2	.9777	1.251	1.020	495
2.	10.84	70.07	223.2	.9786	1.251	1.020	949
3.	10.84	142.25	613.2	.9877	1.251	1.063	2025
4.	10.84	213.88	618.2	.9924	1.251	1.063	3060
5.							

NO.	P_r	Temp. °R	T_r	Z
1.	.33	544	1.46	.961
2.	.33	543	1.46	.961
3.	.92	533	1.46	.885
4.	.92	528	1.46	.885
5.				

Gas Liquid Hydrocarbon Ratio 606 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 59.7 @60° Deg.
Specific Gravity Separator Gas .639 xxxxxxxxx
Specific Gravity Flowing Fluid xxxxx 657
Critical Pressure 670 P.S.I.A. 670 P.S.I.A.
Critical Temperature 368 R 375 R

*** P_c 2222.7 P_c^2 4940.4

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
* 1	2854.2			
** 2	2762.2	2098.5	4403.7	536.7
3	2680.2	2031.4	4126.6	813.8
4	2322.2	1808.4	3270.3	1670.1
5	1956.2	1498.2	2244.6	2695.8

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.833$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.819$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 5.566$

Absolute Open Flow 5.566 Mcfd @ 15.025 Angle of Slope θ Slope, n .987

Remarks: *Static BHP **Flowing BHP ***Static BHP Calculated to surface shut in
Test made 5 bbl oil and 4 bbl water

Approved By Commission: Signed by Jerry Sexton Dist. I, Supv.	Conducted By: C.A.Robertson	Calculated By:	Checked By: