C/SF

NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED
FEB 02 1981
O. C. D.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special						Test Date: 1-27-81			
Company: ARCO Oil & Gas Company				Connection: None					
Pool: Catclaw Draw Morrow				Formation: Morrow				Unit:	
Completion Date: 1-22-81		Total Depth: 10552'		Plug Back TD: 10464'		Elevation: 3297		Farm or Lease Name: Pure Federal	
Csg. Size: 5 1/2"	Wt.: 17#	d: 4.892	Set At: 10552'	Perforations: From 10216 To 10229 / From 10255 To 10267				Well No.: 2	
Tbg. Size: 2 3/8"	Wt.: 4.7#	d: 1.995	Set At: 10136	Perforations: From 10144 To 10148				Unit: P	Sec.: 11 Twp.: 21 Rge.: 25
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single				Packer Set At: 10141'				County: Eddy	
Producing Thru: Tbg.	Reservoir Temp. °F: 175 @ 10241		Mean Annual Temp. °F: 60°	Baro. Press. – P_a: 13.2				State: New Mexico	
L: 10141	H: 10141	Gg: .586	% CO_2: .853	% N_2: .360	% H_2S: -0-	Prover:	Meter Run: 4"	Taps: Flg.	

	FLOW DATA				TUBING DATA		CASING DATA		
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	Duration of Flow
SI									
1.	4 x 2.5	568	2.1	81	2632	66	Pkr.		1 Hr.
2.	4 x 2.5	573	4.0	70	2497	68	Pkr.		1 Hr.
3.	4 x 2.5	585	13.5	81	1929	69	Pkr.		1 Hr.
4.	4 x 2.5	589	22.5	77	1411	69	Pkr.		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	32.64	34.94	581.2	.9804	1.306	1.040	1518
2.	32.64	48.42	586.2	.9905	1.306	1.044	2134
3.	32.64	89.86	598.2	.9804	1.306	1.040	3906
4.	32.64	116.40	602.2	.9840	1.306	1.043	5092
5.							

NO.	P_t	Temp. °R	T_r	Z
1.	.86	541	1.55	.924
2.	.85	530	1.51	.918
3.	.87	541	1.55	.924
4.	.87	536	1.53	.920
5.				

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 48° @ 60°F Deg.
Specific Gravity Separator Gas .586 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX
Critical Pressure 675 P.S.I.A. _____ P.S.I.A.
Critical Temperature 350 R _____ R

* P_c 3857.2 P_c^2 14878

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		3349.2	11217	3661
2		3222.2	10383	4495
3		2626.2	6847	7981
4		2125.2	4516	10362
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.436$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.434$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 7304$

Absolute Open Flow 7304 Mcfd @ 15.025 Angle of Slope θ 45° 5' Slope, n .997046

Remarks: Produced 1 barrel of water during test. Condensate sample obtained for gravity and components. *BHP measured at mid point of perforations 10241'.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	J. D. Cogburn	T. D. McCallister	J. V. Curfew