

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

Form C-122
 Revised 9-1-65

Type Test ☐ Initial ☐ Annual ☒ Special					Test Date 10-10-79	
Company ARCO Oil & Gas Company				Connection El Paso Natural Gas Company		
Pool Undesignated				Formation Ellenburger Gas		Unit
Completion Date 7-30-79		Total Depth 15550		Plug back TD 15455		Elevation 3547 G.L.
Csg. Size 7		Wt. 26	d 6.276	Set At 15548	Perforations: From 15148 To 15407	
Trq. Size 2.375		Wt. 4.7	d 1.945	Set At 15114	Perforations: From Open To Ended	
Type Well - Single - Prodenhead - G.G. or G.O. Multiple Dual G-G				Packer Set At 15048		County Lea
Producing Thru Tubing		Reservoir Temp. °F 201 @ 15277		Mean Annual Temp. °F 60°		State New Mexico
L 15114	H 15114	Gg 0.623	% CO ₂ 0.27	% N ₂ 0.94	% H ₂ S Tr.	Prover -
						Meter Run 4
						Flg. -

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							3736				131 Hrs.
1.	4 x 2.750			541	9.61	86	3513	79			2 Hrs.
2.	4 x 2.750			549	16.0	80	3394	80			2 Hrs.
3.	4 x 2.750			561	31.29	70	3075	84			2 Hrs.
4.	4 x 2.750			570	66.42	78	2423	84			2 Hrs.
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. Compres. Factor, Fpv	Rate of Flow Q, Mhd
1	41.10	72.98	554.2	0.9759	1.267	1.043	3868
2	41.10	94.84	562.2	0.9813	1.267	1.044	5060
3	41.10	134.04	574.2	0.9905	1.267	1.049	7252
4	41.10	196.82	583.2	0.9831	1.267	1.047	10550
5.							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	11.571	Mcf/bbl.
1.	0.82	546	1.51	0.920	A.P.I. Gravity of Liquid Hydrocarbons	59.6	Deq.
2.	0.83	540	1.50	0.918	Specific Gravity Separator Gas	0.623	XXXXXXX
3.	0.85	530	1.47	0.909	Specific Gravity Flowing Fluid	XXXXX	0.857
4.	0.87	538	1.49	0.912	Critical Pressure	674	P.S.I.A.
5.					Critical Temperature	361	R

P _c 5939.2	P _c ² 35274.1	
NO.	P _t ²	P _w
1	5934.2	35214.7
2	5923.2	35084.3
3	5897.2	34777.0
4	5856.2	34295.1
5		

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 36.0307$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 60660$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 5.7498$

Absolute Open Flow	60660	Mhd @ 15,025	Angle of Slope @	64°	Slope, n	0.488
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Remarks: B.H.P. measured at mid point of perforations at 15277. Packers at 15048 and 12452. Produced 192.5 Bbls. distillate and 0 Bbls. water.

Approved By Commission:	Conducted By: EPNG & R. Dailey	Calculated By: J. Cogburn	Checked By: L.C. Hudry
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