

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

Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 5-7-79		MAY 10 1979	
Company Hondo Oil & Gas Company ✓					Connection Not Connected		O. C. C.	
Pool Undesignated Winchester Atoka Gas					Formation Atoka		ARTESIA, OFFICE Unit	
Completion Date 4-30-79		Total Depth 11,140		Plug Back TD 10,687		Elevation 3382' GR		Farm or Lease Name State CB Com
Cas. Size 4.5	Wt. 11.6	d 4.000	Set At 11,140	Perforations: From 10,324 To 10,354		Well No. 1		
Thq. Size 2.375	Wt. 4.7	d 1.995	Set At 10,250	Perforations: From Open To Ended		Unit Sec. Twp. Rge. 0 29 19S 28E		
Type Well - Single - Bradenhead - G.C. or G.O. Multiple Single					Packer Set At 10,250		County Eddy	
Producing Thru Tbg		Reservoir Temp. °F 175 @ 10,339		Mean Annual Temp. °F 60°F		Baro. Press. - P _g 13.2		State New Mexico
L 10,250	H 10,250	Gg 0.6517	% CO ₂ 0.288	% N ₂ 0.724	% H ₂ S -0-	Prover	Meter Run 4"	Taps 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							3175		Pkr		SI 139 Hrs
1.	4"	x	1"	377	4.5	95	2840	74			1 Hr
2.	4"	x	1"	382	14	99	2741	75			1 Hr
3.	4"	x	1"	395	24.5	100	2559	76			1 Hr
4.	4"	x	1"	403	32	99	2302	76			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	4.753	41.90	390.2	.9680	1.238	1.031	246
2	4.753	74.38	395.2	.9645	1.238	1.031	435
3	4.753	100.00	408.2	.9636	1.238	1.032	585
4	4.753	115.41	416.2	.9645	1.238	1.033	677
5							

NO.	P _t	Temp. °R	T _g	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	.58	555	1.50	.941	161.9 Mcf/bbl.	56.1 Deg.	0.652	XXXXXXX	673 P.S.I.A.	371 R
2	.59	559	1.51	.941				0.670	672 P.S.I.A.	378 R
3	.61	560	1.51	.939						
4	.62	559	1.51	.938						
5										

P _c 4351.2 P _c ² 18932.9				(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.9575$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.8878$	
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²			
1		3960.2	15683.2	3069.7			
2		3590.2	12889.5	6043.4			
3		3261.2	10635.4	8297.5			
4		3043.2	9261.1	9671.8			
5							

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1278$

Absolute Open Flow	1278 Mcfd @ 15.025	Angle of Slope	46.6°	Slope, n	0.946
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Remarks: BHP measured at mid-point of perforations 10,339. 1/2 Bbl distillate produced during test.

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