

NEW MEXICO OIL CONSERVATION CO. ASSOCIATION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 7/20/71		RECEIVED		
Company Forest Oil Corporation						Connection None				
Pool Haystack Cisco						Formation Cisco		Unit 1		
Completion Date 7/20/71			Total Depth 6,304		Plug Back TD 5,964		Elevation 4,071' DF		Farm or Lease Name Haystack "A" Federal	
Csq. Size 4-1/2"	Wt. 9.5#	d 4.090	Set At 6041	Perforations: From 5796 To 5832		Well No. 1				
Tbg. Size 2-3/8"	Wt. 4.7#	d 1.995	Set At 5696	Perforations: From Open ended		Unit 28		Sec. 6-S	Twp. 27-E	
Type Well - Single - Brdenhead - G.G. or G.O. Multiple Single						Packer Set At 5,696		County Chavez		
Producing Thru tubing		Reservoir Temp. °F 136 @ 5800		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State New Mexico		
L 5696	H 5696	Gg .7265	% CO ₂ nil	% N ₂ 0.04	% H ₂ S nil	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							1961				12
1.	4	x	1.5	915.0	6.5	102	1865	75	Pkr		1
2.	4	x	1.5	930.0	14.5	83	1823	75	"		1
3.	4	x	1.5	930.0	23.0	80	1791	75	"		1
4.	4	x	1.5	945.0	53.0	84	1700	75	"		1
5.	4	x	1.5								

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	10.84	77.3	928.2	.9619	1.174	1.096	1037
2	10.84	116.9	943.2	.9786	1.174	1.113	1620
3	10.84	147.1	943.2	.9813	1.174	1.113	2045
4	10.84	223.5	958.2	.9777	1.174	1.115	3101
5							

NO.	P _r	Temp. °R	T _r	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	1.39	562	1.41	0.833	1000	61.4	.7265	XXXXXX	668	395
2	1.41	543	1.36	0.807				XXXXX		
3	1.41	540	1.36	0.807						
4	1.43	544	1.37	0.804						
5										

$P_c = 1974.2$ $P_c^2 = 3897.5$

NO	P _r ²	P _w	P _w ²	P _r ² - P _w ²
1	3527.6		3548.6	348.9
2	3371.6		3422.9	474.6
3	3255.1		3337.2	560.3
4	2935.1		3126.2	771.3
5				

(1) $\frac{P_c^2}{P_r^2 - P_w^2} = \frac{3897.5}{771.3}$ (2) $\left[\frac{P_c^2}{P_r^2 - P_w^2} \right]^n = (5.053)^{1.368} = 9.15$

AOF = Q $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 3101 (9.15) = 28.374$

Absolute Open Flow <u>28.374</u> Mcfd @ 15.025		Angle of Slope @ <u>36° 10'</u>	Slope, n <u>1.368</u>
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Remarks: Unable to eliminate effects of fluid in wellbore during this test. Anticipate pipeline connection by 9-3-71. Will retest at that time using decreasing flow rate method.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
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