

57
122
File
Form C-122
Revised 9-1-65
(yates)

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

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 7-3-79		SEP 4 1979	
Company Yates Petroleum Corp. ✓		Connection Transwestern Pipeline Co.		O.C.C. Unit ARTESIA, OFFICE	
Pool Undes. Wolfcamp		Formation Wolfcamp			
Completion Date 1-15-79		Total Depth 8186' KB		Plug Back TD 5099' KB	
Elevation 3689' KB		Farm or Lease Name Niles "KA" Com		Well No. 1	
Csg. Size 4-1/2"	Wt. 10.5#	d 4.052	Set At 8112' KB	Perforations: From 5010 To 5059	
Thq. Size 2-3/8"	Wt. 4.7#	d 1.995	Set At 5007' KB	Perforations: From To	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 5007' KB	
Producing Thru Tubing		Reservoir Temp. °F 112 @ 5050		Mean Annual Temp. °F 62	
Baro. Press. - P _a 13.2		State New Mexico		County Eddy	
L 5035	H 5035	G _g 0.64	% CO ₂ 0.06	% N ₂ 0.94	% H ₂ S Nil
Prover		Meter Run 4"		Taps Flange	

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							1600	81			80 hrs
1.	4.026	x	0.750	276	18	90	1530	83			1 hour
2.				277	41	90	1445	84			1 hour
3.				278	74	90	1322	85			1 hour
4.				278	93	90	1249	86			1 hour
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	2.661	72.15	289.2	.9723	1.250	1.0234	239
2	2.661	109.08	290.2	.9723	1.250	1.0234	361
3	2.661	146.80	291.2	.9723	1.250	1.0234	486
4	2.661	164.56	291.2	.9723	1.250	1.0234	545
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1	0.43	550	1.49	.9548	A.P.I. Gravity of Liquid Hydrocarbons	0.640
2	0.43	550	1.49	.9548	Specific Gravity Separator Gas	XXXXXXX
3	0.43	550	1.49	.9548	Specific Gravity Flowing Fluid	XXXXX
4	0.43	550	1.49	.9548	Critical Pressure	670 P.S.I.A.
5					Critical Temperature	370 °R

P_c 1851.2 P_c² 3427

NO.	P _r ²	P _w	P _w ²	P _c ² - P _w ²
1			3128	299
2			2787	640
3			2330	1099
4			2077	1350
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.5385$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.6519$

ACF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 900$

Absolute Open Flow		900 Mcfd @ 15.025	Angle of Slope θ	61.7 deg	Slope, n	0.5388
--------------------	--	-------------------	------------------	----------	----------	--------

Remarks: Original pressures by Deadweight testers, compares with (7-23-79) subsequent BHP survey. Calculation worksheet C-122D attached.

Approved By Commission:	Conducted By: David Weaver	Calculated By: Eddie Mahfood	Checked By:
-------------------------	-------------------------------	---------------------------------	-------------