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

Form C-122
Revised 9-1-65

RECEIVED
AUG 31 1979
O. C. C.
ARTESIA, OFFICE

Type Test: ☒ Initial ☐ Annual ☐ Special				Test Date: 7-19-79	
Company: Yates Petroleum Corporation	Connection: Transwestern Pipe Line Co.				Unit
Pool: Eagle Creek-Permo Penn	Formation: Cisco				
Completion Date: 7-11-79	Total Depth: 8678' KB	Plug Back TD: 6728' KB	Elevation: 3770' KB	Farm or Lease Name: ARCO EC State	
Csg. Size: 5½ / Wt.: 15.5 / d: 4.95 / Set At: 8678		Perforations: From 6534 To 6692		Well No.: 1	
Tbg. Size: 2-7/8" / Wt.: 6.5 / d: 2.441 / Set At: 6505		Perforations: From To		Unit: B / Sec.: 36 / Twp.: 17S / Rge.: 25E	
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single		Packer Set At: 6505		County: Eddy	
Producing Thru: Tubing	Reservoir Temp. °F: 121 @ 6655	Mean Annual Temp. °F: 62	Baro. Press. – P_a: 13.2	State: New Mexico	
L: 6655 / H: 6655 / Gg: .733	% CO_2: .15	% N_2: .76	% H_2S: Nil	Prover:	Meter Run: 4 / Taps: Flanged

	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	Days
SI						1715	71			1 hr
1.	4.026	0.625	220	14	80	1646	75			1 hr
2.			220	26	80	1587	78			1 hr
3.			220	49	80	1483	81			1 hr
4.			220	90	80	1295	83			
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	1.845	57.14	233.2	.9813	1.202	1.023	127
2.	"	77.87	"	"	"	"	173
3.	"	106.90	"	"	"	"	238
4.	"	144.87	"	"	"	"	322
5.							

NO.	P_t	Temp. °R	T_r	Z
1.	0.349	540	1.399	.956
2.				
3.				
4.				
5.				

Gas Liquid Hydrocarbon Ratio 74.6 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 51.2 Deg.
Specific Gravity Separator Gas .692 xxxxxxxxx
Specific Gravity Flowing Fluid xxxxx .733
Critical Pressure 669 P.S.I.A. 668 P.S.I.A.
Critical Temperature 386 R 400 R

P_c 2185.2 P_c^2 4775

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1			4377	398
2			4040	735
3			3508	1267
4			2642	2133
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.2386$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.5939$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 513$

Absolute Open Flow 513 Mcfd @ 15.025 Angle of Slope θ Slope, n 0.5785

Remarks: Static pressures by Bennett Wireline, flowing pressures by dead weight tester. Calculations work sheet C-122D attached

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