ppropriate district office
ee Rule 401 & Rule 1122

Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Courtesy copy

30-015-22370

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

RECEIVED
OCD ARTESIA

Operator: HARVEY E YATES CO				Lease or Unit Name: TRAVISBASSETBIRNEY #1	
Test Type: ☐ Initial ☐ Annual ☐ Special				Test Date: 1-22-01	Well No.: NM 14842
Completion Date: 1-18-01	Total Depth: 10725		Plug Back TD: 10725	Elevation:	Unit Ltr - Sec - TWP - Rge: SEC7T18SR29E
Csg. Size: 5.500 / Wt: 17.000 / d: 4.892 / Set At: 10725				Perforation: From 10170 To 10192	County: EDDY
Tbg. Size: 2.375 / Wt.: 4.700 / d: 1.995 / Set At: 10104				Perforation: From To	Pool: Empire Strawn
Type Well-Single-Bradenhead-G.G. or G.O. Multiple: SINGLE				Packer Set At: 10100	Formation: STRAWN
Producing Thru: TUBING	Reservoir Temp.F	Mean Annual Temp.F: 36		Baro. Pressure: 13.20	Connection: YES
L: 10725	H: 10725	Gg: 802	% CO_2: 8.44	% N_2: 2.98	% H_2S: Prover: METER / Meter Run: 2.067 / Taps: FLANGE

	Flow Data				Tubing Data		Casing Data		SIP/Flow
No.	(Prover) Line Size x Orifice Size	Press. PSIG	Diff. h_w	Temp. F	Press. PSIG	Temp. F	Press. PSIG	Temp. F	Duration (HRS.)
Shut-in Pressure					2631	45		45	60
1.	2.07 x 1.25	20.80	10.30	49	2487	42		42	1
2.	2.07 x 1.25	23.40	18.10	43	2336	41		42	1
3.	2.07 x 1.25	25.20	27.70	37	2218	40		41	1
4.	2.07 x 1.25	28.20	46.20	21	1906	36		38	1

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.	9.320	18.714	34.0	1.0107	1.1168	1.0041	197.7
2.	9.320	25.738	36.6	1.0168	1.1168	1.0049	273.7
3.	9.320	32.614	38.4	1.0224	1.1168	1.0053	348.9
4.	9.320	43.734	41.4	1.0398	1.1168	1.0063	476.3

No.	P_r	TEMP.	T_r	Z
1.	.049	509	1.253	.9918
2.	.053	503	1.238	.9904
3.	.056	497	1.225	.9895
4.	.060	481	1.184	.9874

Gas-Liquid Hydrocarbon Ratio		4.4	Mcf/bbl
API Gravity of Liquid Hydrocarbons		55.6	Deg.
Specific Gravity Separator Gas	.802		
Specific Gravity Flowing Fluid		1.355	
Critical Pressure	690 PSIA	663	PSIA
Critical Temperature	406 R	582	R

P_C = 2644.2 P_C^2 = 6991.8

No.	P_w	P_w^2	$P_c^2 - P_w^2$
1.	2500.9	6254	737.497
2.	2350.4	5524	1467.447
3.	2233.1	4986	2005.185
4.	1922.5	3696	3295.768

(1) $\frac{P_C^2}{P_C^2 - P_W^2}$ = 2.121 (2) $\left[\frac{P_C^2}{P_C^2 - P_W^2}\right]^n$ = 1.567

AOF = Q $\left[\frac{P_C^2}{P_C^2 - P_W^2}\right]^n$ = 746

Absolute Open Flow	746	Mcfd @ 15.025	Angle of Slope -	59.2	Slope, n .597
Remarks					
Approved By Division:	Conducted By:	Calculated By: BPT System/Guardian	Checked By: Larry Raddley		