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See Rule 401 & Rule 1122

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-122
Revised 4-1-1991

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator Pure Energy Group					Lease or Unit Name Aztec 26 Fed 30-005-63800				
Test Type ☒ Initial ☐ Annual ☐ Special					Test Date 04/26/2006		Well No. #1		
Completion Date Mrch 18, 2006		Total Depth 4600		Plug Back TD 4556		Elevation 3741'		Unit Ltr - Sec - TWP - Rge. Sec 26, T-10S, R-25E	
Csg. Size 5.500	Wt. 15.500	d 5.000	Set At	Perforation: From To			County Chaves		
Tbg. Size 2.375	Wt. 4.700	d 1.995	Set At 4400	Perforation: From 4340 To 4346			Pool Aztec		
Type Well-Single-Bradenhead-G.G. oG.O. Multiple Single					Packer Set At n/a		Formation Abo [Zu Massive]		
Producing Thru tubing		Reservoir Temp.F 130		Mean Annual Temp.F 55		Baro. Pressure 15.02		Connection	
L 4343	H 4343	Gg .672	% CO ₂ .58	% N ₂ 6.18	% H ₂ S	Prover	Meter Run Taps flange		

RECEIVED
MAY 17 2006
JULY 17 2006

Flow Data					Tubing Data		Casing Data		SIP/Flow Duration (HRS.)
(Prover) No. Line Size x Orifice Size	Press. PSIG	Diff. h _w	Temp. F		Press. PSIG	Temp. F	Press. PSIG	Temp. F	
Shut-in Pressure					425	70			24
1. 4.03 x .22	150.00	8.00	60		378	83			1
2. 4.03 x .25	150.00	16.00	61		353	84			1
3. 4.03 x .28	150.00	28.00	63		327	86			1
4. 4.03 x .30	150.00	44.00	64		306	87			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.	9.890	36.335	165.0	1.0000	1.2199	1.0148	444.8
2.	9.890	51.385	165.0	.9990	1.2199	1.0147	628.4
3.	9.890	67.976	165.0	.9971	1.2199	1.0145	829.6
4.	9.890	85.212	165.0	.9962	1.2199	1.0144	1038.9

No.	P _r	TEMP.	T _r	Z
1.	.250	520	1.429	.9710
2.	.250	521	1.431	.9712
3.	.250	523	1.437	.9716
4.	.250	524	1.440	.9718

Gas-Liquid Hydrocarbon Ratio		Mcf/bbl	
API Gravity of Liquid Hydrocarbons		Deg.	
Specific Gravity Separator Gas		.672	
Specific Gravity Flowing Fluid		.672	
Critical Pressure	658	PSIA	658 PSIA
Critical Temperature	363	R	363 R

$P_C = 440.0$ $P_C^2 = 193.6$

No.	P _w	P _w ²	P _C ² - P _w ²
1.	398.4	158	34.908
2.	379.1	143	49.942
3.	361.8	130	62.706
4.	353.5	124	68.671

(1) $\frac{P_C^2}{P_C^2 - P_W^2} = \frac{2.820}{\frac{P_C^2}{P_C^2 - P_W^2}} = 2.820$

(2) $\left[\frac{P_C^2}{P_C^2 - P_W^2} \right]^n = 2.820$

AOF = Q $\left[\frac{P_C^2}{P_C^2 - P_W^2} \right]^n = 2929$

Absolute Open Flow 2929		Mcf/d @ 15.025		Angle of Slope - 45.0		Slope, n 1.000	
Remarks							
Approved By Division:		Conducted By: Well Testing		Calculated By: BPT System		Checked By:	

WELL TESTER: Well Testing
TEST DATE: 04/26/2006

GAS WELL BACK PRESSURE CURVE

