



STATE OIL AND GAS BOARD OF ALABAMA

One-Point Back-Pressure Test Report for Gas Wells

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Form OGB-10A, Rev. 07/13
(File in triplicate)

Permit Number

API Number

Annual

Special

Name of Operator _____

Address _____ City _____ State _____ Zip _____

1. Well name and number						2. County	
3. Test date			4. Field (if wildcat, so state)			5. Pool	
6. Completion date			7. Total depth			8. Elevation	
9. Csg.:	size	Wt.	Dia.	Set at	Perfs: From _____ To _____		
10. Tbg.:	size	Wt.	Dia.	Set at	Perfs: From _____ To _____		
11. Type completion (describe)					12. Packer set at L H		

13. Reservoir temperature °F@			14. Mean annual temperature °F			15. Barometric Pressure (P _a) psia	
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G _g	%CO ₂	%N ₂	%H ₂ S	Prover	Meter run	Taps				
Flow data				Tubing data		Casing data				
No.	Prover line size in.	Choke orifice size in.	Pressure psig	Diff. (h _w) in.	Temperature °F	Pressure psig	Temperature °F	Pressure psig	Temperature °F	Duration of flow hr.
Sl	x									
1.	x									

No.	Coefficient (24-hour)	(h _w P _m) ^{1/2}	Pressure P _m	Flow temperature factor F _t	Gravity factor F _g	Super compress. factor, F _{pv}	Rate of flow Q. Mcfd
1.							

No.	P _r	°R	T _r	z	Gas liquid hydrocarbon ratio _____ Mcf/bbl
1.					API gravity of liquid hydrocarbons _____ deg.
Specific gravity separator gas _____			Specific gravity flowing fluid _____		
Critical pressure _____ psia			Critical pressure _____ psia		
Critical temperature _____ °R			Critical temperature _____ °R		

P _c _____	P _c ² _____	P _f _____	P _f ² _____						
No.	P _t	P _t ²	P _c ² - P _t ²	P _w	P _w ²	P _c ² - P _w ²	P _s	P _s ²	P _f ² - P _s ²
1.									

$$\left[\frac{P_c^2}{P_c^2 - P_w^2} \right] = \left[\frac{P_c^2}{P_c^2 - P_w^2} \right] = \frac{P_c^2}{P_c^2 - P_w^2}$$

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

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

$$\log \left[\frac{P_c^2}{P_c^2 - P_w^2} \right] = \frac{1}{n} \log \left[\frac{P_c^{2n}}{P_c^{2n} - P_w^{2n}} \right]$$

If subsurface pressure data are used, substitute P_f for P_c and P_s for P_w in above formulae

AOF _____ Mcfd n _____ ϕ _____

(Source of n)

Has the allowable for this well been established by the State Oil and Gas Board? _____

If so, state order number _____ and allowable _____

TABLE OF NOMENCLATURE

- P_a - Field barometric pressure, psia.
- P_c - Shut-in wellhead pressure, psia (length of shut-in, minimum 24 hours).
- P_w - Static column wellhead pressure corresponding to the flowing wellhead pressure, psia (to be recorded at end of each flow rate).
- P_t - Flowing wellhead pressure, psia
- P_m - Static pressure at point of gas measurement, psia.
- P_s - Flowing pressure at vertical depth, H, psia.
- P_f - Shut-in pressure at vertical depth, H, psia.
- G_g - Specific gravity of separator gas (air = 1.0).
- L - Length of the flow string from the middle of the pool to the pressure point at wellhead, feet.
- H - Vertical depth corresponding to L, feet.
- h_w - Meter differential pressure, inches of water.
- Q - 24 hour rate of flow, Mcfd (14.65 psia and 60°F).
- d - Inside diameter, inches.
- °R - Degrees, Rankine (absolute).
- P_r - Reduced pressure, dimensionless.
- T_r - Reduced temperature, dimensionless.
- z - Compressibility factor, dimensionless.
- n - Exponent of back-pressure equation, dimensionless.
- Θ - Angle of slope of back-pressure curve.

Remarks: _____

Executed this the _____ day of _____, 20 _____

Signature _____

Before me, the undersigned authority, on this day personally appeared _____ known to me to be the person whose name is subscribed to the above instrument, who being by me duly sworn on oath states that he/she is duly authorized to make the above report and that he/she has knowledge of the facts stated therein, and that said report is true and correct.

Subscribed and sworn to before me this _____ day of _____, 20 _____

SEAL

My commission expires _____

Notary Public in and for _____

County, _____