NEW MEXICO OIL CONSERVATION COMMSSION

# MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

| | | | | | |
|---|---|---|---|---|---|
| Type Test: [X] Initial [ ] Annual [ ] Special | | | | Test Date: 3-20-78 | |
| Company: Merrion & Bayless | | Connection: New Well | | | |
| Pool: Ballard Undesignated | | Formation: Pictured Cliffs Upper Chacra | | | Unit |
| Completion Date: 9-26-77 | Total Depth: 2709' KB | Plug Back TD: 2667' KB | | Elevation: 6838' GR | Farm or Lease Name: Jicarilla 428 |
| Csg. Size: 2-7/8" / Wt.: 6.4#/ft / d: 2.441" / Set At: 2698' | | Perforations: From PC-2090' CH-2558' To 2124' 2584' | | | Well No.: 5 |
| Tbg. Size: Tubingless Completion / Wt. / d / Set At | | Perforations: From To | | | Unit: D / Sec.: 31 / Twp.: 23N / Rge.: 4W |
| Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Gas - Single - Commingled (R-5622) | | Packer Set At: none | | | County: Sandoval |
| Producing Thru: Casing | Reservoir Temp. °F: @ | Mean Annual Temp. °F | Baro. Press. – $P_a$: 12.0 | | State: N.M. |

| L | H | Gg | % $CO_2$ | % $N_2$ | % $H_2S$ | Prover | Meter Run | Taps |
|---|---|---|---|---|---|---|---|---|
| | | .60 | | | | 2" | | |

| | FLOW DATA | | | | | TUBING DATA | | CASING DATA | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 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 | Duration of Flow |
| SI | | | | | | | | 678 | | SIP |
| 1. | 2" | x 3/8" | 24 | --- | 52 | --- | --- | 24 | 52 | 3 hrs. |
| 2. | | | | | | | | | | |
| 3. | | | | | | | | | | |
| 4. | | | | | | | | | | |
| 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 | 2.378 | | 36 | 1.008 | 1.291 | 1.005 | 112 |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |

| NO. | $P_r$ | Temp. °R | $T_r$ | Z |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
Specific Gravity Separator Gas _____ XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX _____
Critical Pressure _____ P.S.I.A. _____ P.S.I.A
Critical Temperature _____ R _____ R

$P_c$ 690 $P_c^2$ 476,100

| NO | $P_t^2$ | $P_w$ | $P_w^2$ | $P_c^2 - P_w^2$ |
|---|---|---|---|---|
| 1 | 1296 | 37 | 1340 | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0028$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.0024$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 112$

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Absolute Open Flow 112 Mcfd @ 15.025 Angle of Slope θ _____ Slope, n 0.85

Remarks:

| GL | $(1-e^{-s})$ | $(F_c Q)^2$ | $R^2$ | $P_t^2+R^2$ | $P_w$ |
|---|---|---|---|---|---|
| 1550 | .114 | 387 | 44 | 1340 | 37 |

| Approved By Commission: | Conducted By: | Calculated By: | Checked By: |
|---|---|---|---|
| | Steven S. Dunn | Steven S. Dunn | R. L. Bayless |