N . MEXICO OIL CONSERVATION COMM .ON

# MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

| | | | | | |
|---|---|---|---|---|---|
| Type Test: [X] Initicl [ ] Annual [ ] Special | | | | Test Date | |
| Company: Getty Oil Company | | Connection: El Paso | | | |
| Pool: East Gramma Ridge-Morrow | | Formation: Morrow | | Unit | |
| Completion Date: 11-23-80 | Total Depth: 13,170 | Plug Back TD: 13,087 | Elevation: 3671 G.L. | Farm or Lease Name: Getty 25 State | |
| Csg. Size: 4 1/2 / Wt.: 13.5 / d: 3.795 / Set At: 13,170 | | Perforations: From 12,930 To 12,966 | | Well No.: 1 | |
| Tbg. Size: 2 3/8 / Wt.: 4.7 / d: 1.995 / Set At: 12,494 | | Perforations: From To | | Unit: N / Sec.: 25 / Twp.: 21-S / Rge.: 34-E | |
| Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Morrow Gas/Single | | Packer Set At: 12,494 | | County: Lea | |
| Producing Thru: Tubing | Reservoir Temp. °F: 175 @ 13,170 | Mean Annual Temp. °F: 60 | Baro. Press. – $P_a$: 13.2 | State: N.M. | |

| L | H | Gg | % $CO_2$ | % $N_2$ | % $H_2S$ | Prover | Meter Run | Taps |
|---|---|---|---|---|---|---|---|---|
| 12,494 | 12,494 | .6777 | .856 | 1,059 | --- | --- | 3" | Flange |

| | 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 | | | | | 5575 | 96 | Packer | | SI 2 hrs. |
| 1. | 3" * 6 1/2/64 | 815 | 4 | 53 | 5175 | 95 | | | 1/2 hr. |
| 2. | 3" * 7 1/4/64 | 750 | 8 | 60 | 5075 | 94 | | | 1/2 hr. |
| 3. | 3" * 8 1/2/64 | 750 | 14 | 55 | 4850 | 93 | | | 1/2 hr. |
| 4. | 3" * 10 1/2/64 | 780 | 25 | 48 | 4450 | 92 | | | 1/2 hr. |
| 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 | 15.61 | 57.55 | 828.2 | 1.007 | 1.215 | 1.102 | 1211 |
| 2. | 15.61 | 78.14 | 763.2 | 1.000 | 1.215 | 1.093 | 1620 |
| 3. | 15.6. | 103.37 | 763.2 | 1.005 | 1.215 | 1.093 | 2154 |
| 4. | 15.61 | 140.82 | 793.2 | 1.012 | 1.215 | 1.114 | 3011 |
| 5. | | | | | | | |

| NO. | $P_t$ | Temp. °R | $T_r$ | Z |
|---|---|---|---|---|
| 1. | 1.24 | 513 | 1.33 | .824 |
| 2. | 1.14 | 520 | 1.35 | .837 |
| 3. | 1.14 | 515 | 1.34 | .837 |
| 4. | 1.19 | 508 | 1.32 | .806 |
| 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 669 P.S.I.A. _____ P.S.I.A.
Critical Temperature 385 R _____ R

$P_c$ 7406.2 $P_c^2$ 54,852

| NO | $P_t^2$ | $P_w$ | $P_w^2$ | $P_c^2 - P_w^2$ |
|---|---|---|---|---|
| 1 | | 6940.2 | 48,166 | 6686 |
| 2 | | 6820.2 | 46,515 | 8,337 |
| 3 | | 6595.2 | 43,510 | 11,342 |
| 4 | | 6128.2 | 37,555 | 17,297 |
| 5 | | | | |

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 4.84$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 3.73$

$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 8034$

Absolute Open Flow 8034 Mcfd @ 15.025 Angle of Slope θ _____ Slope, n .835

Remarks: Bottom hole pressures measured at mid-point of perf.

| Approved By Commission: | Conducted By: | Calculated By: | Checked By: |
|---|---|---|---|
| | Bill Krafft | Peter J. Botes | Dale R. Crockett |