SF / file
VC-123 file

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED
MAR 12 1982
O. C. D.
ARTESIA, OFFICE

| | | | | | |
|---|---|---|---|---|---|
| Type Test: [X] Initial [ ] Annual [ ] Special | | | | Test Date: 1-25-82 | |
| Company: CITIES SERVICE CO. | | Connection: ATMOSPHERE | | | Unit: |
| Pool: WILDCAT Canyon | | Type Well: ~~GISCO~~ Canyon | | | |
| Completion Date: 1-24-82 | Total Depth: 10,449 | Plug Back TD: 8380 | Elevation: 4058 | Farm or Lease Name: Federal Q | |
| Csg. Size: 5½ | Wt.: 17# | d: 4.892 | Set At: 10,000 | Perforations: From 8123 To 8205 | Well No.: 1 |
| Tbg. Size: 2 7/8" | Wt.: 6.5# | d: 2.441 | Set At: 8,073 | Perforations: From OPENENDED To | Unit: C; Sec.: 23; Twp.: 23S; Rge.: 23E |
| Type Well – Single – Bradenhead – G.G. or G.O. Multiple: SINGLE | | | Packer Set At: 8066 | | County: Eddy |
| Producing Thru: TUBING | Reservoir Temp. °F: 165 @ 8164 | Mean Annual Temp. °F: 60° | Baro. Press. – $P_a$: 8066 | | State: New Mexico |

| L | H | Gg | % $CO_2$ | % $N_2$ | % $H_2S$ | Prover | Meter Run | Taps |
|---|---|---|---|---|---|---|---|---|
| 8073 | 8073 | .7027 | .921 | 4.373 | -0- | | 4.026 | Flange |

| NO. | FLOW DATA: Prover Line Size | x | Orifice Size | Press. p.s.i.g. | Diff. $h_w$ | Temp. °F | TUBING DATA: Press. p.s.i.g. | Temp. °F | CASING DATA: Press. p.s.i.g. | Temp. °F | Duration of Flow |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SI | | | | | | | 2347 | | PKR. | CHOKE | 24 HRS. |
| 1. | 4 | x | .750 | 500 | 11" | 70° | 2250 | 58° | | 1/64 | 1 HR. |
| 2. | 4 | x | .750 | 500 | 15" | 70 | 2127 | 61° | | 4/64 | 1 HR. |
| 3. | 4 | x | .750 | 500 | 27" | 70 | 1887 | 63° | | 6/64 | 1 HR. |
| 4. | 4 | x | .750 | 500 | 48" | 70 | 1602 | 64° | | 7/64 | 1 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 | 2.661 | 75.13 | 513.2 | .9905 | 1.193 | 1.052 | 249 |
| 2. | 2.661 | 87.74 | 513.2 | .9905 | 1.193 | 1.052 | 290 |
| 3. | 2.661 | 117.71 | 513.2 | .9905 | 1.193 | 1.052 | 389 |
| 4. | 2.661 | 156.95 | 513.2 | .9905 | 1.193 | 1.052 | 519 |
| 5. | | | | | | | |

| NO. | $P_t$ | Temp. °R | $T_f$ | Z |
|---|---|---|---|---|
| 1. | .771 | 530 | 1.40 | .903 |
| 2. | .771 | 530 | 1.40 | .903 |
| 3. | .771 | 530 | 1.40 | .903 |
| 4. | .771 | 530 | 1.40 | .903 |
| 5. | | | | |

Gas Liquid Hydrocarbon Ratio: TSTM Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: ____ Deg.
Specific Gravity Separator Gas: .7027 xxxxxxxxx
Specific Gravity Flowing Fluid: xxxxx
Critical Pressure: 666 P.S.I.A. ____ P.S.I.A.
Critical Temperature: 379 R ____ R

$P_c$ 2360.2 $P_c^2$ 5570.5

| NO | $P_t^2$ | $P_w$ | $P_w^2$ | $P_c^2 - P_w^2$ |
|---|---|---|---|---|
| 1 | | 2263.3 | 5122.6 | 447.9 |
| 2 | | 2140.4 | 4581.2 | 989.3 |
| 3 | | 1900.6 | 3612.2 | 1958.3 |
| 4 | | 1616.0 | 2611.5 | 2959.0 |
| 5 | | | | |

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.883$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.3904$

$\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = .722$

Posted to comp. book 4-2-82

Absolute Open Flow: 722 Mcfd @ 15.025 | Angle of Slope θ: 62.5 | Slope, n: .521

Remarks: Fluid td small to measure.

| Approved By Commission: | Conducted By: | Calculated By: | Checked By: |
|---|---|---|---|
| | W.S. | M.K. | M.K. |