STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

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RECEIVED
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O. C. D.
ARTESIA, OFFICE

Form C-122
Revised 10-1-78

C/SF File

# MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

| | | | | | |
|---|---|---|---|---|---|
| Type Test: [X] Initial [ ] Annual [ ] Special | | | | Test Date: 1/2/90 | |
| Company: OXY USA | | | Connection | | |
| Pool: [illegible] | | | Formation: Morrow | | Unit |
| Completion Date | Total Depth | | Plug Back TD | Elevation | Farm or Lease Name: Goverment "Z" |
| Csg. Size | Wt. | d | Set At | Perforations: From To | Well No.: 1 |
| Tbg. Size: 2 7/8 | Wt.: 6.4 | d: 2.441 | Set At: 10953 | Perforations: From [illegible] To [illegible] | Unit: K Sec.: 23 Twp.: 20S Rge.: |
| Type Well – Single – Bradenhead – G.G. or G.O. Multiple: SINGLE | | | Packer Set At: 10945 | | County: Eddy |
| Producing Thru: TBG | Reservoir Temp. °F: 185 @ 11130.5' | 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 |
|---|---|---|---|---|---|---|---|---|
| 11130.5 | 11130.5 | .657 | .79 | .33 | -0- | -0- | 3.068 | FLG |

## FLOW DATA / TUBING DATA / CASING DATA

| NO. | Prover Line Size | X | Orifice Size | Press. p.s.i.g. | Diff. $h_w$ | Temp. °F | Tubing Press. p.s.i.g. | Tubing Temp. °F | Casing Press. p.s.i.g. | Casing Temp. °F | Duration of Flow |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SI | | | | | | | 2965 | | PKR | | 84 HRS |
| 1. | 3 x 1.500 | | | 480 | 1.00 | 63 | 2843 | | | | 1 Hr. |
| 2. | 3 x 1.500 | | | 480 | 3.00 | 73 | 2736 | | " | | 1 Hr. |
| 3. | 3 x 1.500 | | | 480 | 8.00 | 75 | 2470 | | " | | 1 Hr. |
| 4. | 3 x 1.500 | | | 485 | 12.00 | 75 | 2220 | | " | | 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 | 11.13 | 22.21 | 493.2 | .9971 | 1.234 | 1.058 | 322 |
| 2. | 11.13 | 38.47 | 493.2 | .9877 | 1.234 | 1.050 | 548 |
| 3. | 11.13 | 62.81 | 493.2 | .9859 | 1.234 | 1.050 | 893 |
| 4. | 11.13 | 77.32 | 498.2 | .9859 | 1.234 | 1.051 | 1.100 |
| 5. | | | | | | | |

| NO. | $P_t$ | Temp. °R | $T_t$ | Z |
|---|---|---|---|---|
| 1. | .73 | 523 | 1.39 | .893 |
| 2. | .73 | 533 | 1.42 | .907 |
| 3. | .73 | 535 | 1.42 | .907 |
| 4. | .74 | 535 | 1.42 | .906 |
| 5. | | | | |

Gas Liquid Hydrocarbon Ratio: DRY GASS Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: DRY Deg.
Specific Gravity Separator Gas: XXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX
Critical Pressure: 670 P.S.I.A. ____ P.S.I.A.
Critical Temperature: 375 R ____ R

$P_c$ 3021.1 $P_c^2$ 9127.0

| NO | $P_t^2$ | $P_w$ | $P_w^2$ | $P_c^2 - P_w^2$ |
|---|---|---|---|---|
| 1 | | 2885.9 | 8327.8 | 799.2 |
| 2 | | 2763.2 | 7635.3 | 1491.7 |
| 3 | | 2486.3 | 6181.7 | 2945.3 |
| 4 | | | | |
| 5 | | | | |

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.225$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.842$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2.027$

Absolute Open Flow: 2.027 Mcfd @ 15.025
Angle of Slope θ: 52.5
Slope, n: .764

Remarks: Test calculated from known BHP'S, No fluid produced during test

Bottom hole pressure instr. set at this depth 11130.5'

| Approved By Division | Conducted By: | Calculated By: | Checked By: |
|---|---|---|---|
| | | JBM | JBM |