

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool BLANCO MESAVERDE - EXT Formation MESAVERDE County SAN JUANInitial X Annual _____ Special _____ Date of Test 10-25-61Company SKELLY OIL COMPANY Lease MEXICO-FED "M" Well No. 1Unit K Sec. 12 Twp. 31N Rge. 13W Purchaser _____Casing 4 1/2" OD Wt. 9.5 I.D. 4.090 Set at 6855' Perf. 4435' To 4531'Tubing 2-3/8" OD Wt. 4.7 I.D. 1.995 Set at 6550' Perf. _____ To _____Gas Pay: From 4435 To 4531 L 4435 xG .700 -GL 3105 Bar.Press. 12.0Producing Thru: Casing X Tubing _____ Type Well Gas-Gas Dual

Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 10-25-61 Packer Baker Model "D" Reservoir Temp. _____Set at 6550'

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) Type Taps _____

| Flow Data | | | | | | Tubing Data | | Casing Data | | Duration of Flow Hr. |
|-----------|----------------------------|------------------------------|----------------|-------------------------|--------------|----------------|--------------|----------------|--------------|----------------------------|
| No. | (Prover) (Line) Size | (Choke) (Orifice) Size | Press. psig | Diff. h _w | Temp. °F. | Press. psig | Temp. °F. | Press. psig | Temp. °F. | |
| | | | | | | | | | | |
| 1. | | <u>3/4"</u> | <u>63</u> | | <u>60°</u> | <u>1781</u> | | <u>943</u> | | <u>3 hours</u> |
| 2. | | | | | | <u>1790</u> | | <u>63</u> | | |
| 3. | | | | | | | | | | |
| 4. | | | | | | | | | | |
| 5. | | | | | | | | | | |

FLOW CALCULATIONS

| No. | Coefficient (24-Hour) | $\sqrt{h_w p_f}$ | Pressure psia | Flow Temp. Factor F _t | Gravity Factor F _g | Compress. Factor F _{pv} | Rate of Flow Q-MCFPD @ 15.025 psia |
|-----|--------------------------|------------------|------------------|--|-------------------------------------|--|--|
| 1. | <u>12.3650</u> | | <u>75</u> | <u>1.000</u> | <u>.9258</u> | <u>1.000</u> | <u>859</u> |
| 2. | | | | | | | |
| 3. | | | | | | | |
| 4. | | | | | | | |
| 5. | | | | | | | |

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio No Liquid cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
P_c 3.6025 (1-e^{-s}) 0.202Specific Gravity Separator Gas .700
Specific Gravity Flowing Fluid _____
P_c 955 P_c² 912.025

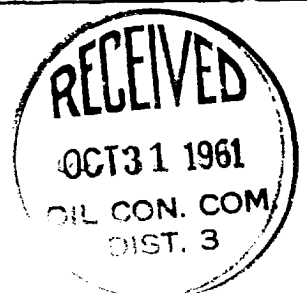
| No. | P _w P _t (psia) | P _t ² | F _c Q | (F _c Q) ² | (F _c Q) ² (1-e ^{-s}) | P _w ² | P _c ² -P _w ² | Cal. P _w | P _w / P _c |
|-----|---|-----------------------------|------------------|---------------------------------|---|-----------------------------|--|------------------------|------------------------------------|
| 1. | <u>75</u> | <u>5.625</u> | <u>3.095</u> | <u>9.579</u> | <u>1.935</u> | <u>7.560</u> | <u>904.465</u> | <u>87</u> | <u>.091</u> |
| 2. | | | | | | | | | |
| 3. | | | | | | | | | |
| 4. | | | | | | | | | |
| 5. | | | | | | | | | |

Absolute Potential: 864 MCFPD; n 0.75COMPANY SKELLY OIL COMPANYADDRESS P. O. DRAWER 510, FARMINGTON, NEW MEXICOAGENT and TITLE B. L. HOLLEY, DISTRICT FOREMAN / B. L. Holley, District Foreman

WITNESSED _____

COMPANY _____

REMARKS



INSTRUCTIONS

This form is to be used for reporting multi-point back pressure tests on gas wells in the State, except those on which special orders are applicable. Three copies of this form and the back pressure curve shall be filed with the Commission at Box 871, Santa Fe.

The log log paper used for plotting the back pressure curve shall be of at least three inch cycles.

NOMENCLATURE

Q = Actual rate of flow at end of flow period at W. H. working pressure (P_w).
MCF/da. @ 15.025 psia and 60° F.

P_c = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater.
psia

P_w = Static wellhead working pressure as determined at the end of flow period.
(Casing if flowing thru tubing, tubing if flowing thru casing.) psia

P_t = Flowing wellhead pressure (tubing if flowing through tubing, casing if flowing through casing.) psia

P_f = Meter pressure, psia.

h_w = Differential meter pressure, inches water.

F_g = Gravity correction factor.

F_t = Flowing temperature correction factor.

F_{pv} = Supercompressibility factor.

n = Slope of back pressure curve.

Note: If P_w cannot be taken because of manner of completion or condition of well, then P_w must be calculated by adding the pressure drop due to friction within the flow string to P_t .