NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Basin Dakota Formation Dakota County San Juan

Initial XX Annual ____ Special ____ Date of Test 1/16/63

Company Delhi-Taylor Oil Corp. Lease Hammer Well No. 1

Unit ____ Sec. 20 Twp. 29N Rge. 9W Purchaser No pipeline connection

Casing 4½" Wt. 10.50 I.D. 4.052 Set at 6590 Perf. 6408 To 6581

Tubing 2-3/8" Wt. 4.70 I.D. 1.995 Set at 6304 Perf. --- To ---

Gas Pay: From 6403 To 6590 L 6304 xG --- -GL --- Bar.Press. ____

Producing Thru: Casing ____ Tubing XX Type Well G. G. Dual
Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 8/1/62 Packer Baker Model "P" Reservoir Temp. 186°F

OBSERVED DATA

Tested Through ~~(Prover)~~ (Choke) ~~(Meter)~~ Type Taps None

No.	Flow Data (Prover) (Line) Size	Flow Data (Choke) ~~(Orifice)~~ Size	Flow Data Press. psig	Flow Data Diff. h_w	Flow Data Temp. °F.	Tubing Data Press. psig	Tubing Data Temp. °F.	Casing Data Press. psig	Casing Data Temp. °F.	Duration of Flow Hr.
SI						1796	---	Dual	---	
1.		0.75	114	---	65					3 hrs.
2.										
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.	12.365	---	126	0.9952	1.0000 (assumed)	---	1551
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio ____ cf/bbl. Specific Gravity Separator Gas ____
Gravity of Liquid Hydrocarbons ____ deg. Specific Gravity Flowing Fluid ____
F_c 9.402 $(1-e^{-s})$ 0.240 P_c 1808 P_c^2 3,268,864

No.	P_w / P_t (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$\frac{(F_cQ)^2}{(1-e^{-s})}$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.	126	15,876	14,583	212,649	51,036	66,912	3101	259	0.143
2.									
3.									
4.									
5.									

Absolute Potential: 1575 MCFPD; n 0.75

COMPANY Delhi-Taylor Oil Corporation
ADDRESS P. O. Drawer 1198, Farmington, New Mexico
AGENT and TITLE Ed Spinks, Production Engineer
WITNESSED Emery Arnold
COMPANY New Mexico Oil Conservation Commission

REMARKS

RECEIVED
SEP 23 1963
OIL CON. COM.
DIST. 3

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} = Supercompressability 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.