NEW MEXICO OIL CONSERVATION COMMISSION — Form C-110
SANTA FE, NEW MEXICO — Revised 7/1/55

(File the original and 4 copies with the appropriate district office)

CERTIFICATE OF COMPLIANCE AND AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

Company or Operator **Aztec Oil and Gas Company** Lease **Cain**

Well No. **13** Unit Letter **D** S **16** T **28** R **10** Pool **Aztec Pictured Cliffs**

County **San Juan** Kind of Lease (State, Fed. or Patented) **Fed.**

If well produces oil or condensate, give location of tanks: Unit ____ S ____ T ____ R ____

Authorized Transporter of Oil or Condensate _____

Address _____
(Give address to which approved copy of this form is to be sent)

Authorized Transporter of Gas **Southern Union Gas Company**

Address **1507 Pacific, Dallas, Texas.** Date Connected _____
(Give address to which approved copy of this form is to be sent)

If Gas is not being sold, give reasons and also explain its present disposition:

_____

_____

Reasons for Filing: (Please check proper box) New Well (X)

Change in Transporter of (Check One): Oil ( ) Dry Gas ( ) C'head ( ) Condensate ( )

Change in Ownership _____ ( ) Other _____ ( )

Remarks: (Give explanation below)

The undersigned certifies that the Rules and Regulations of the Oil Conservation Commission have been complied with.

Executed this the **23rd** day of **March** 19 **61**

By ORIGINAL SIGNED BY JOE C. SALMON
Joe C. Salmon

Approved MAR 2 5 1961 19 ____

Title **District Superintendent**

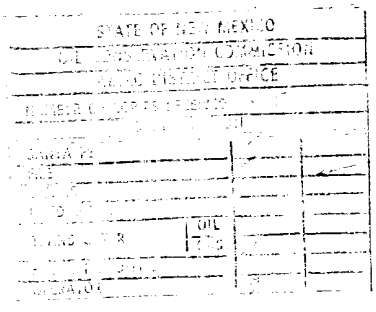
OIL CONSERVATION COMMISSION

Company **Aztec Oil and Gas Company**

By Original Signed Emery C. Arnold

Address **Drawer # 570, Farmington, New Mexico**

Title Supervisor Dist. # 3


STATE OF NEW MEXICO
OIL
GAS

LTR

Job separation sheet

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Aztec Formation Pictured Cliffs County San Juan

Initial X Annual Special Date of Test 3/21/61

Company Aztec Oil and Gas Company Lease Cain Well No. 13

Unit D Sec. 16 Twp. 28N Rge. 10W Purchaser

Casing 2 7/8 Wt. 6.40 I.D. 2.441 Set at 1964 Perf. 1874 To 1914

Tubing Wt. I.D. Set at Perf. To

Gas Pay: From 1874 To 1914 L 1874 xG 0.65 -GL 1218 Bar.Press. 12

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

Date of Completion: 3/14/61 Packer Reservoir Temp.

OBSERVED DATA

Tested Through (Prover) (Choke) (Orifice) Type Taps

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								436		7 days
1.		0.750						191	60 (E)	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		191	1.0000	0.9698	1.020	2314
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio cf/bbl.
Gravity of Liquid Hydrocarbons deg.
F_c $(1-e^{-s})$

Specific Gravity Separator Gas
Specific Gravity Flowing Fluid
P_c 436 P_c^2 204,304

No.	P_w P_t (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$(F_cQ)^2$ $(1-e^{-s})$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.	191	36,481	28.845	164.994	14.084	50,505	153,799	225	
2.									
3.									
4.									
5.									

Absolute Potential: 2945 MCFPD; n 0.85

COMPANY Aztec Oil and Gas Company

ADDRESS Drawer G, Farmington, New Mexico

AGENT and TITLE ORIGINAL SIGNED BY L. M. STEVENS L. M. Stevens, Dist. Engr.

WITNESSED

COMPANY

REMARKS

RECEIVED
MAR 1961

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.