

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Sawyer Formation San Andres (Gas) County Lea
 Initial Annual X Special Date of Test April 21, 1965
 Company Western Drilling Co. Lease Toles Federal Well No. 1
 Unit H Sec. 13 Twp. 9S Rge. 37E Purchaser Nearburg & Ingram
 Casing 4 1/2" Wt. 11.60# I.D. 4" Set at 4,982' Perf. 4,918' 4,936' To 4,960'
 Tubing 2-3/8" Wt. 4.70# I.D. 1.995" Set at 4,676' Perf. Open To 4,918' 4,936'
 Gas Pay: From 4,947' To 4,973' L xG -GL Bar.Press. 13.2 psia
 Producing Thru: Casing Tubing X Type Well Single
 Date of Completion: 7-19-61 Packer None Single-Bradenhead-G. G. or G.O. Dual Reservoir Temp.

OBSERVED DATA

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

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						1,106		1,106	62°	72 hrs.
1.	2"	0.625"				1,083		1,083	78°	3 hrs 0 min
2.	2"	0.125"				1,017		1,019	72°	3 hrs 0 min
3.	3.073"	1.250"	341.3	16.00	63°	724		754	63°	3 hrs 0 min
4.	3.073"	1.250"	348.1	23.04	58°	610		630	58°	3 hrs 0 min
5.	3.073"	1.250"	349.8	9.92	60°	419		493	60°	20hrs 0 min

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.	0.0827		1,096.2	.9831	.8709	1.070	83
2.	0.3418		1,032.2	.9887	.8709	1.070	325
3.	7.5773	75.31	354.5	.9971	1.1244	1.029	658
4.	7.5773	91.23	361.3	1.0019	1.1244	1.030	802
5.	7.5773	60.01	363.0	1.0000	1.1244	1.029	526

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio cf/bbl.
 Gravity of Liquid Hydrocarbons deg.
 P_c P_w Measured (1-e⁻⁸)
 Specific Gravity Separator Gas 0.791
 Specific Gravity Flowing Fluid
 P_c 1,119.2 P_c 1,252.6

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.	1096.2					1201.7	50.9		97.9
2.	1032.2					1065.4	187.2		92.2
3.	767.2					588.6	664.0		68.5
4.	643.2					413.7	838.9		57.5
5.	506.2					256.2	996.4		45.2

Absolute Potential: 632.9 MCFD MCFPD; n 0.80896

COMPANY Denton Oil Company

ADDRESS P. O. Box 4359 Tech Station, Lubbock, Texas

AGENT and TITLE C. J. Jordan, Jr., Gas Engineer

WITNESSED

COMPANY

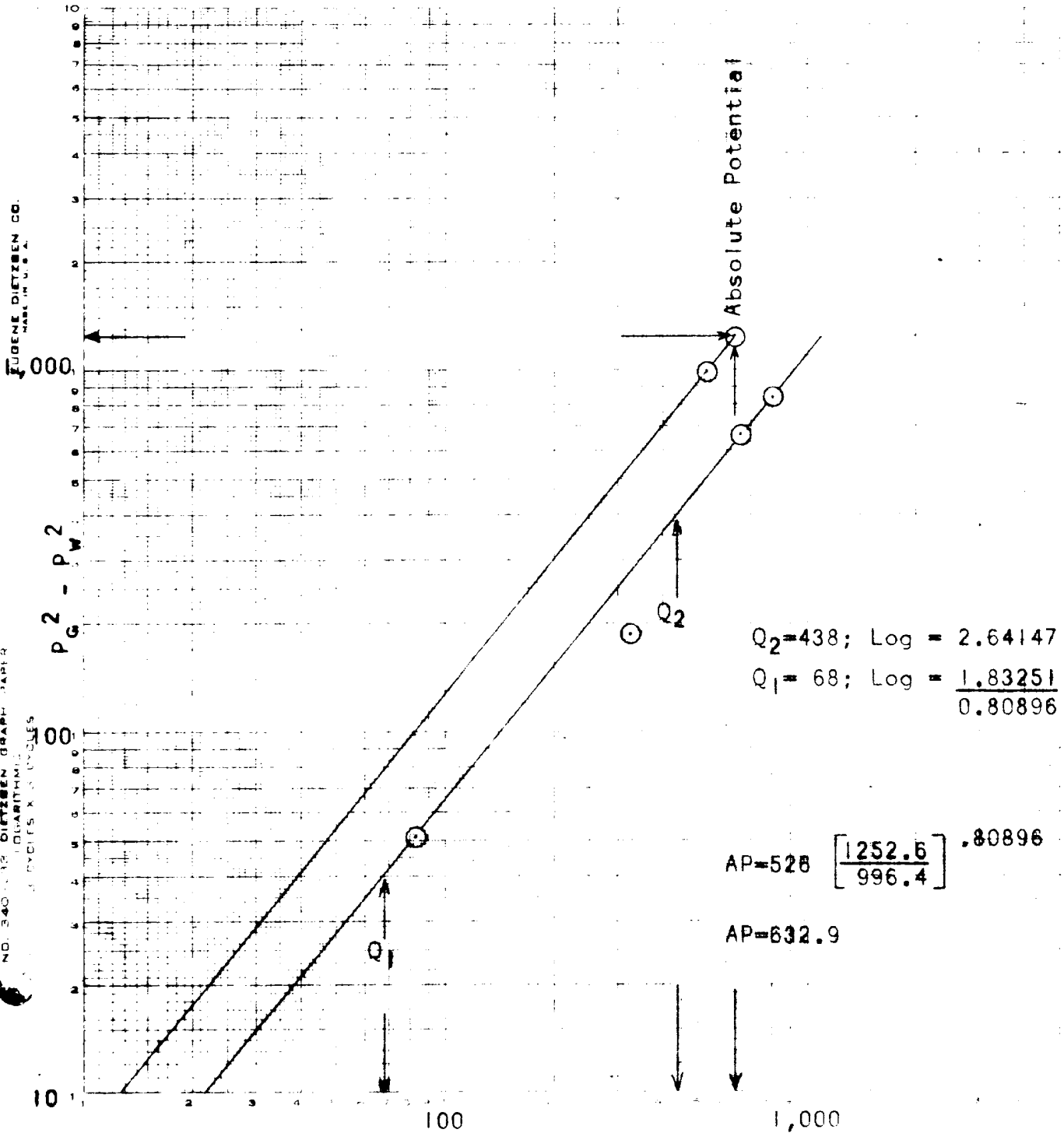
REMARKS

CO₂ and N composition of gas considered as being 10 % each.

* Note: Critical flow prover used on first 2 points due to hydrate formation while attempting to produce into pipeline.

DENTON OIL COMPANY

COMPANY: Western Drilling Company
 LSE & WELL: Toles Federal No. 1
 LOCATION: H-13-9S-37E
 FIELD: Sawyer
 COUNTY: Lea
 DATE: April 21, 1965



Q=MCFD=15.025 psia

ILLECIBLE