

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

057

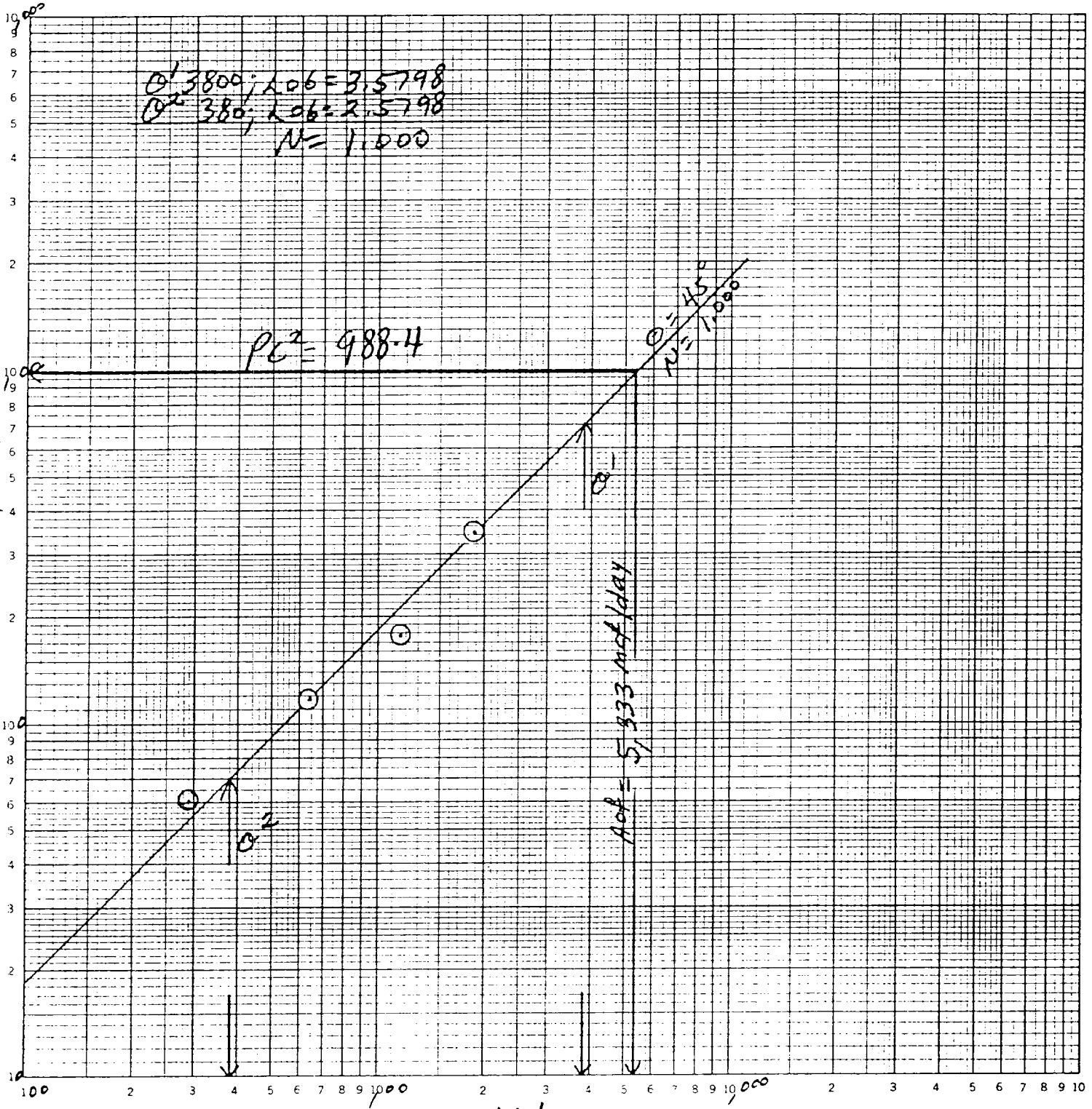
Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special				Test Date 5-29-82		NM-12441	
Company Western Reserves <i>oil Co.</i>			Connection To Air				
Pool Pecos Slope - Abo			Formation ABO			Unit B	
Completion Date N/A		Total Depth 4090		Plug Back TD <del>4090</del>		Elevation 3932.8 <sup>GL</sup>	
Csg. Size 4.5		Wt. 12.7		Set At 3.958		Perforations: From 3672 To 3844	
Thq. Size 2 3/8		Wt. 4.7		Set At 1.995		Perforations: From Open To Ended	
Type Well - Single - Brdenhead - G.G. or G.O. Multiple Single				Packer Set At NONE		County Chavis	
Producing Thru Tbg		Reservoir Temp. °F 112 <sup>o</sup>		Mean Annual Temp. °F 60 <sup>o</sup>		Baro. Press. - P <sub>0</sub> 13.2	
L 3620		H 3620		G <sub>g</sub> .8649		% CO <sub>2</sub> 22.393	
				% N <sub>2</sub> 9.190		% H <sub>2</sub> S NIL	
				Prover 2.0"		Meier Run _____	
				Taps _____			
FLOW DATA				TUBING DATA		CASING DATA	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h <sub>w</sub>	Temp. °F	Press. p.s.i.g.
SI							981
1.	2.0	x	.50	50	—	64 <sup>o</sup>	948
2.	2.0	x	.750	50	—	63 <sup>o</sup>	909
3.	2.0	x	1.00	50	—	64 <sup>o</sup>	864
4.	2.0	x	1.250	50	—	64 <sup>o</sup>	730
5.							
RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P <sub>m</sub>	Flow Temp. Factor Fl.	Gravity Factor F <sub>g</sub>	Super Compress. Factor, F <sub>pv</sub>	Rate of Flow Q, Mcfd
1	4.279	—	63.2	.9962	1.075	NIL	290
2	9.453	—	63.2	.9971	1.075	NIL	640
3	17.09	—	63.2	.9962	1.075	NIL	1157
4	27.63	—	63.2	.9962	1.075	NIL	1870
5							
NO.	R <sub>f</sub>	Temp. °R	T <sub>r</sub>	Z	Gas Liquid Hydrocarbon Ratio <u>NONE</u> Mcf/ubl.		
1	.08	524	1.38	NIL	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.		
2	.08	523	1.38	NIL	Specific Gravity Separator Gas <u>.865</u>		XXXXXXXXXX
3	.08	524	1.38	NIL	Specific Gravity Flowing Fluid <u>XXXXXX</u>		_____
4	.08	524	1.38	NIL	Critical Pressure <u>748</u> P.S.I.A.		_____ P.S.I.A.
5					Critical Temperature <u>380</u> R		_____ R
F <sub>c</sub> <u>994.2</u> P <sub>c</sub> <sup>2</sup> <u>988.4</u>				(1) $\frac{P_c^2}{P_c^2 - R^2} = 2.852$			
NO	P <sub>1</sub> <sup>2</sup>	P <sub>w</sub>	P <sub>w</sub> <sup>2</sup>	P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup>	(2) $\left[ \frac{P_c^2}{P_c^2 - R^2} \right]^n = 2.852$		
1		963.2	927.8	60.6			
2		933.2	870.9	117.5			
3		901.2	812.2	176.2			
4		801.2	641.9	346.5	AOF = Q $\left[ \frac{P_c^2}{P_c^2 - R^2} \right]^n = 5.333$		
5							
Absolute Open Flow <u>5,333</u> Mcfd @ 15.025				Angle of Slope $\theta$ <u>45<sup>o</sup></u>		Slope, n <u>1.000</u>	
Remarks: <u>Made No Fluid During Test.</u>							
Approved By Division		Conducted By: Baber Well Service		Calculated By: B.M.		Checked By: Mark Rowland	

SEP 7 1982

O. C. D.  
ARTESIA, OFFICE

$P_c^2 - P_w^2 (467400)$

K·Σ  
LOGARITHMIC 3 X 3 CYCLES  
KEUFFEL & ESSER CO. MADE IN USA



SEP 7 1982

O. C. D.

SUGGESTED FIELD DATA SHEET (Not Required To File)

ARTESIAN OFFICE

5-29-82

Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special	Test Date	Lease No. or Serial No. NM-12441
Company Western Reserves	Connection To Air	Allottee
Field Pecos Slope A/B	Reservoir Location	Unit
Completion Date	Total Depth 4090	Plug Back TD
Coq. Size 4 1/2	Wi. 10.5	Set At 4090
Tbg. Size 2 3/8	Wi. 4.7	Set At 3620
Perforations: From To 3172 - 3844		Form of Lease Name Beymar 24
Type Completion (Describe) Single Tubing		Wt. No. #4
Producing Thru Tubing		Jr. Sec. Twp. Rge. 13. 13 5-S 24-E
Reservoir Temp. F		County or Parish Chaves
Mean Annual Temp. F		State NM
Baro. Press. - P <sub>a</sub>		Prover 2"
H    G <sub>a</sub> % CO <sub>2</sub> % N <sub>2</sub> % H <sub>2</sub> S		Meter, Ruc... Taps

DATE Time of Reading	ELAP. TIME Hrs.	Wellhead Working Pressure			METER OR PROVER				REMARKS (Include liquid production data) Type-A.P.I. Gravity-Amount
		Tbg. Psig.	Coq. Psig.	Temp. F	Pressure Psig.	Diff.	Temp. F	Orifice	
9:45		981	981						SHUT-IN PRESSURE
10:00								1/2"	BEGIN 4-POINT TEST
10:15		959	959	76°	50		64°		10/64 CHOKE SETTING
10:30		948	950	77°	50		64°		
10:45		946	950	77°	50		64°		
11:00		924	930	76°	50		63°	3/4"	RATE III
11:15		915	921	77°	50		63°		12/64 CHOKE
11:30		909	920	78°	50		63°		
11:45		909	920	78°	50		63°		
12:00		900	910	79°	50		63°	1"	RATE III
12:15		880	902	80°	50		64°		14/64 CHOKE
12:30		867	890	80°	50		64°		
12:45		864	888	80°	50		64°		
1:00		789	800	81°	50		64°	1 1/4"	RATE III
1:15		761	790	81°	50		64°		16/64 CHOKE
1:30		743	790	82°	50		64°		
1:45		730	788	82°	50		64°		
									NO LIQUID



**NEW-TEX  
LAB**

PHONE 505/393-3581

P. O. BOX 1161

611 W. SNYDER

HOBBS, NEW MEXICO 88240

RECEIVED  
SEP 7 1982

O. C. D.

ARTESIA, OFFICE

**ANALYSIS CERTIFICATE**

CLIENT: BABER WELL SERVICING  
ADDRESS: P O BOX 1772  
CITY, STATE: HOBBS NM 88240

ANALYSIS NUMBER : 7533  
DATE OF RUN : 06/01/82  
DATE SECURED : 05/29/82

SAMPLE IDENT: WESTERN RESERVES - BEUMOR 24 #4  
SAMPLING PRESS: SAMPLING TEMP:

\*\*\*\*\* GAS ANALYSIS \*\*\*\*\*

	MOLE PERCENT	GAL/ MCF
NITROGEN	9.190	
CARBON DIOXIDE	22.393	
METHANE	62.017	
ETHANE	3.460	0.923
PROPANE	1.531	0.420
ISO-BUTANE	0.263	0.086
NORMAL BUTANE	0.521	0.164
ISO-PENTANE	0.161	0.059
NORMAL PENTANE	0.178	0.064
HEXANES	0.148	0.061
HEPTANES PLUS	0.138	0.064
TOTAL	100.000	1.841

PROPANE GPM: 0.42 BUTANES GPM: 0.25  
ETHANE GPM: 0.92 PENTANES PLUS GPM: 0.25

SPECIFIC GRAV (CALC): 0.8649  
MOLE WEIGHT: 25.06

HHV-BTU/CU FT	PRESSURE (PSIA)	WET	DRY
	14.696	767	780
	14.650	764	778
	14.730	768	782
	14.735	769	782

R H HAMILTON

ANALYZED BY:

APPROVED BY *Deane Linneman*