

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 7/31/81		AUG 19 1981	
Company Amoco Production Company				Connection Conoco		O. C. D.	
Pool Shugart Morrow				Formation Morrow		Unit ARTESIA, OFFICE	
Completion Date 2/17/81		Total Depth 13101.		Plug Back TD 12000.		Elevation 3652.	
Csg. Size 7.625		Wt. 26.4		Set At 4.995		Perforations: From 11396. To 11549.	
Tubg. Size 2.375		Wt. 4.7		Set At 1.995		Perforations: From 0. To 0.	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 11250.		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 189.0 11473.		Mean Annual Temp. °F 60.0		Baro. Press. - P _a 13.2	
L 11473.		H 11473.		G _g 0.646		% CO ₂ 0.56	
				% N ₂ 0.70		% H ₂ S 0.	
				Prover 0.		Meter Run 2.0	
						Taps Flange	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
1.	2.00 x 1.500			420.	1.0	77.	2273.	77.	0.	0.	3.0
2.	2.00 x 1.500			420.	3.6	76.	2070.	79.	0.	0.	0.5
3.	2.00 x 1.500			420.	6.2	75.	1915.	79.	0.	0.	0.7
4.	2.00 x 1.500			430.	13.0	72.	1755.	79.	0.	0.	0.7
5.							1417.	79.	0.	0.	1.0

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	13.20	20.81	433.2	0.9840	1.2438	1.0392	350.
2.	13.20	39.55	433.2	0.9850	1.2438	1.0394	665.
3.	13.20	52.03	433.2	0.9859	1.2438	1.0396	876.
4.	13.20	75.79	443.2	0.9887	1.2438	1.0413	1281.
5.							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.	0.65	537.	1.45	0.926	30.0	
2.	0.65	536.	1.45	0.926	59.1	
3.	0.65	535.	1.45	0.925	0.646	
4.	0.66	532.	1.44	0.922	0.733	
5.						

NO.	P _t ²	P _w	P _w ²	P _t ² - P _w ²	(1) $\frac{P_t^2}{P_t^2 - P_w^2} =$	(2) $\left[\frac{P_t^2}{P_t^2 - P_w^2} \right]^n =$
1.	4340.	2056.	4228.	999.	1.650	1.650
2.	3718.	1906.	3631.	1596.		
3.	3127.	1752.	3071.	2156.		
4.	2045.	1435.	2060.	3167.		
5.						

Absolute Open Flow 2114. Mcfd @ 15.025				Angle of Slope θ 45.0		Slope, n 1.000	
Remarks:							
Approved By Commission:							
Conducted By: John West Engr.		Calculated By: W. Tim Sexton		Checked By: L. W. Sheppard			

GREENWOOD 15

46 7400

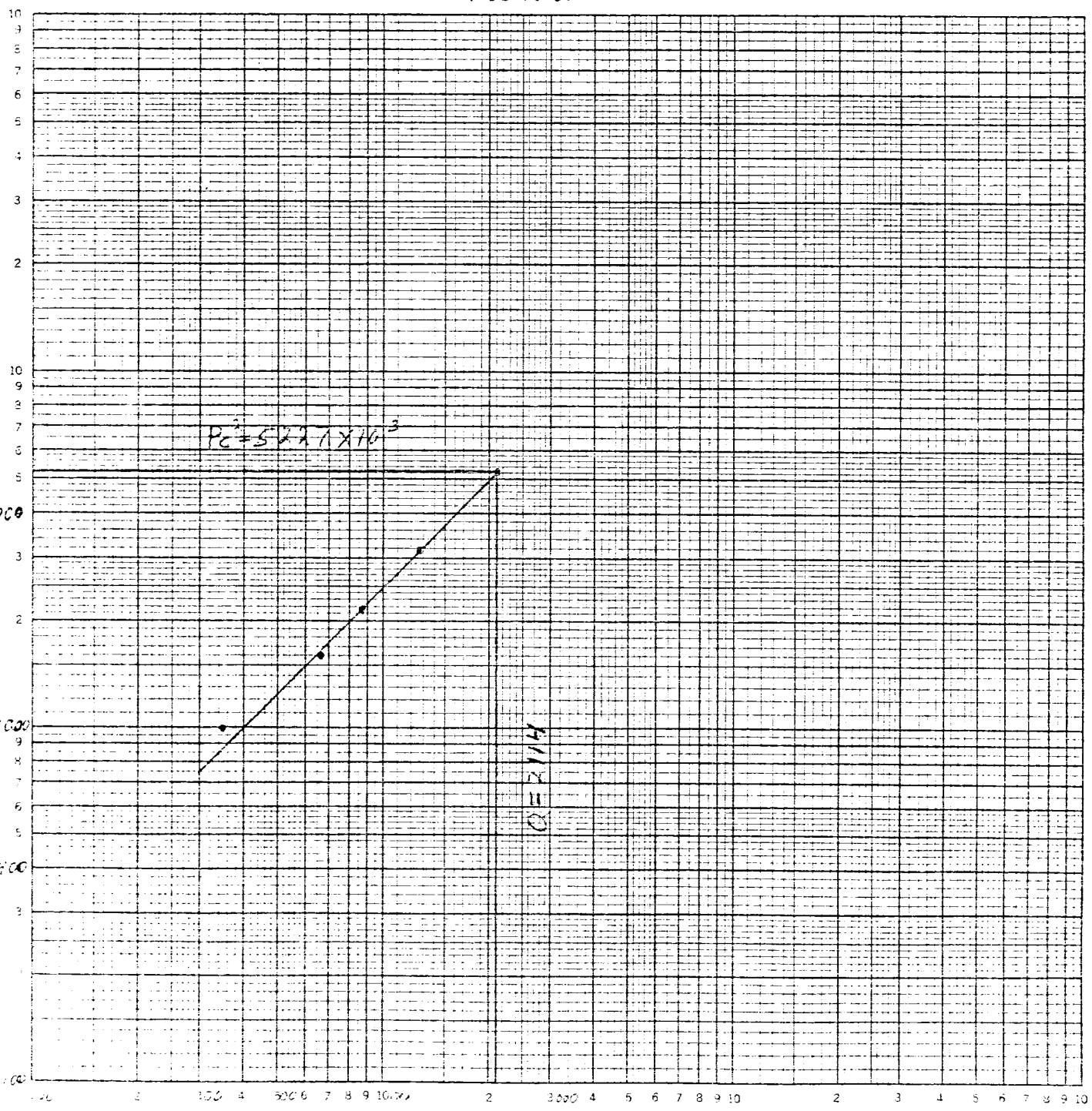
4000

LOGARITHMIC 3 X 3 CYCLES
NEUFFEL & LESSER CO. MADE IN U.S.A.

$$P_c^2 = 522.1 \times 10^{-3}$$

0.02114

Q, mcfD



SUGGESTED FIELD DATA SHEET (Not Required To File)										
Type Well ☒ Initial ☐ Annual ☐ Special					Test Date 7-31-81		Lease No. or Serial No.			
Company Amaco Production Co.					Connection Conoco		Allottee			
Field Reservoir					Location		Unit L			
Completion Date		Total Depth		Plug back TO		Elevation		Farm or Lease Name		
Casing Size 4"		Casing Set At 11,316		Perfor. Interval From To 11,396 - 11,549		Well No.		Greenwood Processing Unit Co.		
Tool. Size 4"		Tool. Set At 11,316		Perfor. Interval From To		Sec.		Two-Six.		
Type Completion (Describe) Single					Packer Set At 185					
Producing Interval Tubing					Reservoir Temp.		Mean Annual Temp.		State New Mexico	
189 @ 11,473					60		13.2		Prover Meter Run 2" Flow	
16464					558		1696		2" Flow	

Page 1 of 1 Date By W. J. S. S. S.

Test Date: July 29, 1981
Test Depth: 11,473 Feet
Element No: 12809
Range: (0-5650 psi)
Clock No: 5124
Range: 0-72 Hour

Note: See tabulation of Pressure and Time on attached sheet.

3500 3000 2500 2000 1500 1000 500

TIME IN HOURS

0 8 16 24 32 40 48

Rate I
Rate II
Rate III
Rate IV

AMOCO PRODUCTION COMPANY

Greenwood Pregrayburg Unit Fed. "F" Com #1
Bottom Hole Pressure Build-up curve and BHP
to use for calculating A O F Test

JOHN W. WEST ENGINEERING CO. HOBBBS, NEW MEXICO
Date: 8-7-81 Drawn by: NCI Scale: AS SHOWN

Amoco Production Company
 Greenwood Pregrayburg Unit Federal "F" Com.
 Bottom Hole Pressure Build-Up Test
 and 4-Point Back Pressure Test
 Tabulations of Pressures and Times.

Test Conducted By:
 John West Engineering Company

TEST DATE: July 29-30, 1981
 TEST DEPTH: 11,473 Feet
 ELEMENT NO: 12809 (0-5650 psi)
 OPERATOR: R.W.

DATE	TIME	CUM HRS. / MIN.		PSIG @ 11473 FEET
7-29-81	12:00 Noon			2206 gauge reached 11,473 flowing
	12:30 P.M.			992
7-29-81	1:00 P.M.	00 Hrs. 00 Min.		958 Shut-in Begin Build-up
		00	15	1462
		00	30	1853
		00	45	2280
	2:00 P.M.	01	00	2586
		01	15	2740
		01	30	2837
		01	45	2891
	3:00 P.M.	02	00	2954
		02	30	3032
	4:00 P.M.	03	00	3089
		03	30	3124
	5:00 P.M.	04	00	3156
	6:00 P.M.	05	00	3193
	7:00 P.M.	06	00	3199
	8:00 P.M.	07	00	3199
	9:00 P.M.	08	00	3205
	11:00 P.M.	10	00	3216
7-30-81	1:00 A.M.	12	00	3225
	4:00 A.M.	15	00	3236
	9:00 A.M.	20	00	3245
	2:00 P.M.	25	00	3248
	7:00 P.M.	30	00	3254
	12:00 M.N.	35	00	3259
7-31-81	5:00 A.M.	40	00	3262
	8:30 A.M.	43	30	3265 gauge off bottom, gradient stops.
7-31-81	9:10 A.M.	43	40	3265 gauge back toll, 473 open choke-begin test
	9:15 A.M.	00	00	3265
		00	15	2969
7-31-81	9:45 A.M.	00	30	3003 End Rate I
7-31-81	10:00 A.M.	00	45	2869
		01	00	2814
	10:30 A.M.	01	15	2814 End Rate II
		01	30	2657
		01	45	2537
	11:15 A.M.	02	00	2549 End Rate III
		02	15	2303
	11:45 A.M.	02	30	2100
	12:00 Noon	02	45	2040
7-31-81	12:15 P.M.	03	00	2034 End Rage IV gauge out, end test.

JOHN W. WEST ENGINEERING COMPANY.
412 NORTH DAL PASO, HOBBS, NEW MEXICO

TELEPHONES 393-3942
393-3117

BOTTOM HOLE PRESSURE SURVEY REPORT

OPERATOR Amoco Production Company
LEASE Greenwood Pregrayburg Unit Fed. "F" Com.
WELL NO. 1
FIELD _____
DATE 7-31-81 TIME 1:00 P.M.

DEPTH	PRESSURE	GRADIENT
000	2273	
10973	3222	.086
11373	3254	.080
11473	3265	.110

STATUS Shut-in TEST DEPTH 11,473 Feet
TIME S.I. _____ LAST TEST DATE _____
CAS. PRES. _____ BHP LAST TEST _____
TUB. PRES. 2273 BHP CHANGE _____
ELEV. _____ FLUID TOP _____
DATUM _____ WATER TOP _____
TEMP _____ RUN BY R.W.
CLOCK NO. 5124 GAUGE NO. 12809
ELEMENT NO. 12809 (0-5650 psi)

