

NE MEXICO OIL CONSERVATION COMMS. N
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

MAR 24 1981

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 3-11-81		O. C. D.	
Company Amoco Production Company /				Connection El Paso Natural Gas Comp		ARTESIA, OFFICE	
Pool BCYD Wildcat				Formation Morrow		Unit	
Completion Date 1-30-81		Total Depth 8967.		Plug Back TD 8924.		Elevation 3771.	
Farm or Lease Name State IL Com				Well No. 1			
Csg. Size 5.500	Wt. 15.5	d 4.778	Set At 8966.	Perforations: From 8617. To 8636.		Unit Soc. Twp. Rge. G 3 19S 24E	
Tbg. Size 2.375	Wt. 4.7	d 1.995	Set At 8515.	Perforations: From 0. To 0.		County Eddy	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 8475.		State New Mexico	
Producing Thru Tubing		Reservoir Temp. °F 178.0 8627.		Mean Annual Temp. °F 60.0		Baro. Press. - P _a 13.2	
L 8627.	H 8627.	G _g 0.587	% CO ₂ 0.65	% N ₂ 0.39	% H ₂ S 0.	Prover 0.	Meter Run 4.0
						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	
SI							1790.	48.	46.0
1.	4.00 x 1.250			608.	3.0	54.	1676.	52.	1.5
2.	4.00 x 1.250			608.	9.0	60.	1609.	55.	1.0
3.	4.00 x 1.250			616.	21.0	62.	1435.	57.	1.0
4.	4.00 x 1.250			624.	39.0	65.	1158.	60.	1.0
5.									

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor F _{pv}	Rate of Flow Q, Mcfd
1	7.47	43.17	621.2	1.0058	1.3052	1.0544	446.
2	7.47	74.77	621.2	1.0000	1.3052	1.0519	767.
3	7.47	114.95	629.2	0.9981	1.3052	1.0518	1177.
4	7.47	157.64	637.2	0.9952	1.3052	1.0512	1608.
5							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1.	0.92	514.	1.46	0.900	0.	0.	0.587	XXXXXX	675.	352.
2.	0.92	520.	1.48	0.904						
3.	0.93	522.	1.48	0.904						
4.	0.94	525.	1.49	0.905						
5.										

NO.	P _t ²	P _w ²	P _w ²	P _c ² - P _w ²
1	2853.	1696.	2877.	406.
2	2632.	1630.	2657.	626.
3	2097.	1462.	2136.	1147.
4	1372.	1198.	1436.	1847.
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.7770$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2384.$

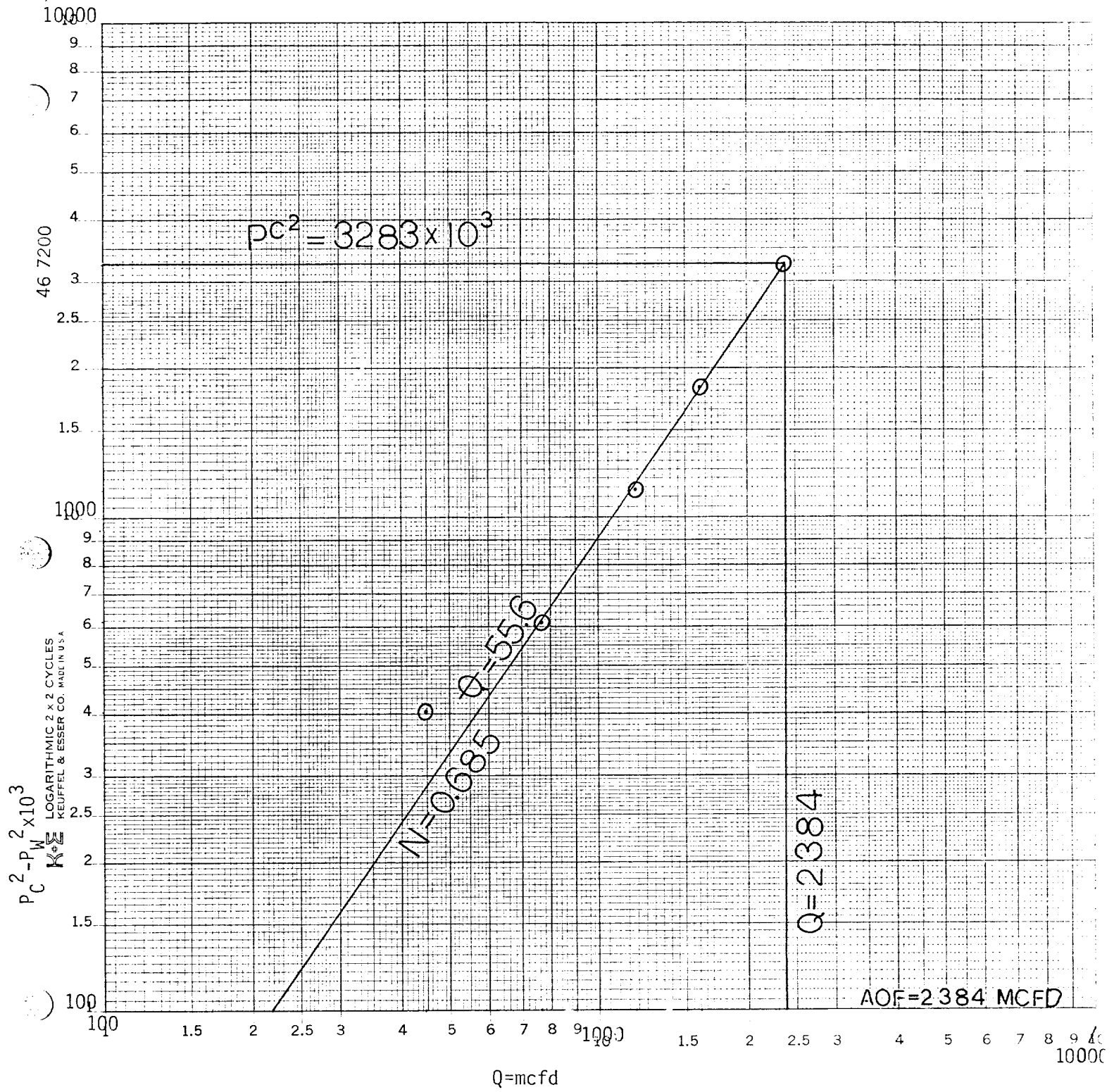
(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.4826$

Absolute Open Flow	2384.	Mcfd @ 15.025	Angle of Slope @	55.6	Slope, n	0.685
--------------------	-------	---------------	------------------	------	----------	-------

Remarks:

Approved By Commission:	Conducted By: WEST ENGINEERING	Calculated By: CHRIS VAN DOOREN	Checked By: LARRY SHEPPARD
-------------------------	-----------------------------------	------------------------------------	-------------------------------

State "IL" COM No. 1



SUGGESTED FIELD DATA SHEET (Not Required To File)

Type Test: ☒ Initial ☐ Annual ☐ Special Test Date: <u>3-11-81</u>										Lease No. or Serial No.	
Company: <u>Amoco Production Co.</u> Connection: <u>El Paso Nat. Gas Co.</u>										Allottee	
Field: <u>Wildcat</u> Reservoir: <u>Morrow</u> Location:										Unit: <u>G</u>	
Completion Date: <u>1-30-81</u>		Total Depth: <u>8967'</u>		Plug Back TD: <u>8924'</u>		Elevation: <u>3751 GL</u>		Farm or Lease Name: <u>State "11" Com</u>		Well No.: <u>1</u>	
Csg. Size: <u>5 1/2"</u> Wt.: <u>15.5</u> d		Set At: <u>8966'</u>		Perforations: From <u>8617'</u> To <u>8636'</u>		Sec.: <u>5</u> Two-Ble.: <u>19S</u> Rge.: <u>24E</u>		Type Completion (Describe): <u>Singk</u>		Packer Set At: <u>8473'</u>	
Tubing Size: <u>2 3/8"</u> Wt.:		Set At: <u>8515'</u>		Perforations: From <u>OPEN</u> To <u>END</u>		County or Parish: <u>Eddy</u>		State: <u>New Mexico</u>		Prover: <u>4" Flange</u>	
Reservoir Temp. F: <u>178° @ 8924'</u>		Mean Annual Temp. F: <u>60</u>		Baro. Press. - P _a : <u>13.2</u>		% CO ₂ : <u>.587</u> % H ₂ : <u>.39</u> % H ₂ S:		Meter Run:		Notes:	

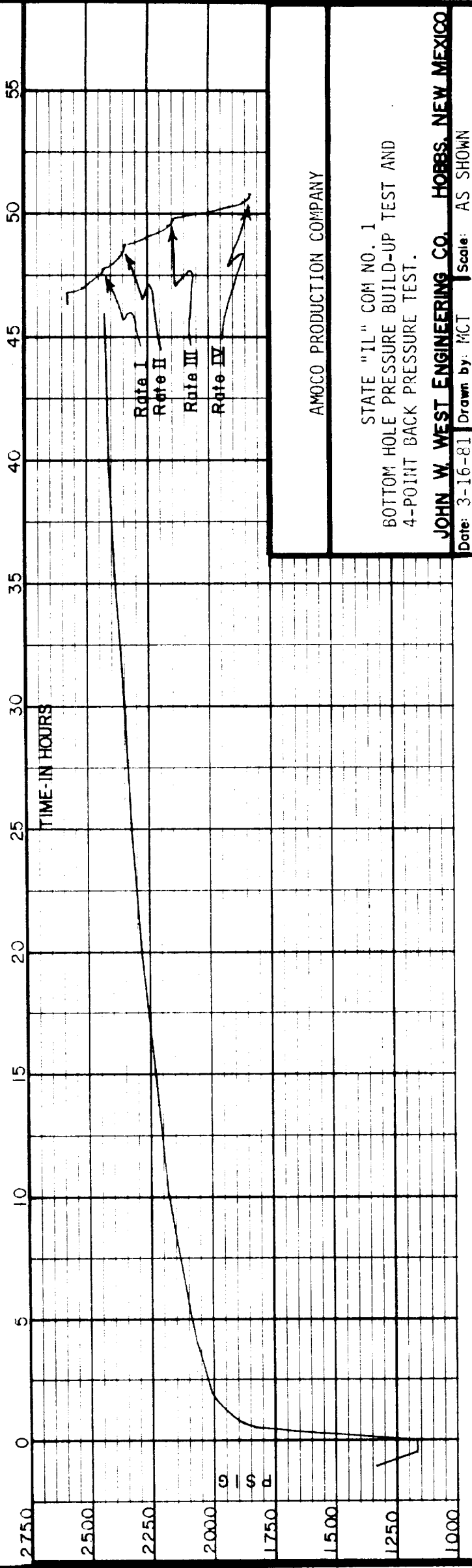
DATE	ELAP. TIME	Wellhead Working Pressure			METER OR PROVER				REMARKS
		Tbg. Psig.	Csg. Psig.	Temp. F	Pressure Psig.	Diff.	Temp. F	Orifice	
9:30 AM		1790		48°F				1.250	Shut-in
10:15 AM		1790		48					
10:30		1669		50	608	3"	54°F		423 mcf / Day
10:45		1676		50	608	3"	54°		
11:00 AM		1676		52	608	3"	54°		End Rate I
11:15		1630		52	608	9"	59°		
11:30		1615		53	608	9"	60°		729 mcf / Day
11:45 AM		1610		54	608	9"	60°		
12:00 Noon		1609		55	608	9"	60°		End Rate II
12:15 PM		1487		55	615	21"	62		
12:30		1460		56	616	21"	62		1118 mcf / Day
12:45		1445		56	616	21"	62		
1:00 PM		1435		57	616	21"	62		End Rate III
1:15		1252		59	624	41"	62		
1:30		1201		59	624	40"	62		1529 mcf / Day
1:45		1173		60	624	40"	64		
2:00 PM		1158		60	624	39"	65		End Rate IV
100" +	1050"	h-10 meter						No measurement of fluid during test	

TEST DATE: MARCH 9 to 11, 1981
TEST DEPTH: 8627 FEET

ELEMENT NO: 12809
RANGE: 0-5650 psi
CLOCK NO: E-1919
RANGE: 72 Hour

NOTE: THE BOTTOM HOLE PRESSURES FOR THE 4-POINT TEST WERE TAKEN AT A DEPTH OF 8924' AFTER THE WIRE-LINE HAD PARTED.

NOTE: TABULATION OF PRESSURES AND TIME ON ATTACHED SHEET.



AMOCO PRODUCTION COMPANY
 STATE "IL" COM NO. 1
 BOTTOM HOLE PRESSURE BUILD-UP TEST and
 4-POINT BACK PRESSURE TEST
 TABULATION OF PRESSURE AND TIME

TEST CONDUCTED BY:
 JOHN WEST ENGINEERING COMPANY

TEST DATE: MARCH 9 to 11, 1981
 TEST DEPTH: 8627 FEET
 ELEMNET NO: 12809 (0-5650 psi)
 OPERATOR: W.S.

DATE	TIME	CUM. HRS./MIN.		PSIG @ 8627 FEET
3-9-81	10:15 A.M.			1359 Gauge Reached 8627' Flowing
	10:45 A.M.			1165
3-9-81	11:15 A.M.	00Hrs.	00Min.	1160 Shut-In Begin Build-Up
		00	15	1553
	11:45 A.M.	00	30	1812
	12:00noon	00	45	1886
	12:15 P.M.	01	00	1934
	1:15 P.M.	02	00	2003
	2:15 P.M.	03	00	2046
	3:15 P.M.	04	00	2071
	4:15 P.M.	05	00	2094
3-9-81	9:15 P.M.	10	00	2185
3-10-81	2:15 A.M.	15	00	2239
	7:15 A.M.	20	00	2288
	12:15 P.M.	25	00	2322
	5:15 P.M.	30	00	2350
3-10-81	10:15 P.M.	35	00	2382
3-11-81	3:15 A.M.	40	00	2405
3-11-81	9:15 A.M.	46	00	2427 Gauge Off Bottom Wire line Broke
	10:00 A.M.	46	45	2578 Shut-In
	10:15 A.M.	47	00	2510 Gauge @ 8924' for 4-Point
	10:30 A.M.	47	15	2484
	10:45 A.M.	47	30	2444
	11:00 A.M.	47	45	2433 END RATE I
	11:15 A.M.	48	00	2393
	11:30 A.M.	48	15	2368
	11:45 A.M.	48	30	2356
	12:00noon	48	45	2348 END RATE II
	12:15 P.M.	49	00	2251
	12:30 P.M.	49	15	2199
	12:45 P.M.	49	30	2165
	1:00 P.M.	49	45	2148 END RATE III
	1:15 P.M.	50	00	2006
	1:30 P.M.	50	15	1909
	1:45 P.M.	50	30	1855
3-11-81	2:00 P.M.	50	45	1829 END RATE IV END TEST