

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

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Form C-122
Revised 9-1-65

JUL 12 1983

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 7-5-83		O. C. D. ARTESIA, OFFICE		
Company Amoco Production Company					Connection None		F		
Pool Wildcat <i>Wolfcamp</i>					Formation Wolfcamp		Unit F		
Completion Date 7-11-83		Total Depth 14415 <i>14,415</i>		Plug Back TD 12523 <i>12,850</i>		Elevation 2960		Farm or Lease Name Federal BF Com	
Csq. Size 7.000	Wt. 35.0	d 6.004	Set At 13599	Perforations: From 11680 To 11918		Well No. 1			
Tbg. Size 2.375	Wt. 4.6	d 1.995	Set At 11576 <i>11564</i>	Perforations: From 0 To 0		Unit F	Sec. 29	Twp. 26	Rge. 30
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single					Packer Set At 10150		County Eddy		
Producing Thru Tubing		Reservoir Temp. °F 190 @ 11700		Mean Annual Temp. °F 70		Baro. Press. - P _a 13.2		State New Mexico	
L 11700	H 11700	Gg 0.673	% CO ₂ 0.15	% N ₂ 0.51	% H ₂ S 0.0	Prover 2.0	Meter Run 0.0	Taps	

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	
SI							5607	70			120
1.	2.00 x 1.000		7	0	22		5360	80	0	0	0.8
2.	2.00 x 1.000		13	0	14		5020	80	0	0	0.8
3.	2.00 x 1.000		16	0	6		4713	80	0	0	0.8
4.	2.00 x 1.000		31	0	0		4065	80	0	0	0.8
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	17.05	0	20.2	1.0387	1.2185	1.0027	437
2	17.05	0	26.7	1.0474	1.2185	1.0037	583
3	17.05	0	29.2	1.0564	1.2185	1.0043	644
4	17.05	0	44.2	1.0632	1.2185	1.0069	983
5							

NO.	R _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1	0.03	482	1.27	.995	50	
2	0.04	474	1.25	.993	59	
3	0.04	466	1.23	.991		
4	0.07	460	1.21	.986		
5						

A.P.I. Gravity of Liquid Hydrocarbons 59 Specific Gravity Separator Gas .673 Specific Gravity Flowing Fluid .725 Critical Pressure 669 P.S.I.A. Critical Temperature 380 R				
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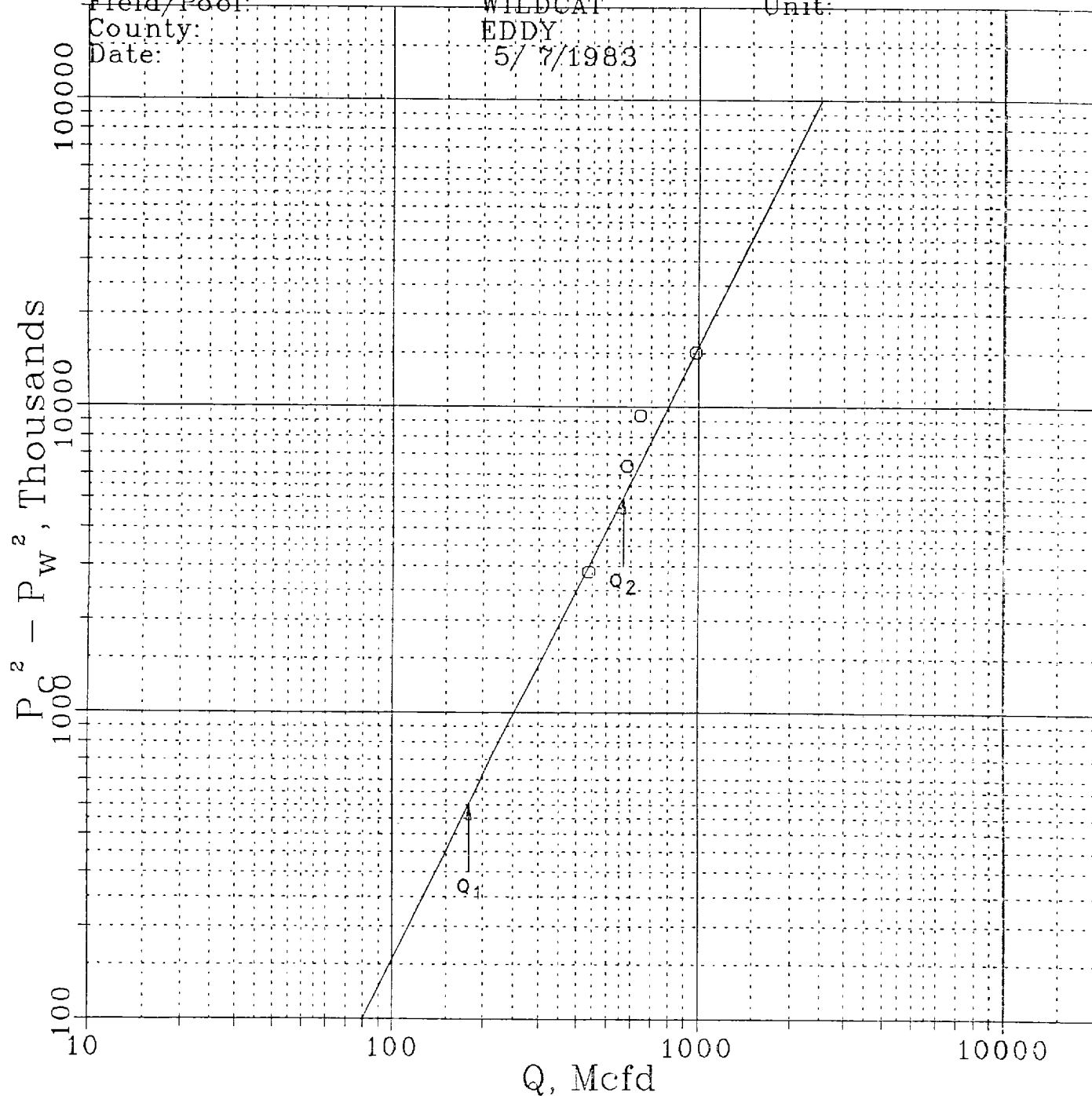
$P_c = 5612.5$ $P_c^2 = 31501$	$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 2.0885$	$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.4452$																														
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>NO</th> <th>P_t²</th> <th>P_w</th> <th>P_w²</th> <th>P_c² - P_w²</th> </tr> <tr> <td>1</td> <td>5350</td> <td>28620</td> <td>2881</td> <td></td> </tr> <tr> <td>2</td> <td>5009</td> <td>25091</td> <td>6410</td> <td></td> </tr> <tr> <td>3</td> <td>4701</td> <td>22102</td> <td>9399</td> <td></td> </tr> <tr> <td>4</td> <td>4052</td> <td>16418</td> <td>15083</td> <td></td> </tr> <tr> <td>5</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	NO	P _t ²	P _w	P _w ²	P _c ² - P _w ²	1	5350	28620	2881		2	5009	25091	6410		3	4701	22102	9399		4	4052	16418	15083		5					$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1421$	<i>Post FD-2 8-19-83 Comp & BK</i>
NO	P _t ²	P _w	P _w ²	P _c ² - P _w ²																												
1	5350	28620	2881																													
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5																																

Absolute Open Flow	1421	Mcf/d @ 15.025	Angle of Slope	63.4	Slope, n	.500
Remarks:						

Approved By Commission:	Conducted By: John West Eng.	Calculated By: Barbara Wagner	Checked By: Richard Roeth
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GAS WELL BACK PRESSURE TEST

Company: AMOCO PRODUCTION COMPANY usa
 Well: 1 Pool No: F
 Field/Pool: WILDCAT Unit:
 County: EDDY
 Date: 5/7/1983



$$\begin{aligned}
 Q_1 &= 179. \text{ Mcfd}; & \text{LOG } Q_1 &= 2.25292 \\
 Q_2 &= 566. \text{ Mcfd}; & \text{LOG } Q_2 &= 2.75293 \\
 n &= 0.50002 = 0.500
 \end{aligned}$$

NEW-TEX LAB

PHONE 505/393-3561

P. O. BOX 1161

611 W. SNYDER

HOBBS, NEW MEXICO 88240

ANALYSIS CERTIFICATE

CLIENT: JOHN WEST ENGINEERING
ADDRESS: 412 N. DAL PASO
CITY, STATE: HOBBS NEW MEXICO 88240

ANALYSIS NUMBER: 916
DATE OF RUN: 07/06/83
DATE SECURED: 07/05/83

SAMPLE IDENT: AMOCO PROD CO. - FEDERAL BF #1
SAMPLING PRESS: SAMPLING TEMP:

***** GAS ANALYSIS *****

	MOLE PERCENT	GAL/ MCF
NITROGEN	0.512	
CARBON DIOXIDE	0.150	
METHANE	85.958	
ETHANE	8.012	2.137
PROPANE	2.545	0.699
ISO-BUTANE	0.498	0.162
NORMAL BUTANE	0.785	0.247
ISO-PENTANE	0.381	0.139
NORMAL PENTANE	0.427	0.154
HEXANES	0.402	0.165
HEPTANES PLUS	0.330	0.152
TOTAL	100.000	3.855

PROPANE GPM:	0.70	BUTANES GPM:	0.41
ETHANE GPM:	2.14	PENTANES PLUS GPM:	0.61

SPECIFIC GRAV (CALC): 0.6735
MOLE WEIGHT: 19.54

HHV-BTU/CU FT	PRESSURE (PSIA)	WET	DRY
	14.696	1166	1186
	14.650	1162	1183
	14.730	1168	1189
	14.735	1169	1189

RH HAMILTON

Deane Simpson

[illegible]

~~RECEIVED~~

JUL 12 1983

O. C. D.
ARTESIA, OFFICE