

SF
File -
Form C-122
Revised 9-6-66

MEXICO GAS CONFESSION FORM ON
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL 122

RECEIVED

☒ Initial ☐ Annual ☐ Special		Test Date: 10-24-79		NOV 2 1979	
Company: ORIA PETCO INC.		Direction: AIR		Unit: 0.0.0.	
Well: Double L.L. QUEEN		Formation: QUEEN		Lease: HENDERSON FED.	
Completion Date: 10-19-79		Total Depth: 1812		Elevation: 3789.6 GL	
Casing Size: 4 1/2	Wt.: 9.5	Set At: 1796	Perforations: 1800 To 1808		Well No.: # 1
Tub. Size: 2 3/8	Wt.: 4.7	Set At: 1786	Perforations: From To		Unit: 23 Sec.: 14 Twp.: 29
Type well - Single - Bronthead - G.G. or G.O. Multiple: SINGLE			Factor Set At: 1786		County: CHAVES
Producing thru: TBG.		Reservoir Temp. °F: 92 @ 1775		Mean Annual Temp. °F: 60	
L: 1775		H: 1775		State: NEW MEXICO	
Gg: .912		% CO ₂ : 0		% N ₂ : 66.6	
% H ₂ S: 0		Prover: 2"		Meter Run: 2"	

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 X .125			303		60	400				72 HR.
2.	2 X .187			230		60	303				1 HR.
3.	2 X .250			182		60	230				1 HR.
4.	2 X .312			120		60	182				1 HR.
5.						60	120				1 HR.

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super. Compens. Factor, Fpv	Rate of Flow Q, Mgd
1	.2648		316.2	1.000	1.047	1.015	89
2	.6082		243.2	1.000	1.047	1.012	157
3	1.087		195.2	1.000	1.047	1.010	224
4	1.672		133.2	1.000	1.047	1.007	235
5							

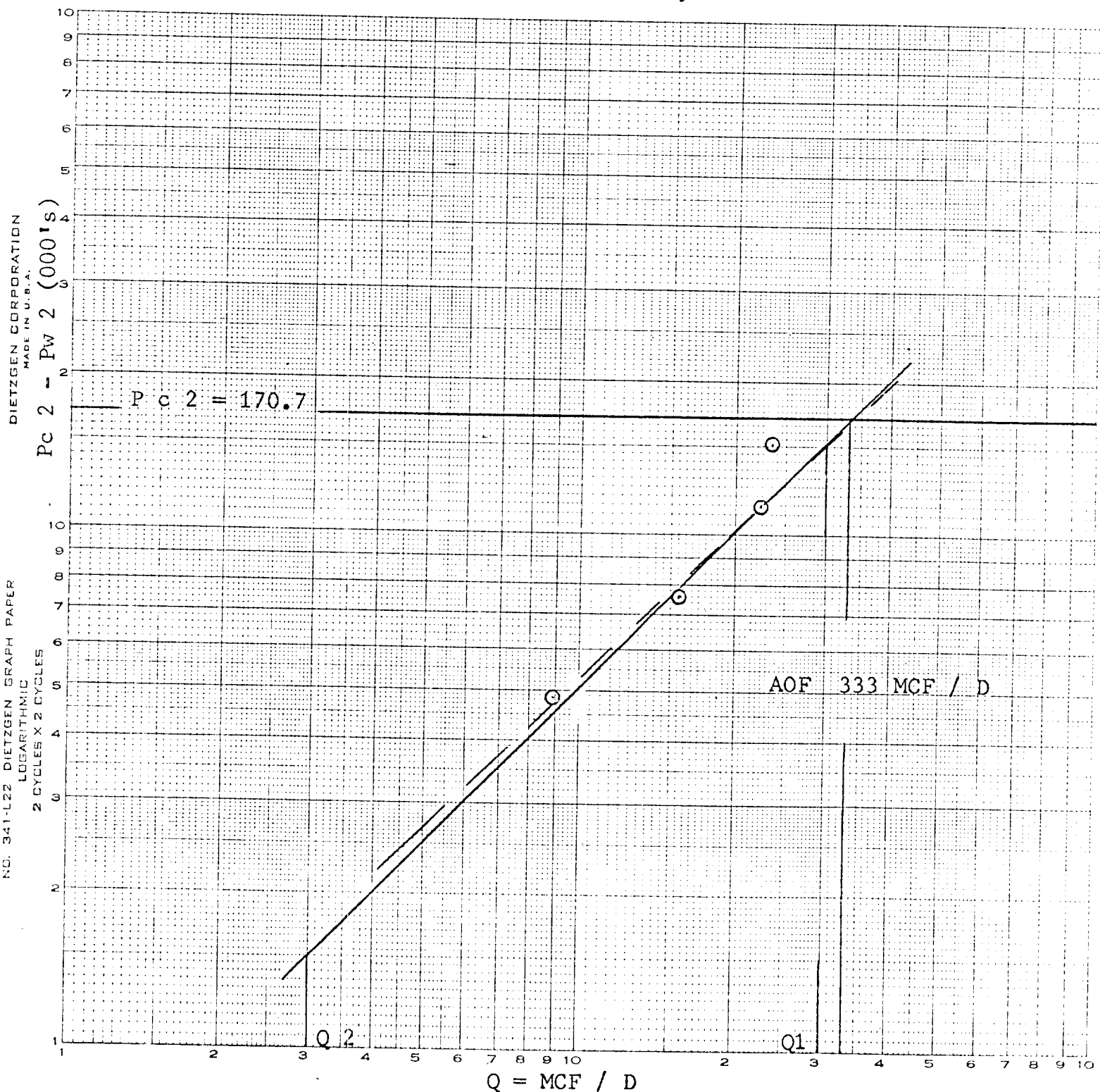
NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl. A.P.I. Gravity of Liquid Hydrocarbons _____ Deg. Specific Gravity Separator Gas .912 Specific Gravity Flowing Fluid _____ Critical Pressure 559 P.S.I.A. Critical Temperature 295 °F
1	.57	520	1.76	.970	
2	.44	520	1.76	.976	
3	.35	520	1.76	.981	
4	.24	520	1.76	.987	
5					

P _r 413.2 P _w 170.7	(1) $\frac{P_r^2}{P_r^2 - P_w^2} = 1.486$	(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.486$			
NO. BHP _r P _w P _r P _r ² - P _w ²	AOP = Q $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = .333$				
1	370.2	349.5	122.1	48.6	
2	325.2	307.5	94.3	76.4	
3	250.2	236.3	55.8	114.9	
4		135.3	18.3	152.4	
5	441.2	S.I.P.			

Absolute Open Flow 333	Mgd @ 15.025	Angle of Slope 45	Slope, n 1.000
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Approved By: _____ Conducted By: LARRY DAVIS	Calculated By: LARRY DAVIS	Checked By: _____
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COMPANY : HENDERSON FEDERAL
 LEASE : # 1
 WELL NO. : 23/14/29
 UNIT : CHAVES
 COUNTY : NEW MEXICO
 STATE : OCTOBER 24, 1979
 DATE :



Q 1= 300; LOG OF Q 1= 2.477121

Q 2= 30; LOG OF Q 2= 1.477121

N = 1.000

Analysis No.

44155

Sample From HENDERSON FEDERAL # 1				
Owner ORLA PETCO INC.			State N.M.	County CHAVES
Location or Field L.L. QUEENS		Formation QUEENS	Depth	From To
Date Secured 10-24-79	Secured By SWARTZ		Department	
Date Run 10-25-79	Run By VENABLE		Checked By	
Source Press.	Bomb Press.	Source Temp.		Atmos. Temp.

SULPHUR - GRS. PER 100 cu. Ft.	Hydrogen Sulphide 0	Mercaptan 0	Total 0	Sweet
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COMPONENT	AREA	FACTOR	CORRECTED AREA	MOLE %	GPM	BTU	Sp. Gr.
Helium HE ₂							
Hydrogen Sulphide H ₂ S							
Carbon Dioxide CO ₂		1495					-----
Nitrogen N ₂	421.9514	1621	68.40	66.60			0.644
Methane C ₁	115.0393	1973	22.70	22.10		223.65	0.122
Ethane C ₂	54.9482	1309	7.19	7.00		124.11	0.073
Propane C ₃	29.5452	1051	3.11	3.03	0.834	76.45	0.046
Iso Butane IC ₄	3.6307	0952	0.35	0.34	0.111	11.09	0.007
Normal Butane C ₄	7.0825	0941	0.67	0.65	0.205	21.26	0.013
Iso Pentane IC ₅	1.3965	0946	0.13	0.13	0.048	5.21	0.003
Normal Pentane C ₅	1.3236	0963	0.13	0.13	0.047	5.22	0.003
Hexane C ₆	0.2573		0.02	0.02	0.008	0.95	0.001
Heptane C ₇							
TOTAL			102.70	100.00	1.253	467.94	0.912

Remarks: SEC. 23
TWP. 14
RGE. 29

Meter No.

WORK SHEET FOR CALCULATION OF WELLHEAD PRESSURES (P_c or P_w)

Form C-122F
Adopted 9-1-65

FROM KNOWN BOTTOM HOLE PRESSURE (P_f or P_s)

COMPANY ORIA PETCO INC. LEASE HENDERSON FEDERAL WELL NO. # 1 DATE 10-24-79

LOCATION: Unit 23 Section 23 Township 14 Range 29

L 1775 H 1775 L/H 1.000 G .912 % CO₂ 0 % N₂ 66.6 % H₂S 0

GH 1619 P_{CT} 559 T_{CT} 295
TABLE IX & X TABLE IX & X

LINE	1 st			2 nd			3 rd		
	1	2	3	4	5	6	7	8	
1	T _w (W.H. °R)	534	534	534	534	534			
2	T _s (B.H. °R)	552	552	552	552	552			
3	T=($\frac{T_w + T_s}{2}$)	543	543	543	543	543			
4	Z (Est.)	.971	.971	.974	.975	.979			
5	TZ	527.3	527.3	528.9	529.4	531.6			
6	GH/TZ	3.071	3.071	3.061	3.058	3.046			
7	e ^s (Table XIV)	1.122	1.122	1.122	1.122	1.122			
8	P _f or P _s	370.2	370.2	325.2	325.2	250.2			
9	P _f ² or P _s ²	137.0	137.0	105.8	105.8	62.6			
10	P _c ² = P _f ² /es or P _w ² = P _s ² /es	122.1	122.1	94.3	94.3	55.8			
11	P _c or P _w	349.5	349.5	307.1	307.1	236.3			
12	P=($\frac{P_w + P_s}{2}$) or ($\frac{P_c + P_f}{2}$)	359.8	359.8	316.1	316.1	243.3			
13	P _r = (P/P _{cr})	.64	.64	.57	.57	.44			
14	T _r = (T/T _{cr})	1.84	1.84	1.84	1.84	1.84			
15	Z (Table XI)	.971	.971	.975	.975	.979			

