

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

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Form C-122

NOV-08 1984

O. C. D.

ARTESIA, OFFICE

Type Test [x] Initial [] Annual [] Special						Test Date 9/26/84	
Company Yates Petroleum Corporation				Connection Transwestern Pipeline Company			
Pool South Pecos Slope				Formation Abo Pool		Unit	
Completion Date 2/15/84		Total Depth 5050.0'		Plug Back TD 4981.0'		Elevation 3874.5'	
Csg Size 4.500"		Wt. 9.500#		d 4.090"		Set At 5050.0'	
Tbg Size 2.375"		Wt. 4.700#		d 1.995"		Set At 4775.0'	
Perforations: From 4807.0' To 4842.0'		Perforations: From 0.0' To 0.0'		Farm or Lease Name Federal "IX"		Well No. 2	
Type Well Single				Packer Set At 4775.0'		County Chaves	
Producing Thru Tubing		Resv. Temp. °F 103 @ 4770'		Mean Temp. °F 62.0		Baro. Press. - Pa 13.2 psia.	
L 4775.0'		H 4775.0'		Gg .645		%CO2 .05	
%N2 4.40		%H2S 0.00		Prover 0.000"		Meter Run 2.000"	
Taps Flange		Taps Flange		Taps Flange		Taps Flange	

FLOW DATA					TUBING DATA		CASING DATA		Duration of Flow
NO	Prover Orifice Size X Size	Press. psig	Diff. hw	Temp. °F	Press. psig	Temp. °F	Press. psig	Temp. °F	
SI	0.000 X 0.000	0	0.0	70	988	0	0	0	0 hrs.
1.	2.067 X 1.125	215	17.5	70	927	62	0	0	24 hrs.
2.	2.067 X 1.125	200	38.9	70	892	62	0	0	24 hrs.
3.	2.067 X 1.125	180	63.3	70	852	62	0	0	24 hrs.
4.	2.067 X 1.125	175	100.0	70	800	62	0	0	24 hrs.
5.	0.000 X 0.000	0	0.0	0	0	0	0	0	0 hrs.

RATE OF FLOW CALCULATIONS

NO	Coefficient (24 HOUR)	hwPm	Pressure Pm	Flow Temp Factor Ft.	Gravity Factor Fg	Super Compress. Fact. Fpv	Rate of Flow Q, Mcfd
1.	6.397	63.19	228.20	.991	1.245	1.018	507
2.	6.397	91.07	213.20	.991	1.245	1.016	730
3.	6.397	110.59	193.20	.991	1.245	1.015	885
4.	6.397	137.19	188.20	.991	1.245	1.014	1098
5.	0.000	0.00	0.00	0.000	0.000	0.000	0

NO	Pr	Temp. °R	Tr	Z	Gas Liquid Hydrocarbon Ratio Dry	Mcf/bbl.
1.	.34	530	1.48	.966	A.P.I. Gravity of Liquid Hydrocarbons	0.000 Deg.
2.	.32	530	1.48	.968	Specific Gravity Separator Gas	.645
3.	.29	530	1.48	.972	Specific Gravity Flowing Fluid	.645
4.	.28	530	1.48	.972	Critical Pressure	663.3 PSIA
5.	0.00	0	0.00	0.000	Critical Temperature	358.5°R

Pc 1001.2	Pc2 1002.4						
NO	Pt2	Pw	Pw2	Pc2-Pw2 (1)	Pc2	Pc2-Pw2 (2)	n
1.	884.0	942.3	887.9	114.5	3.1075	2.3282	
2.	819.4	909.7	827.5	174.9			
3.	748.6	872.1	760.6	241.8			
4.	661.3	824.6	679.9	322.5			
5.	0.0	0.0	0.0	0.0			

Absolute Open Flow 2555 Mcfd @ 15.025 Angle of Slope, 0 37 Slope, n .745
Remarks:

Approved By:	Conducted By: David Weaver	Calculated By: Andie Carpenter	Checked By:
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WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (Pw) C-122D

Adopted 9-1-65

DATE 10/31/84

COMPANY Yates Petroleum Corporation LEASE Federal "IX" WELL NO. 2

LOCATION: Unit D Section 3 Township 9S Range 26E

L 4775.0 H 4775.0 L/H 1.000 G .645 %CO₂ .05 %N₂ 4.40 %H₂S 0.00

d 1.995 Fr .017777 GH 3079.9 Pcr 663.3 Tcr 358.5

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.507	.730	.885	1.098	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	563.0	563.0	563.0	563.0	0.0
4 T=(Tw+Ts)/2	542.5	542.5	542.5	542.5	0.0
5 Z(Est.)	.863	.867	.873	.879	0.000
6 TZ	468.2	470.6	473.4	477.0	0.0
7 GH/TZ	6.578	6.545	6.506	6.457	0.000
8 e ^s (Table XIV)	1.280	1.278	1.276	1.274	0.000
9 1-e ^{-s} (Table XIV)	.219	.218	.216	.215	0.000
10 Pt	940.2	905.2	865.2	813.2	0.0
11 Pt ² /1000	884.0	819.4	748.6	661.3	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.323	8.365	8.423	8.479	0.000
14 FcQm	4.222	6.108	7.456	9.307	0.000
15 L/H(FcQm) ²	17.829	37.308	55.587	86.614	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	3.898	8.119	12.024	18.626	0.000
17 Pw ² =Pt ² +Fw	887.9	827.5	760.6	679.9	0.0
18 Ps ² =e ^s Pw ²	1136.3	1057.7	970.5	866.2	0.0
19 Ps	1066.0	1028.4	985.2	930.7	0.0
20 P=(Pt+Ps)/2	1003.1	966.8	925.2	871.9	0.0
21 Pr=(P/Pcr)	1.51	1.46	1.39	1.31	0.00
22 Tr=(T/Tcr)	1.51	1.51	1.51	1.51	0.00
23 Z(Table XI)	.863	.867	.873	.879	0.000

Company	Yates Petroleum Corporation
Well	Federal "IX" No. 2
Location	D, 3-9S-26E
County	Chaves
Date	10/31/84

