

N MEXICO OIL CONSERVATION COM. SION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

c1571/e
Form C-122

RECEIVED BY	
JUN 08 1984	
O. C. D.	
ARTESIA OFFICE	

Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special		Test Date 4/10/84	
Company Yates Petroleum Corporation		Connection Transwestern Pipeline Company	
Pool Pecos Slope <i>2nd</i>		Formation Abo	
Completion Date 4/5/83		Total Depth 5400.0'	Plug Back TD 4479.0'
Elevation 3697.7'		Farm or Lease Name Catterson "SS" Fed	
Csg Size 4.500"	Wt. 9.500#	d 4.090"	Set At 4526.0'
Perforations: From 3963.0' To 4330.0'		Well No. 2	
Tbg Size 2.375"	Wt. 4.700#	d 1.995"	Set At 3920.0'
Perforations: From 0.0' To 0.0'		Unit Sec Twp Rge K 21 7S 26E	
Type Well Single		Packer Set At 3920.0'	County Chaves
Producing Thru Tubing	Resv. Temp. °F 102 @ 3915'	Mean Temp. °F 62.0	Baro. Press. - Pa 13.2 psia.
State New Mexico		Prover 0.000"	
L 3920.0'	H 3920.0'	Gg .643	%CO2 .02
%N2 5.21	%H2S 0.00	Meter Run 2.000"	Taps Flange

NO	FLOW DATA			TUBING DATA		CASING DATA		Duration of Flow
	Prover Orifice Size X Size	Press. psig	Diff. hw	Temp. °F	Press. psig	Temp. °F	Press. psig	
SI	0.000 X 0.000	0	0.0	0	1010	0	0	0 hrs.
1.	2.067 X 1.000	170	41.2	69	805	62	0	24 hrs.
2.	2.067 X 1.000	180	52.9	69	754	62	0	24 hrs.
3.	2.067 X 1.000	200	50.8	69	688	62	0	24 hrs.
4.	2.067 X 1.000	215	68.0	69	630	62	0	24 hrs.
5.	0.000 X 0.000	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.	4.947	86.88	183.20	.991	1.247	1.013	5.9
2.	4.947	101.10	193.20	.991	1.247	1.014	6.7
3.	4.947	104.07	213.20	.991	1.247	1.016	6.7
4.	4.947	124.57	228.20	.991	1.247	1.017	7.5
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	A.P.I. Gravity of Liquid Hydrocarbons Deg.	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure PSIA	Critical Temperature °R
1.	.28	529	1.49	.974	0.000	0.000	.643	xxxxxxx	661.9	355.6
2.	.29	529	1.49	.972				xxxxxxx		
3.	.32	529	1.49	.969				xxxxxxx		
4.	.34	529	1.49	.966				xxxxxxx		
5.	0.00	0	0.00	0.000				xxxxxxx		

NO	Pt ²	Pw	Pw ²	Pc ² -Pw ² (1)	Pc ² / (Pc ² -Pw ²)	(2) [Pc ² / (Pc ² -Pw ²)] ⁿ
1.	669.5	820.5	673.2	373.7	1.6839	1.4421
2.	588.6	770.5	593.7	453.2		
3.	491.7	705.1	497.2	549.7		
4.	413.7	649.4	421.7	625.2		
5.	0.0	0.0	0.0	0.0		

ROF = Q [Pc² / (Pc²-Pw²)]ⁿ = 1118 Mcfd

Absolute Open Flow 1118 Mcfd @ 15.025 Angle of Slope, θ 35 Slope, n .703

Remarks: _____

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

Adopted 9-1-55

DATE 6/6/84

COMPANY Yates Petroleum Corporation LEASE Catterson "SS" Fed WELL NO. 2

LOCATION: Unit K Section 21 Township 7S Range 26E

L 3920.0 H 3920.0 L/H 1.000 G .643 %CO₂ .02 %N₂ 5.21 %H₂S 0.30

d 1.995 Fr .017777 GH 2520.6 Pcr 661.9 Tcr 355.6

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.539	.627	.647	.775	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	562.0	562.0	562.0	562.0	0.0
4 T=(Tw+Ts)/2	542.0	542.0	542.0	542.0	0.0
5 Z(Est.)	.883	.890	.899	.907	0.000
6 TZ	478.8	482.4	487.2	491.4	0.0
7 GH/TZ	5.264	5.225	5.173	5.129	0.000
8 e ^s (Table XIV)	1.218	1.216	1.214	1.212	0.000
9 1-e ^{-s} (Table XIV)	.179	.178	.176	.175	0.000
10 Pt	818.2	767.2	701.2	643.2	0.0
11 Pt ² /1000	669.5	588.6	491.7	413.7	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.512	8.576	8.666	8.740	0.000
14 FcQm	4.584	5.379	5.604	6.774	0.000
15 L/H(FcQm) ²	21.012	28.932	31.408	45.889	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	3.764	5.148	5.536	8.026	0.000
17 Pw ² =Pt ² +Fw	673.2	593.7	497.2	421.7	0.0
18 Ps ² =e ^s Pw ²	820.1	722.3	603.6	511.1	0.0
19 Ps	905.6	849.9	776.9	714.9	0.0
20 P=(Pt+Ps)/2	861.9	808.5	739.1	679.1	0.0
21 Pr=(P/Pcr)	1.30	1.22	1.12	1.03	0.00
22 Tr=(T/Tcr)	1.52	1.52	1.52	1.52	0.00
23 Z(Table XI)	.883	.890	.899	.907	0.000

Company	Yates Petroleum Corporation
Well	Catterson "SS" Fed No. 2
Location	K, 21-7S-26E
County	Chaves
Date	6/6/84

