

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

Form C-122

RECEIVED

dst
File

Type Test [x] Initial [] Annual [] Special						Test Date			
Company Yates Petroleum Corporation						Connection El Paso Natural Gas		SEP 08 '87	
Pool West Pecos Slope AOC						Formation Abo		Unit O. C. D. ARTESIA, OFFICE	
Completion Date 07/23/87		Total Depth 3309.0'		Plug Back TD 3248.0'		Elevation 4196.0'		Farm or Lease Name China Draw REP St	
Csg Size 4.500"	Wt. 9.500#	d 4.090"	Set At 3309.0'	Perforations: From 2898.0' To 3031.0'		Well No. 2			
Tbg Size 2.375"	Wt. 4.700#	d 1.995"	Set At 2869.0'	Perforations: From 2898.0' To 3031.0'		Unit Sec Twp Rge C 36 S 22E			
Type Well Single						Packer Set At 2869.0'		County Chaves	
Producing Thru Tubing		Resv. Temp. °F 92 @ 2964'		Mean Temp. °F 62.0		Baro. Press. - Pa 13.2 psia.		State New Mexico	
L 2869.0'	H 2869.0'	Gg .613	%CO2 .02	%N2 6.59	%H2S 0.00	Prover 0.000"	Meter Run 2.000"	Taps Flange	

FLOW DATA					TUBING DATA		CASING DATA		Duration of Flow	
NO	Prover Size	Orifice 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	90	575	0	0	0	0 hrs.
1.	2.067	X 1.250	520	5.8	90	427	62	0	0	24 hrs.
2.	2.067	X 1.250	460	9.2	90	399	62	0	0	24 hrs.
3.	2.067	X 1.250	415	10.3	90	379	62	0	0	24 hrs.
4.	2.067	X 1.250	360	16.0	90	320	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)	1/hwPm	Pressure Pm	Flow Temp Factor Ft.	Gravity Factor Fg	Super Compress. Fact. Fpv	Rate of Flow Q, Mcfd
1.	8.134	55.61	533.20	.972	1.277	1.032	580
2.	8.134	65.98	473.20	.972	1.277	1.028	685
3.	8.134	66.41	428.20	.972	1.277	1.026	688
4.	8.134	77.27	373.20	.972	1.277	1.022	798
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.	.81	550	1.61	.939	A.P.I. Gravity of Liquid Hydrocarbons	0.000	Deg.
2.	.72	550	1.61	.946	Specific Gravity Separator Gas	.613	xxxxxxxxxxxxxx
3.	.65	550	1.61	.951	Specific Gravity Flowing Fluid	xxxxxx	.613
4.	.56	550	1.61	.957	Critical Pressure	660.6 PSIA	660.6 PSIA
5.	0.00	0	0.00	0.000	Critical Temperature	341.8°R	341.8°R

Pc	588.2	Pc2	346.0
NO	Pt2	Pw	Pw2
1.	193.8	444.0	197.1
2.	169.9	417.8	174.6
3.	153.8	398.2	158.5
4.	111.0	342.7	117.4
5.	0.0	0.0	0.0

$$\frac{Pc2}{Pc2-Pw2} = \frac{1.5135}{(2)} \left[\frac{Pc2}{Pc2-Pw2} \right]^n = 1.3617$$

$$AOF = Q \left[\frac{Pc2}{Pc2-Pw2} \right]^n = 1086 \text{ Mcfd}$$

$$Pc2 - Pw2^{(1)} = 148.9$$

$$Pc2 - Pw2^{(2)} = 171.4$$

$$Pc2 - Pw2^{(3)} = 187.4$$

$$Pc2 - Pw2^{(4)} = 228.6$$

$$Pc2 - Pw2^{(5)} = 0.0$$

Absolute Open Flow 1086 Mcfd @ 15.025 Angle of Slope, θ 37 Slope, n .745

Remarks:

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

Adopted 9-1-65

DATE _____

COMPANY Yates Petroleum Corporation LEASE China Draw REP St WELL NO. 2

LOCATION: Unit C Section 36 Township S Range 22E

L 2869.0 H 2869.0 L/H 1.000 G .613 %CO₂ .02 %N₂ 6.59 %H₂S 0.00

d 1.995 Fr .017777 GH 1758.7 Pcr 660.6 Tcr 341.8

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.580	.685	.688	.798	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	552.0	552.0	552.0	552.0	0.0
4 T=(Tw+Ts)/2	537.0	537.0	537.0	537.0	0.0
5 Z(Est.)	.943	.946	.949	.957	0.000
6 TZ	506.4	508.2	509.6	513.6	0.0
7 GH/TZ	3.473	3.460	3.451	3.424	0.000
8 e ^s (Table XIV)	1.139	1.139	1.138	1.137	0.000
9 1-e ^{-s} (Table XIV)	.122	.122	.121	.120	0.000
10 Pt	440.2	412.2	392.2	333.2	0.0
11 Pt ² /1000	193.8	169.9	153.8	111.0	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	9.002	9.035	9.060	9.131	0.000
14 FcQm	5.219	6.193	6.233	7.286	0.000
15 L/H(FcQm) ²	27.236	38.349	38.852	53.080	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	3.326	4.667	4.716	6.396	0.000
17 Pw ² =Pt ² +Fw	197.1	174.6	158.5	117.4	0.0
18 Ps ² =e ^s Pw ²	224.5	198.8	180.4	133.5	0.0
19 Ps	473.8	445.8	424.8	365.4	0.0
20 P=(Pt+Ps)/2	457.0	429.0	408.5	349.3	0.0
21 Pr=(P/Pcr)	.69	.65	.62	.53	0.00
22 Tr=(T/Tcr)	1.57	1.57	1.57	1.57	0.00
23 Z(Table XI)	.943	.946	.949	.957	0.000

Company	Yates Petroleum Corporation
Well	China Draw AEP St No. 2
Location	C, 36-S-22E
County	Chaves
Date	

