

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

Form C-122

*clsf
File*

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 09/02/1992			
Company Yates Petroleum Corp				Connection Gas Company of New Mexico					
Pool Strawn				Formation Burton Flat				Unit	
Completion Date 06/06/92		Total Depth 11650		Plug Back TD 10777		Elevation 3404		Farm or Lease Name Glider AKG State	
Csg. Size 5.500	Wt 17.000	d 4.892	Set At 11650	Perforations: From 10223 To 10342		Well No. 1			
Tbg. Size 2.875	Wt 6.500	d 2.441	Set At 10161	Perforations: From 10223 To 10342		Unit F	Sec. 17	Twp. 21S	Rge. 27E
Type Well Single				Packer Set At 10161		County Eddy			
Producing Thru Tubing		Resv. Temp. °F 158 @ 10283		Mean Temp. °F 62		Baro. Press - Pa 13.2		State New Mexico	
L 10161	H 10161	Gg 0.624	%CO ₂ 0.332	%N ₂ 0.911	%H ₂ S 0.000	Prover 0.000	Meter Run 4.000	Taps Flange	

FLOW DATA						TUBING DATA		CASING DATA		Duration	
NO	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp °F	Press. p.s.i.g.	Temp °F	Press. p.s.i.g.	Temp. °F	of Flow
SI	0.000	x	0.000	0	0.0	0	3185	0			0
1	4.026	x	1.125	1120	5.0	67	2950	62			24
2	4.026	x	1.125	1048	25.3	65	2340	62			24
3	4.026	x	1.125	1120	51.0	68	1730	62			24
4	4.026	x	1.125	1120	71.0	65	1120	62			24
5		x									

RATE OF FLOW CALCULATIONS							
NO	Coefficient (24 Hour)	$\sqrt{hwP_m}$	Pressure P _m	Flow Temp Factor Ft	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	6.031	75.3	1133.2	0.9933	1.266	1.101	628
2.	6.031	163.7	1060.7	0.9952	1.266	1.096	1363
3.	6.031	240.4	1133.2	0.9924	1.266	1.100	2003
4.	6.031	283.6	1133.2	0.9952	1.266	1.102	2376
5.							

NO	Pr	Temp °R	Tr	Z	Gas Liquid Hydrocarbon Ratio	117	Mcf/bbl.
1	1.69	527	1.46	0.826	A.P.I. Gravity of Liquid Hydrocarbons	43.000	Deg.
2	1.58	525	1.45	0.833	Specific Gravity Separator Gas	0.624	XXXXXXXXXX
3	1.69	528	1.46	0.827	Specific Gravity Flowing Fluid	XXXXXXXXXX	0.652
4	1.69	525	1.45	0.823	Critical Pressure	671	P.S.I.A. 670 P.S.I.A.
5.					Critical Temperature	361	°R 370 °R

P _c	3198.2	P _{c'}	10228.5
NO.	P _i ²	P _w	P _w ²
1.	8780.6	2963.9	8784.5
2.	5537.6	2357.0	5555.3
3.	3038.7	1754.2	3077.1
4.	1284.1	1158.4	1341.8
5.			

(1) $\frac{P_{c'}}{P_{c'} - P_{w'}} = 1.430$

AOF = Q $\left[\frac{P_{c'}}{P_{c'} - P_{w'}} \right]^n = 2600$

(2) $\left[\frac{P_{c'}}{P_{c'} - P_{w'}} \right]^n = 1.298$

Absolute Open Flow	2600	Mcf/d @ 15 025	Angle of Slope	0 36	Slope, n	0.729
Remarks:						

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

DATE 09/02/1992

COMPANY Yates Petroleum Corp LEASE Glider AKG State WELL NO. 1

LOCATION: Unit F Section 17 Township 21S Range 27E

L 10161 H 10161 L / H 1.000 G 0.652 %CO₂ 0.332 %N₂ 0.911 %H₂S 0.000

d 2.441 Fr 0.010495 GH 6627.0 Pcr 670.1 Tcr 370.1

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	0.628	1.363	2.003	2.376	
2 Tw(W.H.°R)	522	522	522	522	
3 Ts(B.H.°R)	618	618	618	618	
4 T = (Tw+Ts) / 2	569.7	569.7	569.7	569.7	
5 Z (Est.)	0.827	0.795	0.796	0.840	
6 TZ	470.9	452.7	453.4	478.6	
7 GH / TZ	14.074	14.639	14.617	13.845	
8 e ^Λ s(Table XIV)	1.695	1.731	1.730	1.681	
9 1-e ^Λ -s(Table XIV)	0.410	0.422	0.422	0.405	
10 Pt	2963.2	2353.2	1743.2	1133.2	
11 Pt ² / 1000	8780.6	5537.6	3038.7	1284.1	
12 Fr (Table XV)	0.010495	0.010495	0.010495	0.010495	
13 Fc = FrTZ	4.942	4.751	4.758	5.023	
14 FcQm	3.10	6.47	9.53	11.93	
15 L / H(FcQm) ²	9.6	41.9	90.8	142.4	
16 Fw = L / H(FcQm) ² (1-e ^Λ -s)	3.95	17.71	38.35	57.65	
17 Pw ² = Pt ² +Fw	8784.5	5555.3	3077.1	1341.8	
18 Ps ² = e ^Λ sPw ²	14890.5	9618.5	5322.0	2255.6	
19 Ps	3858.8	3101.4	2306.9	1501.9	
20 P = (Pt+Ps) / 2	3411.0	2727.3	2025.1	1317.5	
21 Pr = (P / Pcr)	5.09	4.07	3.02	1.97	
22 Tr = (T / Tcr)	1.54	1.54	1.54	1.54	
23 Z (Table XI)	0.827	0.795	0.796	0.840	

Company
Well
Location

Yates Petroleum Corp
Glider AKG State #1
F 17-21S-27E

County
Date

Eddy
09-02-1992

Q, Mcfd

