

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

45F
F.12
Form O-122

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 3/15/83		MAY 31 1983	
Company Vates Petroleum Corporation				Connection Transwestern Pipeline Company				O. C. D. ARTESIA, OFFICE	
Pool Pecos Slope / /				Formation Abo					
Completion Date 5-3-82		Total Depth 4100.0'		Plug Back TD 4062.0'		Elevation 3824.6'		Farm or Lease Name Sparrow "SP" State	
Csg Size 4.500"	Wt. 9.500#	d 4.690"	Set Rt 4099.0'	Perforations: From 3567.0' To 3768.0'		Well No. 2			
Tog Size 3.375"	Wt. 4.700#	d 1.995"	Set Rt 3521.0'	Perforations: From 0.0' To 0.0'		Unit Sec Twp Rge H 32 6S 25E			
Type Well Single				Packer Set Rt 3521.0'		County Chaves			
Producing Thru Tubing		Resv. Temp. °F 97 @ 3518'		Mean Temp. °F 62.0		Baro. Press. - Pa 13.2 psia.		State New Mexico	
L 3521.0'	H 3521.0'	Gg .649	%CO2 .03	%N2 7.55	%H2S 0.00	Proven 0.000"	Meter Run 2.000"	Taps Flange	

FLOW DATA					TUBING DATA		CASING DATA		Duration of Flow
NO	Proven Orifice Size X Size	Press. psig	Diff. hw	Temp. °F	Press. psig	Temp. °F	Press. psig	Temp. °F	
01	0.000 X 0.000	0	0.0	0	1005	0	0	0	0 hrs.
1.	2.067 X 1.000	130	14.0	69	960	62	0	0	24 hrs.
2.	2.067 X 1.000	135	25.0	69	900	62	0	0	24 hrs.
3.	2.067 X 1.000	140	43.0	69	830	62	0	0	24 hrs.
4.	2.067 X 1.000	150	55.0	69	760	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)	Pressure Pm	Flow Temp Factor Ft.	Gravity Factor Fg	Super Compress. Fact. Fpv	Rate of Flow Q, Mcfd	
1.	4.947	143.20	.991	1.241	1.011	276	
2.	4.947	148.20	.991	1.241	1.011	375	
3.	4.947	153.20	.991	1.241	1.011	500	
4.	4.947	163.20	.991	1.241	1.012	584	
5.	0.000	0.00	0.00	0.000	0.000	0	

NO	Pc	Temp. °R	Tr	Z	Gas Liquid Hydrocarbon Ratio A.P.I. Gravity of Liquid Hydrocarbons	Dry Mcf/bbl. 0.000 Deg.
1.	.22	529	1.51	.979	Specific Gravity Separator Gas .649	xxxxxxx
2.	.23	529	1.51	.978	Specific Gravity Flowing Fluid .649	xxxxxxx
3.	.23	529	1.51	.977	Critical Pressure 657.8 PSIA	657.8 PSIA
4.	.25	529	1.51	.976	Critical Temperature 351.0°	

WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (Pw) C-122D

Adopted 9-1-65

DATE 05/31/83

COMPANY Yates Petroleum Corporation LEASE Sparrow "SP" State WELL NO. 2

LOCATION: Unit H Section 32 Township 6S Range 25E

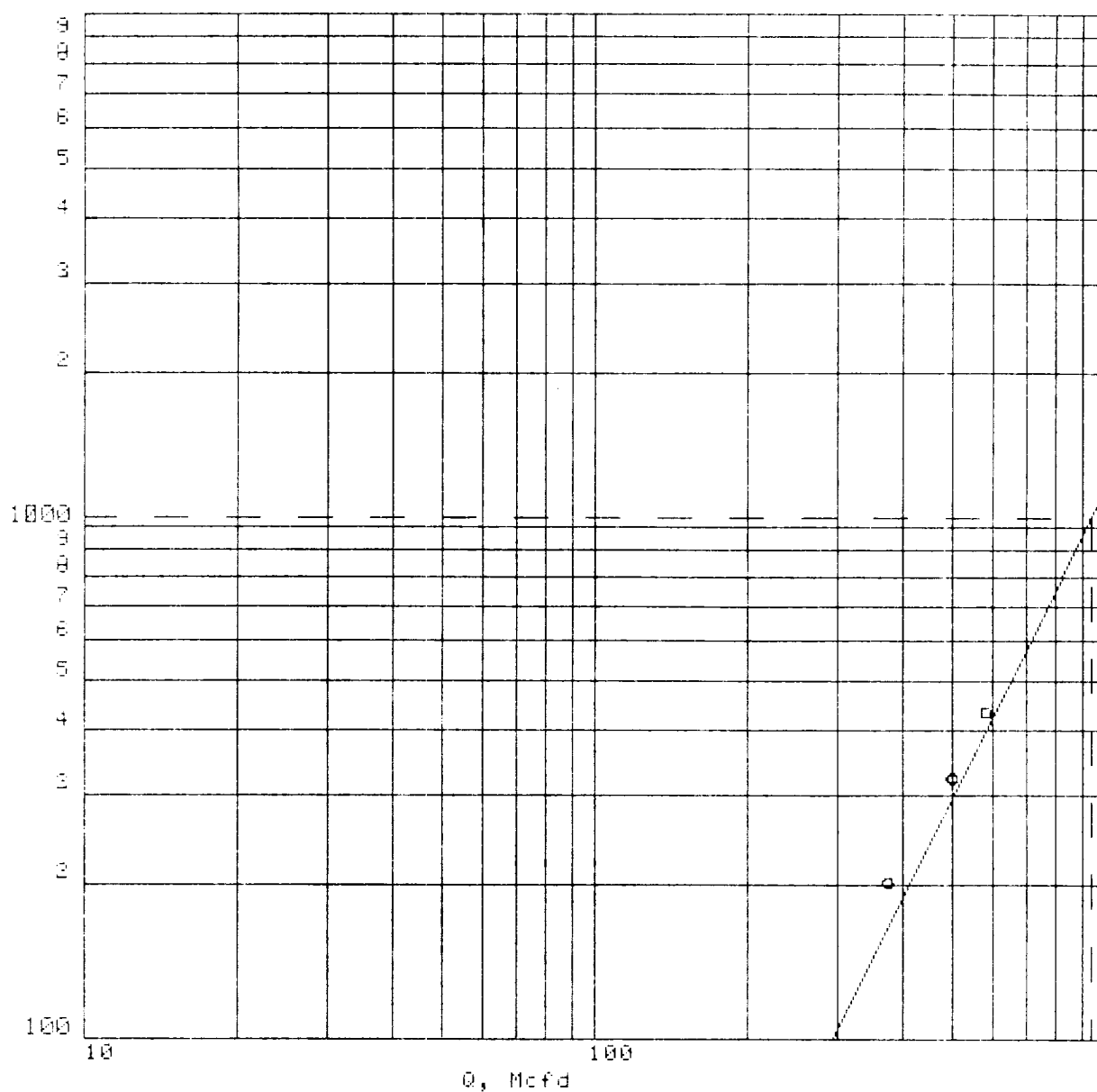
L 3521.0 H 3521.0 L/H 1.000 G .649 %CO₂ .03 %N₂ 7.55 %H₂S 0.00

d 1.995 Fr .017777 GH 2285.1 Pcr 657.8 Tcr 351.0

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.276	.375	.500	.584	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	557.0	557.0	557.0	557.0	0.0
4 T=(Tw+Ts)/2	539.5	539.5	539.5	539.5	0.0
5 Z(Est.)	.868	.875	.884	.893	0.000
6 TZ	468.3	472.2	476.8	481.5	0.0
7 GH/TZ	4.880	4.840	4.793	4.745	0.000
8 e ^s (Table XIV)	1.201	1.199	1.197	1.195	0.000
9 1-e ^{-s} (Table XIV)	.167	.166	.164	.163	0.000
10 Pt	973.2	913.2	843.2	773.2	0.0
11 Pt ² /1000	947.1	833.9	711.0	597.8	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.325	8.393	8.481	8.565	0.000
14 FcQm	2.294	3.145	4.239	5.001	0.000
15 L/H(FcQm) ²	5.262	9.893	17.971	25.010	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	.880	1.642	2.955	4.075	0.000
17 Pw ² =Pt ² +Fw	948.0	835.6	713.9	601.9	0.0
18 Ps ² =e ^s Pw ²	1138.3	1001.9	854.4	719.1	0.0
19 Ps	1066.9	1000.9	924.3	848.0	0.0
20 P=(Pt+Ps)/2	1020.1	957.1	883.8	810.6	0.0
21 Pr=(P/Pcr)	1.55	1.45	1.34	1.23	0.00
22 Tr=(T/Tcr)	1.54	1.54	1.54	1.54	0.00
23 Z(Table XI)	.868	.875	.884	.893	0.000

Company	Yates Petroleum Corporation
Well	Sparrow "SP" State No. 2
Location	H, 32-69-25E
County	Chaves
Date	05/31/83

$P_{wf}^2 - P_{wf}^2$ THOUSANDS



ROF =

942

Q , Mcfd