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

O. C. D. Form C-122
ARTESIA, OFFICE

Type Test [x] Initial [] Annual [] Special					Test Date 6/14/90			
Company Yates Petroleum Corporation				Connection Transwestern Pipeline Company				
Pool Abo				Formation Pecos Slope				Unit
Completion Date 12/15/82		Total Depth 4325.0'		Plug Back TD 4372.0'		Elevation 3541.4'		Farm or Lease Name Abo VT Federal
Csg Size 4.500"	Wt. 9.500#	d 4.090"	Set At 4325.0'	Perforations: From 3637.0' To 3650.0'			Well No. 1	
Tbg Size 2.875"	Wt. 6.500#	d 2.441"	Set At 3585.0'	Perforations: From 0.0' To 0.0'			Unit Sec Twp Rge P 30 9S 25E	
Type Well Single					Packer Set At 3585.0'		County Chaves	
Producing Thru Tubing		Resv. Temp. °F 124 @ 3585'		Mean Temp. °F 62.0		Baro. Press. - Pa 13.2 psia.		State New Mexico
L 3585.0'	H 3585.0'	Gg .654	%CO2 .08	%N2 7.53	%H2S 0.00	Prover 0.000"	Meter Run 2.000"	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	102	1030	0	0	0	0 hrs.
1.	2.067 X .625	140	50.1	97	913	62	0	0	24 hrs.
2.	2.067 X .625	155	62.0	99	870	62	0	0	24 hrs.
3.	2.067 X .625	160	74.2	102	857	62	0	0	24 hrs.
4.	2.067 X .625	160	86.0	100	840	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.	1.866	87.61	153.20	.966	1.237	1.010	197
2.	1.866	102.12	168.20	.964	1.237	1.011	230
3.	1.866	113.36	173.20	.962	1.237	1.011	254
4.	1.866	122.05	173.20	.964	1.237	1.011	274
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.	.23	557	1.58	.981	A.P.I. Gravity of Liquid Hydrocarbons 0.000 Deg.		
2.	.26	559	1.59	.979	Specific Gravity Separator Gas .654 xxxxxxxxxxxxxx		
3.	.26	562	1.59	.979	Specific Gravity Flowing Fluid xxxxxx .654		
4.	.26	560	1.59	.979	Critical Pressure 657.9 PSIA 657.9 PSIA		
5.	0.00	0	0.00	0.000	Critical Temperature 352.6°R 352.6°R		

Pc 1043.2 Pc2 1088.3

NO	Pt2	Pw	Pw2	Pc2-Pw2 (1)	Pc2	= 2.9970	(2)	$\left[\frac{Pc2}{Pc2-Pw2} \right]^n$	= 2.2221
1.	857.8	926.3	858.0	230.3					
2.	780.0	883.3	780.3	308.0					
3.	757.2	870.4	757.5	330.7					
4.	728.0	853.4	728.3	360.0					
5.	0.0	0.0	0.0	0.0					

ROF = $Q \left[\frac{Pc2}{Pc2-Pw2} \right]^n = 610 \text{ Mcfd}$

Absolute Open Flow	610 Mcfd @ 15.025	Angle of Slope, 0	36	Slope, n .727
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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 5/6/91

COMPANY Yates Petroleum Corporation LEASE Abo VT Federal WELL NO. 1

LOCATION: Unit P Section 30 Township 9S Range 25E

L 3585.0 H 3585.0 L/H 1.000 G .654 %CO₂ .08 %N₂ 7.53 %H₂S 0.00

d 2.441 Fr .010495 GH 2344.6 Pcr 657.9 Tcr 352.6

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.197	.230	.254	.274	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	584.0	584.0	584.0	584.0	0.0
4 T=(Tw+Ts)/2	553.0	553.0	553.0	553.0	0.0
5 Z(Est.)	.883	.888	.889	.891	0.000
6 TZ	488.3	490.9	491.8	492.8	0.0
7 GH/TZ	4.802	4.776	4.768	4.757	0.000
8 es(Table XIV)	1.197	1.196	1.196	1.195	0.000
9 1-es(Table XIV)	.165	.164	.164	.163	0.000
10 Pt	926.2	883.2	870.2	853.2	0.0
11 Pt ² /1000	857.8	780.0	757.2	728.0	0.0
12 Fr(Table XV)	.010495	.010495	.010495	.010495	0.000000
13 Fc=FrTZ	5.125	5.155	5.161	5.172	0.000
14 FcQm	1.011	1.184	1.313	1.419	0.000
15 L/H(FcQm) ²	1.022	1.402	1.723	2.013	0.000
16 Fw=L/H(FcQm) ² (1-es)	.168	.230	.282	.329	0.000
17 Pw ² =Pt ² +Fw	858.0	780.3	757.5	728.3	0.0
18 Ps ² =esPw ²	1027.3	933.2	905.8	870.5	0.0
19 Ps	1013.6	966.0	951.8	933.0	0.0
20 P=(Pt+Ps)/2	969.9	924.6	911.0	893.1	0.0
21 Pr=(P/Pcr)	1.47	1.41	1.38	1.36	0.00
22 Tr=(T/Tcr)	1.57	1.57	1.57	1.57	0.00
23 Z(Table XI)	.883	.888	.889	.891	0.000

Company	Yates Petroleum Corporation
Well	Abo VT Federal No. 1
Location	P, 30-9S-25E
County	Chaves
Date	5/6/91

