

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

RECEIVED BY
Form C-122

FEB 8 1985

O. C. D.

ARTESIA, OFFICE

Type Test [x] Initial [] Annual [] Special					Test Date 10/28/84	
Company Yates Petroleum Corporation				Connection Transwestern Pipeline Company		
Pool Pecos Slope				Formation Abo		Unit
Completion Date 12/17/82		Total Depth 4650.0'		Plug Back TD 4597.0'		Elevation 3662.3'
Farm or Lease Name Huckabay "TJ" Fed						
Csg Size 4.500"	Wt. 9.500#	d 4.090"	Set At 4648.0'	Perforations: From 4342.0' To 4518.0'		Well No. 3
Tbg Size 2.375"	Wt. 4.700#	d 1.995"	Set At 4318.0'	Perforations: From 0.0' To 0.0'		Unit Sec Twp Rge G 19 8S 26E
Type Well Single				Packer Set At 4318.0'		County CHAVES
Producing Thru Tubing		Resv. Temp. °F 108 @ 4314'		Mean Temp. °F 62.0		Baro. Press. - Pa 13.2 psia.
State New Mexico						
L 4318.0'	H 4318.0'	Gg .654	%CO2 .04	%N2 8.71	%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	65	1006	0	0	0	0 hrs.
1.	2.067 X 1.375	260	5.1	65	946	62	0	0	24 hrs.
2.	2.067 X 1.375	300	18.9	65	835	62	0	0	24 hrs.
3.	2.067 X 1.375	320	22.2	65	769	62	0	0	24 hrs.
4.	2.067 X 1.375	330	28.0	65	750	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.	10.204	37.33	273.20	.995	1.237	1.020	478
2.	10.204	76.94	313.20	.995	1.237	1.024	989
3.	10.204	86.01	333.20	.995	1.237	1.025	1107
4.	10.204	98.03	343.20	.995	1.237	1.026	1263
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.	.42	525	1.50	.960	A.P.I. Gravity of Liquid Hydrocarbons 0.000 Deg.
2.	.48	525	1.50	.954	Specific Gravity Separator Gas .654 xxxxxxxxxxxxxx
3.	.51	525	1.50	.951	Specific Gravity Flowing Fluid xxxxxx .654
4.	.52	525	1.50	.950	Critical Pressure 655.7 PSIA 655.7 PSIA
5.	0.00	0	0.00	0.000	Critical Temperature 349.4°R 349.4°R

Pc	1019.2	Pc ²	1038.8	
NO	Pt ²	Pw	Pw ²	Pc ² -Pw ²
1.	920.1	960.9	923.3	115.4
2.	719.4	856.6	733.7	305.1
3.	611.8	793.6	629.8	408.9
4.	582.5	778.4	606.0	432.8
5.	0.0	0.0	0.0	0.0

$$\frac{P_c^2}{P_c^2 - P_w^2} = 2.4184 \quad (2) \quad \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.9180$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2423 \text{ Mcfd}$$

Absolute Open Flow 2423 Mcfd @ 15.025 Angle of Slope, θ 36 Slope, n .737

Remarks:

Approved By:	Conducted By: DAVID WEAVER	Calculated By: ANDIE CARPENTER	Checked By:
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WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (Pw) C-122D

Adopted 9-1-65

DATE 2/8/85

COMPANY Yates Petroleum Corporation LEASE Huckabay "TJ" Fed WELL NO. 3

LOCATION: Unit G Section 19 Township 8S Range 26E

L 4318.0 H 4318.0 L/H 1.000 G .654 %CO₂ .04 %N₂ 8.71 %H₂S 0.00

d 1.995 Fr .017777 GH 2824.0 Pcr 655.7 Tcr 349.4

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.478	.989	1.107	1.263	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	568.0	568.0	568.0	568.0	0.0
4 T=(Tw+Ts)/2	545.0	545.0	545.0	545.0	0.0
5 Z(Est.)	.875	.888	.895	.897	0.000
6 TZ	477.0	483.8	488.0	489.1	0.0
7 GH/TZ	5.920	5.837	5.787	5.774	0.000
8 e ^s (Table XIV)	1.249	1.245	1.242	1.242	0.000
9 1-e ^{-s} (Table XIV)	.199	.196	.195	.195	0.000
10 Pt	959.2	848.2	782.2	763.2	0.0
11 Pt ² /1000	920.1	719.4	611.8	582.5	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.480	8.606	8.675	8.695	0.000
14 FcQm	4.056	8.511	9.606	10.983	0.000
15 L/H(FcQm) ²	16.453	72.444	92.278	120.625	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	3.275	14.234	18.002	23.483	0.000
17 Pw ² =Pt ² +Fw	923.3	733.7	629.8	606.0	0.0
18 Ps ² =e ^s Pw ²	1152.9	913.1	782.5	752.4	0.0
19 Ps	1073.7	955.6	884.6	867.4	0.0
20 P=(Pt+Ps)/2	1016.5	901.9	833.4	815.3	0.0
21 Pr=(P/Pcr)	1.55	1.38	1.27	1.24	0.00
22 Tr=(T/Tcr)	1.56	1.56	1.56	1.56	0.00
23 Z(Table XI)	.875	.888	.895	.897	0.000

Company	Yates Petroleum Corporation
Well	Huckabay "TJ" Fed No. 3
Location	G, 19-8S-26E
County	CHAVES
Date	2/8/85

