

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

Form
Number

RECEIVED

C/SF

C-122

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 2-12-82		APR 2 1982	
Company Yates Petroleum Corporation /				Connection Transwestern Pipeline Company				O. C. D.	
Pool Pecos Slope Abo				Formation Abo				Unit ARTESIA, OFFICE	
Completion Date 12-12-81		Total Depth 4450'		Flow back To 4374'		Elevation 3727.7' KB 3717.7' GR		Form or Lease Name Thorpe MI Federal	
Csg. Size 4-1/2"	Wt. 9.5#	d 4.090"	Set At 4435'	Perforations: From 3696 To 3946		Well No. 5			
Tub. Size 2-3/8"	Wt. 4.7#	d 1.995	Set At 3888'	Perforations: From To		Unit A	Sec. 14	Twp. 7S	Rge. 25E
Type Well - Single - Protobend - G.G. or G.O. Multiple Single				Packer Set At None		County Chaves			
Producing Thru Tubing		Reservoir Temp. °F 98° @ 3950'		Mean Annual Temp. °F 60		Baro. Press. - P _g 13.2		State New Mexico	
L 3888	H 3888	G _g 0.670	% CO ₂ 2.72	% N ₂ 5.93	% H ₂ S 0	Prover ---	Meter Run 2"	Flange	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
51							1005				days
1.	2.067 x 1.250			205	19	58	950	61			24 hrs
2.	2.067 x 1.250			326	36	75	900	63			24 hrs
3.	2.067 x 1.250			300	55	73	878	64			24 hrs
4.	2.067 x 1.250			410	83	62	791	64			24 hrs
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcf/d
1	8.120	64.39	218.2	1.002	1.222	1.021	654
2	8.120	110.51	339.2	0.9859	1.222	1.028	1111
3	8.120	131.25	313.2	0.9877	1.222	1.026	1320
4	8.120	187.42	423.2	0.9981	1.222	1.038	1926
5							

NO.	P _t	Temp. °F	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.	
1	0.326	518	1.445	0.960	A.P.L. Gravity of Liquid Hydrocarbons _____ Deg.	
2	0.507	535	1.482	0.946	Specific Gravity Separator Gas _____ 0.670	
3	0.468	533	1.476	0.950	Specific Gravity Flowing Fluid _____ X X X X X	
4	0.633	522	1.446	0.928	Critical Pressure _____ 669 P.S.I.A.	
5					Critical Temperature _____ 361 °F	

NO.	P _t	P _w	P _t ²	P _w ²	P _t ² - P _w ²
1	927.8		933.6	103.1	
2	833.9		855.9	180.8	
3	794.2		818.1	218.6	
4	646.7		681.0	355.7	
5					

$$(1) \frac{P_t^2}{P_t^2 - P_w^2} = 1.6995$$

$$(2) \left[\frac{P_t^2}{P_t^2 - P_w^2} \right]^n = 1.537$$

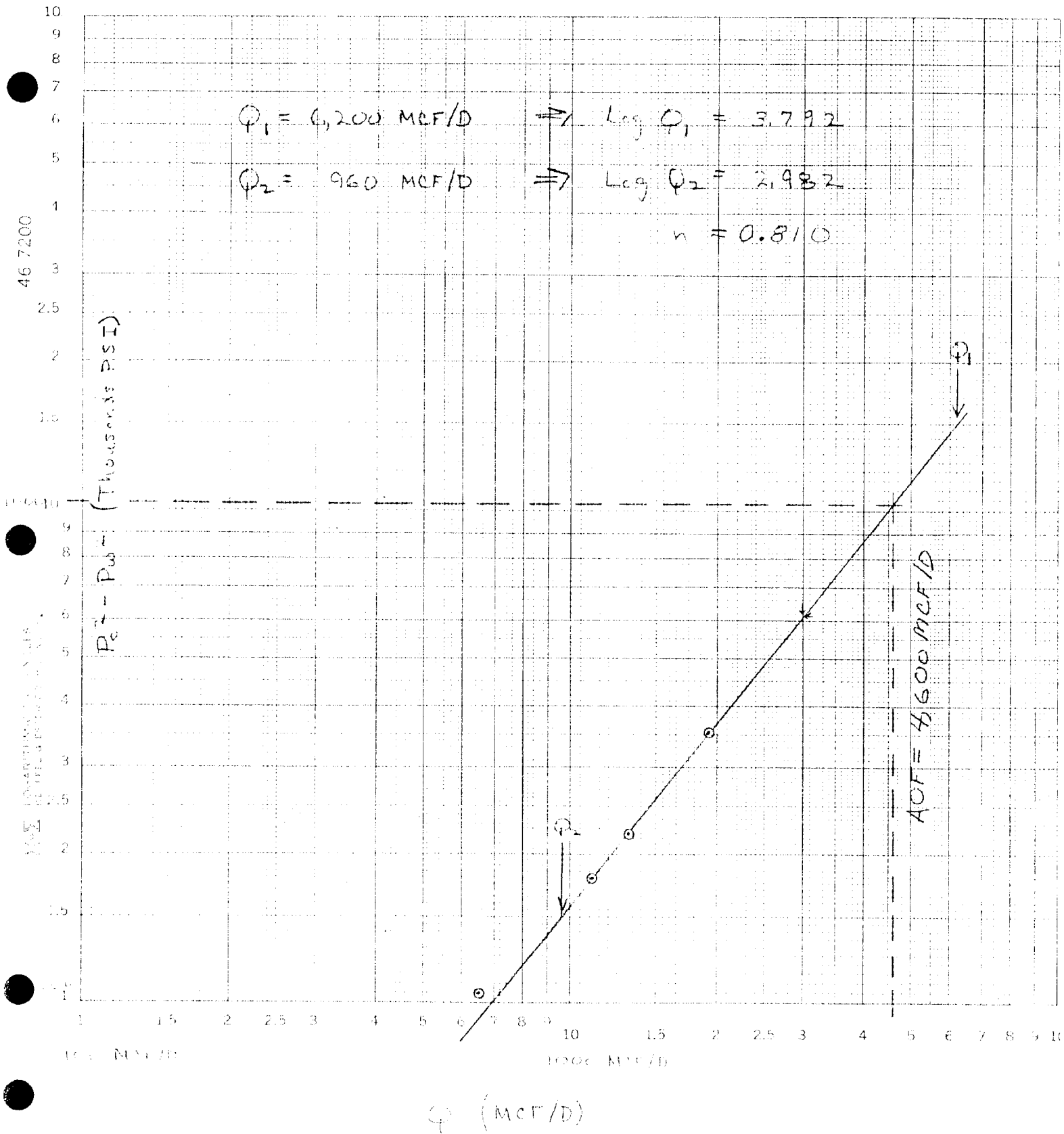
$$A.P.F. = Q \left[\frac{P_t^2}{P_t^2 - P_w^2} \right]^n = 4600$$

Absolute Crd. Flow	4600	Mcf/d @ 15.025	Angle of Slope °	Slope, n	0.810
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Remarks: Static pressures by Bennett Wireline, flowing pressures by DWT calculations.
Worksheet C122D attached.

Approved By: _____	Conducted By: David Weaver	Calculated By: Albert R. Stall	Checked By: _____
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YATES PETROLEUM COR
 Torpe MI Fed No 5
 Unit A Sec 14, T 7 S, R 25 E



WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (P_w)Form 3-C-122D
Revised 9-1-85COMPANY Valdes Petroleum Corp. LEASE Thompson, MI Federal WELL NO. 5 DATE 4-1-82LOCATION: Unit A Section 14 Township 7 S Range 25 ET 3888 H 3888 CH 1 G 0.670 100% 2.72 SNG 5.23 % H₂S 0F 1.995 P 0.012231 CH 2665 P 661 4% RATE

LINE	1 ST TRIAL	2 ND TRIAL	3 RD TRIAL	4 TH TRIAL	5 TH TRIAL	6 TH TRIAL	7 TH TRIAL	8 TH TRIAL	9 TH TRIAL	10 TH TRIAL	11 TH TRIAL	12 TH TRIAL	13 TH TRIAL	14 TH TRIAL	15 TH TRIAL	16 TH TRIAL	17 TH TRIAL	18 TH TRIAL	19 TH TRIAL	20 TH TRIAL	21 TH TRIAL	22 TH TRIAL	23 TH TRIAL
1	51654	51654	51654	51654	51654	51654	51654	51654	51654	51654	51654	51654	51654	51654	51654	51654	51654	51654	51654	51654	51654	51654	51654
2	521	521	521	521	521	521	521	521	521	521	521	521	521	521	521	521	521	521	521	521	521	521	521
3	559	559	559	559	559	559	559	559	559	559	559	559	559	559	559	559	559	559	559	559	559	559	559
4	5815	5815	5815	5815	5815	5815	5815	5815	5815	5815	5815	5815	5815	5815	5815	5815	5815	5815	5815	5815	5815	5815	5815
5	6872	6872	6872	6872	6872	6872	6872	6872	6872	6872	6872	6872	6872	6872	6872	6872	6872	6872	6872	6872	6872	6872	6872
6	473.7	468.2	463.7	459.2	454.7	450.2	445.7	441.2	436.7	432.2	427.7	423.2	418.7	414.2	409.7	405.2	400.7	396.2	391.7	387.2	382.7	378.2	373.7
7	5499	5461	5423	5385	5347	5309	5271	5233	5195	5157	5119	5081	5043	5005	4967	4929	4891	4853	4815	4777	4739	4701	4663
8	1223	1237	1234	1234	1234	1234	1234	1234	1234	1234	1234	1234	1234	1234	1234	1234	1234	1234	1234	1234	1234	1234	1234
9	6186	6192	6192	6192	6192	6192	6192	6192	6192	6192	6192	6192	6192	6192	6192	6192	6192	6192	6192	6192	6192	6192	6192
10	913.4	913.2	913.2	913.2	913.2	913.2	913.2	913.2	913.2	913.2	913.2	913.2	913.2	913.2	913.2	913.2	913.2	913.2	913.2	913.2	913.2	913.2	913.2
11	937.8	937.8	937.8	937.8	937.8	937.8	937.8	937.8	937.8	937.8	937.8	937.8	937.8	937.8	937.8	937.8	937.8	937.8	937.8	937.8	937.8	937.8	937.8
12	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2
13	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2
14	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2
15	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2
16	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2
17	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2
18	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2
19	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2
20	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2
21	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2
22	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2
23	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2	1012.2

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