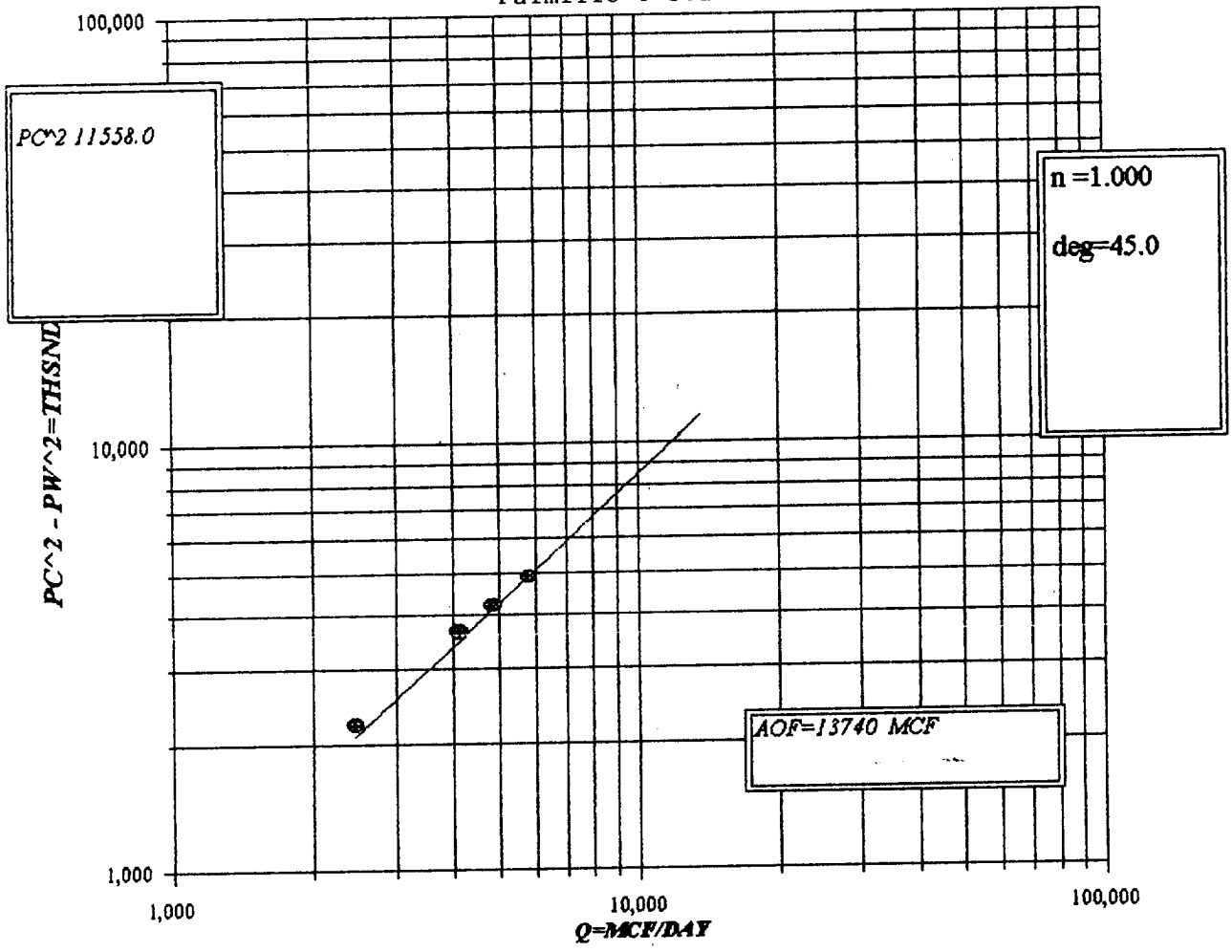
HARVEY E. YATES COMPANY

Palmillo 6 State Com #1



WORK SHEET FOR CALCULATION OF WELLHEAD PRESSURE (Pc ~~or Pw~~) FORM C-122F

FROM KNOWN BOTTOM HOLE PRESSURE (Pf or Ps)

COMPANY	HARVEY E. YATES CO.	LEASE :	P 6 ST. C	WELL NO. :	1	DATE	12 12 97
UNIT	K	SECTION :	6	TWNSHP :	19	RANGE :	29
	L 11000	H :	11000	L/H :	1	G/GMIX :	0.6340
		CO2 :	0.7	N2 :	0.44	H2S :	
		GH :	6974.0	PCR :	670	TCR :	368

LINE		1	2	3	4	5	6	7	8
1	TW(W.H. R)	534	534	534	534	534	534	534	534
2	Ts(B.H. R)	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0
3	T=(Tw+Ts/2)	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
4	Z (EST.)	0.965	0.866	ERR	ERR	ERR	ERR	ERR	ERR
5	TZ	568	510	ERR	ERR	ERR	ERR	ERR	ERR
6	GH/TZ	12.274	13.668	ERR	ERR	ERR	ERR	ERR	ERR
7	eS(TABLE XIV)	1.584	1.670	ERR	ERR	ERR	ERR	ERR	ERR
8	Pf or Ps	4392.7	4392.7	0	0	0	0	0	0
9	Pf2 or Ps2	19295.8	19295.8	0.0	0.0	0.0	0.0	0.0	0.0
10	Pc2=Pf/eS or Pw2=Ps2/eS	12177.9	11557.7	ERR	ERR	ERR	ERR	ERR	ERR
11	Pc or Pw	3490	3400	ERR	ERR	ERR	ERR	ERR	ERR
12	P=(Pw+Ps/2)or(Pc+Pf/2)	3941	3896	ERR	ERR	ERR	ERR	ERR	ERR
13	Pr=(P/Pcr)	5.88	5.82	ERR	ERR	ERR	ERR	ERR	ERR
14	Tr(T/Tcr)	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60
15	Z (TABLE XI)	0.866	0.863	ERR	ERR	ERR	ERR	ERR	ERR

Pc ~~PW~~ 1 : 3399.7 PW 2 : ERR PW 3 : ERR PW 4 : ERR

WORK SHEET FOR CALCULATION OF WELLHEAD PRESSURE (Pc or Pw) FORM C-122F

FROM KNOWN BOTTOM HOLE PRESSURE (~~Pf or~~ Ps)

COMPANY	HARVEY E. YATES CO.	LEASE :	P 6 ST. C	WELL NO. :	1	DATE	12 12 97
UNIT	K	SECTION :	6	TWNSHP :	19	RANGE :	29
	L 11000	H :	11000	L/H :	1	G/GMIX :	0.6340
		CO2 :	0.7	N2 :	0.44	H2S :	
		GH :	6974.0	PCR :	670	TCR :	368

LINE		1	2	3	4	5	6	7	8
1	TW(W.H. R)	534	534	534	534	534	534	534	534
2	Ts(B.H. R)	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0
3	T=(Tw+Ts/2)	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
4	Z (EST.)	0.932	0.842	0.850	0.826	0.842	0.821	0.833	0.815
5	TZ	549	496	500	487	496	484	491	480
6	GH/TZ	12.698	14.059	13.937	14.326	14.060	14.415	14.215	14.522
7	eS(TABLE XIV)	1.610	1.694	1.686	1.711	1.694	1.717	1.704	1.724
8	Pf or Ps	3977.3	3977.3	3680.6	3680.6	3555.6	3555.6	3387.7	3387.7
9	Pf2 or Ps2	15818.9	15818.9	13546.8	13546.8	12642.3	12642.3	11476.5	11476.5
10	Pc2=Pf/eS or Pw2=Ps2/eS	9825.8	9336.9	8032.5	7916.3	7461.9	7363.0	6734.5	6657.4
11	Pc or Pw	3135	3056	2834	2814	2732	2713	2595	2580
12	P=(Pw+Ps/2)or(Pc+Pf/2)	3556	3516	3257	3247	3144	3135	2991	2984
13	Pr=(P/Pcr)	5.31	5.25	4.86	4.85	4.69	4.68	4.46	4.45
14	Tr(T/Tcr)	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60
15	Z (TABLE XI)	0.842	0.840	0.826	0.826	0.821	0.821	0.815	0.815

PW 1 : 3055.6 PW 2 : 2813.6 PW 3 : 2713.5 PW 4 : 2580.2

NEW MEXICO G.O.R./G. MIX

NO. OF BBLS PRODUCED	=	6.0
API GRAVITY @ 60 DEG.	=	50.6
SPECIFIC GRAVITY OF GAS	=	0.6340
TOTAL GAS PRODUCED	=	822
G.O.R.	=	137.069
G.MIX	=	0.657

Laboratory Services, Inc.
1331 Tasker Drive
Hobbs, New Mexico 88240
Telephone: (505) 397-3713

FOR: Jarrel Services, Inc.
Attention: Mr. Donnie Dickerson
P. O. Box 1230
Hobbs, New Mexico 88240

SAMPLE IDENTIFICATION: Palmillo 6 State Com #1
COMPANY: HEYCO
LEASE:
PLANT:

SAMPLE DATA:
DATE SAMPLED: 12/12/97
ANALYSIS DATE: 12/15/97
PRESSURE – PSIG
SAMPLE TEMP. °F
ATMOS. TEMP. °F

GAS (XX) LIQUID ( )
SAMPLED BY: Donnie Dickerson
ANALYSIS BY: Vickie Walker

REMARKS: API Gravity of Crude Oil @ 60° = 50.6

COMPONENT ANALYSIS

COMPONENT		MOL PERCENT	GPM
Hydrogen Sulfide	(H2S)		
Nitrogen	(N2)	0.44	
Carbon Dioxide	(CO2)	0.70	
Methane	(C1)	89.27	
Ethane	(C2)	6.45	1.721
Propane	(C3)	1.84	0.506
I-Butane	(IC4)	0.29	0.096
N-Butane	(NC4)	0.44	0.138
I-Pentane	(IC5)	0.19	0.070
N-Pentane	(NC5)	0.20	0.074
Hexane Plus	(C6+)	0.18	0.074
		100.00	2.679

BTU/CU.FT. – DRY	1110
AT 14.650 DRY	1107
AT 14.650 WET	1088
AT 14.73 DRY	1113
AT 14.73 WET	1094

MOLECULAR WT. 18.3665

SPECIFIC GRAVITY –
CALCULATED 0.634
MEASURED