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appropriate district office.
See Rule 401 & Rule 1122

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

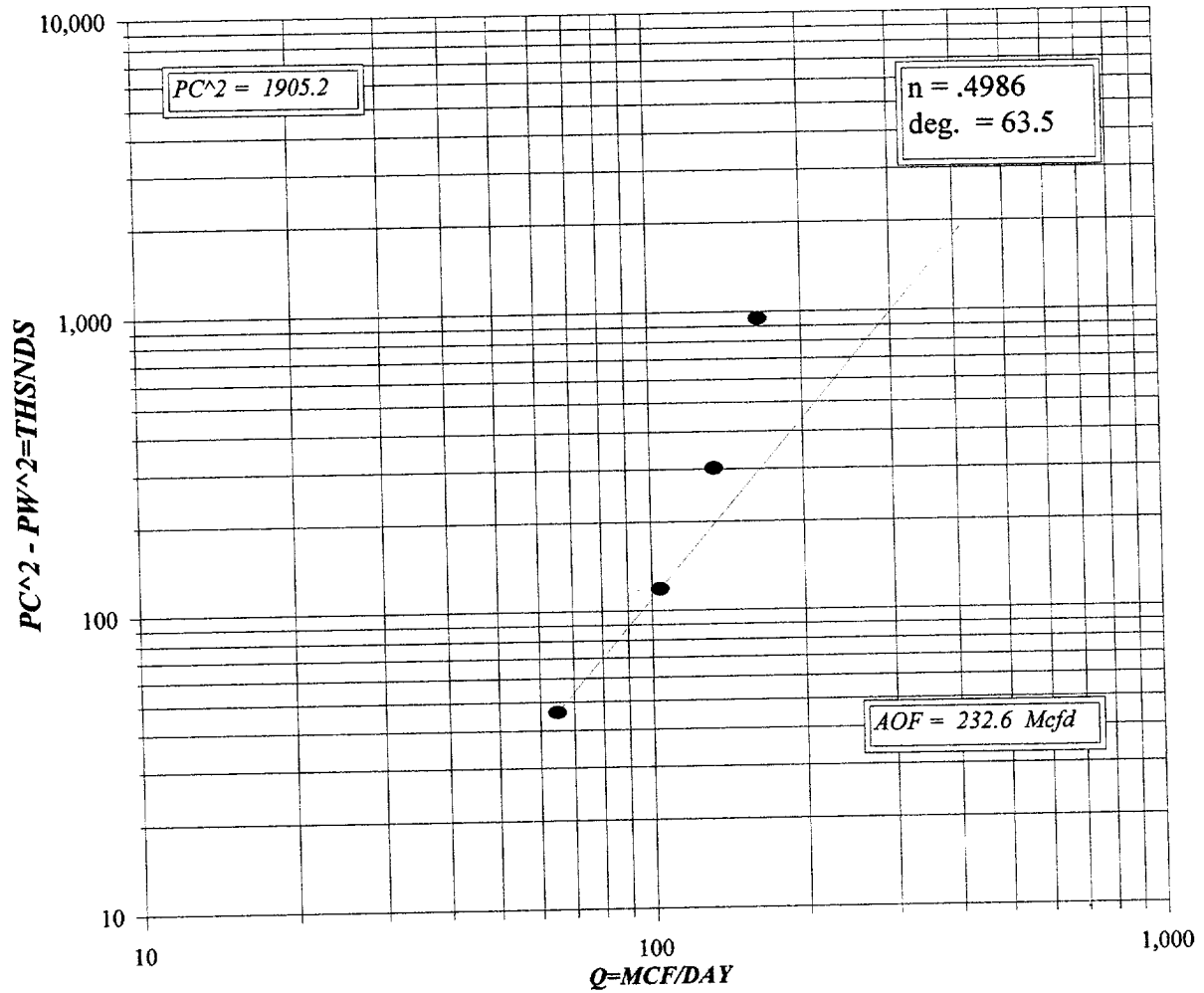
Form C-122
Revised October, 1999

RECEIVED
OCD - ARTESIA

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator MEWBOURNE OIL CO.				Lease of Unit Name FREN "8" FED COM			
Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 8/12/01		Well No. 2	
Completion Date 8/10/01		Total Depth 11935		Plug Back TD 11885		Elevation 3706GL	
Unit Ltr - Sec - TWP - Rge A - 8 - 18S - 31E		County EDDY		Pool NORTH SUGART		Formation MORROW	
Csg. Size 5 1/2	Wt. 17	d 4.892	Set At 11935	Perforations: From: 11829 To: 11846		Connection SALES	
Tbg. Size 2 7/8	Wt. 6.5	d 2.441	Set At 11569	Perforations: From: To:		Meter Run 3.068	
Type Well-Single-Bradenhead-G.G. or G.O. Multiple SINGLE				Packer Set At 11551		Taps FLG	
Producing Thru TUBING		Reservoir Temp. °F 168		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
L 11837	H 11837	Gg 0.664	%CO ₂ 0.478	%N ₂ 0.636	%H ₂ S N/A	Prover N/A	Meter Run 3.068
FLOW DATA				TUBING DATA			
No.	Prover Line Size	Orifice x Size	Press p.s.i.g.	Diff. h _w	Temp. °F	Press p.s.i.g.	Temp. °F
SI						1050	N/A
1	3.068	X 1.250	29.7	1.1	83	1000	
2	3.068	X 1.250	29.7	2.8	85	925	
3	3.068	X 1.250	29.7	4.75	98	730	
4	3.068	X 1.250	51.84	5	116	310	
5							
RATE OF FLOW CALCULATIONS							
No.	COEFFICIENT (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress Factor F _{pv}	Rate of Flow Q, Mcfd
1	7.577	6.86	42.9	0.9786	1.227	1.048	65
2	7.577	10.95	42.9	0.9786	1.227	1.048	104
3	7.577	14.3	42.9	0.9786	1.227	1.045	134
4	7.577	18.03	65.04	0.9786	1.227	1.04	165
5							
No.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio 19.5 Mcf bbl.		
1	0.8	543	1.45	0.91	A.P. I. Gravity of Liquid Hydrocarbons 52 @60 Deg.		
2	0.8	545	1.45	0.91	Specific Gravity Separator Gas 0.664 XXXXXXXX		
3	0.82	558	1.49	0.916	Specific Gravity Flowing Fluid N/A XXXXXX		
4	0.85	576	1.54	0.924	Critical Pressure 673 P.S.I.A. 668 P.S.I.A.		
5					Critical Temperature 374 R. 424 R		
P _c 1380.3 P _{c2} 1905.2							
No.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.41$		
1		1363.5	1859.1	46.1			
2		1336.8	1787	118.2			
3		1266.9	1605	300.2			
4		978	956.5	948.7			
5							
Absolute Open Flow 232.6 Mcfd @ 15.025				Angle of Slope (°): 63.5		Slope n: 0.4986	
Remarks: *WELL MADE 1 BBL OF 52 API GRAVITY CONDENSATE AND 7.5 BBLs OF WATER DURING TEST.							
Approved By Division:		Conducted By: PRO WELL TESTING		Calculated By: MERV BUECKER		Checked By: BM	

MEWBOURNE OIL CO.
FREN "8" FED COM #2



WORK SHEET FOR CALCULATION OF WELLHEAD PRESSURE (Pc or Pw)

FORM C-122F

FROM KNOWN BOTTOM HOLE PRESSURE (Pf or Ps)

COMPANY MEWBOURNE

LEASE : FREN

WELL NO. : 2

DATE 8/12/01

UNIT

SECTION :

TWNShp :

RANGE :

L

11837

H : 11837

L/H : 1

G/GMIX : 0.8150

CO2 : 0.478

N2 : 0.636

H2S :

GH : 9647.2

PCR : 668

TCR : 424

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)	652.4	652.4	652.4	652.4	652.4	652.4	652.4	652.4
3	T=(Tw+Ts/2)	593.2	593.2	593.2	593.2	593.2	593.2	593.2	593.2
4	Z (EST.)	0.740	0.702	ERR	ERR	ERR	ERR	ERR	ERR
5	TZ	439	416	ERR	ERR	ERR	ERR	ERR	ERR
6	GH/TZ	21.984	23.176	ERR	ERR	ERR	ERR	ERR	ERR
7	eS(TABLE XIV)	2.281	2.385	ERR	ERR	ERR	ERR	ERR	ERR
8	Pf or Ps	2131.5	2131.5	0	0	0	0	0	0
9	Pf2 or Ps2	4543.3	4543.3	0.0	0.0	0.0	0.0	0.0	0.0
10	Pc2=Pf/eS or Pw2=Ps2/eS	1992.2	1905.1	ERR	ERR	ERR	ERR	ERR	ERR
11	Pc or Pw	1411	1380	ERR	ERR	ERR	ERR	ERR	ERR
12	P=(Pw+Ps/2)or(Pc+Pf/2)	1771	1756	ERR	ERR	ERR	ERR	ERR	ERR
13	Pr=(P/Pcr)	2.65	2.63	ERR	ERR	ERR	ERR	ERR	ERR
14	Tr(T/Tcr)	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40
15	Z (TABLE XI)	0.702	0.703	ERR	ERR	ERR	ERR	ERR	ERR

PC W 1 : 1380.3 PW 2 : ERR PW 3 : ERR PW 4 :

WORK SHEET FOR CALCULATION OF WELLHEAD PRESSURE (Pc or Pw)
FROM KNOWN BOTTOM HOLE PRESSURE (Pf or Ps)

FORM C-122F

COMPANY MEWBOURNE

LEASE : FREN

WELL NO. : 2

DATE 8/12/01

UNIT

SECTION :

TWNSHP :

RANGE :

L

11837

H : 11837

L/H : 1

G/GMIX : 0.8150

CO2 : 0.478

N2 : 0.636

H2S :

GH : 9647.2

PCR : 668

TCR : 424

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)	652.4	652.4	652.4	652.4	652.4	652.4	652.4	652.4
3	T=(Tw+Ts/2)	593.2	593.2	593.2	593.2	593.2	593.2	593.2	593.2
4	Z (EST.)	0.740	0.703	0.690	0.707	0.693	0.716	0.730	0.762
5	TZ	439	417	409	420	411	424	433	452
6	GH/TZ	21.976	23.127	23.563	22.989	23.455	22.730	22.292	21.333
7	eS(TABLE XIV)	2.280	2.380	2.420	2.368	2.410	2.345	2.307	2.225
8	Pf or Ps	2103.7	2103.7	2057.2	2057.2	1940.2	1940.2	1459.4	1459.4
9	Pf2 or Ps2	4425.6	4425.6	4232.1	4232.1	3764.4	3764.4	2129.8	2129.8
10	Pc2=Pf/eS or Pw2=Ps2/eS	1941.2	1859.2	1749.1	1787.1	1562.1	1605.1	923.2	957.0

11	Pc or Pw	1393	1364	1323	1337	1250	1267	961	978
12	P=(Pw+Ps/2) or (Pc+Pf/2)	1748	1734	1690	1697	1595	1604	1210	1219
13	Pr=(P/Pcr)	2.62	2.60	2.53	2.54	2.39	2.40	1.81	1.82
14	Tr(T/Tcr)	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40
15	Z (TABLE XI)	0.703	0.704	0.707	0.707	0.716	0.715	0.762	0.761

PW 1 : 1363.5 PW 2 : 1336.8 PW 3 : 1266.9 PW 4 : 978.3

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

NO. OF BBLs PRODUCED = 1.0
API GRAVITY @ 60 DEG. = 52.0

.....
SPECIFIC GRAVITY OF GAS = 0.6640

XX
TOTAL GAS PRODUCED = 20

G.O.R. = 19.500

G.MIX = 0.815

Laboratory Services, Inc.

4016 Fiesta Drive
Hobbs, New Mexico 88240

Telephone: (505) 397-3713

FOR: Pro Well Testing & Wireline
P. O. Box 791
Hobbs, New Mexico 88241

SAMPLE: L.M. Orange
IDENTIFICATION: Fren"8" Fed. #2
COMPANY: Mewbourne Oil Co.
LEASE:
PLANT:

SAMPLE DATA: DATE SAMPLED: 8/14/01 1:45 pm
ANALYSIS DATE: 8/14/01
PRESSURE - PSIG 57
SAMPLE TEMP. °F 110
ATMOS. TEMP. °F 100

GAS (XX) LIQUID ()
SAMPLED BY: Rolland Perry
ANALYSIS BY: Vickie Biggs

REMARKS:

COMPONENT ANALYSIS

COMPONENT	MOL PERCENT	GPM
Hydrogen Sulfide (H2S)		
Nitrogen (N2)	0.636	
Carbon Dioxide (CO2)	0.473	
Methane (C1)	86.049	
Ethane (C2)	7.777	2.075
Propane (C3)	3.084	0.848
I-Butane (IC4)	0.297	0.097
N-Butane (NC4)	0.775	0.244
I-Pentane (IC5)	0.188	0.069
N-Pentane (NC5)	0.220	0.079
Hexane Plus (C6+)	0.501	0.217
	100.000	3.629

BTU/CU.FT. - DRY 1159
AT 14.650 DRY 1156
AT 14.650 WET 1136
AT 14.73 DRY 1162
AT 14.73 WET 1142

MOLECULAR WT. 19.2680

SPECIFIC GRAVITY -
CALCULATED 0.664
MEASURED