

File ✓
Form C-122
Revised 9-1-65

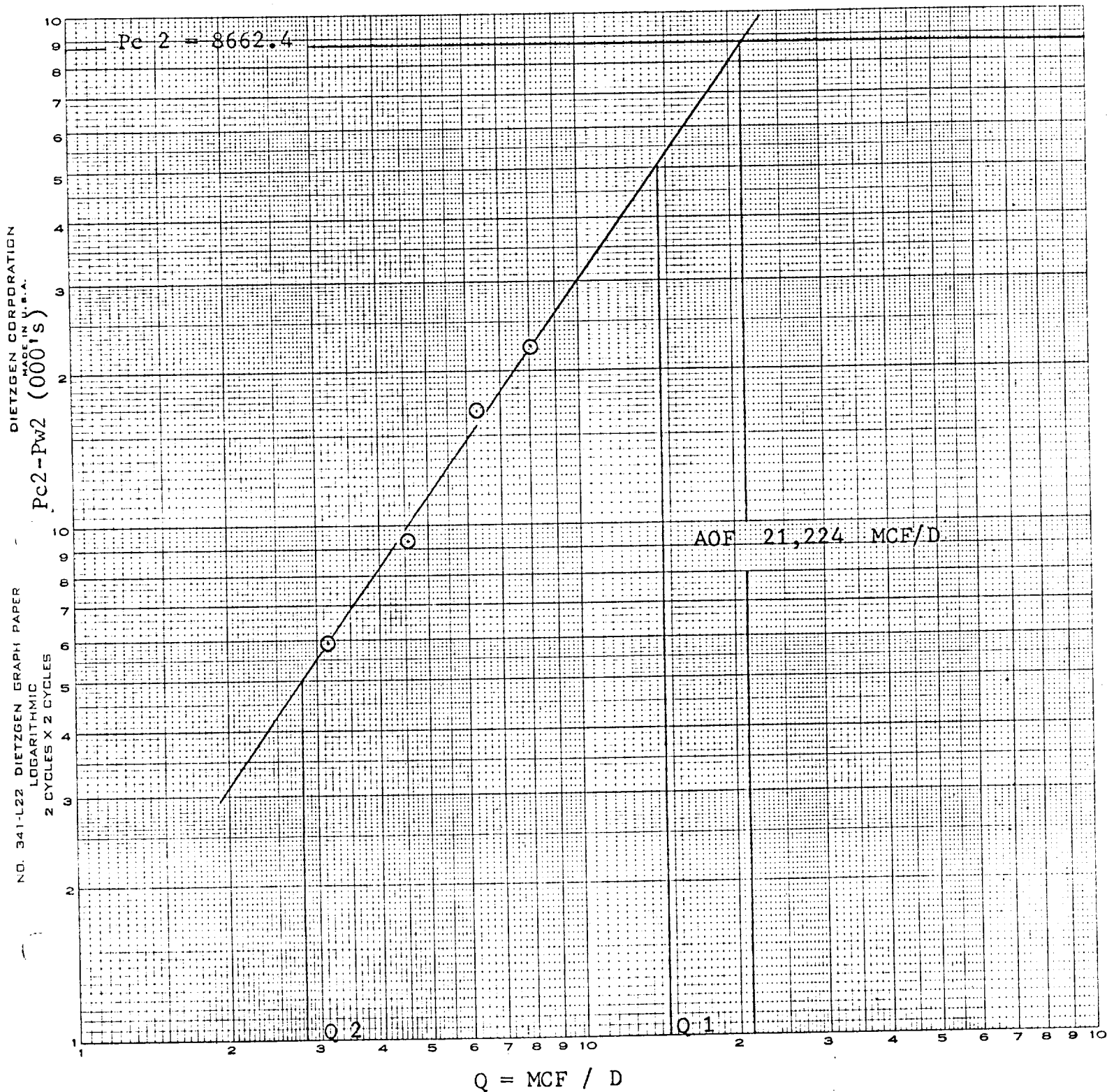
NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST, FOR GAS WELL

RECEIVED

| | | | | | | | |
|---------------------------------------------------------------------------------------------------------------------------|-----------------------------|------------------------------------|------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------------|------------------------------------------|----------------------|
| Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special | | | | Test Date 12-10-79 | | DEC 13 1979 | |
| Company MESA PETROLEUM Co. | | | | Connection AIR | | O. C. C. ARTESIA, OFFICE | |
| Pool UNDESIGNATED <i>Morrow</i> | | | | Formation MORROW | | Unit G | |
| Completion Date 11-20-79 | | Total Depth 9246 | | Elevation 3393 GL | | Farm or Lease Name PETERSON FED. COM. | |
| Log. Size 5 1/2 | Wt. 17 | Set At 9246 | Perforations: From 9033 To 9100 | | Well No. # 1 | | |
| Log. Size 2 3/8 | Wt. J/55 | Set At 8931 | Perforations: From To | | Unit G | Sec. 20 | Twp. 17 |
| Type well - Single - Pratherhead - G.G. or G.O. Multiple SINGLE | | | | Factor Set At 8931 | | County EDDY | |
| Producing Thru TBG. | | Reservoir Temp. *F 147 @ PERFS. | | Mean Annual Temp. *F 60* | | State NEW MEXICO | |
| L 8931 | H 8931 | Gg .611 | % CO ₂ .49 | % N ₂ .30 | % H ₂ S 0 | Prover 4 | Meter Run FLG. |
| FLOW DATA | | | | TUBING DATA | | CASING DATA | |
| NO. | Prover Line Size | X | Orifice Size | Press. p.s.i.g. | Diff. hw | Temp. *F | Duration of Flow |
| 5! | | | | | | | 72 HR. |
| 1. | 4 X 2.750 | | | 650 | 5.0 | 71 | 1 HR. |
| 2. | 4 X 2.750 | | | 700 | 10.0 | 86 | 1 HR. |
| 3. | 4 X 2.750 | | | 690 | 19.0 | 78 | 1 HR. |
| 4. | 4 X 2.750 | | | 740 | 28.0 | 73 | 1 HR. |
| 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 | 41.10 | 57.58 | 663.2 | .9896 | 1.279 | 1.058 | 3169 |
| 2 | 41.10 | 84.45 | 713.2 | .9759 | 1.279 | 1.055 | 4571 |
| 3 | 41.10 | 115.59 | 703.2 | .9831 | 1.279 | 1.057 | 6314 |
| 4. | 41.10 | 145.22 | 753.2 | .9877 | 1.279 | 1.066 | 8038 |
| 5. | | | | | | | |
| NO. | P _r | Temp. *R | T _r | Z | Gas Liquid Hydrocarbon Ratio <u>131.500</u> Mcf/bbl. | | |
| 1 | .99 | 531 | 1.47 | .893 | A.P.I. Gravity of Liquid Hydrocarbons <u>55.5 @ 60 *</u> Deg. | | |
| 2. | 1.06 | 546 | 1.51 | .898 | Specific Gravity Separator Gas <u>.611</u> X X X X X X X X X X | | |
| 3. | 1.05 | 538 | 1.49 | .895 | Specific Gravity Flowing Fluid <u>X X X X X</u> .634 | | |
| 4. | 1.12 | 533 | 1.47 | .880 | Critical Pressure <u>671</u> P.S.I.A. 670 P.S.I.A. | | |
| 5. | | | | | Critical Temperature <u>362</u> R 368 R | | |
| P _r 2943.2 P _w 8662.4 | | | | | | | |
| NO. | P _r ² | P _w ² | P _w ² | P _r ² - P _w ² | (1) $\frac{P_r^2}{P_r^2 - P_w^2} = 3.896$ | | |
| 1 | | 2840.9 | 8070.7 | 591.7 | (2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 2.641$ | | |
| 2 | | 2780.9 | 7733.4 | 929.0 | | | |
| 3 | | 2644.6 | 6993.9 | 1668.5 | | | |
| 4 | | 2537.5 | 6438.9 | 2223.5 | AOF = Q $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 21.224$ | | |
| 5 | | | | | | | |
| Absolute Open Flow <u>21,224</u> | | | | Mcfd @ 14.025 | Angle of Slope @ <u>54.5</u> | | Slope, n <u>.714</u> |
| Remarks: <u>THE WELL PRODUCED 7. BBLs OF DISTILLATE DURING THE TEST.</u> | | | | | | | |
| Approved by Commission: | | Conducted By: JOHN DAVIS | | Calculated By: LARRY DAVIS | | Checked By: | |

*Pasted
ID 24 Book
12-14-79
SE*

COMPANY : MESA PETROLEUM CORP.
 LEASE : PETERSON FEDERAL COM.
 WELL NO. : # 1
 UNIT : G / 20/17/27
 COUNTY : EDDY
 STATE : NEW MEXICO
 DATE : DECEMBER 10, 1979.



Q 1 = 14500; LOG OF Q 1 = 4.161368
 Q 2 = 2800; LOG OF Q 2 = 3.447158

$$N = \frac{.714}{.714}$$

Analysis No. 44368

Sample From Peterson Acid Com #1

Owner Mesa Pet. Co. State N.M. County Edley

Location or Field - Formation Mesa Depth - From - To -

Date Secured 12-10 Secured By [Signature] Department -

Date Run 12-11 Run By [Signature] Checked By -

Source Press. - Bomb Press. - Source Temp. - Atmos. Temp. -

SULPHUR - GRS. PER 100 cu. Ft. Hydrogen Sulphide 0 Mercaptan 0 Total 0 Sweet -

| COMPONENT | AREA | FACTOR | CORRECTED AREA | MOLE % | GPM | BTU | Sp. Gr. |
|-------------------|------------------|----------|----------------|--------|-------|---------|---------|
| Helium | HE ₂ | | | | | | |
| Hydrogen Sulphide | H ₂ S | | | | | | |
| Carbon Dioxide | CO ₂ | 3.4114 | 1495 | 0.51 | 0.49 | | 0.007 |
| Nitrogen | N ₂ | 1.8998 | 1621 | 0.31 | 0.30 | | 0.003 |
| Methane | C ₁ | 487.4318 | 1973 | 96.17 | 92.05 | 931.55 | 0.510 |
| Ethane | C ₂ | 38.4420 | 1309 | 5.03 | 4.81 | 25.28 | 0.050 |
| Propane | C ₃ | 14.6423 | 1051 | 1.54 | 1.47 | 7.404 | 1.022 |
| Iso Butane | IC ₄ | 2.4105 | 0952 | 0.23 | 0.22 | 7.17 | 0.044 |
| Normal Butane | C ₄ | 3.9656 | 0941 | 0.37 | 0.35 | 11.45 | 0.007 |
| Iso Pentane | IC ₅ | 1.4772 | 0946 | 0.14 | 0.13 | 5.21 | 0.013 |
| Normal Pentane | C ₅ | 1.1234 | 0963 | 0.11 | 0.11 | 4.42 | 0.005 |
| Hexane | C ₆ | 0.5899 | | 0.05 | 0.05 | 2.38 | 0.001 |
| Heptane | C ₇ | 0.3446 | | 0.02 | 0.02 | 1.18 | 0.001 |
| TOTAL | | | 104.48 | 100.00 | 0.705 | 1085.73 | 0.611 |

Meter No. -

Remarks: H.H. See 20
 RET Twp 17
 SS Res Engr Test section Rgc 27
 JNC Footage - Unit 6
 LB
 PJD
 CLW
 HOW
 RTW
 --

COMPANY MESA PETROLEUM LEASE PETERSON FED. COM. WELL NO. # 1 DATE 12-10-79

LOCATION: Unit G Section 20 Township 17 Range 27

L 8931 H 8931 L/H 1.000 Gm_{ix} .634 %CO₂ .49 %N₂ .30 %H₂S 0

d 1.995 P_m 018231 $\frac{d}{m}$ 3.169 M₂cid (L/H) (F_{Qm})² .003338 P_{cr} 670 T_{cr} 368
TABLE IX & X TABLE IX & X

| LINE | ITEM | SOURCE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|------|------------------------------------|-------------------------------|---------|---------|---------|---------|---------|------|--------|---|---|----|
| 1 | H | | 0 | 4465.5 | | 8931 | | | | | | |
| 2 | GH | | 0 | 2831.1 | | 5662.3 | | | | | | |
| 3 | 37.5GH | | 0 | 106167 | | 212335 | | | | | | |
| 4 | P _c or P _n | | 2993.2 | 3188.4 | 3185.1 | 3576.6 | 3570.9 | Ps = | 3570.4 | | | |
| 5 | P _r | | 4.17 | 4.76 | 4.75 | 5.34 | 5.33 | | | | | |
| 6 | T | | 534 | 570.5 | 570.5 | 607 | 607 | | | | | |
| 7 | T _r | | 1.45 | 1.55 | 1.55 | 1.65 | 1.65 | | | | | |
| 8 | Z | | .751 | .818 | .818 | .875 | .874 | | | | | |
| 9 | P/Z P/Z | $\frac{P}{Z}$ | 3719.3 | 3897.8 | 3893.7 | 4087.5 | 4085.7 | | | | | |
| 10 | P/TZ | $\frac{P}{TZ}$ | 6.9650 | 6.8322 | 6.8251 | 6.7340 | 6.7310 | | | | | |
| 11 | (P/TZ) ² /1000 | $(\frac{P}{TZ})^2/1000$ | .048511 | .046679 | .046582 | .045346 | .045306 | | | | | |
| 12 | L/H(F _{Qm}) ² | | .003338 | .003338 | .003338 | .003338 | .003338 | | | | | |
| 13 | | $\frac{I_1 + I_2}{I_0 + I_3}$ | .051849 | .050016 | .049920 | .048684 | .048644 | | | | | |
| 14 | I _n | | 134.332 | 136.598 | 136.721 | 138.320 | 138.373 | | | | | |
| 15 | M=P _n -P _{n-1} | | | 395 | 392 | 392 | 386 | | | | | |
| 16 | N=I _n +I _{n-1} | | | 270.930 | 271.053 | 275.041 | 275.094 | | | | | |
| 17 | M x N | | | 106215 | | | | | | | | |
| 18 | $\Sigma(M \times N)$ | ΣI_7 | | | | 106120 | | | | | | |

COMPANY MESA PETROLEUM LEASE PETERSON FED. COM. WELL NO. # 1 DATE 12-10-79

LOCATION: Unit G Section 20 Township 17 Range 27
 L 8931 H 8931 L/H 1.000 G mix .634 % CO₂ .49 % N₂ .30 % H₂S 0

d 1.995 F_r 0.18234 m 0 M₂cid (L/H) (F_rQ_m)² 0 P_{cr} 670 T_{cr} 368
TABLE IX B.1 TABLE IX B.1

| LINE | ITEM | SOURCE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|------|--------------------------------------------------|-------------|---------|---------|---------|---------|---------|---------|------------------|--------|---|----|
| 1 | H | | 8931 | 4465.5 | | 0 | | | | | | |
| 2 | GH | | 5662.3 | 2831.1 | | 0 | | | | | | |
| 3 | 37.5GH | | 212335 | 106167 | | 0 | | | | | | |
| 4 | P _c or P _n | | 3511.0 | 3158.5 | 3150.8 | 2791.4 | 2782.8 | 2783.1 | P _w = | 2780.9 | | |
| 5 | P _r | | 5.24 | 4.71 | 4.70 | 4.17 | 4.15 | 4.15 | | | | |
| 6 | T | | 607 | 570.5 | 570.5 | 534 | 534 | 534 | | | | |
| 7 | T _r | | 1.65 | 1.55 | 1.55 | 1.45 | 1.45 | 1.45 | | | | |
| 8 | Z | | .871 | .798 | .798 | .751 | .750 | .750 | | | | |
| 9 | P/Z P/Z | 4=8 | 4031.0 | 3958.0 | 3948.3 | 3716.9 | 3710.4 | 3710.8 | | | | |
| 10 | P/TZ | 9=6 | 6.641 | 6.938 | 6.921 | 6.961 | 6.948 | 6.949 | | | | |
| 11 | (P/TZ) ² /1000 | (10) 2/1000 | | | | | | | | | | |
| 12 | L/H(F _r Q _m) ² | | | | | | | | | | | |
| 13 | | 11 + 12 | | | | | | | | | | |
| 14 | I _n | 10=13 | 150.583 | 144.139 | 144.491 | 143.668 | 143.921 | 143.904 | | | | |
| 15 | M=P _n -P _{n-1} | | | 353 | 360 | 359 | 368 | 368 | | | | |
| 16 | N=I _n +I _{n-1} | | | 291.722 | 295.074 | 288.159 | 288.412 | 288.395 | | | | |
| 17 | M x N | 15 x 16 | | | 106.294 | | | 106.035 | | | | |
| 18 | Σ (M x N) | Σ 17 | | | 106.041 | | | | | | | |

COMPANY MESA PETROLEUM LEASE PETERSON FED. COM. WELL NO. # 1 DATE 12-10-79

LOCATION: Unit G Section 20 Township 17 Range 27
8931 H 8931 L/H 1.000 G mix .634 % CO₂ .49 % N₂ .30 % H₂S 0

d 1.995 F_p 018234 m 0 M₂cid (L/H) (F_pQ_m)² 0 P_{cr} 670 T_{cr} 368

| LINE | ITEM | SOURCE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|------|--------------------------------------------------|----------------------------|---------|---------|---------|---------|---------|---------|---|---|---|-------------------------|
| 1 | H | | 8931 | 4465.5 | | 0 | | | | | | |
| 2 | GH | | 5662.3 | 2831.1 | | 0 | | | | | | |
| 3 | 37.5GH | | 212335 | 106167 | | 0 | | | | | | |
| 4 | P _c or P _n | | 3347.4 | 3007.8 | 3000.6 | 2654.2 | 2606.6 | 2647.1 | | | | P _w = 2644.6 |
| 5 | P _r | | 5.00 | 4.49 | 4.48 | 3.96 | 3.95 | 3.95 | | | | |
| 6 | T | | 607 | 570.5 | 570.5 | 534 | 534 | 534 | | | | |
| 7 | T _r | | 1.65 | 1.55 | 1.55 | 1.45 | 1.45 | 1.45 | | | | |
| 8 | Z | | .862 | .790 | .789 | .744 | .744 | .744 | | | | |
| 9 | P/Z P/Z | $\bar{4} = 8$ | 3883.3 | 3807.3 | 3803.1 | 3567.5 | 3557.2 | 3557.9 | | | | |
| 10 | P/TZ | $\bar{9} = 6$ | 6.398 | 6.674 | 6.666 | 6.681 | 6.661 | 6.663 | | | | |
| 11 | (P/TZ) ² /1000 | (10) ² /1000 | | | | | | | | | | |
| 12 | L/H(F _p Q _m) ² | | | | | | | | | | | |
| 13 | | $\bar{11} + \bar{12}$ | | | | | | | | | | |
| 14 | I _n | $\bar{10} - \bar{13}$ | 156.311 | 149.842 | 150.010 | 149.684 | 150.118 | 150.089 | | | | |
| 15 | M = P _n - P _{n-1} | | 340 | 347 | 346 | 354 | 354 | 354 | | | | |
| 16 | N = I _n + I _{n-1} | | 306.153 | 306.321 | 299.694 | 300.128 | 300.097 | | | | | |
| 17 | M x N | $\bar{15} \times \bar{16}$ | | | 106,225 | | | | | | | |
| 18 | Σ (M x N) | Σ $\bar{17}$ | | | 106,110 | | | | | | | |

One copy to be filed in District Office (Work copy acceptable)

COMPANY MESA PETROLEUM LEASE PETERSON FED. COM. WELL NO. # 1 DATE 12-10-79

LOCATION: Unit G Section 20 Township 17 Range 27
8931 H 8931 L/H 1.000 G mix .634 % CO₂ .49 % N₂ .30 % H₂S 0

d 1.995 F_r 0.1823 m 0 M₂ cfd (L/H) (F_r Q_m)² 0 P_{cr} 670 T_{cr} 368
TABLE IX B X TABLE IX B X

| LINE | ITEM | SOURCE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|------|--------------------------------------------------|-------------------------|---------|---------|---------|---------|---------|---------|---|---|---|-------------------------|
| 1 | H | | 8931 | 4465.5 | | 0 | | | | | | |
| 2 | GH | | 5662.3 | 2831.1 | | 0 | | | | | | |
| 3 | 37.SGH | | 212335 | 106167 | | 0 | | | | | | |
| 4 | P _c or P _n | | 3208.0 | 2873.2 | 2873.5 | 2539.0 | 2536.3 | 2536.5 | | | | P _w = 2537.5 |
| 5 | P _r | | 4.79 | 4.29 | 4.29 | 3.79 | 3.79 | 3.79 | | | | |
| 6 | T | | 607 | 570.5 | 570.5 | 534 | 534 | 534 | | | | |
| 7 | T _r | | 1.65 | 1.55 | 1.55 | 1.45 | 1.45 | 1.45 | | | | |
| 8 | Z | | .838 | .800 | .800 | .742 | .742 | .742 | | | | |
| 9 | P/Z P/Z | | 3828.2 | 3591.5 | 3591.9 | 3421.8 | 3418.2 | 3418.5 | | | | |
| 10 | P/TZ | | 6.3067 | 6.2954 | 6.2961 | 6.4079 | 6.4012 | 6.4017 | | | | |
| 11 | (P/TZ) ² /1000 | (10) ² /1000 | | | | | | | | | | |
| 12 | L/H(F _r Q _m) ² | | | | | | | | | | | |
| 13 | | | | | | | | | | | | |
| 14 | I _n | | 158.562 | 158.846 | 158.830 | 156.057 | 156.220 | 156.210 | | | | |
| 15 | M=P _n -P _{n-1} | | | 335 | 334 | 335 | 337 | 337 | | | | |
| 16 | N=I _n +I _{n-1} | | | 317.408 | 317.392 | 314.887 | 315.050 | 315.040 | | | | |
| 17 | M x N | | | | 106161 | | | | | | | |
| 18 | Σ(M x N) | ΣI ₁₇ | | | 106174 | | | | | | | |

COMPANY MESA PETROLEUM LEASE PETERSON FED. COM. WELL NO. # 1 DATE 12-10-79

LOCATION: Unit G Section 20 Township 17 Range 27

L 8931 H 8931 L/H 1.000 G mix .634 % CO₂ .49 % N₂ .30 % H₂S 0

d 1.995 F_{cr} .018234 0 M_{cr} (L/H) (F_{cr}Q_m)² 0 P_{cr} 670 T_{cr} 368

TABLE IX B X TABLE IX B X

| LINE | ITEM | SOURCE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|------|---------------------------------------------------|----------------------------------|---------|---------|---------|---------|---------|---------|---|---|-------------------------|----|
| 1 | H | | 8931 | 4465.5 | | 0 | | | | | | |
| 2 | GH | | 5662.3 | 2831.1 | | 0 | | | | | | |
| 3 | 37.5GH | | 212335 | 106167 | | 0 | | | | | | |
| 4 | P _c or P _n | | 3570.4 | 3213.1 | 3209.5 | 2848.8 | 2839.5 | 2840.1 | | | P _w = 2840.9 | |
| 5 | P _r | | 5.33 | 4.80 | 4.79 | 4.25 | 4.24 | 4.24 | | | | |
| 6 | T | | 607 | 570.5 | 570.5 | 534 | 534 | 534 | | | | |
| 7 | T _r | | 1.65 | 1.55 | 1.55 | 1.45 | 1.45 | 1.45 | | | | |
| 8 | Z | | .874 | .820 | .820 | .753 | .753 | .753 | | | | |
| 9 | P/Z P/Z | $\bar{z} = \bar{8}$ | 4085.1 | 3918.5 | 3914.0 | 3783.3 | 3770.9 | 3771.7 | | | | |
| 10 | P/TZ | $\bar{z} = \bar{6}$ | 6.7300 | 6.8685 | 6.8607 | 7.0848 | 7.0615 | 7.0630 | | | | |
| 11 | (P/TZ) ² /1000 | (\bar{z}) ² /1000 | | | | | | | | | | |
| 12 | L/H(F _{cr} Q _m) ² | | | | | | | | | | | |
| 13 | | $\bar{11} + \bar{12}$ | | | | | | | | | | |
| 14 | I _n | $\bar{10} \div \bar{13}$ | 148.588 | 145.592 | 145.757 | 141.147 | 141.612 | 141.582 | | | | |
| 15 | M = P _n - P _{n-1} | | | 357 | 361 | 361 | 370 | 369 | | | | |
| 16 | N = I _n + I _{n-1} | | | 294.180 | 294.345 | 286.904 | 287.369 | 287.339 | | | | |
| 17 | M x N | $\bar{15} \times \bar{16}$ | | | 106167 | | | | | | | |
| 18 | $\Sigma (M \times N)$ | $\Sigma \bar{17}$ | | | 106168 | | | | | | | |

COMPANY MESA PETROLEUM LEASE PETERSON FED. COM. WELL NO. # 1 DATE 12-10-79

LOCATION: Unit G Section 20 Township 17 Range 27
 L 8931 H 8931 L/H 1.000 Gmix .634 % CO₂ .49 % N₂ .30 % H₂S 0
 d 1.995 F₁ 018231 b_m 3.169 M₂ cfd (L/H) (F₁ Q_m)² .003338 P_{cr} 670 T_{cr} 368
TABLE IX B TABLE IX B

| LINE | ITEM | SOURCE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|------|--------------------------------------------------|---------------------------------|---------|---------|---------|---------|---------|---|-------------|---|---|----|
| 1 | H | | 0 | 4465.5 | | 8931 | | | | | | |
| 2 | GH | | 0 | 2831.1 | | 5662.3 | | | | | | |
| 3 | 37.5GH | | 0 | 106167 | | 212335 | | | | | | |
| 4 | P _c or P _n | | 2688.2 | 3101.0 | 3100.6 | 3512.9 | 3510.6 | | Ps = 3511.0 | | | |
| 5 | P _r | | 4.01 | 4.63 | 4.63 | 5.24 | 5.24 | | | | | |
| 6 | T | | 534 | 570.5 | 570.5 | 607 | 607 | | | | | |
| 7 | T _r | | 1.45 | 1.55 | 1.55 | 1.65 | 1.65 | | | | | |
| 8 | Z | | .746 | .808 | .808 | .871 | .871 | | | | | |
| 9 | P/Z P/Z | 4=8 | 3603.5 | 3837.9 | 3837.3 | 4033.2 | 4030.5 | | | | | |
| 10 | P/TZ | 9=6 | 6.7481 | 6.7273 | 6.7263 | 6.6445 | 6.6401 | | | | | |
| 11 | (P/TZ) ² /1000 | (10) ² /1000 | .045537 | .045257 | .045243 | .044149 | .044091 | | | | | |
| 12 | L/H(F ₁ Q _m) ² | | .006945 | .006945 | .006945 | .006945 | .006945 | | | | | |
| 13 | | I ₁ + I ₂ | .052481 | .052201 | .052187 | .051094 | .051035 | | | | | |
| 14 | I _n | I ₀ - I ₃ | 128.581 | 128.873 | 128.887 | 130.045 | 130.108 | | | | | |
| 15 | M = P _n - P _{n-1} | | | 413 | 412 | 412 | 410 | | | | | |
| 16 | N = I _n + I _{n-1} | | | 257.454 | 257.468 | 258.932 | 258.995 | | | | | |
| 17 | M x N | I ₅ x I ₆ | | | 106167 | | | | | | | |
| 18 | Σ (M x N) | Σ I ₇ | | | 106168 | | | | | | | |

COMPANY MESA PETROLEUM LEASE PETERSON FED. COM. WELL NO. # 1 DATE 12-10-79

LOCATION: Unit G Section 20 Township 17 Range 27

L 8931 H 8931 L/H 1.000 Gmix .634 % CO₂ .49 % N₂ .30 % H₂S 0

d 1.995 P_f 01823 b_m 3.169 M²cf/d (L/H) (F_fQ_m)² .003338 P_{cf} 670 T_{cf} 368

| LINE | ITEM | SOURCE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|------|--------------------------------------------------|---------------------------------|---------|---------|----------|---------|---------|-----|--------|---|---|----|
| 1 | H | | 0 | 4465.5 | | 8931 | | | | | | |
| 2 | GH | | 0 | 2831.1 | | 5662.3 | | | | | | |
| 3 | 37.5GH | | 0 | 106167 | | 212335 | | | | | | |
| 4 | P _c or P _n | | 2453.2 | 2896.0 | 2898.5 | 3343.6 | 3346.9 | | | | | |
| 5 | P _r | | 3.66 | 4.32 | 4.33 | 4.99 | 5.00 | Ps= | 3347.4 | | | |
| 6 | T | | 534 | 570.5 | 570.5 | 607 | 607 | | | | | |
| 7 | T _r | | 1.45 | 1.55 | 1.55 | 1.65 | 1.65 | | | | | |
| 8 | Z | | .740 | .800 | .801 | .862 | .862 | | | | | |
| 9 | P/Z P/Z | | 3315.1 | 3620.1 | 3618.5 | 3878.9 | 3882.7 | | | | | |
| 10 | P/TZ | | 6.2081 | 6.3454 | 6.3428 | 6.3903 | 6.3965 | | | | | |
| 11 | (P/TZ) ² /1000 | (10) ² /1000 | .038541 | .040264 | .0400231 | .040836 | .040915 | | | | | |
| 12 | L/H(F _f Q _m) ² | | .013250 | .013250 | .013250 | .013250 | .013250 | | | | | |
| 13 | | | .051791 | .053515 | .053481 | .054086 | .054165 | | | | | |
| 14 | I _n | I ₀ ÷ I ₃ | 119.868 | 118.573 | 118.598 | 118.150 | 118.092 | | | | | |
| 15 | M = P _n - P _{n-1} | | | 443 | 445 | 445 | 448 | | | | | |
| 16 | N = I _n + I _{n-1} | | | 238.441 | 238.466 | 236.748 | 236.690 | | | | | |
| 17 | M x N | I ₅ x I ₆ | | | 106.178 | | | | | | | |
| 18 | Σ (M x N) | Σ I ₇ | | | 106157 | | | | | | | |

One copy to be filed in District Office (Work copy acceptable)

COMPANY MESA PETROLEUM LEASE PETERSON FED. COM. WELL NO. # 1 DATE 12-10-79

LOCATION: Unit G Section 20 Township 17 Range 27
L 8931 H 8931 L/H 1.000 Gmix .634 % CO₂ .49 % N₂ .30 % H₂S 0

d 1.995 $P_{018235m}$ 3.169 M₂cid (L/H) (F₁Q_m)² .003338 P_{cr} 670 T_{cr} 368
TABLE 13 & 14 TABLE 13 & 14

| LINE | ITEM | SOURCE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|------|--------------------------------------------------|-------------------------|---------|---------|---------|---------|---------|---|---|---|---|----|
| 1 | H | | 0 | 4465.5 | | 8931 | | | | | | |
| 2 | GH | | 0 | 2831.1 | | 5662.3 | | | | | | |
| 3 | 37.SGH | | 0 | 106167 | | 212335 | | | | | | |
| 4 | P _c or P _n | | 2189.2 | 2688.9 | 2694.1 | 3199.2 | 3207.0 | | | | | |
| 5 | P _r | | 3.27 | 4.01 | 4.02 | 4.77 | 4.79 | | | | | |
| 6 | T | | 534 | 570.5 | 570.5 | 607 | 607 | | | | | |
| 7 | T _r | | 1.45 | 1.55 | 1.55 | 1.65 | 1.65 | | | | | |
| 8 | Z | | .741 | .776 | .776 | .837 | .838 | | | | | |
| 9 | P/Z P/Z | | 2954.4 | 3465.1 | 3471.7 | 3811.2 | 3826.9 | | | | | |
| 10 | P/TZ | | 9.6 | 6.073 | 6.085 | 6.297 | 6.305 | | | | | |
| 11 | (P/TZ) ² /1000 | (10) ² /1000 | .030609 | .036891 | .037032 | .039650 | .039749 | | | | | |
| 12 | L/H(F ₁ Q _m) ² | | .021474 | .021474 | .021474 | .021474 | .021474 | | | | | |
| 13 | | | .052083 | .058365 | .058506 | .061124 | .061223 | | | | | |
| 14 | I _n | | 106.225 | 104.066 | 104.013 | 103.017 | 102.979 | | | | | |
| 15 | M=P _n -P _{n-1} | | | 499 | 505 | 505 | 513 | | | | | |
| 16 | N=I _n +I _{n-1} | | | 210.291 | 210.238 | 207.030 | 206.992 | | | | | |
| 17 | M x N | | | | | | | | | | | |
| 18 | Σ(M x N) | | | | | | | | | | | |

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