

NM-B-#2

TD1823'

July 6, 1973 (26 Days)

GAS ANALYSIS:

<u>Gas Components</u>	<u>Vermejo Formation</u>	<u>Raton Formation</u>
Carbon Dioxide	3.80	7.33
Hydrogen Sulfide	0	0
Nitrogen	0.08	0.08
Methane	38.72	51.41
Ethene	4.65	3.12
Propane	52.53	37.90
I-Butane	0.18	0.13
N-Butane	0.02	0.01
I-Pentane	0.01	0.01
N-Pentane	0.01	0.01
Hexane	0	0
BTU	1801	1528
Specified Gravity	1.010	1.125

COLFAX COUNTY, NEW MEXICO

NM-B-#2

TD 1823'

July 9th, 1973 (29 Days)

Take well pressures, Gage flow tests, preparing to Sandwater Frac 1634' to 1637'

NM-B-#2

TD 1823'

July 10, 1973 (30 Days)

Shut in 141 hrs. SIP 505 psig. Flowed thru 1/2" positive choke.

Gaged gas with pitot tube with water manometer. 1 hr. readings as follows:

<u>Time</u>	<u>Tube pressure</u>	<u>Flow Rate</u>	<u>Remarks</u>
1 Hr.	30 psig	266 mcf	No fluid, gas dry, steady flow
2 Hrs.	21 psig	214 mcf	" " " "
3 Hrs.	14.5 psig	175 mcf	" " " " gas will burn.

Shut well in preparing to sand water frac today.

NM-B-#2

TD 1823'

July 10th 1973 (30 Days)

Well shut in 16 Hrs. SIP 460 psig. Wait 6-1/2 Hrs. for frac equipment to arrive. Gauge gas at 124 mcf. Loaded tubing with 2% Potassium Chloride water with Morflo. Tried to circulate annulus formation taking fluid, could not circulate. Sand-water fracture performance from 1634' to 1637'. Frac consisted of: (1) Pad 2000 gal. additives, 2% Potassium Chloride Morflo 1 per 1000 gal., friction reducer 4 lbs. per 1000 gal. (2) Water 9800 gal, additives 2% Potassium Chloride, friction reducer 4 lbs. per 1000 gal. Morflo 1 gal. per 1000 gal. in 1st 3000 gal. Howco suds 1 gal. per 1000 gal. in last 5000 gals. (3) Sand 10,000 lbs. 20-40 (4) Flush 405 Gals. additives Potassium Chloride friction reducer and Howco suds. (5) Breakdown Pressure - none. Pump in at 1600 psig (6) Average treating pressure - 1400 psig (7) Average injection rate - 9.5 bbls per min. (8) Hydraulic Horse Power - 326 (9) Instantaneous shut-in pressure 800 psig, 5 min. SIP; 600 psig, 10 min SIP; 510 psig, 15 min. SIP; 425 Psig, 30 min SIP. 230 PSIG. Total amount of fluid to recover 324 bbls. Shut well in overnight.