

RESERVE ESTIMATE

McElvain-Federal #1
EK Bone Spring Field
Lea County, New Mexico

Pressure history is not available at this time and production history is too short to use for reserve estimation. Therefore a volumetric calculation of reserves is all that is available at this time.

It is assumed that the reservoir energy is primarily solution gas. Gas Oil Ratio is measured at approximately 500/1. Other estimates are made from log data.

$$OIP = \frac{7758 (\emptyset) (1-S_w)}{B}$$

Where: OIP = Stock Tank Oil in place-B/ac. ft.
 \emptyset = 13% from log data
Sw = 50% from log data
B = 1.4 estimated

$$OIP = \frac{7758 (.13) (.50)}{1.4} = 360 \text{ B/ac. ft.}$$

Recovery Factor (Solution Gas Drive) - 20% Estimate

Recoverable Oil in place - $360 \times .20 = 72 \text{ B/ac. ft.}$

Pay thickness - 20 ft. - based on log data

Reserves per 80 ac. - $72 \text{ B/ac. ft.} \times 20 \text{ ft.} \times 80 \text{ ac.} = \underline{\underline{115,200 \text{ Bbls.}}}$

Prepared 2-17-75 for original hearing
on application for Special Pool rules

Nacoff/Kroney

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Exhibit #5