

DELIVERABILITY NORMALIZATION

DARCY'S LAW

$$J = 0.703 \frac{kh}{T u z_{AVG}} \ln \frac{r_e}{r_w}$$

k = PERMEABILITY

h = HEIGHT

T = TEMP °R

u = VISCOSITY - AVG

z = COMPRESSABILITY - AVG

r_e = DRAINAGE RADIUS

r_w = WELLBORE RADIUS

WITH ALL THINGS BEING EQUAL IN THE MANZANO & MARATHON WELL EXCEPT THE HEIGHT OF THE PRODUCING FORMATION PENETRATED BY EACH WELLBORE, DELIVERABILITY COMPARISONS BETWEEN THE TWO WELLS ARE DIRECTLY PROPORTIONAL TO THE HEIGHT OF FORMATION PRODUCING FROM EACH WELLBORE.

THEREFORE:

$$\frac{J_{man}}{J_{moc}} = \frac{h_{man}}{h_{moc}} = \frac{90 \text{ FT}}{39 \text{ FT}}$$

J_{man} = 2.3 TIMES MARATHON'S DELIVERABILITY

BEFORE THE
OIL CONSERVATION DIVISION
SANTA FE, NEW MEXICO
MARATHON OIL CO. EXHIBIT NO. 12
CASE NO. 10796
AUGUST 19, 1993