RIG TESTERS, INC.

RigTesters, Inc.
ABILENE - MIDLAND - GRAHAM

UMC PETROLEUM CORP.

Well identification

Well ID	RAINER #1	Well location	N.W. BRONCO
County/District	LEA	State, Country	NEW MEXICO
Company	UMC PETROLEUM	Division	DENVER

Fluid properties

Prod/Inj fluid	OIL/WATER	GOR	850
Water cut	25%	Condensate yield	UNKNOWN
API gravity	43.5	Gas spec. grav.	0.67
Viscosity	0.37447 cp	Pseudo-critical T	376 deg R
Pseudo-critical P	666.38 psia	H2S mole fraction	UNKNOWN
CO2 mole fraction	UNKNOWN	N2 mole fraction	UNKNOWN
Compressibility(t)	15.597 e-6/psi	Formation vol factor	1.3624 RB/STB

Reservoir properties

Porosity	0.14 frac	Formation thickness	16 ft
Wellbore radius	0.32813 ft	Prod-observer distance	N/A
Water-Oil Contact	UNKNOWN	Gas-Oil Contact	N/A
Gas-Water Contact	N/A	Rock compressibility	
Reservoir temperature	186 deg F	Pressure for properties	4271 psia

Comments

THE DERIVATIVES INDICATE A MULTIPLE POROSITY RESERVOIR WITH HIGH PERMEABILITY AND IMPROVING SKIN. BOTH SHUT-IN PERIODS HAD ACHIEVED RADIAL FLOW REGIME AS INDICATED. THE FLUCTUATIONS FROM RADIAL FLOW ON THE FINAL SHUT-IN IS INDICATIVE OF A MULTIPLE (PROBABLY FRACTURED/MATRIX & VUGULAR) POROSITY. THE MID & LATE TIME DATA IS EFFECTED BY LINEAR FLOW WHICH IS TYPICAL OF FRACTURED POROSITY. THE FIXED PARAMETERS USED WERE AN EST. 14% POROSITY, 16 FT. OF NET PAY REPORTED AND AN AVERAGE PRODUCTION OF 510 BBLS. OF FLUID (75% OIL - 25% WATER; ACCORDING TO SAMPLE CHAMBER RECOVERY) FOR THE FINAL FLOW PERIOD. THE RATES WERE BASED ON DENSITY OF FLUID RECOVERED VS. FLOWING PRESSURES. RADIUS OF INVESTIGATION CALCULATED TO APPROX. 1042 FT. FROM WELLBORE.