



TABLE 3  
PRESSURE-VOLUME RELATION  
OF  
A 17721 Scf/Sep Bbl RESERVOIR FLUID AT 132 °F  
(Constant Composition Expansion)

Pressure, (psig)	Relative Volume	Density, (g/cc)	Y-Function (1)	Retrograde Liquid Volume		Gas Deviation Factor, Z	Gas Expansion Factor, (4)
				% of HC Pore Volume (2)	Bbls / MMscf (3)		
11384	0.98512	0.47395	N/A	N/A	N/A	1.72360	2.15885
11040	0.99237	0.47048	N/A	N/A	N/A	1.68389	2.14299
10822	0.99746	0.46808	N/A	N/A	N/A	1.65915	2.13200
10713	P <sub>sat</sub>	0.46689	N/A	0.00%	0.000	1.64665	2.12654
10182		N/A	4.03215	Trace	Trace	N/A	N/A
9293		N/A	4.04790	Trace	Trace	N/A	N/A
8397		N/A	4.10497	Trace	Trace	N/A	N/A
7984	1.08253	N/A	4.13389	1.70%	7.994	N/A	N/A
7594	1.09847	N/A	4.16283	2.32%	10.899	N/A	N/A
7233	1.11498	N/A	4.17563	2.70%	12.678	N/A	N/A
6575	1.14941	N/A	4.20274	3.05%	14.321	N/A	N/A
6005	1.18570	N/A	4.21134	3.34%	15.650	N/A	N/A
5101	1.26329	N/A	4.16635	3.80%	17.812	N/A	N/A
3940	P <sub>res</sub>	N/A	3.95098	4.61%	21.640	N/A	N/A
3298		N/A	3.65833	5.20%	24.387	N/A	N/A
2789		N/A	3.35355	5.99%	28.080	N/A	N/A
2449		N/A	3.11364	6.61%	30.984	N/A	N/A
2003	2.55106	N/A	2.78268	7.51%	35.240	N/A	N/A
1711	3.02823	N/A	2.57143	7.84%	36.749	N/A	N/A
1336	3.98699	N/A	2.32363	7.70%	36.096	N/A	N/A
1100	4.94873	N/A	2.18332	7.48%	35.060	N/A	N/A
766	7.35839	N/A	2.00299	7.02%	32.944	N/A	N/A

(1) Y - Function = Dimensionless Compressibility =  $(P_{sat} - P_i) * [P_i * (RV_i - 1)]^{-1}$

(2) Retrograde liquid volume at the indicated pressure and reservoir temperature as a percent of the hydrocarbon pore volume at the dew point pressure and reservoir temperature.

(3) Retrograde liquid volume at the indicated pressure and reservoir temperature (Bbls) per volume of gas (MMscf) at the dew point pressure and reservoir temperature.

(4) Gas Expansion Factor = the volume of surface gas at standard conditions (Mscf) produced from one barrel of undersaturated gas at the indicated pressure and reservoir temperature.

Relative Volume = volume at indicated pressure per volume at the saturation pressure.

P<sub>sat</sub> = Saturation (Retrograde Dew Point) pressure at reservoir temperature.

P<sub>res</sub> = Current static reservoir pressure.