



ENHANCED WELL STIMULATION, INC.

2802 CR 4825

ATHENS, TX 75752

Office: (903) 670-1083 ♦ Fax: (903) 677-8821

Cell: (903) 477-7770 ♦ E-mail: ewstim@aol.com

www.ewstim.com

For use in calculating Hydrostatic Pressure of Proppant Laden Fluids:

Where: $P_{\text{hydrostatic}} = (\rho_{\text{slurry}} / \rho_{\text{water}}) \times 0.433 \text{ psi/ft} \times \text{Depth}$

And:
$$\rho_{\text{slurry}} = \frac{(\rho_{\text{frac fluid}} + P_{\text{con}})}{[1 + (\text{AVF} \times P_{\text{con}})]}$$

$\rho_{\text{water}} = 8.33 \text{ lbs/gal}$

Where:

ρ_{slurry} = density of proppant-laden slurry, lbs/gal

$\rho_{\text{frac fluid}}$ = density of fracturing fluid, lbs/gal

AVF = Absolute Volume Factor of the proppant, gals/lb

P_{con} = proppant concentration, lbs/gal (ppa)

Absolute Volume Factors (AVF) for Various Proppants		
Proppant Type	Specific Gravity	AVF (gals/lb)
Sand	2.65	0.0456
Resin Coated Sand	2.56	0.0472
EconoProp/ValuProp	2.70	0.0448
CarboLite/Naplite	2.73	0.0443
CarboProp/Interprop	3.29	0.0367
Bauxite	3.59	0.0337