Equation 1: $\sigma_v = \sigma_3$

Equation 2: $\sigma_h(E-W) = \sigma_3$

Equation 3: $\sigma_h(N-S) = \sigma_1$

Equation 4: $\sigma_v = \sigma_2$

Equation 5: $\sigma_h(E-W) = \sigma_3$

Equation 6: $\sigma_h(N-S) = \sigma_1$

Equation 7: $\sigma_v = \sigma_1$

Equation 8: $\sigma_v = \sigma_1$

Equation 9: $\sigma_v = \sigma_1$