

$$GHG_i = \sum_j (V_{ve-s} + V_{ve-ss} - V_{CO2-N2} - V_{res})_j \times MF_i \times \rho_i \times 0.001$$

Where:

$GHG_i$  = Annual emissions of greenhouse gas  $i$  attributable to gas well venting during completions or workovers, in metric tons;

$j$  = Gas well;

$V_{ve-s}$  = Quantity of natural gas emitted during sonic flow conditions from venting of well  $j$ , calculated in accordance with subparagraph  $a$ , in cubic metres at standard conditions;

$V_{ve-ss}$  = Quantity of gas emitted during subsonic flow conditions from venting of well  $j$ , calculated in accordance with subparagraph  $b$ , in cubic metres at standard conditions;

$V_{CO2-N2}$  = Quantity of  $CO_2$  or  $N_2$  injected into well  $j$  during completion or workover, in cubic metres at standard conditions;

$V_{res}$  = Quantity of natural gas from well  $j$  sent to the transmission or distribution system during completion or workover, in cubic metres at standard conditions;

$MF_i$  = Molar fraction of greenhouse gas  $i$  in the vented gas from reciprocating compressor, determined in accordance with paragraph 3 of QC.33.4;

$\rho_i$  = Density of greenhouse gas  $i$  that is 1.893 kg per cubic metre for  $CO_2$  and 0.690 kg per cubic metre for  $CH_4$  at standard conditions;

0.001 = Conversion factor, kilograms to metric tons;

$i$  =  $CO_2$  or  $CH_4$ ;

