Soil Gas Parameter	Analysis method	Method sensitivity
CO_2, N_2, O_2,	Gas Chromatography (GC)	+/- 2 %.
CH_4, C_2-C_4	Gas Chromatography (GC)	+/- 5 %.
C_5-C_6	Gas Chromatography (GC)	+/- 10 %.
$\delta^{13}C$ of CO_2	Gas chromatography combustion isotope ratio mass spectrometry (GC/C/IRMS)	+/- 0.3 ‰
$\delta^{13}C$ of CH_4	Gas chromatography combustion isotope ratio mass spectrometry (GC/C/IRMS)	+/- 0.3 ‰.
δD of CH_4	Gas chromatography combustion isotope ratio mass spectrometry (GC/C/IRMS)	+/- 5 ‰.
^{14}C of CO_2	Accelerated mass spectrometry (AMS).	+/- 0.4 pMC
^{14}C CH_4	Accelerated mass spectrometry (AMS).	+/- 0.4 pMC

Tab 2.0-1 Soil gas parameter and analysis method summary