Table S1. Carbon ($\delta^{13}C_{CH4}$) stable isotopic composition of the methane analyzed in the target samples.

	Sample	$\delta^{13}C_{CH4}$ (‰)*
Yellow Fumaroles	D6$_a$	-32.8 ± 0.3
	D6$_b$	-32.6 ± 0.7
	D6S	-37.0 ± 0.6
Blackish White/Grayish Fumaroles	FNA1$_a$	-33.1 ± 0.6
	FNA1$_b$	-33.1 ± 0.7
	FNA2	-35.8 ± 0.6

*Values are means ± standard deviations