

TABLE 1. Description of carbonate samples used for DNA extraction and phylogenetic analysis<sup>a</sup>

Marker	Carbonate sample(s)	Fluid sample	Description	Temp (°C)	Mg level (range) (mM/kg)	H <sub>2</sub> level (mmol/kg)	CH <sub>4</sub> level (mmol/kg)	No. of cells/g carbonate	No. of cells/ml fluid
2	3864-1524, 3864-1537, LC1149	None	Venting flange, young looking	62	2–39	3.77	1.28	$1.4 \times 10^9$	$4.7 \times 10^4$
3	3881-1408, LC1022	FS242	Peak of chimney complex	81	3–39	13.26	1.55	$2.0 \times 10^8$	$3.9 \times 10^5$
H	3881-1228	FS243	Large chimney with flange	46	28–46	2.21	1.44	$3.6 \times 10^8$	$1.4 \times 10^5$
C	3869-1404, 3869-1443, 3869-1446	FS221	Venting flange, more lithified	70	12–28	14.38	1.98	$1.2 \times 10^9$	$1.4 \times 10^5$
X1	3876-1133	None	Lithified carbonate chimney in serpentinite	ND	ND	ND	ND	$1.6 \times 10^8$	ND
X2	3880-1557	None	Lithified carbonate chimney in serpentinite	ND	ND	ND	ND	$3.4 \times 10^6$	ND
6	None	FS222	Venting chimney	68	45	14.19	1.61	ND	$2.0 \times 10^5$
7	None	FS197	Venting chimney	51	35–52	5.54	1.31	ND	$2.8 \times 10^5$
8	None	FS209	Venting chimney	53	7–53	4.20	1.84	ND	$1.7 \times 10^5$
None	LC1231	None	Inactive chimney	7	ND	ND	ND	$1.2 \times 10^7$	ND

<sup>a</sup> Coregistered hydrothermal fluids and carbonate deposits were sampled at markers 3, C, and H. Markers 2, X1, and X2 were sampled for carbonate only, and markers 6, 7, and 8 were sampled for fluid only. Mg concentrations are shown as a measure of the seawater component of the sample. ND, not determined.