

Table S1. The bacterial phylotypes detected in the enrichment cultures.

Phylogenetic group	Phylotype	Closest relative (Similarity, %)	Number of clones		
			Non-Fe	+Mag	+Fer+BES
Deltaproteobacteria	WD01	AF385080 <i>Desulfacinum subterraneum</i> (99)			14
	WD02	AF385080 <i>Desulfacinum subterraneum</i> (89)			1
Firmicutes	WD03	NR_043042 <i>Thermincola ferriacetica</i> strain Z-0001 (99)			7
	WD04	NR_115129 <i>Desulfotomaculum kuznetsovii</i> strain 17 (84)			2
	WD05	EU652084 <i>Thermaerobacter subterraneus</i> strain mt-14 (89)	1		
Thermotogae	WD06	NR_025466 <i>Petrotoga sibirica</i> strain SL25 (99)	2	14	3
	WD07	AP014508 <i>Thermotoga hypogea</i> NBRC 106472 (97)			4
	WD08	DQ374393 <i>Thermotoga elfii</i> strain G1 (97)	2	2	
	WD09	NR_025389 <i>Thermosipho geolei</i> strain DSM 13256 (98)	1		
	WD10	NR_025466 <i>Petrotoga sibirica</i> strain SL25 (99)		1	
Synergistetes	WD11	NR_036784 <i>Anaerobaculum thermoterrenum</i> strain RWcit 16S (99)	35	5	7
	WD12	NR_074606 <i>Thermovirga lienii</i> strain DSM 17291 (89)			1
Deferribacteres	WD13	LC155975 <i>Petrothermobacter organivorans</i> strain ANA (99)	1	19	2
Total clone numbers			42	41	41

Table S2. The archaeal phylotypes detected in the enrichment cultures.

Phylogenetic group	Phylotype	Closest relative (Similarity, %)	Number of clones		
			Non-Fe	+Mag	+Fer+BES
Euryarchaeota	WD14	NR_074214 <i>Methanosaeta thermophila</i> strain PT (100)	29	24	-*
Total clone numbers			29	24	-

* Not analyzed because no PCR amplification was observed.