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Supplement of

**Microbial diversity of drilling fluids from 3000 m deep
Koyna pilot borehole provides insights into the deep
biosphere of continental earth crust**

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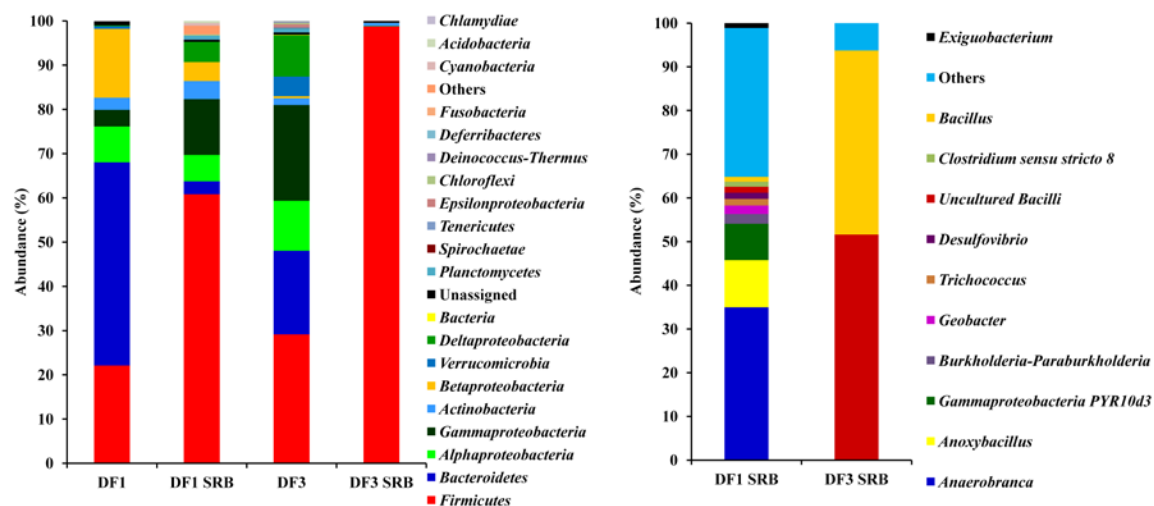


Figure S1: Distribution and relative abundance of microbial communities detected in SRB enrichment setup at phylum-level and its comparison with microbial community composition of DFs (DF1 and DF3) that was used for enrichment and major genera detected in the SRB enrichment set up .

Table S1: Geochemical parameters of DF samples

	DF1	DF2	DF3	DF4	DF6	DF7
Depth (mbs)	1681.58	1901.255	2093.71	2335.62	2662.02	2908.52
O	34.85	36.40	23.21	18.50	30.89	31.22
Si	32.19	26.8	19.28	6.97	19.43	12.33
Ba	0	4.64	30.18	46.46	7.33	18.25
Ca	8.05	6.20	2.04	2.53	17.05	24.38
S	6.48	7.55	5.84	8.37	2.37	4.61
N	4.90	2.40	5.63	2.12	12.05	1.52
Al	8.04	8.08	2.51	1.40	4.04	1.91
C	0.40	1.84	3.16	4.07	1.90	1.19
Mn	2.74	1.62	1.25	1.21	0.49	1.34
Ti	0	1.51	1.21	2.18	0.31	1.02
P	0	0	1.23	1.25	1.05	0.87
K	1.175	0.72	0.46	0.21	0.84	0.29
Others	1.03	1.70	3.88	4.65	1.48	0.70
H₂S (mg kg⁻¹)	0.34	0.84	0.84	0.85	0.32	0.84
SO₄²⁻ (μM)	2.04	5.58	4.64	5.57	9.70	24.76
Fe²⁺ (μM)	11.29	51.12	17.92	23.786	75.52	38.23
pH	7.3	8.36	7.73	9.08	7.96	9.17

Table S2. Primer details and PCR conditions used in this study

Gene	Primers (5'-3')	Size (bp)	Annealing temperature (° C)	Reference
Bacterial 16S rRNA gene primer for qPCR	341F(CCTACGGGAGGCAGCAG) 518R (ATTACCGCGGCTGCTGG)	170	55	Muyzer et al., 1993
Archaeal 16S rRNA gene primer for qPCR	A344F(ACGGGGCGCAGCAGGCGCGA) Ar774R (CCCGGGTATCTAATCC)	430	55	Bano et al., 2004 Barns et al., 1994
Bacterial 16S rRNA gene (Amplicon sequencing)	515F (GTGCCAGCMGCCGCGGTAA) 806R (GGACTACVSGGGTATCTAAT)	291	55	Bates et al., 2011

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