

Supplementary Table 1 Results of the comparisons of the gene 16S rRNA partial sequences obtained from effluent and water samples analyzed in this study, with sequences deposited in the RDP II database by the program classifier

Organism	Phylum		Class		Order		Family	
I1	Proteobacteria	100%	Gammaproteobacteria	100%	Enterobacteriales	100%	Enterobacteriaceae	100%
I2	Proteobacteria	100%	Gammaproteobacteria	100%	Enterobacteriales	100%	Enterobacteriaceae	100%
I3	Proteobacteria	100%	Gammaproteobacteria	100%	Enterobacteriales	100%	Enterobacteriaceae	100%
I4	Proteobacteria	100%	Gammaproteobacteria	100%	Enterobacteriales	100%	Enterobacteriaceae	100%
I5	Proteobacteria	99%	Gammaproteobacteria	99%	Enterobacteriales	97%	Enterobacteriaceae	97%
I6	Proteobacteria	100%	Gammaproteobacteria	100%	Enterobacteriales	100%	Enterobacteriaceae	100%
I8	Proteobacteria	100%	Gammaproteobacteria	100%	Enterobacteriales	100%	Enterobacteriaceae	100%
I9	Proteobacteria	100%	Gammaproteobacteria	100%	Enterobacteriales	100%	Enterobacteriaceae	100%
I10	Proteobacteria	100%	Gammaproteobacteria	100%	Enterobacteriales	100%	Enterobacteriaceae	100%
I11	Firmicutes	100%	Bacilli	100%	Bacillales	94%	Bacillaceae	62%
I12	Synergistetes	6%	Synergistia	6%	Synergistales	6%	Synergistaceae	6%
I13	Proteobacteria	100%	Gammaproteobacteria	100%	Enterobacteriales	100%	Enterobacteriaceae	100%
I14	Proteobacteria	90%	Gammaproteobacteria	85%	Enterobacteriales	54%	Enterobacteriaceae	54%
I16	Proteobacteria	100%	Gammaproteobacteria	100%	Alteromonadales	36%	Ferrimonadaceae	34%
I17	Firmicutes	100%	Bacilli	100%	Bacillales	100%	Paenibacillaceae	100%
I18	Firmicutes	100%	Bacilli	100%	Bacillales	93%	Bacillaceae	35%
I19	Proteobacteria	100%	Gammaproteobacteria	100%	Enterobacteriales	100%	Enterobacteriaceae	100%
I20	Proteobacteria	100%	Gammaproteobacteria	100%	Enterobacteriales	100%	Enterobacteriaceae	100%
I21	Firmicutes	100%	Bacilli	100%	Bacillales	94%	Bacillaceae	58%
I23	Firmicutes	100%	Bacilli	100%	Bacillales	100%	Paenibacillaceae	100%
I24	Proteobacteria	100%	Gammaproteobacteria	100%	Enterobacteriales	100%	Enterobacteriaceae	100%
I25	Proteobacteria	100%	Gammaproteobacteria	100%	Enterobacteriales	100%	Enterobacteriaceae	100%
I26	Proteobacteria	100%	Gammaproteobacteria	100%	Enterobacteriales	100%	Enterobacteriaceae	100%
I27	Firmicutes	100%	Bacilli	100%	Bacillales	97%	Bacillaceae	62%
I28	Proteobacteria	100%	Gammaproteobacteria	100%	Enterobacteriales	100%	Enterobacteriaceae	100%
I29	Firmicutes	100%	Bacilli	100%	Bacillales	98%	Bacillaceae	57%
I30	Firmicutes	100%	Bacilli	100%	Bacillales	98%	Bacillaceae	85%
I34	Firmicutes	100%	Bacilli	100%	Bacillales	100%	Paenibacillaceae	100%
I35	Proteobacteria	100%	Gammaproteobacteria	100%	Enterobacteriales	100%	Enterobacteriaceae	100%
I36	Proteobacteria	100%	Gammaproteobacteria	100%	Enterobacteriales	100%	Enterobacteriaceae	100%
I37	Proteobacteria	100%	Gammaproteobacteria	100%	Enterobacteriales	100%	Enterobacteriaceae	100%
I38	Proteobacteria	100%	Gammaproteobacteria	100%	Enterobacteriales	100%	Enterobacteriaceae	100%
I39	Proteobacteria	100%	Gammaproteobacteria	100%	Aeromonadales	100%	Aeromonadaceae	100%
I40	Firmicutes	100%	Bacilli	100%	Bacillales	100%	Paenibacillaceae	63%
I41	Proteobacteria	100%	Gammaproteobacteria	100%	Pseudomonadales	100%	Pseudomonadaceae	100%
I42	Firmicutes	100%	Bacilli	99%	Bacillales	99%	Bacillaceae	39%
I43	Proteobacteria	41%	Gammaproteobacteria	21%	Oceanospirillales	6%	Halomonadaceae	1%
I44	Proteobacteria	100%	Gammaproteobacteria	100%	Pseudomonadales	100%	Pseudomonadaceae	100%
I46	Proteobacteria	100%	Gammaproteobacteria	100%	Enterobacteriales	100%	Enterobacteriaceae	100%
I48	Proteobacteria	100%	Gammaproteobacteria	100%	Enterobacteriales	100%	Enterobacteriaceae	100%
I49	Proteobacteria	100%	Gammaproteobacteria	100%	Aeromonadales	100%	Aeromonadaceae	100%
I50	Proteobacteria	100%	Gammaproteobacteria	100%	Enterobacteriales	100%	Enterobacteriaceae	100%
I51	Proteobacteria	100%	Gammaproteobacteria	100%	Enterobacteriales	100%	Enterobacteriaceae	100%
I52	Proteobacteria	100%	Gammaproteobacteria	100%	Enterobacteriales	100%	Enterobacteriaceae	100%
I53	Firmicutes	100%	Bacilli	100%	Bacillales	100%	Paenibacillaceae	100%
I54	Firmicutes	100%	Bacilli	100%	Bacillales	97%	Bacillaceae	57%
I55	Firmicutes	100%	Bacilli	100%	Bacillales	97%	Bacillaceae	63%
I56	Proteobacteria	100%	Gammaproteobacteria	100%	Enterobacteriales	67%	Enterobacteriaceae	67%
I57	Proteobacteria	100%	Gammaproteobacteria	100%	Pseudomonadales	100%	Pseudomonadaceae	100%

I58	Proteobacteria	100%	Gammaproteobacteria	100%	Enterobacteriales	100%	Enterobacteriaceae	100%
I59	Proteobacteria	100%	Gammaproteobacteria	100%	Pseudomonadales	100%	Pseudomonadaceae	100%
I60	Firmicutes	40%	Bacilli	35%	Lactobacillales	33%	Carnobacteriaceae	28%
I61	Proteobacteria	100%	Gammaproteobacteria	100%	Aeromonadales	100%	Aeromonadaceae	100%
I62	Firmicutes	100%	Bacilli	100%	Bacillales	100%	Paenibacillaceae	87%
I63	Proteobacteria	100%	Gammaproteobacteria	100%	Enterobacteriales	100%	Enterobacteriaceae	100%
I65	Bacteroidetes	18%	Sphingobacteria	7%	Sphingobacteriales	7%	Chitinophagaceae	4%
I66	Proteobacteria	100%	Gammaproteobacteria	100%	Enterobacteriales	100%	Enterobacteriaceae	100%
I67	Proteobacteria	100%	Gammaproteobacteria	100%	Enterobacteriales	100%	Enterobacteriaceae	100%
I68	Proteobacteria	100%	Gammaproteobacteria	100%	Enterobacteriales	100%	Enterobacteriaceae	100%
I69	Proteobacteria	100%	Gammaproteobacteria	100%	Pseudomonadales	100%	Pseudomonadaceae	100%
I70	Proteobacteria	100%	Gammaproteobacteria	100%	Enterobacteriales	100%	Enterobacteriaceae	100%
I71	Proteobacteria	100%	Gammaproteobacteria	100%	Enterobacteriales	100%	Enterobacteriaceae	100%
I72	Firmicutes	100%	Bacilli	100%	Bacillales	100%	Paenibacillaceae	100%
I73	Firmicutes	100%	Bacilli	100%	Bacillales	100%	Bacillaceae	46%
I74	Firmicutes	100%	Bacilli	100%	Bacillales	100%	Bacillaceae	100%
I75	Bacteroidetes	29%	Flavobacteria	20%	Flavobacteriales	20%	Flavobacteriaceae	16%
I76	Proteobacteria	100%	Gammaproteobacteria	100%	Enterobacteriales	100%	Enterobacteriaceae	100%
I77	Proteobacteria	100%	Gammaproteobacteria	100%	Pseudomonadales	100%	Pseudomonadaceae	100%
I78	Proteobacteria	100%	Gammaproteobacteria	100%	Enterobacteriales	100%	Enterobacteriaceae	100%
I79	Proteobacteria	80%	Gammaproteobacteria	73%	Oceanospirillales	47%	Oceanospirillaceae	43%
I80	Proteobacteria	100%	Gammaproteobacteria	100%	Enterobacteriales	100%	Enterobacteriaceae	100%

Supplementary Table 2 Results of the comparisons of the gene 16S rRNA partial sequences obtained from the effluent and water samples analyzed in this study, with sequences deposited in the gene bank using the program blast

Isolate	ID (%)	Access N°	BP	E value	Organism
I1	97	JX524616.1	1231	0	Citrobacter freundii strain RB6
I2	93	JF701185.1	1086	0	Raoultella sp. TJ_TMA
I3	97	DQ444287.1	1250	0	Klebsiella pneumoniae strain 3
I4	97	FJ893837.1	1206	0	Uncultured bacterium clone nbt36b09
I5	85	EU471245.1	950	0	Uncultured bacterium clone RP_3aaa03f02
I6	94	KC431797.1	1377	0	Enterobacter aerogenes strain RB19
I8	95	KC431796.1	1339	0	Enterobacter hormaechei strain RB18
I9	97	JN615789.1	1221	0	Uncultured bacterium clone TM1831OfO8
I10	96	JQ308608.1	1277	0	Serratia marcescens strain U1PS 1-1
I11	96	JQ773351.1	1234	0	Bacillus cereus strain ZK2
I12	-	-	-	-	-
I13	83	HM557575.1	957	0	Uncultured bacterium clone BICP947
I14	81	HQ813438.1	920	0	Uncultured organism clone ELU0170-T416-S-NIPCRAMgANa_000493 small subunit ribosomal RNA gene, partial sequence
I16	92	KC904095.1	1058	0	Aeromonas hydrophila strain P10
I17	94	KC999112.1	1191	0	Brevibacillus sp. KUMAs2
I18	94	EU162024.1	1093	0	Bacillus cereus isolate PGBw4
I19	94	DQ399748.1	994	0	Serratia sp. B-1135
I20	94	JX473144.1	894	0	Uncultured gamma proteobacterium clone URO61.B09
I21	96	HE660034.1	1261	0	Bacillus cereus partial 16S rRNA gene, isolate BCsn
I22	-	-	-	-	-
I23	96	AB731746.1	1333	0	[Streptomyces] sp. TSA-KSA gene for 16S rRNA, partial sequence
I24	91	CP006252.1	991	0	Serratia liquefaciens ATCC 27592, complete genome
I25	95	KC708558.1	1335	0	Enterobacter sp. Y3 16S ribosomal RNA gene, complete

					sequence
I26	94	KC431797.1	1357	0	Enterobacter aerogenes strain RB19 16S ribosomal RNA gene, partial sequence
I27	95	HQ831419.1	1357	0	Bacillus cereus strain Nt1-18 16S ribosomal RNA gene, partial sequence
I28	90	KF737363.1	1011	0	Serratia sp. QW8 16S ribosomal RNA gene, partial sequence
I29	96	KC422648.1	1227	0	Bacillus sp. PS16(2013) 16S ribosomal RNA gene, partial sequence
I30	98	HM063030.1	1261	0	Bacillus sp. CRRI-8 16S ribosomal RNA gene, partial sequence
I34	97	KC311720.1	1262	0	Brevibacillus agri strain S4 16S ribosomal RNA gene, partial sequence
I35	95	KC189608.1	1217	0	Klebsiella sp. AR58 16S ribosomal RNA gene, partial sequence
I36	90	KF031146.1	1109	0	Enterobacter asburiae strain DCY9 16S ribosomal RNA gene, partial sequence
I37	97	KJ806473.1	1242	0	Shigella sonnei strain S-B13E 16S ribosomal RNA gene, partial sequence
I38	94	JF697434.1	1054	0	Uncultured bacterium clone reservoir-53 16S ribosomal RNA gene, partial sequence
I39	97	KF413422.1	1304	0	Aeromonas veronii strain FS 16S ribosomal RNA gene, partial sequence
I40	96	HQ236085.1	1226	0	Paenibacillus elgii strain TBT3-4 16S ribosomal RNA gene, partial sequence
I41	97	KF786991.1	1123	0	Uncultured Pseudomonadaceae bacterium clone S2-8-094 16S ribosomal RNA gene, partial sequence
I42	92	GU366197.1	1011	0	Brevibacillus sp. RA5U1 16S ribosomal RNA gene, partial sequence
I43	-	-	-	-	-
I44	96	KC431806.1	1235	0	Pseudomonas plecoglossicida strain RB28 16S ribosomal RNA gene, partial sequence
I45	83	JN999887.1	1054	0	Lysinibacillus xylanilyticus strain GDLY1 16S ribosomal RNA gene, partial sequence
I46	94	JX473144.1	902	0	Uncultured gamma proteobacterium clone URO61.B09 16S ribosomal RNA gene, partial sequence
I48	88	JX141319.1	949	0	Serratia sp. VET-2 16S ribosomal RNA gene, partial sequence
I49	96	KJ806425.1	1345	0	Aeromonas hydrophila strain A-X8A 16S ribosomal RNA gene, partial sequence
I50	96	KC873101.1	1239	0	Uncultured bacterium clone S42_017 16S ribosomal RNA gene, partial sequence
I51	98	KC853301.1	1137	0	Enterobacter asburiae strain XF5 16S ribosomal RNA gene, partial sequence
I52	98	EF694073.1	1208	0	Pseudomonas fluorescens strain yl 16S ribosomal RNA gene, partial sequence
I53	99	KC311720.1	1138	0	Brevibacillus agri strain S4 16S ribosomal RNA gene, partial sequence
I54	97	EU333128.1	1233	0	Bacillus sp. Pc60 16S ribosomal RNA gene, partial sequence
I55	95	KF256128.1	1410	0	Bacillus cereus strain ASDS9 16S ribosomal RNA gene, partial sequence
I56	96	JX155398.1	1148	0	Aeromonas hydrophila strain L602 16S ribosomal RNA, partial sequence
I57	96	KC920926.1	1281	0	Pseudomonas sp. DT4 16S ribosomal RNA gene, partial sequence
I58	96	HQ259958.1	1197	0	Klebsiella pneumoniae strain 21 16S ribosomal RNA gene, partial sequence
I59	98	JX082197.1	1210	0	Pseudomonas protegens strain CY01 16S ribosomal RNA gene, partial sequence
I60	86	DQ818058.1	140	2,00E-32	Uncultured bacterium clone aaa52e05 16S ribosomal RNA gene, partial sequence

I61	96	KJ210843.1	1354	0	Aeromonas sp. T9 16S ribosomal RNA, partial sequence
I62	97	HQ236085.1	970	0	Paenibacillus elgii strain TBT3-4 16S ribosomal RNA gene, partial sequence
I63	92	KC167881.1	1088	0	Serratia grimesii strain CNY-04 16S ribosomal RNA gene, partial sequence
I64	77	AB571066.1	173	4,00E-13	Serratia marcescens gene for 16S ribosomal RNA, partial sequence, strain: DI101
I65	-	-	-	-	-
I66	96	JQ189212.1		0	Uncultured bacterium clone BD14752 16S ribosomal RNA gene, partial sequence
I67	97	JF709917.1		0	Uncultured bacterium clone B108 16S ribosomal RNA gene, partial sequence
I68	97	HQ455820.1		0	Enterobacter asburiae strain M16 16S ribosomal RNA gene, partial sequence
I69	96	KF668329.1		0	Pseudomonas sp. J4AJ 16S ribosomal RNA gene, partial sequence
I70	98	JN615789.1		0	Uncultured bacterium clone TM1831OfO8 16S ribosomal RNA gene, partial sequence
I71	98	Y17664.1		0	Klebsiella sp. 16S rRNA gene, strain BEC441, partial
I72	96	KC311720.1		0	Brevibacillus agri strain S4 16S ribosomal RNA gene, partial sequence
I73	97	HQ457013.1		0	Bacillus pumilus strain HSD3 16S ribosomal RNA gene, partial sequence
I74	95	KF476039.1		0	Bacillus cereus strain SCD3 16S ribosomal RNA gene, partial sequence
I75	-	-	-	-	-
I76	99	JQ765423.1	1158	0	Enterobacter sp. MLB27 16S ribosomal RNA gene, partial sequence
I77	92	JF232507.1	1065	0	Uncultured bacterium clone ncd2676g09c1 16S ribosomal RNA gene, partial sequence
I78	98	GQ417300.1	1195	0	Uncultured Citrobacter sp. clone F2feb.74 16S ribosomal RNA gene, partial sequence
I79	84	HG942144.1	871	0	Pseudomonas sp. TA_DQ1 partial 16S rRNA gene, strain TA_DQ1
I80	93	KC167881.1	1089	0	Serratia grimesii strain CNY-04 16S ribosomal RNA gene, partial sequence
