Description of Additional Supplementary Files

File Name: Supplementary Data 1

Description: Relative abundance data for 16S rRNA gene amplicon sequencing and metagenome

sequencing.

File Name: Supplementary Data 2

Description: Summary statistics for archaeal and bacterial MAGs.

File Name: Supplementary Data 3

Description: (1) GTDB-Tk classification of bins identified in this study as members of TA06; (2)

Summary statistics of potential TA06 genomes based on NCBI and GTDB.

File Name: Supplementary Data 4

Description: Functional analysis of archaeal and bacterial MAGs. Presence/absence of genes are

listed as: Presence: >1 (red), Absence: 0 (no color).

File Name: Supplementary Data 5

Description: Accession numbers for genes involved in anaerobic hydrocarbon degradation used as

custom database.