

Electronic Supporting Information:

Table S1 Characteristics of surveyed oil sludge

Properties	Soil texture					Salt /g.kg ⁻¹	Total Nitrogen /g.kg ⁻¹	Organi c /g.kg ⁻¹	Conductivity /mS.cm ⁻¹	pH*
	Gravel	Coarse	Fine	Silt	Clay					
	/%	sand	sand	/%	/%					
		grains	/%							
Values	2.08	58.91	15.62	11.7	5.49	19.6	1.05	131	5.67	8.13
					5					

* The mass ratio between water and soil is 5:1

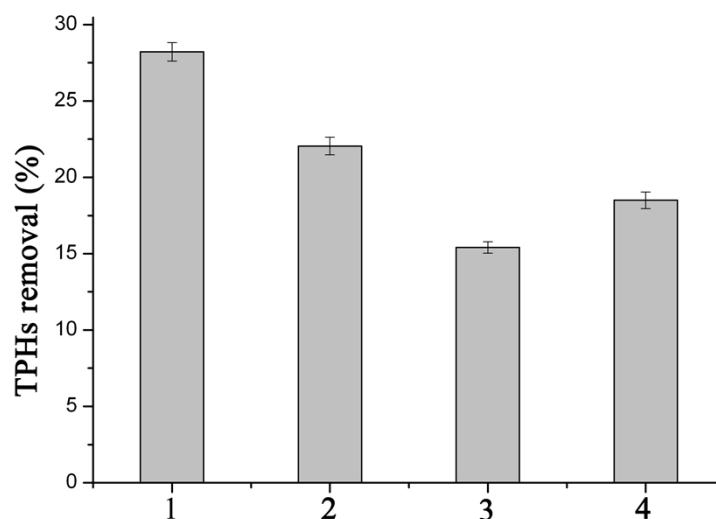
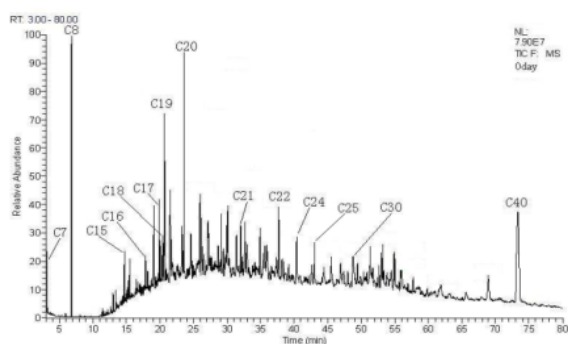
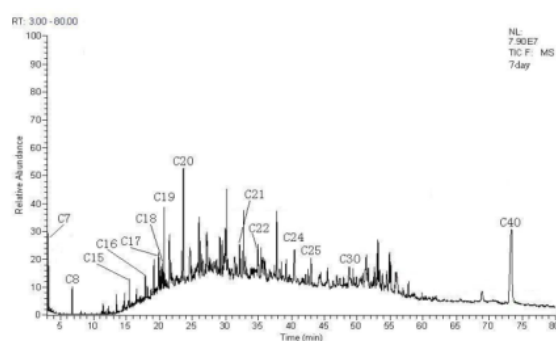


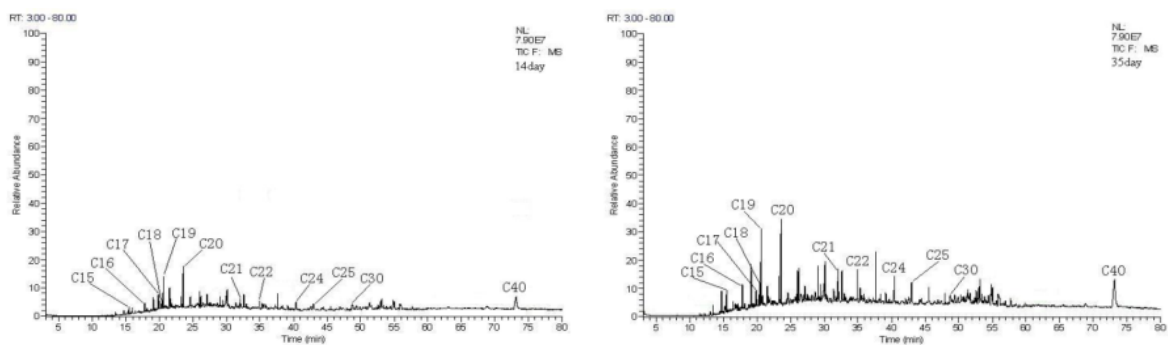
Figure S1. The effect of ratio of C:N:P on removal yield of TPH.



(a) 0 day



(b) 7 day



(c) 14 day

(d) 35 day

Figure S2. GC-MS analysis of the Saturates during biostimulation (Case E)

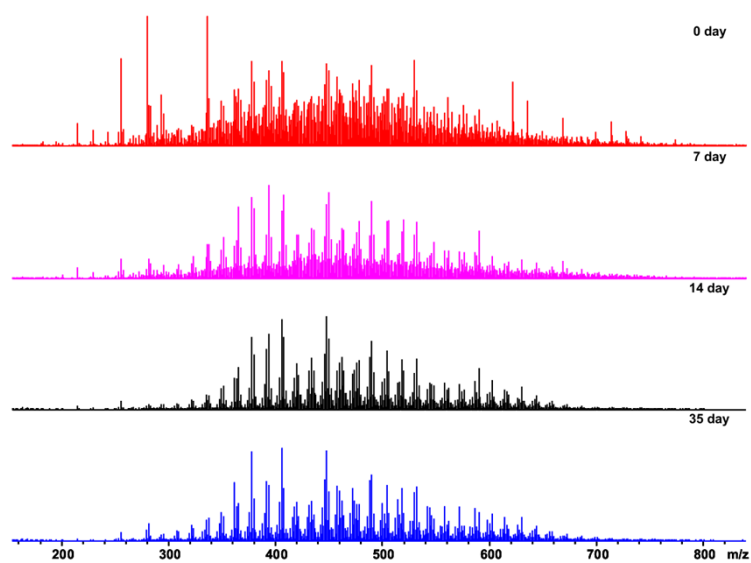


Figure S3. Negative-ion ESI FT-ICR mass spectrum of oil sludge before and after treatment of biostimulation (Case E)