

Supplementary materials for the article:

Muccee F, Ejaz S. An investigation of Petrol Metabolizing Bacteria Isolated from Contaminated Soil Samples Collected from Various Fuel Stations. Pol J Microbiol. 2019, Vol. 68, No 2, 193–201.

Table SI
Primers used for amplification of 16S rRNA gene.

Primer Name	5`-3` Sequence	GC%	Primer Tm	Amplicon size
Forward primer (F1)	AGAGTTTGATCCTGGTCAGAACGAACGCT	48.3%	70.4°C	1500bp
Reverse primer (R1)	CGTACGGCTACCTTGTTACGACTTCACCCC	56.7%	74.8°C	

Table SII
Colony forming units (CFUs) of petrol metabolizing bacteria

Bacterial isolate	Dilution	No. of colonies (CFUs)	Colony forming units (CFUs)/1g of soil sample
IUBP1	10 ⁻¹	875	875 x 10 ¹
IUBP2			
IUBP3			
IUBP5	10 ⁻²	587	587 x 10 ²
IUBP7			
IUBP8	10 ⁻³	80	80 x 10 ³
IUBP13	10 ⁻⁴	19	19 x 10 ⁴
IUBP14	10 ⁻⁵	7	7 x 10 ⁵
IUBP15		15	15 x 10 ⁵

Table SIII
Biochemical characterization of isolated petrol metabolizing bacteria.

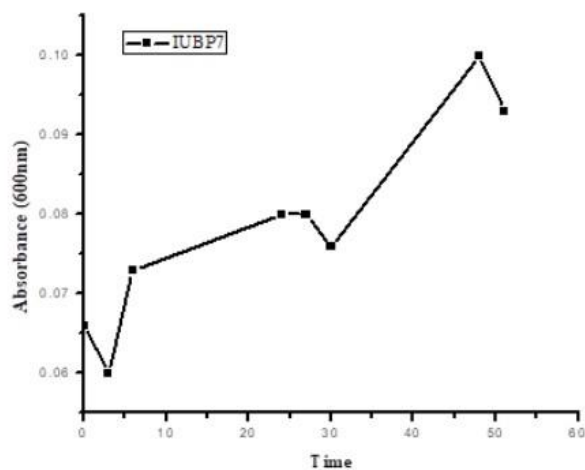
Group	Subgroup	Isolates	Biochemical Characters
Group I (<i>Brevibacillus formosus</i>)	G1:G1A	IUBP2	Esculinase, glucosaminidase, phosphatase producer and mannitol, sorbitol and inulin fermenting
	G1:G1B	IUBP3	Arginine dehydrolase, esculinase, glucosaminidase, phosphatase producers, mannitol, sorbitol and inulin fermenting
	G1:G1C	IUBP5	Esculinase, phosphatase producer, sorbitol and inulin fermenting
Group II (<i>Brevibacillus agri</i>)	-	IUBP1	Esculinase, naphthylamidase and phosphatase producers
Group III (<i>Burkholderia lata</i>)	G3:G3A	IUBP7, IUBP13	Esculinase, phosphatase producer, mannitol, sorbitol and inulin fermenting
	G3:G3B	IUBP8	Esculinase, glucosaminidase, phosphatase producer and inulin fermenting
	G3:G3C	IUBP14	Arginine dehydrolase, esculinase, phosphatase producer and inulin fermenting
Group IV (<i>Burkholderia pyrocinia</i>)	-	IUBP15	Esculinase, phosphatase producer, mannitol, sorbitol and inulin fermenting

Table SIV
Growth behavior of morphologically and biochemically similar isolates of group G3A.

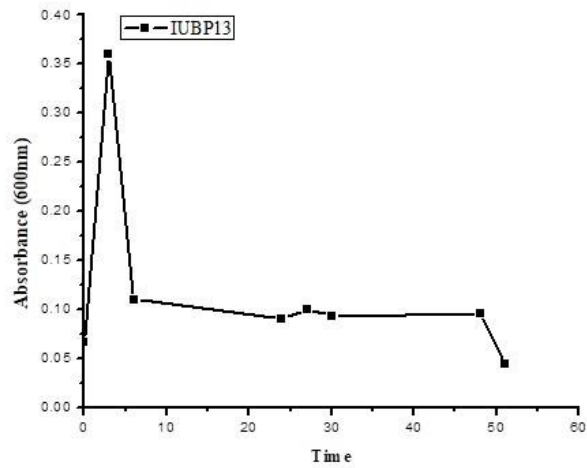
Group	Isolate	Lag phase	Log phase	Death phase	Static phase
G3A	IUBP7	0 – 24	24 – 48	48 – 51	< 51
	IUBP13	0 – <6	6 – 27	27 – 30	0 – 48

Table SV
Petrol removal efficiencies of isolated bacteria.

Group	Isolate	Mean ± SD
Group I <i>(Brevibacillus formosus)</i>	IUBP2	62 ± 19.34
	IUBP3	66 ± 9.90
	IUBP5	55 ± 7.07
Group II <i>(Brevibacillus agri)</i>	IUBP1	41 ± 32.6
Group III <i>(Burkholderia lata)</i>	IUBP7	58.5 ± 10.61
	IUBP8	50.5 ± 6.36
	IUBP13	53.7 ± 4.95
	IUBP14	63 ± 1.41
Group IV <i>(Burkholderia pyrrocinia)</i>	IUBP15	69.5 ± 13.44



(a) G3A1



(b) G3A2

Fig. S1. Growth study of isolated petrol metabolizing bacteria (G3A) having similar molecular and biochemical profile.

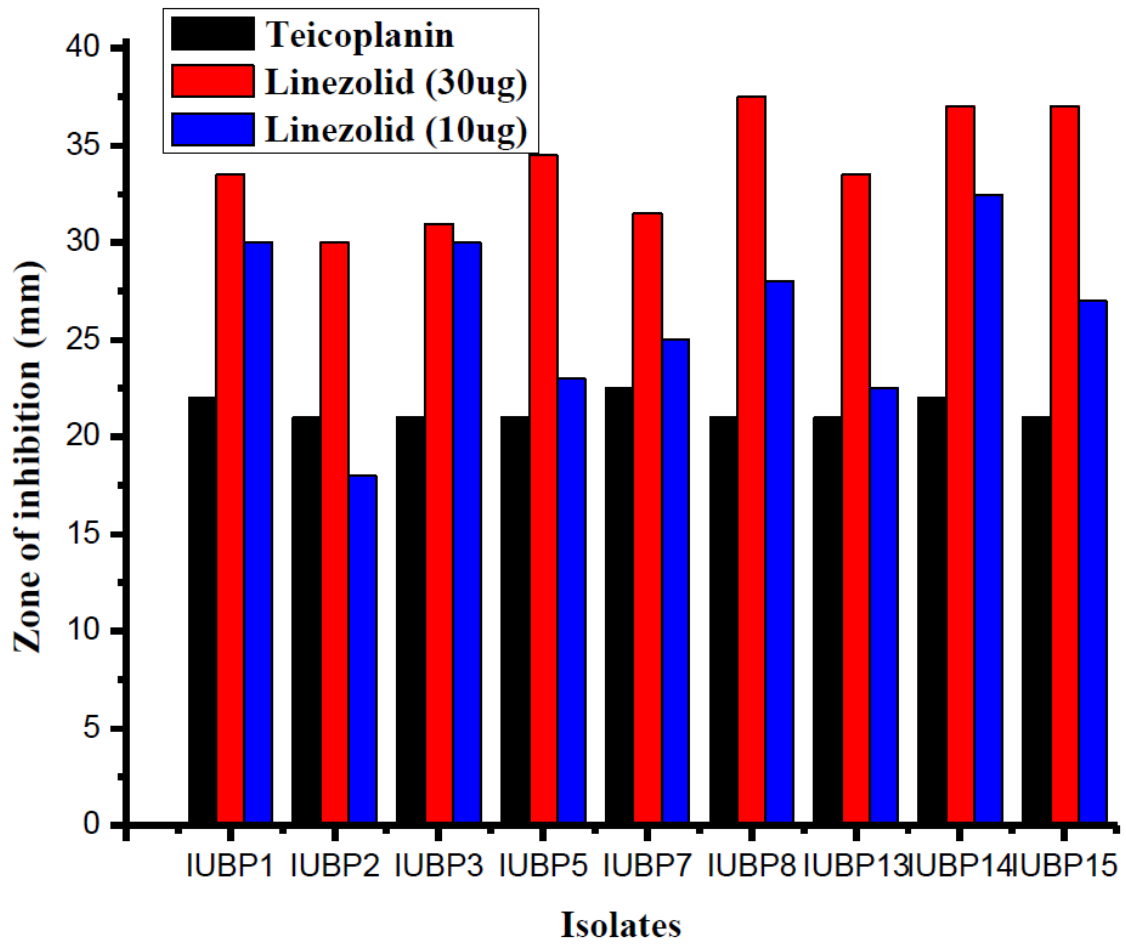


Fig. S2. Zone of inhibition for nine petrol metabolizing bacteria.