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Validation of Immunoassay Methods to Determine Hydrocarbon Contamination in Estuarine Sediments

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Table S1. Cross-reactivities against other hydrocarbons and petroleum products in the BTEX RaPID Assay® (data provided in the RaPID Assay® SDI Product Information sheet)

Compound	MDL* / (μg g^{-1})	50% B/Bo* / (μg g^{-1})
m-Xylene	0.6	36
p-Xylene	2.6	62
o-Xylene	4.4	94
Ethylbenzene	4.8	156
Toluene	8.8	148
Benzene	11.8	1,000
Naphthalene	0.6	11.8
Anthracene	1.2	560
Styrene	1.4	52
Hexachlorobenzene	1.6	NR
Phenanthrene	1.6	32
Acenaphthene	3.4	124
n-Octane	68	NR
n-Nonane	88	NR
n-Heptane	126	NR
n-Decane	270	NR
Methylene Chloride	NR	NR
Trichloroethylene	NR	NR
Gasoline	8.6	842
Diesel	25.8	324
Kerosene	30	480
Jet-A Fuel	54	670

NR – non reactive up to 1,000 μg g^{-1}; * based on a 20-fold dilution of the sediment extract.

Table S2. Cross-reactivities against other PAHs and petroleum products in the c-PAH RaPID Assay® (data provided in the RaPID Assay® SDI Product Information sheet)

Compound	MDL* / (ng g^{-1})	50% B/Bo* / (ng g^{-1})
Benzo(a)pyrene	4.0	160
Benz(a)anthracene	1.0	48
Benzo(k)fluoranthene	1.0	63
Chrysene	2.0	69
Benzo(b)fluoranthene	2.0	130
Indeno(1,2,3-c,d)pyrene	1.0	203
Dibenz(a,h)anthracene	7.0	241
Anthracene	22	2,050
Phenanthrene	135	6,720
Fluoranthene	100	6,850
Benzo(g,h,i)perylene	15	>10,000
Pyrene	100	23,300
Fluorene	1,850	34,200
Naphthalene	18,800	NR
Acenaphthylene	7,400	NR
Acenaphthalene	NR	NR
Creosote	62	838
Fuel Oil #4	1,260	30,400
Fuel Oil #5	1,000	20,700
Heating Fuel	1,000	65,300
Diesel Fuel	12,000	NR
Gasoline	10,000	NR
Kerosene	NR	NR
Jet A Fuel	NR	NR

NR – non reactive up to 50,000 ng g^{-1}; * based on a 100-fold dilution of the sediment extract.

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