

**Immunoassay Reference Methods
Method Quality**

Analyte	Ref Method		Matrix		Implementation		Analytical confidence		Monitoring Application		Confirmation method(s)	Reference Materials
	EPA #	Year	Water	Soil	Field	Lab	Screening	Quantitation	Ambient	Compliance	EPA#	
triazine herbicides	4670	1998	x		?	x	x	x	?	x	507, 525.2	
chlordane	4041	1995		x	x	x	x	?	?	x	8081B, 8270D	
DDT	4042	1995		x	x	x	x	?	?	x	8081A, 8270D	
2,4-D	4015	1995	x	x	x	x	x	?	?	x	8151A	
RDX	4051	1995	x	x	x	x	x	?	?	x	8330	
Mercury	4500	1998		x	x		x	?	?	x	7470A, 7471A, 7472	NIST 2704, 2709, 8408
PCP	4010A	1995	x	x	x	x	x	?	?	x	8041	
Petroleum hydrocarbons	4030	1995		x	x	x	x	?	?	x	8440	
PCBs	4020	1995		x	x	x	x	?	?	x	8082, 8270	
PAHs	4035	1995		x	x	x	x	?	?	x	8100, 8310, 8330	
Toxaphene	4040	1995		x	x	x	x	?	?	x	505, 508, 525.2	
TNT	4050	1995	x	x	x	x	x	?	?	x	8091, 8330, 8515	

Immunoassay Reference Methods Data Quality

Analyte	Ref Method EPA#	MCL drinking water (µg/L)	Analytical range (water µg/L soil ppm)		Quantitation		False Negatives	False Positives	Crossreactivity
			MDL	Calibration	Precision (%)	Accuracy (%)			
triazine herbicides	4670	3 atrazine	0.03µg/L	0.1–5µg/L	9 - 43	81 -115	-	-	triazines
chlordane	4041	2	6 ppb	20–500ppb	-	-	0%at10 ppm	6%at10 ppm	Endrin, endosulfan, dieldrin, aldrin, heptachlor
DDT	4042	-	0.04ppm	0.1–50ppm	-	-	0%at0.2ppm 3%at1 ppm	6%at0.2 ppm 6%at1 ppm	Chloropropylate, dicofol, tetradifon, thiobencarb
2,4-D	4015	70	-	35-15,000 µg/L	-	-	0%at0.2ppm	3%at0.2 ppm	Chlorophenoxy herbicides; silvex; various pesticides
RDX	4051	-	5µg/L	-	-	-	22%at30µg/L 0%at1 mg/L	3%at0.2 mg/L	Nitrobenzene, nitrotoluenes
Mercury	4500	2	0.17ppm	5– 15ppm	20 -50	72 -101	2.8%at10ppm	13%at10 ppm	
PCP	4010A	1	-	5–50,000 µg/L	-	-	Varies with kits, 3 – 7%	Varies with kits, 8 – 16%	Di-, tri-, tetrachloro-phenols
Petroleum hydrocarbons	4030	5 benzene	-	5– 400ppm	2 - 20	102-134	Varies with kits, 0 – 7%	Varies with kits, 3 – 17%	Hexachloro-benzene, chlordane, toxaphene
PCBs	4020	0.5	0.5–25 ppm	0.5-50ppm	-	-	Varies with kits, 7%	Varies with kits, 2 – 25%	Aroclor sensitivity varies with kits
PAHs	4035	0.2 BaP	-	1– 10ppm	-	-	0%at1 ppm	19% at 1ppm 26% at10ppm	Substituted PAHs, chlorinated aromatics
Toxaphene	4040	3	-	0.4-10ppm	6 - 9	102 -134	0%	18%	Endrin, endosulfan, dieldrin, heptachlor, chlordane
TNT	4050	-	5µg/L	-	-	-	0%at1 ppm	7% at0.2mg/L	

