RESL CUSTOMER EXPORT CONTROL AGREEMENT

It is the Radiological and Environmental Sciences Laboratory's (RESL) policy to conduct business in accordance with all applicable U.S. export control laws and regulations. It is also RESL's policy that its Customers comply with U.S. export control laws and regulations. Therefore, Customer agrees to the following:

1. Because products, technical data, and technical assistance (i.e., services) provided to Customer by RESL may be subject to U.S. export control laws and regulations, (i) transactions with certain persons and companies and (ii) the export or reexport of certain types and levels of products, technical data, and services are prohibited or restricted.

2. Customer acknowledges that it is responsible for its own compliance with U.S. export control laws and regulations. Customer further agrees that it assumes the responsibility to obtain all necessary U.S. export licenses or other U.S. governmental authorizations, as well as all liability for the failure to do so.

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4. The obligations and requirements described herein shall survive the expiration or termination of any agreement or contract between RESL and Customer.

OrW33 Participating Laboratories

Lab Code	Lab Name	Matrix Code
ANTE01	ALS Environmental - Fort Collins, CO	OrW
AY1201	Consolidated Nuclear Security, LLC, Analytical Chemistry Organization Laboratory	OrW
BCLI01	BC Laboratories, Inc	OrW
CORE02	TestAmerica Denver	OrW
DPAL01	S&S Onsite Analytical, Ltd.	OrW
EMAX01	EMAX Laboratories, Inc	OrW
GENE01	GEL Laboratories, LLC	OrW
HEAL01	Hall Environmental Analysis Laboratory	OrW
QUAN01	TestAmerica St. Louis	OrW
QUAN02	TestAmerica Knoxville	OrW
QUAN04	TestAmerica Sacramento	OrW
RJLG01	RJ Lee Group - Columbia Basin Analytical Laboratories (CBAL)	OrW
SOUT01	Southwest Research Institute	OrW

Laboratories Not Reporting OrW33

Lab Code	Lab Name	Matrix Code
	All Labs Reported	OrW

MAPEP Mixed Analyte Performance Evaluation Program

Study Reference Values

MAPEP-15-OrW33

Analyte	Assnd(5) Value	Ref Unc
Organic	Units: (ug/L)	
4,4'-DDD	7.61	0.15
4,4'-DDE	6.82	0.14
4,4'-DDT	8.82	0.18
Aldrin	12.0	0.2
alpha Chlordane	9.52	0.19
alpha-BHC	8.9	0.2
beta-BHC	17	0.3
delta-BHC	5.11	0.10
Dieldrin	11.0	0.2
Endosulfan I	10.0	0.2
Endosulfan II	9.0	0.2
Endosulfan sulfate	16.0	0.3
Endrin	14.0	0.3
Endrin Aldehyde	13.0	0.3
Endrin Ketone	18.0	0.4
gamma Chlordane	8.03	0.16
gamma-BHC (Lindane)	7.62	0.15
Heptachlor	6.21	0.12
Heptachlor epoxide	7.31	0.14
Methoxychlor	11.0	0.2
1,2,4-Trichlorobenzene	140	3
1,2-Dichlorobenzene	138	3
1,3-Dichlorobenzene	181	4
1,4-Dichlorobenzene	32.3	0.6
2,4,5-Trichlorophenol	<10	
2,4,6-Trichlorophenol	<10	
2,4-Dichlorophenol	189	4
2,4-Dimethylphenol	76.6	1.5
2,4-Dinitrophenol	162	3
2,4-Dinitrotoluene	92.8	1.9
2,6-Dichlorophenol	167	3
2,6-Dinitrotoluene	60.3	1.2
2-Chloronaphthalene	174	3
2-Chlorophenol	135	3
2-Methylnaphthalene	37.1	0.7
2-Methylphenol	144	3
2-Nitrophenol	174	3
4,6-Dinitro-2-methylphenol	99	2
4-Bromophenyl-phenylether	<10	
4-Chloro-3-methylphenol	93.8	1.9
4-Chlorophenyl-phenylether	<10	
4-Methylphenol	77.7	1.6
4-Nitrophenol	118	2
Acenaphthene	40.9	0.8
Acenaphthylene	154	3
Anthracene	48.6	1.0
Benzo(a)anthracene	190	4
Benzo(a)pyrene	132	3
Benzo(b)fluoranthene	63.3	1.3
Benzo(g,h,i)perylene	38.4	0.8
Benzo(k)fluoranthene	156	3
bis(2-chloroethoxy)methane	<10	

bis(2-chloroethyl)ether	<10	
bis(2-chloroisopropyl)ether	<10	
Bis(2-ethylhexyl)phthalate	<10	
Butylbenzylphthalate	<10	
Chrysene	106	2
Di-n-butylphthalate	<10	
Di-n-octylphthalate	<10	
Dibenzo(a,h)anthracene	46.0	0.9
Dibenzofuran	195	4
Diethylphthalate	<10	
Dimethylphthalate	<10	
Fluoranthene	50.8	1.0
Fluorene	63.7	1.3
Hexachlorobenzene	141	3
Hexachlorobutadiene	83.5	1.7
Hexachlorocyclopentadiene	79.2	1.6
Hexachloroethane	172	3
Indeno(1,2,3-c,d)pyrene	183	4
Isophorone	55.6	1.1
N-Nitroso-di-n-propylamine	<10	
N-Nitrosodimethylamine	<10	
N-Nitrosodiphenylamine	<10	
Naphthalene	115	2
Nitrobenzene	172	3
Pentachlorophenol	118	2
Phenanthrene	86.2	1.7
Phenol	190	4
Pyrene	60.1	1.2

MAPEP Mixed Analyte Performance Evaluation Program

Sample Statistical Summary

MAPEP-15-OrW33

Analyte	T(1)	A(2)	Calc(3) Mean	Std(4) Dev	Assnd(5) Value	Ref Unc	Acceptance Range
Organic							Units: (ug/L)
4,4'-DDD	11	7	7.09	1.11	7.61	0.15	3.76 - 10.42
4,4'-DDE	11	7	6.07	1.04	6.82	0.14	2.95 - 9.19
4,4'-DDT	11	8	8.03	1.52	8.82	0.18	3.49 - 12.58
Aldrin	11	10	10.2	2.0	12.0	0.2	4.3 - 16.2
alpha Chlordane	9	7	8.47	1.39	9.52	0.19	4.30 - 12.64
alpha-BHC	11	11	8.0	1.4	8.9	0.2	3.9 - 12.1
beta-BHC	11	11	15	2	17	0.3	8 - 23
delta-BHC	11	11	4.72	0.85	5.11	0.10	2.18 - 7.26
Dieldrin	11	9	10.1	1.5	11.0	0.2	5.6 - 14.5
Endosulfan I	10	9	8.6	1.6	10.0	0.2	3.8 - 13.4
Endosulfan II	10	10	8.0	1.4	9.0	0.2	3.7 - 12.3
Endosulfan sulfate	11	11	14.5	2.4	16.0	0.3	7.4 - 21.6
Endrin	10	9	12.9	2.3	14.0	0.3	6.1 - 19.7
Endrin Aldehyde	11	9	11.6	2.2	13.0	0.3	4.9 - 18.4
Endrin Ketone	9	8	16.5	2.2	18.0	0.4	9.8 - 23.2
gamma Chlordane	9	7	7.02	1.13	8.03	0.16	3.62 - 10.43
gamma-BHC (Lindane)	11	11	6.94	1.18	7.62	0.15	3.39 - 10.49
Heptachlor	11	11	5.31	1.03	6.21	0.12	2.21 - 8.40
Heptachlor epoxide	10	9	6.71	1.01	7.31	0.14	3.69 - 9.74
Methoxychlor	10	7	10.3	1.8	11.0	0.2	4.8 - 15.8
1,2,4-Trichlorobenzene	13	13	96	23	140	3	28 - 164
1,2-Dichlorobenzene	13	13	89	23	138	3	19 - 158
1,3-Dichlorobenzene	13	13	110	33	181	4	18 - 208
1,4-Dichlorobenzene	13	13	21.9	5.8	32.3	0.6	4.6 - 39.3
2,4,5-Trichlorophenol	11	11			<10		
2,4,6-Trichlorophenol	11	11			<10		
2,4-Dichlorophenol	13	13	142	27	189	4	61 - 223
2,4-Dimethylphenol	13	12	58.9	12.4	76.6	1.5	21.8 - 95.9
2,4-Dinitrophenol	13	13	109	36	162	3	16 - 217
2,4-Dinitrotoluene	11	11	76.7	12.7	92.8	1.9	38.5 - 114.9
2,6-Dichlorophenol	7	6	129	26	167	3	51 - 208
2,6-Dinitrotoluene	13	13	48.7	8.1	60.3	1.2	24.5 - 72.9
2-Chloronaphthalene	13	13	126	26	174	3	47 - 205
2-Chlorophenol	13	13	100	21	135	3	38 - 161
2-Methylnaphthalene	13	13	28.0	7.2	37.1	0.7	6.4 - 49.6
2-Methylphenol	13	13	100	23	144	3	33 - 168
2-Nitrophenol	13	13	134	25	174	3	60 - 208
4,6-Dinitro-2-methylphenol	13	13	84	18	99	2	31 - 137
4-Bromophenyl-phenylether	11	10			<10		
4-Chloro-3-methylphenol	13	13	75.6	13.4	93.8	1.9	35.5 - 115.8
4-Chlorophenyl-phenylether	11	10			<10		
4-Methylphenol	11	11	52.9	16.4	77.7	1.6	7.8 - 102.1
4-Nitrophenol	13	13	65	32	118	2	12 - 160
Acenaphthene	13	13	32.5	6.0	40.9	0.8	14.7 - 50.4
Acenaphthylene	13	12	123	23	154	3	54 - 192
Anthracene	13	13	40.6	6.7	48.6	1.0	20.5 - 60.7
Benzo(a)anthracene	13	13	160	23	190	4	92 - 228
Benzo(a)pyrene	13	13	108	20	132	3	48 - 168
Benzo(b)fluoranthene	13	13	52.9	9.6	63.3	1.3	24.1 - 81.6
Benzo(g,h,i)perylene	13	13	33.3	6.0	38.4	0.8	15.3 - 51.3
Benzo(k)fluoranthene	13	13	130	30	156	3	40 - 221
bis(2-chloroethoxy)methane	11	11			<10		

bis(2-chloroethyl)ether	11	11			<10		
bis(2-chloroisopropyl)ether	11	11			<10		
Bis(2-ethylhexyl)phthalate	11	10			<10		
Butylbenzylphthalate	11	11			<10		
Chrysene	13	13	89	15	106	2	45 - 133
Di-n-butylphthalate	11	11			<10		
Di-n-octylphthalate	11	11			<10		
Dibenzo(a,h)anthracene	12	11	39.6	7.8	46.0	0.9	16.3 - 62.8
Dibenzofuran	13	12	147	24	195	4	76 - 218
Diethylphthalate	11	11			<10		
Dimethylphthalate	11	11			<10		
Fluoranthene	13	12	44.1	6.5	50.8	1.0	24.5 - 63.6
Fluorene	13	13	52.3	8.5	63.7	1.3	26.9 - 77.7
Hexachlorobenzene	13	13	116	18	141	3	63 - 169
Hexachlorobutadiene	13	13	55.1	15.4	83.5	1.7	8.9 - 101.4
Hexachlorocyclopentadiene	13	13	44.8	20.6	79.2	1.6	7.9 - 106.5
Hexachloroethane	13	13	102	29	172	3	17 - 188
Indeno(1,2,3-c,d)pyrene	13	13	135	28	183	4	52 - 218
Isophorone	13	13	45.1	8.3	55.6	1.1	20.2 - 69.9
N-Nitroso-di-n-propylamine	11	11			<10		
N-Nitrosodimethylamine	10	10			<10		
N-Nitrosodiphenylamine	11	11			<10		
Naphthalene	13	13	81	18	115	2	28 - 135
Nitrobenzene	13	13	129	24	172	3	56 - 202
Pentachlorophenol	13	13	99	20	118	2	39 - 159
Phenanthrene	13	13	71.8	10.5	86.2	1.7	40.3 - 103.4
Phenol	13	13	106	49	190	4	19 - 254
Pyrene	13	13	52.0	9.0	60.1	1.2	24.9 - 79.0

Note: (1) T = Total number of laboratories reporting analyte.
(2) A = Number of laboratories with 'Acceptable' performance.
(3) Mean calculated from NELAC FOPT Tables.
(4) Standard deviation calculated from NELAC FOPT Tables.
(5) Assigned Value used to generate the calculated mean per NELAC FoPT Tables

NOTE: The spiking solution used to create the MAPEP OrW standard was validated by RESL Chemists.

Criteria based on FoPT Table for NPW - March 16, 2015

A = Result acceptable Z-score <=3.0

N = Result not acceptable Z-score > 3.0

W = Check reported result for error. NR = Not Reported

L = Uncertainty potentially too low (for information purposes only)

H = Uncertainty potentially too high (for information purposes only)

MAPEP Mixed Analyte Performance Evaluation Program

Flag Summary Report

MAPEP-15-OrW33

Organic

Analyte	A	W	RW	N
Phenol	13			
2-Chlorophenol	13			
1,3-Dichlorobenzene	13			
1,4-Dichlorobenzene	13			
1,2-Dichlorobenzene	13			
Hexachloroethane	13			
Nitrobenzene	13			
Isophorone	13			
2-Nitrophenol	13			
2,4-Dimethylphenol	12			1
2,4-Dichlorophenol	13			
1,2,4-Trichlorobenzene	13			
Naphthalene	13			
Hexachlorobutadiene	13			
4-Chloro-3-methylphenol	13			
2-Methylnaphthalene	13			
2-Methylphenol	13			
Hexachlorocyclopentadiene	13			
2,4,6-Trichlorophenol	11			
2,6-Dichlorophenol	6			1
2-Chloronaphthalene	13			
Dimethylphthalate	11			
Acenaphthylene	12			1
2,6-Dinitrotoluene	13			
Acenaphthene	13			
2,4-Dinitrotoluene	11			
2,4-Dinitrophenol	13			
Dibenzofuran	12			1
4-Nitrophenol	13			
Fluorene	13			
Diethylphthalate	11			
4,6-Dinitro-2-methylphenol	13			
2,4,5-Trichlorophenol	11			
Hexachlorobenzene	13			
Pentachlorophenol	13			
Phenanthrene	13			
Anthracene	13			
Di-n-butylphthalate	11			
Fluoranthene	12			1
Pyrene	13			
Butylbenzylphthalate	11			
Benzo(a)anthracene	13			
Chrysene	13			
Bis(2-ethylhexyl)phthalate	10			1
Di-n-octylphthalate	11			
Benzo(b)fluoranthene	13			
Benzo(k)fluoranthene	13			
Benzo(a)pyrene	13			
Indeno(1,2,3-c,d)pyrene	13			
Dibenzo(a,h)anthracene	11			1
Benzo(g,h,i)perylene	13			
alpha-BHC	11			

beta-BHC	11	
gamma-BHC (Lindane)	11	
delta-BHC	11	
Heptachlor	11	
Aldrin	10	1
Heptachlor epoxide	9	1
Endosulfan I	9	1
4,4'-DDE	7	4
Dieldrin	9	2
Endrin	9	1
4,4'-DDD	7	4
Endosulfan II	10	
4,4'-DDT	8	3
Endrin Aldehyde	9	2
Endosulfan sulfate	11	
Endrin Ketone	8	1
Methoxychlor	7	3
4-Bromophenyl-phenylether	10	1
bis(2-chloroethoxy)methane	11	
bis(2-chloroethyl)ether	11	
4-Chlorophenyl-phenylether	10	1
bis(2-chloroisopropyl)ether	11	
alpha Chlordane	7	2
gamma Chlordane	7	2
4-Methylphenol	11	
N-Nitrosodimethylamine	10	
N-Nitroso-di-n-propylamine	11	
N-Nitrosodiphenylamine	11	

MAPEP Mixed Analyte Performance Evaluation Program

Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-15-OrW33
(ANTE01) ALS Environmental - Fort Collins, CO
225 Commerce Drive
Fort Collins, CO 80524-1416

Organic — Units: (ug/L)

Analyte	Result	Calc Mean	Flag	Notes	Z-Score	Acceptance Range	Unc Value	Unc Flag
4,4'-DDD	1.98	7.09	N		-4.61	3.76 - 10.42		
4,4'-DDE	1.43	6.07	N		-4.46	2.95 - 9.19		
4,4'-DDT	1.76	8.03	N		-4.14	3.49 - 12.58		
Aldrin	6.23	10.2	A		-2.01	4.3 - 16.2		
alpha Chlordane	3.92	8.47	N		-3.28	4.30 - 12.64		
alpha-BHC	10.2	8.0	A		1.59	3.9 - 12.1		
beta-BHC	18.4	15	A		1.28	8 - 23		
delta-BHC	5.79	4.72	A		1.27	2.18 - 7.26		
Dieldrin	7.32	10.1	A		-1.85	5.6 - 14.5		
Endosulfan I	6.33	8.6	A		-1.44	3.8 - 13.4		
Endosulfan II	6.55	8.0	A		-1.00	3.7 - 12.3		
Endosulfan sulfate	16.4	14.5	A		0.79	7.4 - 21.6		
Endrin	8	12.9	A		-2.18	6.1 - 19.7		
Endrin Aldehyde	7.41	11.6	A		-1.88	4.9 - 18.4		
Endrin Ketone	19.2	16.5	A		1.22	9.8 - 23.2		
gamma Chlordane	2.78	7.02	N		-3.74	3.62 - 10.43		
gamma-BHC (Lindane)	9.08	6.94	A		1.81	3.39 - 10.49		
Heptachlor	4.07	5.31	A		-1.20	2.21 - 8.40		
Heptachlor epoxide	6.31	6.71	A		-0.40	3.69 - 9.74		
Methoxychlor	3.58	10.3	N		-3.65	4.8 - 15.8		
1,2,4-Trichlorobenzene	80.4	96	A		-0.68	28 - 164		
1,2-Dichlorobenzene	78	89	A		-0.46	19 - 158		
1,3-Dichlorobenzene	96	110	A		-0.43	18 - 208		
1,4-Dichlorobenzene	18.8	21.9	A		-0.54	4.6 - 39.3		
2,4,5-Trichlorophenol	<10.3	<10	A					
2,4,6-Trichlorophenol	<10.3	<10	A					
2,4-Dichlorophenol	140	142	A		-0.07	61 - 223		
2,4-Dimethylphenol	45.7	58.9	A		-1.07	21.8 - 95.9		
2,4-Dinitrophenol	99.5	109	A		-0.28	16 - 217		
2,4-Dinitrotoluene	NR	76.7				38.5 - 114.9		
2,6-Dichlorophenol	NR	129				51 - 208		
2,6-Dinitrotoluene	48.9	48.7	A		0.02	24.5 - 72.9		
2-Chloronaphthalene	126	126	A		0.00	47 - 205		
2-Chlorophenol	96.3	100	A		-0.18	38 - 161		
2-Methylnaphthalene	28.1	28.0	A		0.02	6.4 - 49.6		
2-Methylphenol	101	100	A		0.03	33 - 168		

Organic								Units: (ug/L)
Analyte	Result	Calc Mean	Flag	Notes	Z-Score	Acceptance Range	Unc Value	Unc Flag
2-Nitrophenol	121	134	A		-0.53	60 - 208		
4,6-Dinitro-2-methylphenol	76.8	84	A		-0.40	31 - 137		
4-Bromophenyl-phenylether	10.3	<10	N					
4-Chloro-3-methylphenol	74.1	75.6	A		-0.12	35.5 - 115.8		
4-Chlorophenyl-phenylether	8160	<10	N					
4-Methylphenol	NR	52.9				7.8 - 102.1		
4-Nitrophenol	77.5	65	A		0.40	12 - 160		
Acenaphthene	38.5	32.5	A		1.00	14.7 - 50.4		
Acenaphthylene	134	123	A		0.46	54 - 192		
Anthracene	36.1	40.6	A		-0.67	20.5 - 60.7		
Benzo(a)anthracene	144	160	A		-0.70	92 - 228		
Benzo(a)pyrene	99.9	108	A		-0.42	48 - 168		
Benzo(b)fluoranthene	52.5	52.9	A		-0.04	24.1 - 81.6		
Benzo(g,h,i)perylene	41.4	33.3	A		1.36	15.3 - 51.3		
Benzo(k)fluoranthene	138	130	A		0.26	40 - 221		
bis(2-chloroethoxy)methane	<10.3	<10	A					
bis(2-chloroethyl)ether	<10.3	<10	A					
bis(2-chloroisopropyl)ether	<10.3	<10	A					
Bis(2-ethylhexyl)phthalate	<10..3	<10	A					
Butylbenzylphthalate	<10.3	<10	A					
Chrysene	83.9	89	A		-0.35	45 - 133		
Di-n-butylphthalate	<10.3	<10	A					
Di-n-octylphthalate	<10.3	<10	A					
Dibenzo(a,h)anthracene	54.3	39.6	A		1.90	16.3 - 62.8		
Dibenzofuran	147	147	A		-0.01	76 - 218		
Diethylphthalate	<10.3	<10	A					
Dimethylphthalate	<10.3	<10	A					
Fluoranthene	32.1	44.1	A		-1.83	24.5 - 63.6		
Fluorene	50.3	52.3	A		-0.24	26.9 - 77.7		
Hexachlorobenzene	109	116	A		-0.39	63 - 169		
Hexachlorobutadiene	33.2	55.1	A		-1.43	8.9 - 101.4		
Hexachlorocyclopentadiene	<10.3	44.8	A			7.9 - 106.5		
Hexachloroethane	72.7	102	A		-1.01	17 - 188		
Indeno(1,2,3-c,d)pyrene	162	135	A		0.97	52 - 218		
Isophorone	44.1	45.1	A		-0.12	20.2 - 69.9		
N-Nitroso-di-n-propylamine	<10.3	<10	A					
N-Nitrosodimethylamine	<10.3	<10	A					
N-Nitrosodiphenylamine	<10.3	<10	A					
Naphthalene	83.2	81	A		0.11	28 - 135		
Nitrobenzene	121	129	A		-0.34	56 - 202		
Pentachlorophenol	73.9	99	A		-1.27	39 - 159		
Phenanthrene	67.8	71.8	A		-0.38	40.3 - 103.4		
Phenol	146	106	A		0.81	19 - 254		
Pyrene	53	52.0	A		0.12	24.9 - 79.0		

NOTE: The spiking solution used to create the MAPEP OrW standard was validated by RESL Chemists.

Criteria based on FoPT Table for NPW - March 16, 2015

A = Result acceptable Z-score <=3.0

N = Result not acceptable Z-score > 3.0

W = Check reported result for error. NR = Not Reported

L = Uncertainty potentially too low (for information purposes only)

H = Uncertainty potentially too high (for information purposes only)

Notes:

(2) = False Negative
(19) = Detection Limit Concern

Mixed Analyte Performance Evaluation Program

Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-15-OrW33
(AY1201) Consolidated Nuclear Security, LLC, Analytical Chemistry Organization Laboratory
Y12, NSC, Bldg. 9995, Rm 142
Oak Ridge, TN 37831-8189

Organic								Units: (ug/L)
Analyte	Result	Calc Mean	Flag	Notes	Z-Score	Acceptance Range	Unc Value	Unc Flag
4,4'-DDD	8.98	7.09	A		1.70	3.76 - 10.42		
4,4'-DDE	6.97	6.07	A		0.87	2.95 - 9.19		
4,4'-DDT	9.91	8.03	A		1.24	3.49 - 12.58		
Aldrin	10.2	10.2	A		-0.01	4.3 - 16.2		
alpha Chlordane	9.08	8.47	A		0.44	4.30 - 12.64		
alpha-BHC	6.92	8.0	A		-0.80	3.9 - 12.1		
beta-BHC	17.6	15	A		0.95	8 - 23		
delta-BHC	5.15	4.72	A		0.51	2.18 - 7.26		
Dieldrin	11.4	10.1	A		0.90	5.6 - 14.5		
Endosulfan I	10.1	8.6	A		0.91	3.8 - 13.4		
Endosulfan II	9.12	8.0	A		0.79	3.7 - 12.3		
Endosulfan sulfate	18.9	14.5	A		1.85	7.4 - 21.6		
Endrin	14.9	12.9	A		0.87	6.1 - 19.7		
Endrin Aldehyde	10.4	11.6	A		-0.55	4.9 - 18.4		
Endrin Ketone	21.4	16.5	A		2.20	9.8 - 23.2		
gamma Chlordane	7.94	7.02	A		0.81	3.62 - 10.43		
gamma-BHC (Lindane)	6.63	6.94	A		-0.26	3.39 - 10.49		
Heptachlor	4.83	5.31	A		-0.46	2.21 - 8.40		
Heptachlor epoxide	7.48	6.71	A		0.76	3.69 - 9.74		
Methoxychlor	11.6	10.3	A		0.70	4.8 - 15.8		
1,2,4-Trichlorobenzene	104	96	A		0.36	28 - 164		
1,2-Dichlorobenzene	116	89	A		1.18	19 - 158		
1,3-Dichlorobenzene	144	110	A		1.03	18 - 208		
1,4-Dichlorobenzene	23.7	21.9	A		0.31	4.6 - 39.3		
2,4,5-Trichlorophenol	<10	<10	A					
2,4,6-Trichlorophenol	<10	<10	A					
2,4-Dichlorophenol	147	142	A		0.19	61 - 223		
2,4-Dimethylphenol	36.9	58.9	A		-1.78	21.8 - 95.9		
2,4-Dinitrophenol	124	109	A		0.41	16 - 217		
2,4-Dinitrotoluene	77.7	76.7	A		0.08	38.5 - 114.9		
2,6-Dichlorophenol	131	129	A		0.07	51 - 208		
2,6-Dinitrotoluene	54.5	48.7	A		0.72	24.5 - 72.9		
2-Chloronaphthalene	107	126	A		-0.73	47 - 205		
2-Chlorophenol	129	100	A		1.42	38 - 161		
2-Methylnaphthalene	34.5	28.0	A		0.91	6.4 - 49.6		
2-Methylphenol	141	100	A		1.80	33 - 168		

Organic								Units: (ug/L)
Analyte	Result	Calc Mean	Flag	Notes	Z-Score	Acceptance Range	Unc Value	Unc Flag
2-Nitrophenol	140	134	A		0.25	60 - 208		
4,6-Dinitro-2-methylphenol	76.2	84	A		-0.43	31 - 137		
4-Bromophenyl-phenylether	<10	<10	A					
4-Chloro-3-methylphenol	85.5	75.6	A		0.74	35.5 - 115.8		
4-Chlorophenyl-phenylether	<10	<10	A					
4-Methylphenol	81.4	52.9	A		1.74	7.8 - 102.1		
4-Nitrophenol	82.6	65	A		0.56	12 - 160		
Acenaphthene	37.6	32.5	A		0.85	14.7 - 50.4		
Acenaphthylene	96.9	123	A		-1.15	54 - 192		
Anthracene	41.6	40.6	A		0.15	20.5 - 60.7		
Benzo(a)anthracene	152	160	A		-0.34	92 - 228		
Benzo(a)pyrene	101	108	A		-0.36	48 - 168		
Benzo(b)fluoranthene	51.1	52.9	A		-0.18	24.1 - 81.6		
Benzo(g,h,i)perylene	33.2	33.3	A		-0.01	15.3 - 51.3		
Benzo(k)fluoranthene	130	130	A		-0.01	40 - 221		
bis(2-chloroethoxy)methane	<10	<10	A					
bis(2-chloroethyl)ether	<10	<10	A					
bis(2-chloroisopropyl)ether	<10	<10	A					
Bis(2-ethylhexyl)phthalate	180	<10	N					
Butylbenzylphthalate	<20.1	<10	A	(19)				
Chrysene	93.1	89	A		0.28	45 - 133		
Di-n-butylphthalate	<10	<10	A					
Di-n-octylphthalate	<10	<10	A					
Dibenzo(a,h)anthracene	39.2	39.6	A		-0.05	16.3 - 62.8		
Dibenzofuran	144	147	A		-0.14	76 - 218		
Diethylphthalate	<10	<10	A					
Dimethylphthalate	<10	<10	A					
Fluoranthene	46.4	44.1	A		0.36	24.5 - 63.6		
Fluorene	58.0	52.3	A		0.68	26.9 - 77.7		
Hexachlorobenzene	104	116	A		-0.68	63 - 169		
Hexachlorobutadiene	47.5	55.1	A		-0.50	8.9 - 101.4		
Hexachlorocyclopentadiene	11.9	44.8	A		-1.60	7.9 - 106.5		
Hexachloroethane	126	102	A		0.84	17 - 188		
Indeno(1,2,3-c,d)pyrene	113	135	A		-0.81	52 - 218		
Isophorone	53.7	45.1	A		1.04	20.2 - 69.9		
N-Nitroso-di-n-propylamine	<10	<10	A					
N-Nitrosodimethylamine	<10	<10	A					
N-Nitrosodiphenylamine	<10	<10	A					
Naphthalene	99.2	81	A		1.01	28 - 135		
Nitrobenzene	147	129	A		0.73	56 - 202		
Pentachlorophenol	98.5	99	A		-0.04	39 - 159		
Phenanthrene	75.7	71.8	A		0.37	40.3 - 103.4		
Phenol	140	106	A		0.68	19 - 254		
Pyrene	56.5	52.0	A		0.51	24.9 - 79.0		

NOTE: The spiking solution used to create the MAPEP OrW standard was validated by RESL Chemists.

Criteria based on FoPT Table for NPW - March 16, 2015

A = Result acceptable Z-score <=3.0

N = Result not acceptable Z-score > 3.0

W = Check reported result for error. NR = Not Reported

L = Uncertainty potentially too low (for information purposes only)

H = Uncertainty potentially too high (for information purposes only)

Notes:

(2) = False Negative
(19) = Detection Limit Concern

Mixed Analyte Performance Evaluation Program

Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-15-OrW33
(BCLI01) BC Laboratories, Inc
4100 Atlas Court
Bakersfield, CA 93308

Organic — Units: (ug/L)

Analyte	Result	Calc Mean	Flag	Notes	Z-Score	Acceptance Range	Unc Value	Unc Flag
4,4'-DDD	3.40	7.09	N		-3.33	3.76 - 10.42		
4,4'-DDE	2.82	6.07	N		-3.12	2.95 - 9.19		
4,4'-DDT	4.11	8.03	A		-2.59	3.49 - 12.58		
Aldrin	5.88	10.2	A		-2.18	4.3 - 16.2		
alpha Chlordane	NR	8.47				4.30 - 12.64		
alpha-BHC	8.1	8.0	A		0.06	3.9 - 12.1		
beta-BHC	14.5	15	A		-0.34	8 - 23		
delta-BHC	4.48	4.72	A		-0.28	2.18 - 7.26		
Dieldrin	3.63	10.1	N		-4.34	5.6 - 14.5		
Endosulfan I	NR	8.6				3.8 - 13.4		
Endosulfan II	NR	8.0				3.7 - 12.3		
Endosulfan sulfate	13.5	14.5	A		-0.44	7.4 - 21.6		
Endrin	NR	12.9				6.1 - 19.7		
Endrin Aldehyde	21.6	11.6	N		4.43	4.9 - 18.4		
Endrin Ketone	NR	16.5				9.8 - 23.2		
gamma Chlordane	NR	7.02				3.62 - 10.43		
gamma-BHC (Lindane)	6.88	6.94	A		-0.05	3.39 - 10.49		
Heptachlor	2.35	5.31	A		-2.87	2.21 - 8.40		
Heptachlor epoxide	NR	6.71				3.69 - 9.74		
Methoxychlor	NR	10.3				4.8 - 15.8		
1,2,4-Trichlorobenzene	83.4	96	A		-0.55	28 - 164		
1,2-Dichlorobenzene	84.8	89	A		-0.17	19 - 158		
1,3-Dichlorobenzene	101	110	A		-0.28	18 - 208		
1,4-Dichlorobenzene	20.7	21.9	A		-0.21	4.6 - 39.3		
2,4,5-Trichlorophenol	NR	<10						
2,4,6-Trichlorophenol	NR	<10						
2,4-Dichlorophenol	129	142	A		-0.48	61 - 223		
2,4-Dimethylphenol	42.6	58.9	A		-1.32	21.8 - 95.9		
2,4-Dinitrophenol	135	109	A		0.71	16 - 217		
2,4-Dinitrotoluene	86.6	76.7	A		0.78	38.5 - 114.9		
2,6-Dichlorophenol	NR	129				51 - 208		
2,6-Dinitrotoluene	56.5	48.7	A		0.97	24.5 - 72.9		
2-Chloronaphthalene	129	126	A		0.11	47 - 205		
2-Chlorophenol	97.0	100	A		-0.14	38 - 161		
2-Methylnaphthalene	29.2	28.0	A		0.17	6.4 - 49.6		
2-Methylphenol	66.1	100	A		-1.52	33 - 168		

Organic								Units: (ug/L)
Analyte	Result	Calc Mean	Flag	Notes	Z-Score	Acceptance Range	Unc Value	Unc Flag
2-Nitrophenol	135	134	A		0.04	60 - 208		
4,6-Dinitro-2-methylphenol	87.0	84	A		0.18	31 - 137		
4-Bromophenyl-phenylether	NR	<10						
4-Chloro-3-methylphenol	64.6	75.6	A		-0.83	35.5 - 115.8		
4-Chlorophenyl-phenylether	NR	<10						
4-Methylphenol	NR	52.9				7.8 - 102.1		
4-Nitrophenol	48.6	65	A		-0.52	12 - 160		
Acenaphthene	24.4	32.5	A		-1.37	14.7 - 50.4		
Acenaphthylene	35.7	123	N		-3.81	54 - 192		
Anthracene	37.9	40.6	A		-0.40	20.5 - 60.7		
Benzo(a)anthracene	131	160	A		-1.27	92 - 228		
Benzo(a)pyrene	112	108	A		0.19	48 - 168		
Benzo(b)fluoranthene	55.8	52.9	A		0.31	24.1 - 81.6		
Benzo(g,h,i)perylene	26.7	33.3	A		-1.10	15.3 - 51.3		
Benzo(k)fluoranthene	149	130	A		0.62	40 - 221		
bis(2-chloroethoxy)methane	NR	<10						
bis(2-chloroethyl)ether	NR	<10						
bis(2-chloroisopropyl)ether	NR	<10						
Bis(2-ethylhexyl)phthalate	NR	<10						
Butylbenzylphthalate	NR	<10						
Chrysene	86.5	89	A		-0.17	45 - 133		
Di-n-butylphthalate	NR	<10						
Di-n-octylphthalate	NR	<10						
Dibenzo(a,h)anthracene	37.1	39.6	A		-0.32	16.3 - 62.8		
Dibenzofuran	141	147	A		-0.26	76 - 218		
Diethylphthalate	NR	<10						
Dimethylphthalate	NR	<10						
Fluoranthene	39.8	44.1	A		-0.65	24.5 - 63.6		
Fluorene	54.9	52.3	A		0.31	26.9 - 77.7		
Hexachlorobenzene	97.3	116	A		-1.06	63 - 169		
Hexachlorobutadiene	31.7	55.1	A		-1.52	8.9 - 101.4		
Hexachlorocyclopentadiene	38.8	44.8	A		-0.29	7.9 - 106.5		
Hexachloroethane	85.0	102	A		-0.58	17 - 188		
Indeno(1,2,3-c,d)pyrene	142	135	A		0.25	52 - 218		
Isophorone	46.5	45.1	A		0.17	20.2 - 69.9		
N-Nitroso-di-n-propylamine	NR	<10						
N-Nitrosodimethylamine	NR	<10						
N-Nitrosodiphenylamine	NR	<10						
Naphthalene	82.2	81	A		0.06	28 - 135		
Nitrobenzene	140	129	A		0.44	56 - 202		
Pentachlorophenol	100	99	A		0.04	39 - 159		
Phenanthrene	63.2	71.8	A		-0.82	40.3 - 103.4		
Phenol	46.0	106	A		-1.23	19 - 254		
Pyrene	49.5	52.0	A		-0.27	24.9 - 79.0		

NOTE: The spiking solution used to create the MAPEP OrW standard was validated by RESL Chemists.

Criteria based on FoPT Table for NPW - March 16, 2015

A = Result acceptable Z-score <=3.0

N = Result not acceptable Z-score > 3.0

W = Check reported result for error. NR = Not Reported

L = Uncertainty potentially too low (for information purposes only)

H = Uncertainty potentially too high (for information purposes only)

Notes:

(2) = False Negative
(19) = Detection Limit Concern

Mixed Analyte Performance Evaluation Program

Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-15-OrW33
(CORE02) TestAmerica Denver
4955 Yarrow St
Arvada, CO 80002

Organic								Units: (ug/L)
Analyte	Result	Calc Mean	Flag	Notes	Z-Score	Acceptance Range	Unc Value	Unc Flag
4,4'-DDD	7.43	7.09	A		0.30	3.76 - 10.42	13.3	H
4,4'-DDE	5.25	6.07	A		-0.79	2.95 - 9.19	10.6	H
4,4'-DDT	7.86	8.03	A		-0.12	3.49 - 12.58	10.9	H
Aldrin	9.49	10.2	A		-0.36	4.3 - 16.2	16.3	H
alpha Chlordane	8.40	8.47	A		-0.05	4.30 - 12.64	11.6	H
alpha-BHC	7.72	8.0	A		-0.22	3.9 - 12.1	9.1	H
beta-BHC	14.4	15	A		-0.38	8 - 23	7.8	H
delta-BHC	4.70	4.72	A		-0.02	2.18 - 7.26	7.1	H
Dieldrin	9.68	10.1	A		-0.26	5.6 - 14.5	9.0	H
Endosulfan I	9.02	8.6	A		0.24	3.8 - 13.4	8.9	H
Endosulfan II	8.16	8.0	A		0.12	3.7 - 12.3	7.3	H
Endosulfan sulfate	13.6	14.5	A		-0.40	7.4 - 21.6	8.4	H
Endrin	11.7	12.9	A		-0.54	6.1 - 19.7	9.0	H
Endrin Aldehyde	10.6	11.6	A		-0.47	4.9 - 18.4	9.4	H
Endrin Ketone	17.3	16.5	A		0.37	9.8 - 23.2	7.8	H
gamma Chlordane	6.85	7.02	A		-0.15	3.62 - 10.43	10.3	H
gamma-BHC (Lindane)	6.47	6.94	A		-0.39	3.39 - 10.49	8.6	H
Heptachlor	4.98	5.31	A		-0.32	2.21 - 8.40	13.8	H
Heptachlor epoxide	6.91	6.71	A		0.20	3.69 - 9.74	8.1	H
Methoxychlor	9.68	10.3	A		-0.34	4.8 - 15.8	9.9	H
1,2,4-Trichlorobenzene	90.9	96	A		-0.22	28 - 164	10.9	
1,2-Dichlorobenzene	83.9	89	A		-0.20	19 - 158	11.3	
1,3-Dichlorobenzene	102	110	A		-0.25	18 - 208	11.5	
1,4-Dichlorobenzene	20.8	21.9	A		-0.19	4.6 - 39.3	11.4	H
2,4,5-Trichlorophenol	<10.1	<10	A				7.6	
2,4,6-Trichlorophenol	<10.1	<10	A				8.5	
2,4-Dichlorophenol	137	142	A		-0.18	61 - 223	6.9	
2,4-Dimethylphenol	36.4	58.9	A		-1.82	21.8 - 95.9	7.9	H
2,4-Dinitrophenol	130	109	A		0.57	16 - 217	12.0	
2,4-Dinitrotoluene	91.8	76.7	A		1.19	38.5 - 114.9	6.3	
2,6-Dichlorophenol	127	129	A		-0.08	51 - 208	12.5	
2,6-Dinitrotoluene	56.7	48.7	A		0.99	24.5 - 72.9	5.8	
2-Chloronaphthalene	131	126	A		0.19	47 - 205	8.8	
2-Chlorophenol	95.6	100	A		-0.21	38 - 161	7.3	
2-Methylnaphthalene	29.6	28.0	A		0.22	6.4 - 49.6	9.8	H
2-Methylphenol	101	100	A		0.03	33 - 168	5.8	

Organic								Units: (ug/L)
Analyte	Result	Calc Mean	Flag	Notes	Z-Score	Acceptance Range	Unc Value	Unc Flag
2-Nitrophenol	135	134	A		0.04	60 - 208	8.6	
4,6-Dinitro-2-methylphenol	97.6	84	A		0.77	31 - 137	10.4	
4-Bromophenyl-phenylether	<10.1	<10	A				6.3	
4-Chloro-3-methylphenol	78.8	75.6	A		0.24	35.5 - 115.8	5.6	
4-Chlorophenyl-phenylether	<10.1	<10	A				6.5	
4-Methylphenol	59.7	52.9	A		0.41	7.8 - 102.1	7.1	
4-Nitrophenol	115	65	A		1.59	12 - 160	11.8	
Acenaphthene	37.4	32.5	A		0.82	14.7 - 50.4	6.9	
Acenaphthylene	123	123	A		-0.02	54 - 192	7.4	
Anthracene	45.3	40.6	A		0.70	20.5 - 60.7	6.3	
Benzo(a)anthracene	187	160	A		1.20	92 - 228	6.3	
Benzo(a)pyrene	123	108	A		0.74	48 - 168	6.1	
Benzo(b)fluoranthene	64.6	52.9	A		1.23	24.1 - 81.6	8.4	
Benzo(g,h,i)perylene	39.0	33.3	A		0.96	15.3 - 51.3	7.8	
Benzo(k)fluoranthene	164	130	A		1.12	40 - 221	7.9	
bis(2-chloroethoxy)methane	<10.1	<10	A				5.6	
bis(2-chloroethyl)ether	<10.1	<10	A				6.6	
bis(2-chloroisopropyl)ether	<10.1	<10	A				9.1	
Bis(2-ethylhexyl)phthalate	<10.1	<10	A				11.8	
Butylbenzylphthalate	<4.05	<10	A				7.6	
Chrysene	112	89	A		1.58	45 - 133	6.5	
Di-n-butylphthalate	<4.05	<10	A				6.8	
Di-n-octylphthalate	<4.05	<10	A				8.1	
Dibenzo(a,h)anthracene	47.8	39.6	A		1.06	16.3 - 62.8	9.0	
Dibenzofuran	154	147	A		0.29	76 - 218	6.5	
Diethylphthalate	<4.05	<10	A				6.3	
Dimethylphthalate	<4.05	<10	A				5.8	
Fluoranthene	49.0	44.1	A		0.76	24.5 - 63.6	7.0	
Fluorene	57.5	52.3	A		0.62	26.9 - 77.7	6.1	
Hexachlorobenzene	130	116	A		0.80	63 - 169	6.5	
Hexachlorobutadiene	42.2	55.1	A		-0.84	8.9 - 101.4	12.4	H
Hexachlorocyclopentadiene	<50.7	44.8	A			7.9 - 106.5	13.8	
Hexachloroethane	83.4	102	A		-0.64	17 - 188	12.0	
Indeno(1,2,3-c,d)pyrene	152	135	A		0.61	52 - 218	9.1	
Isophorone	42.5	45.1	A		-0.31	20.2 - 69.9	6.3	
N-Nitroso-di-n-propylamine	<10.1	<10	A				7.9	
N-Nitrosodimethylamine	<10.1	<10	A				7.3	
N-Nitrosodiphenylamine	<10.1	<10	A				6.3	
Naphthalene	85.3	81	A		0.23	28 - 135	10.3	
Nitrobenzene	127	129	A		-0.10	56 - 202	7.5	
Pentachlorophenol	114	99	A		0.74	39 - 159	10.4	
Phenanthrene	79.2	71.8	A		0.70	40.3 - 103.4	6.3	
Phenol	129	106	A		0.46	19 - 254	7.0	
Pyrene	64.0	52.0	A		1.34	24.9 - 79.0	7.0	

NOTE: The spiking solution used to create the MAPEP OrW standard was validated by RESL Chemists.

Criteria based on FoPT Table for NPW - March 16, 2015

A = Result acceptable Z-score <=3.0

N = Result not acceptable Z-score > 3.0

W = Check reported result for error. NR = Not Reported

L = Uncertainty potentially too low (for information purposes only)

H = Uncertainty potentially too high (for information purposes only)

Notes:

(2) = False Negative
(19) = Detection Limit Concern

MAPEP Mixed Analyte Performance Evaluation Program

Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-15-OrW33
(DPAL01) S&S Onsite Analytical, Ltd.
7277 Twp. Rd. 95
Findlay, OH 45840

Organic — Units: (ug/L)

Analyte	Result	Calc Mean	Flag	Notes	Z-Score	Acceptance Range	Unc Value	Unc Flag
4,4'-DDD	NR	7.09				3.76 - 10.42		
4,4'-DDE	NR	6.07				2.95 - 9.19		
4,4'-DDT	NR	8.03				3.49 - 12.58		
Aldrin	NR	10.2				4.3 - 16.2		
alpha Chlordane	NR	8.47				4.30 - 12.64		
alpha-BHC	NR	8.0				3.9 - 12.1		
beta-BHC	NR	15				8 - 23		
delta-BHC	NR	4.72				2.18 - 7.26		
Dieldrin	NR	10.1				5.6 - 14.5		
Endosulfan I	NR	8.6				3.8 - 13.4		
Endosulfan II	NR	8.0				3.7 - 12.3		
Endosulfan sulfate	NR	14.5				7.4 - 21.6		
Endrin	NR	12.9				6.1 - 19.7		
Endrin Aldehyde	NR	11.6				4.9 - 18.4		
Endrin Ketone	NR	16.5				9.8 - 23.2		
gamma Chlordane	NR	7.02				3.62 - 10.43		
gamma-BHC (Lindane)	NR	6.94				3.39 - 10.49		
Heptachlor	NR	5.31				2.21 - 8.40		
Heptachlor epoxide	NR	6.71				3.69 - 9.74		
Methoxychlor	NR	10.3				4.8 - 15.8		
1,2,4-Trichlorobenzene	121	96	A		1.11	28 - 164		
1,2-Dichlorobenzene	138	89	A		2.13	19 - 158		
1,3-Dichlorobenzene	175	110	A		1.98	18 - 208		
1,4-Dichlorobenzene	33.3	21.9	A		1.97	4.6 - 39.3		
2,4,5-Trichlorophenol	NR	<10						
2,4,6-Trichlorophenol	NR	<10						
2,4-Dichlorophenol	187	142	A		1.66	61 - 223		
2,4-Dimethylphenol	63.1	58.9	A		0.34	21.8 - 95.9		
2,4-Dinitrophenol	127	109	A		0.49	16 - 217		
2,4-Dinitrotoluene	NR	76.7				38.5 - 114.9		
2,6-Dichlorophenol	NR	129				51 - 208		
2,6-Dinitrotoluene	65.8	48.7	A		2.12	24.5 - 72.9		
2-Chloronaphthalene	191	126	A		2.48	47 - 205		
2-Chlorophenol	130	100	A		1.47	38 - 161		
2-Methylnaphthalene	35	28.0	A		0.97	6.4 - 49.6		
2-Methylphenol	120	100	A		0.87	33 - 168		

Organic								Units: (ug/L)
Analyte	Result	Calc Mean	Flag	Notes	Z-Score	Acceptance Range	Unc Value	Unc Flag
2-Nitrophenol	169	134	A		1.43	60 - 208		
4,6-Dinitro-2-methylphenol	108	84	A		1.36	31 - 137		
4-Bromophenyl-phenylether	NR	<10						
4-Chloro-3-methylphenol	88.3	75.6	A		0.95	35.5 - 115.8		
4-Chlorophenyl-phenylether	NR	<10						
4-Methylphenol	48.7	52.9	A		-0.26	7.8 - 102.1		
4-Nitrophenol	42.3	65	A		-0.72	12 - 160		
Acenaphthene	47.5	32.5	A		2.51	14.7 - 50.4		
Acenaphthylene	185	123	A		2.68	54 - 192		
Anthracene	48.4	40.6	A		1.16	20.5 - 60.7		
Benzo(a)anthracene	195	160	A		1.55	92 - 228		
Benzo(a)pyrene	144	108	A		1.78	48 - 168		
Benzo(b)fluoranthene	62.7	52.9	A		1.03	24.1 - 81.6		
Benzo(g,h,i)perylene	40.9	33.3	A		1.27	15.3 - 51.3		
Benzo(k)fluoranthene	157	130	A		0.89	40 - 221		
bis(2-chloroethoxy)methane	NR	<10						
bis(2-chloroethyl)ether	NR	<10						
bis(2-chloroisopropyl)ether	NR	<10						
Bis(2-ethylhexyl)phthalate	NR	<10						
Butylbenzylphthalate	NR	<10						
Chrysene	115	89	A		1.79	45 - 133		
Di-n-butylphthalate	NR	<10						
Di-n-octylphthalate	NR	<10						
Dibenzo(a,h)anthracene	NR	39.6				16.3 - 62.8		
Dibenzofuran	220	147	N		3.07	76 - 218		
Diethylphthalate	NR	<10						
Dimethylphthalate	NR	<10						
Fluoranthene	45.6	44.1	A		0.24	24.5 - 63.6		
Fluorene	71.8	52.3	A		2.31	26.9 - 77.7		
Hexachlorobenzene	128	116	A		0.69	63 - 169		
Hexachlorobutadiene	52	55.1	A		-0.20	8.9 - 101.4		
Hexachlorocyclopentadiene	38.0	44.8	A		-0.33	7.9 - 106.5		
Hexachloroethane	122	102	A		0.70	17 - 188		
Indeno(1,2,3-c,d)pyrene	202	135	A		2.42	52 - 218		
Isophorone	50.5	45.1	A		0.65	20.2 - 69.9		
N-Nitroso-di-n-propylamine	NR	<10						
N-Nitrosodimethylamine	NR	<10						
N-Nitrosodiphenylamine	NR	<10						
Naphthalene	117	81	A		2.01	28 - 135		
Nitrobenzene	150	129	A		0.85	56 - 202		
Pentachlorophenol	127	99	A		1.39	39 - 159		
Phenanthrene	91.2	71.8	A		1.84	40.3 - 103.4		
Phenol	59.9	106	A		-0.95	19 - 254		
Pyrene	46.3	52.0	A		-0.63	24.9 - 79.0		

NOTE: The spiking solution used to create the MAPEP OrW standard was validated by RESL Chemists.

Criteria based on FoPT Table for NPW - March 16, 2015

A = Result acceptable Z-score <=3.0

N = Result not acceptable Z-score > 3.0

W = Check reported result for error. NR = Not Reported

L = Uncertainty potentially too low (for information purposes only)

H = Uncertainty potentially too high (for information purposes only)

Notes:

(2) = False Negative
(19) = Detection Limit Concern

MAPEP Mixed Analyte Performance Evaluation Program

Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-15-OrW33
(EMAX01) EMAX Laboratories, Inc
1835 W. 205th St.
Torrance, CA 90501

Organic — Units: (ug/L)

Analyte	Result	Calc Mean	Flag	Notes	Z-Score	Acceptance Range	Unc Value	Unc Flag
4,4'-DDD	8.55	7.09	A		1.31	3.76 - 10.42		
4,4'-DDE	6.87	6.07	A		0.77	2.95 - 9.19		
4,4'-DDT	9.39	8.03	A		0.90	3.49 - 12.58		
Aldrin	12.0	10.2	A		0.90	4.3 - 16.2		
alpha Chlordane	11.0	8.47	A		1.82	4.30 - 12.64		
alpha-BHC	6.81	8.0	A		-0.88	3.9 - 12.1		
beta-BHC	14.1	15	A		-0.50	8 - 23		
delta-BHC	6.18	4.72	A		1.73	2.18 - 7.26		
Dieldrin	11.1	10.1	A		0.69	5.6 - 14.5		
Endosulfan I	9.95	8.6	A		0.82	3.8 - 13.4		
Endosulfan II	10.1	8.0	A		1.48	3.7 - 12.3		
Endosulfan sulfate	17.9	14.5	A		1.42	7.4 - 21.6		
Endrin	14.1	12.9	A		0.52	6.1 - 19.7		
Endrin Aldehyde	12.9	11.6	A		0.56	4.9 - 18.4		
Endrin Ketone	21.0	16.5	A		2.02	9.8 - 23.2		
gamma Chlordane	7.98	7.02	A		0.84	3.62 - 10.43		
gamma-BHC (Lindane)	8.42	6.94	A		1.25	3.39 - 10.49		
Heptachlor	5.73	5.31	A		0.41	2.21 - 8.40		
Heptachlor epoxide	7.64	6.71	A		0.92	3.69 - 9.74		
Methoxychlor	14.1	10.3	A		2.06	4.8 - 15.8		
1,2,4-Trichlorobenzene	106	96	A		0.45	28 - 164		
1,2-Dichlorobenzene	101	89	A		0.53	19 - 158		
1,3-Dichlorobenzene	127	110	A		0.51	18 - 208		
1,4-Dichlorobenzene	23.7	21.9	A		0.31	4.6 - 39.3		
2,4,5-Trichlorophenol	< 10	<10	A					
2,4,6-Trichlorophenol	< 10	<10	A					
2,4-Dichlorophenol	180	142	A		1.40	61 - 223		
2,4-Dimethylphenol	66.4	58.9	A		0.61	21.8 - 95.9		
2,4-Dinitrophenol	187	109	A		2.15	16 - 217		
2,4-Dinitrotoluene	87.9	76.7	A		0.88	38.5 - 114.9		
2,6-Dichlorophenol	155	129	A		0.99	51 - 208		
2,6-Dinitrotoluene	52.6	48.7	A		0.48	24.5 - 72.9		
2-Chloronaphthalene	139	126	A		0.49	47 - 205		
2-Chlorophenol	109	100	A		0.44	38 - 161		
2-Methylnaphthalene	31.2	28.0	A		0.45	6.4 - 49.6		
2-Methylphenol	126	100	A		1.13	33 - 168		

Organic								Units: (ug/L)
Analyte	Result	Calc Mean	Flag	Notes	Z-Score	Acceptance Range	Unc Value	Unc Flag
2-Nitrophenol	170	134	A		1.47	60 - 208		
4,6-Dinitro-2-methylphenol	117	84	A		1.87	31 - 137		
4-Bromophenyl-phenylether	< 10	<10	A					
4-Chloro-3-methylphenol	95.1	75.6	A		1.46	35.5 - 115.8		
4-Chlorophenyl-phenylether	< 10	<10	A					
4-Methylphenol	61.9	52.9	A		0.55	7.8 - 102.1		
4-Nitrophenol	132	65	A		2.12	12 - 160		
Acenaphthene	36.6	32.5	A		0.68	14.7 - 50.4		
Acenaphthylene	147	123	A		1.03	54 - 192		
Anthracene	40.7	40.6	A		0.02	20.5 - 60.7		
Benzo(a)anthracene	171	160	A		0.49	92 - 228		
Benzo(a)pyrene	117	108	A		0.44	48 - 168		
Benzo(b)fluoranthene	61.0	52.9	A		0.85	24.1 - 81.6		
Benzo(g,h,i)perylene	26.8	33.3	A		-1.08	15.3 - 51.3		
Benzo(k)fluoranthene	140	130	A		0.32	40 - 221		
bis(2-chloroethoxy)methane	< 10	<10	A					
bis(2-chloroethyl)ether	< 10	<10	A					
bis(2-chloroisopropyl)ether	< 10	<10	A					
Bis(2-ethylhexyl)phthalate	< 10	<10	A					
Butylbenzylphthalate	< 10	<10	A					
Chrysene	97.5	89	A		0.58	45 - 133		
Di-n-butylphthalate	< 10	<10	A					
Di-n-octylphthalate	< 10	<10	A					
Dibenzo(a,h)anthracene	43.7	39.6	A		0.54	16.3 - 62.8		
Dibenzofuran	179	147	A		1.34	76 - 218		
Diethylphthalate	< 10	<10	A					
Dimethylphthalate	< 10	<10	A					
Fluoranthene	45.2	44.1	A		0.17	24.5 - 63.6		
Fluorene	57.6	52.3	A		0.63	26.9 - 77.7		
Hexachlorobenzene	120	116	A		0.24	63 - 169		
Hexachlorobutadiene	45.7	55.1	A		-0.61	8.9 - 101.4		
Hexachlorocyclopentadiene	27.4	44.8	A		-0.85	7.9 - 106.5		
Hexachloroethane	99.6	102	A		-0.08	17 - 188		
Indeno(1,2,3-c,d)pyrene	141	135	A		0.21	52 - 218		
Isophorone	48.0	45.1	A		0.35	20.2 - 69.9		
N-Nitroso-di-n-propylamine	< 10	<10	A					
N-Nitrosodimethylamine	< 10	<10	A					
N-Nitrosodiphenylamine	< 10	<10	A					
Naphthalene	94.1	81	A		0.72	28 - 135		
Nitrobenzene	142	129	A		0.52	56 - 202		
Pentachlorophenol	115	99	A		0.79	39 - 159		
Phenanthrene	78.3	71.8	A		0.61	40.3 - 103.4		
Phenol	159	106	A		1.07	19 - 254		
Pyrene	56.7	52.0	A		0.53	24.9 - 79.0		

NOTE: The spiking solution used to create the MAPEP OrW standard was validated by RESL Chemists.

Criteria based on FoPT Table for NPW - March 16, 2015

A = Result acceptable Z-score <=3.0

N = Result not acceptable Z-score > 3.0

W = Check reported result for error. NR = Not Reported

L = Uncertainty potentially too low (for information purposes only)

H = Uncertainty potentially too high (for information purposes only)

Notes:

(2) = False Negative
(19) = Detection Limit Concern

Mixed Analyte Performance Evaluation Program

Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-15-OrW33
(GENE01) GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407

Organic — Units: (ug/L)

Analyte	Result	Calc Mean	Flag	Notes	Z-Score	Acceptance Range	Unc Value	Unc Flag
4,4'-DDD	7.88	7.09	A		0.71	3.76 - 10.42		
4,4'-DDE	6.56	6.07	A		0.47	2.95 - 9.19		
4,4'-DDT	8.40	8.03	A		0.24	3.49 - 12.58		
Aldrin	10.8	10.2	A		0.30	4.3 - 16.2		
alpha Chlordane	9.23	8.47	A		0.55	4.30 - 12.64		
alpha-BHC	9.21	8.0	A		0.87	3.9 - 12.1		
beta-BHC	18.2	15	A		1.20	8 - 23		
delta-BHC	5.49	4.72	A		0.91	2.18 - 7.26		
Dieldrin	11.4	10.1	A		0.90	5.6 - 14.5		
Endosulfan I	9.16	8.6	A		0.33	3.8 - 13.4		
Endosulfan II	7.83	8.0	A		-0.11	3.7 - 12.3		
Endosulfan sulfate	16.4	14.5	A		0.79	7.4 - 21.6		
Endrin	12.7	12.9	A		-0.10	6.1 - 19.7		
Endrin Aldehyde	12.5	11.6	A		0.38	4.9 - 18.4		
Endrin Ketone	20.5	16.5	A		1.80	9.8 - 23.2		
gamma Chlordane	6.33	7.02	A		-0.61	3.62 - 10.43		
gamma-BHC (Lindane)	10.3	6.94	A		2.84	3.39 - 10.49		
Heptachlor	3.67	5.31	A		-1.59	2.21 - 8.40		
Heptachlor epoxide	7.43	6.71	A		0.71	3.69 - 9.74		
Methoxychlor	11.0	10.3	A		0.38	4.8 - 15.8		
1,2,4-Trichlorobenzene	79.8	96	A		-0.71	28 - 164		
1,2-Dichlorobenzene	75.4	89	A		-0.57	19 - 158		
1,3-Dichlorobenzene	90.4	110	A		-0.61	18 - 208		
1,4-Dichlorobenzene	18.4	21.9	A		-0.61	4.6 - 39.3		
2,4,5-Trichlorophenol	<10	<10	A					
2,4,6-Trichlorophenol	<10	<10	A					
2,4-Dichlorophenol	123	142	A		-0.70	61 - 223		
2,4-Dimethylphenol	49.8	58.9	A		-0.73	21.8 - 95.9		
2,4-Dinitrophenol	119	109	A		0.27	16 - 217		
2,4-Dinitrotoluene	67.8	76.7	A		-0.70	38.5 - 114.9		
2,6-Dichlorophenol	116	129	A		-0.51	51 - 208		
2,6-Dinitrotoluene	45.2	48.7	A		-0.44	24.5 - 72.9		
2-Chloronaphthalene	106	126	A		-0.77	47 - 205		
2-Chlorophenol	88.4	100	A		-0.56	38 - 161		
2-Methylnaphthalene	27.3	28.0	A		-0.10	6.4 - 49.6		
2-Methylphenol	89.4	100	A		-0.49	33 - 168		

Organic								Units: (ug/L)
Analyte	Result	Calc Mean	Flag	Notes	Z-Score	Acceptance Range	Unc Value	Unc Flag
2-Nitrophenol	118	134	A		-0.65	60 - 208		
4,6-Dinitro-2-methylphenol	79.4	84	A		-0.25	31 - 137		
4-Bromophenyl-phenylether	<10	<10	A					
4-Chloro-3-methylphenol	67.3	75.6	A		-0.62	35.5 - 115.8		
4-Chlorophenyl-phenylether	<10	<10	A					
4-Methylphenol	43.8	52.9	A		-0.56	7.8 - 102.1		
4-Nitrophenol	57.8	65	A		-0.23	12 - 160		
Acenaphthene	30.0	32.5	A		-0.43	14.7 - 50.4		
Acenaphthylene	110	123	A		-0.58	54 - 192		
Anthracene	33.1	40.6	A		-1.12	20.5 - 60.7		
Benzo(a)anthracene	131	160	A		-1.27	92 - 228		
Benzo(a)pyrene	93.3	108	A		-0.75	48 - 168		
Benzo(b)fluoranthene	47.8	52.9	A		-0.53	24.1 - 81.6		
Benzo(g,h,i)perylene	28.4	33.3	A		-0.81	15.3 - 51.3		
Benzo(k)fluoranthene	111	130	A		-0.64	40 - 221		
bis(2-chloroethoxy)methane	<10	<10	A					
bis(2-chloroethyl)ether	<10	<10	A					
bis(2-chloroisopropyl)ether	<10	<10	A					
Bis(2-ethylhexyl)phthalate	<10	<10	A					
Butylbenzylphthalate	<10	<10	A					
Chrysene	80.5	89	A		-0.59	45 - 133		
Di-n-butylphthalate	<10	<10	A					
Di-n-octylphthalate	<10	<10	A					
Dibenzo(a,h)anthracene	30.7	39.6	A		-1.14	16.3 - 62.8		
Dibenzofuran	118	147	A		-1.24	76 - 218		
Diethylphthalate	<10	<10	A					
Dimethylphthalate	<10	<10	A					
Fluoranthene	35.9	44.1	A		-1.25	24.5 - 63.6		
Fluorene	47.6	52.3	A		-0.56	26.9 - 77.7		
Hexachlorobenzene	91.5	116	A		-1.39	63 - 169		
Hexachlorobutadiene	33.5	55.1	A		-1.41	8.9 - 101.4		
Hexachlorocyclopentadiene	27.8	44.8	A		-0.83	7.9 - 106.5		
Hexachloroethane	84.7	102	A		-0.59	17 - 188		
Indeno(1,2,3-c,d)pyrene	116	135	A		-0.70	52 - 218		
Isophorone	40.7	45.1	A		-0.53	20.2 - 69.9		
N-Nitroso-di-n-propylamine	<10	<10	A					
N-Nitrosodimethylamine	<10	<10	A					
N-Nitrosodiphenylamine	<10	<10	A					
Naphthalene	74.4	81	A		-0.38	28 - 135		
Nitrobenzene	117	129	A		-0.51	56 - 202		
Pentachlorophenol	98.8	99	A		-0.02	39 - 159		
Phenanthrene	59.0	71.8	A		-1.22	40.3 - 103.4		
Phenol	66.6	106	A		-0.81	19 - 254		
Pyrene	50.6	52.0	A		-0.15	24.9 - 79.0		

NOTE: The spiking solution used to create the MAPEP OrW standard was validated by RESL Chemists.

Criteria based on FoPT Table for NPW - March 16, 2015

A = Result acceptable Z-score <=3.0

N = Result not acceptable Z-score > 3.0

W = Check reported result for error. NR = Not Reported

L = Uncertainty potentially too low (for information purposes only)

H = Uncertainty potentially too high (for information purposes only)

Notes:

(2) = False Negative
(19) = Detection Limit Concern

Mixed Analyte Performance Evaluation Program

Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-15-OrW33
(HEAL01) Hall Environmental Analysis Laboratory
4901 Hawkins St. NE
Albuquerque, NM 87109

Organic								Units: (ug/L)
Analyte	Result	Calc Mean	Flag	Notes	Z-Score	Acceptance Range	Unc Value	Unc Flag
4,4'-DDD	2.29	7.09	N		-4.33	3.76 - 10.42		
4,4'-DDE	1.68	6.07	N		-4.22	2.95 - 9.19		
4,4'-DDT	2.34	8.03	N		-3.76	3.49 - 12.58		
Aldrin	5.10	10.2	A		-2.57	4.3 - 16.2		
alpha Chlordane	NR	8.47				4.30 - 12.64		
alpha-BHC	8.13	8.0	A		0.08	3.9 - 12.1		
beta-BHC	16.5	15	A		0.50	8 - 23		
delta-BHC	4.98	4.72	A		0.31	2.18 - 7.26		
Dieldrin	6.27	10.1	A		-2.56	5.6 - 14.5		
Endosulfan I	7.54	8.6	A		-0.69	3.8 - 13.4		
Endosulfan II	6.03	8.0	A		-1.37	3.7 - 12.3		
Endosulfan sulfate	12.9	14.5	A		-0.69	7.4 - 21.6		
Endrin	7.22	12.9	A		-2.53	6.1 - 19.7		
Endrin Aldehyde	12.6	11.6	A		0.43	4.9 - 18.4		
Endrin Ketone	NR	16.5				9.8 - 23.2		
gamma Chlordane	NR	7.02				3.62 - 10.43		
gamma-BHC (Lindane)	7.16	6.94	A		0.19	3.39 - 10.49		
Heptachlor	2.71	5.31	A		-2.52	2.21 - 8.40		
Heptachlor epoxide	5.69	6.71	A		-1.01	3.69 - 9.74		
Methoxychlor	4.27	10.3	N		-3.28	4.8 - 15.8		
1,2,4-Trichlorobenzene	64.4	96	A		-1.39	28 - 164		
1,2-Dichlorobenzene	61.2	89	A		-1.19	19 - 158		
1,3-Dichlorobenzene	74.5	110	A		-1.09	18 - 208		
1,4-Dichlorobenzene	14.4	21.9	A		-1.30	4.6 - 39.3		
2,4,5-Trichlorophenol	<10.0	<10	A					
2,4,6-Trichlorophenol	<10.0	<10	A					
2,4-Dichlorophenol	97.1	142	A		-1.65	61 - 223		
2,4-Dimethylphenol	31.9	58.9	A		-2.18	21.8 - 95.9		
2,4-Dinitrophenol	73.2	109	A		-1.01	16 - 217		
2,4-Dinitrotoluene	56.4	76.7	A		-1.59	38.5 - 114.9		
2,6-Dichlorophenol	NR	129				51 - 208		
2,6-Dinitrotoluene	30.0	48.7	A		-2.32	24.5 - 72.9		
2-Chloronaphthalene	80.1	126	A		-1.75	47 - 205		
2-Chlorophenol	70.1	100	A		-1.45	38 - 161		
2-Methylnaphthalene	19.8	28.0	A		-1.14	6.4 - 49.6		
2-Methylphenol	72.2	100	A		-1.25	33 - 168		

Organic								Units: (ug/L)
Analyte	Result	Calc Mean	Flag	Notes	Z-Score	Acceptance Range	Unc Value	Unc Flag
2-Nitrophenol	93.5	134	A		-1.64	60 - 208		
4,6-Dinitro-2-methylphenol	49.8	84	A		-1.92	31 - 137		
4-Bromophenyl-phenylether	<10.0	<10	A					
4-Chloro-3-methylphenol	46.7	75.6	A		-2.17	35.5 - 115.8		
4-Chlorophenyl-phenylether	<10.0	<10	A					
4-Methylphenol	33.5	52.9	A		-1.19	7.8 - 102.1		
4-Nitrophenol	44.8	65	A		-0.64	12 - 160		
Acenaphthene	19.9	32.5	A		-2.12	14.7 - 50.4		
Acenaphthylene	72.4	123	A		-2.22	54 - 192		
Anthracene	20.8	40.6	A		-2.95	20.5 - 60.7		
Benzo(a)anthracene	97.2	160	A		-2.76	92 - 228		
Benzo(a)pyrene	60.6	108	A		-2.38	48 - 168		
Benzo(b)fluoranthene	27.1	52.9	A		-2.69	24.1 - 81.6		
Benzo(g,h,i)perylene	18.2	33.3	A		-2.52	15.3 - 51.3		
Benzo(k)fluoranthene	73.2	130	A		-1.89	40 - 221		
bis(2-chloroethoxy)methane	<10.0	<10	A					
bis(2-chloroethyl)ether	<10.0	<10	A					
bis(2-chloroisopropyl)ether	<10.0	<10	A					
Bis(2-ethylhexyl)phthalate	<10.0	<10	A					
Butylbenzylphthalate	<10.0	<10	A					
Chrysene	53.3	89	A		-2.46	45 - 133		
Di-n-butylphthalate	<10.0	<10	A					
Di-n-octylphthalate	<10.0	<10	A					
Dibenzo(a,h)anthracene	23.0	39.6	A		-2.13	16.3 - 62.8		
Dibenzofuran	110	147	A		-1.57	76 - 218		
Diethylphthalate	<10.0	<10	A					
Dimethylphthalate	<10.0	<10	A					
Fluoranthene	24.2	44.1	N		-3.04	24.5 - 63.6		
Fluorene	31.4	52.3	A		-2.47	26.9 - 77.7		
Hexachlorobenzene	64.0	116	A		-2.95	63 - 169		
Hexachlorobutadiene	25.4	55.1	A		-1.93	8.9 - 101.4		
Hexachlorocyclopentadiene	31.4	44.8	A		-0.65	7.9 - 106.5		
Hexachloroethane	67.9	102	A		-1.18	17 - 188		
Indeno(1,2,3-c,d)pyrene	85.1	135	A		-1.82	52 - 218		
Isophorone	25.0	45.1	A		-2.42	20.2 - 69.9		
N-Nitroso-di-n-propylamine	<10.0	<10	A					
N-Nitrosodimethylamine	<10.0	<10	A					
N-Nitrosodiphenylamine	<10.0	<10	A					
Naphthalene	53.9	81	A		-1.53	28 - 135		
Nitrobenzene	86.5	129	A		-1.76	56 - 202		
Pentachlorophenol	53.5	99	A		-2.29	39 - 159		
Phenanthrene	41.8	71.8	A		-2.86	40.3 - 103.4		
Phenol	57.1	106	A		-1.01	19 - 254		
Pyrene	28.4	52.0	A		-2.61	24.9 - 79.0		

NOTE: The spiking solution used to create the MAPEP OrW standard was validated by RESL Chemists.

Criteria based on FoPT Table for NPW - March 16, 2015

A = Result acceptable Z-score <=3.0

N = Result not acceptable Z-score > 3.0

W = Check reported result for error. NR = Not Reported

L = Uncertainty potentially too low (for information purposes only)

H = Uncertainty potentially too high (for information purposes only)

Notes:

(2) = False Negative
(19) = Detection Limit Concern

Mixed Analyte Performance Evaluation Program

Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-15-OrW33
(QUAN01) TestAmerica St. Louis
13715 Rider Trail North
Earth City, MO 63045-1205

Organic — Units: (ug/L)

Analyte	Result	Calc Mean	Flag	Notes	Z-Score	Acceptance Range	Unc Value	Unc Flag
4,4'-DDD	6.4	7.09	A		-0.63	3.76 - 10.42		
4,4'-DDE	5.1	6.07	A		-0.93	2.95 - 9.19		
4,4'-DDT	6.7	8.03	A		-0.88	3.49 - 12.58		
Aldrin	8.4	10.2	A		-0.91	4.3 - 16.2		
alpha Chlordane	6.8	8.47	A		-1.20	4.30 - 12.64		
alpha-BHC	7.9	8.0	A		-0.09	3.9 - 12.1		
beta-BHC	16	15	A		0.29	8 - 23		
delta-BHC	4.9	4.72	A		0.21	2.18 - 7.26		
Dieldrin	8.1	10.1	A		-1.33	5.6 - 14.5		
Endosulfan I	7.7	8.6	A		-0.59	3.8 - 13.4		
Endosulfan II	6.6	8.0	A		-0.97	3.7 - 12.3		
Endosulfan sulfate	15	14.5	A		0.20	7.4 - 21.6		
Endrin	9.6	12.9	A		-1.47	6.1 - 19.7		
Endrin Aldehyde	3.2	11.6	N		-3.76	4.9 - 18.4		
Endrin Ketone	18	16.5	A		0.68	9.8 - 23.2		
gamma Chlordane	5.9	7.02	A		-0.99	3.62 - 10.43		
gamma-BHC (Lindane)	6.2	6.94	A		-0.62	3.39 - 10.49		
Heptachlor	2.5	5.31	A		-2.72	2.21 - 8.40		
Heptachlor epoxide	5.7	6.71	A		-1.00	3.69 - 9.74		
Methoxychlor	7.7	10.3	A		-1.42	4.8 - 15.8		
1,2,4-Trichlorobenzene	100	96	A		0.18	28 - 164		
1,2-Dichlorobenzene	96	89	A		0.32	19 - 158		
1,3-Dichlorobenzene	120	110	A		0.30	18 - 208		
1,4-Dichlorobenzene	24	21.9	A		0.36	4.6 - 39.3		
2,4,5-Trichlorophenol	< 10	<10	A					
2,4,6-Trichlorophenol	< 10	<10	A					
2,4-Dichlorophenol	150	142	A		0.30	61 - 223		
2,4-Dimethylphenol	51	58.9	A		-0.64	21.8 - 95.9		
2,4-Dinitrophenol	72	109	A		-1.04	16 - 217		
2,4-Dinitrotoluene	78	76.7	A		0.10	38.5 - 114.9		
2,6-Dichlorophenol	140	129	A		0.41	51 - 208		
2,6-Dinitrotoluene	49	48.7	A		0.04	24.5 - 72.9		
2-Chloronaphthalene	140	126	A		0.53	47 - 205		
2-Chlorophenol	89	100	A		-0.53	38 - 161		
2-Methylnaphthalene	30	28.0	A		0.28	6.4 - 49.6		
2-Methylphenol	80	100	A		-0.91	33 - 168		

Organic								Units: (ug/L)
Analyte	Result	Calc Mean	Flag	Notes	Z-Score	Acceptance Range	Unc Value	Unc Flag
2-Nitrophenol	150	134	A		0.65	60 - 208		
4,6-Dinitro-2-methylphenol	80	84	A		-0.22	31 - 137		
4-Bromophenyl-phenylether	< 10	<10	A					
4-Chloro-3-methylphenol	70	75.6	A		-0.42	35.5 - 115.8		
4-Chlorophenyl-phenylether	< 10	<10	A					
4-Methylphenol	39	52.9	A		-0.85	7.8 - 102.1		
4-Nitrophenol	43	65	A		-0.70	12 - 160		
Acenaphthene	34	32.5	A		0.25	14.7 - 50.4		
Acenaphthylene	120	123	A		-0.15	54 - 192		
Anthracene	37	40.6	A		-0.54	20.5 - 60.7		
Benzo(a)anthracene	140	160	A		-0.87	92 - 228		
Benzo(a)pyrene	100	108	A		-0.41	48 - 168		
Benzo(b)fluoranthene	48	52.9	A		-0.51	24.1 - 81.6		
Benzo(g,h,i)perylene	30	33.3	A		-0.55	15.3 - 51.3		
Benzo(k)fluoranthene	120	130	A		-0.34	40 - 221		
bis(2-chloroethoxy)methane	< 10	<10	A					
bis(2-chloroethyl)ether	< 10	<10	A					
bis(2-chloroisopropyl)ether	< 10	<10	A					
Bis(2-ethylhexyl)phthalate	< 10	<10	A					
Butylbenzylphthalate	< 10	<10	A					
Chrysene	85	89	A		-0.28	45 - 133		
Di-n-butylphthalate	< 10	<10	A					
Di-n-octylphthalate	< 10	<10	A					
Dibenzo(a,h)anthracene	41	39.6	A		0.19	16.3 - 62.8		
Dibenzofuran	150	147	A		0.12	76 - 218		
Diethylphthalate	< 10	<10	A					
Dimethylphthalate	< 10	<10	A					
Fluoranthene	42	44.1	A		-0.32	24.5 - 63.6		
Fluorene	53	52.3	A		0.08	26.9 - 77.7		
Hexachlorobenzene	110	116	A		-0.33	63 - 169		
Hexachlorobutadiene	51	55.1	A		-0.27	8.9 - 101.4		
Hexachlorocyclopentadiene	43	44.8	A		-0.09	7.9 - 106.5		
Hexachloroethane	96	102	A		-0.20	17 - 188		
Indeno(1,2,3-c,d)pyrene	140	135	A		0.17	52 - 218		
Isophorone	38	45.1	A		-0.85	20.2 - 69.9		
N-Nitroso-di-n-propylamine	< 10	<10	A					
N-Nitrosodimethylamine	< 10	<10	A					
N-Nitrosodiphenylamine	< 10	<10	A					
Naphthalene	89	81	A		0.44	28 - 135		
Nitrobenzene	120	129	A		-0.38	56 - 202		
Pentachlorophenol	79	99	A		-1.01	39 - 159		
Phenanthrene	66	71.8	A		-0.56	40.3 - 103.4		
Phenol	55	106	A		-1.05	19 - 254		
Pyrene	44	52.0	A		-0.88	24.9 - 79.0		

NOTE: The spiking solution used to create the MAPEP OrW standard was validated by RESL Chemists.

Criteria based on FoPT Table for NPW - March 16, 2015

A = Result acceptable Z-score <=3.0

N = Result not acceptable Z-score > 3.0

W = Check reported result for error. NR = Not Reported

L = Uncertainty potentially too low (for information purposes only)

H = Uncertainty potentially too high (for information purposes only)

Notes:

(2) = False Negative
(19) = Detection Limit Concern

Mixed Analyte Performance Evaluation Program

Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-15-OrW33
(QUAN02) TestAmerica Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921-

Organic — Units: (ug/L)

Analyte	Result	Calc Mean	Flag	Notes	Z-Score	Acceptance Range	Unc Value	Unc Flag
4,4'-DDD	NR	7.09				3.76 - 10.42		
4,4'-DDE	NR	6.07				2.95 - 9.19		
4,4'-DDT	NR	8.03				3.49 - 12.58		
Aldrin	NR	10.2				4.3 - 16.2		
alpha Chlordane	NR	8.47				4.30 - 12.64		
alpha-BHC	NR	8.0				3.9 - 12.1		
beta-BHC	NR	15				8 - 23		
delta-BHC	NR	4.72				2.18 - 7.26		
Dieldrin	NR	10.1				5.6 - 14.5		
Endosulfan I	NR	8.6				3.8 - 13.4		
Endosulfan II	NR	8.0				3.7 - 12.3		
Endosulfan sulfate	NR	14.5				7.4 - 21.6		
Endrin	NR	12.9				6.1 - 19.7		
Endrin Aldehyde	NR	11.6				4.9 - 18.4		
Endrin Ketone	NR	16.5				9.8 - 23.2		
gamma Chlordane	NR	7.02				3.62 - 10.43		
gamma-BHC (Lindane)	NR	6.94				3.39 - 10.49		
Heptachlor	NR	5.31				2.21 - 8.40		
Heptachlor epoxide	NR	6.71				3.69 - 9.74		
Methoxychlor	NR	10.3				4.8 - 15.8		
1,2,4-Trichlorobenzene	95.9	96	A		0.00	28 - 164		
1,2-Dichlorobenzene	90.6	89	A		0.09	19 - 158		
1,3-Dichlorobenzene	112	110	A		0.06	18 - 208		
1,4-Dichlorobenzene	21.9	21.9	A		0.00	4.6 - 39.3		
2,4,5-Trichlorophenol	<10.0	<10	A					
2,4,6-Trichlorophenol	<10.0	<10	A					
2,4-Dichlorophenol	152	142	A		0.37	61 - 223		
2,4-Dimethylphenol	50.0	58.9	A		-0.72	21.8 - 95.9		
2,4-Dinitrophenol	131	109	A		0.60	16 - 217		
2,4-Dinitrotoluene	91.3	76.7	A		1.15	38.5 - 114.9		
2,6-Dichlorophenol	NR	129				51 - 208		
2,6-Dinitrotoluene	56.0	48.7	A		0.90	24.5 - 72.9		
2-Chloronaphthalene	138	126	A		0.46	47 - 205		
2-Chlorophenol	97.2	100	A		-0.13	38 - 161		
2-Methylnaphthalene	31.8	28.0	A		0.53	6.4 - 49.6		
2-Methylphenol	111	100	A		0.47	33 - 168		

Organic								Units: (ug/L)
Analyte	Result	Calc Mean	Flag	Notes	Z-Score	Acceptance Range	Unc Value	Unc Flag
2-Nitrophenol	139	134	A		0.21	60 - 208		
4,6-Dinitro-2-methylphenol	91.4	84	A		0.42	31 - 137		
4-Bromophenyl-phenylether	<10.0	<10	A					
4-Chloro-3-methylphenol	84.5	75.6	A		0.66	35.5 - 115.8		
4-Chlorophenyl-phenylether	<10.0	<10	A					
4-Methylphenol	62.7	52.9	A		0.60	7.8 - 102.1		
4-Nitrophenol	112	65	A		1.49	12 - 160		
Acenaphthene	38.6	32.5	A		1.02	14.7 - 50.4		
Acenaphthylene	132	123	A		0.38	54 - 192		
Anthracene	43.7	40.6	A		0.46	20.5 - 60.7		
Benzo(a)anthracene	171	160	A		0.49	92 - 228		
Benzo(a)pyrene	112	108	A		0.19	48 - 168		
Benzo(b)fluoranthene	57.3	52.9	A		0.46	24.1 - 81.6		
Benzo(g,h,i)perylene	37.8	33.3	A		0.76	15.3 - 51.3		
Benzo(k)fluoranthene	140	130	A		0.32	40 - 221		
bis(2-chloroethoxy)methane	<10.0	<10	A					
bis(2-chloroethyl)ether	<10.0	<10	A					
bis(2-chloroisopropyl)ether	<10.0	<10	A					
Bis(2-ethylhexyl)phthalate	<10.0	<10	A					
Butylbenzylphthalate	<10.0	<10	A					
Chrysene	99.1	89	A		0.69	45 - 133		
Di-n-butylphthalate	<10.0	<10	A					
Di-n-octylphthalate	<10.0	<10	A					
Dibenzo(a,h)anthracene	<10.0	39.6	N	(2)		16.3 - 62.8		
Dibenzofuran	157	147	A		0.41	76 - 218		
Diethylphthalate	<10.0	<10	A					
Dimethylphthalate	<10.0	<10	A					
Fluoranthene	50.1	44.1	A		0.92	24.5 - 63.6		
Fluorene	57.8	52.3	A		0.65	26.9 - 77.7		
Hexachlorobenzene	122	116	A		0.35	63 - 169		
Hexachlorobutadiene	44.9	55.1	A		-0.67	8.9 - 101.4		
Hexachlorocyclopentadiene	<50.0	44.8	A			7.9 - 106.5		
Hexachloroethane	92.2	102	A		-0.33	17 - 188		
Indeno(1,2,3-c,d)pyrene	148	135	A		0.46	52 - 218		
Isophorone	46.3	45.1	A		0.15	20.2 - 69.9		
N-Nitroso-di-n-propylamine	<10.0	<10	A					
N-Nitrosodimethylamine	<10.0	<10	A					
N-Nitrosodiphenylamine	<10.0	<10	A					
Naphthalene	91.8	81	A		0.60	28 - 135		
Nitrobenzene	134	129	A		0.19	56 - 202		
Pentachlorophenol	117	99	A		0.89	39 - 159		
Phenanthrene	77.4	71.8	A		0.53	40.3 - 103.4		
Phenol	135	106	A		0.58	19 - 254		
Pyrene	54.9	52.0	A		0.33	24.9 - 79.0		

NOTE: The spiking solution used to create the MAPEP OrW standard was validated by RESL Chemists.

Criteria based on FoPT Table for NPW - March 16, 2015

A = Result acceptable Z-score <=3.0

N = Result not acceptable Z-score > 3.0

W = Check reported result for error. NR = Not Reported

L = Uncertainty potentially too low (for information purposes only)

H = Uncertainty potentially too high (for information purposes only)

Notes:

(2) = False Negative
(19) = Detection Limit Concern

Mixed Analyte Performance Evaluation Program

Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-15-OrW33
(QUAN04) TestAmerica Sacramento
880 Riverside Parkway
West Sacramento, CA 95605

Organic								Units: (ug/L)
Analyte	Result	Calc Mean	Flag	Notes	Z-Score	Acceptance Range	Unc Value	Unc Flag
4,4'-DDD	4.29	7.09	A		-2.53	3.76 - 10.42		
4,4'-DDE	3.50	6.07	A		-2.47	2.95 - 9.19		
4,4'-DDT	4.54	8.03	A		-2.31	3.49 - 12.58		
Aldrin	6.30	10.2	A		-1.97	4.3 - 16.2		
alpha Chlordane	5.19	8.47	A		-2.36	4.30 - 12.64		
alpha-BHC	7.81	8.0	A		-0.15	3.9 - 12.1		
beta-BHC	13.0	15	A		-0.96	8 - 23		
delta-BHC	5.01	4.72	A		0.34	2.18 - 7.26		
Dieldrin	7.23	10.1	A		-1.92	5.6 - 14.5		
Endosulfan I	6.49	8.6	A		-1.34	3.8 - 13.4		
Endosulfan II	6.23	8.0	A		-1.23	3.7 - 12.3		
Endosulfan sulfate	10.8	14.5	A		-1.58	7.4 - 21.6		
Endrin	8.78	12.9	A		-1.84	6.1 - 19.7		
Endrin Aldehyde	10.3	11.6	A		-0.60	4.9 - 18.4		
Endrin Ketone	13.8	16.5	A		-1.20	9.8 - 23.2		
gamma Chlordane	4.33	7.02	A		-2.38	3.62 - 10.43		
gamma-BHC (Lindane)	6.99	6.94	A		0.05	3.39 - 10.49		
Heptachlor	3.69	5.31	A		-1.57	2.21 - 8.40		
Heptachlor epoxide	5.33	6.71	A		-1.37	3.69 - 9.74		
Methoxychlor	6.31	10.3	A		-2.17	4.8 - 15.8		
1,2,4-Trichlorobenzene	79.5	96	A		-0.72	28 - 164		
1,2-Dichlorobenzene	75.7	89	A		-0.56	19 - 158		
1,3-Dichlorobenzene	88.3	110	A		-0.67	18 - 208		
1,4-Dichlorobenzene	18.5	21.9	A		-0.59	4.6 - 39.3		
2,4,5-Trichlorophenol	<10.0	<10	A					
2,4,6-Trichlorophenol	<10.0	<10	A					
2,4-Dichlorophenol	137	142	A		-0.18	61 - 223		
2,4-Dimethylphenol	42.9	58.9	A		-1.29	21.8 - 95.9		
2,4-Dinitrophenol	116	109	A		0.18	16 - 217		
2,4-Dinitrotoluene	80.1	76.7	A		0.27	38.5 - 114.9		
2,6-Dichlorophenol	118	129	A		-0.43	51 - 208		
2,6-Dinitrotoluene	51.8	48.7	A		0.38	24.5 - 72.9		
2-Chloronaphthalene	118	126	A		-0.31	47 - 205		
2-Chlorophenol	90.3	100	A		-0.47	38 - 161		
2-Methylnaphthalene	27.9	28.0	A		-0.01	6.4 - 49.6		
2-Methylphenol	87.3	100	A		-0.58	33 - 168		

Organic								Units: (ug/L)
Analyte	Result	Calc Mean	Flag	Notes	Z-Score	Acceptance Range	Unc Value	Unc Flag
2-Nitrophenol	129	134	A		-0.20	60 - 208		
4,6-Dinitro-2-methylphenol	89.4	84	A		0.31	31 - 137		
4-Bromophenyl-phenylether	<10.0	<10	A					
4-Chloro-3-methylphenol	77.6	75.6	A		0.15	35.5 - 115.8		
4-Chlorophenyl-phenylether	<10.0	<10	A					
4-Methylphenol	48.2	52.9	A		-0.29	7.8 - 102.1		
4-Nitrophenol	60.4	65	A		-0.15	12 - 160		
Acenaphthene	33.9	32.5	A		0.23	14.7 - 50.4		
Acenaphthylene	110	123	A		-0.58	54 - 192		
Anthracene	40.8	40.6	A		0.03	20.5 - 60.7		
Benzo(a)anthracene	160	160	A		0.01	92 - 228		
Benzo(a)pyrene	123	108	A		0.74	48 - 168		
Benzo(b)fluoranthene	61.6	52.9	A		0.91	24.1 - 81.6		
Benzo(g,h,i)perylene	38.0	33.3	A		0.79	15.3 - 51.3		
Benzo(k)fluoranthene	146	130	A		0.52	40 - 221		
bis(2-chloroethoxy)methane	<10.0	<10	A					
bis(2-chloroethyl)ether	<10.0	<10	A					
bis(2-chloroisopropyl)ether	<10.0	<10	A					
Bis(2-ethylhexyl)phthalate	<10.0	<10	A					
Butylbenzylphthalate	<10.0	<10	A					
Chrysene	92.4	89	A		0.23	45 - 133		
Di-n-butylphthalate	<10.0	<10	A					
Di-n-octylphthalate	<10.0	<10	A					
Dibenzo(a,h)anthracene	47.6	39.6	A		1.04	16.3 - 62.8		
Dibenzofuran	130	147	A		-0.73	76 - 218		
Diethylphthalate	<10.0	<10	A					
Dimethylphthalate	<10.0	<10	A					
Fluoranthene	46.2	44.1	A		0.33	24.5 - 63.6		
Fluorene	52.2	52.3	A		-0.01	26.9 - 77.7		
Hexachlorobenzene	118	116	A		0.12	63 - 169		
Hexachlorobutadiene	28.0	55.1	A		-1.76	8.9 - 101.4		
Hexachlorocyclopentadiene	16.7	44.8	A		-1.37	7.9 - 106.5		
Hexachloroethane	64.2	102	A		-1.31	17 - 188		
Indeno(1,2,3-c,d)pyrene	164	135	A		1.04	52 - 218		
Isophorone	41.2	45.1	A		-0.47	20.2 - 69.9		
N-Nitroso-di-n-propylamine	<10.0	<10	A					
N-Nitrosodimethylamine	<10.0	<10	A					
N-Nitrosodiphenylamine	<10.0	<10	A					
Naphthalene	77.0	81	A		-0.23	28 - 135		
Nitrobenzene	123	129	A		-0.26	56 - 202		
Pentachlorophenol	101	99	A		0.09	39 - 159		
Phenanthrene	70.8	71.8	A		-0.10	40.3 - 103.4		
Phenol	65.5	106	A		-0.83	19 - 254		
Pyrene	55.5	52.0	A		0.39	24.9 - 79.0		

NOTE: The spiking solution used to create the MAPEP OrW standard was validated by RESL Chemists.

Criteria based on FoPT Table for NPW - March 16, 2015

A = Result acceptable Z-score <=3.0

N = Result not acceptable Z-score > 3.0

W = Check reported result for error. NR = Not Reported

L = Uncertainty potentially too low (for information purposes only)

H = Uncertainty potentially too high (for information purposes only)

Notes:

(2) = False Negative
(19) = Detection Limit Concern

Mixed Analyte Performance Evaluation Program

Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-15-OrW33
(RJLG01) RJ Lee Group - Columbia Basin Analytical Laboratories (CBAL)
2710 North 20th Avenue
Pasco, WA 99301

Organic								Units: (ug/L)
Analyte	Result	Calc Mean	Flag	Notes	Z-Score	Acceptance Range	Unc Value	Unc Flag
4,4'-DDD	6.55	7.09	A		-0.49	3.76 - 10.42		
4,4'-DDE	6.17	6.07	A		0.10	2.95 - 9.19		
4,4'-DDT	7.01	8.03	A		-0.68	3.49 - 12.58		
Aldrin	9.02	10.2	A		-0.60	4.3 - 16.2		
alpha Chlordane	7.39	8.47	A		-0.78	4.30 - 12.64		
alpha-BHC	7.48	8.0	A		-0.39	3.9 - 12.1		
beta-BHC	12.1	15	A		-1.33	8 - 23		
delta-BHC	5.45	4.72	A		0.86	2.18 - 7.26		
Dieldrin	9.18	10.1	A		-0.60	5.6 - 14.5		
Endosulfan I	6.38	8.6	A		-1.41	3.8 - 13.4		
Endosulfan II	6.38	8.0	A		-1.12	3.7 - 12.3		
Endosulfan sulfate	12.9	14.5	A		-0.69	7.4 - 21.6		
Endrin	10.7	12.9	A		-0.99	6.1 - 19.7		
Endrin Aldehyde	5.62	11.6	A		-2.68	4.9 - 18.4		
Endrin Ketone	16.3	16.5	A		-0.08	9.8 - 23.2		
gamma Chlordane	6.35	7.02	A		-0.59	3.62 - 10.43		
gamma-BHC (Lindane)	6.39	6.94	A		-0.46	3.39 - 10.49		
Heptachlor	4.06	5.31	A		-1.21	2.21 - 8.40		
Heptachlor epoxide	6.51	6.71	A		-0.20	3.69 - 9.74		
Methoxychlor	9.24	10.3	A		-0.58	4.8 - 15.8		
1,2,4-Trichlorobenzene	84.0	96	A		-0.52	28 - 164		
1,2-Dichlorobenzene	73.0	89	A		-0.68	19 - 158		
1,3-Dichlorobenzene	80.0	110	A		-0.92	18 - 208		
1,4-Dichlorobenzene	16.1	21.9	A		-1.01	4.6 - 39.3		
2,4,5-Trichlorophenol	<4	<10	A					
2,4,6-Trichlorophenol	<4	<10	A					
2,4-Dichlorophenol	161	142	A		0.70	61 - 223		
2,4-Dimethylphenol	<4	58.9	N	(2)		21.8 - 95.9		
2,4-Dinitrophenol	127	109	A		0.49	16 - 217		
2,4-Dinitrotoluene	92.4	76.7	A		1.24	38.5 - 114.9		
2,6-Dichlorophenol	<4	129	N	(2)		51 - 208		
2,6-Dinitrotoluene	56.0	48.7	A		0.90	24.5 - 72.9		
2-Chloronaphthalene	141	126	A		0.57	47 - 205		
2-Chlorophenol	105	100	A		0.25	38 - 161		
2-Methylnaphthalene	31.5	28.0	A		0.49	6.4 - 49.6		
2-Methylphenol	60.0	100	A		-1.79	33 - 168		

Organic								Units: (ug/L)
Analyte	Result	Calc Mean	Flag	Notes	Z-Score	Acceptance Range	Unc Value	Unc Flag
2-Nitrophenol	158	134	A		0.98	60 - 208		
4,6-Dinitro-2-methylphenol	92.4	84	A		0.48	31 - 137		
4-Bromophenyl-phenylether	<4	<10	A					
4-Chloro-3-methylphenol	80.6	75.6	A		0.37	35.5 - 115.8		
4-Chlorophenyl-phenylether	<4	<10	A					
4-Methylphenol	54.6	52.9	A		0.10	7.8 - 102.1		
4-Nitrophenol	86.5	65	A		0.68	12 - 160		
Acenaphthene	36.0	32.5	A		0.58	14.7 - 50.4		
Acenaphthylene	129	123	A		0.25	54 - 192		
Anthracene	38.4	40.6	A		-0.33	20.5 - 60.7		
Benzo(a)anthracene	165	160	A		0.23	92 - 228		
Benzo(a)pyrene	103	108	A		-0.26	48 - 168		
Benzo(b)fluoranthene	60.8	52.9	A		0.83	24.1 - 81.6		
Benzo(g,h,i)perylene	35.8	33.3	A		0.42	15.3 - 51.3		
Benzo(k)fluoranthene	150	130	A		0.65	40 - 221		
bis(2-chloroethoxy)methane	<4	<10	A					
bis(2-chloroethyl)ether	<4	<10	A					
bis(2-chloroisopropyl)ether	<4	<10	A					
Bis(2-ethylhexyl)phthalate	<4	<10	A					
Butylbenzylphthalate	<4	<10	A					
Chrysene	101	89	A		0.82	45 - 133		
Di-n-butylphthalate	<4	<10	A					
Di-n-octylphthalate	<4	<10	A					
Dibenzo(a,h)anthracene	44.8	39.6	A		0.68	16.3 - 62.8		
Dibenzofuran	165	147	A		0.75	76 - 218		
Diethylphthalate	<4	<10	A					
Dimethylphthalate	<4	<10	A					
Fluoranthene	47.6	44.1	A		0.54	24.5 - 63.6		
Fluorene	56.0	52.3	A		0.44	26.9 - 77.7		
Hexachlorobenzene	136	116	A		1.14	63 - 169		
Hexachlorobutadiene	25.8	55.1	A		-1.91	8.9 - 101.4		
Hexachlorocyclopentadiene	14.0	44.8	A		-1.50	7.9 - 106.5		
Hexachloroethane	54.5	102	A		-1.65	17 - 188		
Indeno(1,2,3-c,d)pyrene	181	135	A		1.66	52 - 218		
Isophorone	47.6	45.1	A		0.30	20.2 - 69.9		
N-Nitroso-di-n-propylamine	<4	<10	A					
N-Nitrosodimethylamine	<4	<10	A					
N-Nitrosodiphenylamine	<4	<10	A					
Naphthalene	89.0	81	A		0.44	28 - 135		
Nitrobenzene	146	129	A		0.68	56 - 202		
Pentachlorophenol	107	99	A		0.39	39 - 159		
Phenanthrene	82.0	71.8	A		0.97	40.3 - 103.4		
Phenol	127	106	A		0.42	19 - 254		
Pyrene	55.0	52.0	A		0.34	24.9 - 79.0		

NOTE: The spiking solution used to create the MAPEP OrW standard was validated by RESL Chemists.

Criteria based on FoPT Table for NPW - March 16, 2015

A = Result acceptable Z-score <=3.0

N = Result not acceptable Z-score > 3.0

W = Check reported result for error. NR = Not Reported

L = Uncertainty potentially too low (for information purposes only)

H = Uncertainty potentially too high (for information purposes only)

Notes:

(2) = False Negative
(19) = Detection Limit Concern

MAPEP Mixed Analyte Performance Evaluation Program

Department of Energy RESL - 1955 Fremont Ave, MS4149 - Idaho Falls, ID 83415

Laboratory Results For MAPEP-15-OrW33
(SOUT01) Southwest Research Institute
6220 Culebra Rd.
San Antonio, TX 78228-0510

Organic — Units: (ug/L)

Analyte	Result	Calc Mean	Flag	Notes	Z-Score	Acceptance Range	Unc Value	Unc Flag
4,4'-DDD	14.0	7.09	N		6.22	3.76 - 10.42		
4,4'-DDE	10.8	6.07	N		4.55	2.95 - 9.19		
4,4'-DDT	16.1	8.03	N		5.32	3.49 - 12.58		
Aldrin	20.0	10.2	N		4.93	4.3 - 16.2		
alpha Chlordane	15.6	8.47	N		5.13	4.30 - 12.64		
alpha-BHC	9.49	8.0	A		1.07	3.9 - 12.1		
beta-BHC	17.0	15	A		0.70	8 - 23		
delta-BHC	5.07	4.72	A		0.42	2.18 - 7.26		
Dieldrin	15.5	10.1	N		3.66	5.6 - 14.5		
Endosulfan I	16.0	8.6	N		4.59	3.8 - 13.4		
Endosulfan II	11.1	8.0	A		2.17	3.7 - 12.3		
Endosulfan sulfate	21.3	14.5	A		2.86	7.4 - 21.6		
Endrin	21.8	12.9	N		3.93	6.1 - 19.7		
Endrin Aldehyde	8.53	11.6	A		-1.39	4.9 - 18.4		
Endrin Ketone	23.7	16.5	N		3.23	9.8 - 23.2		
gamma Chlordane	13.4	7.02	N		5.62	3.62 - 10.43		
gamma-BHC (Lindane)	7.38	6.94	A		0.38	3.39 - 10.49		
Heptachlor	7.88	5.31	A		2.50	2.21 - 8.40		
Heptachlor epoxide	10.3	6.71	N		3.56	3.69 - 9.74		
Methoxychlor	19.7	10.3	N		5.10	4.8 - 15.8		
1,2,4-Trichlorobenzene	86.7	96	A		-0.40	28 - 164		
1,2-Dichlorobenzene	83.2	89	A		-0.23	19 - 158		
1,3-Dichlorobenzene	103	110	A		-0.22	18 - 208		
1,4-Dichlorobenzene	19.3	21.9	A		-0.45	4.6 - 39.3		
2,4,5-Trichlorophenol	<5.00	<10	A					
2,4,6-Trichlorophenol	<5.00	<10	A					
2,4-Dichlorophenol	135	142	A		-0.26	61 - 223		
2,4-Dimethylphenol	42.8	58.9	A		-1.30	21.8 - 95.9		
2,4-Dinitrophenol	115	109	A		0.16	16 - 217		
2,4-Dinitrotoluene	80.8	76.7	A		0.32	38.5 - 114.9		
2,6-Dichlorophenol	NR	129				51 - 208		
2,6-Dinitrotoluene	49.5	48.7	A		0.10	24.5 - 72.9		
2-Chloronaphthalene	123	126	A		-0.12	47 - 205		
2-Chlorophenol	99.1	100	A		-0.04	38 - 161		
2-Methylnaphthalene	26.4	28.0	A		-0.22	6.4 - 49.6		
2-Methylphenol	102	100	A		0.07	33 - 168		

Organic								Units: (ug/L)
Analyte	Result	Calc Mean	Flag	Notes	Z-Score	Acceptance Range	Unc Value	Unc Flag
2-Nitrophenol	132	134	A		-0.08	60 - 208		
4,6-Dinitro-2-methylphenol	84.4	84	A		0.03	31 - 137		
4-Bromophenyl-phenylether	<5.00	<10	A					
4-Chloro-3-methylphenol	76.0	75.6	A		0.03	35.5 - 115.8		
4-Chlorophenyl-phenylether	<5.00	<10	A					
4-Methylphenol	58.1	52.9	A		0.32	7.8 - 102.1		
4-Nitrophenol	71.7	65	A		0.21	12 - 160		
Acenaphthene	32.3	32.5	A		-0.04	14.7 - 50.4		
Acenaphthylene	121	123	A		-0.10	54 - 192		
Anthracene	34.6	40.6	A		-0.90	20.5 - 60.7		
Benzo(a)anthracene	142	160	A		-0.79	92 - 228		
Benzo(a)pyrene	96.3	108	A		-0.60	48 - 168		
Benzo(b)fluoranthene	43.9	52.9	A		-0.94	24.1 - 81.6		
Benzo(g,h,i)perylene	29.2	33.3	A		-0.68	15.3 - 51.3		
Benzo(k)fluoranthene	124	130	A		-0.21	40 - 221		
bis(2-chloroethoxy)methane	<5.00	<10	A					
bis(2-chloroethyl)ether	<5.00	<10	A					
bis(2-chloroisopropyl)ether	<5.00	<10	A					
Bis(2-ethylhexyl)phthalate	<5.00	<10	A					
Butylbenzylphthalate	<5.00	<10	A					
Chrysene	87.6	89	A		-0.10	45 - 133		
Di-n-butylphthalate	<5.00	<10	A					
Di-n-octylphthalate	<5.00	<10	A					
Dibenzo(a,h)anthracene	39.4	39.6	A		-0.02	16.3 - 62.8		
Dibenzofuran	153	147	A		0.24	76 - 218		
Diethylphthalate	<5.00	<10	A					
Dimethylphthalate	<5.00	<10	A					
Fluoranthene	37.5	44.1	A		-1.01	24.5 - 63.6		
Fluorene	49.6	52.3	A		-0.32	26.9 - 77.7		
Hexachlorobenzene	106	116	A		-0.56	63 - 169		
Hexachlorobutadiene	31.5	55.1	A		-1.54	8.9 - 101.4		
Hexachlorocyclopentadiene	13.7	44.8	A		-1.51	7.9 - 106.5		
Hexachloroethane	77.6	102	A		-0.84	17 - 188		
Indeno(1,2,3-c,d)pyrene	150	135	A		0.54	52 - 218		
Isophorone	42.1	45.1	A		-0.36	20.2 - 69.9		
N-Nitroso-di-n-propylamine	<5.00	<10	A					
N-Nitrosodimethylamine	NR	<10						
N-Nitrosodiphenylamine	<5.00	<10	A					
Naphthalene	79.9	81	A		-0.07	28 - 135		
Nitrobenzene	128	129	A		-0.06	56 - 202		
Pentachlorophenol	96.0	99	A		-0.16	39 - 159		
Phenanthrene	65.1	71.8	A		-0.64	40.3 - 103.4		
Phenol	97.3	106	A		-0.19	19 - 254		
Pyrene	46.3	52.0	A		-0.63	24.9 - 79.0		

Organic								Units: (ug/L)
Analyte	Result	Calc Mean	Flag	Notes	Z-Score	Acceptance Range	Unc Value	Unc Flag

NOTE: The spiking solution used to create the MAPEP OrW standard was validated by RESL Chemists.

Criteria based on FoPT Table for NPW - March 16, 2015

A = Result acceptable Z-score <=3.0

N = Result not acceptable Z-score > 3.0

W = Check reported result for error. NR = Not Reported

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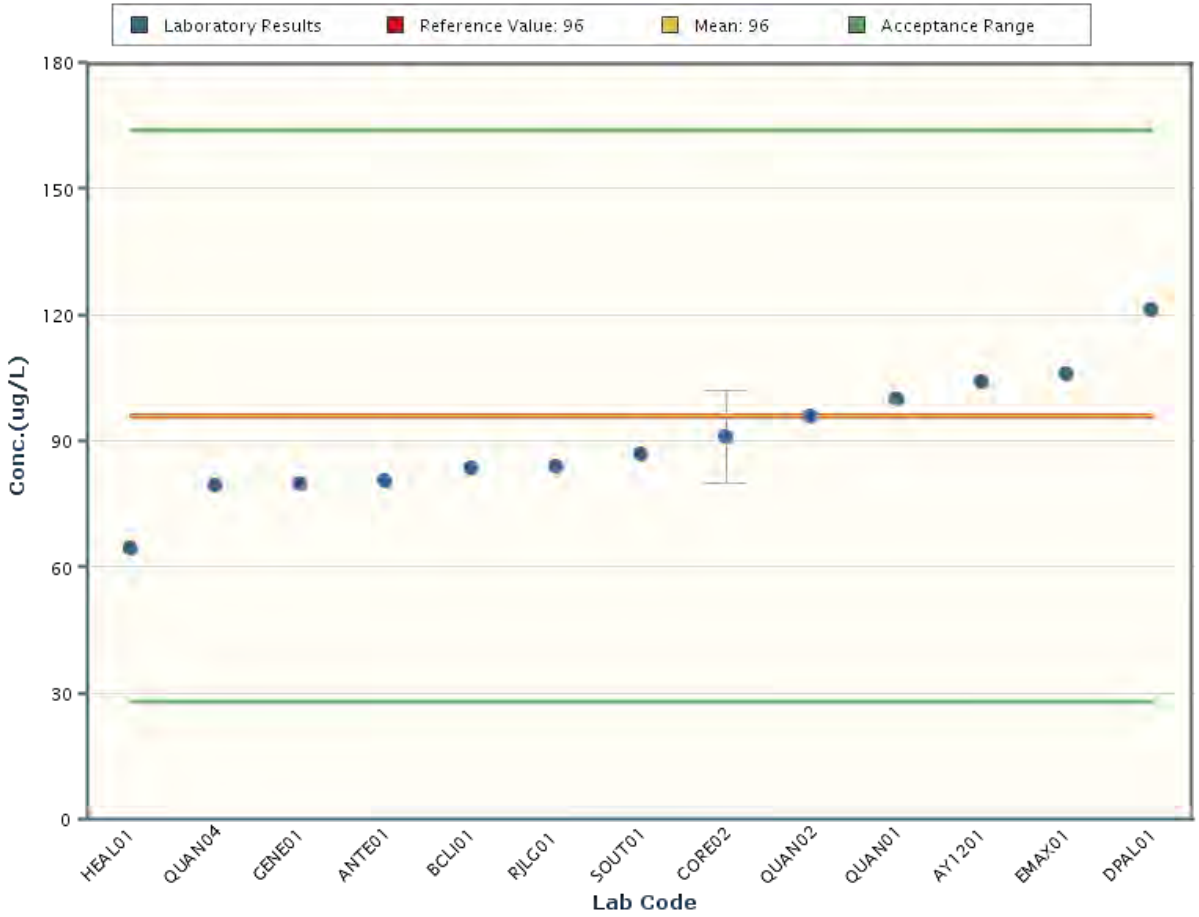
H = Uncertainty potentially too high (for information purposes only)

Notes:

(2) = False Negative
(19) = Detection Limit Concern

1,2,4-Trichlorobenzene

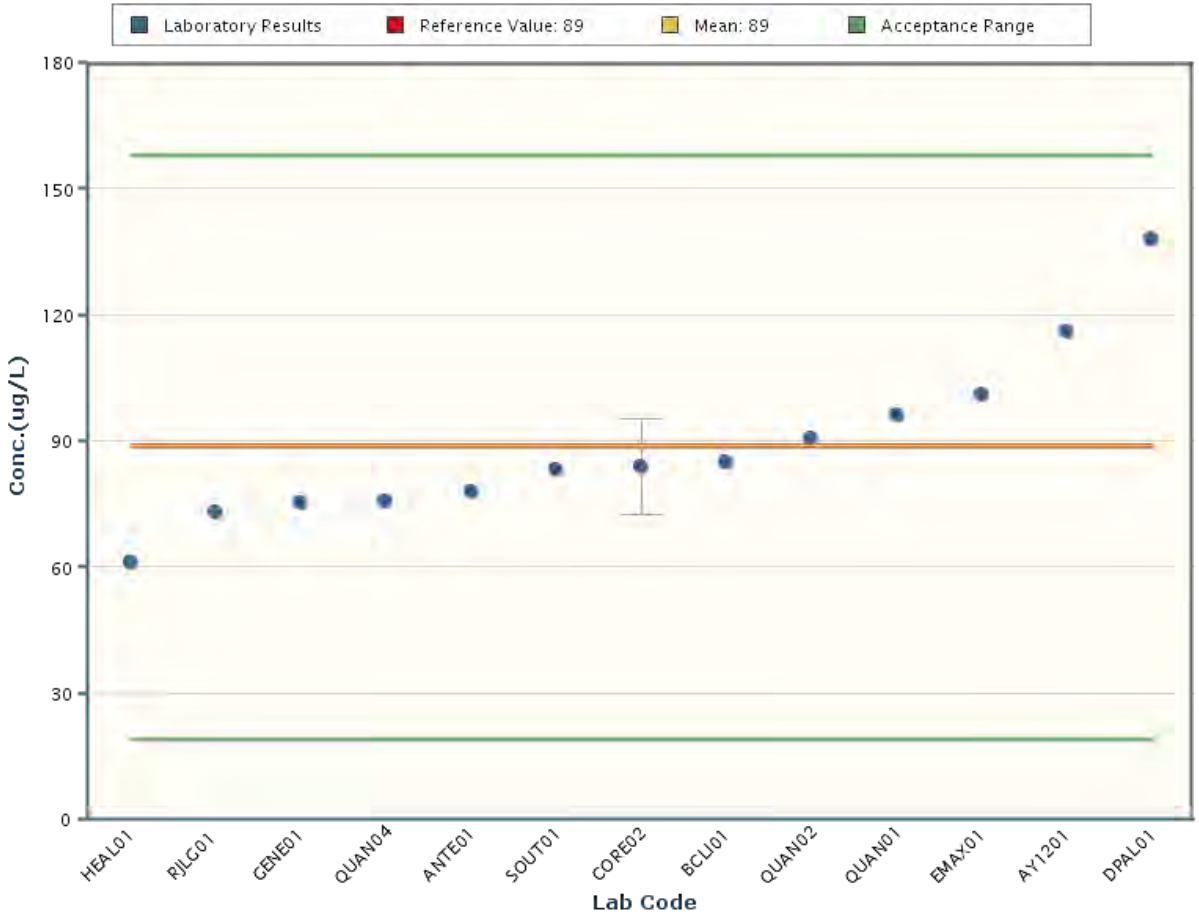
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between -18 and 209 (± 5 Standard Deviations).

1,2-Dichlorobenzene

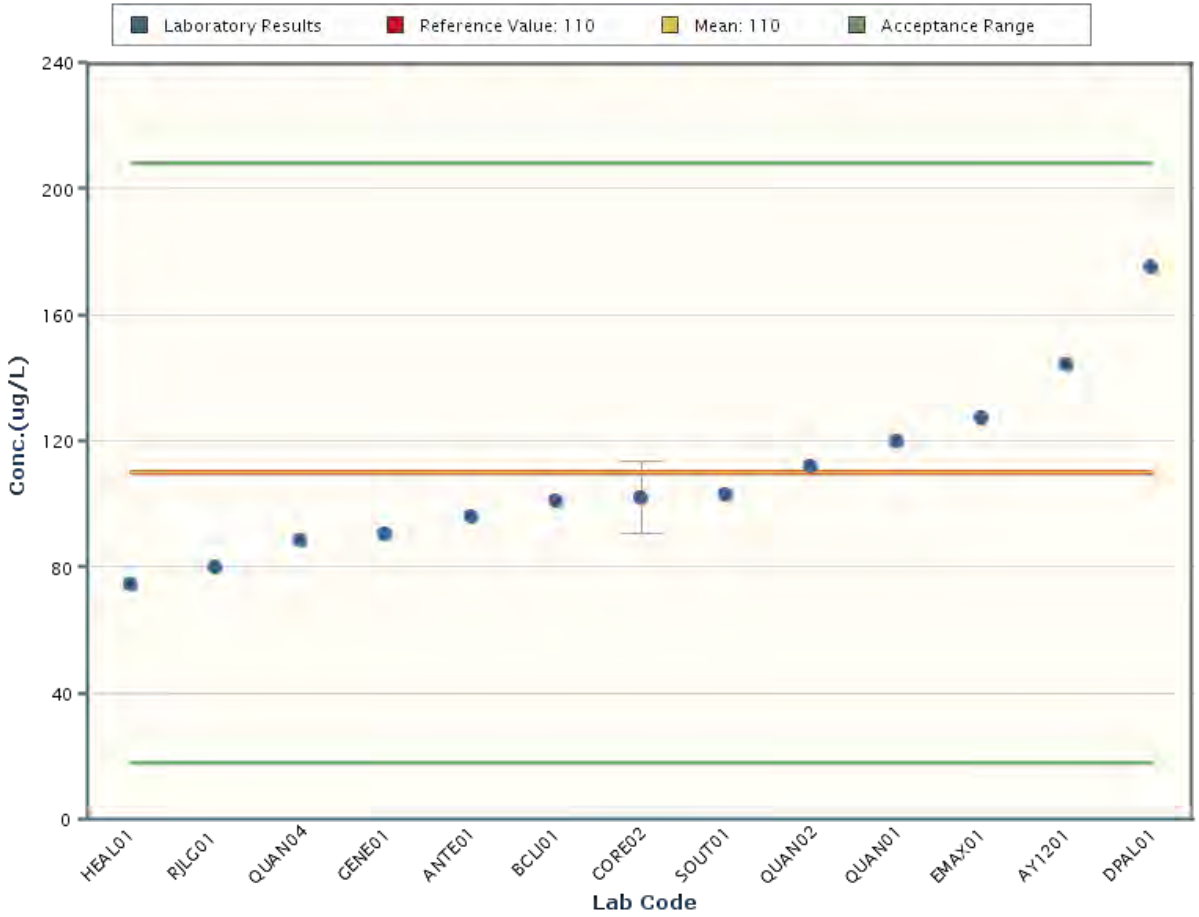
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between -27 and 204 (± 5 Standard Deviations).

1,3-Dichlorobenzene

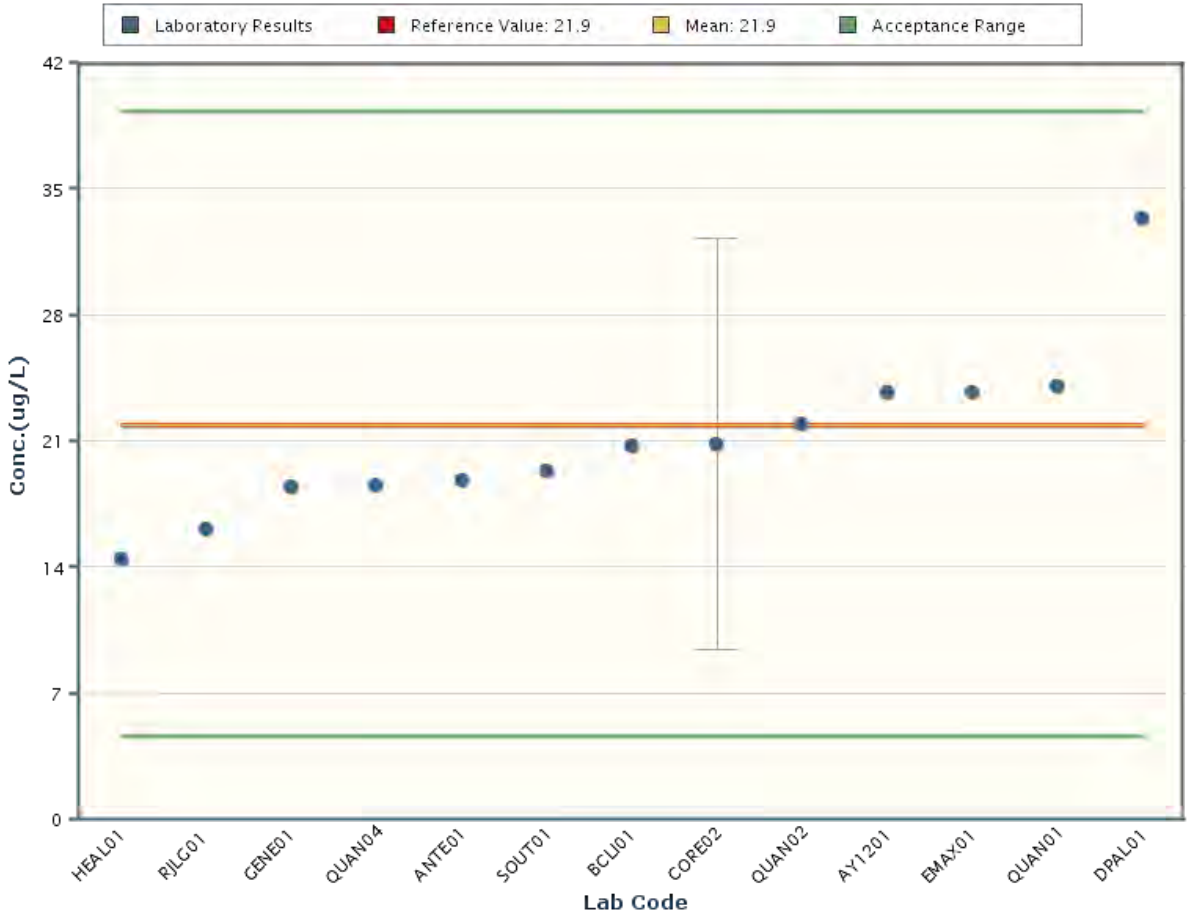
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between -53 and 274 (± 5 Standard Deviations).

1,4-Dichlorobenzene

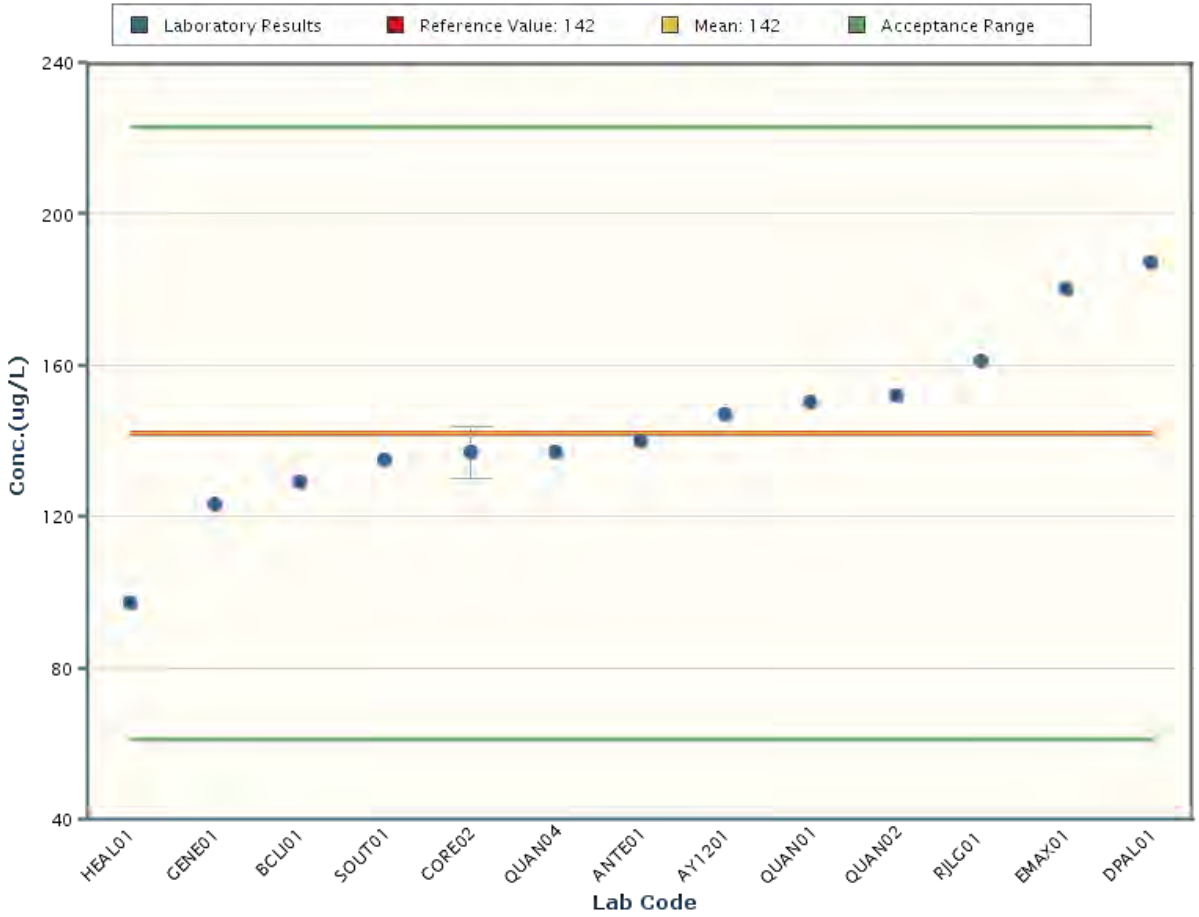
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between -7.0 and 50.8 (± 5 Standard Deviations).

2,4-Dichlorophenol

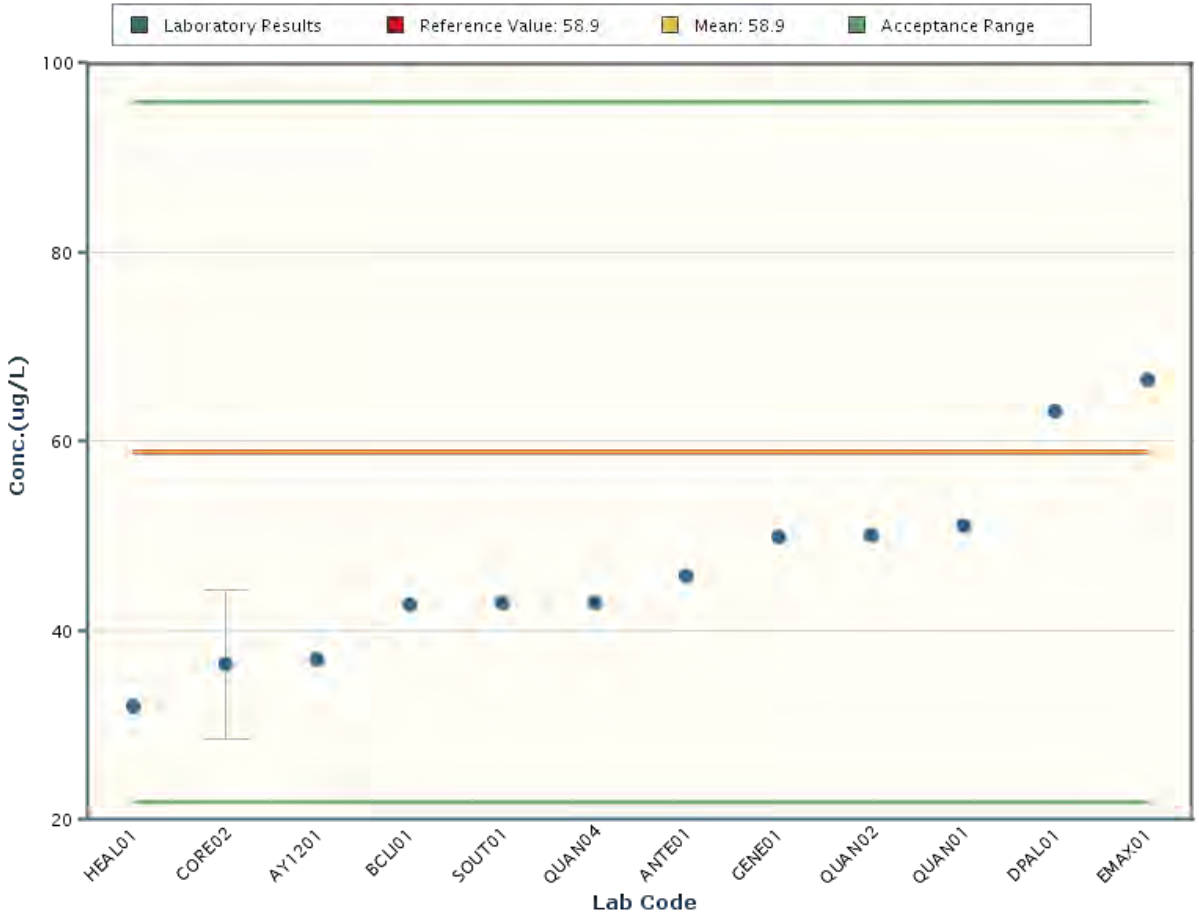
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 6 and 278 (± 5 Standard Deviations).

2,4-Dimethylphenol

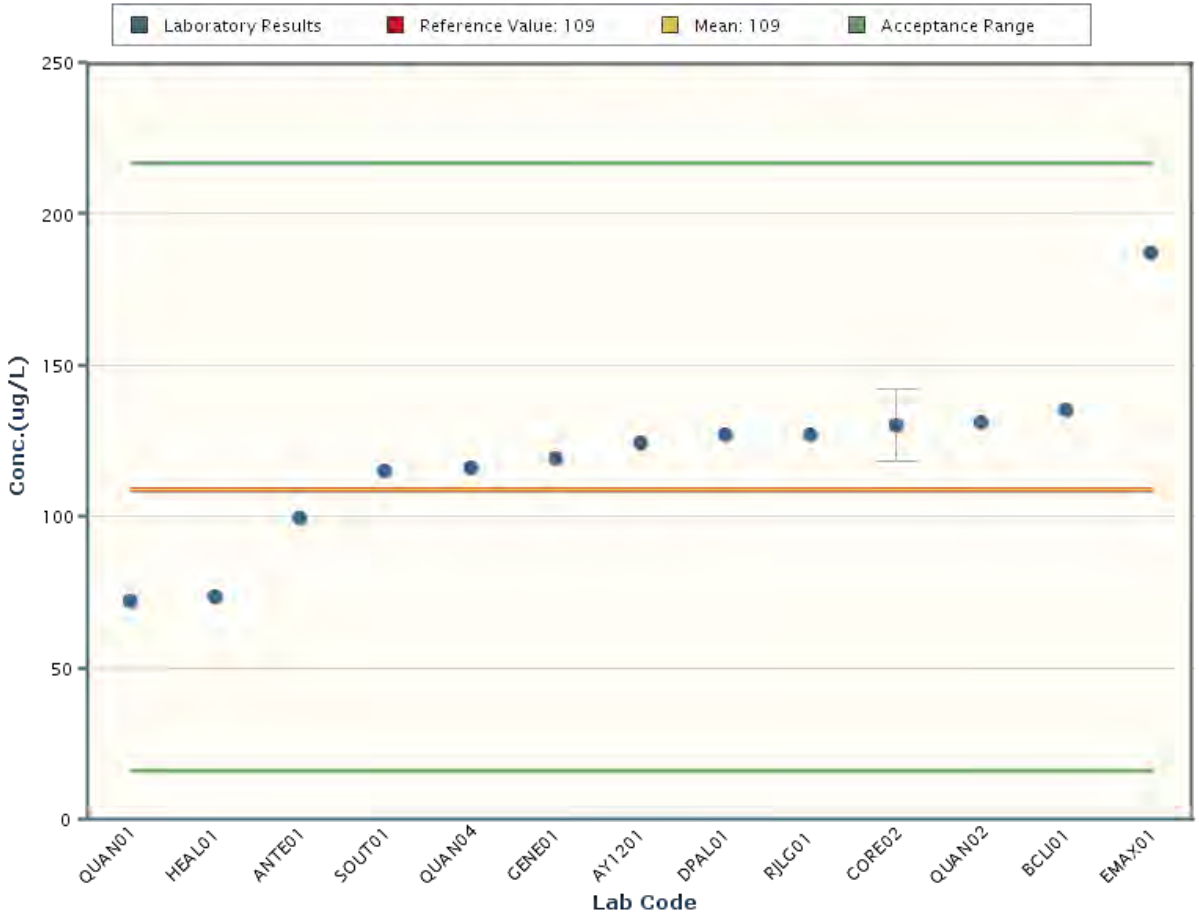
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between -2.9 and 120.7 (± 5 Standard Deviations).

2,4-Dinitrophenol

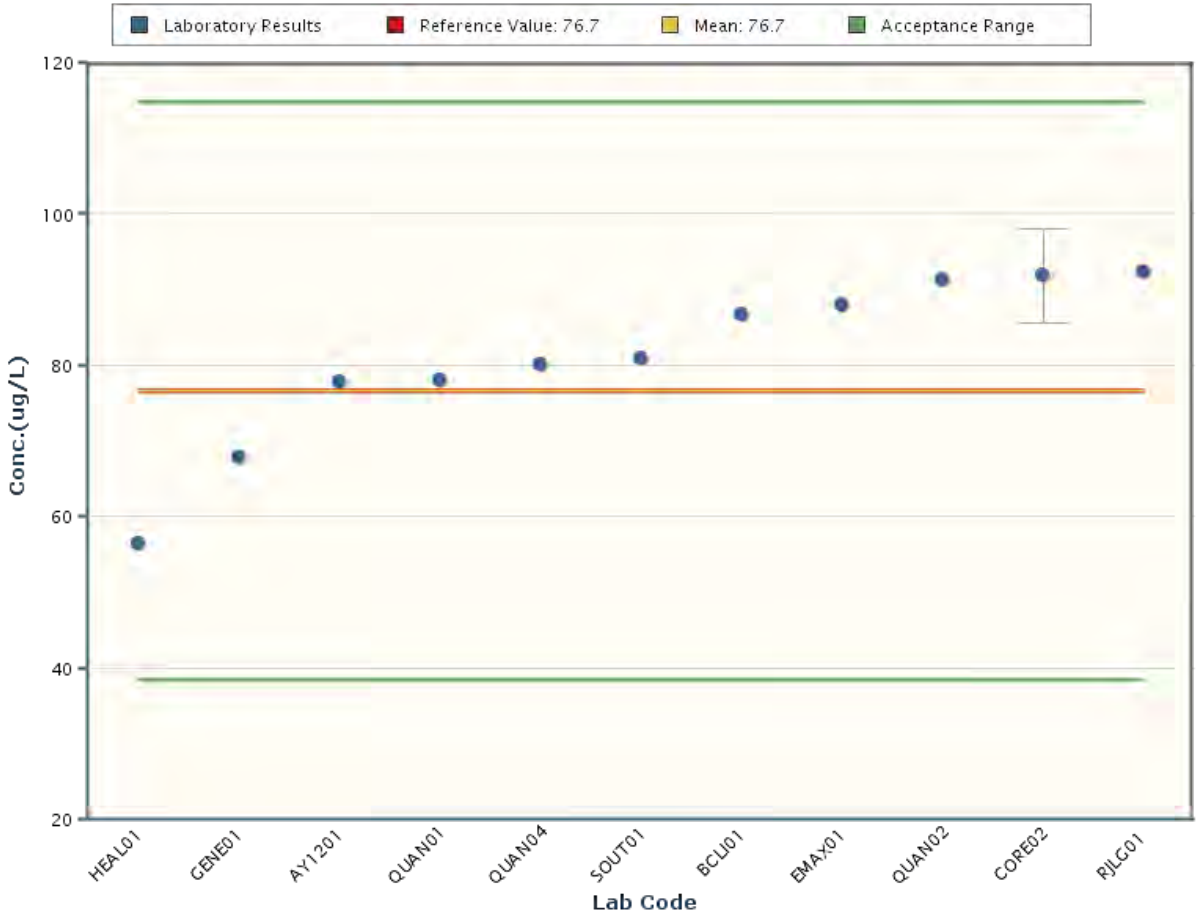
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between -71 and 290 (± 5 Standard Deviations).

2,4-Dinitrotoluene

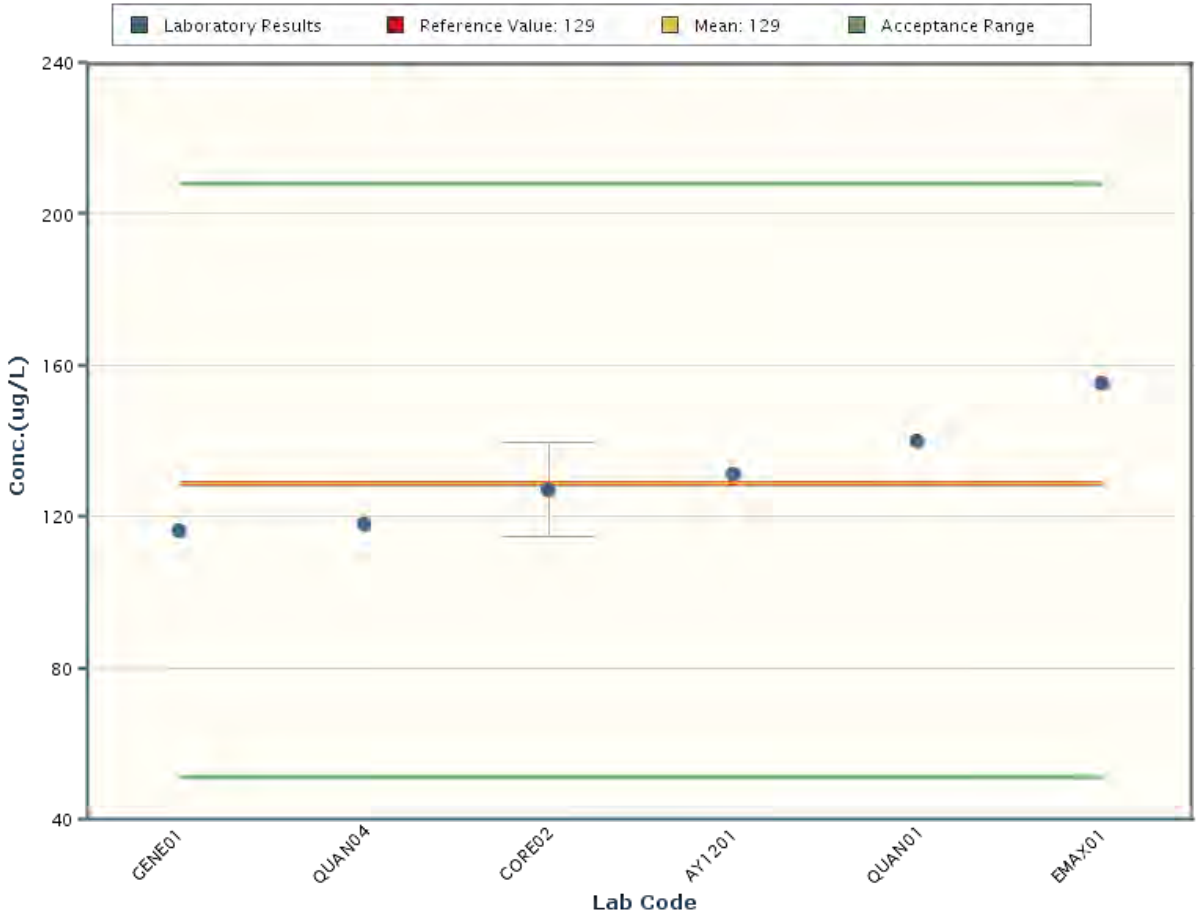
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 13.1 and 140.3 (± 5 Standard Deviations).

2,6-Dichlorophenol

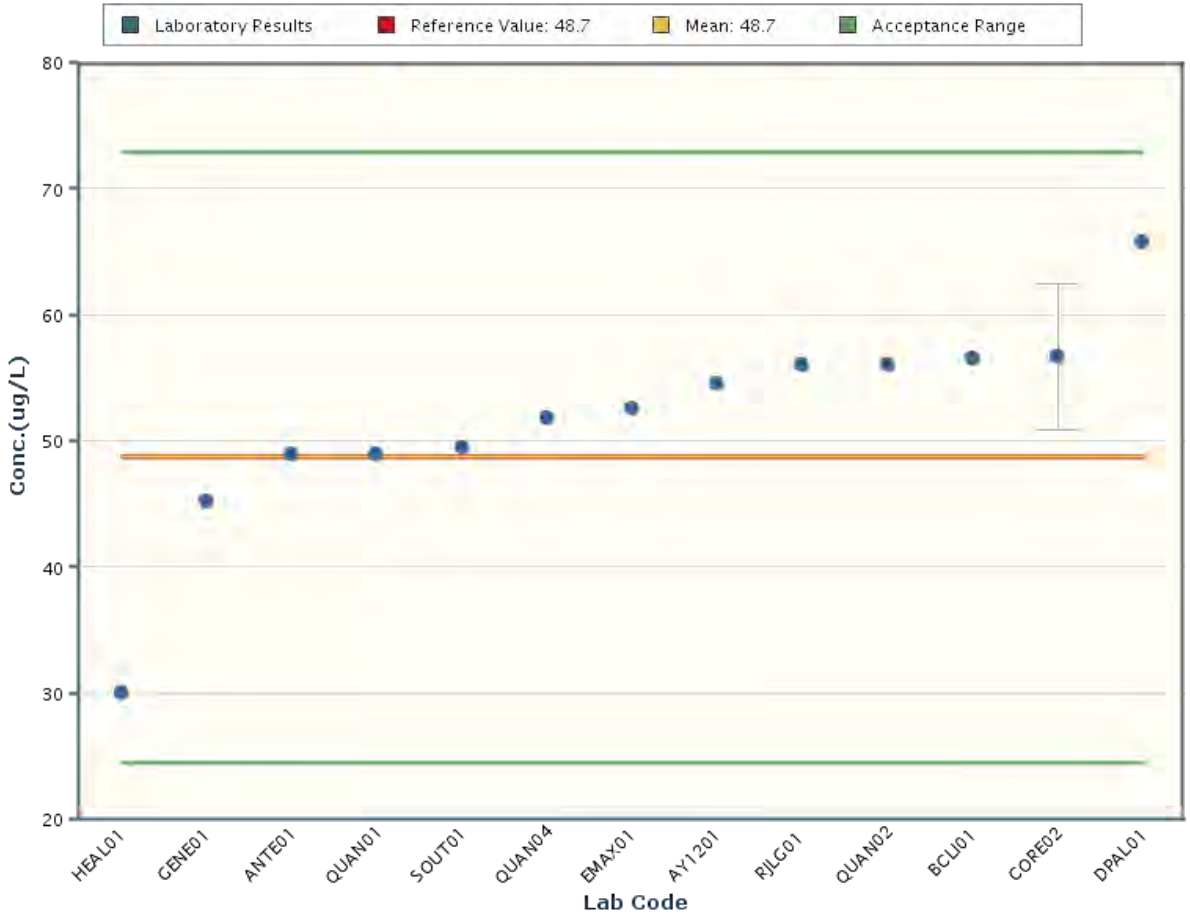
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between -2 and 260 (± 5 Standard Deviations).

2,6-Dinitrotoluene

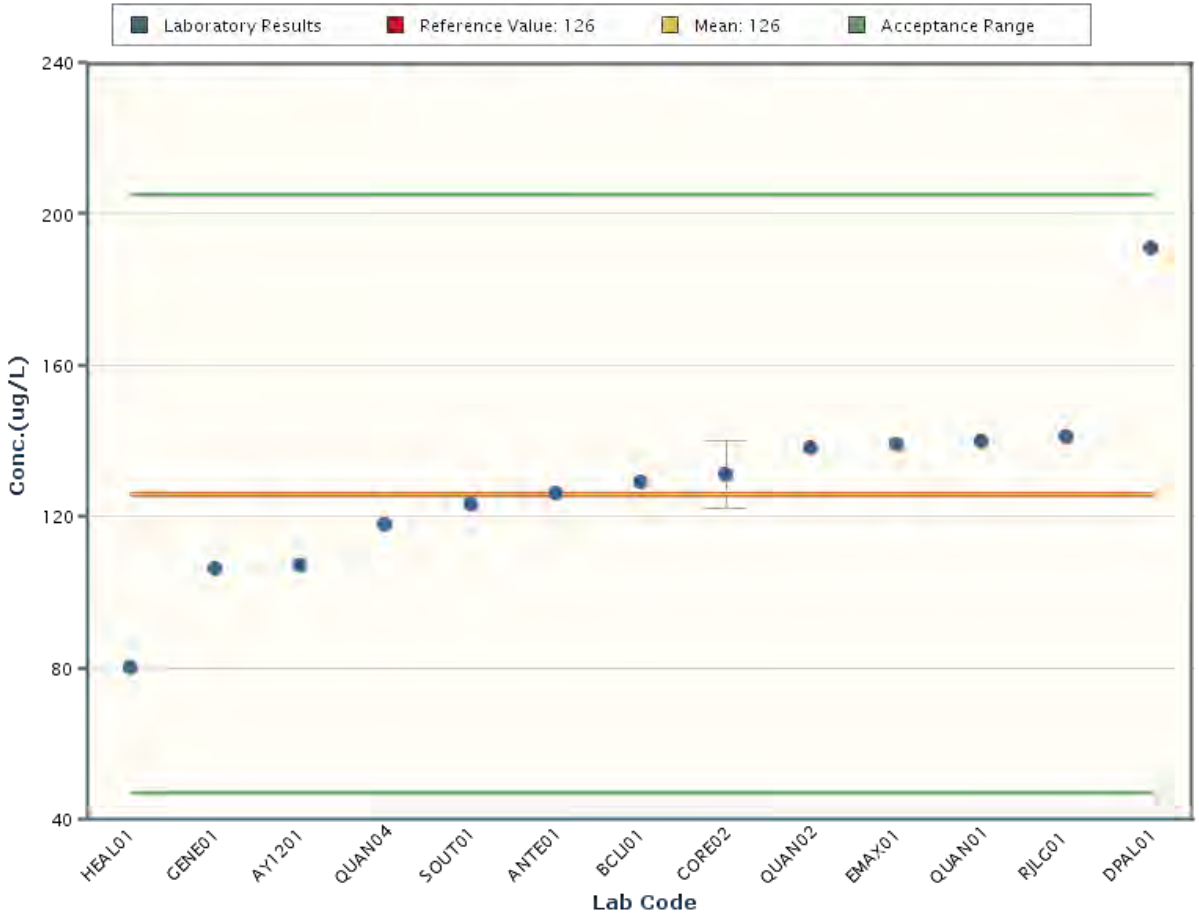
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 8.3 and 89.1 (± 5 Standard Deviations).

2-Chloronaphthalene

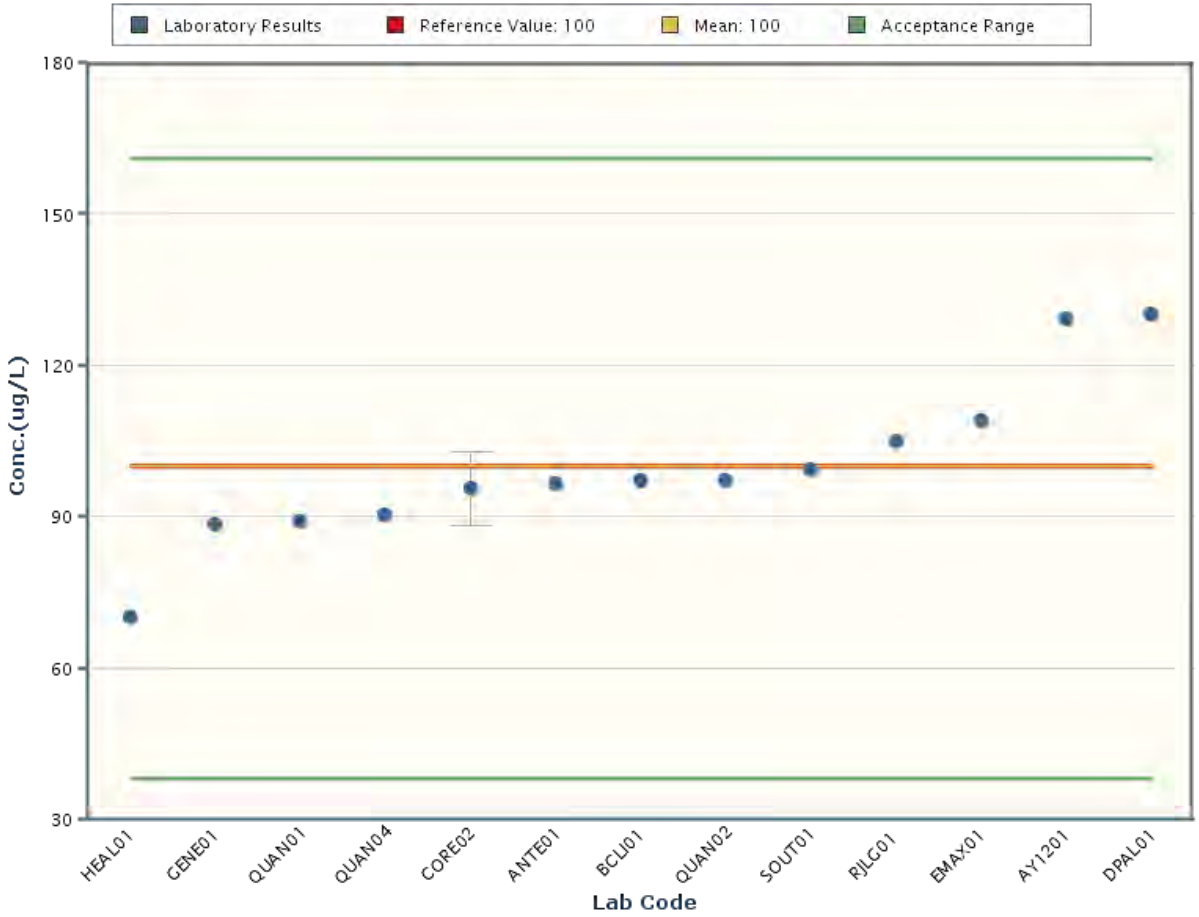
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between -5 and 257 (± 5 Standard Deviations).

2-Chlorophenol

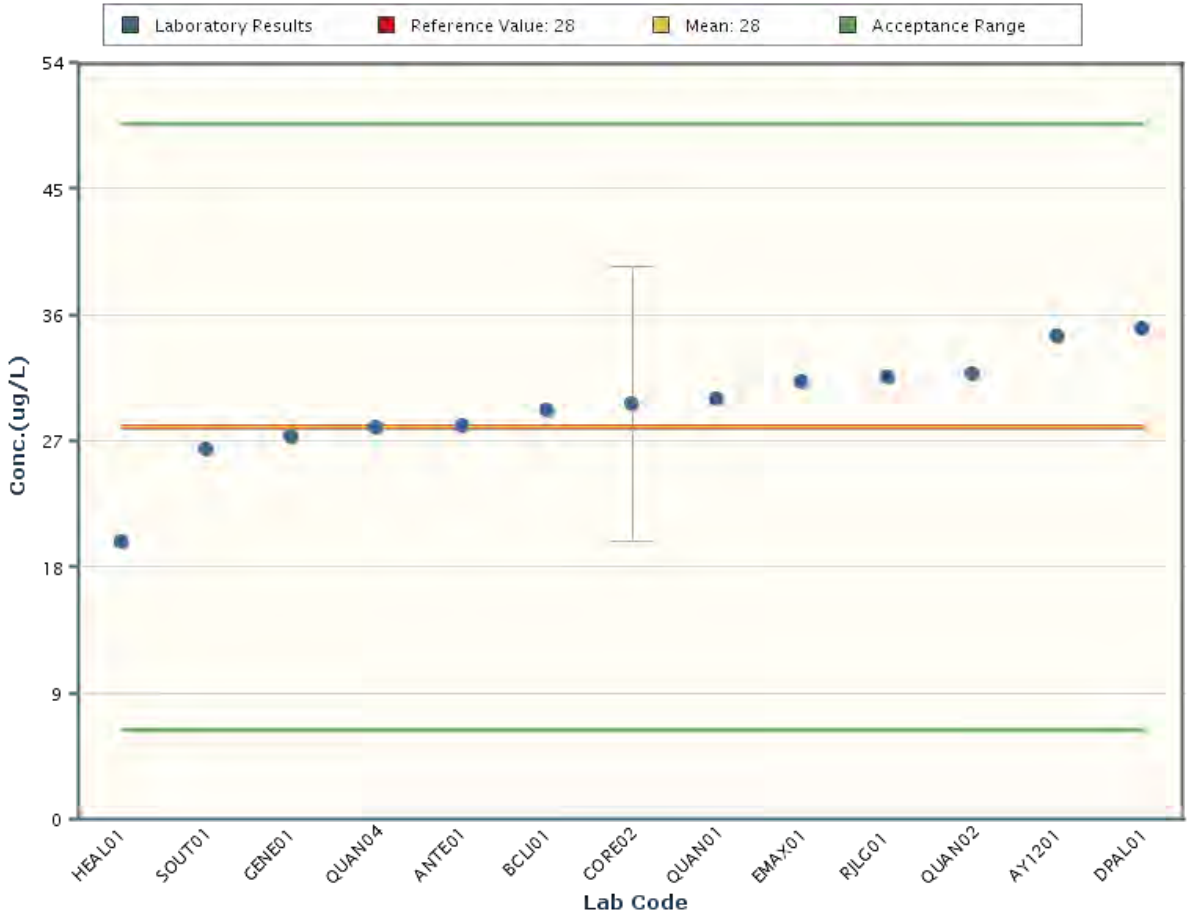
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between -3 and 202 (± 5 Standard Deviations).

2-Methylnaphthalene

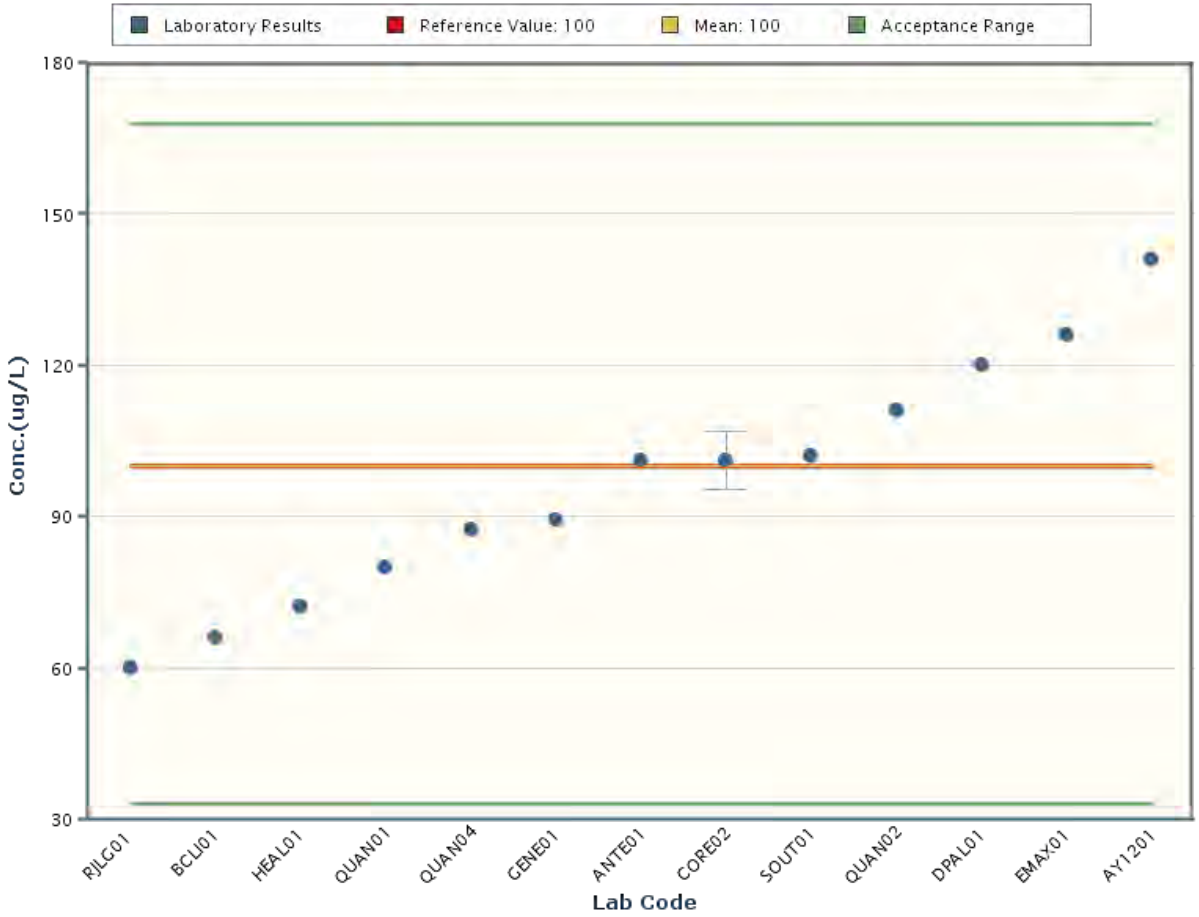
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between -8.0 and 64.0 (± 5 Standard Deviations).

2-Methylphenol

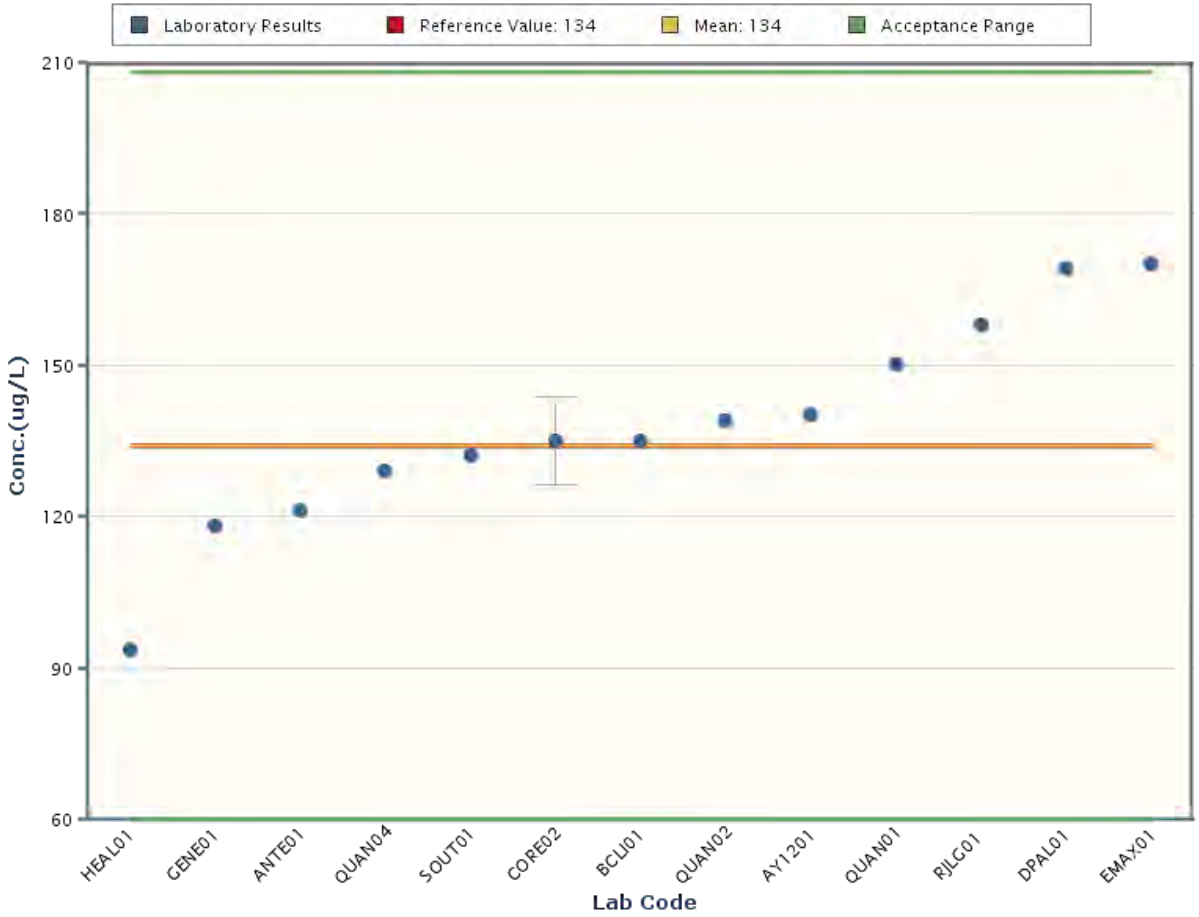
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between -12 and 213 (± 5 Standard Deviations).

2-Nitrophenol

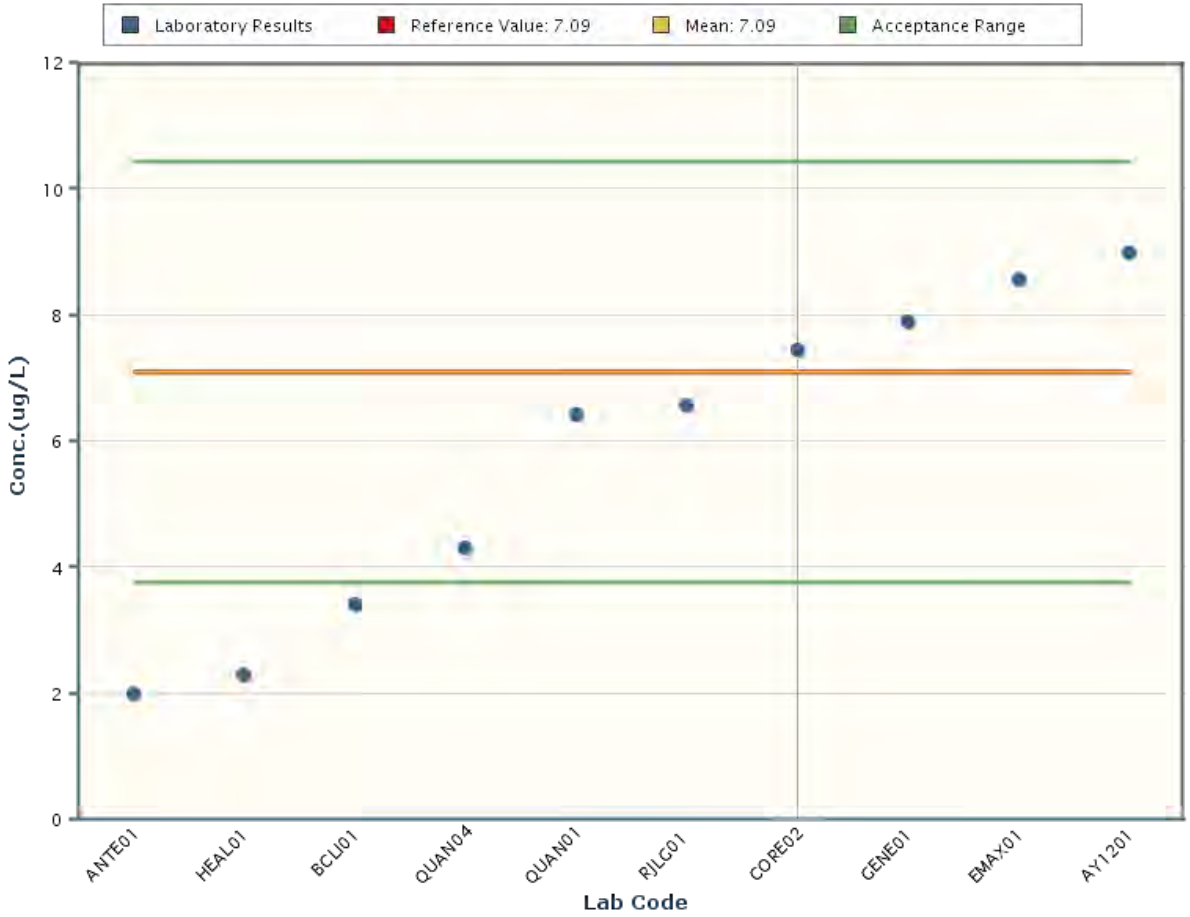
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 11 and 257 (± 5 Standard Deviations).

4,4'-DDD

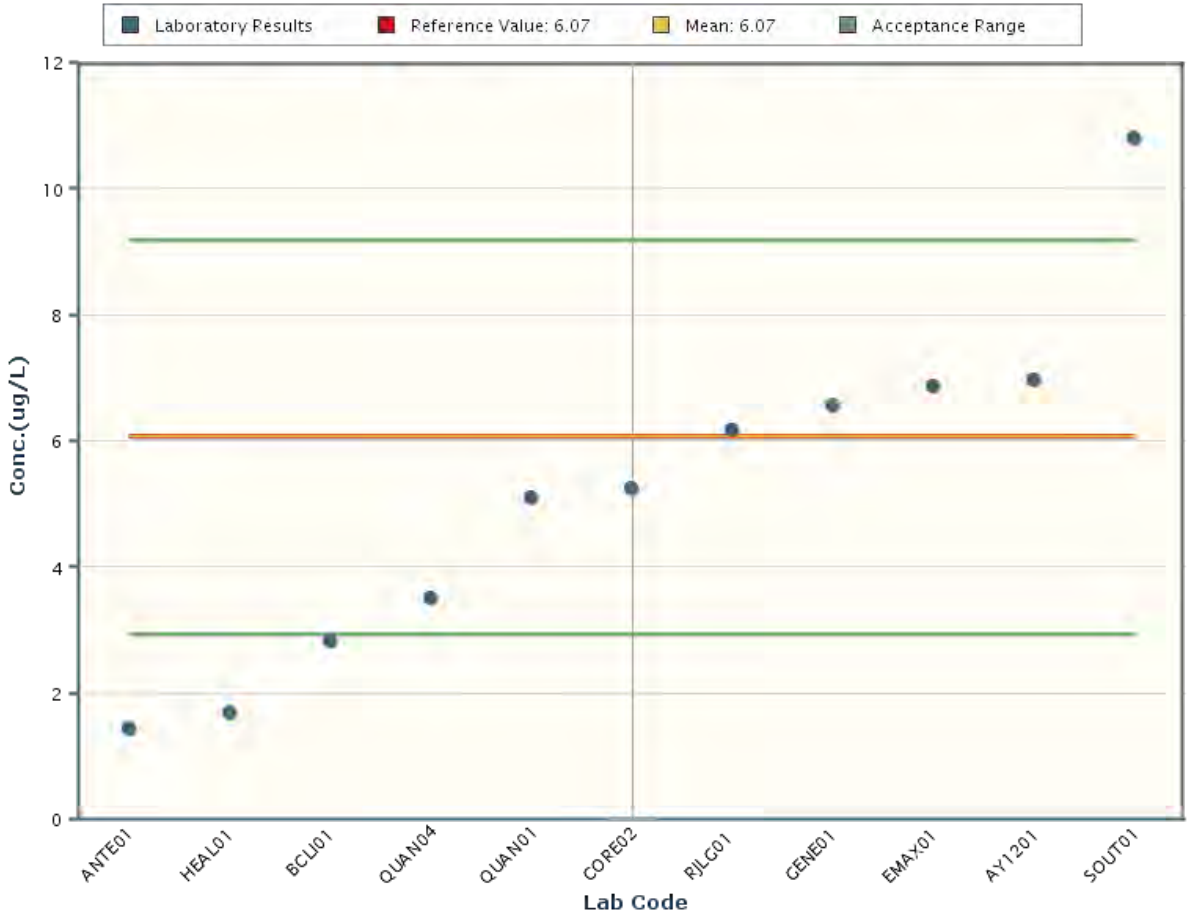
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 1.54 and 12.64 (± 5 Standard Deviations).

4,4'-DDE

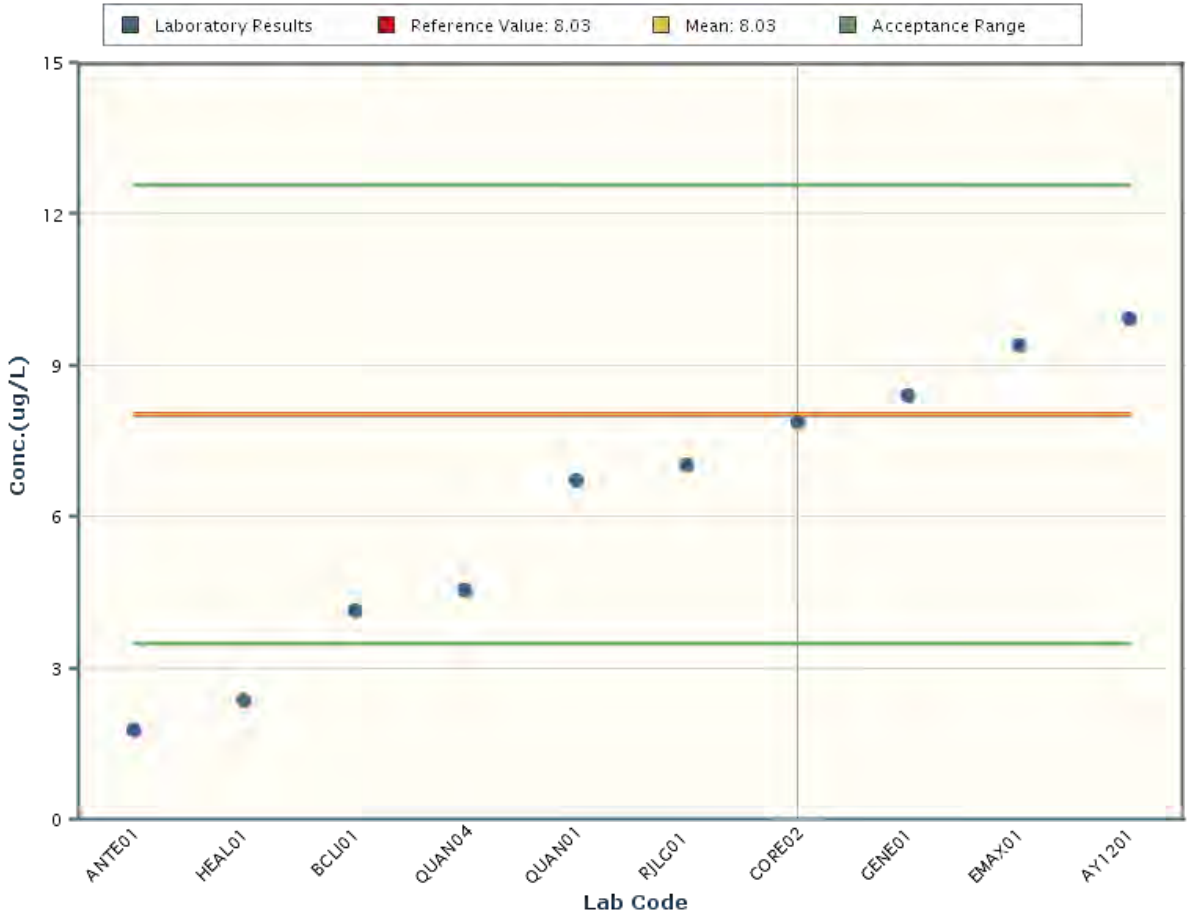
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 0.87 and 11.27 (± 5 Standard Deviations).

4,4'-DDT

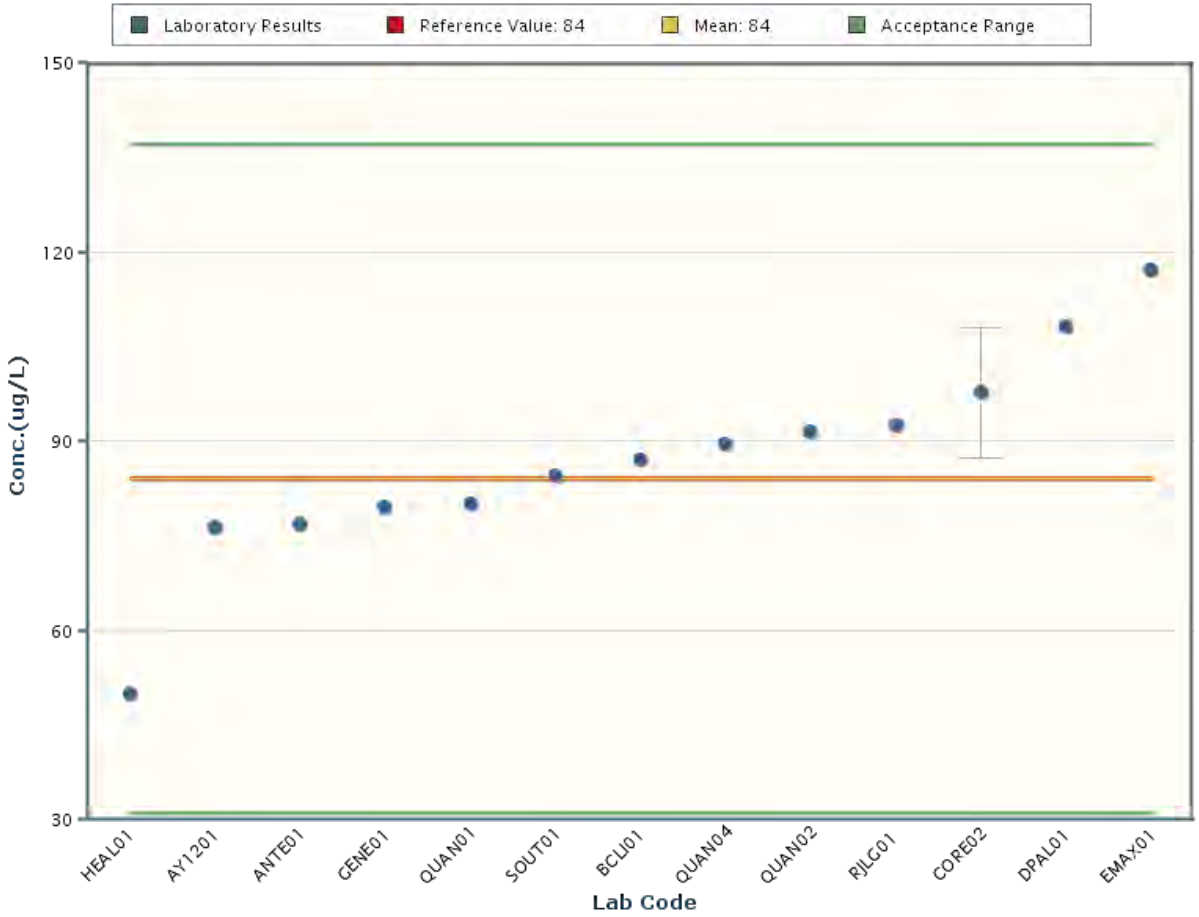
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 0.46 and 15.61 (± 5 Standard Deviations).

4,6-Dinitro-2-methylphenol

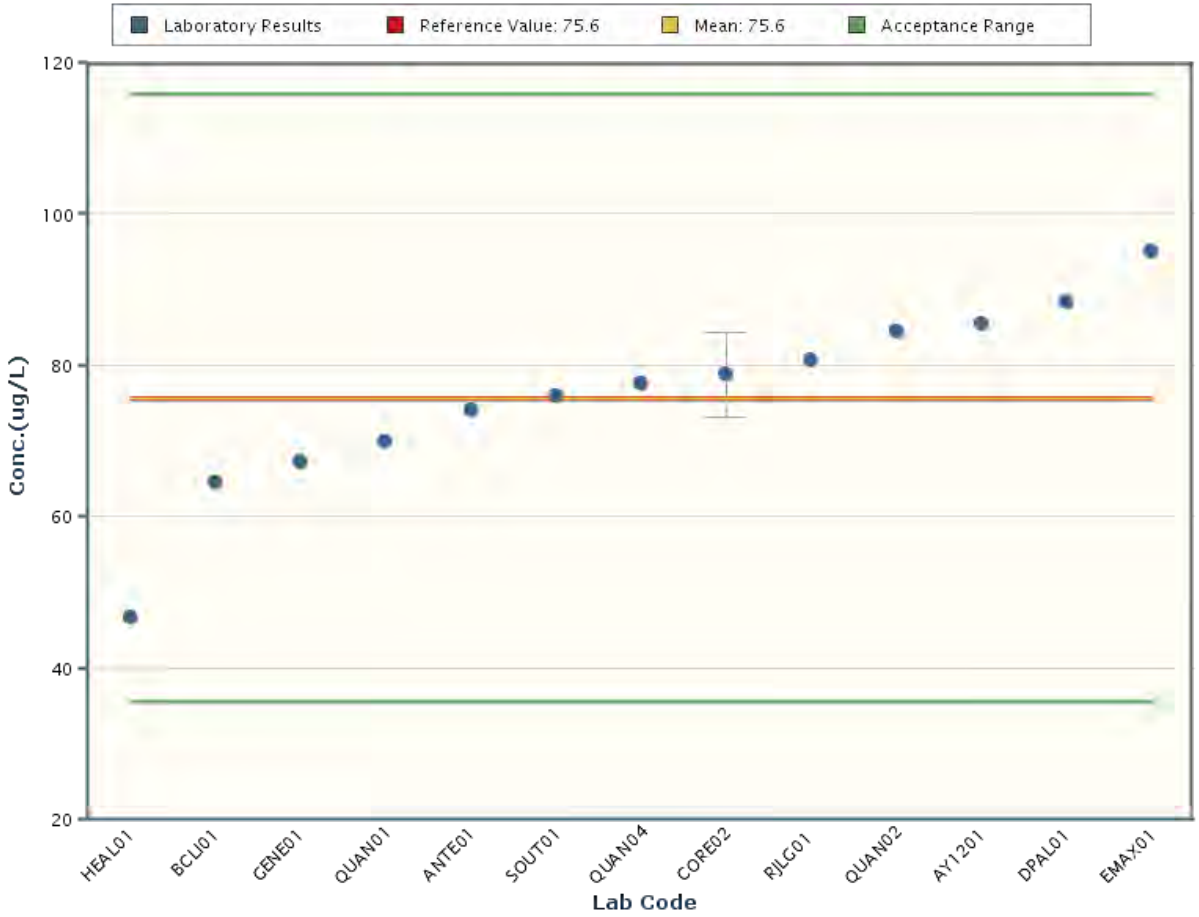
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between -5 and 173 (± 5 Standard Deviations).

4-Chloro-3-methylphenol

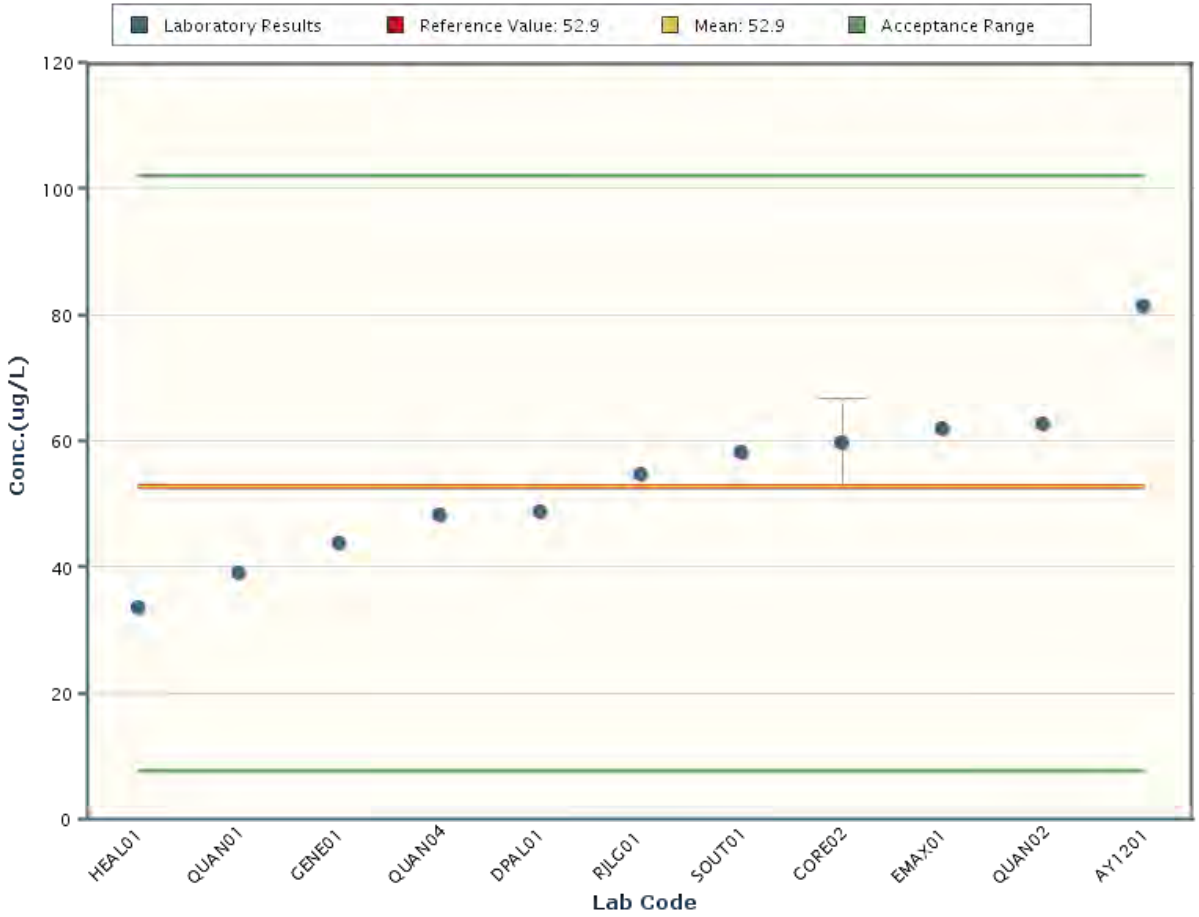
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 8.8 and 142.5 (± 5 Standard Deviations).

4-Methylphenol

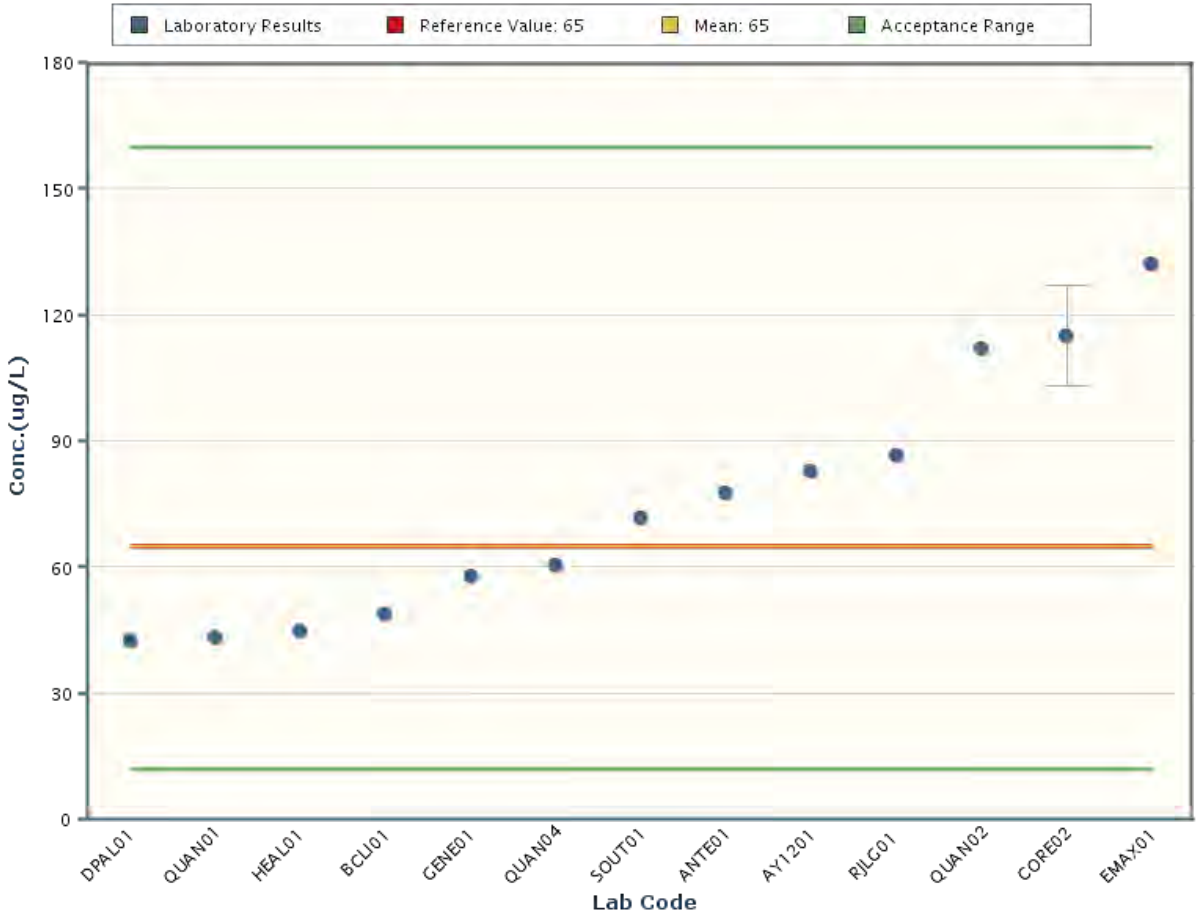
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between -29.0 and 134.8 (± 5 Standard Deviations).

4-Nitrophenol

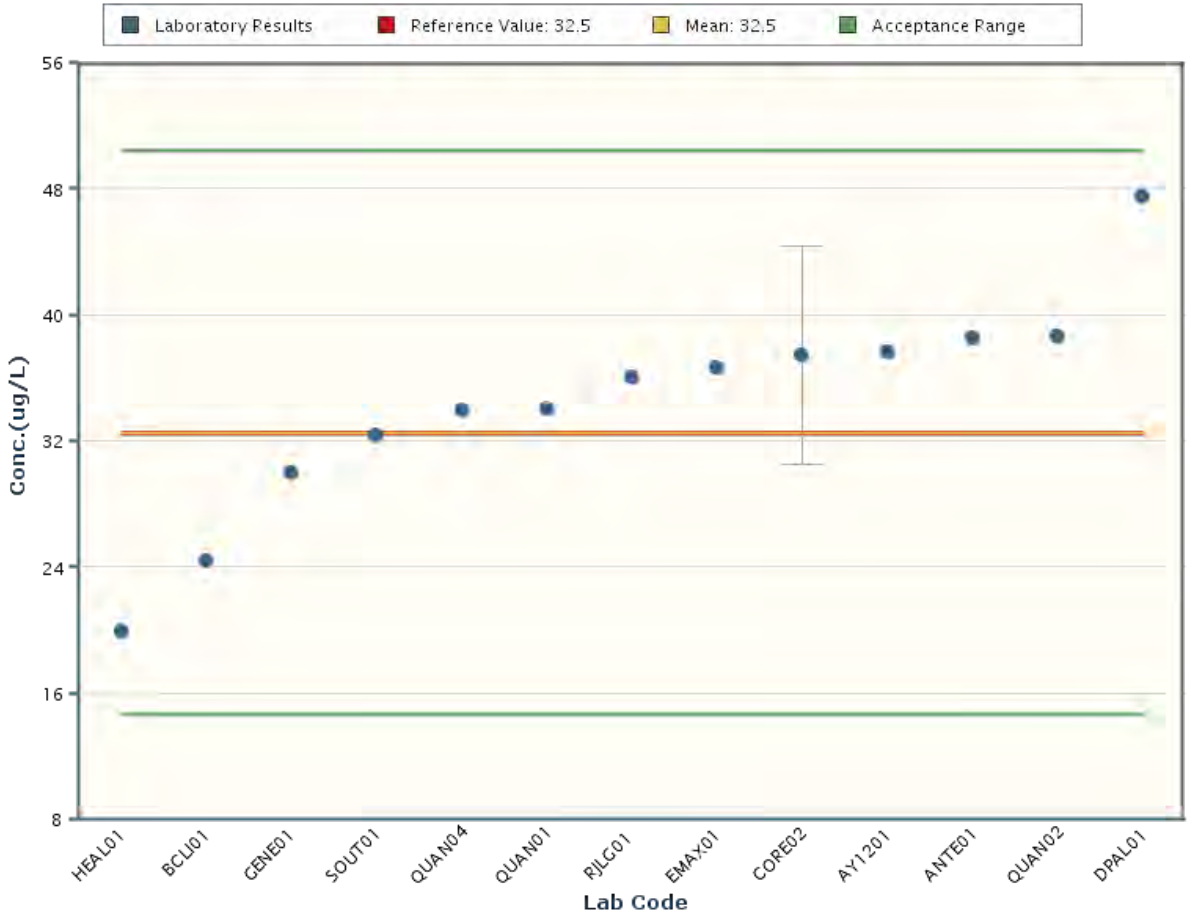
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between -93 and 223 (± 5 Standard Deviations).

Acenaphthene

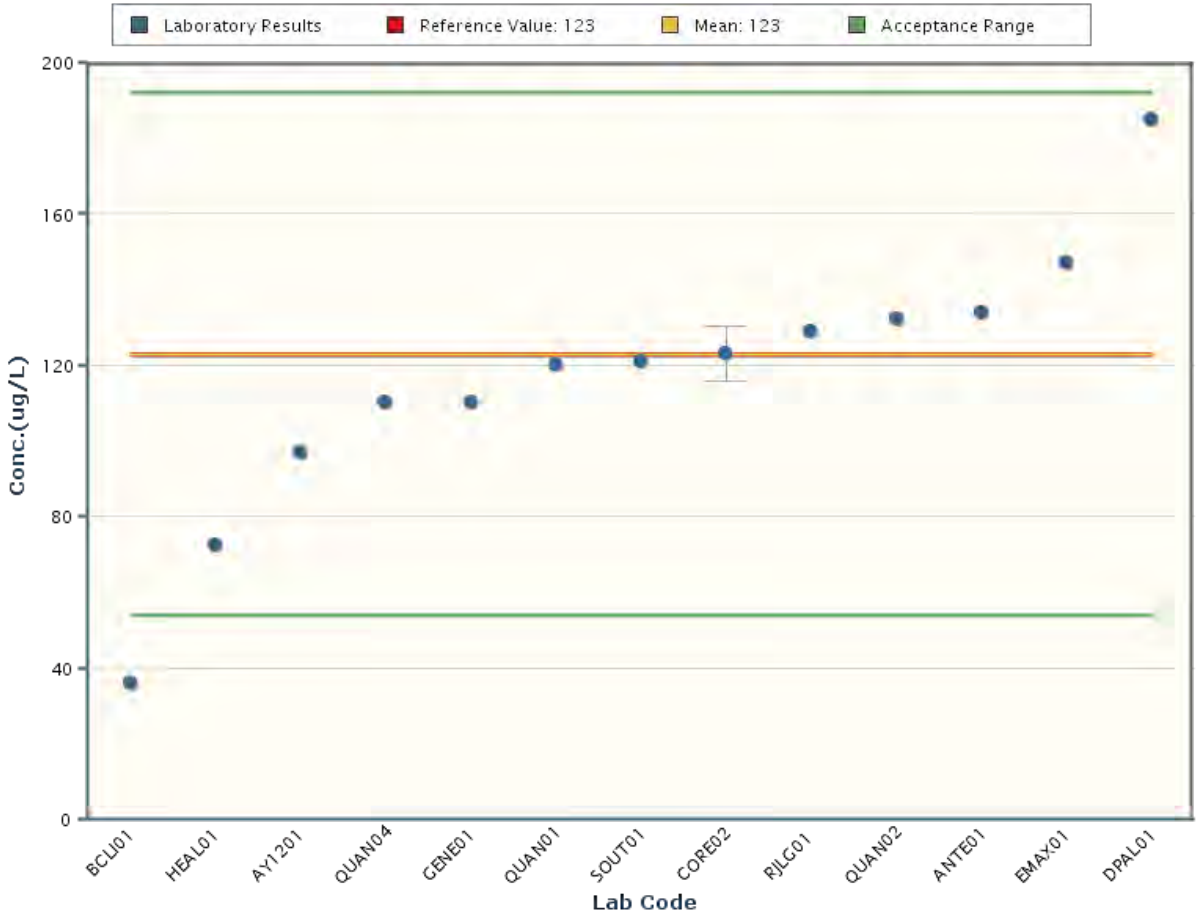
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 2.8 and 62.3 (± 5 Standard Deviations).

Acenaphthylene

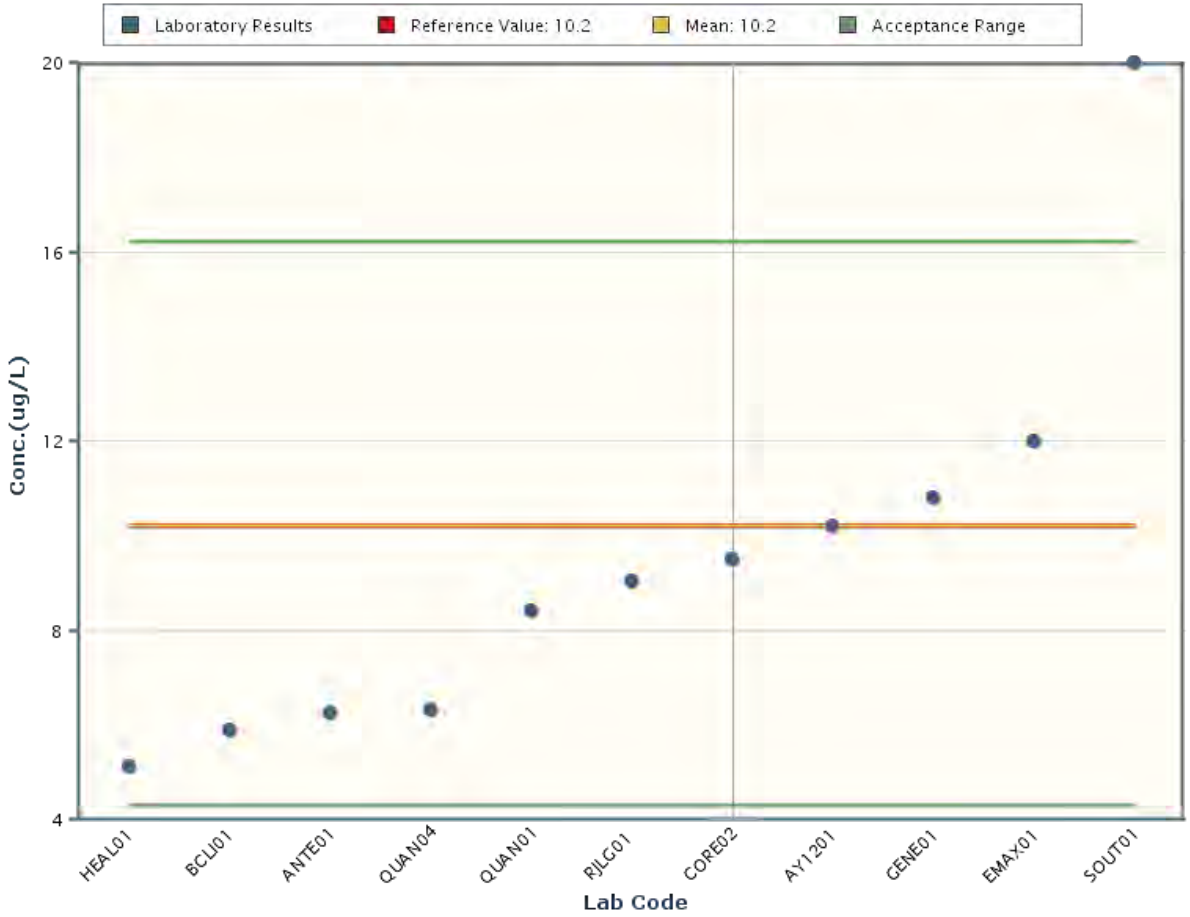
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 8 and 238 (± 5 Standard Deviations).

Aldrin

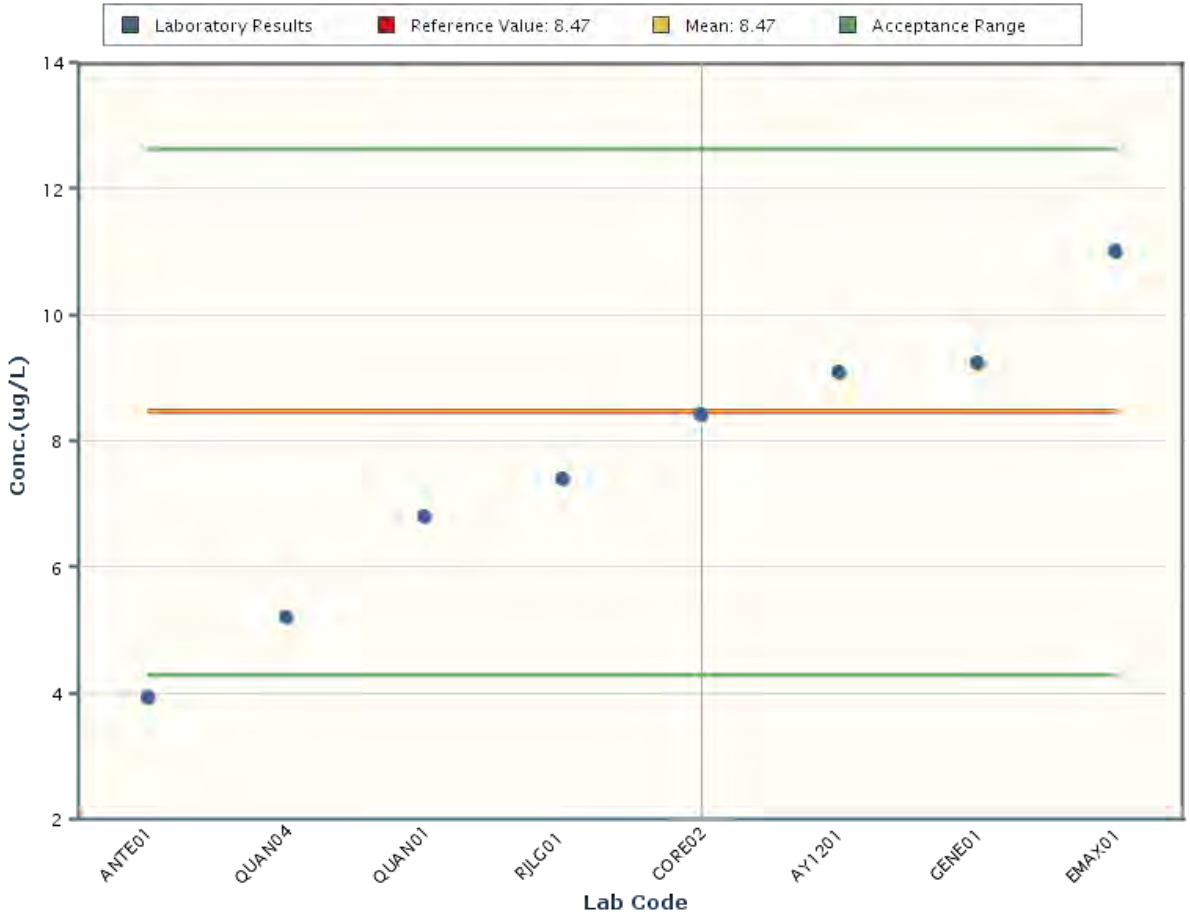
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 0.3 and 20.1 (± 5 Standard Deviations).

alpha Chlordane

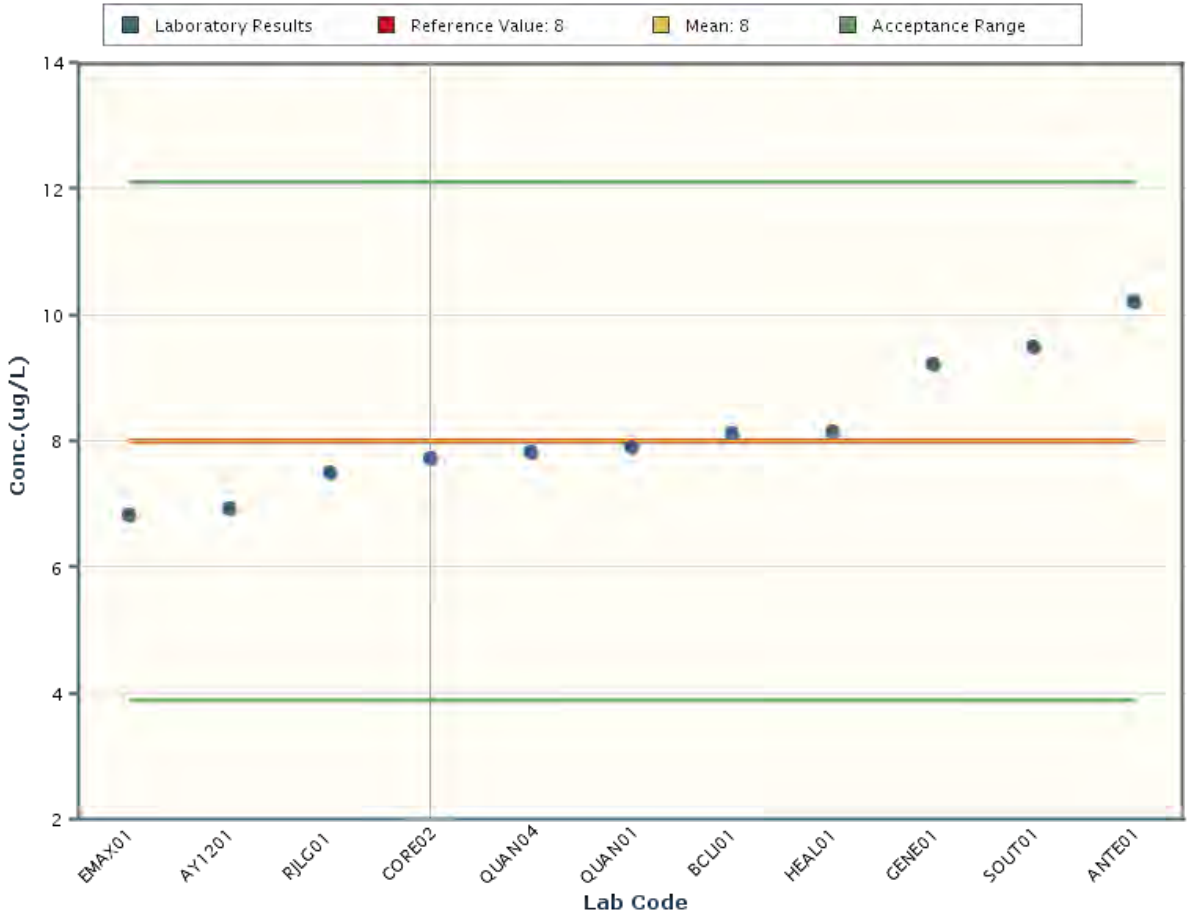
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 1.52 and 15.42 (± 5 Standard Deviations).

alpha-BHC

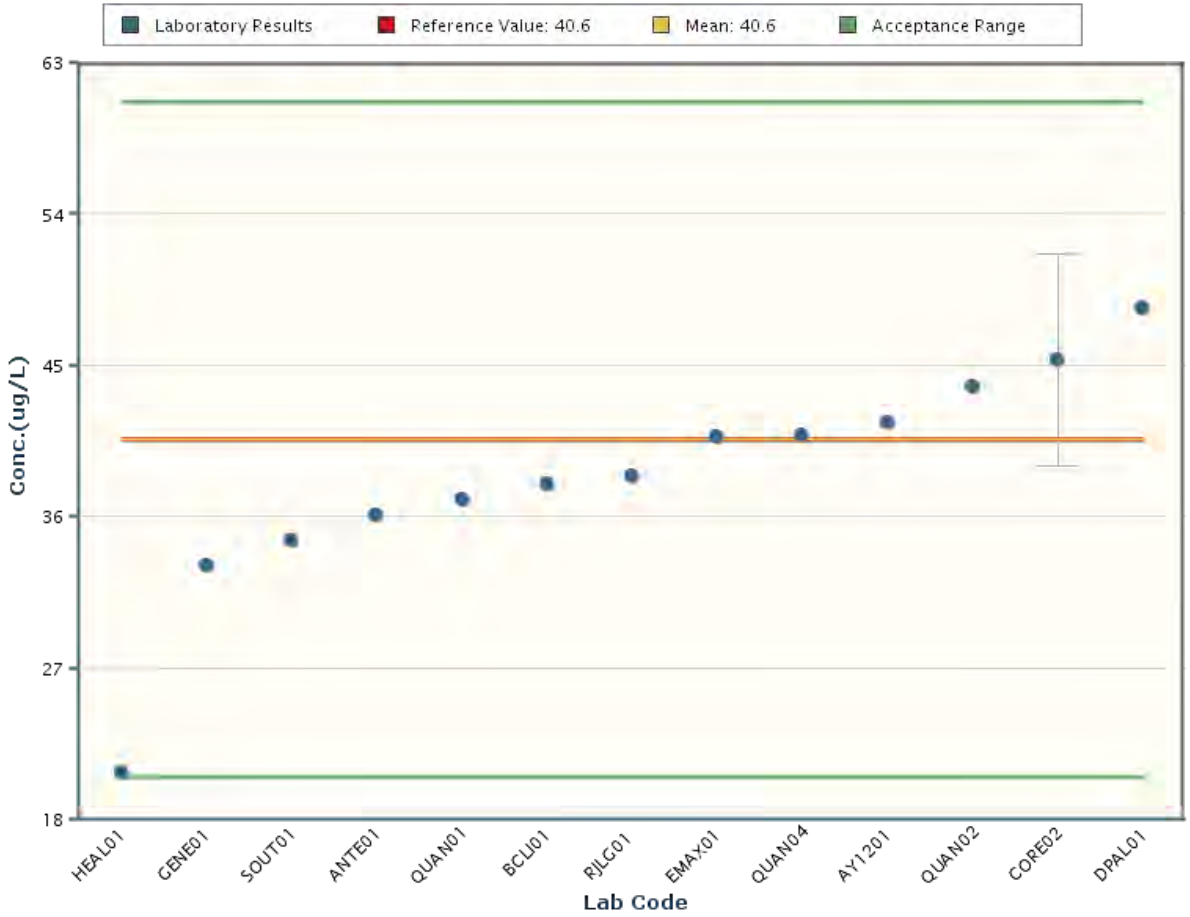
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 1.1 and 14.9 (± 5 Standard Deviations).

Anthracene

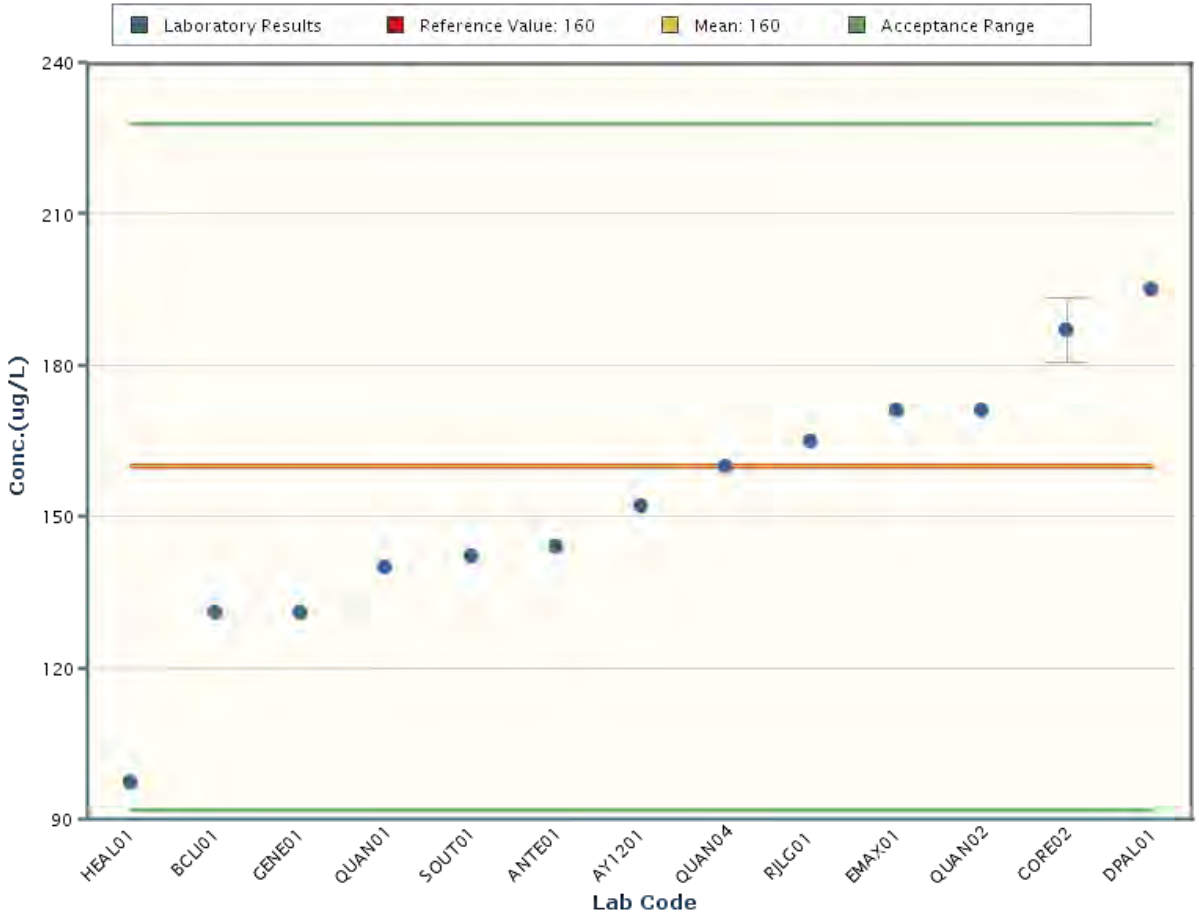
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 7.1 and 74.1 (± 5 Standard Deviations).

Benzo(a)anthracene

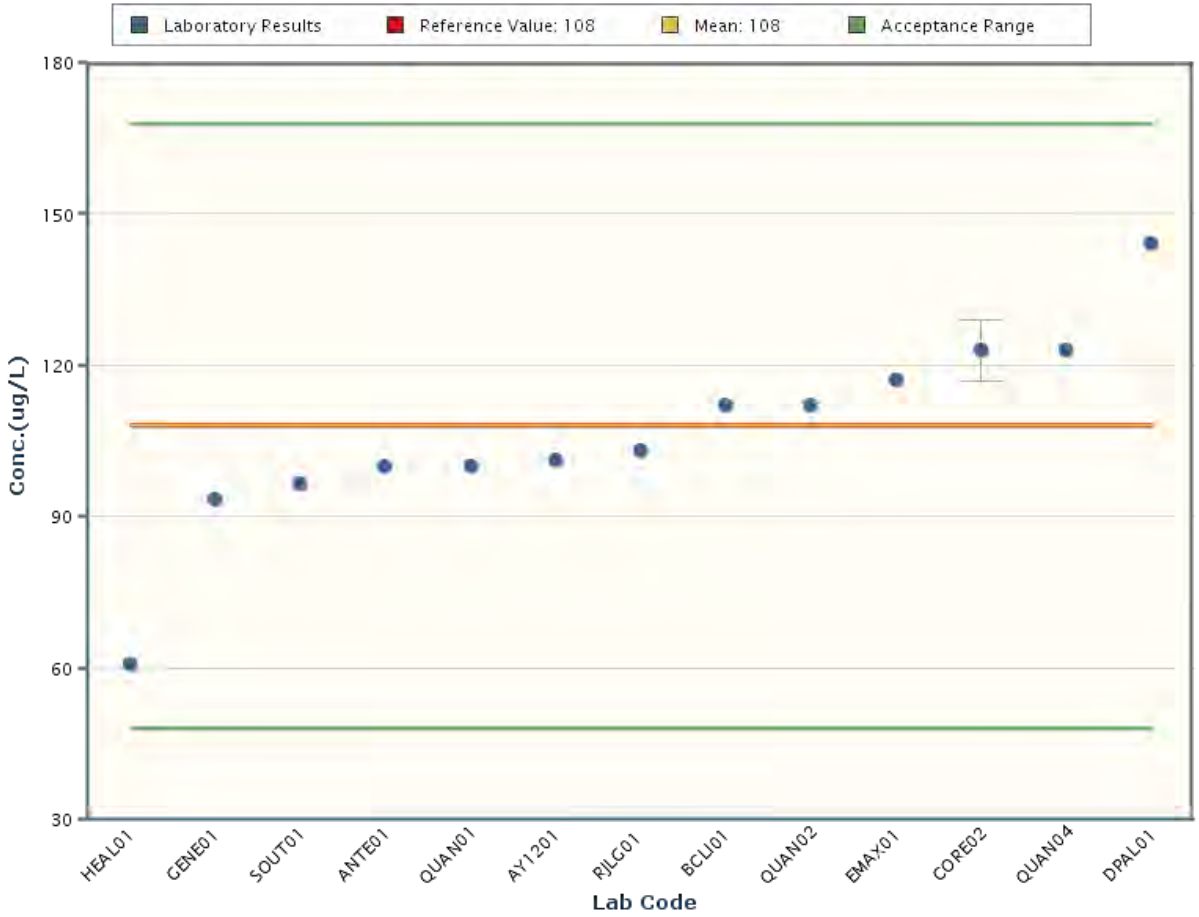
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 46 and 273 (± 5 Standard Deviations).

Benzo(a)pyrene

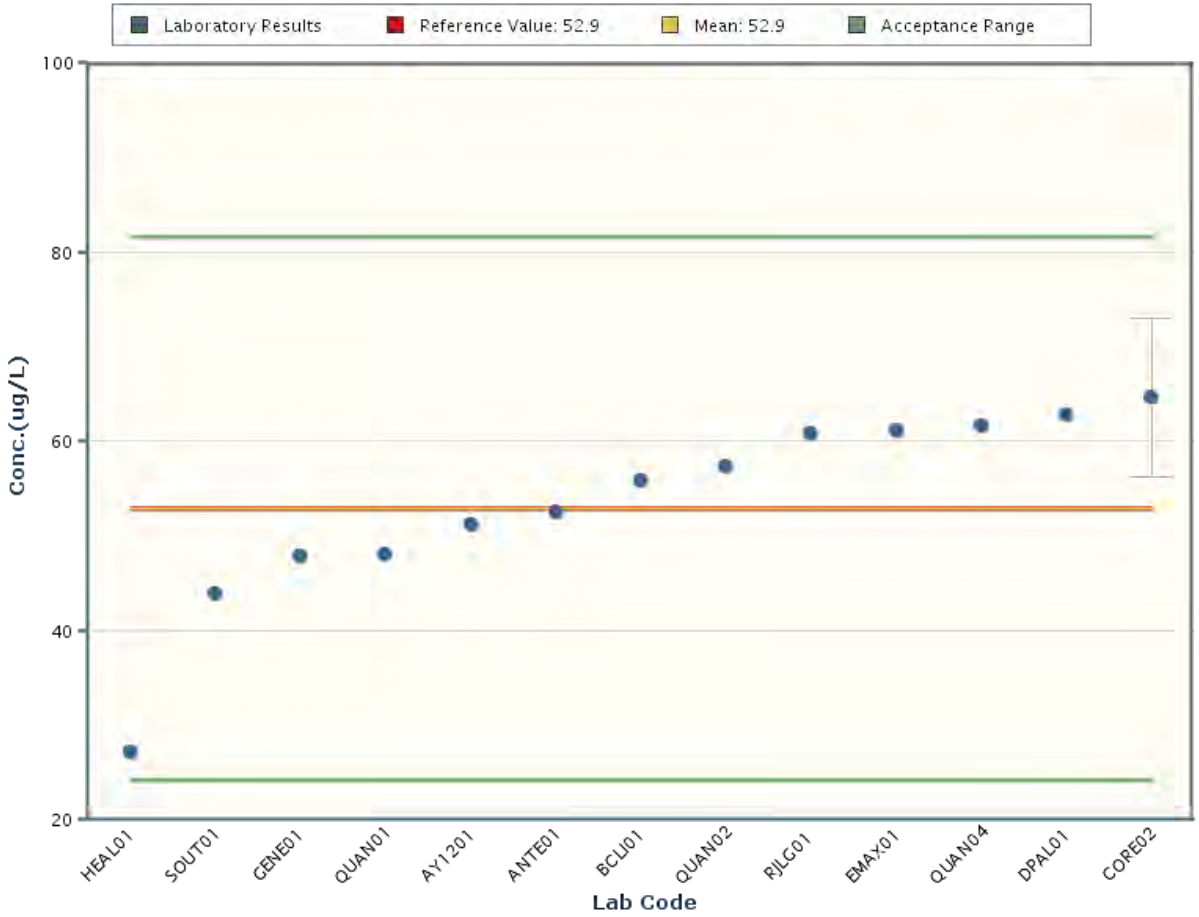
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 8 and 208 (± 5 Standard Deviations).

Benzo(b)fluoranthene

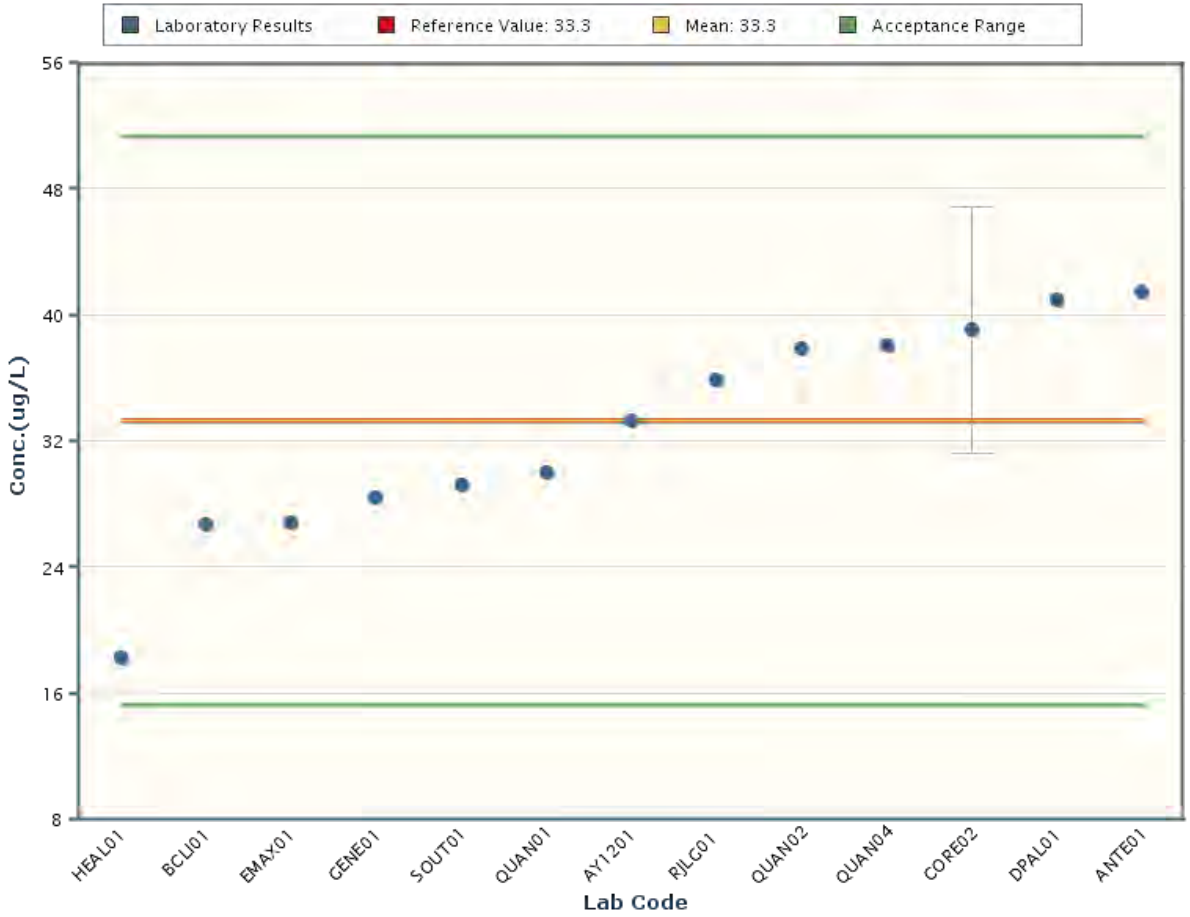
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 4.9 and 100.8 (± 5 Standard Deviations).

Benzo(g,h,i)perylene

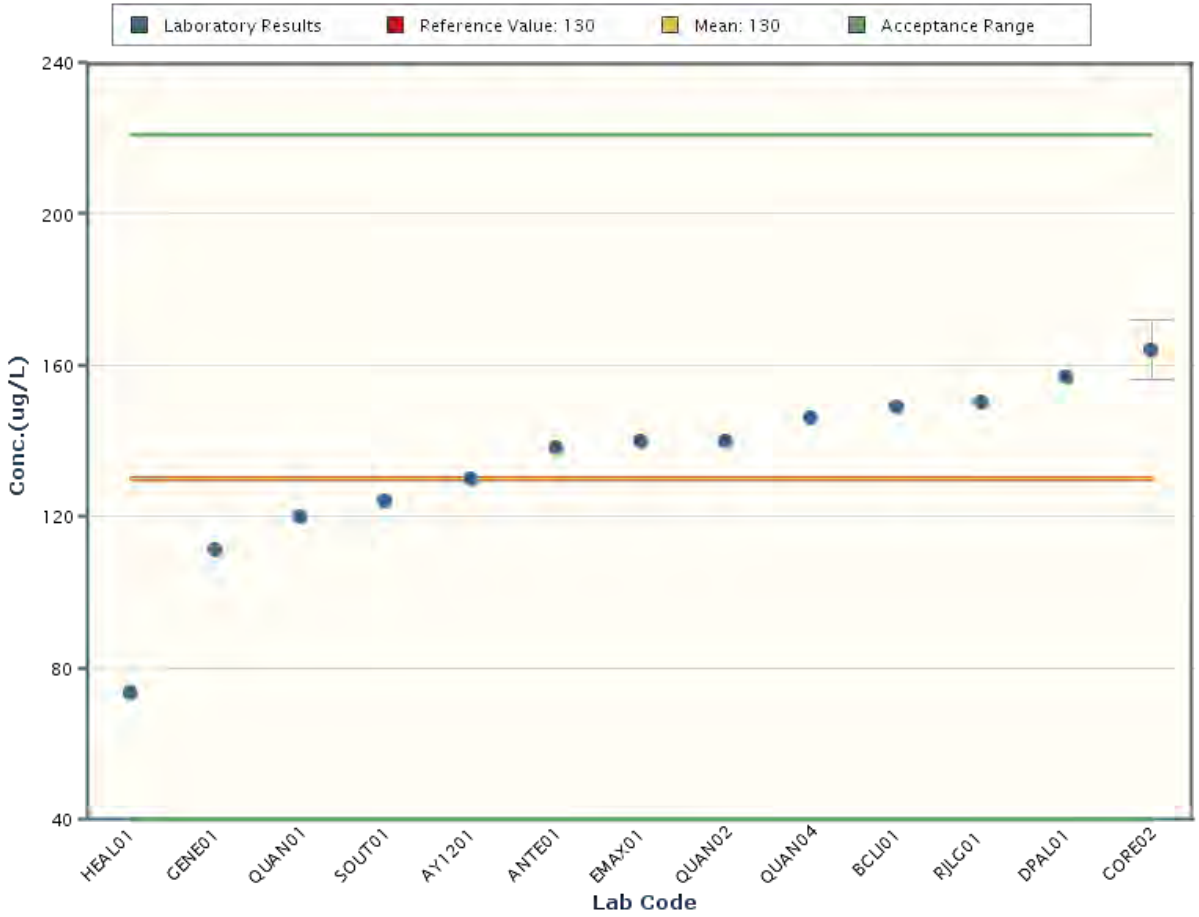
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 3.3 and 63.2 (± 5 Standard Deviations).

Benzo(k)fluoranthene

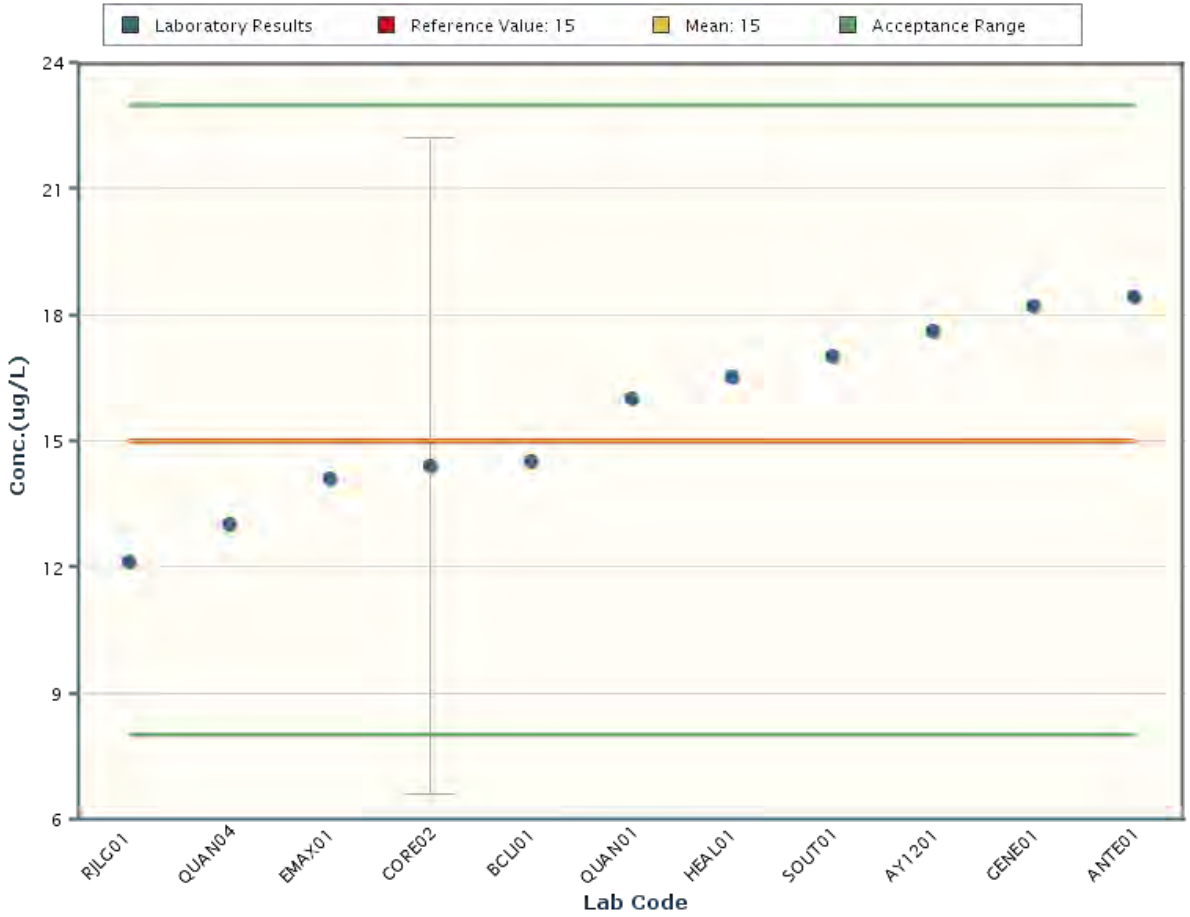
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between -21 and 281 (± 5 Standard Deviations).

beta-BHC

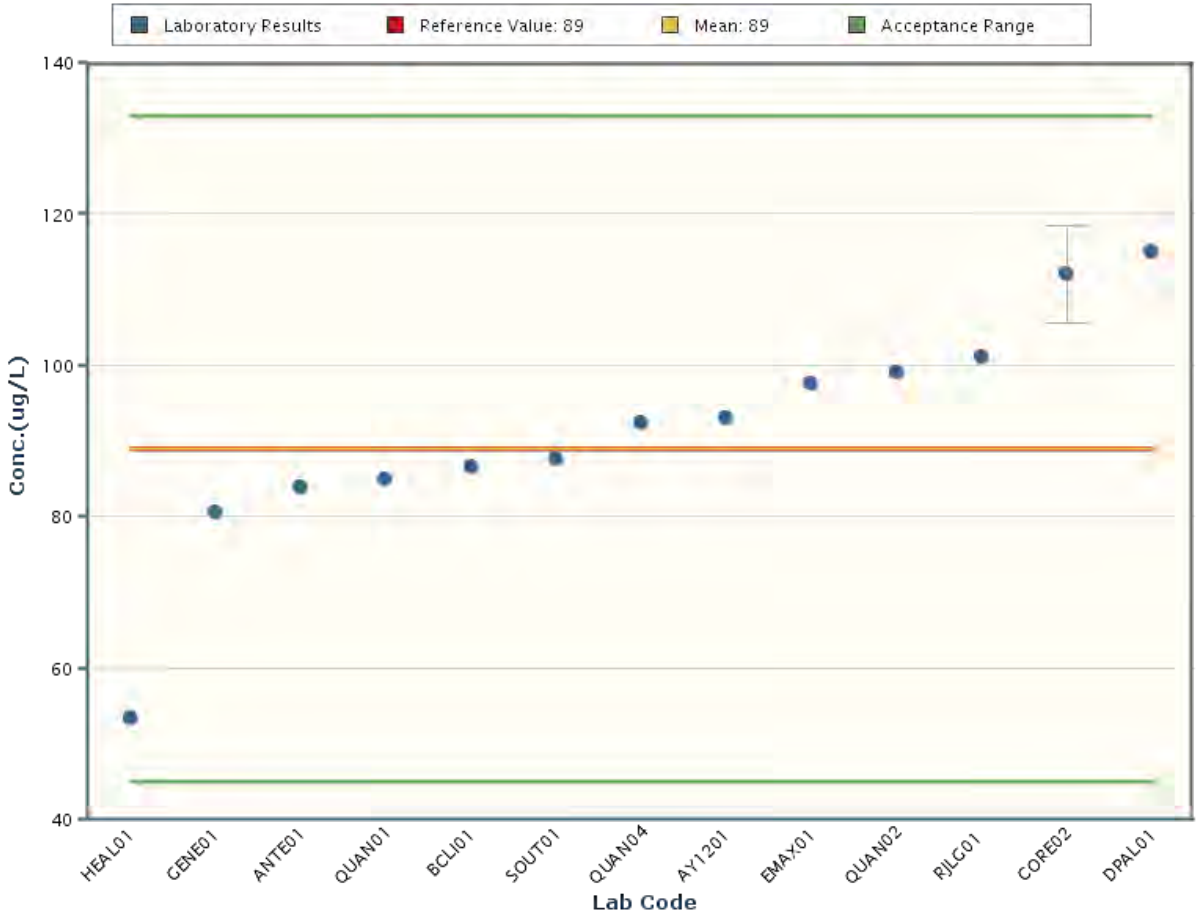
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 3 and 27 (± 5 Standard Deviations).

Chrysene

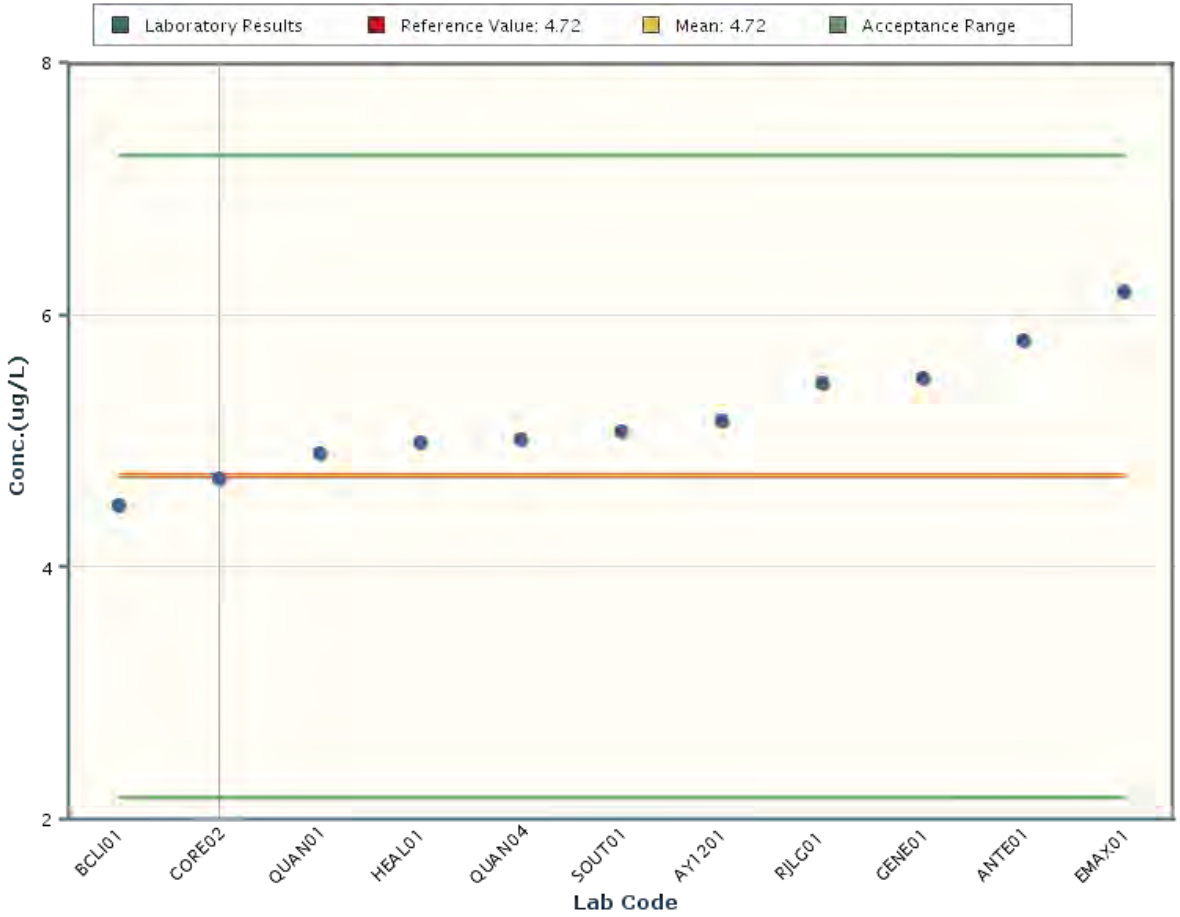
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 16 and 162 (± 5 Standard Deviations).

delta-BHC

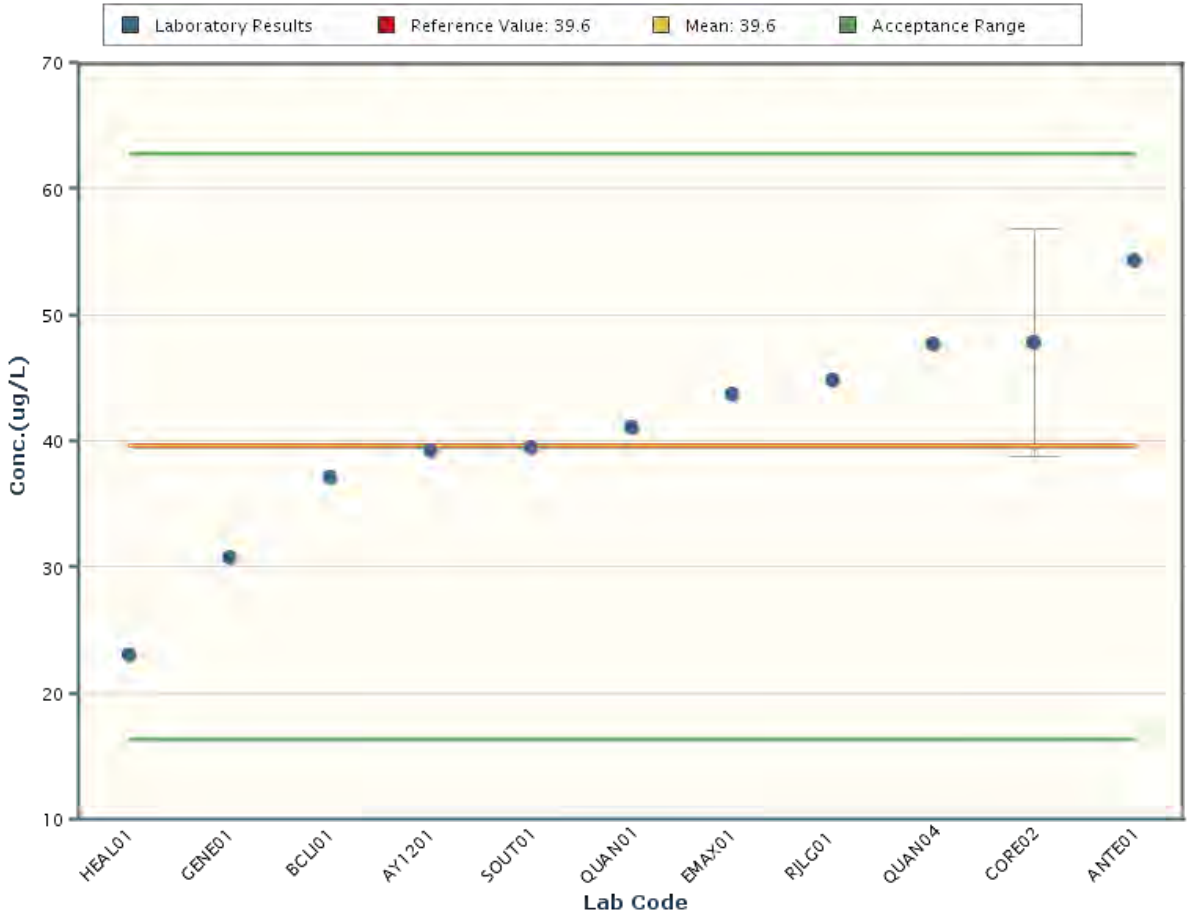
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 0.49 and 8.95 (± 5 Standard Deviations).

Dibenzo(a,h)anthracene

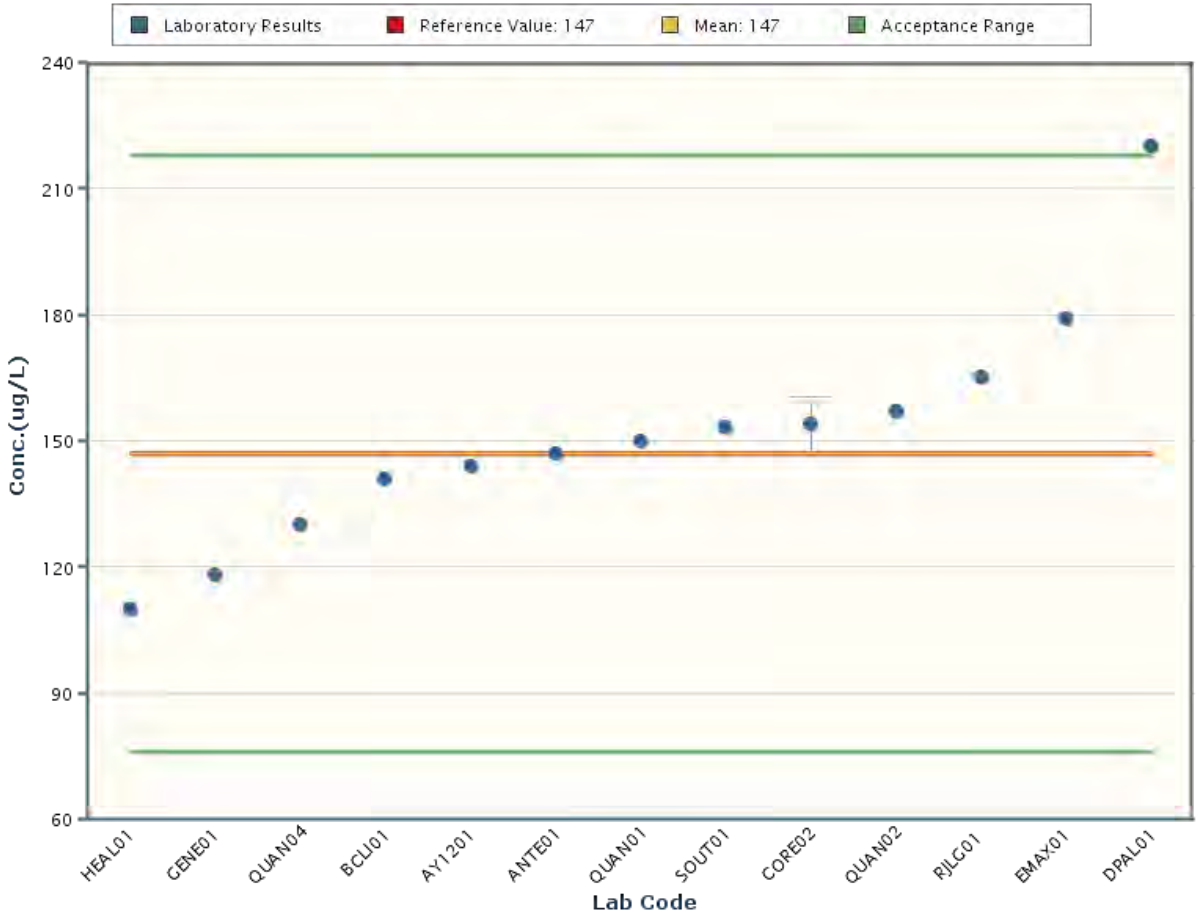
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 0.8 and 78.3 (± 5 Standard Deviations).

Dibenzofuran

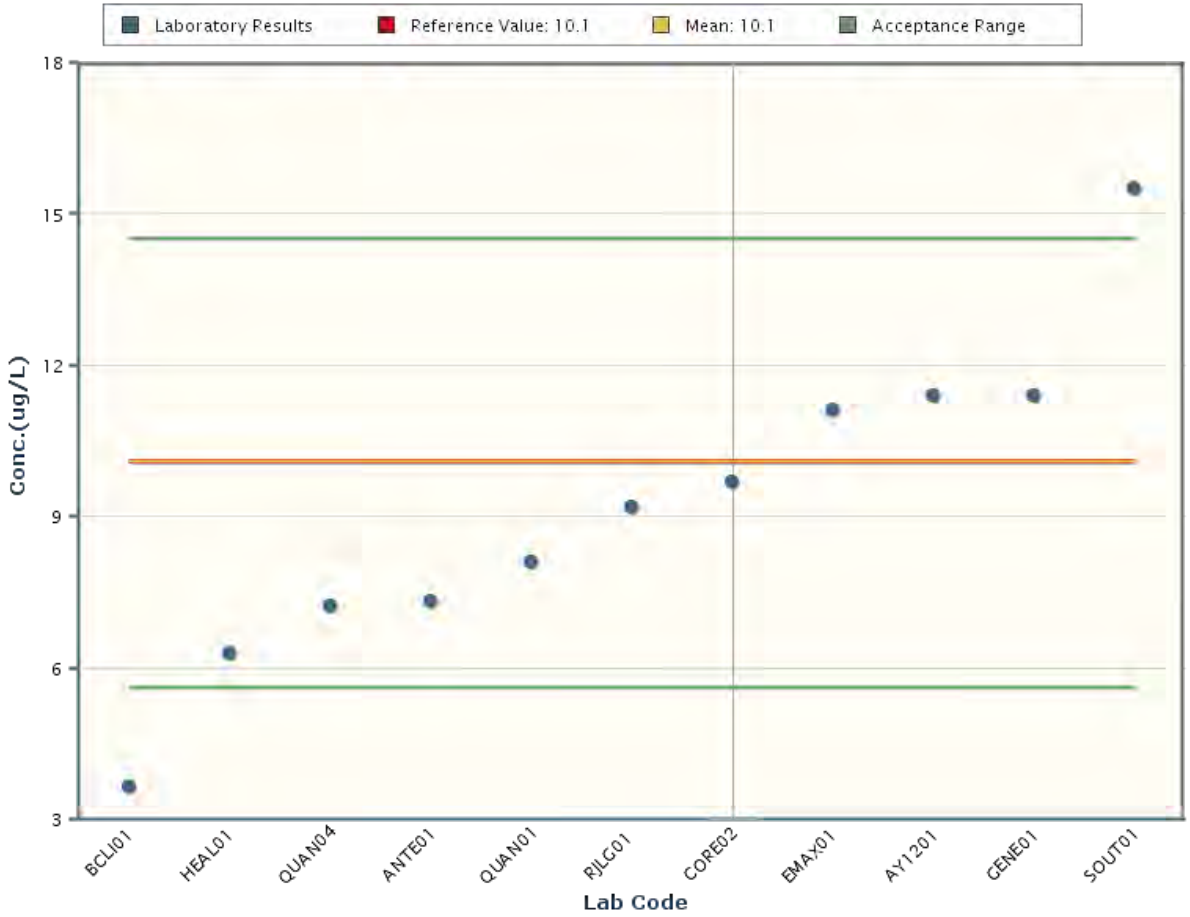
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 29 and 266 (± 5 Standard Deviations).

Dieldrin

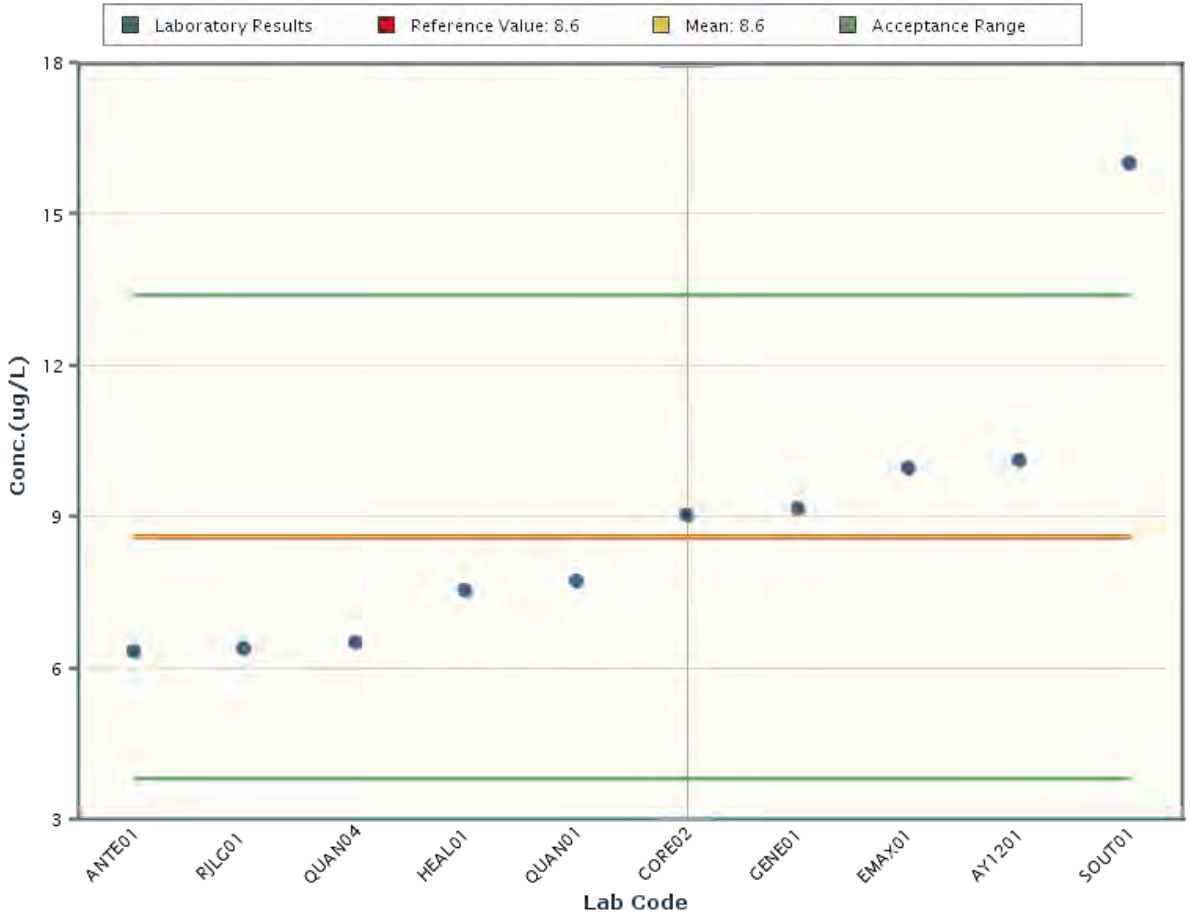
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 2.7 and 17.5 (± 5 Standard Deviations).

Endosulfan I

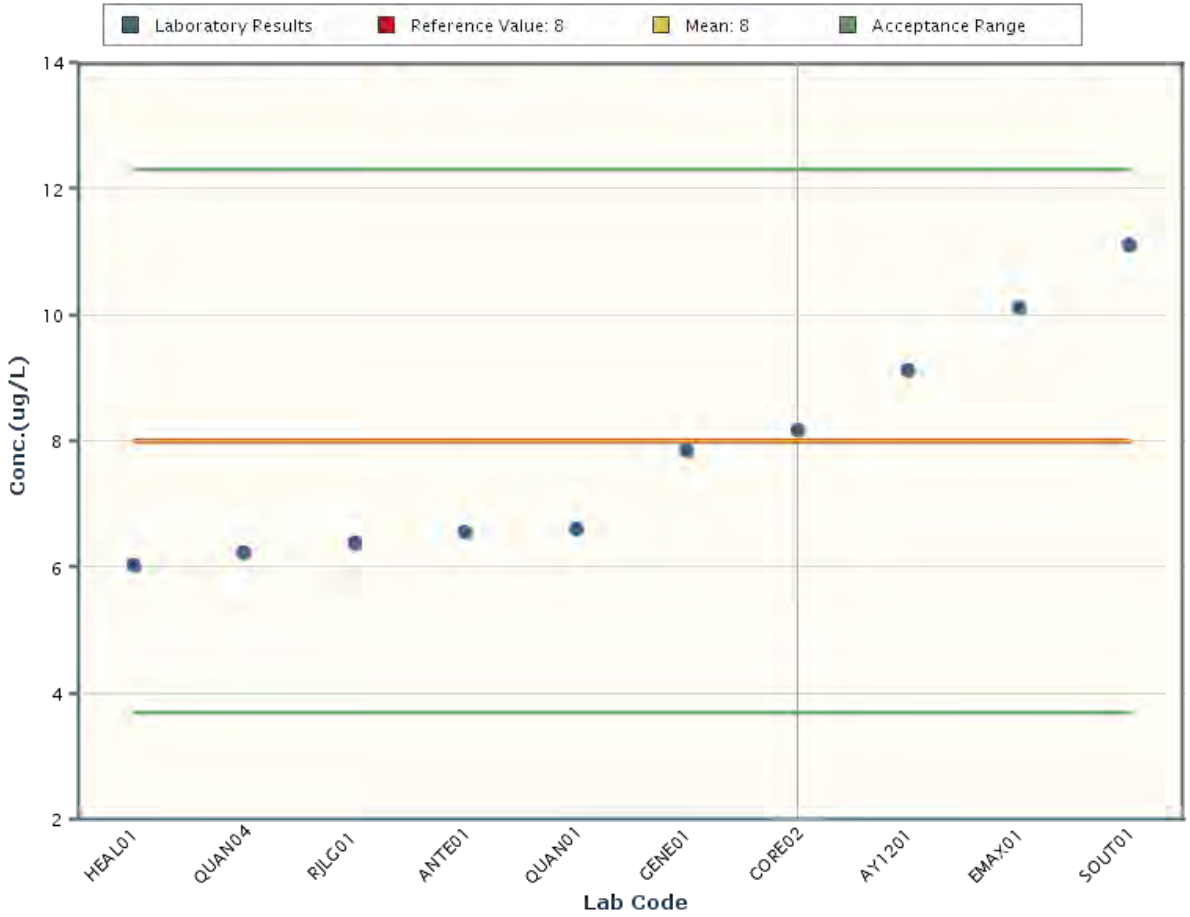
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 0.6 and 16.7 (± 5 Standard Deviations).

Endosulfan II

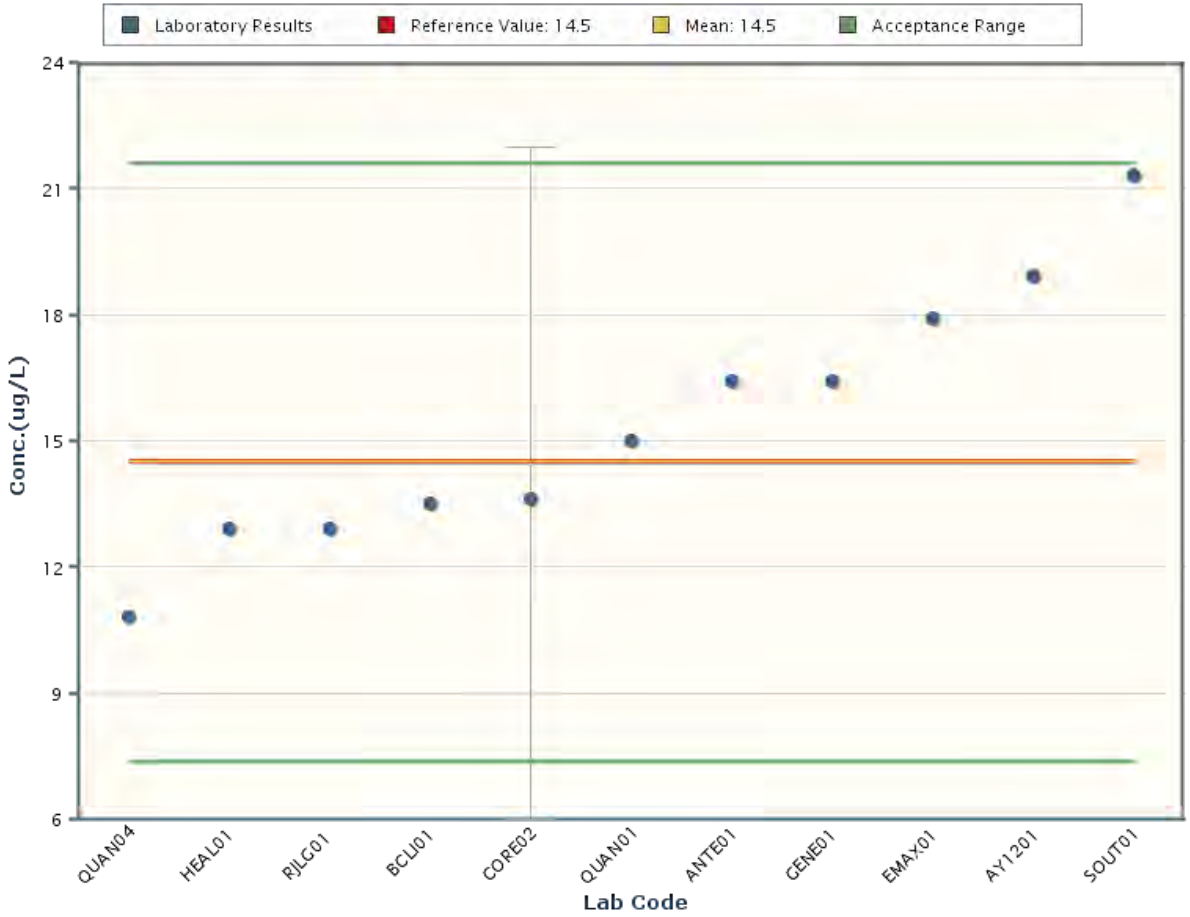
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 0.8 and 15.1 (± 5 Standard Deviations).

Endosulfan sulfate

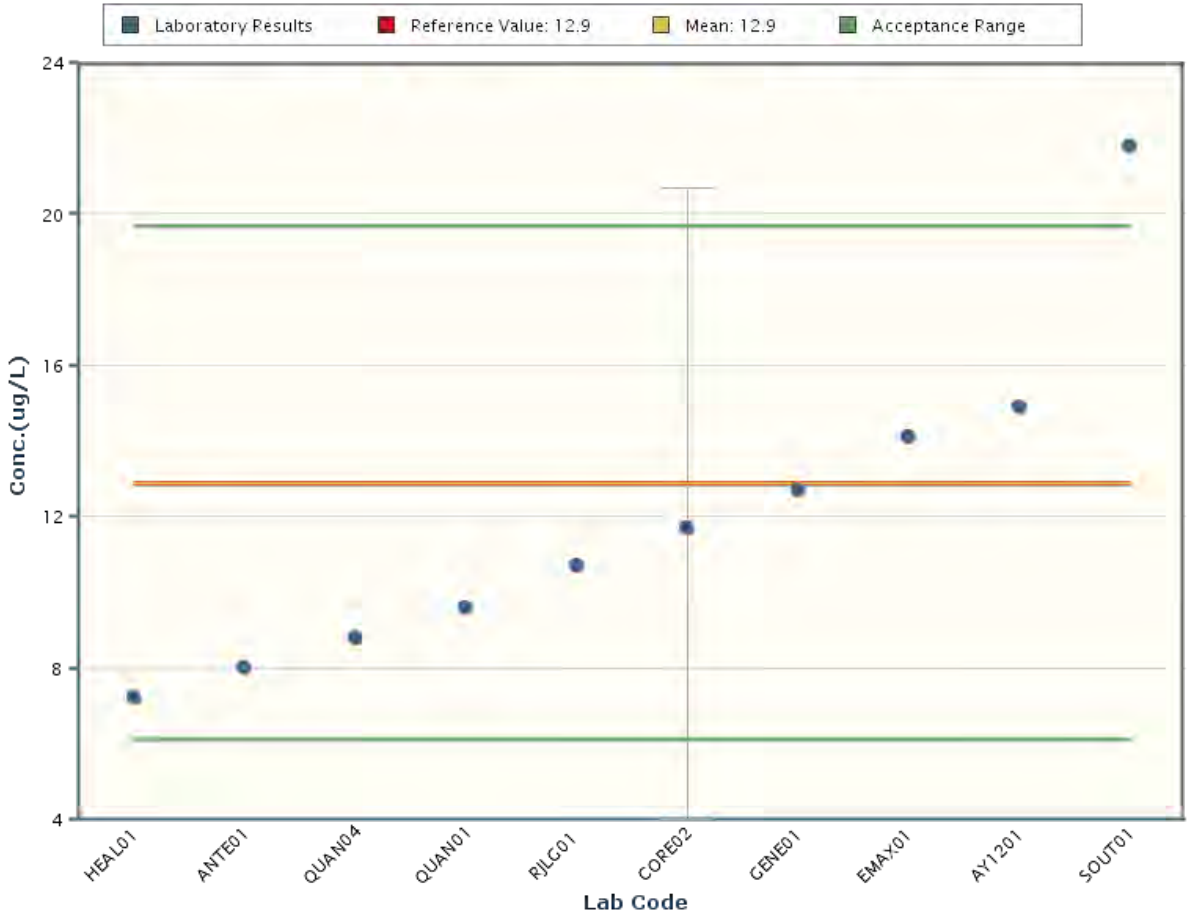
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 2.7 and 26.4 (± 5 Standard Deviations).

Endrin

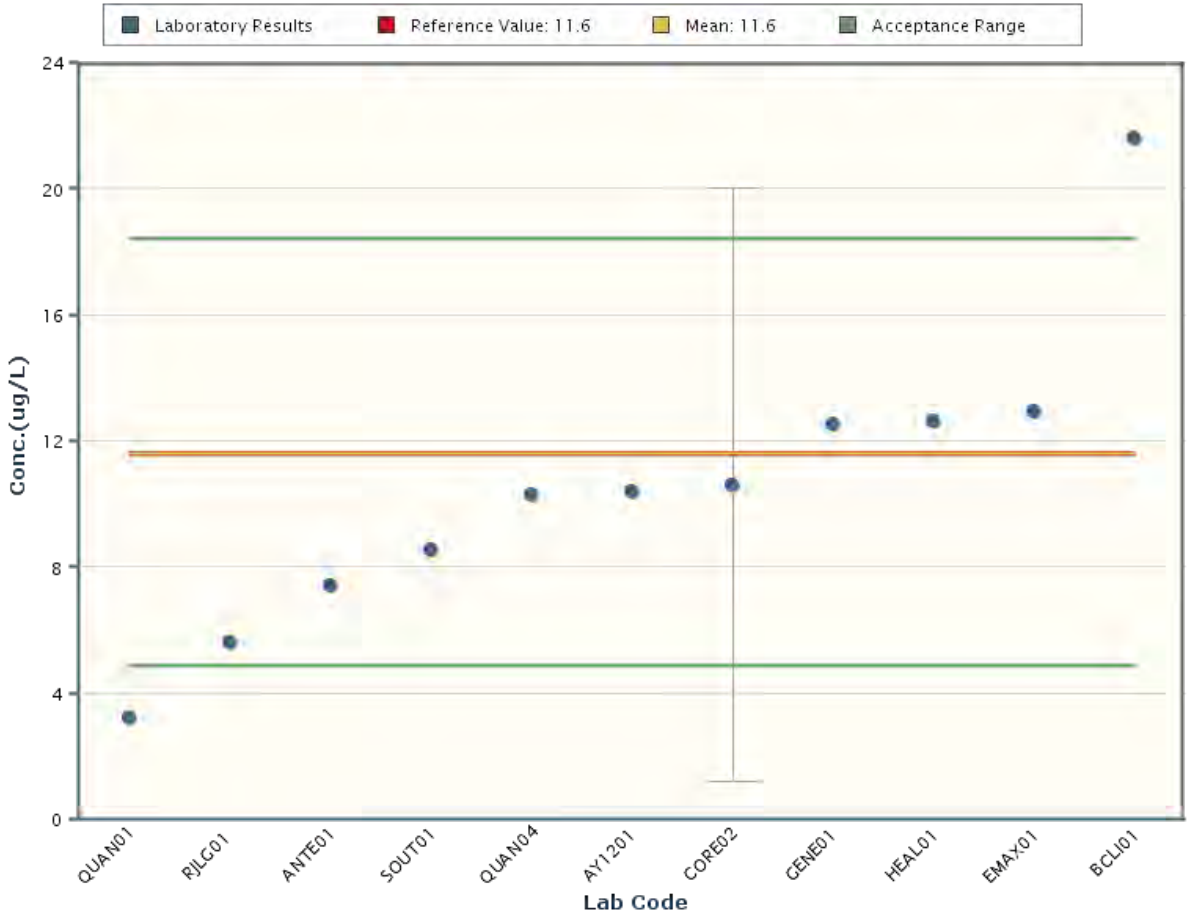
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 1.6 and 24.2 (± 5 Standard Deviations).

Endrin Aldehyde

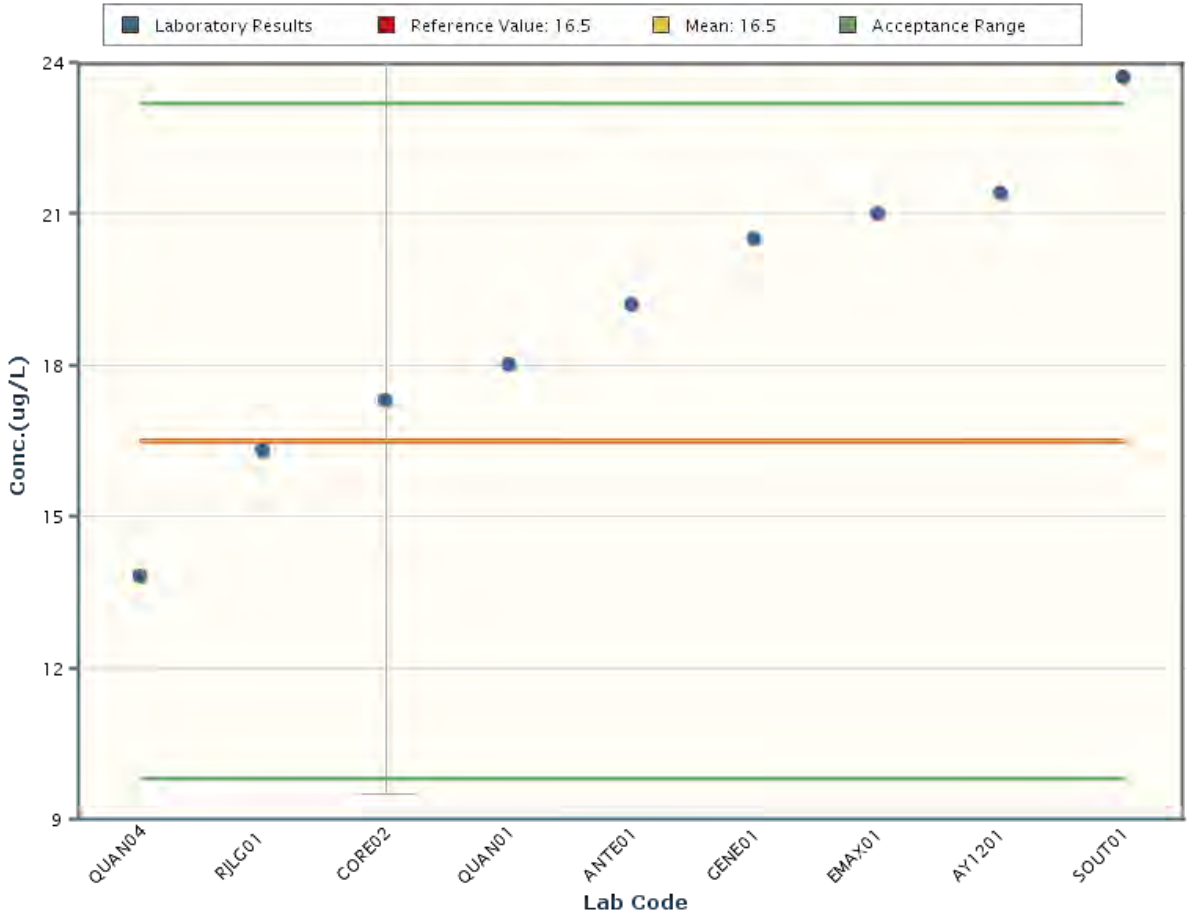
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 0.4 and 22.9 (± 5 Standard Deviations).

Endrin Ketone

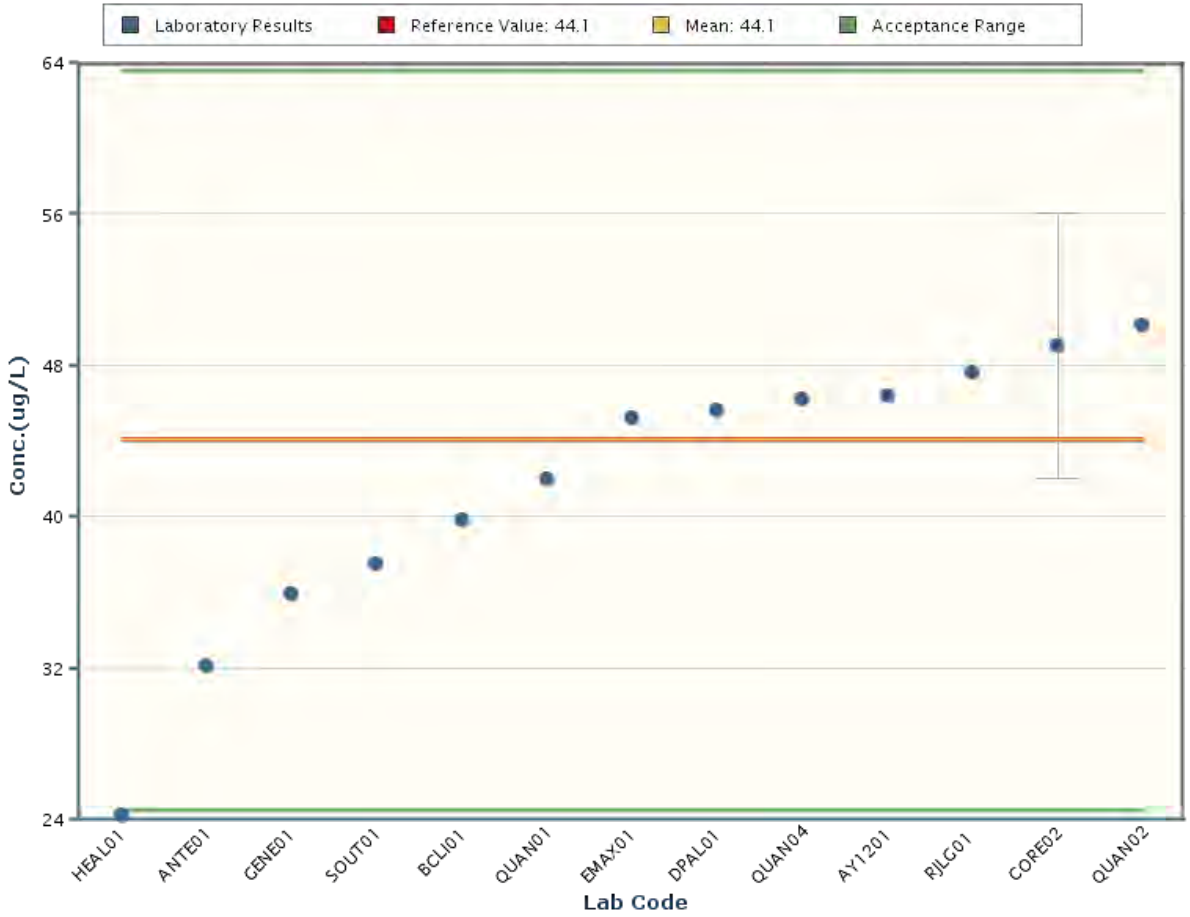
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 5.3 and 27.6 (± 5 Standard Deviations).

Fluoranthene

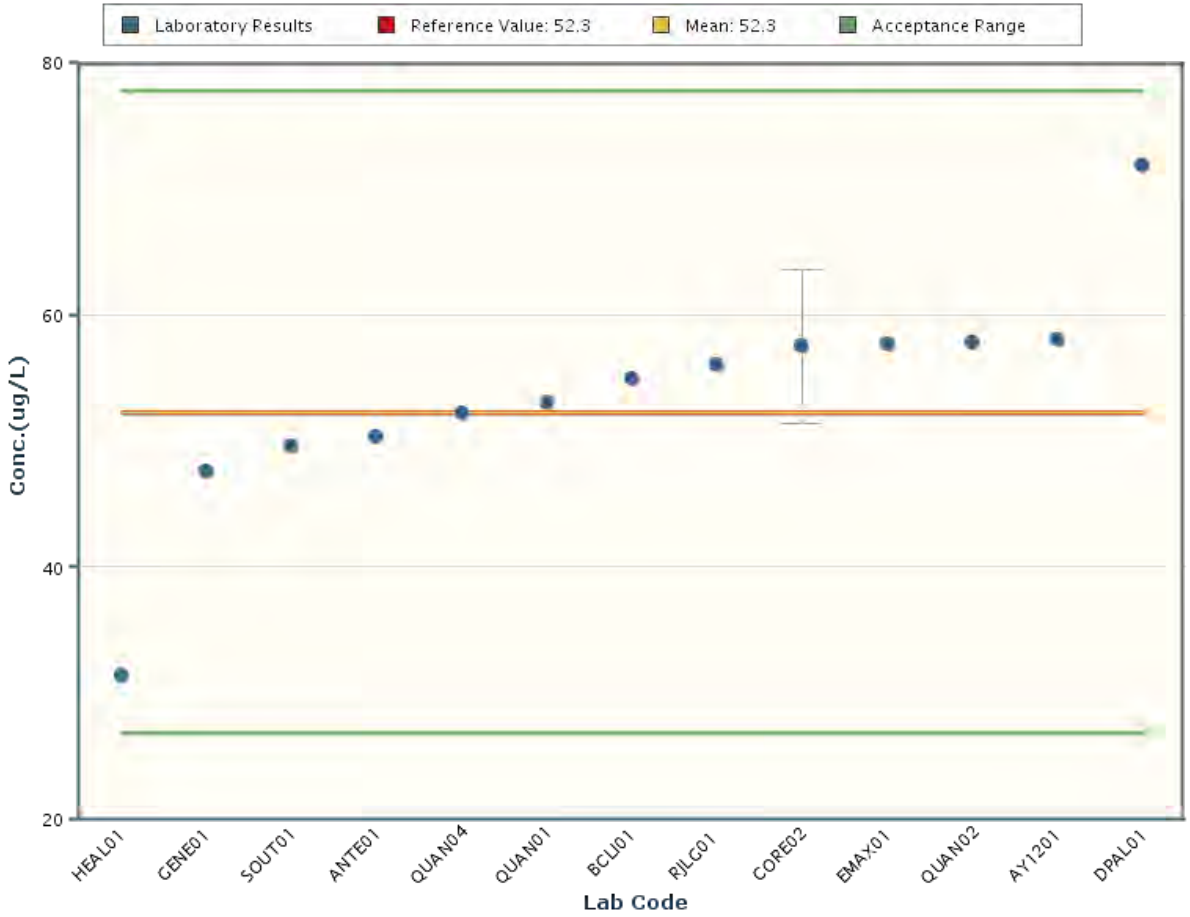
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 11.4 and 76.7 (± 5 Standard Deviations).

Fluorene

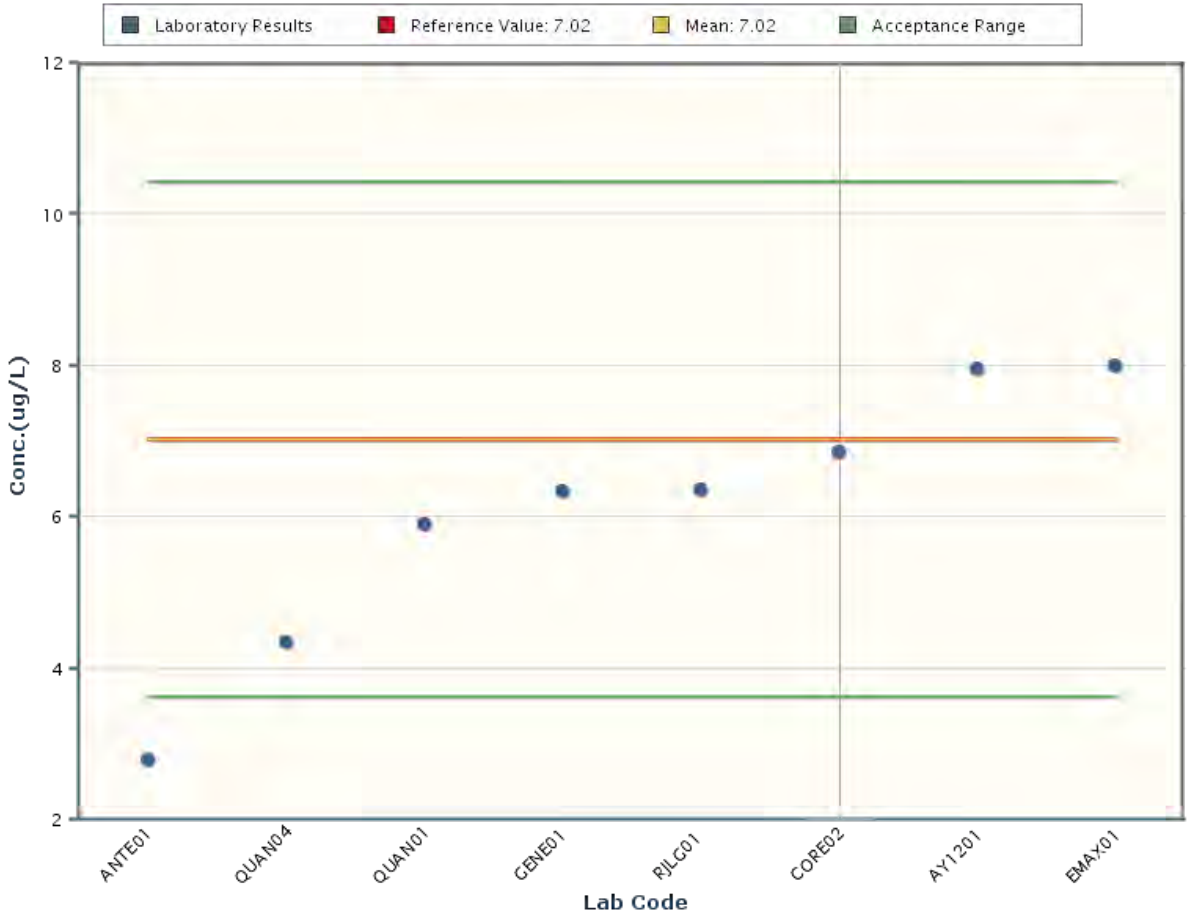
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 10.0 and 94.6 (± 5 Standard Deviations).

gamma Chlordane

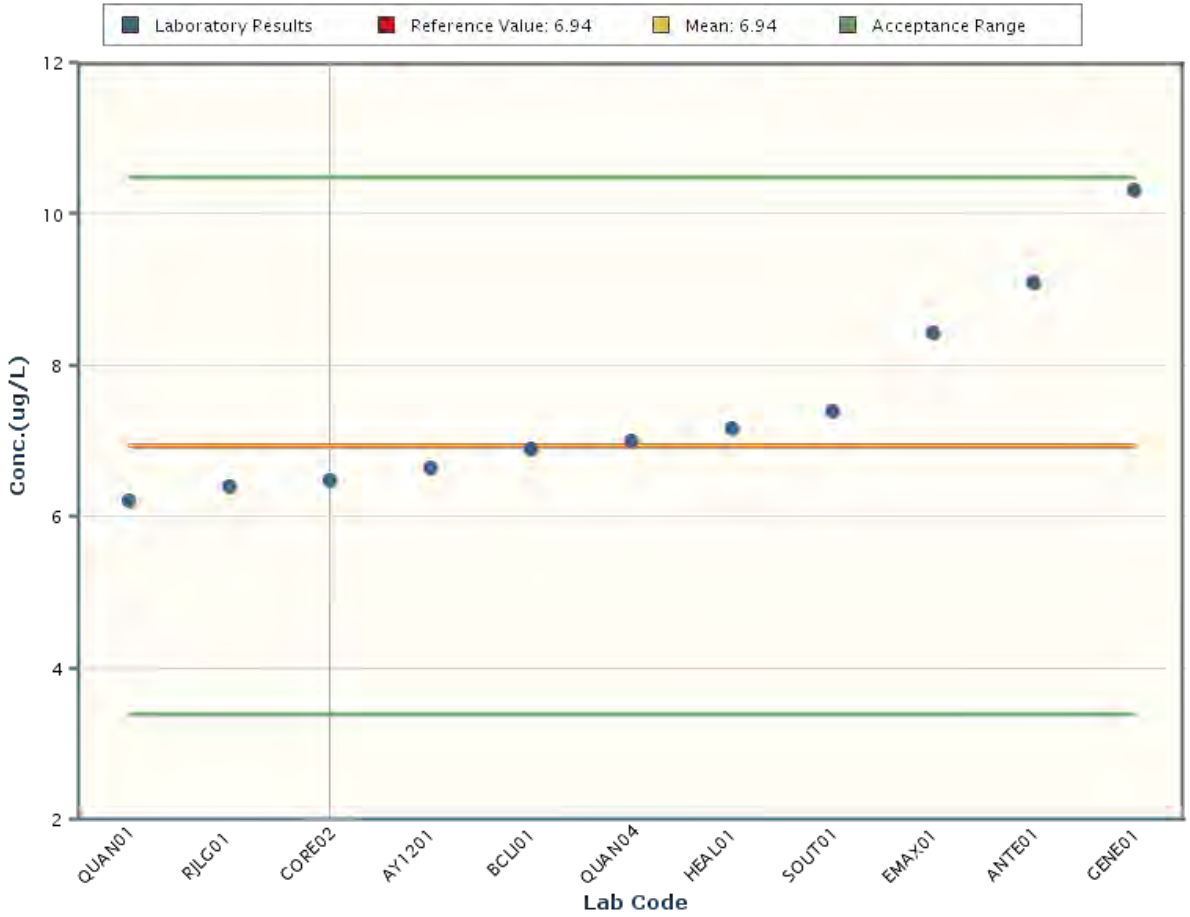
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 1.35 and 12.69 (± 5 Standard Deviations).

gamma-BHC (Lindane)

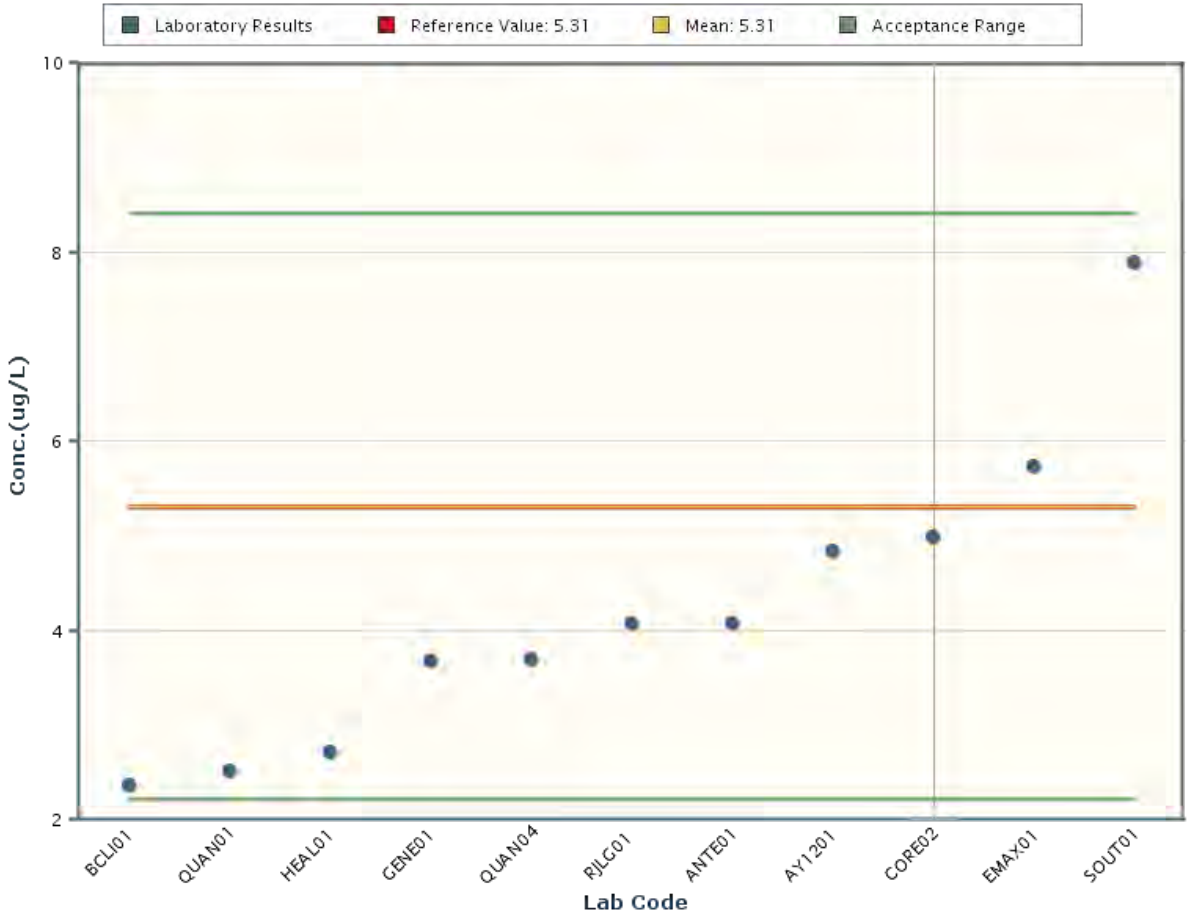
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 1.02 and 12.85 (± 5 Standard Deviations).

Heptachlor

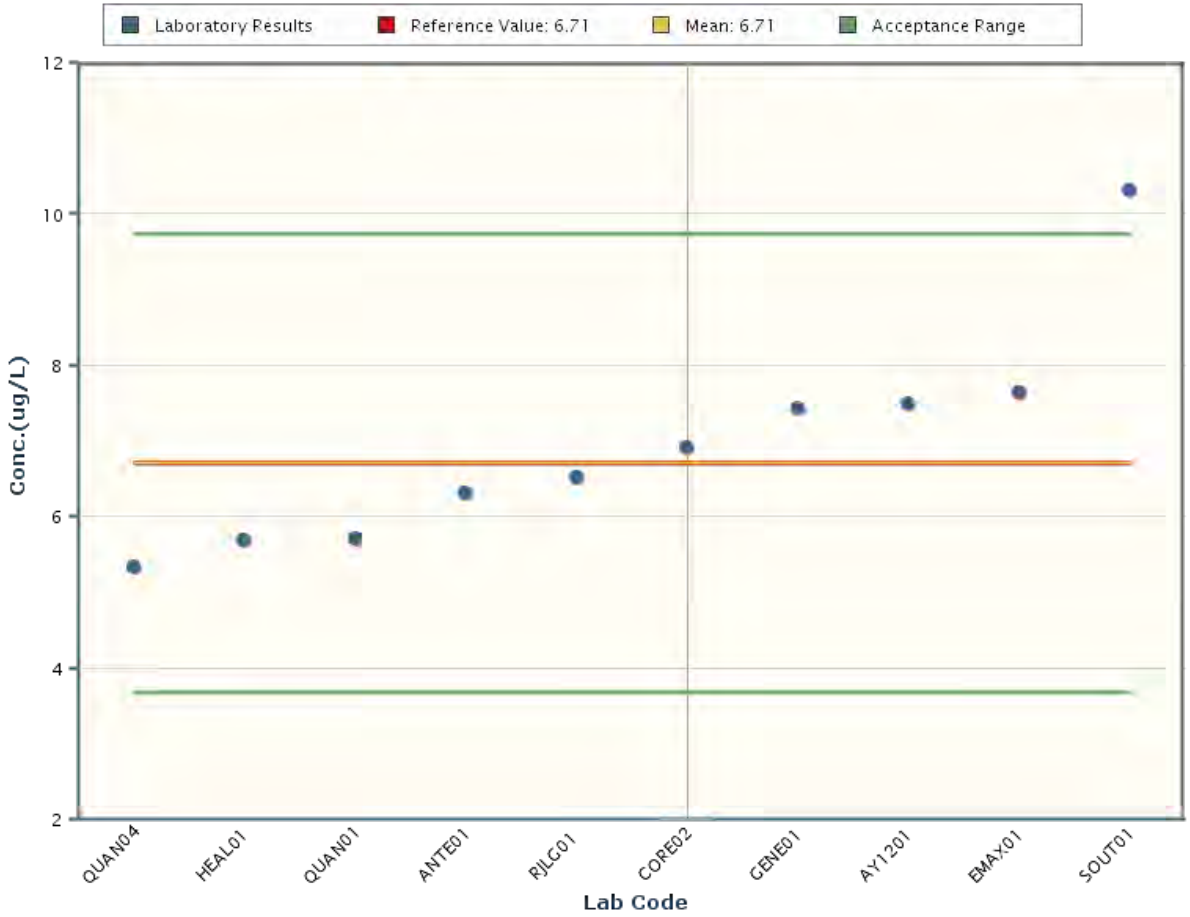
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 0.15 and 10.46 (± 5 Standard Deviations).

Heptachlor epoxide

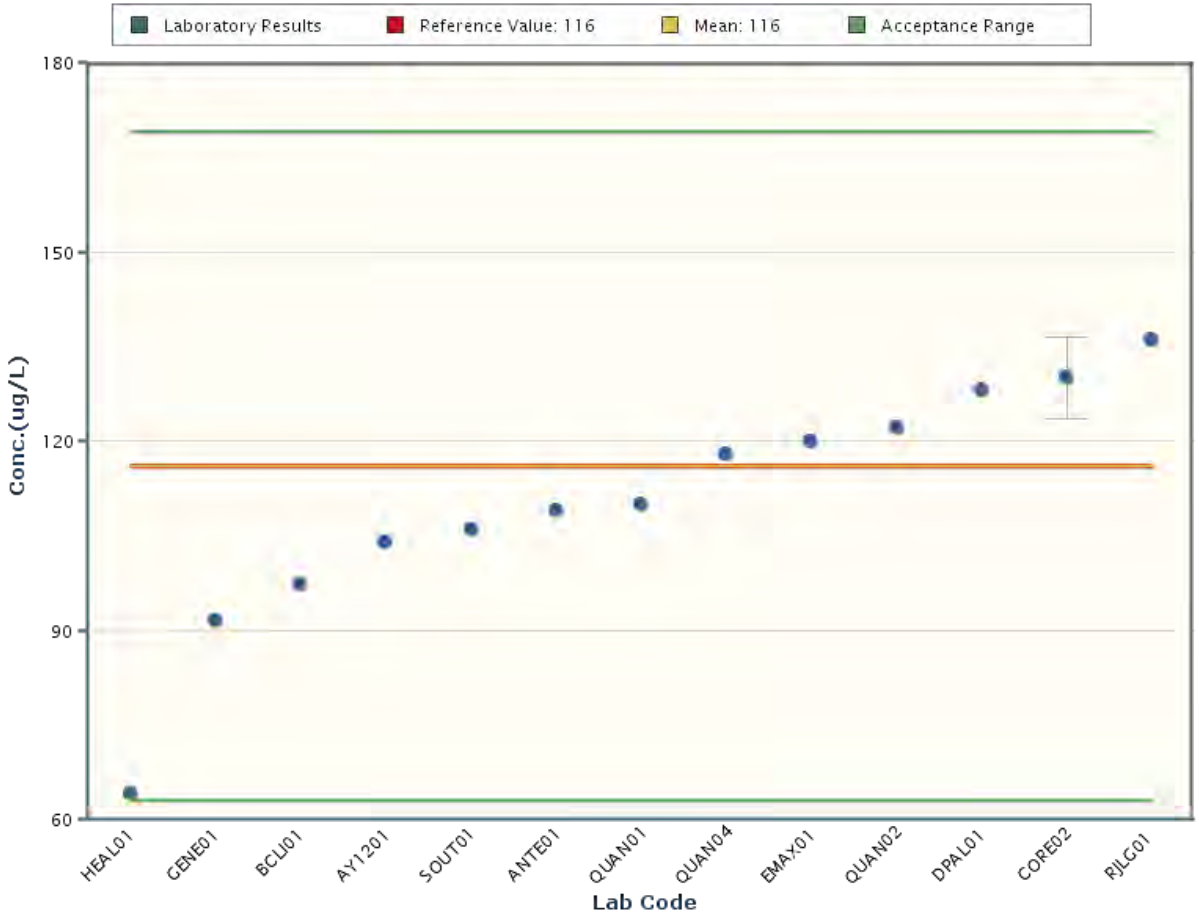
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 1.67 and 11.75 (± 5 Standard Deviations).

Hexachlorobenzene

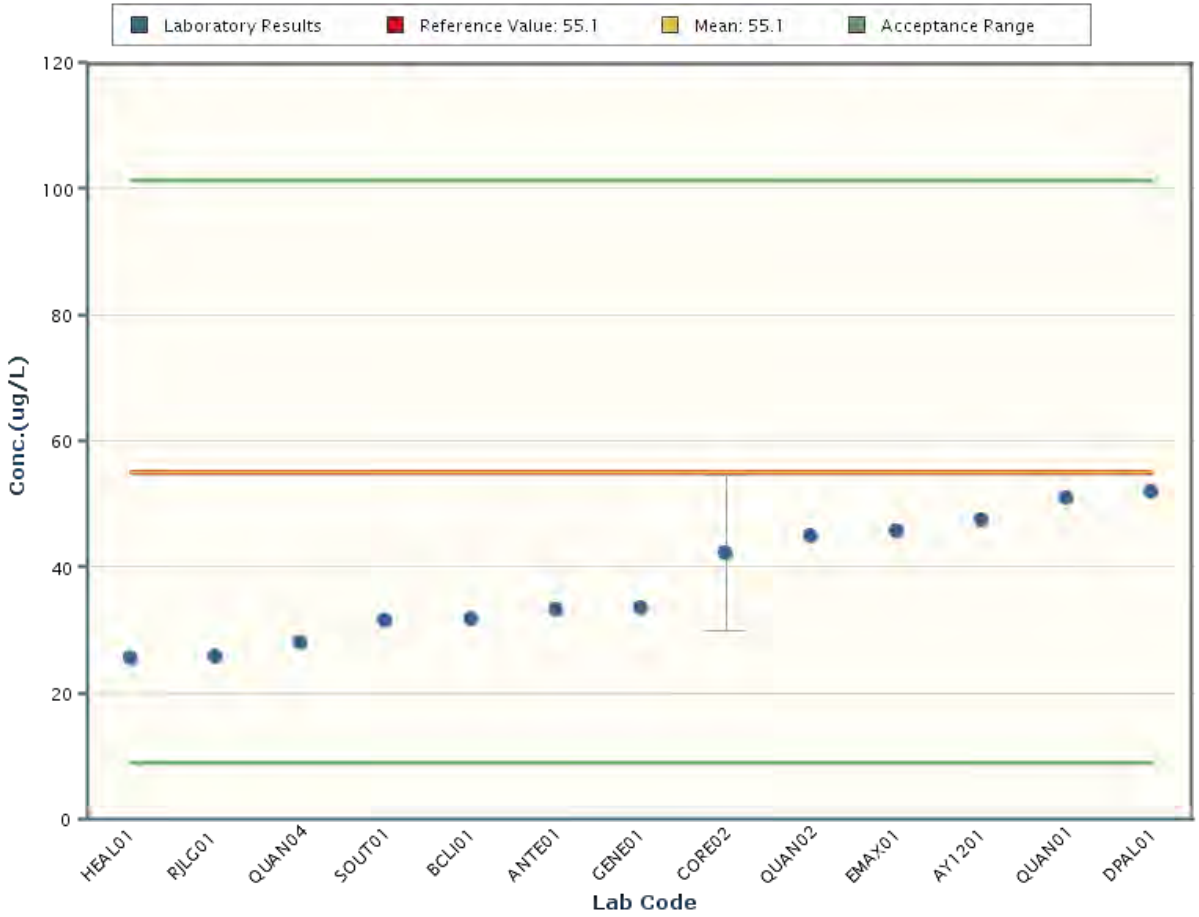
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 28 and 204 (± 5 Standard Deviations).

Hexachlorobutadiene

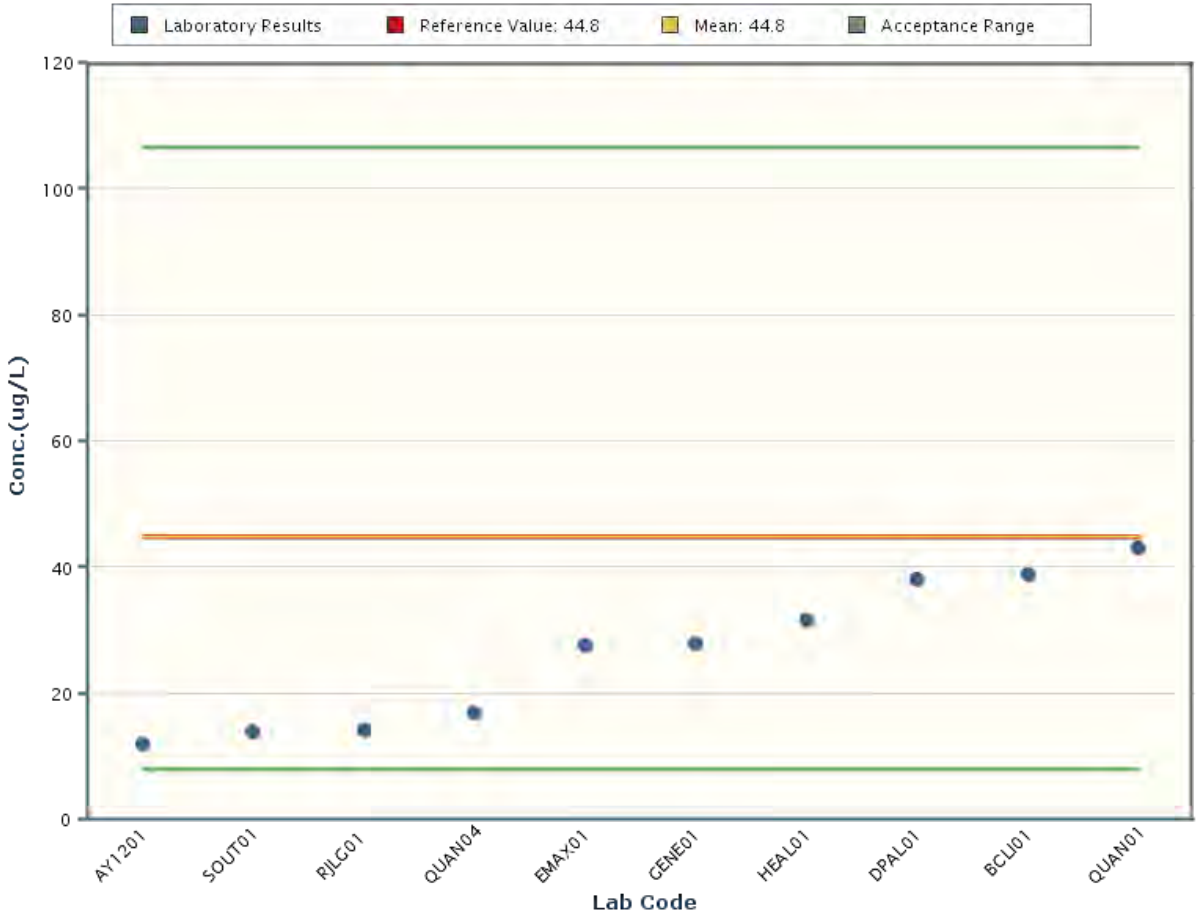
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between -21.9 and 132.2 (± 5 Standard Deviations).

Hexachlorocyclopentadiene

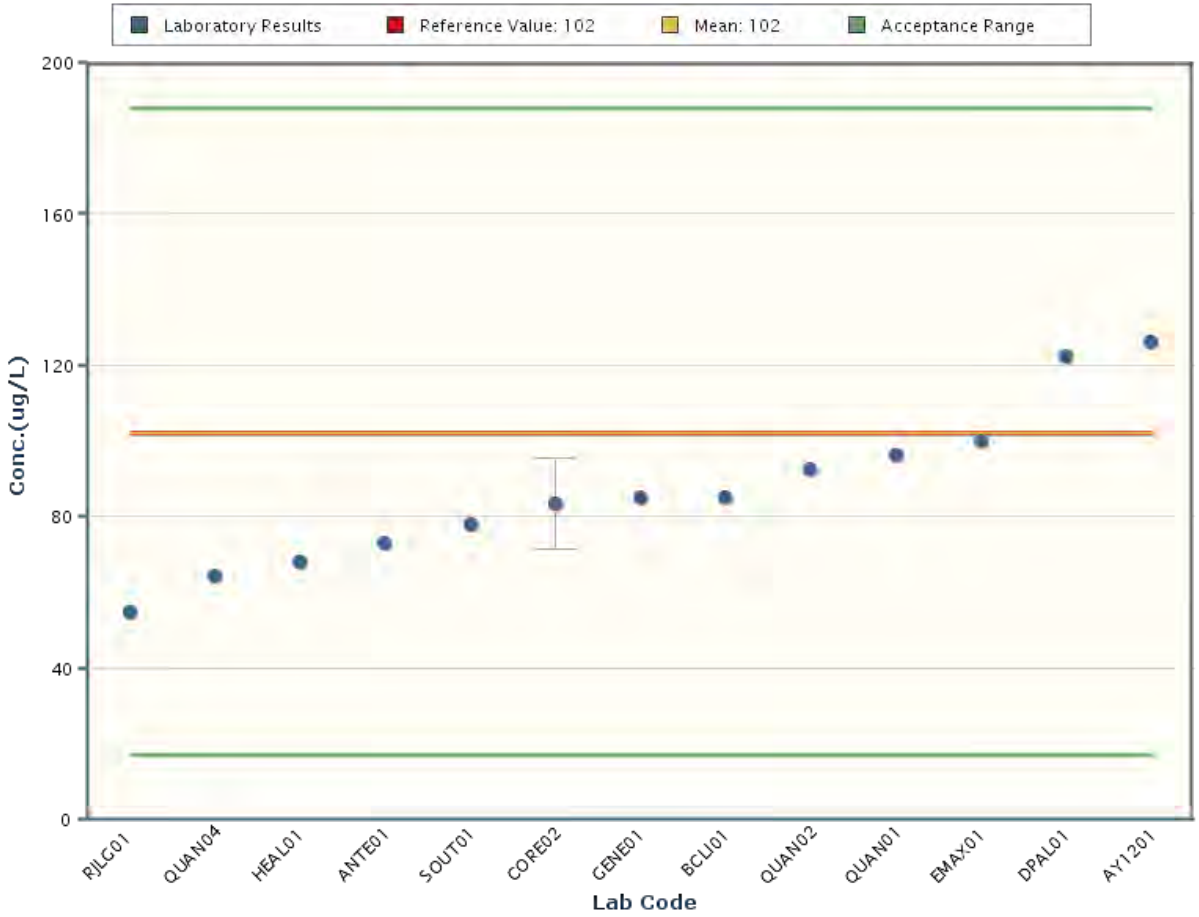
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between -57.9 and 147.6 (± 5 Standard Deviations).

Hexachloroethane

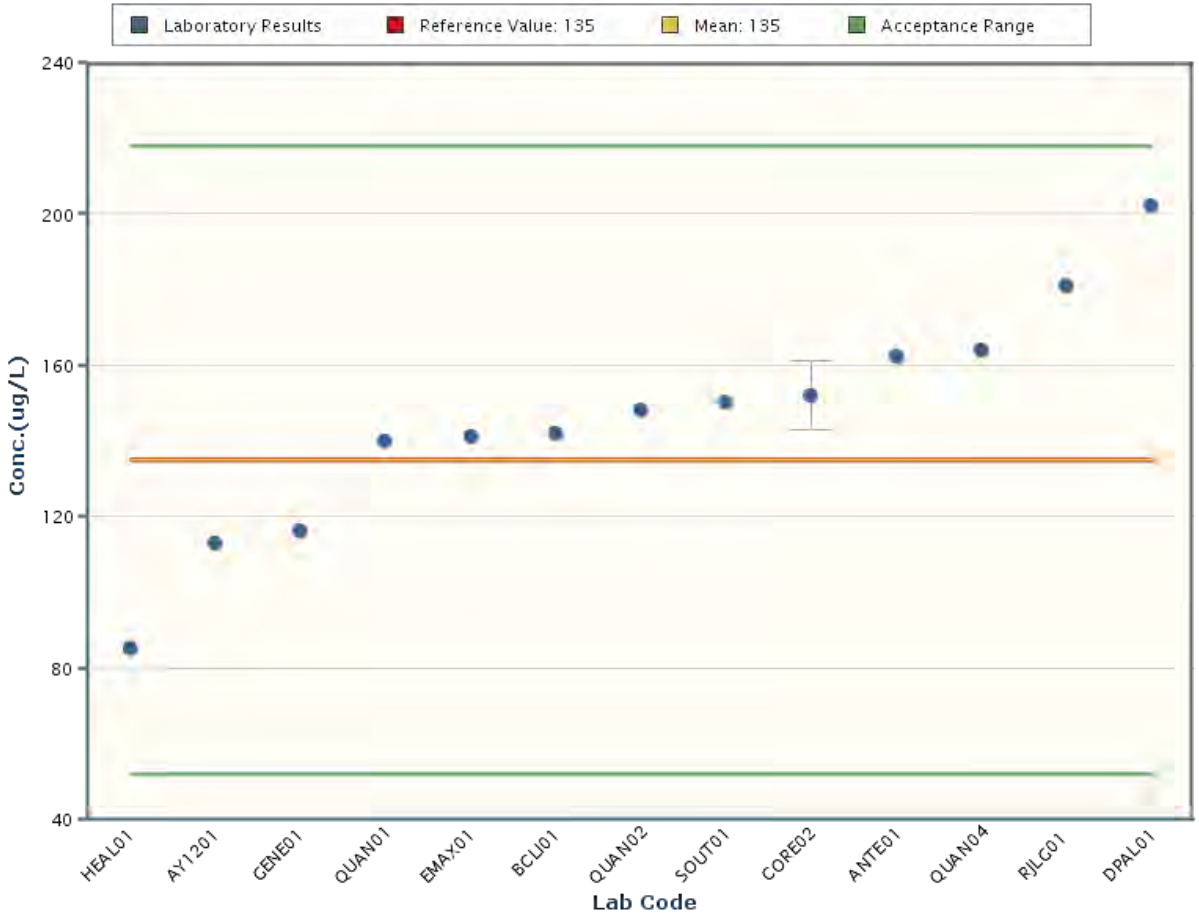
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between -42 and 245 (± 5 Standard Deviations).

Indeno(1,2,3-c,d)pyrene

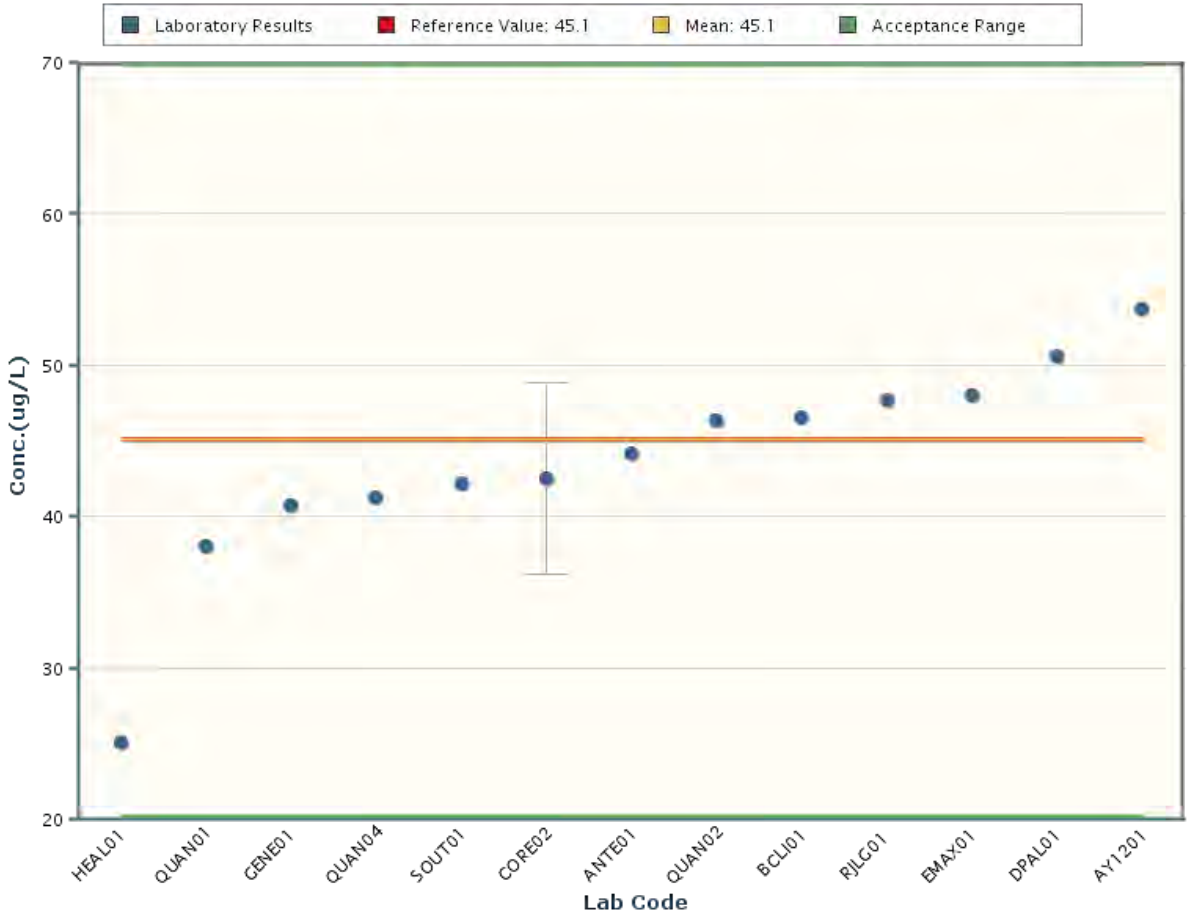
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between -3 and 273 (± 5 Standard Deviations).

Isophorone

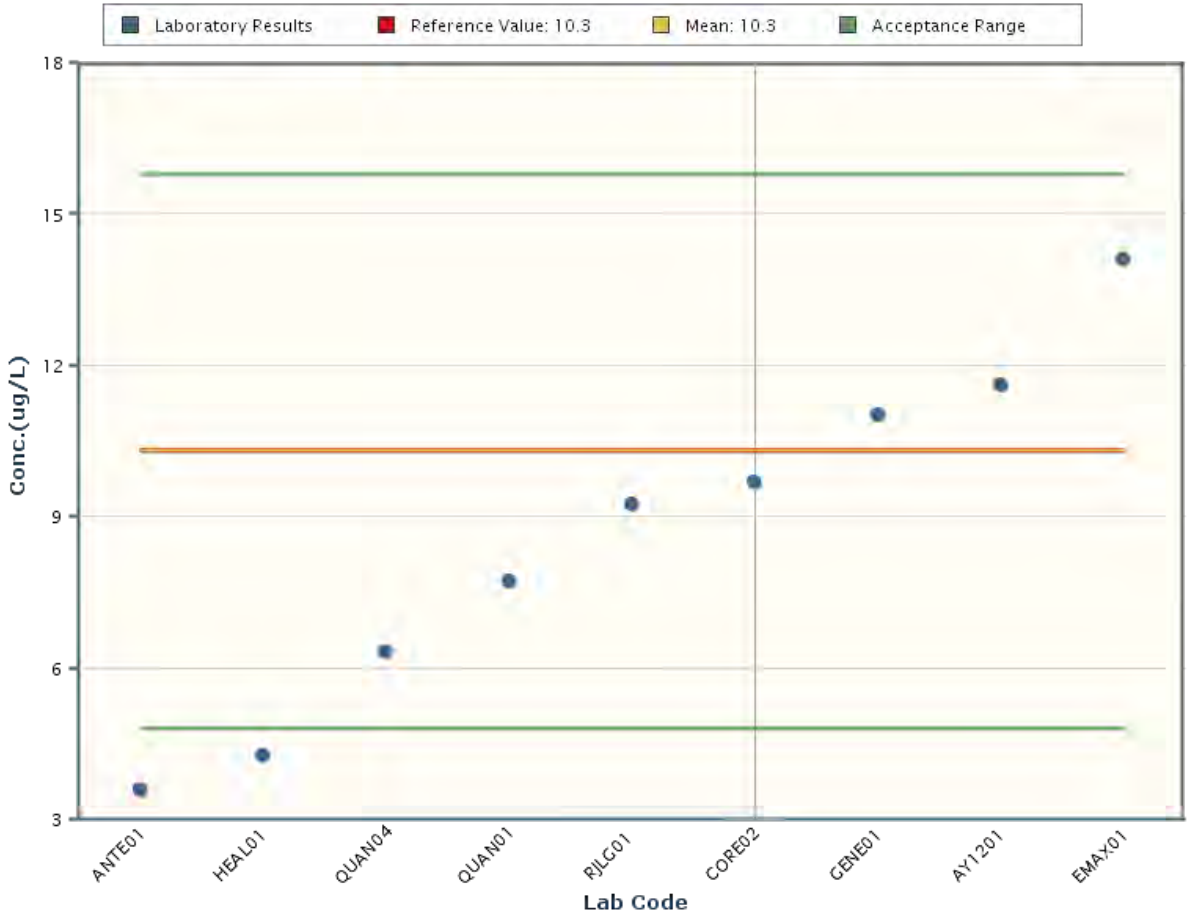
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 3.6 and 86.5 (± 5 Standard Deviations).

Methoxychlor

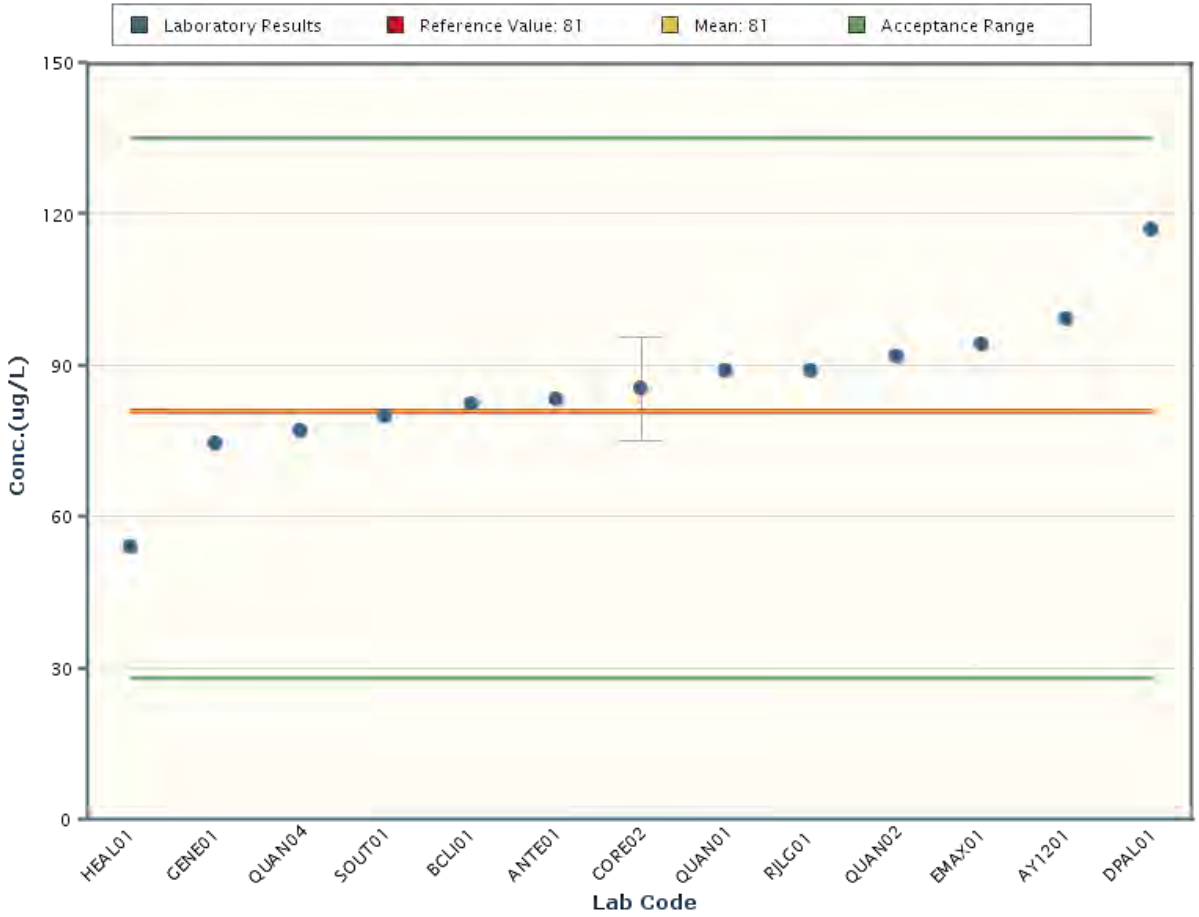
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 1.1 and 19.5 (± 5 Standard Deviations).

Naphthalene

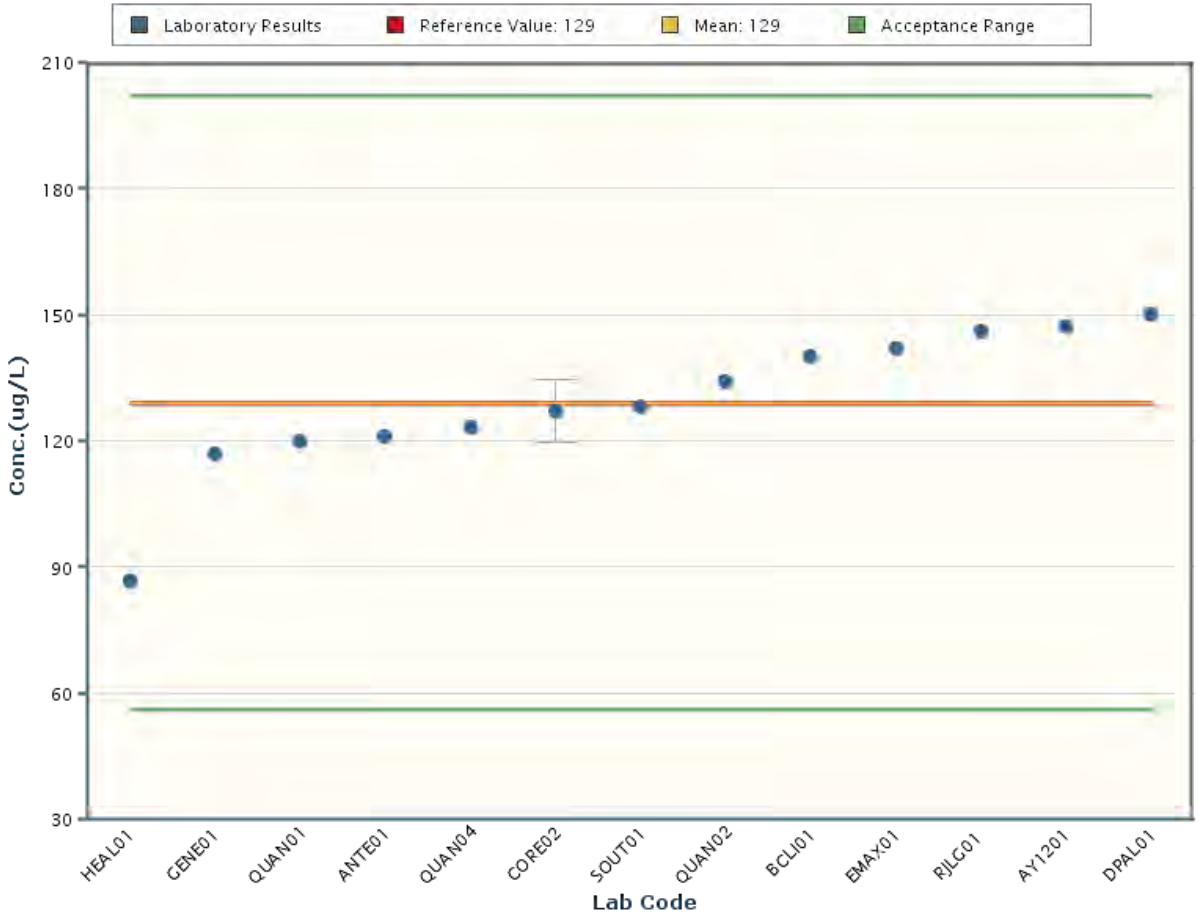
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between -8 and 171 (± 5 Standard Deviations).

Nitrobenzene

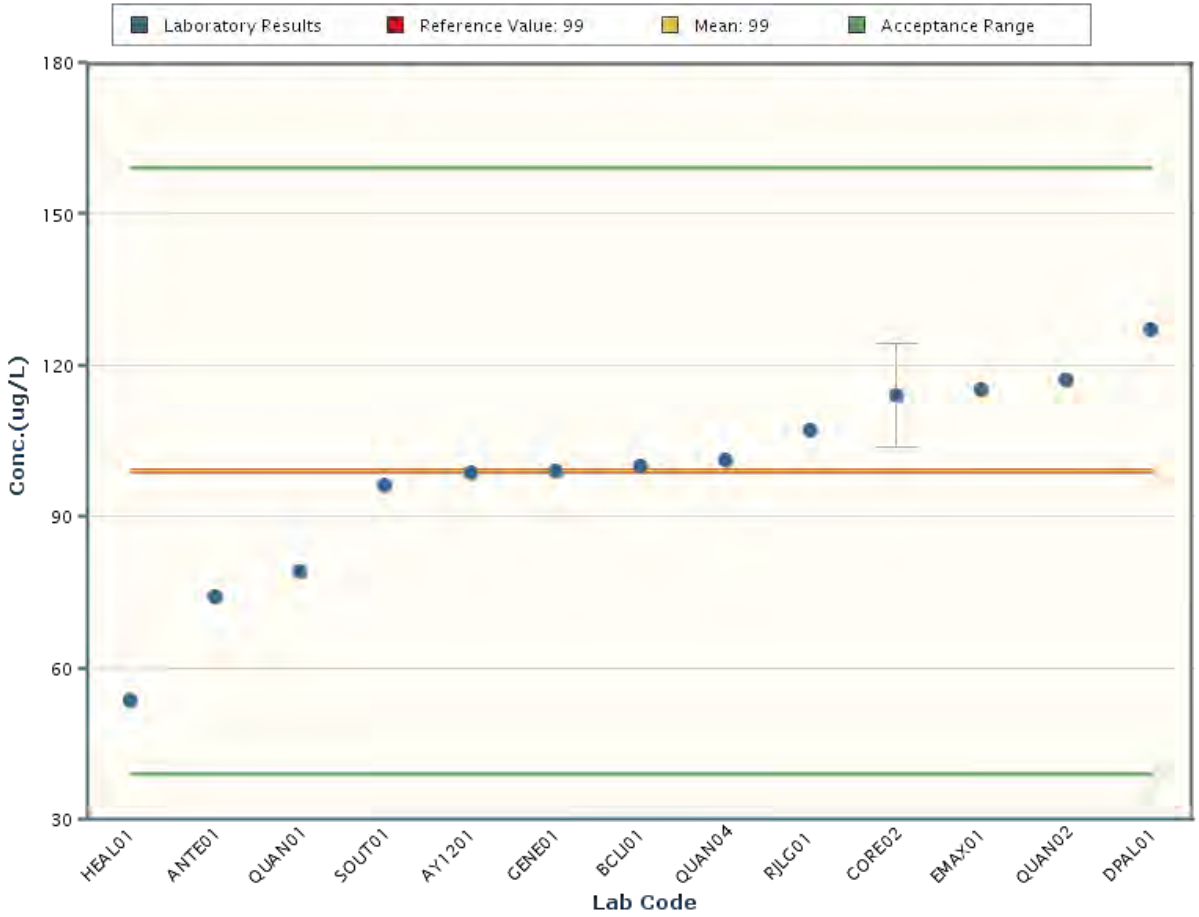
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 8 and 251 (± 5 Standard Deviations).

Pentachlorophenol

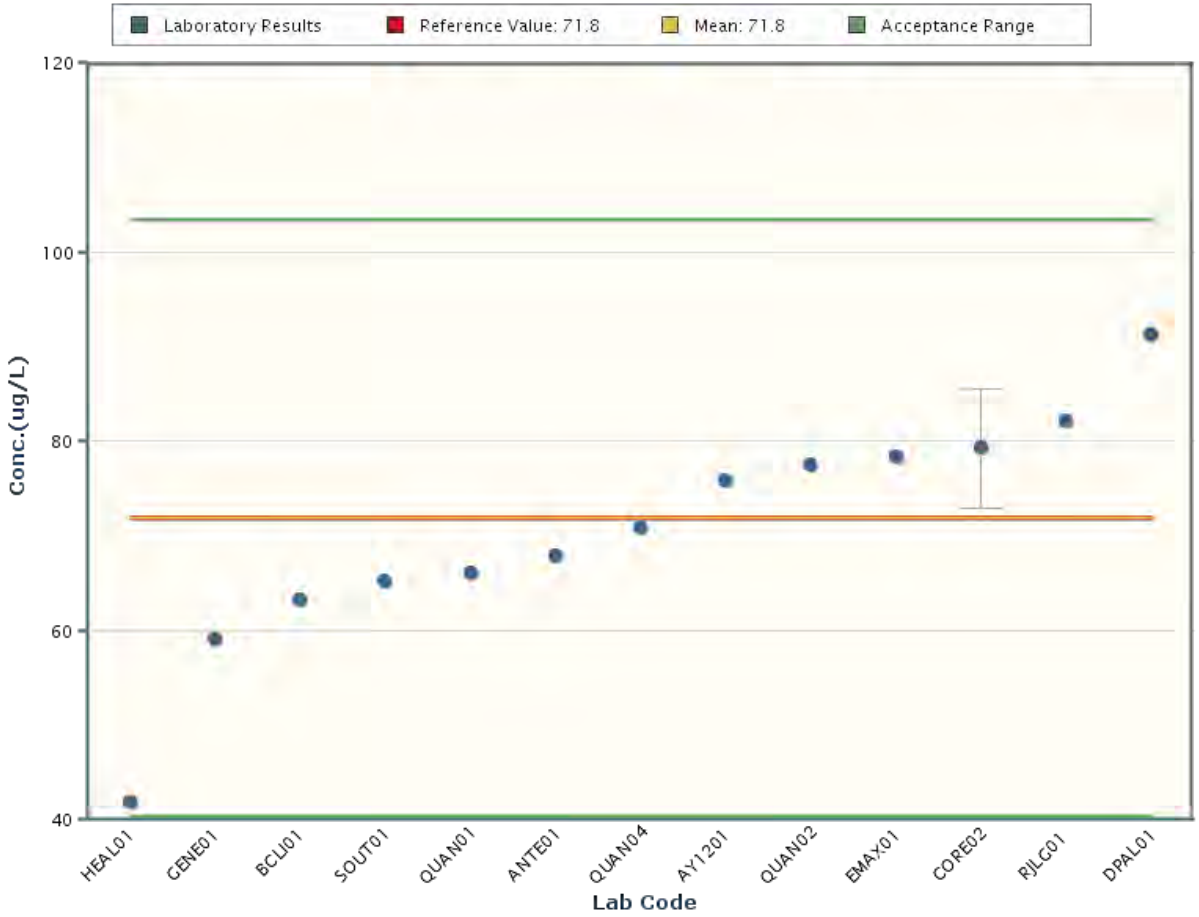
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 0 and 199 (± 5 Standard Deviations).

Phenanthrene

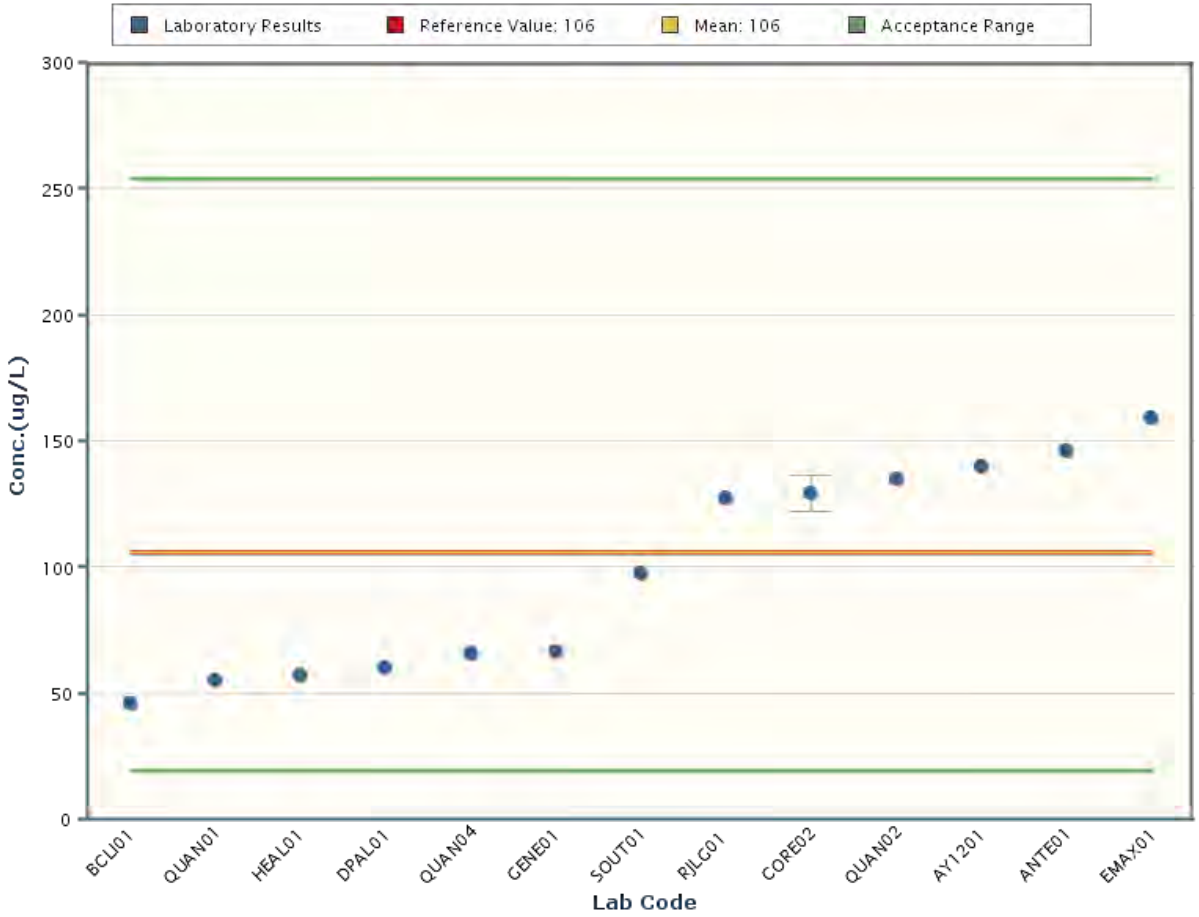
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 19.3 and 124.4 (± 5 Standard Deviations).

Phenol

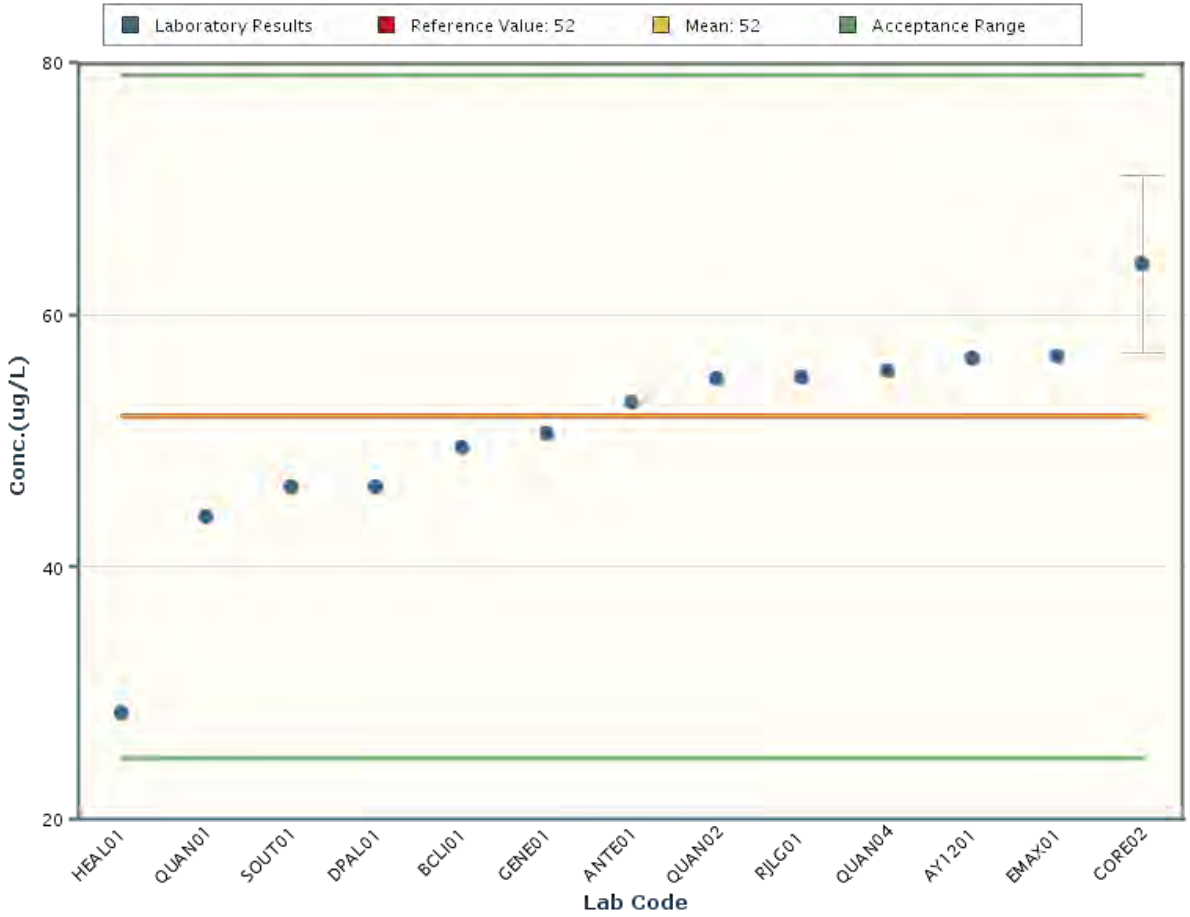
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between -139 and 352 (± 5 Standard Deviations).

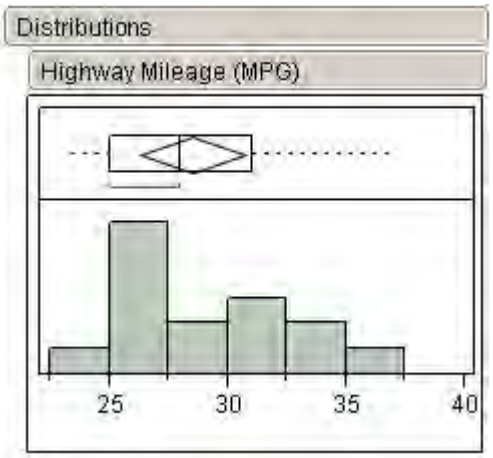
Pyrene

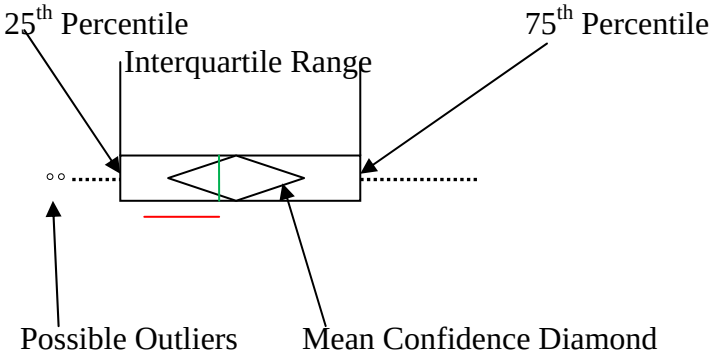
MAPEP-15-OrW33



Notes:
The chart shows only data points with values between 6.9 and 97.0 (± 5 Standard Deviations).

The intent of the distribution graphs contained within this report is to graphically demonstrate to users how % Bias data within the current MAPEP Series appears when examined by matrix, by analyte, by method of sample preparation or by method of detection. The data points (small 'dots') plot the bias (or z-score for organic constituents) of each of the analytes in each of the matrices. The BLACK small vertical line inside the small rectangle at the top of the data distribution graph is the mean of the population of the bias shown for that analyte in the matrix.





Moments

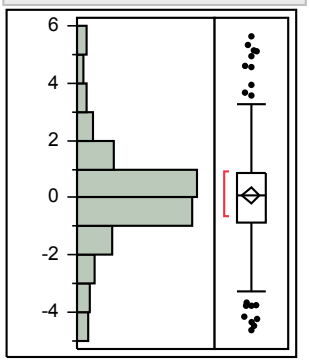
Mean	28.466667
Std Dev	3.9797104
Std Err Mean	1.0275568
Upper 95% Mean	30.670557
Lower 95% Mean	26.262776
N	15
Sum Wgt	15
Sum	427
Variance	15.838095
Skewness	0.7309964
Kurtosis	-0.165153
CV	13.980247
N Missing	0

The box plots summarize the distribution of points for each analyte. The ends of the box are the 25th and 75th quantiles. The difference between the quartiles is the interquartile range. The line across the middle of the box identifies the median bias value. Each box has lines, sometimes called whiskers, which extend from each end. The whiskers extend from the ends of the small box to the outermost data point that falls within the distances computed. Any potential outliers are represented as small black dots.

The box plot of the bias data points and the mean visually illustrate the breadth of the distribution and where any potential outliers in the distribution might lie. The moments for the distribution plot are provided below the Bias plot. In some cases, N becomes very small and thus developed statistics may not accurately reflect estimates of the population if N were a significantly larger value.

Distributions Detection Method=SW-846 8081A Organochlorine Pesticides by Gas Chromatography

ZScore



Quantiles

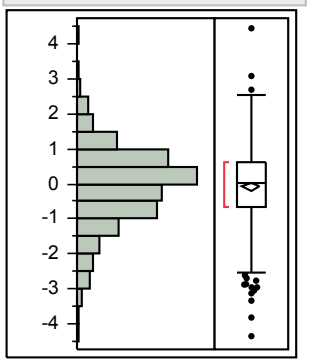
100.0%	maximum	5.62
99.5%		5.62
97.5%		5.02775
90.0%		2.032
75.0%	quartile	0.87
50.0%	median	0.09
25.0%	quartile	-0.86
10.0%		-2.282
2.5%		-4.186
0.5%		-4.61
0.0%	minimum	-4.61

Summary Statistics

Mean	0.058125
Std Dev	1.8520044
Std Err Mean	0.1396001
Upper 95% Mean	0.3336415
Lower 95% Mean	-0.217391
N	176

Distributions Detection Method=SW-846 8270C Semivolatile Organic Compounds by GC/MS

ZScore



Quantiles

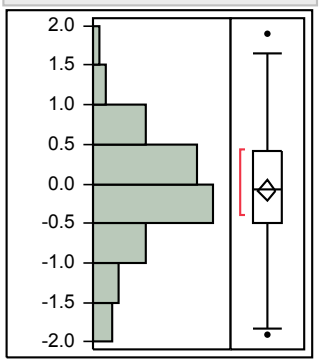
100.0%	maximum	4.43
99.5%		3.0768
97.5%		2.12025
90.0%		1.181
75.0%	quartile	0.6125
50.0%	median	0.04
25.0%	quartile	-0.655
10.0%		-1.534
2.5%		-2.7625
0.5%		-3.8127
0.0%	minimum	-4.34

Summary Statistics

Mean	-0.074447
Std Dev	1.1465293
Std Err Mean	0.0574703
Upper 95% Mean	0.038537
Lower 95% Mean	-0.187431
N	398

Distributions Detection Method=SW-846 8270D Semivolatile Organic Compounds by GC/MS

ZScore



Quantiles

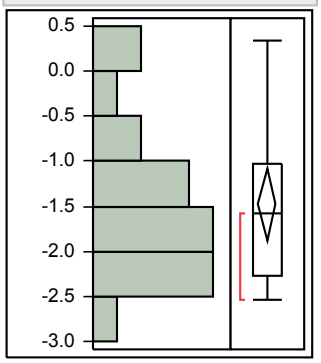
100.0%	maximum	1.9
99.5%		1.9
97.5%		1.342
90.0%		0.814
75.0%	quartile	0.41
50.0%	median	-0.07
25.0%	quartile	-0.49
10.0%		-1.01
2.5%		-1.769
0.5%		-1.91
0.0%	minimum	-1.91

Summary Statistics

Mean	-0.08688
Std Dev	0.7203823
Std Err Mean	0.064433
Upper 95% Mean	0.0406509
Lower 95% Mean	-0.214411
N	125

Distributions Detection Method=USEPA Method 608 - Organochlorine Pesticides and PCB's

ZScore



Quantiles

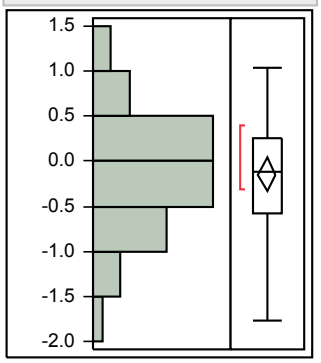
100.0%	maximum	0.34
99.5%		0.34
97.5%		0.34
90.0%		0.03
75.0%	quartile	-1.02
50.0%	median	-1.575
25.0%	quartile	-2.275
10.0%		-2.461
2.5%		-2.53
0.5%		-2.53
0.0%	minimum	-2.53

Summary Statistics

Mean	-1.478
Std Dev	0.8600159
Std Err Mean	0.1923054
Upper 95% Mean	-1.0755
Lower 95% Mean	-1.8805
N	20

Distributions Detection Method=USEPA Method 625 - Base/Neutrals and Acids

ZScore



Quantiles

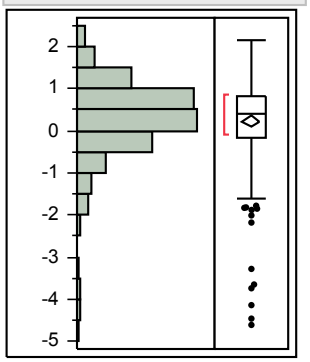
100.0%	maximum	1.04
99.5%		1.04
97.5%		1.04
90.0%		0.765
75.0%	quartile	0.26
50.0%	median	-0.125
25.0%	quartile	-0.575
10.0%		-1.06
2.5%		-1.7113
0.5%		-1.76
0.0%	minimum	-1.76

Summary Statistics

Mean	-0.144091
Std Dev	0.6322581
Std Err Mean	0.0953165
Upper 95% Mean	0.0481331
Lower 95% Mean	-0.336315
N	44

Distributions Preparation Method=Continuous Liquid-Liquid Extraction (Method 3520C)

ZScore



Quantiles

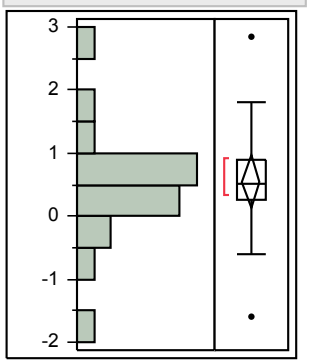
100.0%	maximum	2.15
99.5%		2.14205
97.5%		1.85375
90.0%		1.301
75.0%	quartile	0.8075
50.0%	median	0.41
25.0%	quartile	-0.18
10.0%		-0.847
2.5%		-2.9225
0.5%		-4.5703
0.0%	minimum	-4.61

Summary Statistics

Mean	0.2263889
Std Dev	1.0373376
Std Err Mean	0.0653461
Upper 95% Mean	0.3550855
Lower 95% Mean	0.0976923
N	252

Distributions Preparation Method=Other

ZScore



Quantiles

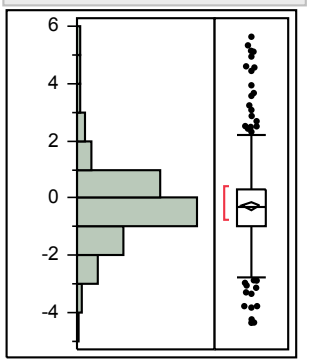
100.0%	maximum	2.84
99.5%		2.84
97.5%		2.84
90.0%		1.74
75.0%	quartile	0.8925
50.0%	median	0.51
25.0%	quartile	0.255
10.0%		-0.56
2.5%		-1.59
0.5%		-1.59
0.0%	minimum	-1.59

Summary Statistics

Mean	0.5485
Std Dev	0.8809939
Std Err Mean	0.1969962
Upper 95% Mean	0.9608178
Lower 95% Mean	0.1361822
N	20

Distributions Preparation Method=Separatory Funnel Liquid-Liquid Extraction (Method 3510C)

ZScore



Quantiles

100.0%	maximum	5.62
99.5%		5.2326
97.5%		3.182
90.0%		1.02
75.0%	quartile	0.32
50.0%	median	-0.32
25.0%	quartile	-0.95
10.0%		-1.88
2.5%		-2.926
0.5%		-4.2794
0.0%	minimum	-4.34

Summary Statistics

Mean	-0.273279
Std Dev	1.3744032
Std Err Mean	0.0620259
Upper 95% Mean	-0.151409
Lower 95% Mean	-0.395149
N	491