

Table 4-2
Summary Statistics for Background Rural PAHs

PAHs	Data Distribution ¹		Summary Statistics (mg/kg)						Background Threshold Value ³		Maine RAGs for Comparison ⁴ (mg/kg)			
	Normal	Lognormal	Number of Results	Number Detected	Percent Detected	Minimum Detected	Maximum Detected	Mean ²	Final UPL (mg/kg)	Statistic / Rationale	Residential	Park User	Commercial	Construction
2-Methylnaphthalene		X	43	15	35%	0.0039	0.131	0.074	0.28	90% Lognormal UPL	94	160	480	35
Acenaphthene		X	48	12	25%	0.0048	0.359	0.11	0.43	90% Lognormal UPL	970	1600	2000	110
Acenaphthylene		X	47	22	47%	0.002	0.9	0.15	0.69	90% Lognormal UPL	1000	1700	2200	130
Anthracene		X	47	23	49%	0.002	0.943	0.15	0.65	90% Lognormal UPL	4300	7200	7800	430
Benzo(a)anthracene		X	44	32	73%	0.003	1.51	0.30	0.75	90% KM UPL	0.26	0.44	3.5	43
Benzo(a)pyrene		X	45	32	71%	0.005	1.6	0.32	1.3	90% Lognormal UPL	0.026	0.044	0.35	4.3
Benzo(b)fluoranthene		X	45	35	78%	0.005	2.46	0.51	1.3	90% KM UPL	0.26	0.44	3.5	43
Benzo(g,h,i)perylene		X	44	29	66%	0.003	1.2	0.20	0.81	90% Lognormal UPL	750	1200	5500	10000
Benzo(k)fluoranthene		X	44	28	64%	0.0065	1.2	0.23	0.89	90% Lognormal UPL	2.6	4.4	35	430
Carbazole			11	0	0%	NA	NA	0.16		NA ⁵	--	--	--	--
Chrysene		X	45	36	80%	0.002	3.2	0.50	1.4	90% KM UPL	26	44	350	4300
Dibenzo(a,h)anthracene		X	47	24	51%	0.005	0.77	0.13	0.48	90% Lognormal UPL	0.026	0.044	0.35	4.3
Dibenzofuran			13	0	0%	NA	NA	0.15		NA ⁵	--	--	--	--
Fluoranthene		X	43	37	86%	0.003	3.8	0.56	1.6	90% KM UPL	1000	1700	7300	10000
Fluorene		X	48	19	40%	0.005	0.55	0.12	0.43	90% Lognormal UPL	830	1400	2700	200
Indeno(1,2,3-cd)pyrene	X		41	27	66%	0.003	0.533	0.15	0.33	90% KM UPL	0.26	0.44	3.5	43
Naphthalene		X	48	16	33%	0.004	0.206	0.084	0.31	90% Lognormal UPL	200	330	200	32
Phenanthrene		X	44	34	77%	0.002	1.71	0.32	0.86	90% KM UPL	700	1200	3600	470
Pyrene			44	38	86%	0.003	4.12	0.67	1.9	90% KM UPL	750	1200	5500	10000

Notes

- 1) Represents the distribution of each dataset once outliers were removed. Data distribution was determined via ProUCL's Goodness of Fit tests (See Attachment C-3).
- 2) Mean was calculated using 1/2 the reporting limit for nondetects
- 3) Hierachy followed for UPL selection is normal distribution, lognormal distribution then nonparametric distribution. See text for further discussion. See Attachment C-5 for ProUCL Outputs
- 4) Guidelines for residential, park user, commercial worker and excavation or construction worker were selected from the MEDEP Soil Remediation Guidelines.
http://maine.gov/dep/rwm/publications/guidance/rags/Final%201-13-2010/3-RAGs_Appendix_1-2-3_Jan_13_2010.pdf
Highlighted cells indicate those which are lower than their respective estimated background value (UPL)
- 5) UPL could not be calculated as there is only 1 distinct value (detect) within the dataset.

UPL: Upper Prediction Limit

PAH: Polycyclic aromatic hydrocarbon

"--" indicates that Maine RAGs were not available.

"NA" indicates value is not applicable or not available

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