

Table 2

All Potential Tier 1 Risked-Based Screening Levels* (RBSLs) for Soil, mg/kg

Leaching RBSLs: require vertical distance (feet) from base of petroleum-contaminated soil sample to groundwater.

Direct Contact RBSLs: require depth below ground surface (feet bgs) to petroleum-contaminated soil sample.

Chemical / Analyte / Compound	Leaching RBSLs, mg/kg			Direct Contact RBSLs, mg/kg			
	Distance (feet) from Soil Sample to Groundwater			Carcinogenic Effects, Receptors, and Depth Intervals			
	0-10 feet	10-20 feet	>20 feet	carcinogenic non-carcinogenic	Residential 0 - 2 feet bgs	Commercial 0 - 2 feet bgs	Construction 0 - 10 feet bgs
For Gasoline & Light Hydrocarbons measured using the Montana Method for Volatile Petroleum Hydrocarbons (VPH)							
MTBE	0.078	0.16	0.25	c	67	310	9,100
Benzene	0.07	0.21	0.33	c/n	1.7 ^c	7.6 ^c	190 ⁿ
Toluene	21	65	100	n	630	6,300	14,000
Ethylbenzene	26	84	130	c	8.4	38	1,200
Xylenes	320	1,000	1,600	n	75	330	1,900
Naphthalene	12	40	62	c/n	2.9 ^c	13 ^c	120 ⁿ
C9-C10 Aromatics	130	470	720	n	60	300	4,000
C5-C8 Aliphatics	220	770	1,200	n	90	450	2,000
C9-C12 Aliphatics	11,000	40,000	60,000	n	160	800	3,000
Lead Scavengers							
1,2-Dichloroethane (DCA)	0.019	0.052	0.079	c	0.67	3.0	100
1,2-Dibromoethane (EDB)	0.000086	0.00022	0.00033	c	0.05	0.24	7.3
For Diesel & Heavy Hydrocarbons measured using Montana Method for Extractable Petroleum Hydrocarbons (EPH)							
C9-C18 Aliphatics	53,000	170,000	270,000	n	290	1,600	6,000
C19-C36 Aliphatics	Considered Immobile			n	25,000	330,000	1,600,000
C11-C22 Aromatics	370	1,300	2,000	n	540	6,200	33,000
Acenaphthene	27	91	140	n	470	6,000	10,000
Anthracene	2,600	8,800	14,000	n	2,300	30,000	50,000
Benz(a)anthracene	6.8	23	35	c	1.6	31	390
Benzo(a)pyrene	2.3	7.5	12	c/n	0.17 ^c	3.1 ^c	15 ⁿ
Benzo(b)fluoranthene	23	76	120	c	1.7	31	390
Benzo(k)fluoranthene	230	750	1,200	c	17	310	3,900
Chrysene	690	2,300	3,500	c	170	3,100	39,000
Dibenzo(a,h)anthracene	7.5	24	38	c	0.17	3.1	39
Fluoranthene	85	280	440	n	310	4,000	5,000
Fluorene	35	120	180	n	310	4,000	40
Indeno(1,2,3-cd)pyrene	77	250	380	c	1.7	31	390
Naphthalene	12	40	62	c/n	2.9 ^c	13 ^c	120 ⁿ
Pyrene	83	280	430	n	230	3,000	15,000
1-Methylnaphthalene	2.1	7.1	11	c	25	110	1,400
2-Methylnaphthalene	6.9	23	35	n	31	400	200

*Refer to RBCA Guidance Appendix B for derivation of Risk-Based Screening Levels (RBSLs)

mg/kg = milligrams per kilogram

bgs = below ground surface

c = RBSL based upon carcinogenicity

n = RBSL based upon non-carcinogenicity

c/n = RBSL basis varies by receptor