

Table 4b

Calculated Tier 2** Soil RBSLs* for Direct Contact Commercial Receptor 0 - 2 feet bgs

Effects c: carcinogenic n: non-carcinogenic	Tier 1 Soil RBSLs, mg/kg Direct Contact Commercial Receptor		Calculated Tier 2 RBSLs for Surface Soil Exceedances of Tier 1 RBSLs, mg/kg											
	Chemical / Analyte / Compound	0 - 2 feet bgs	Tier 2 RBSL = Tier 1 RBSL X 10 / (number of Non-Carcinogenic Analytes >Tier 1 RBSLs)						Tier 2 RBSL = Tier 1 RBSL X 10 / (number of Carcinogenic Analytes >Tier 1 RBSLs)					
			Number of Non-Carcinogenic Analytes >Tier 1 RBSLs						Number of Carcinogenic Analytes >Tier 1 RBSLs					
			1	2	3	4	5	6	1	2	3	4	5	6
For Gasoline & Light Hydrocarbons measured using the Montana Method for Volatile Petroleum Hydrocarbons (VPH)														
c	MTBE	310	---	---	---	---	---	---	3,100	1,550	1,033	775	620	517
c	Benzene	7.6	---	---	---	---	---	---	76	38	25	19	15.2	12.7
n	Toluene	6,300	63,000	31,500	21,000	15,750	12,600	10,500	---	---	---	---	---	---
c	Ethylbenzene	38	---	---	---	---	---	---	380	190	127	95	76	63
n	Xylenes	330	3,300	1,650	1,100	825	660	550	---	---	---	---	---	---
c	Naphthalene	13	---	---	---	---	---	---	130	65	43	33	26	22
n	C9-C10 Aromatics	300	3,000	1,500	1,000	750	600	500	---	---	---	---	---	---
n	C5-C8 Aliphatics	450	4,500	2,250	1,500	1,125	900	750	---	---	---	---	---	---
n	C9-C12 Aliphatics	800	8,000	4,000	2,667	2,000	1,600	1,333	---	---	---	---	---	---
Lead Scavengers														
c	1,2-Dichloroethane (DCA)	3	---	---	---	---	---	---	30	15	10	7.5	6	5
c	1,2-Dibromoethane (EDB)	0.24	---	---	---	---	---	---	2.4	1.2	0.80	0.60	0.48	0.40
For Diesel & Heavy Hydrocarbons measured using Montana Method for Extractable Petroleum Hydrocarbons (EPH)														
n	C9-C18 Aliphatics	1,600	16,000	8,000	5,333	4,000	3,200	2,667	---	---	---	---	---	---
n	C19-C36 Aliphatics	330,000	3,300,000	1,650,000	1,100,000	825,000	660,000	550,000	---	---	---	---	---	---
n	C11-C22 Aromatics	6,200	62,000	31,000	20,667	15,500	12,400	10,333	---	---	---	---	---	---
n	Acenaphthene	6,000	60,000	30,000	20,000	15,000	12,000	10,000	---	---	---	---	---	---
n	Anthracene	30,000	300,000	150,000	100,000	75,000	60,000	50,000	---	---	---	---	---	---
c	Benz(a)anthracene	31	---	---	---	---	---	---	310	155	103	78	62	52
c	Benzo(a)pyrene	3.1	---	---	---	---	---	---	31	15.5	10.3	7.8	6.2	5.2
c	Benzo(b)fluoranthene	31	---	---	---	---	---	---	310	155	103	78	62	52
c	Benzo(k)fluoranthene	310	---	---	---	---	---	---	3,100	1,550	1,033	775	620	517
c	Chrysene	3,100	---	---	---	---	---	---	31,000	15,500	10,333	7,750	6,200	5,167
c	Dibenzo(a,h)anthracene	3.1	---	---	---	---	---	---	31	15.5	10.3	7.8	6.2	5.2
n	Fluoranthene	4,000	40,000	20,000	13,333	10,000	8,000	6,667	---	---	---	---	---	---
n	Fluorene	4,000	40,000	20,000	13,333	10,000	8,000	6,667	---	---	---	---	---	---
c	Indeno(1,2,3-cd)pyrene	31	---	---	---	---	---	---	310	155	103	78	62	52
c	Naphthalene	13	---	---	---	---	---	---	130	65.0	43	33	26	22
n	Pyrene	3,000	30,000	15,000	10,000	7,500	6,000	5,000	---	---	---	---	---	---
c	1-Methylnaphthalene	110	---	---	---	---	---	---	1,100	550.0	367	275	220	183
n	2-Methylnaphthalene	400	4,000	2,000	1,333	1,000	800	667	---	---	---	---	---	---

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

**Refer to RBCA Guidance Section 4.0 for details of Tier 2 Evaluation Process and calculation of Tier 2 RBSLs

mg/kg = milligrams per kilogram

bgs = below ground surface