

TABLE 2
TIER 1 SUBSURFACE SOIL (>2 ft) RBSLs (mg/kg)

This table applies to contaminated subsurface soil (>2 feet below the ground surface). Distance to water is from the sample depth to the water table. For VPH compounds at UST sites, default RBSLs, provided in bold on Table 1, are used to determine if a release has occurred at a site. Default RBSLs apply to the entire soil column and always apply in the absence of adequate information. For EPH compounds the 200 ppm screen concentration is used to determine if additional analysis (fractionation) of the soil sample is needed.

Distance to groundwater		< 10 feet to ground water		10-20 feet to ground water		> 20 feet to ground water	
Chemical units (mg/kg = ppm)	E	>2 ft Construction RBSL (mg/kg)	B	>2 ft Construction RBSL (mg/kg)	B	>2 ft Construction RBSL (mg/kg)	B
For Gasoline and Light Hydrocarbons measured using the Massachusetts Method for Volatile Petroleum Hydrocarbons (VPH)							
C5-C8 Aliphatics	n	220	1	410	dc	410	dc
C9-C12 Aliphatics	n	640	dc	640	dc	640	dc
C9-C10 Aromatics	n	130	1	470	1	720	1
MTBE	c	0.078*	1	0.16	1	0.25	1
Benzene	c	0.07	1	0.21	1	0.33	1
Toluene	n	21	1	65	1	100	1
Ethylbenzene	c	26	1	84	1	130	1
Xylenes	n	320	1	610	dc	610	dc
Naphthalene	n	12	1	40	1	62	1
Lead Scavengers							
1,2-Dibromoethane (EDB)	c	0.000086*	1	0.00022*	1	0.00033*	1
1,2-Dichloroethane (DCA)	c	0.019	1	0.052	1	0.079	1
For Diesel and Heavy Hydrocarbons measured using the Massachusetts Method for Extractable Petroleum Hydrocarbons (EPH)							
EPH Screen, Fractionate		200		200		200	
C9-C18 Aliphatics	n	900	dc	900	dc	900	dc
C19-C36 Aliphatics	n	200,000	dc	200,000	dc	200,000	dc
C11-C22 Aromatics	n	370	1	1,300	1	2,000	1
Acenaphthene	n	27	1	91	1	140	1
Anthracene	n	2,600	1	8,800	1	14,000	1
Benz(a)anthracene	c	6.8	1	23	1	35	1
Benzo(a)pyrene	c	2.3	1	7.5	1	12	1
Benzo(b)fluoranthene	c	23	1	76	1	120	1
Benzo(k)fluoranthene	c	230	1	750	1	1,200	1
Chrysene	c	690	1	2,300	1	3,500	1
Dibenzo(a,h)anthracene	c	7.5	1	24	1	38	1
Fluoranthene	n	85	1	280	1	440	1
Fluorene	n	35	1	120	1	180	1
Indeno(1,2,3-cd)pyrene	c	77	1	250	1	380	1
Naphthalene	n	12	1	40	1	62	1
Pyrene	n	83	1	280	1	430	1
1-Methylnaphthalene	c	2.1	1	7.1	1	11	1
2-Methylnaphthalene	n	6.9	1	23	1	35	1

Notes:

E = Effect is either:

n = non-carcinogenic and direct contact RBSLs are based on a hazard quotient of 0.125 for a total hazard index which does not exceed 1, or

c = carcinogenic and direct contact RBSLs are based on a cancer risk of 1×10^{-6} for a total cancer risk which does not exceed 1×10^{-5} .

RBSLs for construction work are based upon noncarcinogenic risk, including ingestion, dermal, and inhalation.

B = Basis is the most conservative of:

l = leaching from soil to groundwater;

dc = residential direct contact including ingestion, inhalation, and dermal; or

bu = adversely affects beneficial uses (foul odor or taste).

If the leaching pathway is not the most conservative basis, excavation RBSLs apply to subsurface soil.

* = The best achievable practical quantitation limit (0.20) is greater than the RBSL; therefore, if the compound is detected, additional evaluation may be necessary.

For information regarding odor considerations, please refer to the Odors as a Significant Risk to Public Welfare/Nuisance Condition Section of the Montana Tier 1 Risk-Based Corrective Action Guidance for Petroleum Releases.

The RBSLs for soil and water are not designed to be protective of the vapor intrusion (VI) pathway. Please refer to the Vapor Intrusion to Indoor Air Section of the Montana Tier 1 Risk-Based Corrective Action Guidance for Petroleum Releases.