TABLE 1
TIER 1 SURFACE SOIL (0-2 ft) RBSLs (mg/kg)
(includes default RBSLs)

This table applies to contaminated surface soil from 0-2 feet below ground surface. Distance to water is from the sample depth to the water table. **For VPH compounds at UST sites, default RBSLs (bold) 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 EPH screen concentration is used to determine if additional analysis (fractionation) is needed.**

Distance to groundwater		< 10 feet to groundwater				10-20 feet to groundwater				> 20 feet to groundwater			
Chemical	E	Residential	B	Commercial	B	Residential	B	Commercial	B	Residential	B	Commercial	B
units (mg/kg = ppm)		RBSL (mg/kg)		RBSL (mg/kg)		RBSL (mg/kg)		RBSL (mg/kg)		RBSL (mg/kg)		RBSL (mg/kg)	
For Gasoline and Light Hydrocarbons measured using the Massachusetts Method for Volatile Petroleum Hydrocarbons (VPH)													
C5-C8 Aliphatics	n	**52**	dc	220	l	52	dc	290	dc	52	dc	290	dc
C9-C12 Aliphatics	n	**77**	dc	360	dc	77	dc	360	dc	77	dc	360	dc
C9-C10 Aromatics	n	**130**	l/dc	130	l	130	dc	470	l	130	dc	720	l
MTBE	c	**0.078***	l	0.078*	l	0.16	l	0.16	l	0.25	l	0.25	l
Benzene	c	**0.07**	l	0.07	l	0.21	l	0.21	l	0.33	l	0.33	l
Toluene	n	**21**	l	21	l	65	l	65	l	100	l	100	l
Ethylbenzene	c	**6.4**	dc	26	l	6.4	dc	28	dc	6.4	dc	28	dc
Xylenes	n	**72**	dc	310	dc	72	dc	310	dc	72	dc	310	dc
Naphthalene	c	**4.3**	dc	12	l	4.3	dc	19	dc	4.3	dc	19	dc
Lead Scavengers													
1,2-Dibromoethane (EDB)	c	**0.000086***	l	0.000086*	l	0.00022*	l	0.00022*	l	0.00033*	l	0.00033*	l
1,2-Dichloroethane (DCA)	c	**0.019**	l	0.019	l	0.052	l	0.052	l	0.079	l	0.079	l
For Diesel and Heavy Hydrocarbons measured using the Massachusetts Method for Extractable Petroleum Hydrocarbons (EPH)													
EPH Screen, Fractionate		**200**		200		200		200		200		200	
C9-C18 Aliphatics	n	**110**	dc	540	dc	110	dc	540	dc	110	dc	540	dc
C19-C36 Aliphatics	n	**24,000**	dc	200,000	dc	24,000	dc	200,000	dc	24,000	dc	200,000	dc
C11-C22 Aromatics	n	**370**	l	370	l	490	dc	1,300	l	490	dc	2,000	l
Acenaphthene	n	**27**	l	27	l	91	l	91	l	140	l	140	l
Anthracene	n	**2,200**	dc	2,600	l	2,200	dc	8,800	l	2,200	dc	14,000	l
Benz(a)anthracene	c	**1.3**	dc	6.8	l	1.3	dc	23	l	1.3	dc	24	dc
Benzo(a)pyrene	c	**0.13****	dc	2.3	l	0.13**	dc	2.4	dc	0.13**	dc	2.4	dc
Benzo(b)fluoranthene	c	**1.3**	dc	23	l	1.3	dc	24	dc	1.3	dc	24	dc
Benzo(k)fluoranthene	c	**13**	dc	230	l	13	dc	240	dc	13	dc	240	dc
Chrysene	c	**130**	dc	690	l	130	dc	2,300	l	130	dc	2,400	dc
Dibenzo(a,h)anthracene	c	**0.13****	dc	2.4	dc	0.13**	dc	2.4	dc	0.13**	dc	2.4	dc
Fluoranthene	n	**85**	l	85	l	280	l	280	l	300	dc	440	l
Fluorene	n	**35**	l	35	l	120	l	120	l	180	l	180	l
Indeno(1,2,3-cd)pyrene	c	**1.3**	dc	24	dc	1.3	dc	24	dc	1.3	dc	24	dc
Naphthalene	c	**4.3**	dc	12	l	4.3	dc	19	dc	4.3	dc	19	dc
Pyrene	n	**83**	l	83	l	220	dc	280	l	220	dc	430	l
1-Methylnaphthalene	c	**2.1**	l	2.1	l	7.1	l	7.1	l	11	l	11	l
2-Methylnaphthalene	n	**6.9**	l	6.9	l	23	l	23	l	30	dc	35	l

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 $1X10^{-6}$ for a total cancer risk which does not exceed $1X10^{-5}$.

RBSLs for residential and commercial exposure to naphthalene are based upon carcinogenic inhalation risk.

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, residential or commercial RBSLs apply to surface 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.

** = The best achievable practical quantitation limit (0.33) 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 t Indoor Air Section of the Montana Tier 1 Risk-Based Corrective Action Guidance for Petroleum Releases.