APPENDIX E

9568697

Appendix E
Comparison of Quantitation Limits to Ecological Screening Standards

				AQUEOUS		WATER						SOLID		SEDIMENT						SOIL		
Analyte	Data Group	CAS	Bioaccumulative	RL ug/L	MDL ug/L	FRESHWATER ug/l		MARINE ug/l		MDL>TCEQ FRESHWATER	MDL>TCEQ MARINE	RL ug/kg	MDL ug/kg	FRESHWATER ug/kg dry wt.		MARINE ug/kg dry wt.		MDL>TCEQ FRESHWATER	MDL>TCEQ MARINE	EARTHWORMS mg/kg dry wt.	PLANTS mg/kg dry wt.	MEDIAN BACKGROUND mg/kg dry wt.
Acetone	VOC	67-64-1	No	50	2.8	101,200	b	282000.00	b	No	No	50	7.2	60030		167230.0		No	No			
Benzene	VOC	71-43-2	No	2	0.23	130	e	109.00	g	No	No	5	1.4	160		140.0		No	No			
Bromobenzene	VOC	108-86-1	No	2	0.73	NA		NA		NA	NA	5	1.3	NA		NA		NA	NA			
Bromochloromethane	VOC	74-97-5	No	2	0.64	NA		NA		NA	NA	5	1.4	NA		NA		NA	NA			
Bromodichloromethane	VOC	75-27-4	No	2	0.33	2,160	b	NA		No	NA	5	1.4	2460		NA		No	No			
Bromoform	VOC	75-25-2	No	2	0.65	149	b	1220.00	b	NA	NA	5	1.2	220		1780.0		No	No			
n-Butylbenzene	VOC	104-51-8	No	2	0.6	36	b	NA		No	NA	5	0.97	1090		NA		No	NA			
sec-Butylbenzene	VOC	135-98-8	No	2	0.5	41	b	NA		No	NA	5	1.1	880		NA		No	NA			
tert-Butylbenzene	VOC	98-06-6	No	2	0.55	48	b	NA		No	NA	5	1	1210		NA		No	NA			
Chlorobenzene	VOC	108-90-7	No	2	0.54	64	e	105.00	g	No	No	5	1.4	170		290.0		No	No	40		
Chloroethane	VOC	75-00-3	No	2	0.46	NA		NA		NA	NA	5	1.4	NA		NA		NA	NA			
Chloroform	VOC	67-66-3	No	2	0.66	890	q	4100.00	q	No	No	5	1.3	940		4300.0		No	No			
o-Chlorotoluene	VOC	95-49-8	No	2	0.5	NA		NA		NA	NA	5	1.2	NA		NA		NA	NA			
p-Chlorotoluene	VOC	106-43-4	No	2	0.5	NA		NA		NA	NA	5	1.1	NA		NA		NA	NA			
Carbon Disulfide	VOC	75-15-0	No	2	0.62	105	b	NA		No	NA	10	1.3	120		NA		No	NA			
Carbon tetrachloride	VOC	56-23-5	No	2	0.52	10	e	1500.00	g	No	No	10	1.3	20		3670.0		No	No			
Dibromochloromethane	VOC	124-48-1	No	2	0.68	129		NA		NA	NA	5	1.4	160		NA		No	NA			
1,2-Dibromo-3-chloropropane	VOC	96-12-8	No	2	1.5	NA		NA		NA	NA	5	1.4	NA		NA		NA	NA			
1,2-Dibromoethane	VOC	106-93-4	No	2	0.68	NA		NA		NA	NA	5	1.4	NA		NA		NA	NA			
1,1-Dichloroethane	VOC	75-34-3	No	2	0.52	2,570	q	NA		No	NA	5	1.3	2320		NA		No	NA			
1,2-Dichloroethane	VOC	107-06-2	No	2	0.53	6,300	q	5650.00	q	No	No	5	1.4	4790		4300.0		No	No			
1,1-Dichloroethylene	VOC	75-35-4	No	2	0.68	1,500	q	12500.00	q	No	No	5	1.3	1870		15410.0		No	No			
cis-1,2-Dichloroethylene	VOC	156-59-2	No	2	0.83	NA		NA		NA	NA	5	1.4	NA		NA		NA	NA			
trans-1,2-Dichloroethylene	VOC	156-60-5	No	2	0.75	22,000	q	NA		No	NA	5	1.3	23950		NA		No	NA			
1,2-Dichloropropane	VOC	78-87-5	No	2	0.59	1,870	b	2400.00	g	No	No	5	1.5	2200		2820.0		No	NA	700		
1,3-Dichloropropane	VOC	142-28-9	No	2	0.61	NA		NA		NA	NA	5	1.4	NA		NA		NA	NA			
2,2-Dichloropropane	VOC	594-20-7	No	2	0.65	NA		NA		NA	NA	5	1.1	NA		NA		NA	NA			
1,1-Dichloropropene	VOC	563-58-6	No	2	0.38	NA		NA		NA	NA	5	1.2	NA		NA		NA	NA			
cis-1,3-Dichloropropene	VOC	10061-01-5	No	2	0.59	NA		NA		NA	NA	5	1.3	NA		NA		NA	NA			
trans-1,3-Dichloropropene	VOC	10061-02-6	No	2	0.61	NA		NA		NA	NA	5	1.4	NA		NA		NA	NA			
m-Dichlorobenzene	VOC	541-73-1	No	2	0.5	85	b	142.00	b	No	No	5	1.2	190		320.0		No	No			
o-Dichlorobenzene	VOC	95-50-1	No	2	0.5	110	b	99.00	b	No	No	5	1.2	830		740.0		No	No			
p-Dichlorobenzene	VOC	106-46-7	No	2	0.5	110	b	99.00	b	No	No	5	1.2	770		700.0		No	No	20		
Dichlorodifluoromethane	VOC	75-71-8	No	2	0.73	1,960	b	NA		No	NA	5	1.1	3680		NA		No	NA			
1-4-Dioxane	VOC	123-91-1	No	50	24.1	22,000	x	NA	b	No	NA	250	24	119	x	NA		No	NA	12.6	NA	NA
Ethyl benzene	VOC	100-41-4	No	2	0.48	1,090	b	249.00	b	No	No	5	1.3	2860		650.0		No	No			
2-Hexanone	VOC	591-78-6	No	10	1.9	6,130	b	NA		No	NA	50	6.8	4700		NA		No	NA			
Hexachlorobutadiene	VOC	87-68-3	No	2	1.8	1	g	0.32	g	Yes	Yes	5	1.2	55		20.0		No	No			
Isopropylbenzene	VOC	98-82-8	No	2	0.46	255	b	NA		NA	NA	5	1.2	8990		NA		No	NA			
p-Isopropyltoluene	VOC	99-87-6	No	2	0.57	42	b	NA		NA	NA	5	1.2	1000		NA		No	NA			
Methyl bromide	VOC	74-83-9	No	2	0.47	110	b	600.00	b	No	No	5	1.5	80		420.0		No	No			
Methyl chloride	VOC	74-87-3	No	2	0.6	28,000	b	13500.00	b	NA	NA	5	1.5	106800		52430.0		No	No			
4-Methyl-2-pentanone	VOC	108-10-1	No	10	7.3	26,400	b	61500.00	b	No	No	50	7	19430		45340.0		No	No			
Methylene bromide	VOC	74-95-3	No	2	1	NA		NA		NA	NA	5	2	NA		NA		NA	NA			
Methylene chloride	VOC	75-09-2	No	5	0.67	11,000	q	5420.00	q	No	No	10	2.5	7750		3820.0		No	No			
Methyl ethyl ketone	VOC	78-93-3	No	10	3	42,400	b	NA		NA	NA	50	6.7	25710		NA		No	NA			
Naphthalene	VOC	91-20-3	No	5	0.57	250	b	125.00	b	NA	NA	5	1.2	176		160.0		No	No			
n-Propylbenzene	VOC	103-65-1	No	2	0.53	64	b	NA		No	NA	5	1.1	720		NA		No	NA			
Styrene	VOC	100-42-5	No	2	0.5	1,250	b	455.00	b	No	No	5	1.3	10240		3720.0		No	No		300	
1,1,1,2-Tetrachloroethane	VOC	630-20-6	No	2	0.52	NA		NA		NA	NA	5	1.4	NA		NA		NA	NA			
1,1,2,2-Tetrachloroethane	VOC	79-34-5	No	2	0.46	465	b	451.00	b	No	No	5	1.4	630		610.0		No	No			
1,2,3-Trichlorobenzene	VOC	87-61-6	No	2	0.62	NA		NA		NA	NA	5	1.2	NA		NA		NA	NA	20		

Appendix E
Comparison of Quantitation Limits to Ecological Screening Standards

				AQUEOUS		WATER						SOLID		SEDIMENT						SOIL		
Analyte	Data Group	CAS	Bioaccumulative	RL ug/L	MDL ug/L	FRESHWATER ug/l		MARINE ug/l		MDL>TCEQ FRESHWATER	MDL>TCEQ MARINE	RL ug/kg	MDL ug/kg	FRESHWATER ug/kg dry wt.		MARINE ug/kg dry wt.		MDL>TCEQ FRESHWATER	MDL>TCEQ MARINE	EARTHWORMS mg/kg dry wt.	PLANTS mg/kg dry wt.	MEDIAN BACKGROUND mg/kg dry wt.
1,2,4-Trichlorobenzene	VOC	120-82-1	No	2	0.93	51	b	22.00	b	No	No	5	1	880		390.0		No	No	20		
1,1,1-Trichloroethane	VOC	71-55-6	No	2	0.37	2,450	q	1560.00	q	No	No	5	1.2	4130		2630.0		No	No			
1,1,2-Trichloroethane	VOC	79-00-5	No	2	0.66	900	b	275.00	b	No	No	5	1.4	980		300.0		No	No			
Trichloroethylene	VOC	79-01-6	No	2	0.63	550	b	970.00	q	No	No	5	1.3	840		1470.0		No	No			
Trichlorofluoromethane	VOC	75-69-4	No	2	0.82	871	b	NA		No	NA	5	1	1690		NA		No	NA			
1,2,3-Trichloropropane	VOC	96-18-4	No	2	0.52	NA		NA		NA	NA	5	1.4	NA		NA		NA	NA			
1,2,4-Trimethylbenzene	VOC	95-63-6	No	2	0.55	77	b	217.00	b	No	No	5	1.1	760		2160.0		No	No			
1,3,5-Trimethylbenzene	VOC	108-67-8	No	2	0.47	71	b	NA		No	NA	5	1.1	770		NA		No	NA			
Tetrachloroethylene	VOC	127-18-4	No	2	0.74	790	q	1450.00	q	No	No	5	1.3	1690		3100.0		No	No			
Toluene	VOC	108-88-3	No	2	0.54	1,450	q	480.00	q	No	No	5	1.3	2880		940.0		No	No		200	
Vinyl Acetate	VOC	108-05-4	No	10	2.1	2,820	b	NA		No	NA	25	8	10	b	NA		No	NA	12.7		
Vinyl chloride	VOC	75-01-4	No	2	0.32	2,820	b	NA		No	NA	5	1.4	1960		NA		No	NA			
Xylene (Total)	VOC	1330-20-7	No	6	1.1	1,340	q	850.00	q	No	No	15	3.8	4000		2540.0		No	No			
m,p-Xylene	VOC	108-38-3	No	4	1.1	2	e,m	NA		No	NA	5	1.3	4.6		NA		No	NA			
o-Xylene	VOC	95-47-6	No	2	0.48	NA		NA		NA	NA	5	1.3	NA		NA		NA	NA			
Acenaphthene	SVOC	83-32-9	No	5.0	2.4	23	o	40.40	o	No	No	170	43	6.7	J	16.0		Yes	Yes		20	
Acenaphthylene	SVOC	208-96-8	No	5.0	1.6	4,840	x	NA		NA	NA	170	42	5.9	J	44.0		Yes	No			
Anthracene	SVOC	120-12-7	No	5.0	2.1	0.3	b	0.18	b	Yes	Yes	170	49	57.2		85.3		No	No			
Benzenethiol	SVOC	108-98-5	No	10.0	10.0	NA		NA		NA	NA	170	170	NA		NA		NA	NA			
Benzo(a)anthracene	SVOC	56-55-3	No	5.0	1.1	35	b	NA		No	NA	170	43	108		261.0		No	No			
Benzo(a)pyrene	SVOC	50-32-8	No	5.0	1.3	0.014	e	NA		Yes	NA	170	41	150		430.0		No	No			
Benzo(b)fluoranthene	SVOC	205-99-2	No	5.0	2.9	9.1	x	NA		NA	NA	170	43	NA		NA		NA	NA			
Benzo(g,h,i)perylene	SVOC	191-24-2	No	5.0	1.2	7.6	x	NA		NA	NA	170	68	NA		NA		NA	NA			
Benzo(k)fluoranthene	SVOC	207-08-9	No	5.0	0.94	9.04	x	NA		NA	NA	170	40	NA		NA		NA	NA			
Benzoic acid	SVOC	65-85-0	No	50	5.0	9,000	b	NA		No	NA	830	830	NA		NA		NA	NA			
Benzyl alcohol	SVOC	100-51-6	No	5.0	1.3	9	e	NA		No	NA	170	56	NA		NA		NA	NA			
bis(2-Chloroethoxy)methane	SVOC	111-91-1	No	5.0	1.1	NA		NA		NA	NA	170	46	NA		NA		NA	NA			
bis(2-Chloroethyl)ether	SVOC	111-44-4	No	5.0	1.4	12,000	b	NA		No	NA	170	45	NA		NA		NA	NA			
bis(2-Ethylhexyl)phthalate	SVOC	117-81-7	No	5.0	1.6	300	a,r	NA		No	NA	170	100	182	D	182.0	D	No	No			
4-Bromophenyl-phenyl ether	SVOC	101-55-3	No	5.0	3.2	2	e,m	NA		Yes	NA	170	37	NA		NA		NA	NA			
Butyl benzyl phthalate	SVOC	85-68-7	No	5.0	1.3	93	b	147.00	b	No	No	170	71	NA		NA		NA	NA			
Carbazole	SVOC	86-74-8	No	5.0	2.0	NA		NA		NA	NA	170	47	NA		NA		NA	NA			
4-Chloroaniline	SVOC	106-47-8	No	5.0	1.7	NA		NA		NA	NA	170	48	NA		NA		NA	NA			
4-Chloro-3-methyl phenol	SVOC	59-50-7	No	5.0	0.91	0.3	g	NA		Yes	NA	170	46	NA		NA		NA	NA			
2-Chloronaphthalene	SVOC	91-58-7	No	5.0	1.5	54	b	NA		No	NA	170	51	NA		NA		NA	NA			
2-Chlorophenol	SVOC	95-57-8	No	5.0	2.1	130	b	265.00	b	No	No	170	33	NA		NA		NA	NA			
4-Chlorophenyl phenyl ether	SVOC	7005-72-3	No	5.0	1.9	NA		NA		NA	NA	170	34	NA		NA		NA	NA			
Chrysene	SVOC	218-01-9	No	5.0	1.6	7	b	NA		No	NA	170	64	166		384.0		No	No			
Cyclohexanediol	SVOC	6995-79-5 931-71-5	No	NA	NA	NA		NA		NA	NA	NA	NA	NA		NA		NA	NA			
Dibenz(a,h)acridine	SVOC	226-36-8	No	5.0	4.8	54	e	NA		No	NA	170	61	NA		NA		NA	NA			
Dibenzo(a,h)anthracene	SVOC	53-70-3	No	5.0	1.6	5	b	NA		No	NA	170	61	33		63.4		Yes	No			
Dibenzofuran	SVOC	132-64-9	No	5.0	0.99	94	b	65.00	b	No	No	170	33	NA		NA		NA	NA			
1,2-Dichlorobenzene	SVOC	95-50-1	No	5.0	2.6	110	b	99.00	b	No	No	170	69	830		740.0		No	No			
1,3-Dichlorobenzene	SVOC	541-73-1	No	5.0	3.1	85	b	142.00	b	No	No	170	31	190		320.0		No	No			
1,4-Dichlorobenzene	SVOC	106-46-7	No	5.0	2.5	110	b	99.00	b	No	No	170	39	770		700.0		No	No			
3,3'-Dichlorobenzidine	SVOC	91-94-1	No	10	1.3	53	b	37.00	b	No	No	330	81	NA		NA		NA	NA			
2,4-Dichlorophenol	SVOC	120-83-2	No	5.0	1.0	85	b	NA		No	NA	170	30	NA		NA		NA	NA			
Diethylphthalate	SVOC	84-66-2	No	5.0	5.0	1,040	b	442.00	b	No	No	170	39	630	M	NA		No	NA		100	
7,12-Dimethyben(a)anthracene	SVOC	57-97-6	No	5.0	4.8	NA		NA		NA	NA	170	170	NA		NA		NA	NA			
2,4-Dimethylphenol	SVOC	105-67-9	No	5.0	1.2	105	b	NA		No	NA	170	54	NA		NA		NA	NA			
Dimethyl phthalate	SVOC	131-11-3	No	5.0	1.2	330	g	580.00	g	No	No	170	39	NA		NA		NA	NA	200		
Di-n-butyl phthalate	SVOC	84-74-2	No	5.0	1.7	7	b	5.00	b	No	No	170	44	NA		NA		NA	NA		200	
4,6-Dinitro-o-cresol	SVOC	534-52-1	No	10	3.7	12	b	NA		No	NA	330	81	NA		NA		NA	NA			
2,4-Dinitrophenol	SVOC	51-28-5	No	25	2.0	31	b	670.00	b	No	No	830	46	NA		NA		NA	NA		20	
2,4-Dinitrotoluene	SVOC	121-14-2	No	5.0	1.5	1,220	b	NA		No	NA	170	49	NA		NA		NA	NA			
2,6-Dinitrotoluene	SVOC	606-20-2	No	5.0	1.4	NA		NA		NA	NA	170	46	NA		NA		NA	NA			
Di-n-octylphthalate	SVOC	117-84-0	No	5.0	1.3	22	b	NA		No	NA	170	60	NA		NA		NA	NA			
Fluoranthene	SVOC	206-44-0	No	5.0	1.2	6	o	2.96	o	No	No	170	38	423		600.0		No	No			
Fluorene	SVOC	86-73-7	No	5.0	0.96	11	b	50	b	No	No	170	37	77.4		19.0		No	Yes	30		
Hexachlorobenzene	SVOC	118-74-1	Yes: F, M, Sed, Soil	5.0	3.3	0.0003	x	NA		NA	NA	170	47	20	B	NA		NA	NA			

Appendix E
Comparison of Quantitation Limits to Ecological Screening Standards

				AQUEOUS		WATER						SOLID		SEDIMENT						SOIL		
Analyte	Data Group	CAS	Bioaccumulative	RL ug/L	MDL ug/L	FRESHWATER ug/l		MARINE ug/l		MDL>TCEQ FRESHWATER	MDL>TCEQ MARINE	RL ug/kg	MDL ug/kg	FRESHWATER ug/kg dry wt.		MARINE ug/kg dry wt.		MDL>TCEQ FRESHWATER	MDL>TCEQ MARINE	EARTHWORMS mg/kg dry wt.	PLANTS mg/kg dry wt.	MEDIAN BACKGROUND mg/kg dry wt.
Hexachlorobutadiene	SVOC	87-68-3	No	5.0	4.0	0.93	g	0.32	g	Yes	Yes	170	60	55	K	20.0		Yes	Yes			
Hexachlorocyclopentadiene	SVOC	77-47-4	No	5.0	4.0	0.07	b	0.07	g	Yes	Yes	170	58	NA		NA		NA	NA		10	
Hexachloroethane	SVOC	67-72-1	No	5.0	4.0	12	e,m	9.40	g	No	No	170	48	230		180.0		No	No			
Indene	SVOC	95-13-6	No	15	13	NA		NA		NA	NA	830	830	NA		NA		NA	NA			
Indeno(1,2,3-cd)pyrene	SVOC	193-39-5	No	5.0	1.2	4.3	x	NA		NA	NA	170	66	NA		NA		NA	NA			
Isophorone	SVOC	78-59-1	No	5.0	0.89	6,000	b	650	b	No	No	170	43	NA		NA		NA	NA			
Methyl Chrysene	SVOC	1705-85-7	No	5.0	4.8	NA		NA		NA	NA	170	170	NA		NA		NA	NA			
1-Methylnaphthlene	SVOC	90-12-0	No	5.0	1.5	2	e	NA		NA	NA	170	36	NA		NA		NA	NA			
2-Methylnaphthalene	SVOC	91-57-6	No	5.0	2.6	63	b	30.00	b	No	No	170	37	NA		70.0		NA	No			
2-Methylphenol	SVOC	95-48-7	No	5.0	1.1	560	b	510	b	No	No	170	75	NA		NA		NA	NA			
3-Methylphenol	SVOC	108-39-4	No	5.0	2.0	272	b	510	b													
4-Methylphenol	SVOC	106-44-5	No	5.0	2.0	272	b	NA		NA	NA	170	38	NA		NA		NA	NA			
Naphthalene	SVOC	91-20-3	No	5.0	1.5	250	b	125.00	b	No	No	170	28	176		160.0		No	No			
N-Diphenylamine	SVOC	122-39-4	No	NA	NA	NA		NA		NA	NA	NA	NA	NA		NA		NA	NA			
2-Nitroaniline	SVOC	88-74-4	No	5.0	1.4	NA		NA		NA	NA	170	70	NA		NA		NA	NA			
3-Nitroaniline	SVOC	99-09-2	No	5.0	1.6	NA		NA		NA	NA	170	43	NA		NA		NA	NA			
4-Nitroaniline	SVOC	100-01-6	No	5.0	1.7	NA		NA		NA	NA	170	170	NA		NA		NA	NA			
Nitrobenzene	SVOC	98-95-3	No	5.0	0.86	270	g	66.80	g	No	No	170	50	510		130.0		No	No	40		
4-Nitrophenol	SVOC	100-02-7	No	25	1.3	532	b	359.00	b	No	No	170	120	NA		NA		NA	NA	7		
N-Nitroso-di-n-propylamine	SVOC	621-64-7	No	5.0	1.1	20	b	120.00	b	No	No	170	76	NA		NA		NA	NA			
N-Nitrosodiphenylamine	SVOC	86-30-6	No	5.0	1.4	290	b	165000.00	b	No	No	170	69	NA		NA		NA	NA	20		
Pentachlorophenol	SVOC	87-86-5	Yes: Sed, Soil	25	1.6	2	c,p	9.60	c	No	No	830	89	NA		NA		NA	NA	31 [S6,S15]	5 [S15]	
Phenanthrene	SVOC	85-01-8	No	5.0	2.0	30	c	4.60	c	No	No	170	36	204		240.0		No	No			
Phenol	SVOC	108-95-2	No	5.0	0.51	110	n	2750.00	b	No	No	170	53	NA		NA		NA	NA	30	70	
1-Phenylethanol	SVOC	NA	No	NA	NA	NA		NA		NA	NA	NA	NA	NA		NA		NA	NA			
Pyrene	SVOC	129-00-0	No	5.0	1.3	7	b	0.24	b	No	Yes	170	73	195		665		No	No			
Low MW PAHs	SVOC	NA	No	5.0	1.3	NA		NA		NA	NA	170	73	NA		552	b	No	No			
High MW PAHs	SVOC	NA	No	5.0	1.3	NA		NA		NA	NA	170	73	NA		1700	b	No	No			
Total PAHs	SVOC	NA	No	5.0	1.3	NA		NA		NA	NA	170	73	4000	b	4022	b	No	Yes			
Quinoline	SVOC	91-22-5	No	5.0	5.0	2	b	NA		Yes	NA	170	170	NA		NA		NA	NA			
1,2,4-Trichlorobenzene	SVOC	120-82-1	No	5.0	2.9	51	b	22.00	b	No	No	170	40	880		390.0		No	No	20		
2,4,5-Trichlorophenol	SVOC	95-95-4	No	5.0	1.8	64	c	12.00	c	No	No	170	67	NA		NA		NA	No	9	4	
2,4,6-Trichlorophenol	SVOC	88-06-2	No	5.0	1.2	14	b	61.00	b	No	No	170	46	NA		NA		NA	No	10		
Aldrin	Pest	309-00-2	Yes: Sed, Soil	0.050	0.014	0.3	c,k	0.13	c,k	No	No	1.7	0.40	2	B	NA		No	No			
alpha-Chlordane	Pest	5103-71-9	Yes: Sed, Soil	NA	NA	NA		NA		NA	NA	NA	NA	NA		NA		NA	No			
alpha-BHC	Pest	319-84-6	Yes: Sed, Soil	0.050	0.012	74	b	25.00	b	No	No	1.7	0.36	6	B	NA		No	No			
beta-BHC	Pest	319-85-7	Yes: Sed, Soil	0.050	0.0080	83	b	NA		No	NA	1.7	0.53	5	B	NA		No	NA			
Chlordane (technical)	Pest	12789-03-6	Yes: Sed, Soil	0.50	0.19	NA		NA		NA	NA	17	2.3	NA		NA		NA	NA			
4,4'-DDD	Pest	72-54-8	Yes: F, M, Sed, Soil	0.10	0.015	0.01	e	0.03	g	Yes	No	3.3	0.96	4.88	E	1.2	E	No	No			
4,4'-DDE	Pest	72-55-9	Yes: F, M, Sed, Soil	0.10	0.017	11	g	0.14	g	No	No	3.3	1.3	3.16	E	2.1	E	No	No			
4,4'-DDT	Pest	50-29-3	Yes: F, M, Sed, Soil	0.10	0.013	0.001	c	0.001	c	Yes	Yes	3.3	1.5	4.16	E	1.2	E	No	Yes			
delta-BHC	Pest	319-86-8	Yes: Sed, Soil	0.050	0.015	141	b	NA		No	NA	1.7	0.53	NA		NA		NA	NA			
Dieldrin	Pest	60-57-1	Yes: Sed, Soil	0.10	0.013	0.002	c	0.002	c	Yes	Yes	3.3	0.89	1.9		0.7	D	No	Yes			
Endosulfan I	Pest	959-98-8	No	0.10	0.0080	0.056	c	0.01	c	No	No	3.3	0.46	NA		NA		NA	NA			
Endosulfan II	Pest	33213-65-9	No	0.10	0.013	0.056	c	0.01	c	No	Yes	3.3	0.83	NA		NA		NA	NA			
Endosulfan sulfate	Pest	1031-07-8	No	0.10	0.014	0.056	c	0.01	c	No	Yes	3.3	0.96	NA		NA		NA	NA			
Endrin	Pest	72-20-8	Yes: Sed, Soil	0.10	0.019	0.002	c	0.002	c	Yes	Yes	3.3	1.1	2.22		NA		No	NA			
Endrin aldehyde	Pest	7421-93-4	Yes: Sed, Soil	0.10	0.017	1,210	b	NA		No	No	3.3	1.4	NA		NA		NA	NA			
gamma-BHC (Lindane)	Pest	58-89-9	Yes: Sed, Soil	0.050	0.0070	0.08	c	0.02	c,k	No	No	1.7	0.73	2.37		0.3	D	No	Yes			
gamma-Chlordane	Pest	5103-74-2	Yes: Sed, Soil	NA	NA	NA		NA		NA	NA	NA	NA	NA		NA		NA	NA			
Heptachlor	Pest	76-44-8	Yes: Sed, Soil	0.050	0.010	0.004	c	0.004	c	Yes	Yes	1.7	0.46	NA		NA		NA	NA			
Heptachlor epoxide	Pest	1024-57-3	Yes: Sed, Soil	0.050	0.0060	0.0038	a	0.004	a	Yes	Yes	1.7	0.33	2.47		NA		No	NA			
Methoxychlor	Pest	72-43-5	No	0.50	0.078	0.03	c	0.03	c	Yes	Yes	17	7.2	NA		NA		NA	NA			
Toxaphene	Pest	8001-35-2	Yes: Sed, Soil	0.50	0.20	0.0002	c	0.0002	c	Yes	Yes	17	12	0.1	K	NA		Yes	NA			
Aroclor-1016	PCB	12674-11-2	Yes: F, M, Sed, Soil	0.50	0.50	NA		NA		NA	NA	17	11	7	B	NA		Yes	NA			
Aroclor-1221	PCB	11104-28-2	Yes: F, M, Sed, Soil	0.50	0.50	NA		NA		NA	NA	17	17	NA		NA		NA	NA			
Aroclor-1232	PCB	11141-16-5	Yes: F, M, Sed, Soil	0.50	0.34	NA		NA		NA	NA	17	9.6	NA		NA		NA	NA			
Aroclor-1242	PCB	53469-21-9	Yes: F, M, Sed, Soil	0.50	0.16	NA		NA		NA	NA	17	14	NA		NA		NA	NA			
Aroclor-1248	PCB	12672-29-6	Yes: F, M, Sed, Soil	0.50	0.37	NA		NA		NA	NA	17	13	30	B	NA		No	NA			
Aroclor-1254	PCB	27323-18-8	Yes: F, M, Sed, Soil	0.50	0.17	NA		NA		NA	NA	17	14	60	B	NA		No	NA			

Appendix E
Comparison of Quantitation Limits to Ecological Screening Standards

				AQUEOUS		WATER						SOLID		SEDIMENT						SOIL		
Analyte	Data Group	CAS	Bioaccumulative	RL ug/L	MDL ug/L	FRESHWATER ug/l		MARINE ug/l		MDL>TCEQ FRESHWATER	MDL>TCEQ MARINE	RL ug/kg	MDL ug/kg	FRESHWATER ug/kg dry wt.		MARINE ug/kg dry wt.		MDL>TCEQ FRESHWATER	MDL>TCEQ MARINE	EARTHWORMS mg/kg dry wt.	PLANTS mg/kg dry wt.	MEDIAN BACKGROUND mg/kg dry wt.
Aroclor-1260	PCB	11096-82-5	Yes: F, M, Sed, Soil	0.50	0.23	NA		NA		NA	NA	17	6.9	5	B	NA		Yes	NA			
Total PCBs	PCB	1336-36-3	Yes: F, M, Sed, Soil	1.00	0.5	0	b	0.03	b	Yes	Yes	33	17	59.8	b	22.7	b	No	No		40	
2,4-D	Herb	94-75-7	No	1.5	0.80	NA		NA		NA	NA	33	13	NA		NA		NA	NA			
2,4-DB	Herb	94-82-6	No	2.0	1.9	NA		NA		NA	NA	66	54	NA		NA		NA	NA			
Dalapon	Herb	75-99-0	No	1.0	1.0	NA		NA		NA	NA	33	23	NA		NA		NA	NA			
Dicamba	Herb	1918-00-9	No	0.20	0.080	NA		NA		NA	NA	6.6	5.0	NA		NA		NA	NA			
Dichloroprop	Herb	120-36-5	No	1.0	0.51	NA		NA		NA	NA	33	8.9	NA		NA		NA	NA			
Dinoseb	Herb	88-85-7	No	0.20	0.090	NA		NA		NA	NA	6.6	4.3	NA		NA		NA	NA			
MCPA	Herb	94-74-6	No	50	NA	NA		NA		NA	NA	170	NA	NA		NA		NA	NA			
MCPP	Herb	93-65-2	No	50	NA	NA		NA		NA	NA	170	NA	NA		NA		NA	NA			
Pentachlorophenol	Herb	87-86-5	Yes: Sed, Soil	0.050	0.040	2	c,p	9.60	c	NA	NA	1.7	0.99	NA		NA		NA	NA	31 [S6,S15]	5 [S15]	
2,4,5-T	Herb	93-76-5	No	0.20	0.12	NA		NA		NA	NA	6.6	3.3	NA		NA		NA	NA			
2,4,5-TP (Silvex)	Herb	93-72-1	No	0.20	0.15	NA		NA		NA	NA	13	12	NA		NA		NA	NA			
Aluminum	Metals	7429-90-5	No	200	55.3	87	a	NA		No	NA	200	25.6	NA		NA		NA	NA			30,000
Antimony	Metals	7440-36-0	No	5.0	1.8	160	g	NA		No	NA	10	5.1	2000	A	NA		No	NA	78 [S5,S6]	5	1
Arsenic (d)	Metals	7440-38-2	No	5.0	2.7	190	c,w	78.00	c.w	No	No	10	1.7	9790		8200.0		No	No	60	18 [S13]	5.9
Barium	Metals	7440-39-3	No	200	3.0	16,000	b	25000.00	b	No	No	200	2.6	NA		NA		NA	NA	330 [S6,S8]	500	300
Beryllium	Metals	7440-41-7	No	5.0	0.06	5	b	NA		No	NA	5	0.2	NA		NA		NA	NA	40 [S6,S9]	10	1.5
Cadmium	Metals	7440-43-9	Yes: Sed, Soil	5.0	0.24	1	c,f	10.00	c,w	No	No	5	0.3	990		1200.0		No	No	140 [S6,S10]	32 [S10]	
Calcium	Metals	7440-70-2	No	5000	134.89	NA		NA		NA	NA	5000	73.3	NA		NA		NA	NA			
Chromium	Metals	7440-47-3	Tri: No -- Hex: Yes-soil	10	1.82	NA		NA		NA	NA	10	0.9	43400		81000.0		No	No	0.4	1	30
Chromium (Hex) (d)	Metals	18540-29-9	Yes: Soil	10	4	11	c,w	49.60	c,w	No	NA	2	2	NA		NA		No	NA			
Chromium (Tri) (d)	Metals	16065-83-1	No	3000	NA	101	c,f	103.00	g			3000	NA									
Cobalt	Metals	7440-48-4	No	50	0.99	1,500	b	NA		No	NA	50	0.8	50000	B	NA		No	NA		13 [S11]	7
Copper (d)	Metals	7440-50-8	Yes: Sed, Soil	25	1.42	7	c,h,w	3.60	c,h,w	No	No	25	5.4	31600		34000.0		No	No	61 [S6,S7]	100	15
Iron	Metals	7439-89-6	No	100	18.97	1,000	a	NA		No	NA	100	40.5	20000000	B	NA		No	NA			15,000
Lead (d)	Metals	7439-92-1	Yes; Soil	3	0.7	1	c,f	5.30	c,w	No	No	10	1.2	35800		46700.0		No	No	1700 [S14]	120 [S6,S14]	15
Magnesium	Metals	7439-95-4	No	5000	16.8	3,230	b	NA		No	NA	5000	61.5	NA		NA		NA	NA			
Manganese	Metals	7439-96-5	No	15	7.68	120	e	NA		No	NA	15	9.6	460000	B	NA		No	NA		500	300
Mercury	Metals	7439-97-6	Yes: F, M, Sed, Soil	0.2	NA	1	c	1.10	c	No	Yes			180		150.0		No	No	0.1	0.3	0.04
Nickel (d)	Metals	7440-02-0	Yes: Sed, Soil	40	1.0	87	c,f	13.10	c,w	No	No	40	1.4	22700		20900.0		No	No	200	30	10
Potassium	Metals	7440-09-7	No	5000	125.2	NA		NA		NA	NA	5000	169.5	NA		NA		NA	NA			
Selenium	Metals	7782-49-2	Yes: F, M, Sed, Soil	5	3.2	5	c	136.00	c	No	No	10	2.7	NA		NA		NA	NA	70	1	0.3
Silver (d)	Metals	7440-22-4	No	10	0.5	0.1	a,f,k	0.19	a,k	Yes	Yes	10	1.0	1000	A	1000.0		No	No		2	
Sodium	Metals	7440-23-5	No	5000	292	NA		NA		NA	NA	5000	51.8	NA		NA		NA	NA			
Thallium	Metals	7440-28-0	Yes: F, M	10	1.5	4	g	21.30	g	No	No	20	5.3	NA		NA		NA	NA		1	0.7
Vanadium	Metals	7440-62-2	No	50	0.4	20	e	NA		No	NA	50	1.1	NA		NA		NA	NA		2	50
Zinc (d)	Metals	7440-66-6	Yes: Sed, Soil	20	7.5	58	c,f	84.20	c,w	No	No	20	6.2	121000		150000.0		No	No	120 [S6,S7]	190 [S7]	30
Cyanide (free)	Metals	57-12-5	No	NA	NA	11	c,i	5.6	c,i	NA	NA	NA	NA	NA		NA		NA	NA			

Note: All Benchmark and Bioaccumulative values were obtained from TCEQ 2006 RG-263, unless otherwise noted.

RL = Reporting Limit.
MDL= Minimum Detection Limit
TCEQ = Texas Commission on Environmental Quality

a U.S. EPA, 2002.
b TCEQ 2003a. In-house water quality chronic values derived for wastewater permits and requests from the Office of Waste based on LC50 values in accordance with methodology defined in the TSWQS. Water Quality Division.
c Texas Surface Water Quality Standards Chronic (unless otherwise noted) Criteria (30 TAC §307.6, Table 1, Effective August 17, 2000).
d Indicates that the criteria for a specific parameter are for the dissolved portion in water.
e Tier II Secondary Chronic Values from Suter and Tsao (1996).
f Criteria calculated using a hardness value of 50 mg/L. See formula for standard that follows.
g U.S. EPA Region 4. 2001. Value derived from Region 4 Water Quality Management Division screening worksheet.
h In designated oyster waters an acute saltwater copper criterion of 3.6 micrograms per liter applies outside of the mixing zone of permitted discharges, and specified mixing zones for copper will not encompass oyster reefs containing live oysters.
i Compliance will be determined using the analytical method for cyanide amenable to chlorination or by weak acid dissociable cyanide.
j Based on the procedure defined in TCEQ (2003), the percent dissolved silver that is in the free ionic form is estimated from the following regression equation: Y = exp [exp (1/ (0.6559 + 0.0044(Cl)))] where, Y = % of dissolved silver that is in free ionic form, and Cl = dissolved chloride concentration (mg/l). Persons should use the 50th percentile chloride value (from TCEQ, 2003) for the nearest downstream segment unless site-specific data is available.
k There is only an acute criterion (no chronic criterion). The indicated value is the acute criterion divided by 10.
l State of Colorado hardness-based water quality standard (Colorado Department of Public Health and Environment, 2005).
m Values calculated for OSWER 1996 as provided in Suter and Tsao (1996).
n Value calculated using Great Lakes Water Quality Initiative Tier I methodology (U.S. EPA,1993a) as provided in Suter and Tsao (1996).
o These numbers are FCVs calculated by the EPA for use in the derivation of the sediment quality criteria (U.S. EPA, 1993b, c).
p Criteria calculated using a pH of 6.0. See formula for standard that follows.
q Value derived by work group using the LC50 approach discussed in Section 3.5.1.1. Contact the TCEQ Technical Support Section (Remediation Division) for a full discussion of each value.
r According to U.S. EPA, 2002, bis(2-ethylhexyl)phthalate is not toxic to aquatic organisms at or below its solubility limit. Benchmark set at solubility limit given at TRRP Figure 30 TAC §350.73 (e)
w Indicates that the criterion is multiplied by a water-effects ratio in order to incorporate the effects of local water chemistry on toxicity. The water-effects ratio is equal to 1 except where sufficient data is available to establish a site-specific, water-effects ratio. Water-effects ratios for individual water bodies are listed in Appendix E of the TSWQS.
x USEPA, 2003, Region 5 Ecological Screening Levels (ESLs) for RCRA Appendix IX Hazardous Constituents (available at http://www.epa.gov/reg5rcra/ca/ESL.pdf)

A Effects Range Low (ERL) from: Long, E.R. and L.G. Morgan. 1990. The Potential for Biological Effects of Sediment-sorbed Contaminants Tested in the National Status and Trends Program. NOAA Technical Memorandum NOS OMA 52, March 1990.
B Lowest Effects Level (LEL) from: Persaud, D., R. Jaagumagi and A. Hayton. 1993. Guidelines for the Protection and Management of Aquatic Sediment Quality in Ontario. Water Resources Branch. Ontario Ministry of the Environment and Energy. August.
C No "c" footnotes.
D Threshold Effects Level (TEL) from: Smith, S.L., D.D. MacDonald, K.A. Keenleyside, and C.L. Gaudet. 1996b. The Development and Implementation of Canadian Sediment Quality Guidelines.In: Development and Progress in Sediment Quality Assessment: Rationale, Challenges, Techniques & Strategies. Ecovision World Monograph Series. Munawar & Dave (Eds.). Academic Publishing, Amsterdam, The Netherlands.
E When benchmarks represent the sum of individual compounds, isomers, or groups of congeners, and the chemical analysis indicates an undetected value, the proxy value specified at §350.51 (n) shall be used for calculating the sum of the respective compounds, isomers, or congeners. This assumes that the particular COC has not been eliminated in accordance with the criteria at §350.71 (k).
F The low molecular weight PAH benchmark is to be compared to the sum of the concentrations of the following compounds: naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, anthracene, and 2-methyl napthalene. The PAH benchmark is not the sum of the corresponding benchmarks listed for the individual compounds.
G The high molecular weight PAH benchmark is to be compared to the sum of the concentrations of the following compounds: fluoranthene, pyrene, benz(a)anthracene, chrysene, benzo(a)pyrene, and dibenzo [a,h]anthracene. The PAH benchmark is not the sum of the corresponding benchmarks listed for the individual compounds.
H Total PAH refers to the sum of the concentrations of each of low and high molecular weight PAHs listed above and any other PAH compounds that are not eliminated in accordance with §350.71 (k).
I The benchmarks for total PAHs are the most relevant in evaluating risk in an ERA as PAHs almost always occur as mixtures. Values for individual, low molecular weight, and high molecular weight PAHs are provided as guidelines to aid in the determination of disproportionate concentrations within the mixture that may be masked by the total. See discussion in Section 3.5.4.
J CCME (Canadian Council of Ministers of the Environment). 1999. Canadian environmental quality guidelines. Winnipeg, Manitoba.
K NYSDEC (New York State Department of Environmental Conservation). 1999. Technical guidance for screening contaminated sediments. Division of Fish , Wildlife, and Marine Resources. Albany, New York. 36 pp.
L Stortelder, P.B., M.A. Vandergaag, and L.A. van der Kooij. 1989. Perspectives for water organisms. An ecotoxicological basis for quality objectives for water and sediment. Part1. Results and calculations. DBW/RIZA Memorandum N. 89.016a. (English Version August, 1991). Institute for Inland Water Management and Waste Water Treatment. Lelystad, Netherlands.
M U.S. EPA. 1997. The incidence and severity of sediment contamination in surface waters of the United States. Volume 1: National sediment quality survey. EPA 823-R-97-006. Office of Science and Technology (4305). Washington, District of Columbia
N Benchmarks derived using formula in: Fuchsman, P.C. 2003. Modification of the Equilibrium Partitioning Approach for Volatile Organic Compounds in Sediment. Environ Toxicol Chem. 22:1532-1534. TCEQ Surface water values from Table 3-2 were used for water quality values. TRRP-24 default values of 1% fraction organic carbon (foc) and 0.37 porosity were used. The person should adjust these values if sufficient site-specific data indicate they are not representative.

S1 Efroymson, R.A., M.E. Will, and G.W. Suter. 1997. Toxicological Benchmarks for Contaminants of Potential Concern for Effects on Soil and Litter Invertebrates and Heterotrophic Process: 1997 Revision. Lockheed Martin Energy Systems, Inc. ES/ER/TM-126/R2.
S2 Efroymson, R.A., M.E. Will, G.W. Suter, and A.C. Wooten. 1997. Toxicological Benchmarks for Screening Contaminants of Potential Concern for Effects on Terrestrial Plants: 1997 Revision. Lockheed Martin Energy Systems, Inc. ES/ER/TM-85/R3.
S3 Texas-Specific Median Background Concentration (Figure 30 TAC §350.51(m)).
S4 Potential ecological risks associated with aluminum in soils is identified based on the measured soil pH. Where aluminum is a COC, it should only be retained for those soils with a soil pH less than 5.5. Source: U.S. Environmental Protection Agency. Ecological Soil Screening Level for Aluminum. Interim Final. OSWER Directive 9285.7-60. November 2003.
S5 U.S. EPA. Ecological Soil Screening Level for Antimony. Interim Final. OSWER Directive 9285.7-61. February 2005.
S6 Screening values for soil invertebrates.
S7 U.S. EPA. 2000. Ecological Soil Screening Level Guidance. Draft. Office of Emergency and Remedial Response. July 10, 2000.
S8 U.S. EPA. Ecological Soil Screening Levels for Barium. Interim Final. OSWER Directive 9285.7-63. February 2005.
S9 U.S. EPA. Ecological Soil Screening Levels for Beryllium. Interim Final. OSWER Directive 9285.7-64. February 2005.
S10 U.S. EPA. Ecological Soil Screening Levels for Cadmium. Interim Final. OSWER Directive 9285.7-65. March 2005.
S11 U.S. EPA. Ecological Soil Screening Levels for Cobalt. Interim Final. OSWER Directive 9285.7-67. March 2005.
S12 Iron is not expected to be toxic to plants in well-aerated soils between pH 5 and 8. Iron's relative importance is not so much based on its direct chemical toxicity, but its effect as a mediator in the geochemistry of other potentially toxic metals and the potential hazard of depositing flocculent. Source: U.S. Environmental Protection Agency. Ecological Soil Screening Level for Iron. Interim Final. OSWER Directive 9285.7-69. November 2003.
S13 U.S. EPA. Ecological Soil Screening Levels for Arsenic. Interim Final. OSWER Directive 9285.7-62. March 2005.
S14 U.S. EPA. Ecological Soil Screening Levels for Lead. Interim Final. OSWER Directive 9285.7- 70. March 2005.
S15 U.S. EPA. Ecological Soil Screening Levels for Pentachlorophenol. Interim Final. OSWER Directive 9285.7-58. March 2005.

APPENDIX F

Appendix F
Comparison of Quantitation Limits to EPA Region 6 Human Health MSSLs and TCEQ Tier 1 PCLs

Analyte	Data Group	CAS	AQUEOUS RL ug/L	AQUEOUS MDL ug/L	EPA Region 6 MSSL Tap Water ug/l	TCEQ PCL[3] $^{GW}GW_{ING}$ (Res) ug/l	EPA 6 Tap Water MDL>MSSL	TCEQ Groundwater PCL MDL>PCL	MCL ug/L	SOLID RL ug/kg	SOLID MDL ug/kg	EPA Region 6 MSSL Residential ug/kg	TCEQ PCL[3] Residential ug/kg	EPA 6 Res Soil MDL>MSSL	TCEQ Res Soil MDL>PCL
Acetone	VOC	67-64-1	50	2.8	5475.0	21997.8	No	No	NA	50	7.2	14150596.1	5417410.6	No	No
Benzene	VOC	71-43-2	2	0.23	0.4	5.0	No	No	5.0	5	1.4	655.7	19456.3	No	No
Bromobenzene	VOC	108-86-1	2	0.73	23.3	488.8	No	No	NA	5	1.3	72591.5	79103.9	No	No
Bromochloromethane	VOC	74-97-5	2	0.64	NA	977.7	NA	No	NA	5	1.4	NA	352307.1	NA	No
Bromodichloromethane	VOC	75-27-4	2	0.33	0.2	14.7	Yes	No	NA	5	1.4	1026.0	97947.3	No	No
Bromoform	VOC	75-25-2	2	0.65	8.5	115.5	No	No	NA	5	1.2	61568.9	276174.4	No	No
Butanol	VOC	71-36-3	10	TBD	3650.0	2444.2	TBD	TBD	NA	10	TBD	6110309.7	1774338.4	TBD	TBD
n-Butylbenzene	VOC	104-51-8	2	0.6	60.8	977.7	No	No	NA	5	0.97	144897.9	1491317.0	No	No
sec-Butylbenzene	VOC	135-98-8	2	0.5	60.8	977.7	No	No	NA	5	1.1	111615.2	1550923.2	No	No
tert-Butylbenzene	VOC	98-06-6	2	0.55	60.8	977.7	No	No	NA	5	1	131672.5	1398509.4	No	No
Chlorobenzene	VOC	108-90-7	2	0.54	91.3	100.0	No	No	100.0	5	1.4	273175.4	318098.1	No	No
Chloroethane	VOC	75-00-3	2	0.46	3.9	9776.8	No	No	NA	5	1.4	3032.2	23152959.6	No	No
Chloroform	VOC	67-66-3	2	0.66	0.2	244.4	Yes	No	NA	5	1.3	245.5	8009.6	No	No
o-Chlorotoluene	VOC	95-49-8	2	0.5	121.7	488.8	No	No	NA	5	1.2	158713.8	828812.6	No	No
p-Chlorotoluene	VOC	106-43-4	2	0.5	NA	488.8	NA	No	NA	5	1.1	NA	2468.2	NA	No
Carbon Disulfide	VOC	75-15-0	2	0.62	1042.9	2444.2	No	No	NA	10	1.3	721254.2	3299872.6	No	No
Carbon tetrachloride	VOC	56-23-5	2	0.52	0.2	5.0	Yes	No	5.0	10	1.3	240.0	9724.7	No	No
Cyclohexane	VOC	110-82-7	2	0.53	12514.3	122209.8	No	No	NA	5	1.2	142803.5	42459498.0	No	No
Dibromochloromethane	VOC	124-48-1	2	0.68	0.1	10.9	Yes	No	NA	5	1.4	1010.7	72294.4	No	No
1,2-Dibromo-3-chloropropane	VOC	96-12-8	2	1.5	2.E-04	0.2	Yes	Yes	NA	5	1.4	2.6	3176.5	No	No
1,2-Dibromoethane	VOC	106-93-4	2	0.68	5.6E-03	0.1	Yes	Yes	NA	5	1.4	28.3	427.9	No	No
1,1-Dichloroethane	VOC	75-34-3	2	0.52	1216.7	4888.4	No	No	NA	5	1.3	845964.5	2647618.4	No	No
1,2-Dichloroethane	VOC	107-06-2	2	0.53	0.1	5.0	Yes	No	5.0	5	1.4	346.6	6405.4	No	No
1,1-Dichloroethylene	VOC	75-35-4	2	0.68	338.8	7.0	No	No	7.0	5	1.3	284897.7	1139605.9	No	No
cis-1,2-Dichloroethylene	VOC	156-59-2	2	0.83	60.8	70.0	No	No	70.0	5	1.4	43028.1	724256.7	No	No
trans-1,2-Dichloroethylene	VOC	156-60-5	2	0.75	106.8	100.0	No	No	100.0	5	1.3	121799.6	1298324.1	No	No
1,2-Dichloropropane	VOC	78-87-5	2	0.59	0.2	5.0	Yes	No	5.0	5	1.5	351.3	31446.1	No	No
1,3-Dichloropropane	VOC	142-28-9	2	0.61	NA	9.1	NA	No	NA	5	1.4	NA	26191.7	NA	No
2,2-Dichloropropane	VOC	594-20-7	2	0.65	NA	13.4	NA	No	NA	5	1.1	NA	31446.1	NA	No
1,1-Dichloropropene	VOC	563-58-6	2	0.38	NA	9.1	NA	No	NA	5	1.2	NA	26191.7	NA	No
cis-1,3-Dichloropropene	VOC	10061-01-5	2	0.59	NA a	1.7	NA	No	NA	5	1.3	NA a	7092.0	NA	No
trans-1,3-Dichloropropene	VOC	10061-02-6	2	0.61	NA a	9.1	NA	No	NA	5	1.4	NA a	26191.7	NA	No
m-Dichlorobenzene	VOC	541-73-1	2	0.5	14.5	733.3	No	No	NA	5	1.2	68534.2	61578.7	No	No
o-Dichlorobenzene	VOC	95-50-1	2	0.5	49.3	600.0	No	No	600.0	5	1.2	278923.4	388654.9	No	No
p-Dichlorobenzene	VOC	106-46-7	2	0.5	0.47	75.0	Yes	No	75.0	5	1.2	3197.5	253030.5	No	No
Dichlorodifluoromethane	VOC	75-71-8	2	0.73	394.6	4888.4	No	No	NA	5	1.1	94077.3	11542289.8	No	No
1-4-Dioxane	VOC	123-91-1	50	24.1	6.1	83.0	Yes	No	NA	250	24	44216.4	552066.5	No	No
Ethyl benzene	VOC	100-41-4	2	0.48	1339.9	700.0	No	No	700.0	5	1.3	233948.1	4019946.3	No	No
Ethyl ether	VOC	60-29-7	10	TBD	1216.7	4888.4	TBD	TBD	NA	10	TBD	1840994.9	6034014.1	TBD	TBD
2-Hexanone	VOC	591-78-6	10	1.9	NA	1466.5	NA	No	NA	50	6.8	NA	55994.5	NA	No
Hexachlorobutadiene	VOC	87-68-3	2	1.8	0.9	4.9	Yes	No	NA	5	1.2	6235.7	11989.6	No	No
Hexane	VOC	110-54-3	2	0.61	1454.7	1466.5	No	No	NA	5	1.1	114726.7	2601170.5	No	No
Isopropylbenzene	VOC	98-82-8	2	0.46	658.2	2444.2	No	No	NA	5	1.2	370838.9	3008694.4	No	No
p-Isopropyltoluene	VOC	99-87-6	2	0.57	NA	2444.2	NA	No	NA	5	1.2	NA	2466497.4	NA	No
Methyl bromide	VOC	74-83-9	2	0.47	8.7	34.2	No	No	NA	5	1.5	3904.5	29365.7	No	No
Methyl chloride	VOC	74-87-3	2	0.6	2.1	70.2	No	No	NA	5	1.5	1261.1	83952.1	No	No
4-Methyl-2-pentanone	VOC	108-10-1	10	7.3	1990.9	1955.4	No	No	NA	50	7	5797292.3	5369829.7	No	No
Methylene bromide	VOC	74-95-3	2	1	60.8	121.7	No	No	NA	5	2	141209.1	135377.6	No	No
Methylene chloride	VOC	75-09-2	5	0.67	4.3	5.0	No	No	5.0	10	2.5	8898.2	264109.7	No	No
Methyl ethyl ketone	VOC	78-93-3	10	3	7064.5	14665.2	No	No	NA	50	6.7	32089642.9	26778603.3	No	No
Naphthalene	VOC	91-20-3	5	0.57	6.2	488.8	No	No	NA	5	1.2	124797.8	124097.0	No	No
n-Propylbenzene	VOC	103-65-1	2	0.53	60.8	977.7	No	No	NA	5	1.1	144897.9	1631815.1	No	No

Appendix F
Comparison of Quantitation Limits to EPA Region 6 Human Health MSSLs and TCEQ Tier 1 PCLs

Analyte	Data Group	CAS	AQUEOUS RL ug/L	AQUEOUS MDL ug/L	EPA Region 6 MSSL Tap Water ug/l	TCEQ PCL[3] $^{GW}GW_{ING}$ (Res) ug/l	EPA 6 Tap Water MDL>MSSL	TCEQ Groundwater PCL MDL>PCL	MCL ug/L	SOLID RL ug/kg	SOLID MDL ug/kg	EPA Region 6 MSSL Residential ug/kg	TCEQ PCL[3] Residential ug/kg	EPA 6 Res Soil MDL>MSSL	TCEQ Res Soil MDL>PCL
Styrene	VOC	100-42-5	2	0.5	1641.1	100.0	No	No	100.0	5	1.3	1733844.5	7034948.3	No	No
1,1,1,2-Tetrachloroethane	VOC	630-20-6	2	0.52	0.4	35.1	Yes	No	NA	5	1.4	3005.2	38852.9	No	No
1,1,2,2-Tetrachloroethane	VOC	79-34-5	2	0.46	0.06	4.6	Yes	No	NA	5	1.4	384.3	3990.6	No	No
1,2,3-Trichlorobenzene	VOC	87-61-6	2	0.62	NA c	73.3	NA	No	NA	5	1.2	NA c	187647.9	NA	No
1,2,4-Trichlorobenzene	VOC	120-82-1	2	0.93	8.2	70.0	No	No	70.0	5	1	142520.2	613085.2	No	No
1,1,1-Trichloroethane	VOC	71-55-6	2	0.37	835.8	200.0	No	No	200.0	5	1.2	1385377.7	5327386.2	No	No
1,1,2-Trichloroethane	VOC	79-00-5	2	0.66	0.2	5.0	Yes	No	5.0	5	1.4	844.2	10390.9	No	No
Trichloroethylene	VOC	79-01-6	2	0.63	0.03	5.0	Yes	No	5.0	5	1.3	42.6	90584.7	No	No
Trichlorofluoromethane	VOC	75-69-4	2	0.82	1288.2	7332.6	No	No	NA	5	1	386624.0	11636629.1	No	No
1,2,3-Trichloropropane	VOC	96-18-4	2	0.52	0.002	0.1	Yes	Yes	NA	5	1.4	1.4	867.5	No	No
1,2,4-Trimethylbenzene	VOC	95-63-6	2	0.55	12.4	1222.1	No	No	NA	5	1.1	52145.0	67892.6	No	No
1,3,5-Trimethylbenzene	VOC	108-67-8	2	0.47	12.3	1222.1	No	No	NA	5	1.1	21298.2	58654.3	No	No
Tetrachloroethylene	VOC	127-18-4	2	0.74	0.1	5.0	Yes	No	5.0	5	1.3	554.3	85388.0	No	No
Toluene	VOC	108-88-3	2	0.54	2281.2	1000.0	No	No	1000.0	5	1.3	521170.3	5619322.8	No	No
Vinyl acetate	VOC	108-05-4	10	2.1	412.4	24442.0	No	No	NA	10	7.6	426630.4	1549173.6	No	No
Vinyl chloride	VOC	75-01-4	2	0.32	0.015	2.0	Yes	No	2.0	5	1.4	43.0	3392.4	No	No
Xylenes (Total)	VOC	1330-20-7	6	1.1	202.8	10000.0	No	No	10000.0	15	3.8	214480.3	753215.6	No	No
Acenaphthene	SVOC	83-32-9	5.0	2.4	365.0	1466.5	No	No	NA	170	43	3683396.2	2965473.2	No	No
Acenaphthylene	SVOC	208-96-8	5.0	1.6	NA g	1466.5	NA	No	NA	170	42	NA g	3781512.6	No	No
Anthracene	SVOC	120-12-7	5.0	2.1	1825.0	7332.6	No	No	NA	170	49	21899671.9	17744113.3	No	No
Benzenethiol	SVOC	108-98-5	10.0	10.0	NA	0.24	NA	Yes	NA	170	170	NA	678.3	NA	No
Benzo(a)anthracene	SVOC	56-55-3	5.0	1.1	0.029	1.3	Yes	No	NA	170	43	147.6	5645.3	No	No
Benzo(a)pyrene	SVOC	50-32-8	5.0	1.3	0.003	0.2	Yes	Yes	0.2	170	41	14.8	563.7	Yes	No
Benzo(b)fluoranthene	SVOC	205-99-2	5.0	2.9	0.029	1.3	Yes	Yes	NA	170	43	147.6	5708.2	No	No
Benzo(g,h,i)perylene	SVOC	191-24-2	5.0	1.2	NA j	733.3	NA	No	NA	170	68	NA i	1780340.6	No	No
Benzo(k)fluoranthene	SVOC	207-08-9	5.0	0.94	0.29	12.5	Yes	No	NA	170	40	1476.2	57210.1	No	No
Benzoic acid	SVOC	65-85-0	50	5.0	146000.0	97767.9	No	No	NA	830	830	100000000.0	354150.2	No	No
Benzyl alcohol	SVOC	100-51-6	5.0	1.3	10950.0	12221.0	No	No	NA	170	56	18330929.1	4042348.8	No	No
bis(2-Chloroethoxy)methane	SVOC	111-91-1	5.0	1.1	NA	0.83	NA	Yes	NA	170	46	NA	2461.5	NA	No
bis(2-Chloroethyl)ether	SVOC	111-44-4	5.0	1.4	0.0098	0.83	Yes	Yes	NA	170	45	211.2	1382.1	No	No
bis(2-Ethylhexyl)phthalate	SVOC	117-81-7	5.0	1.6	4.8	6.0	No	No	6.0	170	100	34741.5	43157.7	No	No
4-Bromophenyl-phenyl ether	SVOC	101-55-3	5.0	3.2	NA	6.1E-05	NA	Yes	NA	170	37	NA	268.4	NA	No
Butyl benzyl phthalate	SVOC	85-68-7	5.0	1.3	7300.0	4888.4	No	No	NA	170	71	240476.9	5723309.2	No	No
Carbazole	SVOC	86-74-8	5.0	2.0	3.4	45.6	No	No	NA	170	47	24319.0	234921.0	No	No
4-Chloroaniline	SVOC	106-47-8	5.0	1.7	146.0	97.8	No	No	NA	170	48	244412.4	195675.0	No	No
4-Chloro-3-methyl phenol	SVOC	59-50-7	5.0	0.91	NA	122.2	NA	No	NA	170	46	NA	326638.2	NA	No
2-Chloronaphthalene	SVOC	91-58-7	5.0	1.5	486.7	1955.4	No	No	NA	170	51	3855748.3	5042016.8	No	No
2-Chlorophenol	SVOC	95-57-8	5.0	2.1	30.4	122.2	No	No	NA	170	33	63511.2	363515.3	No	No
4-Chlorophenyl phenyl ether	SVOC	7005-72-3	5.0	1.9	NA	0.061	NA	Yes	NA	170	34	NA	153.7	NA	No
Chrysene	SVOC	218-01-9	5.0	1.6	2.9	125.0	No	No	NA	170	64	14761.9	560116.5	No	No
Cyclohexanediol	SVOC	556-48-9	TBD	TBD	NA	NA	NA	NA	NA	TBD	TBD	NA	NA	NA	NA
Dibenz(a,h)acridine	SVOC	226-36-8	5.0	4.8	NA	0.76	NA	Yes	NA	170	61	NA	3692.7	NA	No
Dibenzo(a,h)anthracene	SVOC	53-70-3	5.0	1.6	0.0029	0.2	Yes	Yes	NA	170	61	14.8	549.4	Yes	No
Dibenzofuran	SVOC	132-64-9	5.0	0.99	12.2	97.8	No	No	NA	170	33	145284.4	266261.4	No	No
1,2-Dichlorobenzene	SVOC	95-50-1	5.0	2.6	49.3	600.0	No	No	600.0	170	69	278923.4	388654.9	No	No
1,3-Dichlorobenzene	SVOC	541-73-1	5.0	3.1	14.5	733.3	No	No	NA	170	31	68534.2	61578.7	No	No
1,4-Dichlorobenzene	SVOC	106-46-7	5.0	2.5	0.47	75.0	Yes	No	75.0	170	39	3197.5	253030.5	No	No
3,3'-Dichlorobenzidine	SVOC	91-94-1	10	1.3	0.15	2.0	Yes	No	NA	330	81	1080.8	10440.9	No	No
2,4-Dichlorophenol	SVOC	120-83-2	5.0	1.0	109.5	73.3	No	No	NA	170	30	183309.3	194020.4	No	No
Diethylphthalate	SVOC	84-66-2	5.0	5.0	29200.0	19553.6	No	No	NA	170	39	48882477.6	1424363.1	No	No
7,12-Dimethyben(a)anthracene	SVOC	57-97-6	5.0	4.8	NA	0.0037	NA	Yes	NA	170	170	NA	16.8	NA	Yes
2,4-Dimethylphenol	SVOC	105-67-9	5.0	1.2	730.0	488.8	No	No	NA	170	54	1222061.9	879830.6	No	No
Dimethyl phthalate	SVOC	131-11-3	5.0	1.2	365000.0	19553.6	No	No	NA	170	39	100000000.0	659274.3	No	No
Di-n-butyl phthalate	SVOC	84-74-2	5.0	1.7	3650.0	2444.2	No	No	NA	170	44	6110309.7	4397430.8	No	No
4,6-Dinitro-o-cresol	SVOC	534-52-1	10	3.7	NA	48.9	NA	No	NA	330	81	NA	20500.5	NA	No
2,4-Dinitrophenol	SVOC	51-28-5	25	2.0	73.0	48.9	No	No	NA	830	46	122206.2	133130.7	No	No
2,4-Dinitrotoluene	SVOC	121-14-2	5.0	1.5	73.0	1.3	No	Yes	NA	170	49	122206.2	6909.4	No	No
2,6-Dinitrotoluene	SVOC	606-20-2	5.0	1.4	36.5	1.3	No	Yes	NA	170	46	61103.1	6909.4	No	No
Di-n-octylphthalate	SVOC	117-84-0	5.0	1.3	NA	488.8	NA	No	NA	170	60	NA	1282522.8	NA	No

Appendix F

Comparison of Quantitation Limits to EPA Region 6 Human Health MSSLs and TCEQ Tier 1 PCLs

Analyte	Data Group	CAS	AQUEOUS RL ug/L	AQUEOUS MDL ug/L	EPA Region 6 MSSL Tap Water ug/l	TCEQ PCL[3] $^{GW}GW_{ING}$ (Res) ug/l	EPA 6 Tap Water MDL>MSSL	TCEQ Groundwater PCL MDL>PCL	MCL ug/L	SOLID RL ug/kg	SOLID MDL ug/kg	EPA Region 6 MSSL Residential ug/kg	TCEQ PCL[3] Residential ug/kg	EPA 6 Res Soil MDL>MSSL	TCEQ Res Soil MDL>PCL
Fluoranthene	SVOC	206-44-0	5.0	1.2	1460.0	977.7	No	No	NA	170	38	2293610.2	2316431.5	No	No
Fluorene	SVOC	86-73-7	5.0	0.96	243.3	977.7	No	No	NA	170	37	2644485.7	2262903.9	No	No
Hexachlorobenzene	SVOC	118-74-1	5.0	3.3	0.042	1.0	Yes	Yes	1.0	170	47	304.0	1019.9	No	No
Hexachlorobutadiene	SVOC	87-68-3	5.0	4.0	0.9	4.9	Yes	No	NA	170	60	6235.7	11989.6	No	No
Hexachlorocyclopentadiene	SVOC	77-47-4	5.0	4.0	219.0	50.0	No	No	50.0	170	58	365487.5	7160.1	No	No
Hexachloroethane	SVOC	67-72-1	5.0	4.0	4.8	24.4	No	No	NA	170	48	34741.5	66565.3	No	No
Indene	SVOC	95-13-6	15	13	NA	488.8	NA	No	NA	830	830	NA	55695.7	NA	No
Indeno(1,2,3-cd)pyrene	SVOC	193-39-5	5.0	1.2	0.029	1.3	Yes	No	NA	170	66	147.6	5720.9	No	No
Isophorone	SVOC	78-59-1	5.0	0.89	70.8	960.5	No	No	NA	170	43	511979.5	1249295.3	No	No
Methyl Chrysene	SVOC	1705-85-7	5.0	4.8	NA	12.5	NA	No	NA	170	170	NA	56938.2	NA	No
1-Methylnaphthlene	SVOC	90-12-0	5.0	1.5	NA	1710.9	NA	No	NA	170	36	NA	4411764.7	NA	No
2-Methylnaphthalene	SVOC	91-57-6	5.0	2.6	NA f	97.8	NA	No	NA	170	37	NA f	252100.8	NA	No
2-Methylphenol	SVOC	95-48-7	5.0	1.1	1825.0	1222.1	No	No	NA	170	75	3055154.9	1012583.1	No	No
3-Methylphenol	SVOC	108-39-4	5.0	2.0	1825.0	1222.1	No	No	NA	170	38	3055154.9	1050593.6	No	No
4-Methylphenol	SVOC	106-44-5	5.0	2.0	182.5	122.2	No	No	NA	170	38	305515.5	271029.5	No	No
Naphthalene	SVOC	91-20-3	5.0	1.5	6.2	488.8	No	No	NA	170	28	124797.8	124097.0	No	No
N-Diphenylamine	SVOC	122-39-4	5.0	1.4	912.5	611.0	No	No	NA	170	70	1527577.4	899065.1	No	No
2-Nitroaniline	SVOC	88-74-4	5.0	1.4	109.5	7.3	No	No	NA	170	70	182745.2	10999.4	No	No
3-Nitroaniline	SVOC	99-09-2	5.0	1.6	NA h	7.3	NA	No	NA	170	43	NA h	19139.5	NA	No
4-Nitroaniline	SVOC	100-01-6	5.0	1.7	NA h	24.0	NA	No	NA	170	170	NA h	121473.9	NA	No
Nitrobenzene	SVOC	98-95-3	5.0	0.86	3.4	12.2	No	No	NA	170	50	19661.7	29851.0	No	No
4-Nitrophenol	SVOC	100-02-7	25	1.3	292.0	48.9	No	No	NA	170	120	488824.8	51175.6	No	No
N-Nitroso-di-n-propylamine	SVOC	621-64-7	5.0	1.1	0.0096	0.13	Yes	Yes	NA	170	76	69.5	399.8	Yes	No
N-Nitrosodiphenylamine	SVOC	86-30-6	5.0	1.4	13.7	186.2	No	No	NA	170	69	99261.3	571115.7	No	No
Pentachlorophenol	SVOC	87-86-5	25	1.6	0.56	1.0	Yes	Yes	1.0	830	89	2979.0	2417.2	No	No
Phenanthrene	SVOC	85-01-8	5.0	2.0	NA i	733.3	NA	No	NA	170	36	NA i	1705202.8	No	No
Phenol	SVOC	108-95-2	5.0	0.51	10950.0	7332.6	No	No	NA	170	53	18331473.2	1586133.6	No	No
1-Phenylethanol	SVOC	98-85-1	TBD	TBD	NA	NA	NA	NA	NA	TBD	TBD	NA	NA	NA	NA
Pyrene	SVOC	129-00-0	5.0	1.3	182.5	733.3	No	No	NA	170	73	2308755.7	1697614.5	No	No
1,2,4-Trichlorobenzene	SVOC	120-82-1	5.0	2.9	8.2	70.0	No	No	70.0	170	40	142520.2	613085.2	No	No
2,4,5-Trichlorophenol	SVOC	95-95-4	5.0	1.8	3650.0	2444.2	No	No	NA	170	67	6110309.7	4137518.0	No	No
2,4,6-Trichlorophenol	SVOC	88-06-2	5.0	1.2	6.1	83.0	No	No	NA	170	46	44216.4	300264.4	No	No
Quinoline	SVOC	91-22-5	5.0	5.0	0.022	0.3	Yes	Yes	NA	170	170	162.1	1566.1	Yes	No
Aldrin	Pest	309-00-2	0.050	0.014	0.004	0.054	Yes	No	NA	1.7	0.40	28.6	49.7	No	No
alpha-Chlordane	Pest	5103-71-9	5.0	0.8	NA n	2.6	NA	No	NA	170	27	NA n	12767.3	NA	No
alpha-BHC	Pest	319-84-6	0.050	0.012	0.011	0.14	Yes	No	NA	1.7	0.36	90.2	251.2	No	No
beta-BHC	Pest	319-85-7	0.050	0.0080	0.037	0.51	No	No	NA	1.7	0.53	315.8	917.2	No	No
Chlordane (technical)	Pest	12789-03-6	0.50	0.19	NA	2.0	NA	No	NA	17	2.3	NA	5928.5	NA	No
4,4'-DDD	Pest	72-54-8	0.10	0.015	0.28	3.8	No	No	NA	3.3	0.96	2436.6	14215.6	No	No
4,4'-DDE	Pest	72-55-9	0.10	0.017	0.2	2.7	No	No	NA	3.3	1.3	1720.0	10177.5	No	No
4,4'-DDT	Pest	50-29-3	0.10	0.013	0.2	2.7	No	No	NA	3.3	1.5	1720.0	5394.0	No	No
delta-BHC	Pest	319-86-8	0.050	0.015	NA k	0.51	NA	No	NA	1.7	0.53	NA k	2854.8	NA	No
Dieldrin	Pest	60-57-1	0.10	0.013	4.2	0.057	No	No	NA	3.3	0.89	30.4	145.3	No	No
Endosulfan I	Pest	959-98-8	0.10	0.0080	NA l	48.9	NA	No	NA	3.3	0.46	NA l	46510.6	NA	No
Endosulfan II	Pest	33213-65-9	0.10	0.013	NA l	146.7	NA	No	NA	3.3	0.83	NA l	272438.6	NA	No
Endosulfan sulfate	Pest	1031-07-8	0.10	0.014	NA l	146.7	NA	No	NA	3.3	0.96	NA l	384519.5	NA	No
Endrin	Pest	72-20-8	0.10	0.019	11.0	2.0	No	No	2.0	3.3	1.1	18330.9	8686.4	No	No
Endrin aldehyde	Pest	7421-93-4	0.10	0.017	NA m	7.3	NA	No	NA	3.3	1.4	NA m	19373.1	NA	No
gamma-BHC (Lindane)	Pest	58-89-9	0.050	0.0070	0.052	0.2	No	No	0.2	1.7	0.73	437.2	1105.4	No	No
gamma-Chlordane	Pest	5103-74-2	5.0	0.8	NA n	NA n	NA	NA	NA	170	27	NA n	NA n	NA	NA
Heptachlor	Pest	76-44-8	0.050	0.010	0.015	0.4	No	No	0.1	1.7	0.46	108.1	127.0	No	No
Heptachlor epoxide	Pest	1024-57-3	0.050	0.0060	0.0074	0.2	No	No	0.2	1.7	0.33	53.4	236.9	No	No
Methoxychlor	Pest	72-43-5	0.50	0.078	182.5	40.0	No	No	40.0	17	7.2	305515.5	269155.7	No	No
Toxaphene	Pest	8001-35-2	0.50	0.20	0.061	3.0	Yes	No	3.0	17	12	442.2	1240.0	No	No
Aroclor-1016	PCB	12674-11-2	0.50	0.50	0.96	NA u	No	NA	0.5	17	11	3933.1	NA u	No	NA
Aroclor-1221	PCB	11104-28-2	0.50	0.50	0.034	NA u	Yes	NA	0.5	17	17	221.9	NA u	No	NA
Aroclor-1232	PCB	11141-16-5	0.50	0.34	0.034	NA u	Yes	NA	0.5	17	9.6	221.9	NA u	No	NA
Aroclor-1242	PCB	53469-21-9	0.50	0.16	0.034	NA u	Yes	NA	0.5	17	14	221.9	NA u	No	NA
Aroclor-1248	PCB	12672-29-6	0.50	0.37	0.034	NA u	Yes	NA	0.5	17	13	221.9	NA u	No	NA
Aroclor-1254	PCB	11097-69-1	0.50	0.17	0.034	NA u	Yes	NA	0.5	17	14	221.9	NA u	No	NA

Appendix F

Comparison of Quantitation Limits to EPA Region 6 Human Health MSSLs and TCEQ Tier 1 PCLs

Analyte	Data Group	CAS	AQUEOUS RL ug/L	AQUEOUS MDL ug/L	EPA Region 6 MSSL Tap Water ug/l	TCEQ PCL[3] $^{GW}GW_{ING}$ (Res) ug/l	EPA 6 Tap Water MDL>MSSL	TCEQ Groundwater PCL MDL>PCL	MCL ug/L	SOLID RL ug/kg	SOLID MDL ug/kg	EPA Region 6 MSSL Residential ug/kg	TCEQ PCL[3] Residential ug/kg	EPA 6 Res Soil MDL>MSSL	TCEQ Res Soil MDL>PCL
Aroclor-1260	PCB	11096-82-5	0.50	0.23	0.034	NA u	Yes	NA	0.5	17	6.9	221.9	NA u	No	NA
2,4-D	Herb	94-75-7	1.5	0.80	365.0	70.0	No	No	70.0	33	13	686067.4	368695.6	No	No
2,4-DB	Herb	94-82-6	2.0	1.9	292.0	195.5	No	No	NA	66	54	488824.8	532522.8	No	No
Dalapon	Herb	75-99-0	1.0	1.0	1095.0	200.0	No	No	200.0	33	23	1833092.9	1996960.5	No	No
Dicamba	Herb	1918-00-9	0.20	0.080	1095.0	733.3	No	No	NA	6.6	5.0	1833092.9	626188.4	No	No
Dichloroprop	Herb	120-36-5	1.0	0.51	NA	244.4	NA	No	NA	33	8.9	NA	665653.5	NA	No
Dinoseb	Herb	88-85-7	0.20	0.090	36.5	7.0	No	No	7.0	6.6	4.3	61103.1	66565.3	No	No
MCPA	Herb	94-74-6	50	NA	18.3	12.2	NA	NA	NA	170	NA	30551.5	33282.7	NA	NA
MCPP	Herb	93-65-2	50	NA	36.5	24.4	NA	NA	NA	170	NA	61103.1	66565.3	NA	NA
Pentachlorophenol	Herb	87-86-5	0.050	0.040	0.56	1.0	No	No	1.0	1.7	0.99	2979.0	2417.2	No	No
2,4,5-T	Herb	93-76-5	0.20	0.12	365.0	244.4	No	No	NA	6.6	3.3	611031.0	484786.7	No	No
2,4,5-TP (Silvex)	Herb	93-72-1	0.20	0.15	292.0	50.0	No	No	NA	13	12	488824.8	511998.2	No	No
Aluminum	Metals	7429-90-5	200	55.3	36500.0	2444.2	No	No	NA	200	25.6	76187910.2	6521159.1	No	No
Antimony	Metals	7440-36-0	5.0	1.8	14.6	6.0	No	No	6.0	10	5.1	31285.7	14956.4	No	No
Arsenic	Metals	7440-38-2	5.0	2.7	0.045 p	10.0	Yes	No	10.0	10	1.7	389.6 p	24167.6	No	No
Barium	Metals	7440-39-3	200	3.0	7300.0	2000.0	No	No	2000.0	200	2.6	15642262.8	7840506.7	No	No
Beryllium	Metals	7440-41-7	5.0	0.06	73.0	4.0	No	No	4.0	5	0.2	154374.2	37564.5	No	No
Cadmium	Metals	7440-43-9	4.0	0.24	18.3	5.0	No	No	5.0	5	0.3	38985.0	52421.1	No	No
Calcium	Metals	7440-70-2	5000	134.89	NA	NA	NA	NA	NA	5000	73.3	NA	NA	NA	NA
Chromium	Metals	7440-47-3	10	1.82	109.5 q	100.0	No	No	100.0	10	0.9	210675.4	23053938.4	No	No
Cobalt	Metals	7440-48-4	50	0.99	730.0	1466.5	No	No	NA	50	0.8	902894.7	3826931.3	No	No
Copper	Metals	7440-50-8	25	1.42	1355.7	1300.0	No	No	Action level=1300[v]	25	5.4	2905102.0	547595.9	No	No
Iron	Metals	7439-89-6	100	18.97	25550.0	NA	No	NA	NA	100	40.5	54750000.0	NA	No	NA
Lead	Metals	7439-92-1	3	0.7	15.0	15.0	No	No	Action level=15[v]	10	1.2	400000.0	500000.0	No	No
Magnesium	Metals	7439-95-4	5000	16.8	NA	NA	NA	NA	NA	5000	61.5	NA	NA	NA	NA
Manganese	Metals	7439-96-5	15	7.68	1703.1	1148.8	No	No	NA	15	9.6	3239292.4	3409514.7	No	No
Mercury	Metals	7439-97-6	NA	NA	0.63	2.0	NA	NA	2.0	NA	NA	NA	2087.2	NA	NA
Nickel	Metals	7440-02-0	40	1.0	730.0	488.8	No	No	NA	40	1.4	1564285.7	832104.3	No	No
Potassium	Metals	7440-09-7	5000	125.2	NA	NA	NA	NA	NA	5000	169.5	NA	NA	NA	NA
Selenium	Metals	7782-49-2	5	3.2	182.5	50.0	No	No	50.0	10	2.7	391071.4	307705.4	No	No
Silver	Metals	7440-22-4	10	0.5	182.5	122.2	No	No	NA	10	1.0	391071.4	94838.3	No	No
Sodium	Metals	7440-23-5	5000	292	NA	NA	NA	NA	NA	5000	51.8	NA	NA	NA	NA
Thallium	Metals	7440-28-0	10	1.5	2.9 r	2.0 r	No	No	2.0	20	5.3	6257.1 r	6313.2 r	No	No
Vanadium	Metals	7440-62-2	50	0.4	182.5	171.1	No	No	NA	50	1.1	391071.4	291014.3	No	No
Zinc	Metals	7440-66-6	20	7.5	10950.0	7332.6	No	No	NA	20	6.2	23464285.7	9921473.9	No	No
Hex Chrom	Wet Chem	18540-29-9	10	4	109.5	100.0	No	No	100	2	2	30096.5	121916.8667	No	No

[1] Organics waters analyzed using EPA SW-846 methods; Inorganics based on ICP-AES using EPA SW-846 methods.

[2] Organics Soils analyzed EPA SW-846 methods; Inorganics based on ICP-AES using EPA SW-846 methods.

[3] Residential groundwater and soil (30 acre source) TCEQ Tier 1 PCLs were obtained from TRRP PCL tables dated May 24, 2007.

a. Used 1,3-dichloropropene as a surrogate chemical.
b. Used xylenes as a surrogate chemical.
c. Used 1,2,4-trichlorobenzene as a surrogate chemical.
d. Used 2-chloropropane as a surrogate chemical.
e. Used 4-nitrophenol as a surrogate chemical.
f. Used naphthalene as a surrogate chemical.
g. Used acenaphthene as a surrogate chemical.
h. Used 2-nitroaniline as a surrogate chemical.
i. Used anthracene as a surrogate chemical.
j. Used pyrene as a surrogate chemical.
k. Used alpha-hexachlorocyclohexane (alpha-HCH) as a surrogate chemical.
l. Used endosulfan as a surrogate chemical.
m. Used endrin as a surrogate chemical.
n. Used chlordane as a surrogate chemical.
o. Used Aroclor 1254 as a surrogate chemical.
p. Based on arsenic cancer endpoint.
q. Based on chromium VI. A tap water value for total chromium was not available.
r. Used thallium chloride as a surrogate chemical.
s. Used xylenes total as a surrogate chemical.
t. Used gamma-chlordane as a surrogate chemical.
u. Used Total PCBs as a surrogate chemical.
v. Regulated by a Treatment Technique that requires systems to control the corrosiveness of their water. If more than 10% of tap water samples exceed the action level, water systems must take additional steps.

EPA SW-846 = EPA Solid waste methods SW-846
MDL = Method Detection Limit
RL = Reporting Limit.
MSSL = EPA Region 6 Media-Specific Screening Concentrations. Revised 05/04/07.
PCL = Protective Concentration Level
Res = Residential
TBD = To Be Determined
TCEQ = Texas Commission on Environmental Quality
MCL=Maximum Contaminant Level