Appendix J: Summary Tables Supporting the Screening of Target Analytes

This page intentionally left blank.

Table J-1a Shallow (0 to 4.6 m [0 to 15 ft]) Soil Summary Statistics

Analyte	CAS ID	Concentration Units	N	Num Detect	Min ND	Max ND	Min Detect	Median	Mean	Max Detect	Standard Deviation
1,1,1,2-Tetrachloroethane	630-20-6	µg/kg	13	0	4	4	NA	2	2	NA	0
1,1,1-Trichloroethane	71-55-6	µg/kg	13	0	4	4	NA	2	2	NA	0
1,1,2,2-Tetrachloroethane	79-34-5	µg/kg	13	0	4	4	NA	2	2	NA	0
1,1,2-Trichloroethane	79-00-5	µg/kg	13	0	4	4	NA	2	2	NA	0
1,1-Biphenyl	92-52-4	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
1,1-Dichloroethane	75-34-3	µg/kg	13	0	4	4	NA	2	2	NA	0
1,1-Dichloroethene	75-35-4	µg/kg	13	0	4	4	NA	2	2	NA	0
1,1-dichloropropene	563-58-6	µg/kg	13	0	4	4	NA	2	2	NA	0
1,2,3-Trichlorobenzene	87-61-6	µg/kg	13	0	4	4	NA	2	2	NA	0
1,2,3-Trichloropropane	96-18-4	µg/kg	13	0	4	4	NA	2	2	NA	0
1,2,4-Trichlorobenzene	120-82-1	µg/kg	13	0	4	4	NA	2	2	NA	0
1,2,4-Trimethylbenzene	95-63-6	µg/kg	13	0	4	4	NA	2	2	NA	0
1,2-Dibromo-3-chloropropane	96-12-8	µg/kg	13	0	8	9	NA	4	4.192	NA	0.2532
1,2-Dibromoethane	106-93-4	µg/kg	13	0	4	4	NA	2	2	NA	0
1,2-Dichlorobenzene	95-50-1	µg/kg	13	0	4	4	NA	2	2	NA	0
1,2-Dichloroethane	107-06-2	µg/kg	13	0	4	4	NA	2	2	NA	0
1,2-Dichloroethene (total)	540-59-0	µg/kg	13	0	4	4	NA	2	2	NA	0
1,2-Dichloropropane	78-87-5	µg/kg	13	0	4	4	NA	2	2	NA	0
1,2-Diphenylhydrazine	122-66-7	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
1,3,5-Trimethylbenzene	108-67-8	µg/kg	13	0	4	4	NA	2	2	NA	0
1,3-Dichlorobenzene	541-73-1	µg/kg	13	0	4	4	NA	2	2	NA	0
1,3-Dichloropropane	142-28-9	µg/kg	13	0	4	4	NA	2	2	NA	0
1,4-Dichlorobenzene	106-46-7	µg/kg	13	0	4	4	NA	2	2	NA	0
1-Methylnaphthalene	90-12-0	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
2,2-Dichloropropane	594-20-7	µg/kg	13	0	4	4	NA	2	2	NA	0
2,2'-oxybis(1-Chloropropane)	108-60-1	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
2,4,5-Trichlorophenol	95-95-4	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
2,4,6-Trichlorophenol	88-06-2	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532

Table J-1a Shallow (0 to 4.6 m [0 to 15 ft]) Soil Summary Statistics

Analyte	CAS ID	Concentration Units	N	Num Detect	Min ND	Max ND	Min Detect	Median	Mean	Max Detect	Standard Deviation
2,4-Dichlorophenol	120-83-2	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
2,4-Dimethylphenol	105-67-9	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
2,4-Dinitrophenol	51-28-5	µg/kg	13	0	1700	1800	NA	900	892.3	NA	18.78
2,4-Dinitrotoluene	121-14-2	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
2,6-Dinitrotoluene	606-20-2	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
2-Butanone	78-93-3	µg/kg	13	0	8	9	NA	4	4.192	NA	0.2532
2-Chloronaphthalene	91-58-7	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
2-Chlorophenol	95-57-8	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
2-Chlorotoluene	95-49-8	µg/kg	13	0	4	4	NA	2	2	NA	0
2-hexanone	591-78-6	µg/kg	13	0	8	9	NA	4	4.192	NA	0.2532
2-Methylnaphthalene	91-57-6	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
2-Methylphenol	95-48-7	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
2-Nitroaniline	88-74-4	µg/kg	13	0	1700	1800	NA	900	892.3	NA	18.78
2-Nitrophenol	88-75-5	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
2-Nitropropane	79-46-9	µg/kg	13	0	16	18	NA	8.5	8.423	NA	0.2774
3,3-Dichlorobenzidine	91-94-1	µg/kg	13	0	700	720	NA	355	355	NA	3.536
3-and/or 4-Methylphenol	1319-77-3	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
3-Chloropropene	107-05-1	µg/kg	13	0	8	9	NA	4	4.192	NA	0.2532
3-Nitroaniline	99-09-2	µg/kg	13	0	1700	1800	NA	900	892.3	NA	18.78
4,6-Dinitro-2-methylphenol	534-52-1	µg/kg	13	0	1700	1800	NA	900	892.3	NA	18.78
4-Bromophenyl-phenylether	101-55-3	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
4-Chloro-3-methylphenol	59-50-7	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
4-Chloroaniline	106-47-8	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
4-Chlorophenyl-phenylether	7005-72-3	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
4-Chlorotoluene	106-43-4	µg/kg	13	0	4	4	NA	2	2	NA	0
4-Isopropyltoluene	99-87-6	µg/kg	13	0	4	4	NA	2	2	NA	0
4-Methyl-2-pentanone	108-10-1	µg/kg	13	0	8	9	NA	4	4.192	NA	0.2532
4-Nitroaniline	100-01-6	µg/kg	13	0	1700	1800	NA	900	892.3	NA	18.78

Table J-1a Shallow (0 to 4.6 m [0 to 15 ft]) Soil Summary Statistics

Analyte	CAS ID	Concentration Units	N	Num Detect	Min ND	Max ND	Min Detect	Median	Mean	Max Detect	Standard Deviation
4-Nitrophenol	100-02-7	µg/kg	13	0	1700	1800	NA	900	892.3	NA	18.78
Acenaphthene	83-32-9	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
Acenaphthylene	208-96-8	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
Acetone	67-64-1	µg/kg	13	9	20	20	10	13	14.77	28	5.48
Acrylonitrile	107-13-1	µg/kg	13	0	8	9	NA	4	4.192	NA	0.2532
Aluminum, Total	7429-90-5	mg/kg	13	13	NA	NA	6090	6480	6538	7750	490.2
Aniline	62-53-3	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
Anthracene	120-12-7	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
Antimony, Total	7440-36-0	mg/kg	13	5	0.23	0.28	0.27	0.14	0.2054	0.39	0.09854
Aroclor-1016	12674-11-2	µg/kg	13	0	14	14	NA	7	7	NA	0
Aroclor-1221	11104-28-2	µg/kg	13	0	14	14	NA	7	7	NA	0
Aroclor-1232	11141-16-5	µg/kg	13	0	14	14	NA	7	7	NA	0
Aroclor-1242	53469-21-9	µg/kg	13	0	14	14	NA	7	7	NA	0
Aroclor-1248	12672-29-6	µg/kg	13	0	14	14	NA	7	7	NA	0
Aroclor-1254	11097-69-1	µg/kg	13	0	14	14	NA	7	7	NA	0
Aroclor-1260	11096-82-5	µg/kg	13	0	14	14	NA	7	7	NA	0
Arsenic, Total	7440-38-2	mg/kg	13	13	NA	NA	2.3	4.1	3.931	5.5	1.043
Barium, Total	7440-39-3	mg/kg	13	13	NA	NA	83	88.9	91.32	106	6.733
Benzene	71-43-2	µg/kg	13	0	4	4	NA	2	2	NA	0
Benzidine	92-87-5	µg/kg	13	0	1700	1800	NA	900	892.3	NA	18.78
Benzo(a)anthracene	56-55-3	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
Benzo(a)pyrene	50-32-8	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
Benzo(b)fluoranthene	205-99-2	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
Benzo(g,h,i)perylene	191-24-2	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
Benzo(k)fluoranthene	207-08-9	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
Benzoic Acid	65-85-0	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
Benzyl alcohol	100-51-6	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
Beryllium, Total	7440-41-7	mg/kg	13	13	NA	NA	0.51	0.54	0.5554	0.68	0.04701

Table J-1a Shallow (0 to 4.6 m [0 to 15 ft]) Soil Summary Statistics

Analyte	CAS ID	Concentration Units	N	Num Detect	Min ND	Max ND	Min Detect	Median	Mean	Max Detect	Standard Deviation
bis(2-Chloroethoxy)methane	111-91-1	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
bis(2-Chloroethyl)ether	111-44-4	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
bis(2-Ethylhexyl)phthalate	117-81-7	µg/kg	13	0	200	360	NA	100	123.5	NA	36.65
Boron, Total	7440-42-8	mg/kg	13	13	NA	NA	0.65	1.1	1.044	1.4	0.2714
Bromide	24959-67-9	mg/kg	13	0	2.3	2.8	NA	1.25	1.258	NA	0.07026
Bromobenzene	108-86-1	µg/kg	13	0	4	4	NA	2	2	NA	0
Bromochloromethane	74-97-5	µg/kg	13	0	4	4	NA	2	2	NA	0
Bromodichloromethane	75-27-4	µg/kg	13	0	4	4	NA	2	2	NA	0
Bromoform	75-25-2	µg/kg	13	0	4	4	NA	2	2	NA	0
Bromomethane	74-83-9	µg/kg	13	0	8	9	NA	4	4.192	NA	0.2532
Butylbenzylphthalate	85-68-7	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
Cadmium, Total	7440-43-9	mg/kg	13	11	0.05	0.05	0.13	0.17	0.1469	0.19	0.05717
Calcium, Total	7440-70-2	mg/kg	13	13	NA	NA	3640	7250	7038	9740	2036
Carbazole	86-74-8	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
Carbon Disulfide	75-15-0	µg/kg	13	0	4	4	NA	2	2	NA	0
Carbon Tetrachloride	56-23-5	µg/kg	13	0	4	4	NA	2	2	NA	0
Chloride	16887-00-6	mg/kg	13	0	2.3	2.8	NA	1.25	1.258	NA	0.07026
Chlorobenzene	108-90-7	µg/kg	13	0	4	4	NA	2	2	NA	0
Chloroethane	75-00-3	µg/kg	13	0	8	9	NA	4	4.192	NA	0.2532
Chloroform	67-66-3	µg/kg	13	0	4	4	NA	2	2	NA	0
Chloromethane	74-87-3	µg/kg	13	0	8	9	NA	4	4.192	NA	0.2532
Chromium VI	18540-29-9	mg/kg	13	0	0.21	0.22	NA	0.105	0.1062	NA	0.002193
Chromium, Total	7440-47-3	mg/kg	13	13	NA	NA	7.8	8.7	8.915	10.2	0.7658
Chrysene	218-01-9	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
Cis-1,2-dichloroethene	156-59-2	µg/kg	13	0	4	4	NA	2	2	NA	0
cis-1,3-Dichloropropene	10061-01-5	µg/kg	13	0	4	4	NA	2	2	NA	0
Cobalt, Total	7440-48-4	mg/kg	13	13	NA	NA	8.3	8.8	8.877	9.6	0.3898
Copper, Total	7440-50-8	mg/kg	13	13	NA	NA	12	13.5	13.55	15.4	1.019

Table J-1a Shallow (0 to 4.6 m [0 to 15 ft]) Soil Summary Statistics

Analyte	CAS ID	Concentration Units	N	Num Detect	Min ND	Max ND	Min Detect	Median	Mean	Max Detect	Standard Deviation
Cyanide, Total	57-12-5	mg/kg	13	0	0.46	0.53	NA	0.255	0.2542	NA	0.01017
Dibenzo(a,h)anthracene	53-70-3	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
Dibenzofuran	132-64-9	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
Dibromochloromethane	124-48-1	µg/kg	13	0	4	4	NA	2	2	NA	0
Dibromomethane	74-95-3	µg/kg	13	0	4	4	NA	2	2	NA	0
Dichlorodifluoromethane	75-71-8	µg/kg	13	0	8	9	NA	4	4.192	NA	0.2532
Diethylether	60-29-7	µg/kg	13	0	8	9	NA	4	4.192	NA	0.2532
Diethylphthalate	84-66-2	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
Dimethylphthalate	131-11-3	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
Di-n-butylphthalate	84-74-2	µg/kg	13	1	200	360	30	175	159.6	30	44.42
Di-n-octyl phthalate	117-84-0	µg/kg	13	1	350	360	40	175	166.2	40	37.98
Ethylbenzene	100-41-4	µg/kg	13	0	4	4	NA	2	2	NA	0
Ethylmethacrylate	97-63-2	µg/kg	13	0	4	4	NA	2	2	NA	0
Fluoranthene	206-44-0	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
Fluorene	86-73-7	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
Fluoride	16984-48-8	mg/kg	13	0	2.3	2.8	NA	1.25	1.258	NA	0.07026
Freon 113	76-13-1	µg/kg	13	0	4	4	NA	2	2	NA	0
Hexachlorobenzene	118-74-1	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
Hexachlorobutadiene	87-68-3	µg/kg	13	0	4	4	NA	2	2	NA	0
Hexachlorocyclopentadiene	77-47-4	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
Hexachloroethane	67-72-1	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
Iodomethane	74-88-4	µg/kg	13	0	8	9	NA	4	4.192	NA	0.2532
Iron, Total	7439-89-6	mg/kg	13	13	NA	NA	25000	26700	26700	28400	940.7
Isophorone	78-59-1	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
Isopropylbenzene	98-82-8	µg/kg	13	0	4	4	NA	2	2	NA	0
Lead, Total	7439-92-1	mg/kg	13	13	NA	NA	4	4.4	4.508	5	0.2985
m- and p-Xylene	108-38-3 (*m*)	µg/kg	13	0	4	4	NA	2	2	NA	0

Table J-1a Shallow (0 to 4.6 m [0 to 15 ft]) Soil Summary Statistics

Analyte	CAS ID	Concentration Units	N	Num Detect	Min ND	Max ND	Min Detect	Median	Mean	Max Detect	Standard Deviation
	106-42-3 (*p*)										
Magnesium, Total	7439-95-4	mg/kg	13	13	NA	NA	4350	4750	4844	5460	402.5
Manganese, Total	7439-96-5	mg/kg	13	13	NA	NA	369	397	407.2	553	46.64
Mercury, Total	7439-97-6	mg/kg	13	2	0.008	0.01	0.01	0.005	0.006423	0.02	0.004329
Methacrylonitrile	126-98-7	µg/kg	13	0	8	9	NA	4	4.192	NA	0.2532
Methylene Chloride	75-09-2	µg/kg	13	0	20	20	NA	10	10	NA	0
Methylmethacrylate	80-62-6	µg/kg	13	0	4	4	NA	2	2	NA	0
Methyl-T-Butylether	1634-04-4	µg/kg	13	0	4	4	NA	2	2	NA	0
Molybdenum, Total	7439-98-7	mg/kg	13	13	NA	NA	0.36	0.46	0.4669	0.66	0.09647
Naphthalene	91-20-3	µg/kg	13	0	4	4	NA	2	2	NA	0
N-butylbenzene	104-51-8	µg/kg	13	0	4	4	NA	2	2	NA	0
Nickel, Total	7440-02-0	mg/kg	13	13	NA	NA	9.2	10.1	10.34	12.1	0.8675
Nitrate	14797-55-8	mg/kg	13	3	2.34	2.75	3.36	1.295	1.927	5.44	1.336
Nitrite	14797-65-0	mg/kg	13	0	2.34	2.75	NA	1.25	1.257	NA	0.06287
Nitrobenzene	98-95-3	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
N-Nitroso-di-n-propylamine	621-64-7	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
N-Nitrosodiphenylamine	86-30-6	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
N-propylbenzene	103-65-1	µg/kg	13	0	4	4	NA	2	2	NA	0
O-Xylene	95-47-6	µg/kg	13	0	4	4	NA	2	2	NA	0
Pentachloroethane	76-01-7	µg/kg	13	0	8	9	NA	4	4.192	NA	0.2532
Pentachlorophenol	87-86-5	µg/kg	13	0	1700	1800	NA	900	892.3	NA	18.78
Phenanthrene	85-01-8	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
Phenol	108-95-2	µg/kg	13	9	260	270	260	270	249.2	330	84.28
Phosphate	14265-44-2	mg/kg	13	2	2.3	2.8	2.7	1.25	1.485	2.9	0.5886
Potassium, Total	9/7/7440	mg/kg	13	13	NA	NA	1060	1140	1212	1610	178.8
Pyrene	129-00-0	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
Pyridine	110-86-1	µg/kg	13	0	350	360	NA	175	176.9	NA	2.532
Sec-butylbenzene	135-98-8	µg/kg	13	0	4	4	NA	2	2	NA	0

Table J-1a Shallow (0 to 4.6 m [0 to 15 ft]) Soil Summary Statistics

Analyte	CAS ID	Concentration Units	N	Num Detect	Min ND	Max ND	Min Detect	Median	Mean	Max Detect	Standard Deviation
Selenium, Total	7782-49-2	mg/kg	13	1	0.46	0.56	0.56	0.27	0.2885	0.56	0.08255
Silicon, Total	7440-21-3	mg/kg	11	11	NA	NA	380	440	437.6	482	33.12
Silver, Total	7440-22-4	mg/kg	13	0	0.08	0.09	NA	0.045	0.04423	NA	0.001878
Sodium, Total	7440-23-5	mg/kg	13	13	NA	NA	141	160	172.7	276	38.63
Strontium, Total	7440-24-6	mg/kg	13	13	NA	NA	19.9	24.9	26.16	34.1	4.763
Styrene	100-42-5	µg/kg	13	0	4	4	NA	2	2	NA	0
Sulfate	14808-79-8	mg/kg	13	1	2.3	2.8	6.8	1.25	1.685	6.8	1.539
Sulfide	18496-25-8	mg/kg	13	0	21.4	23.8	NA	11	11.13	NA	0.3887
Tert-butylbenzene	98-06-6	µg/kg	13	0	4	4	NA	2	2	NA	0
Tetrachloroethene	127-18-4	µg/kg	13	0	4	4	NA	2	2	NA	0
Thallium, Total	7440-28-0	mg/kg	13	0	0.46	0.56	NA	0.265	0.265	NA	0.01291
Tin, Total	7440-31-5	mg/kg	13	1	0.46	0.56	0.71	0.265	0.2985	0.71	0.1243
Titanium, Total	7440-32-6	mg/kg	13	13	NA	NA	1950	2100	2087	2190	70.16
Toluene	108-88-3	µg/kg	13	0	4	4	NA	2	2	NA	0
Trans-1,2-dichloroethene	156-60-5	µg/kg	13	0	4	4	NA	2	2	NA	0
Trans-1,3-Dichloropropene	10061-02-6	µg/kg	13	0	4	4	NA	2	2	NA	0
trans-1,4-Dichloro-2-butene	110-57-6	µg/kg	13	0	8	9	NA	4	4.192	NA	0.2532
Trichloroethene	79-01-6	µg/kg	13	0	4	4	NA	2	2	NA	0
Trichlorofluoromethane	75-69-4	µg/kg	13	0	4	4	NA	2	2	NA	0
Uranium, Total	7440-61-1	mg/kg	13	0	1.5	1.9	NA	0.9	0.8846	NA	0.04737
Vanadium, Total	7440-62-2	mg/kg	13	13	NA	NA	64.5	67.7	68.01	71.1	1.842
Vinyl Chloride	75-01-4	µg/kg	13	0	8	9	NA	4	4.192	NA	0.2532
Xylene (total)	1330-20-7	µg/kg	13	0	4	4	NA	2	2	NA	0
Zinc, Total	7440-66-6	mg/kg	13	13	NA	NA	44.3	46.5	47.24	53.8	2.356

Table J-1b Deep (greater than 4.6 m [15 ft]) Soil Summary Statistics

Analyte	CAS ID	Concentration Units	N	Num Detect	Min ND	Max ND	Min Detect	Median	Mean	Max Detect	Standard Deviation
1,1,1,2-Tetrachloroethane	630-20-6	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
1,1,1-Trichloroethane	71-55-6	µg/kg	127	18	4	260	0.5	2	10.54	5	30.44
1,1,2,2-Tetrachloroethane	79-34-5	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
1,1,2-Trichloroethane	79-00-5	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
1,1-Biphenyl	92-52-4	µg/kg	126	0	330	1400	NA	175	177.9	NA	47.14
1,1-Dichloroethane	75-34-3	µg/kg	127	27	4	260	1	2	10.72	9	30.4
1,1-Dichloroethene	75-35-4	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
1,1-dichloropropene	563-58-6	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
1,2,3-Trichlorobenzene	87-61-6	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
1,2,3-Trichloropropane	96-18-4	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
1,2,4-Trichlorobenzene	120-82-1	µg/kg	127	3	4	260	130	2.5	10.86	130	30.99
1,2,4-Trimethylbenzene	95-63-6	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
1,2-Dibromo-3-chloropropane	96-12-8	µg/kg	127	0	7	520	NA	4.5	21.36	NA	60.95
1,2-Dibromoethane	106-93-4	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
1,2-Dichlorobenzene	95-50-1	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
1,2-Dichloroethane	107-06-2	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
1,2-Dichloroethene (total)	540-59-0	µg/kg	127	11	4	260	4	2.5	12.41	78	31.39
1,2-Dichloropropane	78-87-5	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
1,2-Diphenylhydrazine	122-66-7	µg/kg	127	0	330	1400	NA	175	177.8	NA	46.95
1,3,5-Trimethylbenzene	108-67-8	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
1,3-Dichlorobenzene	541-73-1	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
1,3-Dichloropropane	142-28-9	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
1,4-Dichlorobenzene	106-46-7	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
1-Methylnaphthalene	90-12-0	µg/kg	126	0	330	1400	NA	175	177.9	NA	47.14
2,2-Dichloropropane	594-20-7	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
2,2'-oxybis(1-Chloropropane)	108-60-1	µg/kg	125	0	330	1400	NA	175	177.9	NA	47.32

Table J-1b Deep (greater than 4.6 m [15 ft]) Soil Summary Statistics

Analyte	CAS ID	Concentration Units	N	Num Detect	Min ND	Max ND	Min Detect	Median	Mean	Max Detect	Standard Deviation
2,4,5-Trichlorophenol	95-95-4	µg/kg	125	0	330	1400	NA	175	177.9	NA	47.32
2,4,6-Trichlorophenol	88-06-2	µg/kg	125	0	330	1400	NA	175	177.9	NA	47.32
2,4-Dichlorophenol	120-83-2	µg/kg	125	0	330	1400	NA	175	177.9	NA	47.32
2,4-Dimethylphenol	105-67-9	µg/kg	127	0	330	1400	NA	175	177.8	NA	46.95
2,4-Dinitrophenol	51-28-5	µg/kg	127	0	1700	6900	NA	850	886.2	NA	231
2,4-Dinitrotoluene	121-14-2	µg/kg	127	0	330	1400	NA	175	177.8	NA	46.95
2,6-Dinitrotoluene	606-20-2	µg/kg	127	0	330	1400	NA	175	177.8	NA	46.95
2-Butanone	78-93-3	µg/kg	127	4	7	520	7	4.5	23.49	12	64.31
2-Chloronaphthalene	91-58-7	µg/kg	126	0	330	1400	NA	175	177.9	NA	47.14
2-Chlorophenol	95-57-8	µg/kg	127	0	330	1400	NA	175	177.8	NA	46.95
2-Chlorotoluene	95-49-8	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
2-hexanone	591-78-6	µg/kg	127	0	4	520	NA	4.5	21.34	NA	60.95
2-Methylnaphthalene	91-57-6	µg/kg	126	0	330	1400	NA	175	177.9	NA	47.14
2-Methylphenol	95-48-7	µg/kg	127	0	330	1400	NA	175	177.8	NA	46.95
2-Nitroaniline	88-74-4	µg/kg	127	0	1700	6900	NA	850	886.2	NA	231
2-Nitrophenol	88-75-5	µg/kg	127	0	330	1400	NA	175	177.8	NA	46.95
2-Nitropropane	79-46-9	µg/kg	127	0	14	1000	NA	9	42.26	NA	120.2
3,3-Dichlorobenzidine	91-94-1	µg/kg	127	0	670	2700	NA	345	356.1	NA	89.31
3-and/or 4-Methylphenol	1319-77-3	µg/kg	124	0	330	1400	NA	175	177.9	NA	47.52
3-Chloropropene	107-05-1	µg/kg	127	0	7	520	NA	4.5	21.36	NA	60.95
3-Nitroaniline	99-09-2	µg/kg	127	0	1700	6900	NA	850	886.2	NA	231
4,6-Dinitro-2-methylphenol	534-52-1	µg/kg	127	0	1700	6900	NA	850	886.2	NA	231
4-Bromophenyl-phenylether	101-55-3	µg/kg	125	0	330	1400	NA	175	177.9	NA	47.32
4-Chloro-3-methylphenol	59-50-7	µg/kg	127	0	330	1400	NA	175	177.8	NA	46.95
4-Chloroaniline	106-47-8	µg/kg	127	0	330	1400	NA	175	177.8	NA	46.95
4-Chlorophenyl-phenylether	7005-72-3	µg/kg	125	0	330	1400	NA	175	177.9	NA	47.32

Table J-1b Deep (greater than 4.6 m [15 ft]) Soil Summary Statistics

Analyte	CAS ID	Concentration Units	N	Num Detect	Min ND	Max ND	Min Detect	Median	Mean	Max Detect	Standard Deviation
4-Chlorotoluene	106-43-4	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
4-Isopropyltoluene	99-87-6	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
4-Methyl-2-pentanone	108-10-1	µg/kg	127	0	7	520	NA	4.5	21.36	NA	60.95
4-Methylphenol	106-44-5	µg/kg	3	0	340	360	NA	175	175	NA	5
4-Nitroaniline	100-01-6	µg/kg	127	0	1700	6900	NA	850	886.2	NA	231
4-Nitrophenol	100-02-7	µg/kg	127	0	1700	6900	NA	850	886.2	NA	231
Acenaphthene	83-32-9	µg/kg	126	0	330	1400	NA	175	177.9	NA	47.14
Acenaphthylene	208-96-8	µg/kg	126	0	330	1400	NA	175	177.9	NA	47.14
Acetone	67-64-1	µg/kg	127	65	7	520	5	9	31.87	330	66.75
Acrylonitrile	107-13-1	µg/kg	127	0	7	520	NA	4.5	21.36	NA	60.95
Aluminum, Total	7429-90-5	mg/kg	127	127	NA	NA	4410	6180	6253	11200	784.5
Aniline	62-53-3	µg/kg	127	0	330	1400	NA	175	177.8	NA	46.95
Anthracene	120-12-7	µg/kg	126	0	330	1400	NA	175	177.9	NA	47.14
Antimony, Total	7440-36-0	mg/kg	127	31	0.2	0.32	0.28	0.14	0.1927	0.56	0.1101
Aroclor-1016	12674-11-2	µg/kg	127	0	13	16	NA	7	7.024	NA	0.1525
Aroclor-1221	11104-28-2	µg/kg	127	0	13	16	NA	7	7.024	NA	0.1525
Aroclor-1232	11141-16-5	µg/kg	127	0	13	16	NA	7	7.024	NA	0.1525
Aroclor-1242	53469-21-9	µg/kg	127	0	13	16	NA	7	7.024	NA	0.1525
Aroclor-1248	12672-29-6	µg/kg	127	0	13	16	NA	7	7.024	NA	0.1525
Aroclor-1254	11097-69-1	µg/kg	127	0	13	16	NA	7	7.024	NA	0.1525
Aroclor-1260	11096-82-5	µg/kg	127	0	13	16	NA	7	7.024	NA	0.1525
Arsenic, Total	7440-38-2	mg/kg	127	127	NA	NA	1.9	3.9	3.991	9.1	1.009
Barium, Total	7440-39-3	mg/kg	127	127	NA	NA	49	64.5	67.66	125	13.15
Benzene	71-43-2	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
Benzidine	92-87-5	µg/kg	127	0	1700	6900	NA	850	886.2	NA	231
Benzo(a)anthracene	56-55-3	µg/kg	126	0	330	1400	NA	175	177.9	NA	47.14

Table J-1b Deep (greater than 4.6 m [15 ft]) Soil Summary Statistics

Analyte	CAS ID	Concentration Units	N	Num Detect	Min ND	Max ND	Min Detect	Median	Mean	Max Detect	Standard Deviation
Benzo(a)pyrene	50-32-8	µg/kg	126	0	330	1400	NA	175	177.9	NA	47.14
Benzo(b)fluoranthene	205-99-2	µg/kg	126	0	330	1400	NA	175	177.9	NA	47.14
Benzo(g,h,i)perylene	191-24-2	µg/kg	126	0	330	1400	NA	175	177.9	NA	47.14
Benzo(k)fluoranthene	207-08-9	µg/kg	126	0	330	1400	NA	175	177.9	NA	47.14
Benzoic Acid	65-85-0	µg/kg	127	0	330	1400	NA	175	177.8	NA	46.95
Benzyl alcohol	100-51-6	µg/kg	127	0	330	1400	NA	175	177.8	NA	46.95
Beryllium, Total	7440-41-7	mg/kg	127	123	0.04	0.05	0.04	0.27	0.2874	0.75	0.15
bis(2-Chloroethoxy)methane	111-91-1	µg/kg	125	0	330	1400	NA	175	177.9	NA	47.32
bis(2-Chloroethyl)ether	111-44-4	µg/kg	125	0	330	1400	NA	175	177.9	NA	47.32
bis(2-Ethylhexyl)phthalate	117-81-7	µg/kg	127	25	27	600	17	100	114.6	130	57.58
Boron, Total	7440-42-8	mg/kg	127	125	0.45	0.51	0.53	0.97	1.046	3.5	0.4143
Bromide	24959-67-9	mg/kg	127	0	2.2	3	NA	1.25	1.239	NA	0.06976
Bromobenzene	108-86-1	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
Bromochloromethane	74-97-5	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
Bromodichloromethane	75-27-4	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
Bromoform	75-25-2	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
Bromomethane	74-83-9	µg/kg	127	0	7	520	NA	4.5	21.36	NA	60.95
Butylbenzylphthalate	85-68-7	µg/kg	127	1	330	1400	130	175	177.4	130	47.14
Cadmium, Total	7440-43-9	mg/kg	127	73	0.03	0.05	0.04	0.06	0.05902	0.19	0.03917
Calcium, Total	7440-70-2	mg/kg	127	127	NA	NA	5790	8540	8541	11600	1099
Carbazole	86-74-8	µg/kg	126	0	330	1400	NA	175	177.9	NA	47.14
Carbon Disulfide	75-15-0	µg/kg	127	1	4	260	6	2.5	10.68	6	30.4
Carbon Tetrachloride	56-23-5	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
Chloride	16887-00-6	mg/kg	127	97	2.2	3	2.7	6.1	11.71	111	15.6
Chlorobenzene	108-90-7	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
Chloroethane	75-00-3	µg/kg	127	0	7	520	NA	4.5	21.36	NA	60.95

Table J-1b Deep (greater than 4.6 m [15 ft]) Soil Summary Statistics

Analyte	CAS ID	Concentration Units	N	Num Detect	Min ND	Max ND	Min Detect	Median	Mean	Max Detect	Standard Deviation
Chloroform	67-66-3	µg/kg	127	74	4	260	1	3	13.02	31	30.17
Chloromethane	74-87-3	µg/kg	127	0	7	520	NA	4.5	21.36	NA	60.95
Chromium VI	18540-29-9	mg/kg	127	46	0.2	0.22	0.21	0.105	0.3151	3.6	0.4846
Chromium, Total	7440-47-3	mg/kg	127	127	NA	NA	8	25.3	25.09	51.9	7.987
Chrysene	218-01-9	µg/kg	126	0	330	1400	NA	175	177.9	NA	47.14
cis-1,2-dichloroethene	156-59-2	µg/kg	127	11	4	260	4	2.5	12.41	78	31.39
cis-1,3-Dichloropropene	10061-01-5	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
Cobalt, Total	7440-48-4	mg/kg	127	127	NA	NA	3.7	5.4	5.718	10.1	1.389
Copper, Total	7440-50-8	mg/kg	127	127	NA	NA	7.6	10.3	10.66	16.6	1.664
Cyanide	57-12-5	mg/kg	126	0	0.42	0.55	NA	0.25	0.2491	NA	0.01116
Dibenzo(a,h)anthracene	53-70-3	µg/kg	126	0	330	1400	NA	175	177.9	NA	47.14
Dibenzofuran	132-64-9	µg/kg	126	0	330	1400	NA	175	177.9	NA	47.14
Dibromochloromethane	124-48-1	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
Dibromomethane	74-95-3	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
Dichlorodifluoromethane	75-71-8	µg/kg	127	0	7	520	NA	4.5	21.36	NA	60.95
Diethylether	60-29-7	µg/kg	127	0	7	520	NA	4.5	21.36	NA	60.95
Diethylphthalate	84-66-2	µg/kg	127	12	330	1400	18	175	168.6	300	62.15
Dimethylphthalate	131-11-3	µg/kg	127	0	330	1400	NA	175	177.8	NA	46.95
Di-n-butylphthalate	84-74-2	µg/kg	127	14	22	1400	17	170	158.4	43	68.47
Di-n-octyl phthalate	117-84-0	µg/kg	127	7	340	1400	28	170	173.2	180	52.67
Ethylbenzene	100-41-4	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
Ethylmethacrylate	97-63-2	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
Fluoranthene	206-44-0	µg/kg	126	0	330	1400	NA	175	177.9	NA	47.14
Fluorene	86-73-7	µg/kg	126	0	330	1400	NA	175	177.9	NA	47.14
Fluoride	16984-48-8	mg/kg	127	6	2.2	3	4.6	1.25	1.497	11.7	1.294
Freon 113	76-13-1	µg/kg	127	21	4	260	1	2.5	11.26	26	30.37

Table J-1b Deep (greater than 4.6 m [15 ft]) Soil Summary Statistics

Analyte	CAS ID	Concentration Units	N	Num Detect	Min ND	Max ND	Min Detect	Median	Mean	Max Detect	Standard Deviation
Hexachlorobenzene	118-74-1	µg/kg	127	0	330	1400	NA	175	177.8	NA	46.95
Hexachlorobutadiene	87-68-3	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
Hexachlorocyclopentadiene	77-47-4	µg/kg	127	0	330	1400	NA	175	177.8	NA	46.95
Hexachloroethane	67-72-1	µg/kg	127	0	330	1400	NA	175	177.8	NA	46.95
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	126	0	330	1400	NA	175	177.9	NA	47.14
Iodomethane	74-88-4	µg/kg	127	0	7	520	NA	4.5	21.36	NA	60.95
Iron, Total	7439-89-6	mg/kg	127	127	NA	NA	9370	16100	17290	31000	4525
Isophorone	78-59-1	µg/kg	127	0	330	1400	NA	175	177.8	NA	46.95
Isopropylbenzene	98-82-8	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
Lead, Total	7439-92-1	mg/kg	127	127	NA	NA	2.4	4.3	4.405	14.8	1.315
m- and p-Xylene	108-38-3 (*m*) 106-42-3 (*p*)	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
Magnesium, Total	7439-95-4	mg/kg	127	127	NA	NA	3220	4630	4675	6940	538.7
Manganese, Total	7439-96-5	mg/kg	127	127	NA	NA	205	287	300.7	484	54.34
Mercury, Total	7439-97-6	mg/kg	125	11	0.008	1.6	0.01	0.005	0.01375	0.16	0.07246
Methacrylonitrile	126-98-7	µg/kg	127	0	7	520	NA	4.5	21.36	NA	60.95
Methylene Chloride	75-09-2	µg/kg	127	2	2	260	110	10	15.03	120	24.34
Methylmethacrylate	80-62-6	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
Methyl-t-butylether	1634-04-4	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
Molybdenum, Total	7439-98-7	mg/kg	127	127	NA	NA	0.38	0.8	0.8283	1.8	0.2471
Naphthalene	91-20-3	µg/kg	127	0	4	340	NA	2.5	13.4	NA	36.3
n-butylbenzene	104-51-8	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
Nickel, Total	7440-02-0	mg/kg	127	127	NA	NA	9.6	16.7	16.67	28.3	3.93
Nitrate	14797-55-8	mg/kg	127	95	2.23	4.53	2.47	6.07	11.78	243	25.25
Nitrite	14797-65-0	mg/kg	127	1	2.16	5	2.68	1.245	1.286	2.68	0.2441
Nitrobenzene	98-95-3	µg/kg	127	0	330	1400	NA	175	177.8	NA	46.95

Table J-1b Deep (greater than 4.6 m [15 ft]) Soil Summary Statistics

Analyte	CAS ID	Concentration Units	N	Num Detect	Min ND	Max ND	Min Detect	Median	Mean	Max Detect	Standard Deviation
N-Nitroso-di-n-propylamine	621-64-7	µg/kg	127	0	330	1400	NA	175	177.8	NA	46.95
N-Nitrosodiphenylamine	86-30-6	µg/kg	127	0	330	1400	NA	175	177.8	NA	46.95
n-propylbenzene	103-65-1	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
o-Xylene	95-47-6	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
Pentachloroethane	76-01-7	µg/kg	127	0	7	520	NA	4.5	21.36	NA	60.95
Pentachlorophenol	87-86-5	µg/kg	125	0	1700	6900	NA	850	886.8	NA	232.8
Phenanthrene	85-01-8	µg/kg	126	0	330	1400	NA	175	177.9	NA	47.14
Phenol	108-95-2	µg/kg	127	7	130	340	90	130	145.9	720	80.25
Phosphate	14265-44-2	mg/kg	127	0	2.2	5	NA	1.25	1.278	NA	0.2082
Potassium, Total	7440-09-7	mg/kg	127	127	NA	NA	839	1170	1191	2420	191.9
Pyrene	129-00-0	µg/kg	126	0	330	1400	NA	175	177.9	NA	47.14
Pyridine	110-86-1	µg/kg	127	0	330	1400	NA	175	177.8	NA	46.95
sec-butylbenzene	135-98-8	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
Selenium, Total	7782-49-2	mg/kg	127	15	0.4	0.63	0.48	0.275	0.3195	1	0.1468
Silicon, Total	7440-21-3	mg/kg	37	37	NA	NA	240	536	1035	3820	1100
Silver, Total	7440-22-4	mg/kg	127	1	0.07	0.46	0.82	0.045	0.06516	0.82	0.08189
Sodium, Total	7440-23-5	mg/kg	127	127	NA	NA	118	172	194.3	1540	128.8
Strontium, Total	7440-24-6	mg/kg	127	127	NA	NA	22.5	29.2	30.52	111	8.281
Styrene	100-42-5	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
Sulfate	14808-79-8	mg/kg	127	127	NA	NA	5.9	19.8	25.2	230	23.47
Sulfide	18496-25-8	mg/kg	127	8	18.3	34.8	21.1	10.7	11.81	36.7	3.856
tert-butylbenzene	98-06-6	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
Tetrachloroethene	127-18-4	µg/kg	127	49	4	260	0.9	2.5	11.66	6	32.04
Thallium, Total	7440-28-0	mg/kg	127	15	0.46	0.64	0.51	0.275	0.3307	1.2	0.1773
Tin, Total	7440-31-5	mg/kg	127	77	0.4	0.61	0.52	0.64	0.7528	2.6	0.5608
Titanium, Total	7440-32-6	mg/kg	127	127	NA	NA	492	761	974	2900	541.8

Table J-1b Deep (greater than 4.6 m [15 ft]) Soil Summary Statistics

Analyte	CAS ID	Concentration Units	N	Num Detect	Min ND	Max ND	Min Detect	Median	Mean	Max Detect	Standard Deviation
Toluene	108-88-3	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
trans-1,2-dichloroethene	156-60-5	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
trans-1,3-Dichloropropene	10061-02-6	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
trans-1,4-Dichloro-2-butene	110-57-6	µg/kg	127	0	7	520	NA	4.5	21.36	NA	60.95
Trichloroethene	79-01-6	µg/kg	127	48	4	260	1	2.5	17.07	170	37.63
Trichlorofluoromethane	75-69-4	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
UNKNOWN	UNKNOWN	µg/kg	1	1	NA	NA	6	6	6	6	NA
Uranium, Total	7440-61-1	mg/kg	127	1	1.5	18.1	2.5	0.9	1.15	2.5	0.8469
Vanadium, Total	7440-62-2	mg/kg	127	127	NA	NA	15	30.4	36.67	95.7	17.55
Vinyl Chloride	75-01-4	µg/kg	127	0	7	520	NA	4.5	21.36	NA	60.95
Xylene (total)	1330-20-7	µg/kg	127	0	4	260	NA	2.5	10.65	NA	30.41
Zinc, Total	7440-66-6	mg/kg	127	127	NA	NA	22.1	32.8	34.29	50.9	5.559

Table J-2 Groundwater Summary Statistics

Analyte	CAS ID	Concentration Units	N	Num Detect	Min ND	Max ND	Min Detect	Median	Mean	Max Detect	Standard Deviation
1,1,1,2-Tetrachloroethane	630-20-6	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
1,1,1-Trichloroethane	71-55-6	µg/L	64	14	1	5	1.56	2.5	2.159	3	0.6442
1,1,2,2-Tetrachloroethane	79-34-5	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
1,1,2-Trichloroethane	79-00-5	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
1,1-Biphenyl	92-52-4	µg/L	64	0	3	10	NA	5	4.562	NA	1.167
1,1-Dichloroethane	75-34-3	µg/L	64	16	1	5.86	3.84	2.5	2.833	5.84	1.201
1,1-Dichloroethene	75-35-4	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
1,1-dichloropropene	563-58-6	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
1,2,3-Trichlorobenzene	87-61-6	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
1,2,3-Trichloropropane	96-18-4	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
1,2,4-Trichlorobenzene	120-82-1	µg/L	64	1	1	5	1	2.5	2.227	1	0.6839
1,2,4-Trimethylbenzene	95-63-6	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
1,2-Dibromo-3-chloropropane	96-12-8	µg/L	64	0	1	10	NA	3.75	3.5	NA	1.633
1,2-Dibromoethane	106-93-4	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
1,2-Dichlorobenzene	95-50-1	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
1,2-Dichloroethane	107-06-2	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
1,2-Dichloroethane-d4	17060-07-0	µg/L	1	1	NA	NA	103	103	103	103	NA
1,2-Dichloroethene (total)	540-59-0	µg/L	64	15	1	5	2	2.5	2.393	4.7	0.8131
1,2-Dichloropropane	78-87-5	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
1,2-Diphenylhydrazine	122-66-7	µg/L	64	0	10	10	NA	5	5	NA	0
1,3,5-Trimethylbenzene	108-67-8	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
1,3-Dichlorobenzene	541-73-1	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
1,3-Dichloropropane	142-28-9	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
1,4-Dichlorobenzene	106-46-7	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
1,4-Dichlorobenzene-d4	3855-82-1	µg/L	1	1	NA	NA	40	40	40	40	NA
1-Methylnaphthalene	90-12-0	µg/L	64	0	10	10	NA	5	5	NA	0
2,2-Dichloropropane	594-20-7	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
2,2'-oxybis(1-Chloropropane)	108-60-1	µg/L	64	0	10	10	NA	5	5	NA	0

Table J-2 Groundwater Summary Statistics

Analyte	CAS ID	Concentration Units	N	Num Detect	Min ND	Max ND	Min Detect	Median	Mean	Max Detect	Standard Deviation
2,4,5-Trichlorophenol	95-95-4	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
2,4,6-Trichlorophenol	88-06-2	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
2,4-Dichlorophenol	120-83-2	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
2,4-Dimethylphenol	105-67-9	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
2,4-Dinitrophenol	51-28-5	µg/L	64	0	15	50	NA	25	22.81	NA	5.833
2,4-Dinitrotoluene	121-14-2	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
2,6-Dinitrotoluene	606-20-2	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
2-Butanone	78-93-3	µg/L	64	6	3	10	3.79	5	4.622	7.79	1.283
2-Chloronaphthalene	91-58-7	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
2-Chlorophenol	95-57-8	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
2-Chlorotoluene	95-49-8	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
2-hexanone	591-78-6	µg/L	64	0	3	10	NA	5	4.562	NA	1.167
2-Methylnaphthalene	91-57-6	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
2-Methylphenol	95-48-7	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
2-Nitroaniline	88-74-4	µg/L	64	0	8	50	NA	18.75	17.69	NA	7.823
2-Nitrophenol	88-75-5	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
2-Nitropropane	79-46-9	µg/L	64	0	1	20	NA	6.25	6	NA	4.079
3,3-Dichlorobenzidine	91-94-1	µg/L	64	0	15	50	NA	10	15.31	NA	7.605
3-and/or 4-Methylphenol	1319-77-3	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
3-Chloropropene	107-05-1	µg/L	64	0	1	10	NA	5	4.438	NA	1.5
3-Nitroaniline	99-09-2	µg/L	64	0	8	50	NA	18.75	17.69	NA	7.823
4,6-Dinitro-2-methylphenol	534-52-1	µg/L	64	0	8	50	NA	18.75	17.69	NA	7.823
4-Bromophenyl-phenylether	101-55-3	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
4-Chloro-3-methylphenol	59-50-7	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
4-Chloroaniline	106-47-8	µg/L	64	0	8	25	NA	5	7.688	NA	3.771
4-Chlorophenyl-phenylether	7005-72-3	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
4-Chlorotoluene	106-43-4	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
4-Isopropyltoluene	99-87-6	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667

Table J-2 Groundwater Summary Statistics

Analyte	CAS ID	Concentration Units	N	Num Detect	Min ND	Max ND	Min Detect	Median	Mean	Max Detect	Standard Deviation
4-Methyl-2-pentanone	108-10-1	µg/L	64	0	3	10	NA	5	4.562	NA	1.167
4-Nitroaniline	100-01-6	µg/L	64	0	8	50	NA	18.75	17.69	NA	7.823
4-Nitrophenol	100-02-7	µg/L	64	0	8	50	NA	18.75	17.69	NA	7.823
Acenaphthene	83-32-9	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
Acenaphthene-d10	15067-26-2	µg/L	1	1	NA	NA	40	40	40	40	NA
Acenaphthylene	208-96-8	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
Acetone	67-64-1	µg/L	64	8	3	10	3.46	5	4.415	10	1.415
Acrylonitrile	107-13-1	µg/L	64	0	5	20	NA	5	6.562	NA	2.8
Aldol Condensate 1	36653-82-4	µg/L	1	1	NA	NA	9.04	9.04	9.04	9.04	NA
ALKANE	28776-38-7	µg/L	13	13	NA	NA	3	4	4.077	8	1.382
Aluminum, Total	7429-90-5	µg/L	64	45	10	37.5	12.6	18.98	24.22	68.6	15.46
Aniline	62-53-3	µg/L	64	0	3	10	NA	5	4.562	NA	1.167
Anthracene	120-12-7	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
Antimony, Total	7440-36-0	µg/L	64	5	0.75	5	0.85	0.625	1.25	1.2	0.9901
Aroclor 1262	37324-23-5	µg/L	9	0	0.1	0.4	NA	0.2	0.1833	NA	0.05
Aroclor 1268	11100-14-4	µg/L	9	0	0.1	0.4	NA	0.2	0.1833	NA	0.05
Aroclor-1016	12674-11-2	µg/L	63	0	0.1	0.4	NA	0.2	0.1833	NA	0.04752
Aroclor-1221	11104-28-2	µg/L	63	0	0.1	0.4	NA	0.2	0.1833	NA	0.04752
Aroclor-1232	11141-16-5	µg/L	63	0	0.1	0.4	NA	0.2	0.1833	NA	0.04752
Aroclor-1242	53469-21-9	µg/L	63	0	0.1	0.4	NA	0.2	0.1833	NA	0.04752
Aroclor-1248	12672-29-6	µg/L	63	0	0.1	0.4	NA	0.2	0.1833	NA	0.04752
Aroclor-1254	11097-69-1	µg/L	63	0	0.1	0.4	NA	0.2	0.1833	NA	0.04752
Aroclor-1260	11096-82-5	µg/L	63	0	0.1	0.4	NA	0.2	0.1833	NA	0.04752
Arsenic, Total	7440-38-2	µg/L	64	63	1.2	1.2	1.54	2.665	2.633	4.8	0.6268
Barium, Total	7440-39-3	µg/L	64	64	NA	NA	33.6	37.65	38.59	44.7	2.86
Benzene	71-43-2	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
Benzidine	92-87-5	µg/L	64	0	50	50	NA	25	25	NA	0
Benzo(a)anthracene	56-55-3	µg/L	64	0	2	10	NA	5	4.5	NA	1.333

Table J-2 Groundwater Summary Statistics

Analyte	CAS ID	Concentration Units	N	Num Detect	Min ND	Max ND	Min Detect	Median	Mean	Max Detect	Standard Deviation
Benzo(a)pyrene	50-32-8	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
Benzo(b)fluoranthene	205-99-2	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
Benzo(g,h,i)perylene	191-24-2	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
Benzo(k)fluoranthene	207-08-9	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
Benzoic acid	65-85-0	µg/L	64	0	2	25	NA	5	7.312	NA	4.246
Benzyl alcohol	100-51-6	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
Beryllium, Total	7440-41-7	µg/L	64	0	0.05	0.25	NA	0.06	0.08	NA	0.03686
bis(2-Chloroethoxy)methane	111-91-1	µg/L	64	0	3	10	NA	5	4.562	NA	1.167
bis(2-Chloroethyl)ether	111-44-4	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
bis(2-Ethylhexyl)phthalate	117-81-7	µg/L	64	11	0.6	10	0.5	3.185	3.574	28	3.63
Boron, Total	7440-42-8	µg/L	64	64	NA	NA	14.3	16.65	16.87	20.3	1.382
Bromide	24959-67-9	mg/L	64	0	0.25	1.2	NA	0.125	0.1473	NA	0.1012
Bromobenzene	108-86-1	µg/L	64	0	2	6	NA	2.5	2.5	NA	0.6172
Bromochloromethane	74-97-5	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
Bromodichloromethane	75-27-4	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
Bromofluorobenzene	460-00-4	µg/L	1	1	NA	NA	100	100	100	100	NA
Bromoform	75-25-2	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
Bromomethane	74-83-9	µg/L	64	0	3	10	NA	5	4.562	NA	1.167
Butylated Hydroxytoluene	97123-41-6	µg/L	1	0	10	10	NA	5	5	NA	NA
Butylbenzylphthalate	85-68-7	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
Cadmium, Total	7440-43-9	µg/L	64	3	0.12	0.75	0.145	0.0625	0.1809	0.159	0.1483
Calcium, Total	7440-70-2	µg/L	64	64	NA	NA	36000	39800	39670	42400	1483
Carbazole	86-74-8	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
Carbon Disulfide	75-15-0	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
Carbon Tetrachloride	56-23-5	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
Chloride	16887-00-6	mg/L	64	64	NA	NA	6.5	9.04	8.833	10.5	0.8907
Chlorobenzene	108-90-7	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
Chloroethane	75-00-3	µg/L	64	0	3	10	NA	5	4.562	NA	1.167

Table J-2 Groundwater Summary Statistics

Analyte	CAS ID	Concentration Units	N	Num Detect	Min ND	Max ND	Min Detect	Median	Mean	Max Detect	Standard Deviation
Chloroform	67-66-3	µg/L	64	22	1	23	1.92	2.5	7.024	23.3	7.989
Chloromethane	74-87-3	µg/L	64	0	3	10	NA	5	4.562	NA	1.167
Chromium VI	18540-29-9	mg/L	64	61	0.02	0.05	0.024	0.0665	0.06508	0.2	0.02797
Chromium, Total	7440-47-3	µg/L	64	64	NA	NA	44.5	73.25	71.7	105	16.87
Chrysene	218-01-9	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
Chrysene-d12	1719-03-5	µg/L	1	1	NA	NA	40	40	40	40	NA
Cis-1,2-dichloroethene	156-59-2	µg/L	64	15	1	5	2	2.5	2.393	4.7	0.8131
cis-1,3-Dichloropropene	10061-01-5	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
Cobalt, Total	7440-48-4	µg/L	64	0	0.125	0.5	NA	0.25	0.2266	NA	0.0625
Copper, Total	7440-50-8	µg/L	64	19	0.5	5	0.56	1.2	1.58	7.2	1.353
Cyanide, Total	57-12-5	µg/L	64	4	5	5	1.5	2.5	2.462	2.5	0.1732
CYCLOHEXENE	33004-06-7	µg/L	3	3	NA	NA	200	200	233.3	300	57.74
Dibenzo(a,h)anthracene	53-70-3	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
Dibenzofuran	132-64-9	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
Dibromochloromethane	124-48-1	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
Dibromomethane	74-95-3	µg/L	64	0	1	10	NA	2.5	3.188	NA	1.552
Dichlorodifluoromethane	75-71-8	µg/L	64	0	3	10	NA	5	4.562	NA	1.167
Diethylether	60-29-7	µg/L	64	0	3	10	NA	5	4.562	NA	1.167
Diethylphthalate	84-66-2	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
Dimethylphthalate	131-11-3	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
Di-n-butylphthalate	84-74-2	µg/L	64	9	2	10	0.5	5	3.538	0.9	1.858
Di-n-octyl phthalate	117-84-0	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
Ethylbenzene	100-41-4	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
Ethylmethacrylate	97-63-2	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
Fluoranthene	206-44-0	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
Fluorene	86-73-7	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
Fluoride	16984-48-8	mg/L	64	60	0.25	1.2	0.26	0.3	0.3305	0.45	0.07864
Freon 113	76-13-1	µg/L	64	12	1	5	2	2.5	2.272	3.51	0.6475

Table J-2 Groundwater Summary Statistics

Analyte	CAS ID	Concentration Units	N	Num Detect	Min ND	Max ND	Min Detect	Median	Mean	Max Detect	Standard Deviation
Hexachlorobenzene	118-74-1	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
Hexachlorobutadiene	87-68-3	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
Hexachlorocyclopentadiene	77-47-4	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
Hexachloroethane	67-72-1	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
Indeno(1,2,3-cd)pyrene	193-39-5	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
Iodomethane	74-88-4	µg/L	64	0	1	10	NA	3.75	3.5	NA	1.633
Iron, Total	7439-89-6	µg/L	64	43	11.2	125	12.2	62.5	69.91	285	67.74
Isophorone	78-59-1	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
Isopropylbenzene	98-82-8	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
Lead, Total	7439-92-1	µg/L	64	17	0.75	2.5	0.802	0.375	0.8028	2	0.5754
m- and p-Xylene	108-38-3 (*m*) 106-42-3 (*p*)	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
Magnesium, Total	7439-95-4	µg/L	64	64	NA	NA	11600	13400	13480	14600	620.5
Manganese, Total	7439-96-5	µg/L	64	50	0.1	1.25	0.13	0.625	1.458	8	1.771
Mercury, Total	7439-97-6	µg/L	64	12	0.06	0.2	0.062	0.03	0.06197	0.189	0.04295
Methacrylonitrile	126-98-7	µg/L	64	0	3	10	NA	5	4.562	NA	1.167
Methylene Chloride	75-09-2	µg/L	64	8	2	6	1	2.5	2.397	2.38	0.7246
Methylmethacrylate	80-62-6	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
Methyl-T-Butylether	1634-04-4	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
Molybdenum, Total	7439-98-7	µg/L	64	64	NA	NA	7.12	8.785	8.839	10.6	0.774
Naphthalene	91-20-3	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
Naphthalene-d8	1146-65-2	µg/L	1	1	NA	NA	40	40	40	40	NA
N-butylbenzene	104-51-8	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
Nickel, Total	7440-02-0	µg/L	64	32	0.5	5	0.52	1.86	1.644	3.91	0.9568
Nitrate	14797-55-8	mg/L	64	64	NA	NA	13.5	17.7	17.58	21.7	1.696
Nitrite	14797-65-0	mg/L	57	0	0.25	2.5	NA	0.125	0.2171	NA	0.2517
Nitrobenzene	98-95-3	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
N-Nitroso-di-n-propylamine	621-64-7	µg/L	64	0	2	10	NA	5	4.5	NA	1.333

Table J-2 Groundwater Summary Statistics

Analyte	CAS ID	Concentration Units	N	Num Detect	Min ND	Max ND	Min Detect	Median	Mean	Max Detect	Standard Deviation
N-Nitrosodiphenylamine (1)	86-30-6	µg/L	64	0	3	10	NA	5	4.562	NA	1.167
N-propylbenzene	103-65-1	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
ORGANIC ACID	NA	µg/L	3	3	NA	NA	4	5	5.667	8	2.082
O-Xylene	95-47-6	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
Pentachloroethane	76-01-7	µg/L	64	0	1	10	NA	3.75	3.5	NA	1.633
Pentachlorophenol	87-86-5	µg/L	64	0	8	50	NA	18.75	17.69	NA	7.823
Perylene-d12	1520-96-3	µg/L	1	1	NA	NA	40	40	40	40	NA
Phenanthrene	85-01-8	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
Phenanthrene-d10	1517-22-2	µg/L	1	1	NA	NA	40	40	40	40	NA
Phenol	108-95-2	µg/L	72	0	2	10	NA	2.5	2.438	NA	0.7167
Phosphate	14265-44-2	mg/L	58	1	0.25	0.25	0.58	0.125	0.1328	0.58	0.05974
Potassium, Total	7440-09-7	µg/L	64	64	NA	NA	4380	4820	4857	5430	271.6
Pyrene	129-00-0	µg/L	64	0	2	10	NA	5	4.5	NA	1.333
Pyridine	110-86-1	µg/L	64	0	10	10	NA	5	5	NA	0
Sec-butylbenzene	135-98-8	µg/L	64	0	2	6	NA	2.5	2.5	NA	0.6172
Selenium, Total	7782-49-2	µg/L	64	64	NA	NA	2	3.28	3.262	4.4	0.529
Silicon, Total	7440-21-3	µg/L	64	64	NA	NA	16700	20650	20520	22300	1039
Silver, Total	7440-22-4	µg/L	64	5	0.25	1.5	0.28	0.25	0.4648	3.2	0.504
Sodium, Total	7440-23-5	µg/L	64	64	NA	NA	14800	16900	16970	19700	1092
Strontium, Total	7440-24-6	µg/L	64	64	NA	NA	163	178.5	177.9	190	5.915
Styrene	100-42-5	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
SUBSTITUTED PHENOL	NA	µg/L	3	3	NA	NA	4	4	5.333	8	2.309
Sulfate	14808-79-8	mg/L	64	64	NA	NA	18.2	23.1	22.8	27.5	1.635
Sulfide	18496-25-8	mg/L	64	0	0.005	1	NA	0.5	0.4922	NA	0.06219
Tert-butylbenzene	98-06-6	µg/L	64	0	3	10	NA	2.5	3.312	NA	1.355
Tetrachloroethene	127-18-4	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
Thallium, Total	7440-28-0	µg/L	64	0	0.75	3.75	NA	0.75	1.125	NA	0.5976
TIC: Aldol Condensate 1	36653-82-4	µg/L	4	4	NA	NA	5.14	7.08	6.97	8.58	1.575

Table J-2 Groundwater Summary Statistics

Analyte	CAS ID	Concentration Units	N	Num Detect	Min ND	Max ND	Min Detect	Median	Mean	Max Detect	Standard Deviation
TIC: Alkane 1	TIC:9059-16-9	µg/L	10	10	NA	NA	4.08	5.235	6.25	10.4	2.417
TIC: Cyclotetrasiloxane,octamethyl-	541-05-9	µg/L	1	1	NA	NA	4.75	4.75	4.75	4.75	NA
TIC: Cyclotrisiloxane,hexamethyl-	556-67-2	µg/L	1	1	NA	NA	6.32	6.32	6.32	6.32	NA
TIC: Tetrahydrofuran	109-99-9	µg/L	6	6	NA	NA	6	18.85	16.73	28.5	8.111
TIC: Trichloro-1-propene	TIC:96-19-5	µg/L	2	2	NA	NA	4.09	4.335	4.335	4.58	0.3465
TIC: Unknown 1	TIC:NA	µg/L	32	32	NA	NA	4.03	11.6	35.5	214	48.35
TIC: Unknown 10	TIC:NA	µg/L	1	1	NA	NA	26.8	26.8	26.8	26.8	NA
TIC: Unknown 2	TIC:NA	µg/L	23	23	NA	NA	4.59	8.15	15.47	95.8	21.05
TIC: Unknown 3	TIC:NA	µg/L	15	15	NA	NA	4	7.78	13.07	42.5	10.88
TIC: Unknown 4	TIC:NA	µg/L	12	12	NA	NA	4.8	11.5	17.34	71.1	18.08
TIC: Unknown 5	TIC:NA	µg/L	6	6	NA	NA	4.17	19.75	26.69	73.4	26.21
TIC: Unknown 6	TIC:NA	µg/L	3	3	NA	NA	8.16	38	40.29	74.7	33.33
TIC: Unknown 7	TIC:NA	µg/L	2	2	NA	NA	34.7	35.3	35.3	35.9	0.8485
TIC: Unknown 8	TIC:NA	µg/L	2	2	NA	NA	13.8	25.65	25.65	37.5	16.76
TIC: Unknown 9	TIC:NA	µg/L	2	2	NA	NA	9.21	14.61	14.61	20	7.63
TIC:1-butoxy-2-propanol	5131-66-8	µg/L	3	3	NA	NA	4.78	5.2	6.993	11	3.476
Tin, Total	7440-31-5	µg/L	64	21	0.25	2.5	0.279	1	1.055	2.5	0.5365
Titanium, Total	7440-32-6	µg/L	64	57	0.25	1.25	0.252	0.85	1.119	2.98	0.7719
Toluene	108-88-3	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
Toluene-d8	2037-26-5	µg/L	1	1	NA	NA	102	102	102	102	NA
Trans-1,2-dichloroethene	156-60-5	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
Trans-1,3-Dichloropropene	10061-02-6	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
trans-1,4-Dichloro-2-butene	110-57-6	µg/L	64	0	3	20	NA	5	6.438	NA	2.997
Trichloroethene	79-01-6	µg/L	64	16	1	22	9	2.5	6.054	29.3	7.262
Trichlorofluoromethane	75-69-4	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
TRICHLOROPROPENE	35175-85-0	µg/L	1	1	NA	NA	2	2	2	2	NA
Unknown	NA	µg/L	5	5	NA	NA	4	10	16.8	40	14.18
Uranium, Total	7440-61-1	µg/L	64	14	5	15	4.14	2.5	6.549	156	19.17

Table J-2 Groundwater Summary Statistics

Analyte	CAS ID	Concentration Units	N	Num Detect	Min ND	Max ND	Min Detect	Median	Mean	Max Detect	Standard Deviation
Vanadium, Total	7440-62-2	µg/L	64	64	NA	NA	24	28.25	28.66	34.6	2.979
Vinyl Chloride	75-01-4	µg/L	64	0	3	10	NA	5	4.562	NA	1.167
Xylene (total)	1330-20-7	µg/L	64	0	1	5	NA	2.5	2.25	NA	0.6667
Zinc, Total	7440-66-6	µg/L	64	50	1.5	12.5	1.37	2.525	3.334	26.7	3.404

Table J-3 Soil Vapor Summary Statistics

Analyte	CAS ID	N	Num Detect	Min ND	Max ND	Min Detect	Median	Mean	Max Detect	Standard Deviation
1,1,1-Trichloroethane	71-55-6	344	324	1.1	56000	3.3	1050	3282	43000	5635
1,1,2,2-Tetrachloro-1,2-Difluoroethane	76-12-0	4	4	NA	NA	71	195	172.8	230	70.88
1,1,2,2-Tetrachloroethane	79-34-5	344	0	1.1	56000	NA	57.5	633.6	NA	2138
1,1,2-Trichloroethane	79-00-5	344	0	1.1	56000	NA	57.5	633.4	NA	2138
1,1-Dichloroethane	75-34-3	344	275	1.1	56000	1.4	325	3408	36000	5740
1,1-Dichloroethene	75-35-4	344	143	1.1	56000	1.1	130	834.3	9600	2231
1,2,4-Trichlorobenzene	120-82-1	344	0	1.1	56000	NA	57.5	633.6	NA	2138
1,2,4-Trimethylbenzene	95-63-6	344	0	1.1	56000	NA	57.5	633.6	NA	2138
1,2-Dibromoethane	106-93-4	344	0	1.1	56000	NA	57.5	633.5	NA	2138
1,2-Dichloro-1,1,2-Trifluoroethane	354-23-4	264	264	NA	NA	1.4	1000	6817	180000	21270
1,2-Dichloro-1,2-Difluoroethene	598-88-9	1	1	NA	NA	120	120	120	120	NA
1,2-Dichlorobenzene	95-50-1	344	0	1.1	56000	NA	57.5	633.5	NA	2138
1,2-Dichloroethane	107-06-2	344	7	1.1	56000	1.2	60	634.4	93	2138
1,2-Dichloropropane	78-87-5	344	13	1.1	56000	1.5	57.5	633.9	28	2138
1,3,5-Trimethylbenzene	108-67-8	344	0	1.1	56000	NA	57.5	633.6	NA	2138
1,3-Butadiene	106-99-0	1	1	NA	NA	22000	22000	22000	22000	NA
1,3-Dichlorobenzene	541-73-1	344	0	1.1	56000	NA	57.5	633.6	NA	2138
1,4-Dichlorobenzene	106-46-7	344	0	1.1	56000	NA	57.5	633.6	NA	2138
1,5-Heptadiene, (E)-	7736-22-3	1	1	NA	NA	1.6	1.6	1.6	1.6	NA
1-Butene	106-98-9	1	1	NA	NA	160	160	160	160	NA
1-Butyne	107-00-6	1	1	NA	NA	13000	13000	13000	13000	NA
1-Decene	872-05-9	1	1	NA	NA	1.4	1.4	1.4	1.4	NA
1-Hexanol, 2-Ethyl	104-76-7	71	71	NA	NA	1.4	750	1534	15000	2412
1-Iodo-2-Methylnonane	100009-96-0	2	2	NA	NA	180	270	270	360	127.3
1-Pentene	109-67-1	1	1	NA	NA	64	64	64	64	NA
1-Pentene, 2-Methyl-	763-29-1	3	3	NA	NA	81	85	115.3	180	56.04
1-Propanol, 2-Methyl-	78-83-1	1	1	NA	NA	26	26	26	26	NA
1r-.Alpha.-Pinene	7785-70-8	1	1	NA	NA	3.9	3.9	3.9	3.9	NA
1-Undecene	821-95-4	3	3	NA	NA	1.3	1.3	1.333	1.4	0.05774

Table J-3 Soil Vapor Summary Statistics

Analyte	CAS ID	N	Num Detect	Min ND	Max ND	Min Detect	Median	Mean	Max Detect	Standard Deviation
1-Undecene, 4-Methyl-	74630-39-0	1	1	NA	NA	1000	1000	1000	1000	NA
2(3h)-Furanone, Dihydro-4-Methyl-	1679-49-8	1	1	NA	NA	4.2	4.2	4.2	4.2	NA
2,2-Dimethylbutane	75-83-2	2	2	NA	NA	83	116.5	116.5	150	47.38
2,4-Dimethyl-1-Heptene	19549-87-2	10	10	NA	NA	190	335	329	480	101.4
2,4-Hexadienenitrile	1516-01-4	1	1	NA	NA	1.9	1.9	1.9	1.9	NA
2,4-Pentadienenitrile	1615-70-9	1	1	NA	NA	2.2	2.2	2.2	2.2	NA
2,5-Dihydrothiophene Sulfone	77-79-2	2	2	NA	NA	310	325	325	340	21.21
2,6-Dimethyldecane	13150-81-7	1	1	NA	NA	93	93	93	93	NA
2-Butanone	78-93-3	344	8	1.1	56000	1.3	59	633.9	58	2138
2-Butenenitrile	4786-20-3	1	1	NA	NA	1.7	1.7	1.7	1.7	NA
2-Butenoic Acid, Methyl Ester, (Z)	4358-59-2	1	1	NA	NA	120	120	120	120	NA
2-Decanone	693-54-9	1	1	NA	NA	2.9	2.9	2.9	2.9	NA
2-Ethyl-Hexanal	123-05-7	4	4	NA	NA	1.5	4	5.875	14	5.558
2-Heptanone	110-43-0	344	0	1.1	56000	NA	55	632.9	NA	2138
2-Hexanone	591-78-6	344	1	1.1	56000	3.2	57.5	633.6	3.2	2138
2-Methyl-1-Propene	115-11-7	50	50	NA	NA	1.4	460	1886	13000	3409
2-Octanone	111-13-7	344	0	1.1	56000	NA	55	632.9	NA	2138
2-Pentanone	107-87-9	344	0	1.1	56000	NA	55	632.9	NA	2138
2-Propanol, 2-Methyl-	75-65-0	17	17	NA	NA	270	790	851.8	3200	675
3-Buten-1-Ol, 3-Methyl-	763-32-6	1	1	NA	NA	180	180	180	180	NA
3-Butenoic Acid, Methyl Ester	3724-55-8	2	2	NA	NA	790	850	850	910	84.85
3-Heptanone	106-35-4	2	2	NA	NA	2.8	3.45	3.45	4.1	0.9192
3-Hydroxymandelic Acid, Ethyl Este	100006-92-0	3	3	NA	NA	1800	7100	19630	50000	26430
3-Methyl-Benzaldehyde	620-23-5	344	0	1.1	56000	NA	55	632.9	NA	2138
3-Methyl-Butanal	590-86-3	344	0	1.1	56000	NA	55	632.9	NA	2138
6-Methyl-2-Heptanone	928-68-7	344	0	1.1	56000	NA	55	632.9	NA	2138
Acetaldehyde	75-07-0	344	4	1.1	56000	14	60	635.5	29	2138
Acetamide, N,N-Dimethyl-	127-19-5	3	3	NA	NA	2.4	290	564.1	1400	738
Acetone	67-64-1	344	72	1.1	56000	1.3	65	659	3900	2144

Table J-3 Soil Vapor Summary Statistics

Analyte	CAS ID	N	Num Detect	Min ND	Max ND	Min Detect	Median	Mean	Max Detect	Standard Deviation
Benzaldehyde	100-52-7	344	6	1.1	56000	1.1	55	633.1	41	2138
Benzene	71-43-2	344	6	1.1	56000	1.2	57.5	641.1	1700	2139
Benzene, (Ethoxymethyl)-	539-30-0	1	1	NA	NA	13	13	13	13	NA
Benzene, 1,3-Dimethyl-	108-38-3	1	1	NA	NA	2.7	2.7	2.7	2.7	NA
Benzonitrile, 2-Methyl-	529-19-1	1	1	NA	NA	1.9	1.9	1.9	1.9	NA
Benzyl Chloride	100-44-7	344	2	1.1	56000	3.7	57.5	633.6	14	2138
Bicyclo [1.1.0] Butane	157-33-5	5	5	NA	NA	120	250	522	1700	662.1
Bromomethane	74-83-9	344	0	1.1	56000	NA	55	632.9	NA	2138
Butane	106-97-8	8	8	NA	NA	1.7	170	212.7	520	211.2
Butane, 1,1,3,4-Tetrachloro-1,2,2,	423-38-1	1	1	NA	NA	13000	13000	13000	13000	NA
Butane, 2,2,3,3-Tetramethyl-	594-82-1	1	1	NA	NA	16	16	16	16	NA
Butane, 2-Methyl-	78-78-4	3	3	NA	NA	1.8	5.9	6.233	11	4.609
Butanoic Acid, Heptafluoro-, Ethyl Ester	356-27-4	8	8	NA	NA	270	835	1076	2600	878.2
Carbon Disulfide	75-15-0	17	17	NA	NA	2.3	89	226.4	750	246.6
Carbon Tetrachloride	56-23-5	344	84	1.1	56000	3	135	707.3	1900	2129
Chlorobenzene	108-90-7	344	0	1.1	56000	NA	57.5	633.6	NA	2138
Chloroethane	75-00-3	344	8	1.1	56000	2.6	57.5	633.9	200	2138
Chloroform	67-66-3	344	330	1.1	6800	1.6	2000	8663	160000	18910
Chloromethane	74-87-3	344	5	1.1	56000	13	57.5	633.9	240	2138
Chlorotrifluoroethene	79-38-9	278	278	NA	NA	2.3	1700	34370	6900000	413800
Cis-1,2-Dichloroethene	156-59-2	344	48	1.1	6800	2.5	60	11990	460000	51920
Cis-1,3-Dichloropropene	10061-01-5	344	0	1.1	56000	NA	57.5	633.4	NA	2138
Cyclohexane	110-82-7	1	1	NA	NA	1.2	1.2	1.2	1.2	NA
Cyclohexene, 4-Ethenyl-	100-40-3	1	1	NA	NA	360	360	360	360	NA
Cyclopropane, 1,1-Dimethyl-	1630-94-0	1	1	NA	NA	41	41	41	41	NA
Cyclopropene, 3-Methyl-3-Vinyl-	71153-30-5	1	1	NA	NA	2.7	2.7	2.7	2.7	NA
Decane	124-18-5	344	1	1.1	56000	2.3	55	632.9	2.3	2138
Decane, 2,3,6-Trimethyl-	62238-12-4	2	2	NA	NA	170	335	335	500	233.3
Decane, 2,3,7-Trimethyl-	62238-13-5	1	1	NA	NA	160	160	160	160	NA

Table J-3 Soil Vapor Summary Statistics

Analyte	CAS ID	N	Num Detect	Min ND	Max ND	Min Detect	Median	Mean	Max Detect	Standard Deviation
Decane, 2,4,6-Trimethyl-	62108-27-4	1	1	NA	NA	190	190	190	190	NA
Decane, 2,6,7-Trimethyl-	62108-25-2	1	1	NA	NA	60	60	60	60	NA
Decane, 3,6-Dimethyl-	17312-53-7	4	4	NA	NA	170	245	415	1000	392.1
Decane, 3,7-Dimethyl-	17312-54-8	23	23	NA	NA	82	320	607.5	3300	700.3
Dichlorodifluoromethane	75-71-8	344	253	1.1	56000	1.4	590	1226	5100	2154
Dichlorofluoromethane	75-43-4	87	87	NA	NA	5.2	350	3000	24000	5583
Dichlorotetrafluoroethane	76-14-2	344	0	1.1	56000	NA	55	632.9	NA	2138
D-Limonene	5989-27-5	1	1	NA	NA	7.9	7.9	7.9	7.9	NA
Docosane	629-97-0	3	3	NA	NA	86	310	965.3	2500	1334
Dodecane	112-40-3	1	1	NA	NA	1.4	1.4	1.4	1.4	NA
Eicosane	112-95-8	4	4	NA	NA	64	320	2676	10000	4886
Ethane, 1,1-Difluoro-	75-37-6	4	4	NA	NA	130	2725	6395	20000	9391
Ethanethioic Acid, S-[8-(Diethylph	129065-11-8	1	1	NA	NA	150	150	150	150	NA
Ethanol	64-17-5	23	23	NA	NA	1.7	470	1675	7400	2028
Ethene, 1,1-Dichloro-2,2-Difluoro-	79-35-6	1	1	NA	NA	100	100	100	100	NA
Ethyl Ether	60-29-7	6	6	NA	NA	1.5	6.7	5.5	8.7	3.114
Ethylbenzene	100-41-4	344	3	1.1	56000	3.9	57.5	633.6	7.8	2138
Formamide, N-Methylthio	1000196-87-7	1	1	NA	NA	7.3	7.3	7.3	7.3	NA
Freon 113	76-13-1	344	332	1.1	1.2	1.6	8500	40150	530000	77400
Heneicosane	629-94-7	1	1	NA	NA	1800	1800	1800	1800	NA
Heptafluorobutyric Anhydride	336-59-4	1	1	NA	NA	120	120	120	120	NA
Heptafluoropropyl Bromide	422-85-5	1	1	NA	NA	2200	2200	2200	2200	NA
Heptane, 2,3,6-Trimethyl-	4032-93-3	1	1	NA	NA	320	320	320	320	NA
Heptane, 2,4-Dimethyl-	2213-23-2	22	22	NA	NA	180	1000	1116	2500	584
Heptane, 4-Methyl-	589-53-7	2	2	NA	NA	80	115	115	150	49.5
Hexachlorobutadiene	87-68-3	344	0	1.1	56000	NA	57.5	633.6	NA	2138
Hexadecafluoroheptane	335-57-9	21	21	NA	NA	42	640	680.1	1400	387.4
Hexadecane	544-76-3	6	6	NA	NA	56	370	399.3	850	270.3
Hexadecane, 2,6,10,14-Tetramethyl-	638-36-8	1	1	NA	NA	480	480	480	480	NA

Table J-3 Soil Vapor Summary Statistics

Analyte	CAS ID	N	Num Detect	Min ND	Max ND	Min Detect	Median	Mean	Max Detect	Standard Deviation
Hexadecane, 7,9-Dimethyl-	21164-95-4	6	6	NA	NA	190	735	843.3	1800	592.9
Hexanal	66-25-1	2	2	NA	NA	1.7	2.5	2.5	3.3	1.131
Hexane, 2,4-Dimethyl-	589-43-5	1	1	NA	NA	110	110	110	110	NA
Isobutane	75-28-5	191	191	NA	NA	1.6	520	1413	12000	2256
Isopropanol	67-63-0	344	4	1.1	56000	1.2	65	667	520	2207
M/P-Xylene	108-38-3 (*m*) 106-42-3 (*p*)	344	6	1.1	61000	1.2	65	684.8	17	2316
Methallyl Cyanide	4786-19-0	1	1	NA	NA	1.6	1.6	1.6	1.6	NA
Methane, Bromodichlorofluoro-	353-58-2	3	3	NA	NA	190	1100	10100	29000	16380
Methyl Isobutyl Ketone	108-10-1	3	3	NA	NA	1.6	6.4	23	61	33
Methylcyclopentane	96-37-7	5	5	NA	NA	2.2	2.5	121.9	600	267.3
Methylene Chloride	75-09-2	344	43	1.1	56000	1.5	77.5	746.3	35000	2827
N-Butanol	71-36-3	344	40	1.1	56000	2.6	60	718.1	2800	2145
Nonadecane	629-92-5	4	4	NA	NA	130	235	260	440	143.5
Nonafluoro-1-Bromobutane	1000222-72-3	13	13	NA	NA	3.9	330	311.7	540	185.2
Nonanal	124-19-6	5	5	NA	NA	22	170	152.4	230	80.24
Nonane, 2,3-Dimethyl-	2884-06-2	1	1	NA	NA	250	250	250	250	NA
Octadecane, 3-Ethyl-5-(2-Ethylbuty	55282-12-7	1	1	NA	NA	90	90	90	90	NA
Octanal	124-13-0	344	5	1.1	56000	1.5	60	633.5	15	2138
Octane	111-65-9	1	1	NA	NA	2200	2200	2200	2200	NA
Octane, 2,3-Dimethyl-	7146-60-3	1	1	NA	NA	5700	5700	5700	5700	NA
Octane, 4-Methyl-	2216-34-4	3	3	NA	NA	300	470	486.7	690	195.5
Oxetane, 2,2-Dimethyl-	6245-99-4	6	6	NA	NA	74	145	160.7	240	67.37
Oxirane, Ethyl-	106-88-7	2	2	NA	NA	3.6	24.8	24.8	46	29.98
O-Xylene	95-47-6	344	2	1.1	56000	3.2	57.5	633.6	3.9	2138
Pentadecane	629-62-9	6	6	NA	NA	95	275	254.2	400	117.6
Pentane	109-66-0	8	8	NA	NA	1.2	43	75.89	310	104
Pentane, 2-Methyl-	107-83-5	1	1	NA	NA	3.2	3.2	3.2	3.2	NA
Pentane, 3-Methyl-	96-14-0	1	1	NA	NA	1.4	1.4	1.4	1.4	NA

Table J-3 Soil Vapor Summary Statistics

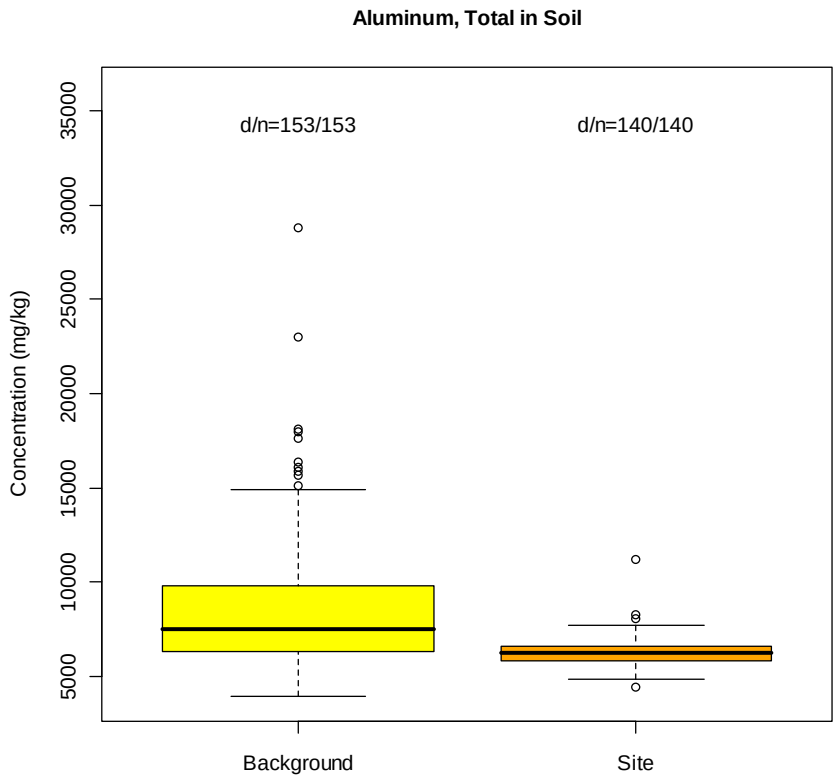
Analyte	CAS ID	N	Num Detect	Min ND	Max ND	Min Detect	Median	Mean	Max Detect	Standard Deviation
Perfluoro(2-Methylpentane)	355-04-4	3	3	NA	NA	47	170	392.3	960	495.4
Perfluoro(Methylcyclohexane)	355-02-2	4	4	NA	NA	8.4	194	211.6	450	217.1
Perfluoro[1,2-Bis(Tetrahydrofury	1000222-75-5	22	22	NA	NA	2.8	465	1022	3600	1091
Phenol	108-95-2	18	18	NA	NA	61	300	588.7	2800	687.9
Propanal	123-38-6	1	1	NA	NA	12	12	12	12	NA
Propane	74-98-6	1	1	NA	NA	3.1	3.1	3.1	3.1	NA
Propane, 2-Ethoxy-2-Methyl-	637-92-3	8	8	NA	NA	89	160	174.8	350	84.62
Propene, Hexafluoro-	116-15-4	14	14	NA	NA	120	835	1035	2600	792
Pyridine	110-86-1	1	1	NA	NA	7.3	7.3	7.3	7.3	NA
Silane, Difluorodimethyl-	353-66-2	1	1	NA	NA	38	38	38	38	NA
Styrene	100-42-5	344	1	1	56000	3.1	55	605.6	3.1	2077
Sulfur Dioxide	7446-09-5	1	1	NA	NA	5200	5200	5200	5200	NA
Tetrachloroethene	127-18-4	344	179	1.1	56000	1.4	250	1086	9900	2488
Tetracosane	646-31-1	1	1	NA	NA	350	350	350	350	NA
Tetradecafluorohexane	355-42-0	39	39	NA	NA	1.7	500	669.3	3200	735.5
Tetradecane	629-59-4	1	1	NA	NA	360	360	360	360	NA
Tetradecane, 4-Methyl-	25117-24-2	1	1	NA	NA	320	320	320	320	NA
Thiirane	420-12-2	4	4	NA	NA	8.4	34	43.35	97	41.8
Toluene	108-88-3	344	12	1.1	56000	1.1	60	636.3	560	2138
Trans-1,2-Dichloroethene	156-60-5	344	2	1.1	61000	810	60	651.6	1000	2244
Trans-1,3-Dichloropropene	10061-02-6	344	0	1.1	56000	NA	62.5	670.4	NA	2214
Trichloroethene	79-01-6	344	206	1.1	6800	1.3	480	40600	1800000	181000
Trichlorofluoromethane (R11)	75-69-4	344	251	1.1	56000	1.2	480	1984	22000	4137
Tricyclo[3.1.0.0(2,4)]Hex-3-Ene-3-Carbonitrile	103495-51-8	1	1	NA	NA	130	130	130	130	NA
Tricyclo[3.1.0.02,6]Hex-3-Ene-3-Ca	100013-99-0	1	1	NA	NA	2.9	2.9	2.9	2.9	NA
Tridecane	629-50-5	1	1	NA	NA	280	280	280	280	NA
Tridecane, 1-Iodo-	35599-77-0	4	4	NA	NA	280	350	365	480	89.63
Trifluoroethene	359-11-5	2	2	NA	NA	420	1110	1110	1800	975.8

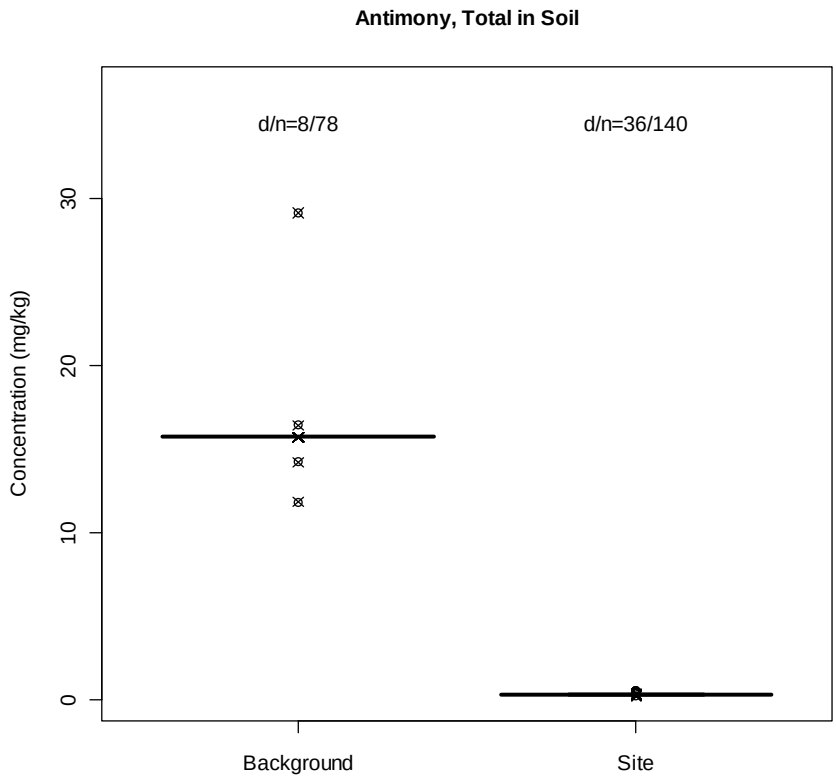
Table J-3 Soil Vapor Summary Statistics

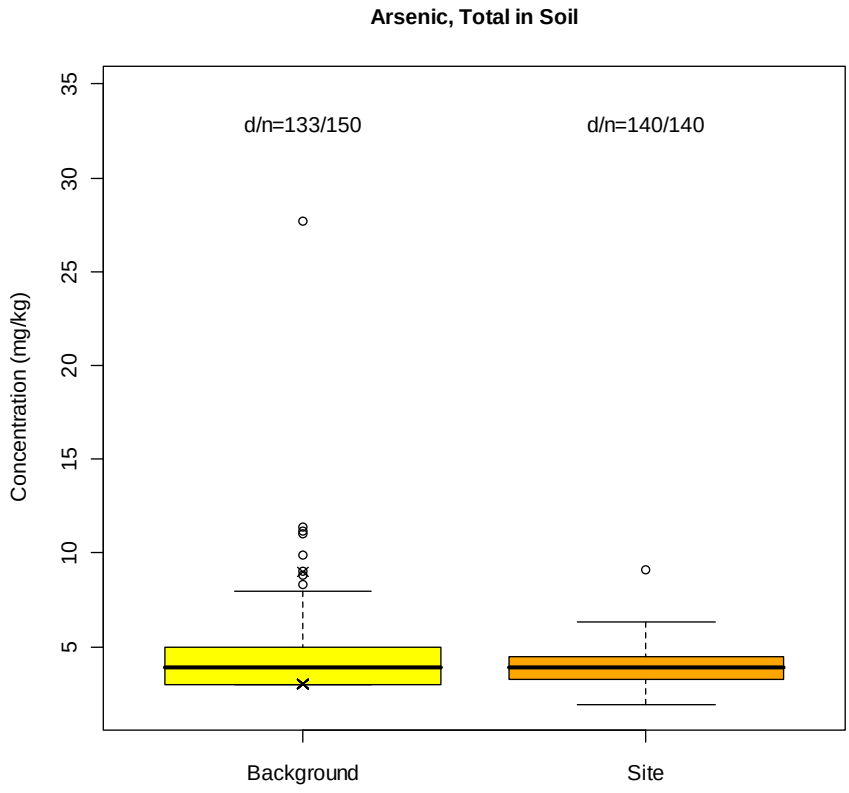
Analyte	CAS ID	N	Num Detect	Min ND	Max ND	Min Detect	Median	Mean	Max Detect	Standard Deviation
Trimethylene Oxide	503-30-0	344	0	1.1	56000	NA	55	632.9	NA	2138
Undecane	1120-21-4	2	2	NA	NA	5.4	162.7	162.7	320	222.5
Undecane, 2,4-Dimethyl-	17301-24-5	1	1	NA	NA	58	58	58	58	NA
Undecane, 3,4-Dimethyl-	17312-78-6	1	1	NA	NA	530	530	530	530	NA
Undecane, 4,7-Dimethyl-	17301-32-5	16	16	NA	NA	100	380	835.6	3200	1051
Undecane, 5-Methyl-	1632-70-8	4	4	NA	NA	180	370	505	1100	429.7
Unknown	NA	53	53	NA	NA	1.4	240	1443	20000	3610
Unknown Hydrocarbon	NA	2	2	NA	NA	21	41.5	41.5	62	28.99
Vinyl Chloride	75-01-4	344	0	1.1	56000	NA	55	632.9	NA	2138

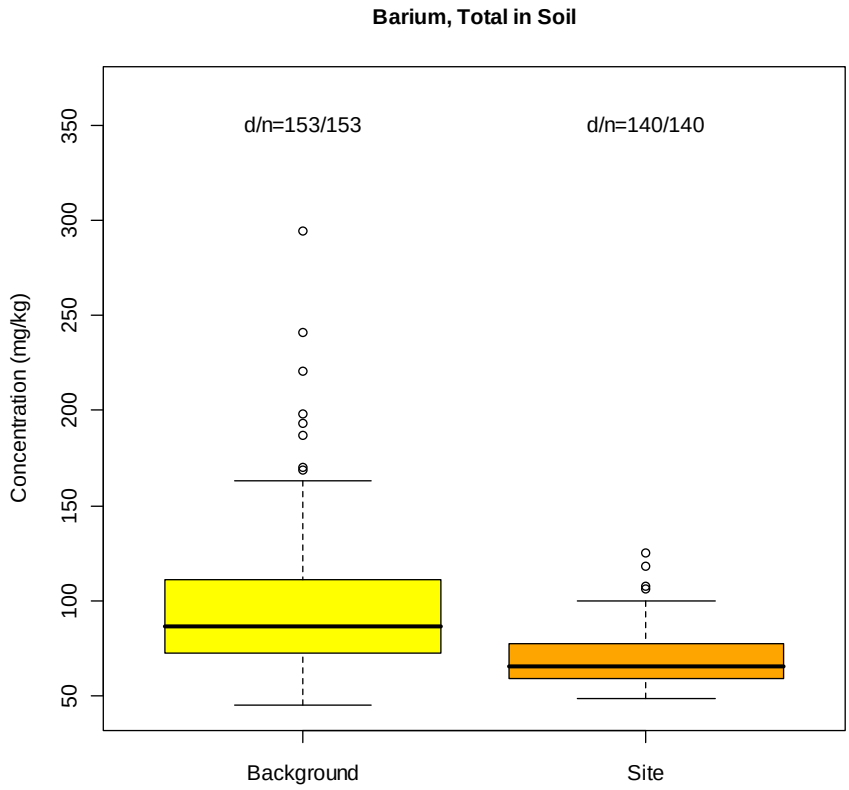
Note: Concentration units are PPB (V/V) for all analytes.

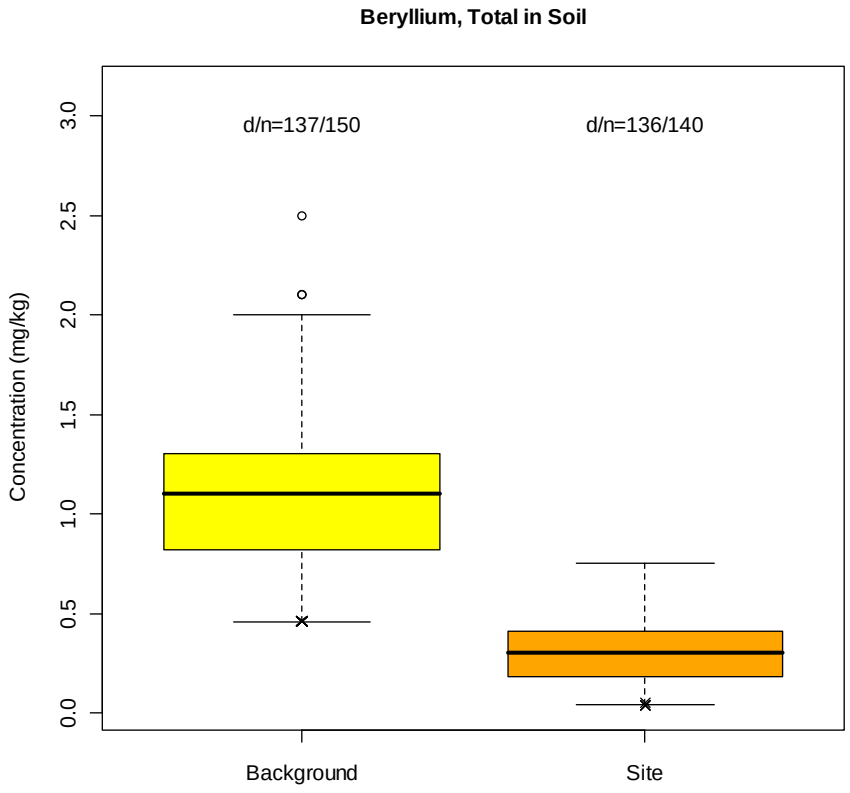
Appendix J Figures Boxplots for the Soil Background Comparisons

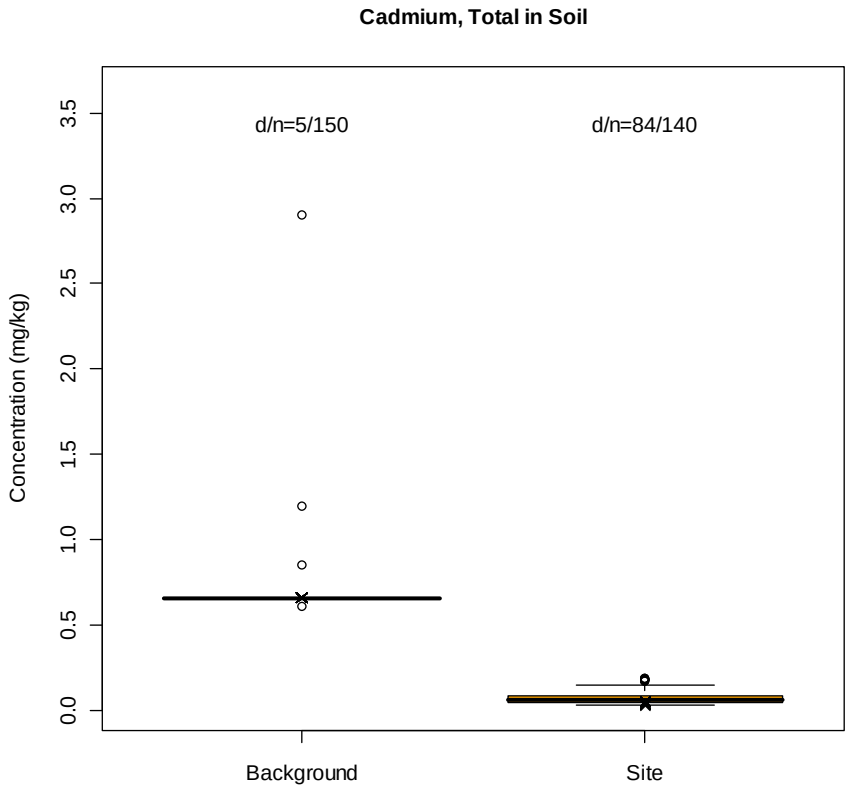


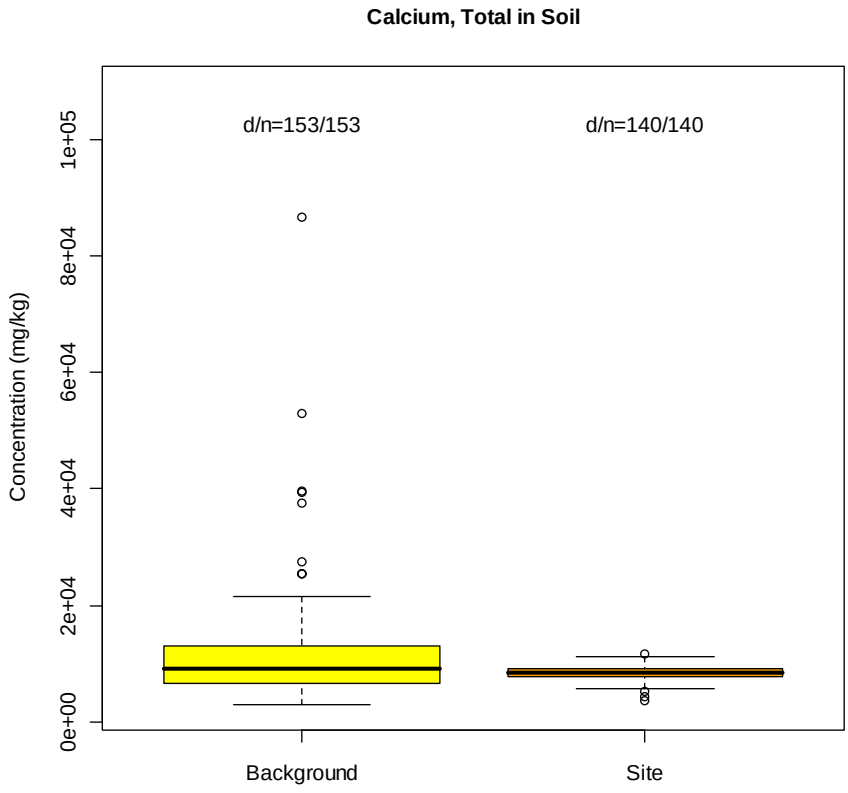


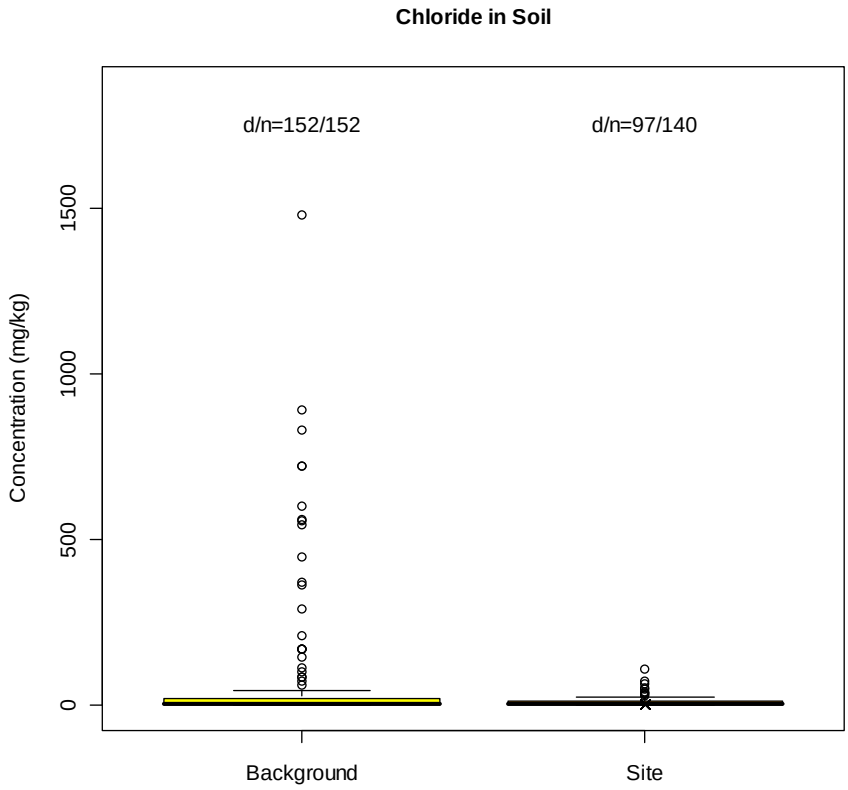

Arsenic, Total in Soil
d/n=133/150
d/n=140/140
Concentration (mg/kg)
5
10
15
20
25
30
35
Background
Site

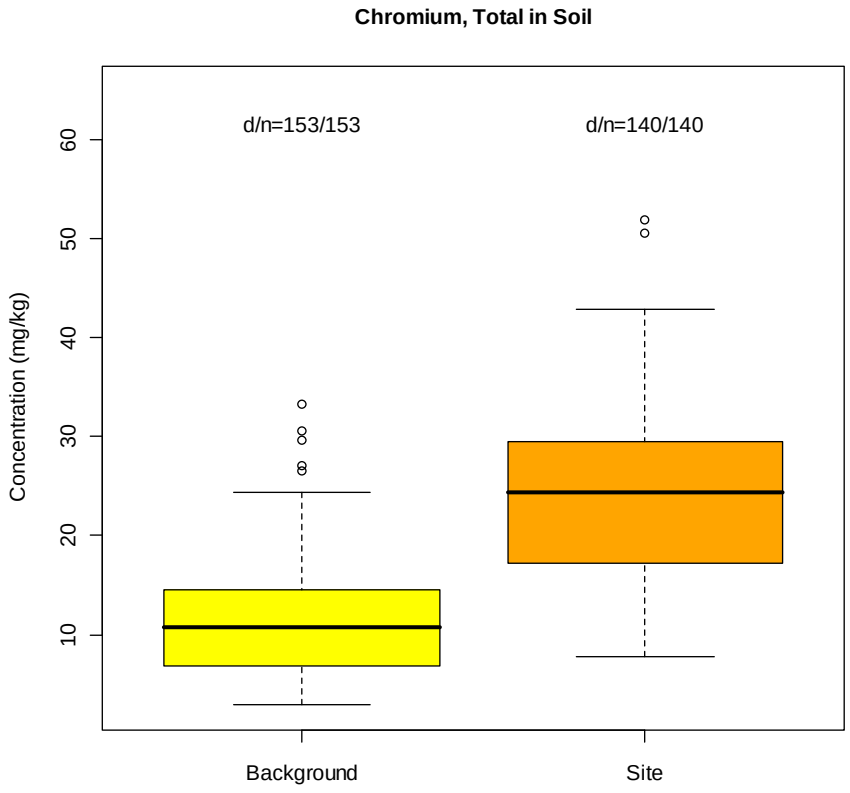

Barium, Total in Soil
d/n=153/153
d/n=140/140
Concentration (mg/kg)
50
100
150
200
250
300
350
Background
Site

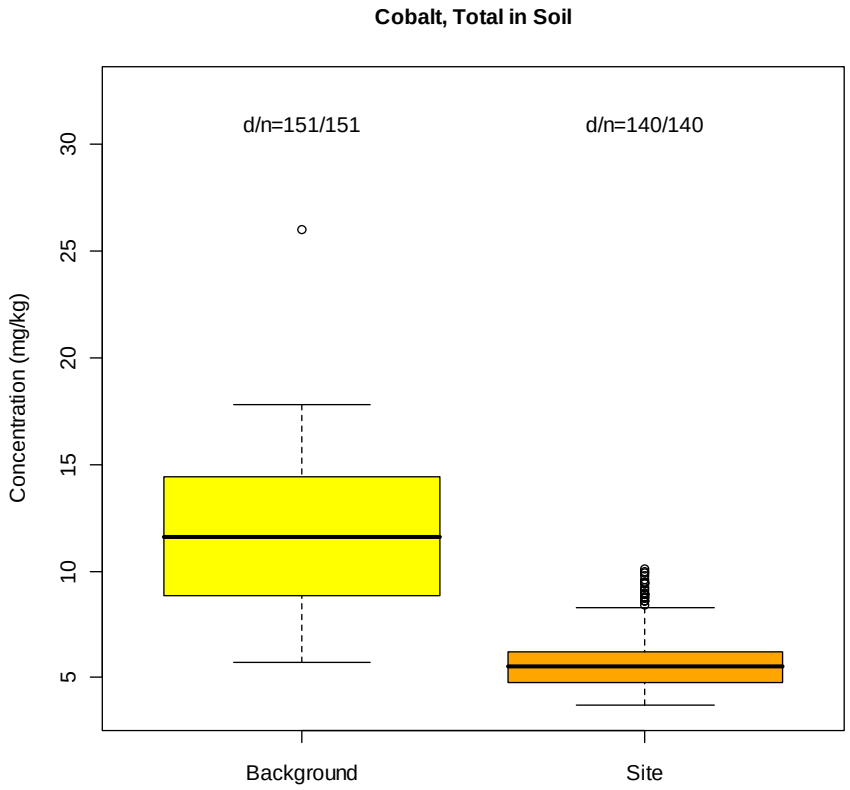

Beryllium, Total in Soil
d/n=137/150
d/n=136/140
Concentration (mg/kg)
0.0
0.5
1.0
1.5
2.0
2.5
3.0
Background
Site

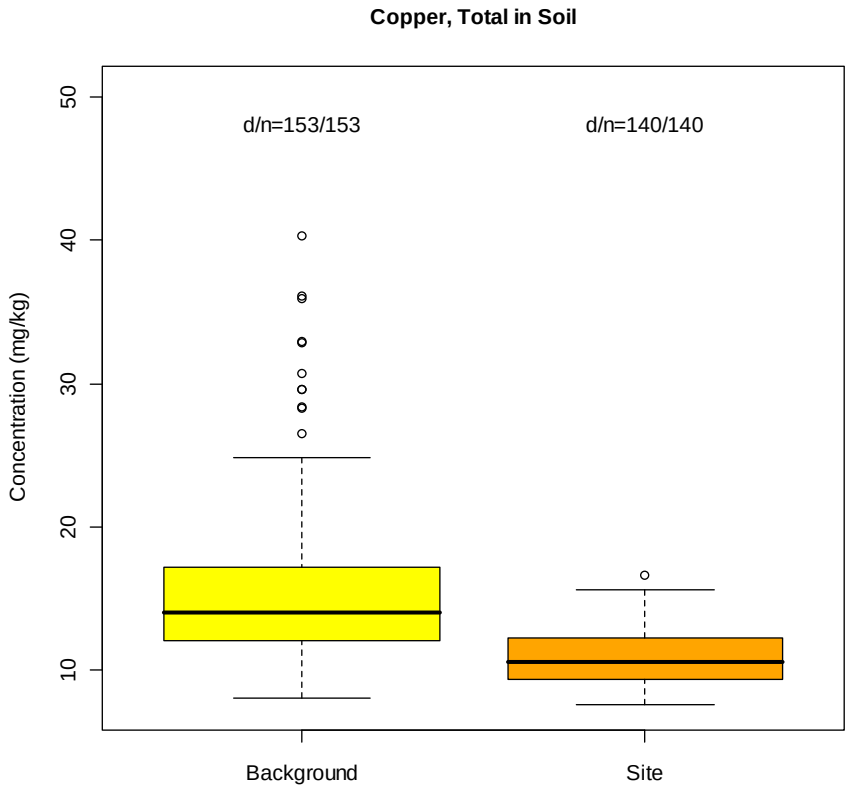

Cadmium, Total in Soil
d/n=5/150
d/n=84/140
Concentration (mg/kg)
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
Background
Site

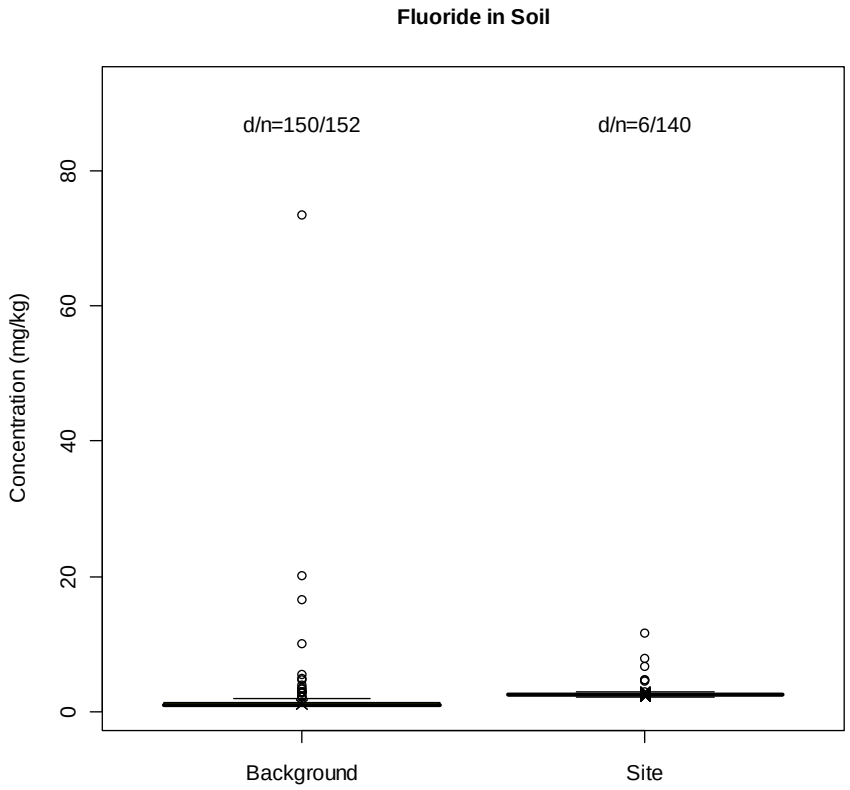

Calcium, Total in Soil
d/n=153/153
d/n=140/140
Concentration (mg/kg)
0e+00
2e+04
4e+04
6e+04
8e+04
1e+05
Background
Site

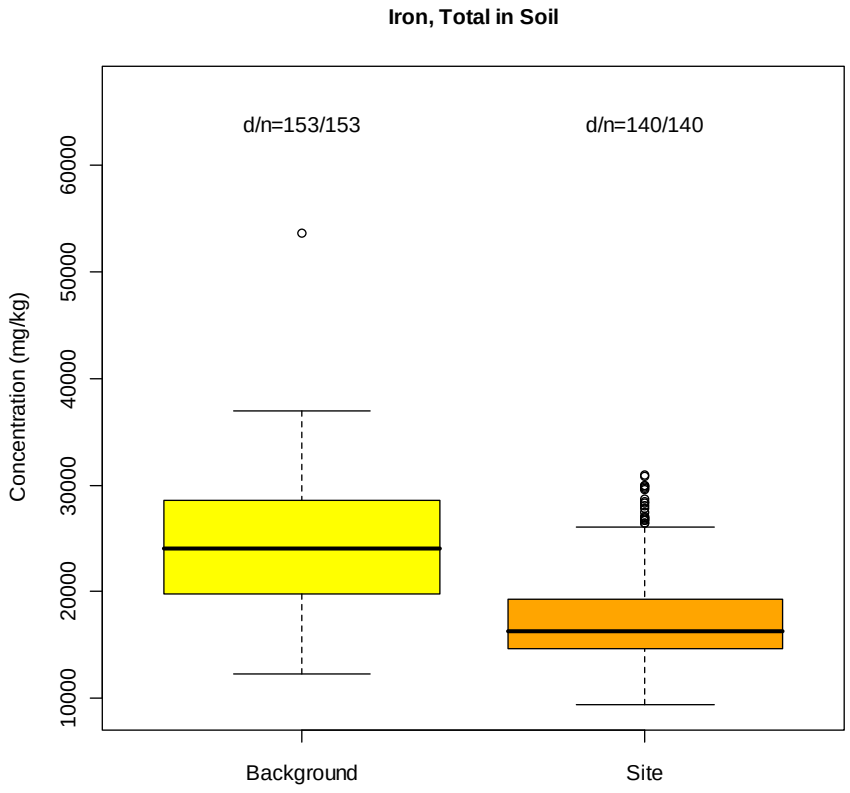

Chloride in Soil
d/n=152/152
d/n=97/140
Concentration (mg/kg)
0
500
1000
1500
Background
Site

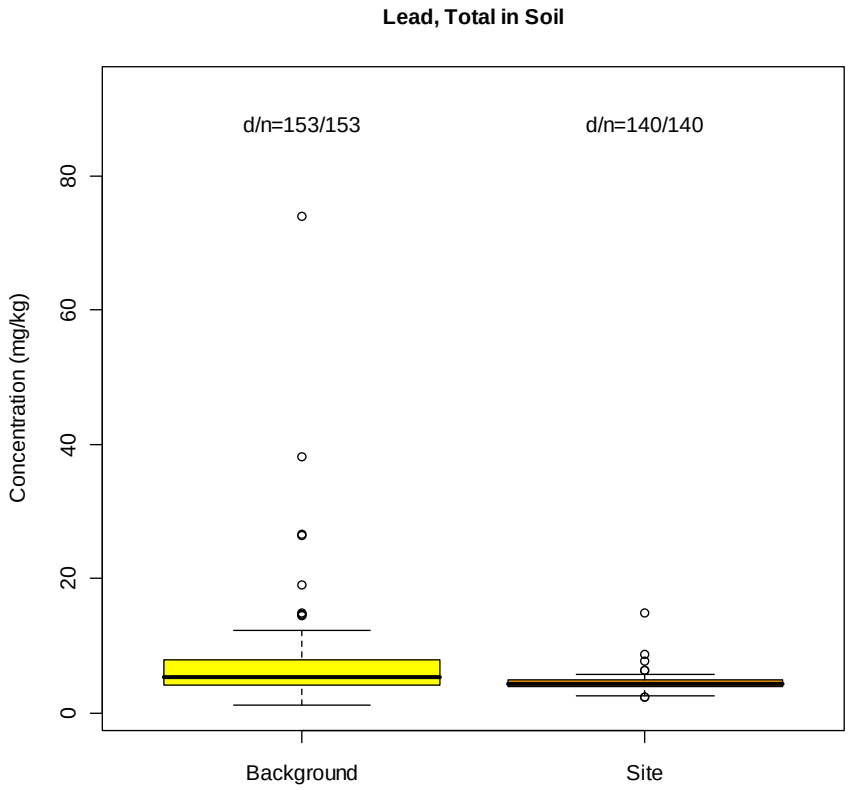

Chromium, Total in Soil
d/n=153/153
d/n=140/140
Concentration (mg/kg)
10
20
30
40
50
60
Background
Site

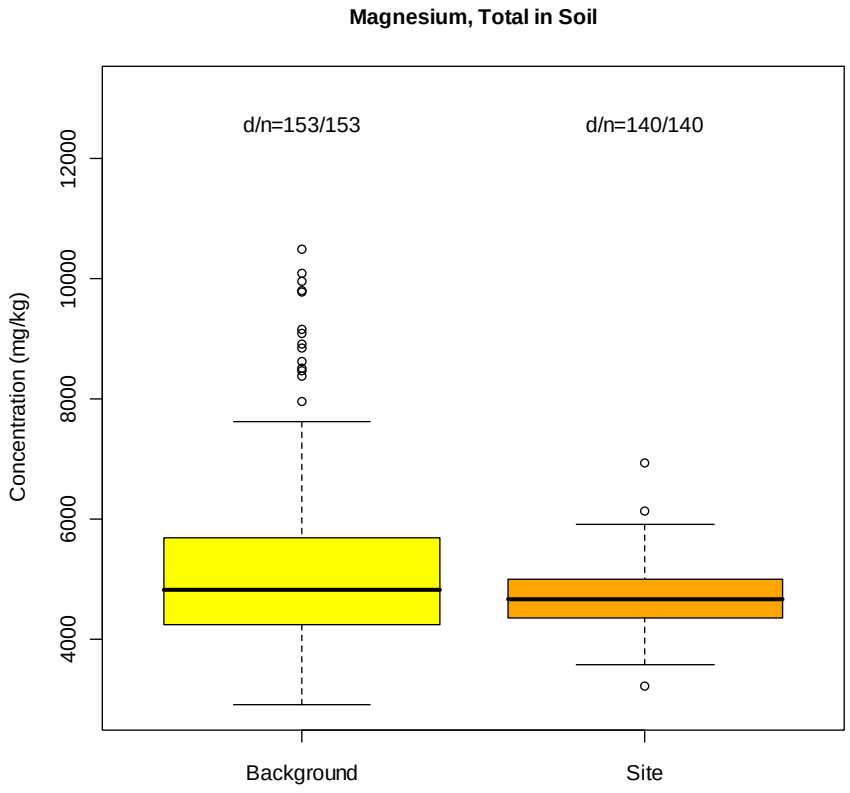

Cobalt, Total in Soil
d/n=151/151
d/n=140/140
Concentration (mg/kg)
5
10
15
20
25
30
Background
Site

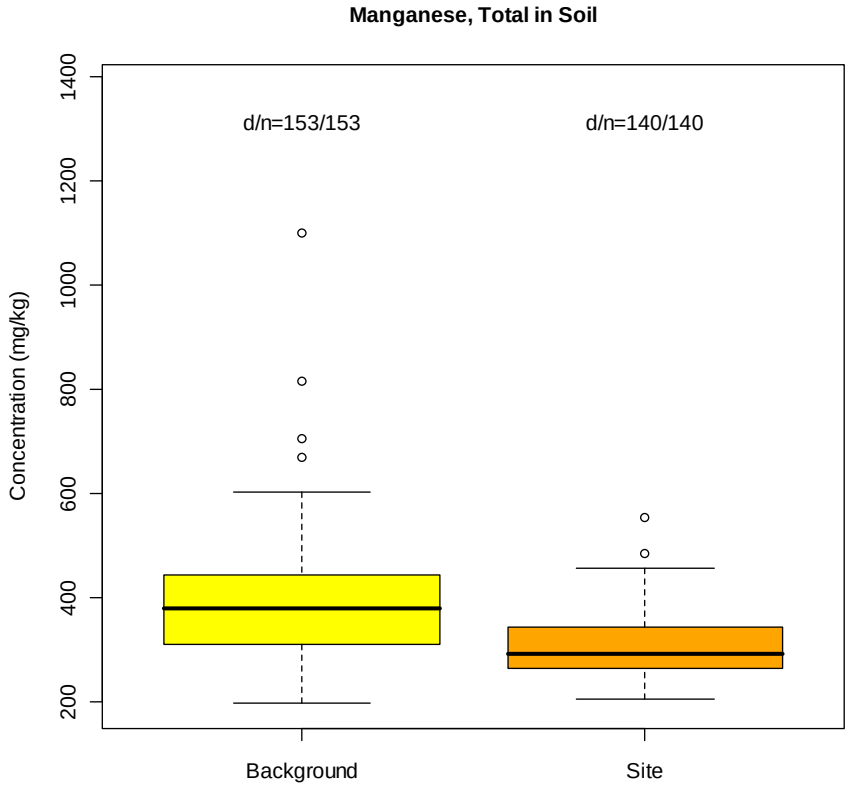

Copper, Total in Soil
d/n=153/153
d/n=140/140
Concentration (mg/kg)
10
20
30
40
50
Background
Site

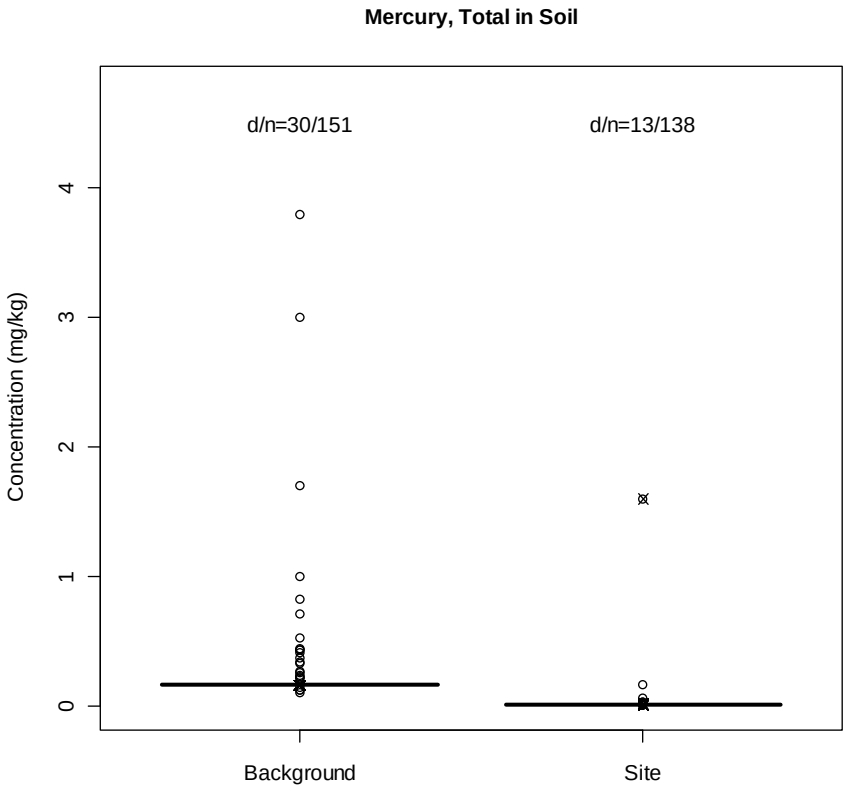

Fluoride in Soil
d/n=150/152
d/n=6/140
Concentration (mg/kg)
0
20
40
60
80
Background
Site

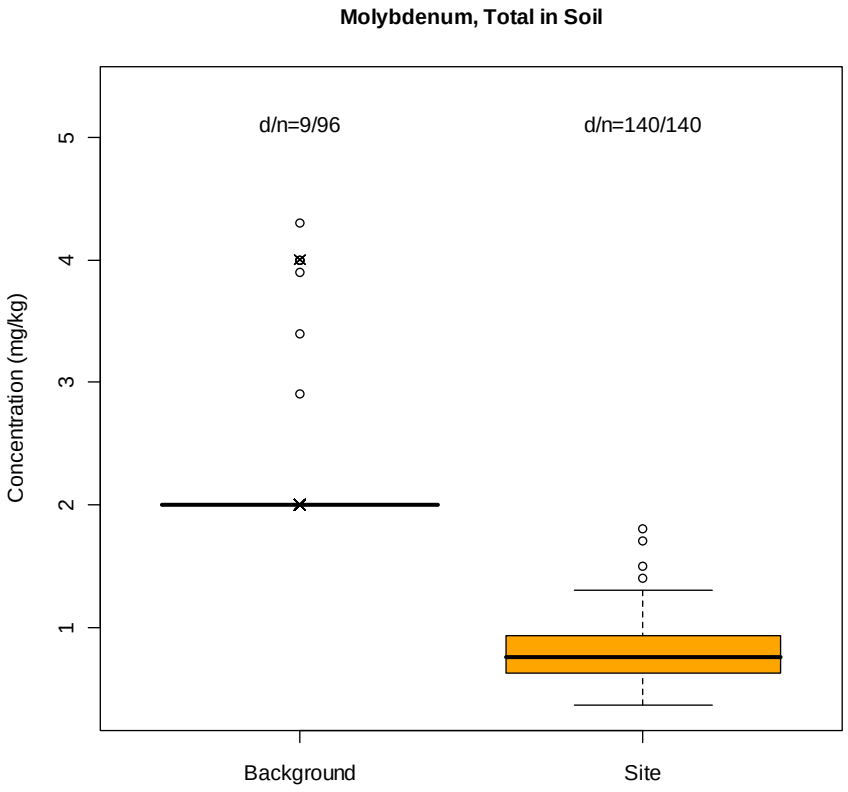

Iron, Total in Soil
d/n=153/153
d/n=140/140
Concentration (mg/kg)
10000
20000
30000
40000
50000
60000
Background
Site

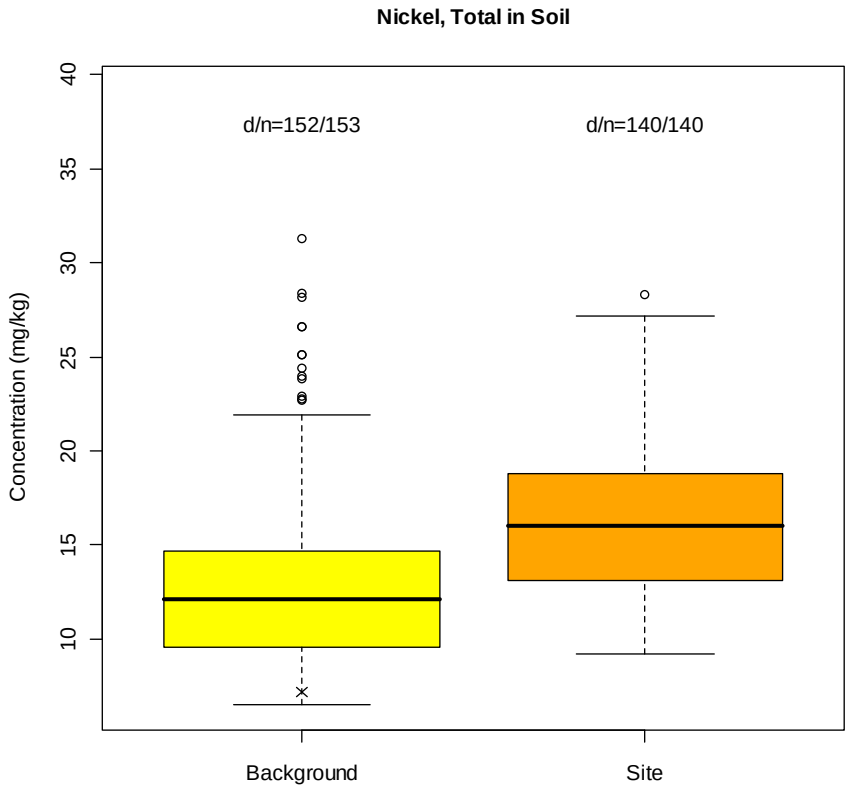

Lead, Total in Soil
d/n=153/153
d/n=140/140
Concentration (mg/kg)
0
20
40
60
80
Background
Site

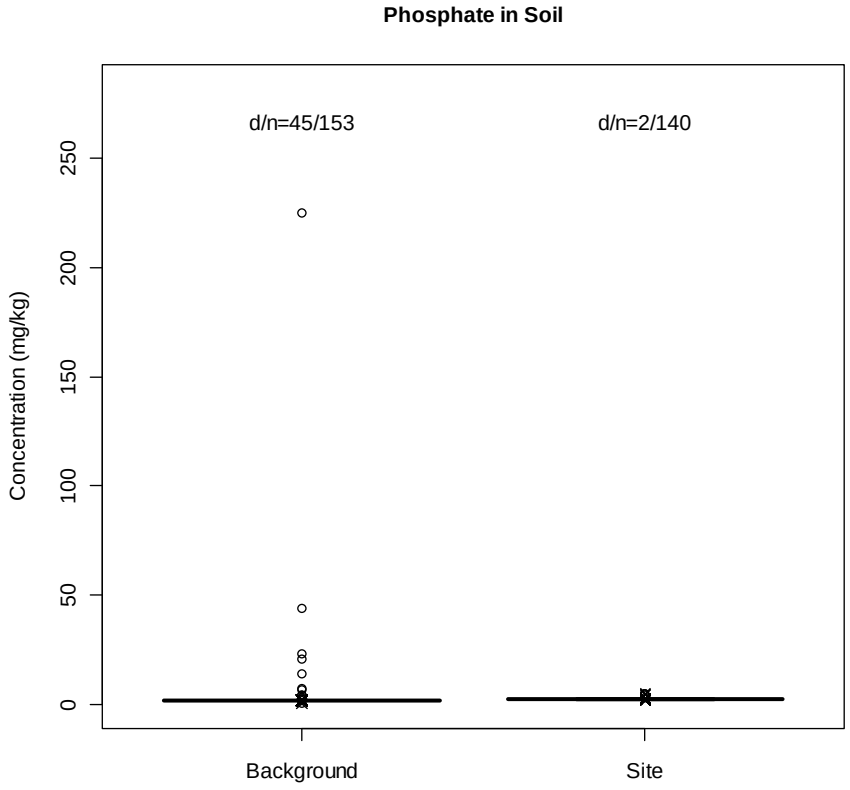

Magnesium, Total in Soil
d/n=153/153
d/n=140/140
Concentration (mg/kg)
4000
6000
8000
10000
12000
Background
Site

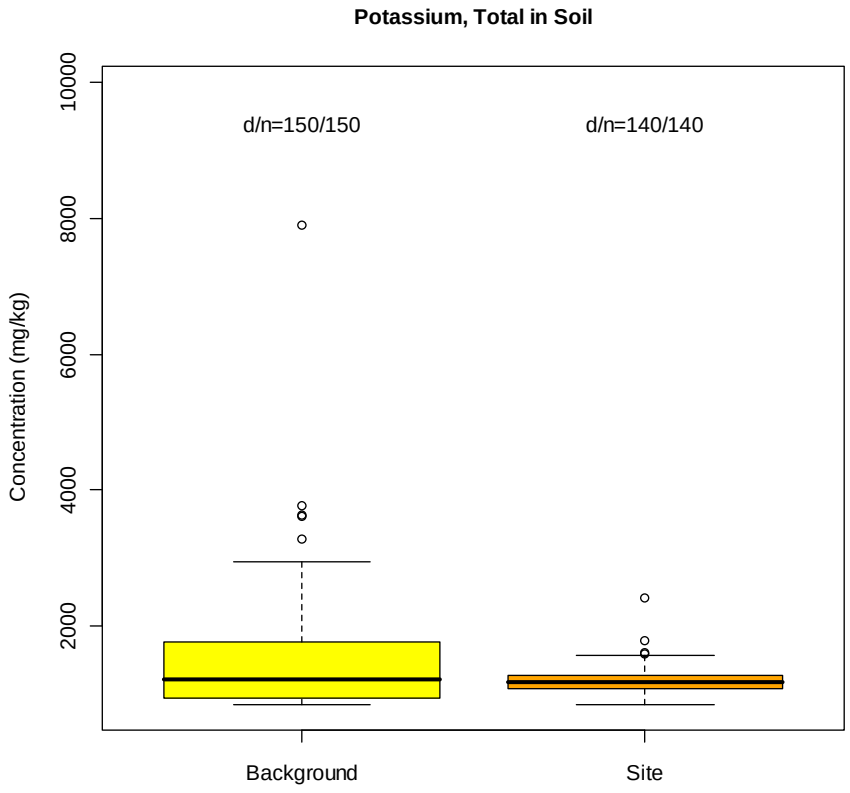

Manganese, Total in Soil
d/n=153/153
d/n=140/140
Concentration (mg/kg)
200
400
600
800
1000
1200
1400
Background
Site

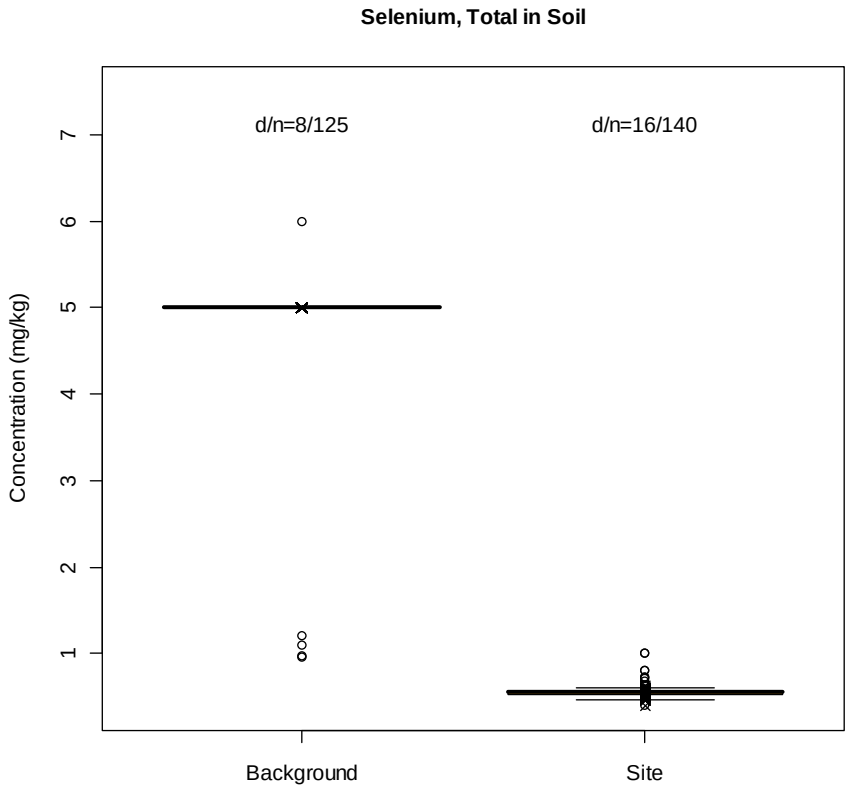

Mercury, Total in Soil
d/n=30/151
d/n=13/138
Concentration (mg/kg)
0
1
2
3
4
Background
Site

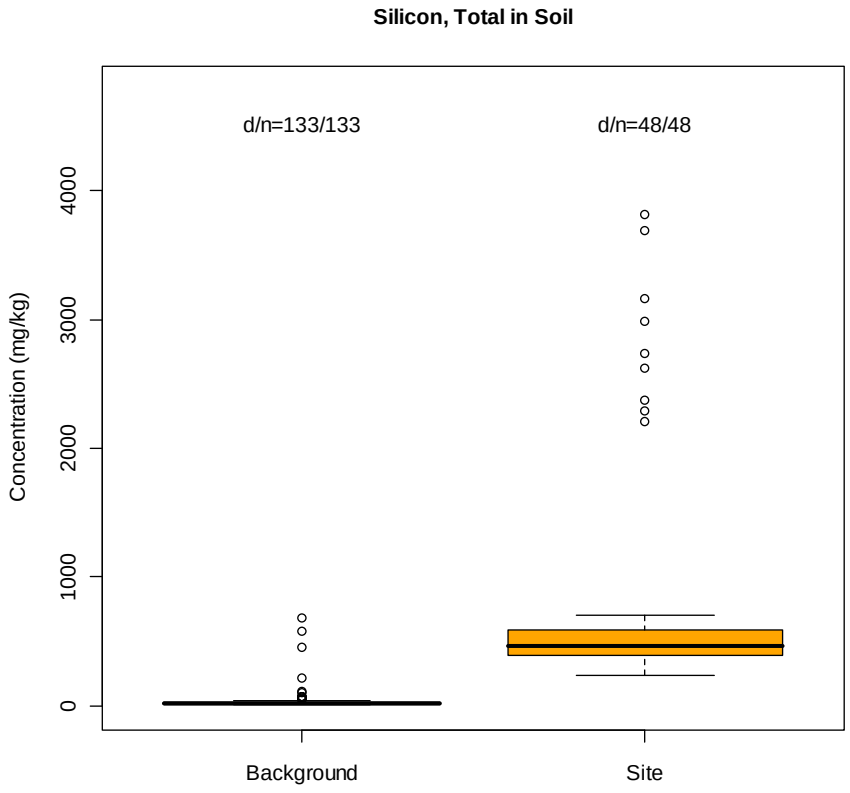

Molybdenum, Total in Soil
d/n=9/96
d/n=140/140
Concentration (mg/kg)
1
2
3
4
5
Background
Site

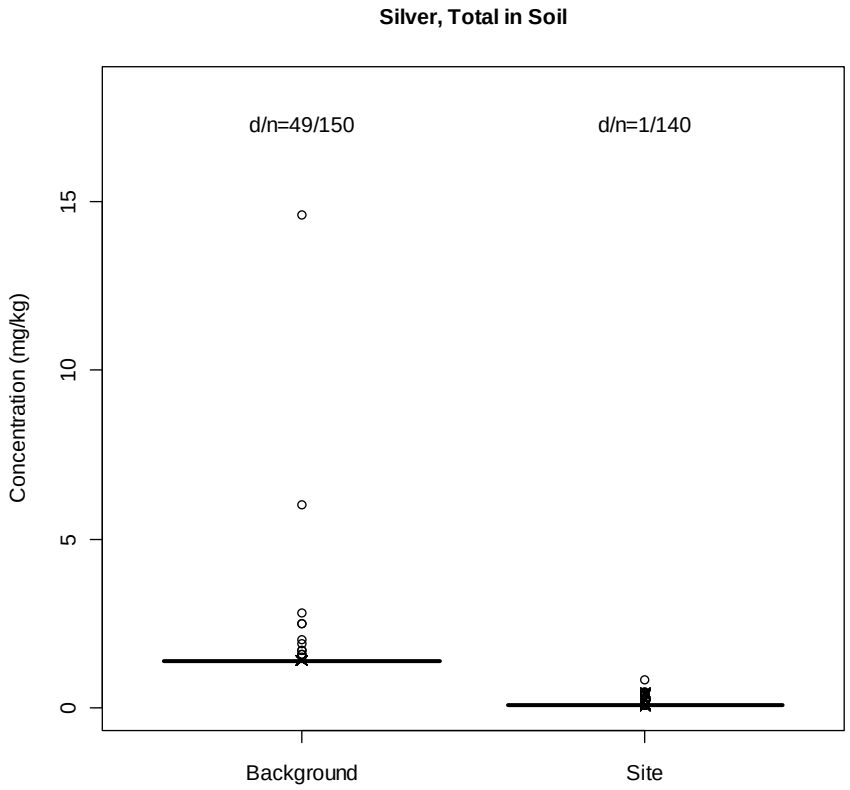

Nickel, Total in Soil
d/n=152/153
d/n=140/140
Concentration (mg/kg)
10
15
20
25
30
35
40
Background
Site

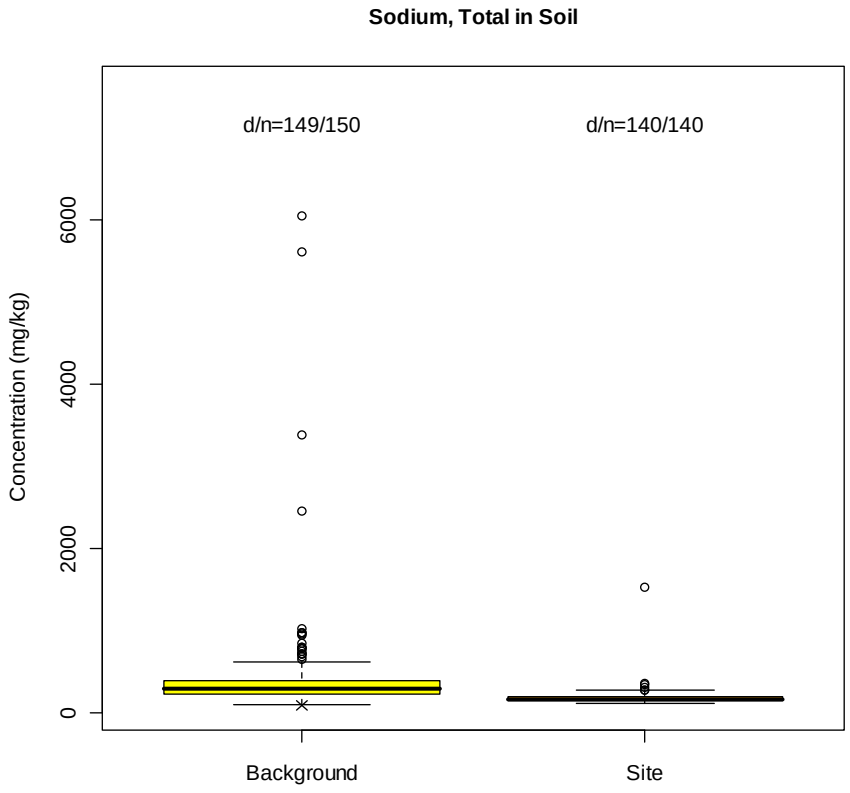

Phosphate in Soil
d/n=45/153
d/n=2/140
Concentration (mg/kg)
0
50
100
150
200
250
Background
Site

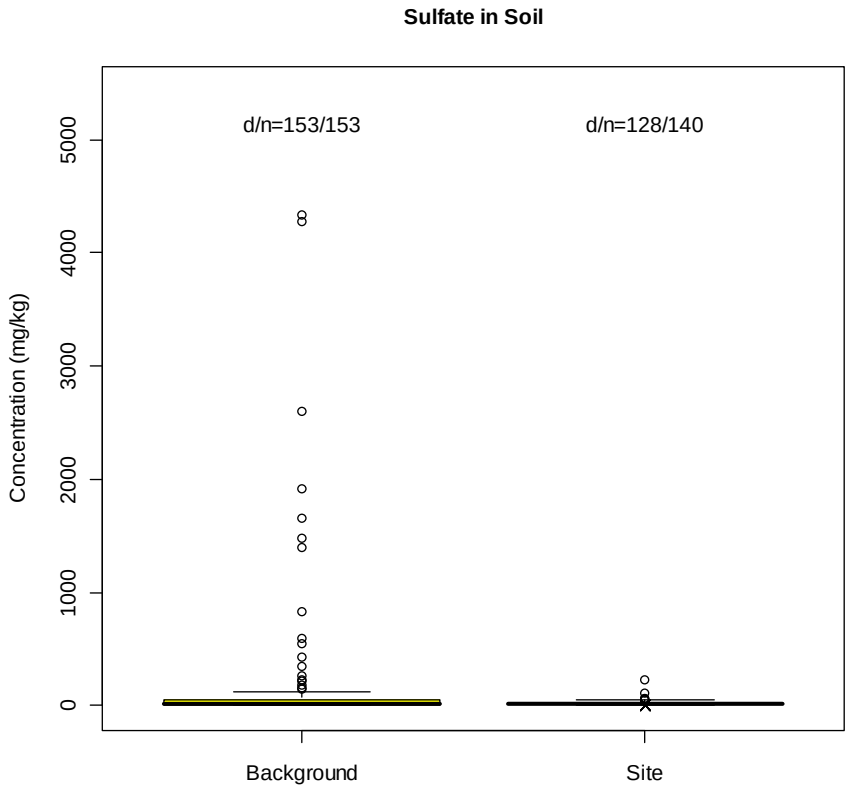

Potassium, Total in Soil
d/n=150/150
d/n=140/140
Concentration (mg/kg)
2000
4000
6000
8000
10000
Background
Site

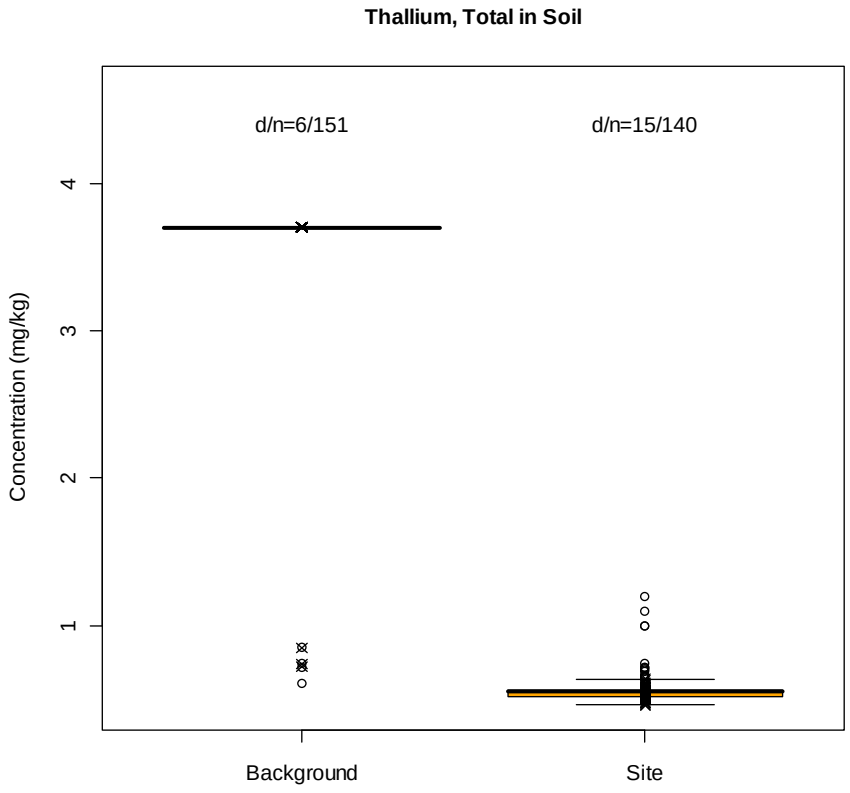

Selenium, Total in Soil
d/n=8/125
d/n=16/140
Concentration (mg/kg)
1
2
3
4
5
6
7
Background
Site

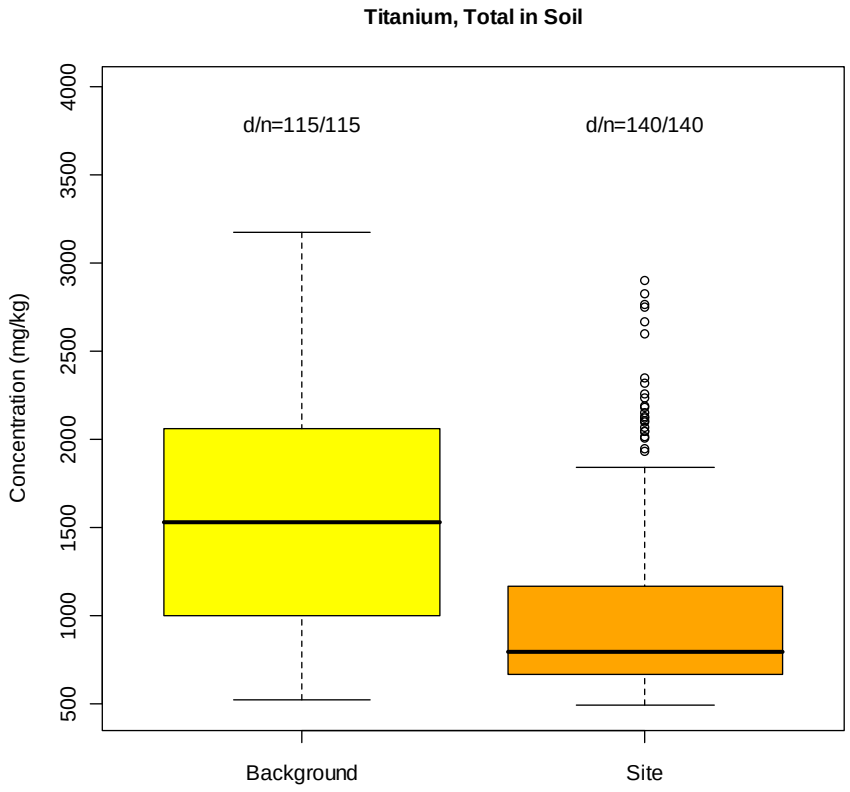

Silicon, Total in Soil
d/n=133/133
d/n=48/48
Concentration (mg/kg)
0
1000
2000
3000
4000
Background
Site

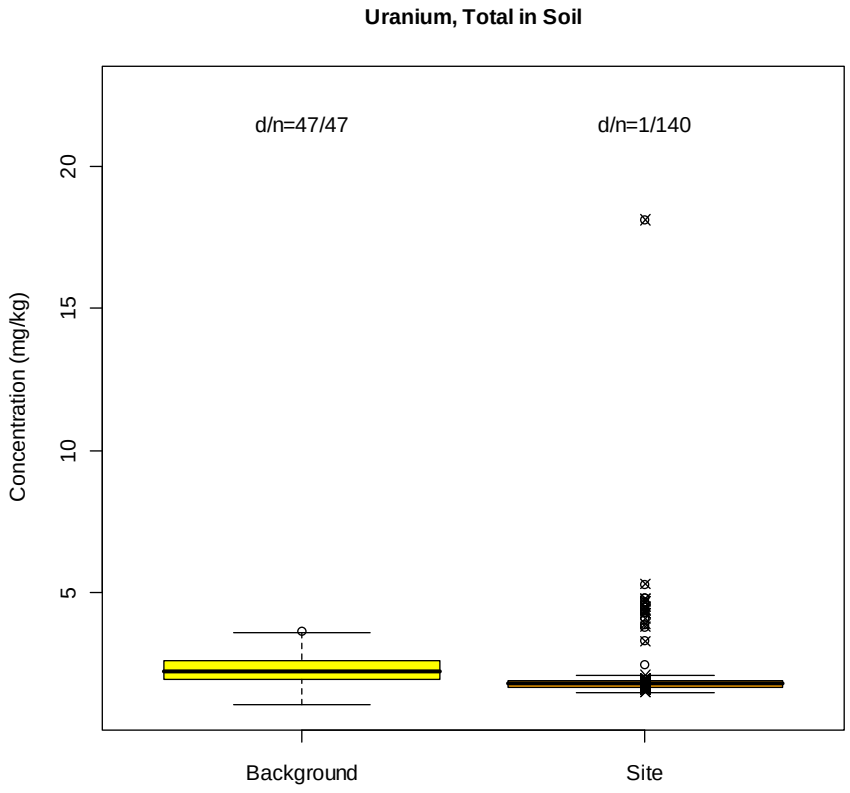

Silver, Total in Soil
d/n=49/150
d/n=1/140
Concentration (mg/kg)
0
5
10
15
Background
Site

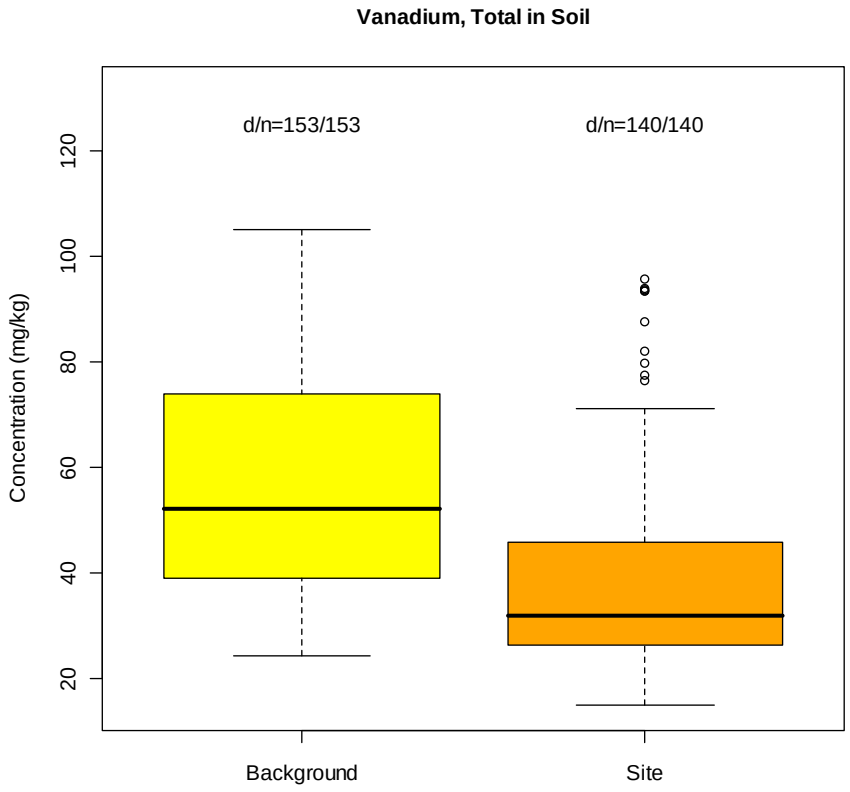

Sodium, Total in Soil
d/n=149/150
d/n=140/140
Concentration (mg/kg)
0
2000
4000
6000
Background
Site


Sulfate in Soil
d/n=153/153
d/n=128/140
Concentration (mg/kg)
0
1000
2000
3000
4000
5000
Background
Site


Thallium, Total in Soil
d/n=6/151
d/n=15/140
Concentration (mg/kg)
1
2
3
4
Background
Site


Titanium, Total in Soil
d/n=115/115
d/n=140/140
Concentration (mg/kg)
500
1000
1500
2000
2500
3000
3500
4000
Background
Site


Uranium, Total in Soil
d/n=47/47
d/n=1/140
Concentration (mg/kg)
5
10
15
20
Background
Site


Vanadium, Total in Soil
d/n=153/153
d/n=140/140
Concentration (mg/kg)
20
40
60
80
100
120
Background
Site

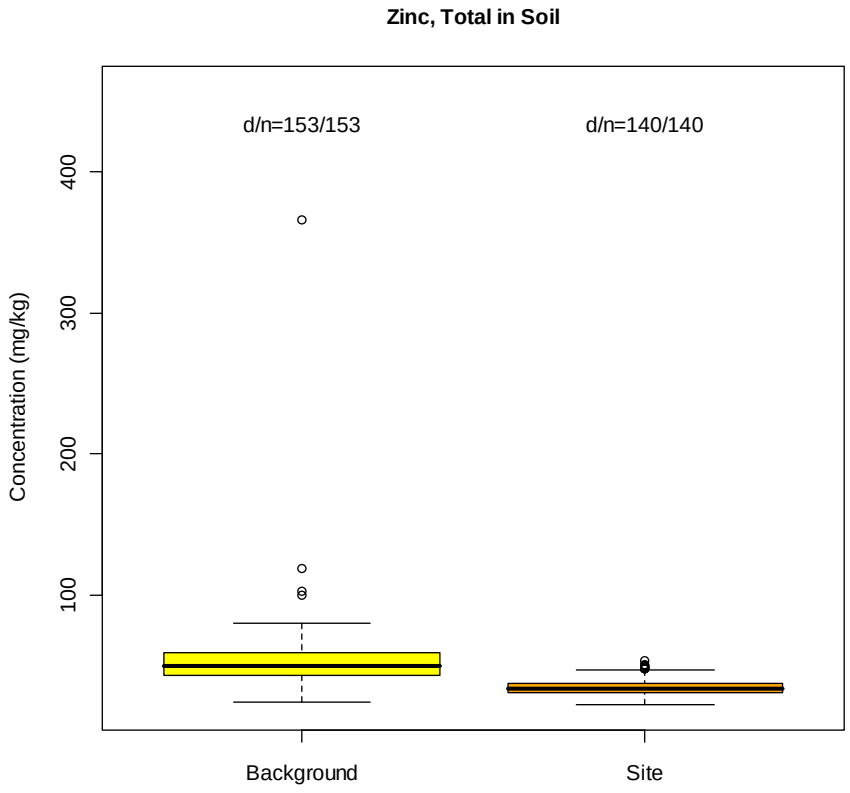

Zinc, Total in Soil
d/n=153/153
d/n=140/140
Concentration (mg/kg)
100
200
300
400
Background
Site

Table J-4 Toxicity Criteria Used for the Calculation of Soil and Groundwater Cleanup Levels

Analyte Name	CAS ID	Oral CPF $(mg/kg\text{-}day)^{-1}$	Reference	Oral RfD (mg/kg-day)	Reference	Notes
1,1,1-Trichloroethane	71-55-6			2.0E+00	IRIS	
1,1-Dichloroethane	75-34-3	5.7E-03	EPA Regional; CalEPA	2.0E-01	EPA Regional; PPRTV	No values are published in IRIS. Tier 2 (PPRTV) and Tier 3 (CalEPA) values are used for the oral RfD and oral SF, respectively.
1,1,2,2-Tetrachloroethane	79-34-5	2.0E-01	IRIS			A PPRTV exists for the oral RfD but is not used because IRIS publishes an oral SF.
1,2-Dichloroethane-d4	17060-07-0	9.1E-02	IRIS			This analyte is 1,2-dichloroethane, where the hydrogen atoms have been replaced with deuterium. Deuterium is stable (non-radioactive) and used as a tracer in the "doubly-labeled water test" of metabolic activity / energy expenditure. The toxicity data for unlabeled 1,2-dichloroethane is used. A PPRTV exists for the oral RfD but is not used because IRIS publishes an oral SF.
1,2-Dichloroethene (total)	540-59-0			9.0E-03	EPA Regional; HEAST	The HEAST value for mixed isomers is slightly lower than the value for either the cis- or trans- isomer in IRIS.
1,2,4-Trichlorobenzene	120-82-1			1.0E-02	IRIS	A Tier 3 (CalEPA value) exists for the oral SF but is not used because IRIS publishes an oral RfD.
2,4,5-Trichlorophenoxyacetic acid	93-76-5			1.0E-02	IRIS	syn: 2,4,5-T
2,4-Dichlorophenoxyacetic acid	94-75-7			1.0E-02	IRIS	syn: 2,4-D
2-[2,4,5-Trichlorophenoxy]propionic acid	93-72-1			8.0E-03	IRIS	syn: 2,4,5-TP
2-Butanone	78-93-3			6.0E-01	IRIS	syn: methyl ethyl ketone
2-Butoxyethanol	111-76-2			5.0E-01	IRIS	syn: ethylene glycol monobutyl ether
2-Methylnaphthalene	91-57-6			4.0E-03	IRIS	
2-secButyl-4,6-dinitrophenol[DNBP]	88-85-7			1.0E-03	IRIS	syn: Dinoseb
3+4 Methylphenol [cresol, m+p]	65794-96-9			5.0E-03	EPA Regional; HEAST	The oral RfD is from HEAST and pertains to p-cresol. But the oral RfD for 4-methylphenol (p-cresol) is withdrawn in IRIS; the value of 0.005 mg/kg-day is not really defensible.
4-[2,4-Dichlorophenoxy]butanoic acid	94-82-6			8.0E-03	IRIS	syn: 2,4-DB
Acenaphthene	83-32-9			6.0E-02	IRIS	
Acenaphthylene	208-96-8			6.0E-02	IRIS; surrogate	RfD value for acenaphthene used as a surrogate based on structural similarity.
Acetone	67-64-1			9.0E-01	IRIS	

Table J-4 Toxicity Criteria Used for the Calculation of Soil and Groundwater Cleanup Levels

Analyte Name	CAS ID	Oral CPF $(mg/kg\text{-}day)^{-1}$	Reference	Oral RfD (mg/kg-day)	Reference	Notes
Aldrin	309-00-2	1.7E+01	IRIS	3.0E-05	IRIS	
Alpha-BHC	319-84-6	6.3E+00	IRIS			syn: alpha-hexachlorocyclohexane. An oral RfD value for gamma-BHC exists in IRIS, but this surrogate value is not used because an oral SF is published.
alpha-Chlordane	5103-71-9	3.5E-01	IRIS	5.0E-04	IRIS	as "chlordane (technical)"
Aluminum	7429-90-5			1.0E+00	EPA Regional; PPRTV	
Anthracene	120-12-7			3.0E-01	IRIS	
Antimony	7440-36-0			4.0E-04	IRIS	
Aroclor-1242	53469-21-9	2.0E+00	IRIS; total PCBs			PCB SF pertains to soil or food ingestion.
Aroclor-1248	12672-29-6	2.0E+00	IRIS; total PCBs			PCB SF pertains to soil or food ingestion.
Aroclor-1254	11097-69-1	2.0E+00	IRIS; total PCBs	2.0E-05	IRIS	PCB SF pertains to soil or food ingestion.
Aroclor-1260	11096-82-5	2.0E+00	IRIS; total PCBs			PCB SF pertains to soil or food ingestion.
Aroclor-1262	37324-23-5	2.0E+00	IRIS; total PCBs			PCB SF pertains to soil or food ingestion.
Arsenic	7440-38-2	1.5E+00	IRIS	3.0E-04	IRIS	
Barium	7440-39-3			2.0E-01	IRIS	
Benzo[a]anthracene	56-55-3	7.3E-01	IRIS / WAC			TEF of 0.1 (WAC Table 708-2), referenced to CalEPA
Benzo[a]pyrene	50-32-8	7.3E+00	IRIS			TEF of 1.0 (WAC Table 708-2), referenced to CalEPA
Benzo[b]fluoranthene	205-99-2	7.3E-01	IRIS / WAC			TEF of 0.1 (WAC Table 708-2), referenced to CalEPA
Benzo[ghi]perylene	191-24-2			3.0E-02	IRIS; surrogate	RfD value for pyrene used as a surrogate based on structural similarity
Benzo[k]fluoranthene	207-08-9	7.3E-01	IRIS / WAC			TEF of 0.1 (WAC Table 708-2), referenced to CalEPA
Beryllium	7440-41-7			2.0E-03	IRIS	
beta-1,2,3,4,5,6-Hexachlorocyclohexane	319-85-7	1.8E+00	IRIS			syn: beta-BHC
Bis[2-ethylhexyl] phthalate	117-81-7	1.4E-02	IRIS	2.0E-02	IRIS	
Bismuth	7440-69-9					no toxicity data; nontoxic at low intake levels
Boron	7440-42-8			2.0E-01	IRIS	

Table J-4 Toxicity Criteria Used for the Calculation of Soil and Groundwater Cleanup Levels

Analyte Name	CAS ID	Oral CPF $(mg/kg\text{-}day)^{-1}$	Reference	Oral RfD (mg/kg-day)	Reference	Notes
Bromofluorobenzene	460-00-4			2.0E-02	PPRTV; surrogate	RfD value from the EPA Regional screening table for bromobenzene used as a surrogate. There is a PPRTV manuscript, but no provisional criteria, for bromofluorobenzene. The Nat'l Tox Program has a 2005 literature review of tox studies. Possible surrogates suggested by NTP are bromobenzene (PPRTV oral RfD; Tier 2) and 1,4-dichlorobenzene (CalEPA oral SF; Tier 3). Of the two, I'd suggest using bromobenzene for two reasons: it's tox criterion is Tier 2 instead of Tier 3; and animal data suggest 1,4-dichlorobenzene isn't mutagenic.
Butylbenzylphthalate	85-68-7			2.0E-01	IRIS	
Cadmium	7440-43-9			1.0E-03	IRIS	cadmium RfD pertains to soil ingestion
Calcium	7440-70-2					no toxicity data; essential nutrient
Carbazole	86-74-8	2.0E-02	HEAST			For some reason, the 1997 HEAST value is not cited in EPA's regional screening tables. As an alternative to the old HEAST value, we could possibly apply the oral SF of 3 per mg/kg-day for quinoline, a 2-ring polyaromatic amine, as a surrogate for the 3-ring polyaromatic amine carbazole based on structural similarity.
Carbon Disulfide	75-15-0			1.0E-01	IRIS	
Chloride	16887-00-6					no toxicity data; essential nutrient
Chloroform	67-66-3			2.0E-01	IRIS	IRIS does not publish an oral SF, stating, "A dose of 0.01 mg/kg/day (equal to the RfD) can be considered protective against cancer risk." Although a Tier 3 (CalEPA) oral SF exists, it is not used because IRIS publishes a SF and also explicitly states that cancer risk issues are encompassed by use of the RfD.
Chromium	7440-47-3			1.5E+00	IRIS	as "chromium(III)"
Chrysene	218-01-9	7.3E-02	IRIS / WAC			TEF of 0.01 (WAC Table 708-2), referenced to CalEPA
cis-1,2-dichloroethene	156-59-2			1.0E-02	EPA Regional; PPRTV	
Cobalt	7440-48-4			3.0E-04	EPA Regional; PPRTV	

Table J-4 Toxicity Criteria Used for the Calculation of Soil and Groundwater Cleanup Levels

Analyte Name	CAS ID	Oral CPF $(mg/kg\text{-}day)^{-1}$	Reference	Oral RfD (mg/kg-day)	Reference	Notes
Copper	7440-50-8			4.0E-02	EPA Regional; HEAST	
Dalapon	75-99-0			3.0E-02	IRIS	as "dalapon, sodium salt"
Dibenz[a,h]anthracene	53-70-3	7.3E-01	IRIS / WAC			TEF of 0.1 (WAC Table 708-2), referenced to CalEPA
Dibenzofuran	132-64-9			2.0E-03	ORNL RAIS; NCEA	Not listed in the EPA regional screening table. The ORNL provisional value is referenced to NCEA and is identical to that on-line in CLARC. EPA's PPRTV manuscript has a "screening value" chronic RfD for dibenzofuran of 0.001 mg/kg-day. This value is "considered to be below Tier 3" in the toxicity value hierarchy, and usable in a limited context such as ranking risks among multiple chemicals.
Dicamba	1918-00-9			3.0E-02	IRIS	
Dichlorodiphenyldichloroethane	72-54-8	2.4E-01	IRIS			syn: DDD
Dichlorodiphenyldichloroethylene	72-55-9	3.4E-01	IRIS			syn: DDE
Dichlorodiphenyltrichloroethane	50-29-3	3.4E-01	IRIS	5.0E-04	IRIS	syn: DDT
Dichloroprop	120-36-5			8.0E-03	IRIS; surrogate	syn: 2-[2,4-dichlorophenoxy]propionic acid. The oral RfD for 2-[2,4,5-trichlorophenoxy]propionic acid and 4-[2,4-dichlorophenoxy]butyric acid is used as a surrogate based on chemical similarity.
Dieldrin	60-57-1	1.6E+01	IRIS	5.0E-05	IRIS	
Diethyl ether	60-29-7			2.0E-01	IRIS	syn: ethyl ether
Diethylphthalate	84-66-2			8.0E-01	IRIS	
Di-n-butylphthalate	84-74-2			1.0E-01	IRIS	syn: di-butyl phthalate
Di-n-octylphthalate	117-84-0	1.4E-02	IRIS	2.0E-02	IRIS; surrogate	di-sec-octyl phthalate (aka, bis [2-ethylhexyl] phthalate) used as a surrogate based on structural similarity
Endosulfan I	959-98-8			6.0E-03	IRIS	as "endosulfan"
Endosulfan II	33213-65-9			6.0E-03	IRIS	as "endosulfan"
Endosulfan sulfate	1031-07-8			6.0E-03	IRIS; surrogate	endosulfan used as a toxicity surrogate
Endrin	72-20-8			3.0E-04	IRIS	
Endrin aldehyde	7421-93-4			3.0E-04	IRIS; surrogate	endrin used as a toxicity surrogate

Table J-4 Toxicity Criteria Used for the Calculation of Soil and Groundwater Cleanup Levels

Analyte Name	CAS ID	Oral CPF $(mg/kg\text{-}day)^{-1}$	Reference	Oral RfD (mg/kg-day)	Reference	Notes
Endrin ketone	53494-70-5			3.0E-04	IRIS; surrogate	endrin used as a toxicity surrogate
Ethylene glycol	107-21-1			2.0E+00	IRIS	
Fluoranthene	206-44-0			4.0E-02	IRIS	
Fluorene	86-73-7			4.0E-02	IRIS	
Fluoride	16984-48-8			6.0E-02	IRIS	
Freon 113	76-13-1			3.0E+01	IRIS	syn: 1,1,2-trichloro-1,2,2-trifluoroethane
gamma-Chlordane	5566-34-7	3.5E-01	IRIS	5.0E-04	IRIS	as "chlordane (technical)"
Heptachlor	76-44-8	4.5E+00	IRIS	5.0E-04	IRIS	
Heptachlor epoxide	1024-57-3	9.1E+00	IRIS	1.3E-05	IRIS	
Heptacosane	593-49-7					no toxicity data; nontoxic at low intake levels
Heptadecane	629-78-7					no toxicity data; nontoxic at low intake levels
Hexadecanoic acid [9Cl]	57-10-3					no toxicity data; nontoxic at low intake levels
Hexavalent Chromium	18540-29-9			3.0E-03	IRIS	
Indeno[1,2,3-cd]pyrene	193-39-5	7.3E-01	IRIS / WAC			TEF of 0.1 (WAC Table 708-2), referenced to CalEPA
Iron	7439-89-6			7.0E-01	EPA Regional; PPRTV	
Isophorone	78-59-1	9.5E-04	IRIS	2.0E-01	IRIS	
Lead	7439-92-1					no toxicity data; refer to soil standards
Lithium	7439-93-2			2.0E-03	EPA Regional; PPRTV	
Magnesium	7439-95-4					no toxicity data; essential nutrient
Manganese	7439-96-5			4.7E-02	IRIS	manganese RfD pertains to water and soil ingestion
Mercury	7439-97-6			3.0E-04	IRIS	as "mercuric chloride"
Methoxychlor	72-43-5			5.0E-03	IRIS	
Methylene chloride	75-09-2	7.5E-03	IRIS	6.0E-02	IRIS	
Molybdenum	7439-98-7			5.0E-03	IRIS	
Naphthalene	91-20-3			2.0E-02	IRIS	
Nickel	7440-02-0			2.0E-02	IRIS	as "nickel soluble salts"

Table J-4 Toxicity Criteria Used for the Calculation of Soil and Groundwater Cleanup Levels

Analyte Name	CAS ID	Oral CPF $(mg/kg\text{-}day)^{-1}$	Reference	Oral RfD (mg/kg-day)	Reference	Notes
Nitrogen in nitrate	14797-55-8			1.6E+00	IRIS	nitrate RfD of 1.6 mg/kg-day based on 'N in nitrate' as described in RfD footnote in IRIS. RfD for "nitrate" would be 7.1 mg/kg-day [1.6 mg N/kg-day * (62 g/mol NO3 / 14 g/mol N)].
Nitrogen in nitrite	14797-65-0			1.0E-01	IRIS	nitrite RfD of 0.1 mg/kg-day based on 'N in nitrite' as described in RfD footnote in IRIS. RfD for "nitrite" would be 0.33 mg/kg-day [0.1 mg N/kg-day * (46 g/mol NO2 / 14 g/mol N)].
Octacosane	630-02-4					no toxicity data; nontoxic at low intake levels
Octadecanoic acid	57-11-4					no toxicity data; nontoxic at low intake levels
Pentachlorophenol	87-86-5	1.2E-01	IRIS	3.0E-02	IRIS	
Phenanthrene	85-01-8			3.0E-02	IRIS	RfD value for pyrene used as a surrogate based on structural similarity
Phenol	108-95-2			3.0E-01	IRIS	
Phosphate	14265-44-2					no toxicity data; nontoxic at low intake levels
Phosphorus	7723-14-0					no toxicity data; nontoxic at low intake levels
Picloram	1918-02-1			7.0E-02	IRIS	
Potassium	7440-09-7					no toxicity data; essential nutrient
Pyrene	129-00-0			3.0E-02	IRIS	
Selenium	7782-49-2			5.0E-03	IRIS	
Silicon	7440-21-3					no toxicity data; nontoxic, used in food preparation
Silver	7440-22-4			5.0E-03	IRIS	
Sodium	7440-23-5					no toxicity data; essential nutrient
Strontium [elemental]	7440-24-6			6.0E-01	IRIS	
Sulfate	14808-79-8					no toxicity data; nontoxic at low intake levels
Sulfide	18496-25-8					no toxicity data; nontoxic at low intake levels
Tetrachloroethene	127-18-4	5.4E-01	EPA Regional; CalEPA	1.0E-02	EPA Regional; CalEPA	
Thallium	7440-28-0			8.0E-05	IRIS	as thallium carbonate, chloride, or sulfate
Tin	7440-31-5			6.0E-01	EPA Regional; HEAST	

Table J-4 Toxicity Criteria Used for the Calculation of Soil and Groundwater Cleanup Levels

Analyte Name	CAS ID	Oral CPF $(mg/kg\text{-}day)^{-1}$	Reference	Oral RfD (mg/kg-day)	Reference	Notes
Titanium	7440-32-6					(Possible RfD of 4 mg/kg-day - asking Teri for their NDEP reference) no toxicity data; nontoxic at low intake levels
Toluene	108-88-3			8.0E-02	IRIS	
Toluene-d8	2037-26-5					This analyte is fully deuterated toluene; the hydrogen atoms have been replaced with deuterium. Deuterium is stable (non-radioactive) and used as a tracer in the "doubly-labeled water test" of metabolic activity / energy expenditure. Toxicologically, this analyte is redundant with 'toluene'.
Trichloroethene	79-01-6	1.3E-02	EPA Regional; CalEPA			
Trichloromonofluoromethane	75-69-4			3.0E-01	IRIS	syn: trichlorofluoromethane
Uranium [inorganic]	7440-61-1			3.0E-03	IRIS	There is also an RfD of 0.0006 mg/kg-day from EPA's Office of Water that is the basis for the current MCL. The Office of Water RfD is recommended by EPA Region 10 for use in the Upper Columbia River risk assessment.
Vanadium	7440-62-2			9.0E-03	IRIS	as vanadium pentoxide
Zinc	7440-66-6			3.0E-01	IRIS	

CPF: cancer potency factor
RfD: reference dose
syn: synonym
IRIS: Integrated Risk Information System
PPRTV: Provisional Peer Reviewed Toxicity Value
HEAST: Health Effects Assessment Summary Tables
CalEPA: California EPA (state agency)
WAC: *Washington Administrative Code*
ORNL RAIS: Oak Ridge National Laboratory, Risk Assessment Information System
NCEA: National Center for Environmental Assessment (a division of EPA)

Table J-5 Unrestricted Use (Method B) Soil Cleanup Levels

Analyte Name	CAS ID	Method B noncarcinogenic (mg/kg)	Method B carcinogenic (mg/kg)
1,1,1-Trichloroethane	71-55-6	1.6E+04	NA
1,1-Dichloroethane	75-34-3	1.6E+03	1.8E+02
1,1,2,2-Tetrachloroethane	79-34-5	NA	5.0E+00
1,2-Dichloroethane-d4	17060-07-0	NA	1.1E+01
1,2-Dichloroethene (total)	540-59-0	7.2E+01	NA
1,2,4-Trichlorobenzene	120-82-1	8.0E+01	NA
2,4,5-Trichlorophenoxyacetic acid	93-76-5	8.0E+01	NA
2,4-Dichlorophenoxyacetic acid	94-75-7	8.0E+01	NA
2-[2,4,5-Trichlorophenoxy]propionic acid	93-72-1	6.4E+01	NA
2-Butanone	78-93-3	4.8E+03	NA
2-Butoxyethanol	111-76-2	4.0E+03	NA
2-Methylnaphthalene	91-57-6	3.2E+01	NA
2-secButyl-4,6-dinitrophenol[DNBP]	88-85-7	8.0E+00	NA
3+4 Methylphenol [cresol, m+p]	65794-96-9	4.0E+01	NA
4-[2,4-Dichlorophenoxy]butanoic acid	94-82-6	6.4E+01	NA
Acenaphthene	83-32-9	4.8E+02	NA
Acenaphthylene	208-96-8	4.8E+02	NA
Acetone	67-64-1	7.2E+03	NA
Aldrin	309-00-2	2.4E-01	5.9E-02
Alpha-BHC	319-84-6	NA	1.6E-01
alpha-Chlordane	5103-71-9	4.0E+00	2.9E+00
Aluminum	7429-90-5	8.0E+03	NA
Anthracene	120-12-7	2.4E+03	NA
Antimony	7440-36-0	3.2E+00	NA
Aroclor-1242	53469-21-9	NA	5.0E-01
Aroclor-1248	12672-29-6	NA	5.0E-01
Aroclor-1254	11097-69-1	1.6E-01	5.0E-01
Aroclor-1260	11096-82-5	NA	5.0E-01
Aroclor-1262	37324-23-5	NA	5.0E-01
Total PCB Aroclors (MCL comparison)	NA	NA	NA
Arsenic	7440-38-2	2.4E+00	6.7E-01
Barium	7440-39-3	1.6E+03	NA
Benzo[a]anthracene	56-55-3	NA	1.4E+00
Benzo[a]pyrene	50-32-8	NA	1.4E-01
Benzo[b]fluoranthene	205-99-2	NA	1.4E+00
Benzo[ghi]perylene	191-24-2	2.4E+02	NA
Benzo[k]fluoranthene	207-08-9	NA	1.4E+00
Beryllium	7440-41-7	1.6E+01	NA
beta-1,2,3,4,5,6-Hexachlorocyclohexane	319-85-7	NA	5.6E-01
Bis[2-ethylhexyl] phthalate	117-81-7	1.6E+02	7.1E+01
Bismuth	7440-69-9	NA	NA

Table J-5 Unrestricted Use (Method B) Soil Cleanup Levels

Analyte Name	CAS ID	Method B noncarcinogenic (mg/kg)	Method B carcinogenic (mg/kg)
Boron	7440-42-8	1.6E+03	NA
Bromofluorobenzene	460-00-4	1.6E+02	NA
Butylbenzylphthalate	85-68-7	1.6E+03	NA
Cadmium	7440-43-9	8.0E+00	NA
Calcium	7440-70-2	NA	NA
Carbazole	86-74-8	NA	5.0E+01
Carbon Disulfide	75-15-0	8.0E+02	NA
Chloride	16887-00-6	NA	NA
Chloroform	67-66-3	1.6E+03	NA
Chromium	7440-47-3	1.2E+04	NA
Chrysene	218-01-9	NA	1.4E+01
cis-1,2-dichloroethene	156-59-2	8.0E+01	NA
Cobalt	7440-48-4	2.4E+00	NA
Copper	7440-50-8	3.2E+02	NA
Dalapon	75-99-0	2.4E+02	NA
Dibenz[a,h]anthracene	53-70-3	NA	1.4E+00
Dibenzofuran	132-64-9	1.6E+01	NA
Dicamba	1918-00-9	2.4E+02	NA
Dichlorodiphenyldichloroethane	72-54-8	NA	4.2E+00
Dichlorodiphenyldichloroethylene	72-55-9	NA	2.9E+00
Dichlorodiphenyltrichloroethane	50-29-3	4.0E+00	2.9E+00
Dichloroprop	120-36-5	6.4E+01	NA
Dieldrin	60-57-1	4.0E-01	6.3E-02
Diethyl ether	60-29-7	1.6E+03	NA
Diethylphthalate	84-66-2	6.4E+03	NA
Di-n-butylphthalate	84-74-2	8.0E+02	NA
Di-n-octylphthalate	117-84-0	1.6E+02	7.1E+01
Endosulfan I	959-98-8	4.8E+01	NA
Endosulfan II	33213-65-9	4.8E+01	NA
Endosulfan sulfate	1031-07-8	4.8E+01	NA
Endrin	72-20-8	2.4E+00	NA
Endrin aldehyde	7421-93-4	2.4E+00	NA
Endrin ketone	53494-70-5	2.4E+00	NA
Ethylene glycol	107-21-1	1.6E+04	NA
Fluoranthene	206-44-0	3.2E+02	NA
Fluorene	86-73-7	3.2E+02	NA
Fluoride	16984-48-8	4.8E+02	NA
Freon 113	76-13-1	2.4E+05	NA
gamma-Chlordane	5566-34-7	4.0E+00	2.9E+00
Heptachlor	76-44-8	4.0E+00	2.2E-01
Heptachlor epoxide	1024-57-3	1.0E-01	1.1E-01

Table J-5 Unrestricted Use (Method B) Soil Cleanup Levels

Analyte Name	CAS ID	Method B noncarcinogenic (mg/kg)	Method B carcinogenic (mg/kg)
Heptacosane	593-49-7	NA	NA
Heptadecane	629-78-7	NA	NA
Hexadecanoic acid [9CI]	57-10-3	NA	NA
Hexavalent Chromium	18540-29-9	2.4E+01	NA
Indeno[1,2,3-cd]pyrene	193-39-5	NA	1.4E+00
Iron	7439-89-6	5.6E+03	NA
Isophorone	78-59-1	1.6E+03	1.1E+03
Lead (a)	7439-92-1	NA	NA
Lithium	7439-93-2	1.6E+01	NA
Magnesium	7439-95-4	NA	NA
Manganese	7439-96-5	3.8E+02	NA
Mercury	7439-97-6	2.4E+00	NA
Methoxychlor	72-43-5	4.0E+01	NA
Methylene chloride	75-09-2	4.8E+02	1.3E+02
Molybdenum	7439-98-7	4.0E+01	NA
Naphthalene	91-20-3	1.6E+02	NA
Nickel	7440-02-0	1.6E+02	NA
Nitrate	14797-55-8	5.7E+04	NA
Nitrite	14797-65-0	2.6E+03	NA
Octacosane	630-02-4	NA	NA
Octadecanoic acid	57-11-4	NA	NA
Pentachlorophenol	87-86-5	2.4E+02	8.3E+00
Phenanthrene	85-01-8	2.4E+02	NA
Phenol	108-95-2	2.4E+03	NA
Phosphate	14265-44-2	NA	NA
Phosphorus	7723-14-0	NA	NA
Picloram	1918-02-1	5.6E+02	NA
Potassium	7440-09-7	NA	NA
Pyrene	129-00-0	2.4E+02	NA
Selenium	7782-49-2	4.0E+01	NA
Silicon	7440-21-3	NA	NA
Silver	7440-22-4	4.0E+01	NA
Sodium	7440-23-5	NA	NA
Strontium [elemental]	7440-24-6	4.8E+03	NA
Sulfate	14808-79-8	NA	NA
Sulfide	18496-25-8	NA	NA
Tetrachloroethene	127-18-4	8.0E+01	1.9E+00
Thallium	7440-28-0	6.4E-01	NA
Tin	7440-31-5	4.8E+03	NA
Titanium	7440-32-6	NA	NA
Toluene	108-88-3	6.4E+02	NA

Table J-5 Unrestricted Use (Method B) Soil Cleanup Levels

Analyte Name	CAS ID	Method B noncarcinogenic (mg/kg)	Method B carcinogenic (mg/kg)
Toluene-d8	2037-26-5	NA	NA
Trichloroethene	79-01-6	NA	7.7E+01
Trichloromonofluoromethane	75-69-4	2.4E+03	NA
Uranium [inorganic]	7440-61-1	2.4E+01	NA
Vanadium	7440-62-2	7.2E+01	NA
Zinc	7440-66-6	2.4E+03	NA

(a) Lead values are Method A values for unrestricted land use (WAC Table 740-1).
NA: Not applicable; no oral toxicity criteria for this health effect endpoint.

Table J-6 Groundwater Cleanup Levels (GW CULs), and Chemical-Specific Inputs

Analyte Name	CAS ID	INH	Reference (a)	Noncarc GW CUL (ug/L)	Carc GW CUL (ug/L)	MCL (mg/L)	GW CUL (ug/L)	CUL Type
1,1,1-Trichloroethane	71-55-6	2	CLARC (on-line)	1.6E+03	NA	2.0E-01	2.0E+02	MCL
1,1-Dichloroethane	75-34-3	2	CLARC (on-line)	1.6E+02	7.7E+00	NA	7.7E+00	Carc CUL
1,1,2,2-Tetrachloroethane	79-34-5	2	CLARC (on-line)	NA	2.2E-01	NA	2.2E-01	Carc CUL
1,2-Dichloroethane-d4	17060-07-0	2	CLARC (on-line)	NA	4.8E-01	5.0E-03	4.8E+00	Carc CUL
1,2-Dichloroethene (total)	540-59-0	2	CLARC (on-line)	7.2E+00	NA	NA	7.2E+00	NC CUL
1,2,4-Trichlorobenzene	120-82-1	2	CLARC (on-line)	8.0E+00	NA	7.0E-02	8.0E+00	NC CUL
2,4,5-Trichlorophenoxyacetic acid	93-76-5	1	WAC volatile?	1.6E+01	NA	NA	1.6E+01	NC CUL
2,4-Dichlorophenoxyacetic acid	94-75-7	1	CLARC (on-line)	1.6E+01	NA	7.0E-02	1.6E+01	NC CUL
2-[2,4,5-Trichlorophenoxy]propionic acid	93-72-1	1	WAC volatile?	1.3E+01	NA	5.0E-02	1.3E+01	NC CUL
2-Butanone	78-93-3	2	CLARC (on-line)	4.8E+02	NA	NA	4.8E+02	NC CUL
2-Butoxyethanol	111-76-2	2	CLARC (on-line)	4.0E+02	NA	NA	4.0E+02	NC CUL
2-Methylnaphthalene	91-57-6	2	CLARC (on-line)	3.2E+00	NA	NA	3.2E+00	NC CUL
2-secButyl-4,6-dinitrophenol[DNBP]	88-85-7	1	WAC volatile?	1.6E+00	NA	7.0E-03	1.6E+00	NC CUL
3+4 Methylphenol [cresol, m+p]	65794-96-9	2	CLARC (on-line)	4.0E+00	NA	NA	4.0E+00	NC CUL
4-[2,4-Dichlorophenoxy]butanoic acid	94-82-6	1	WAC volatile?	1.3E+01	NA	NA	1.3E+01	NC CUL
Acenaphthene	83-32-9	1	CLARC (on-line)	9.6E+01	NA	NA	9.6E+01	NC CUL
Acenaphthylene	208-96-8	1	CLARC (on-line)	9.6E+01	NA	NA	9.6E+01	NC CUL
Acetone	67-64-1	2	CLARC (on-line)	7.2E+02	NA	NA	7.2E+02	NC CUL
Aldrin	309-00-2	2	CLARC (on-line)	2.4E-02	2.6E-03	NA	2.6E-03	Carc CUL
Alpha-BHC	319-84-6	1	CLARC (on-line)	NA	1.4E-02	NA	1.4E-02	Carc CUL
alpha-Chlordane	5103-71-9	1	CLARC (on-line)	8.0E-01	2.5E-01	2.0E-03	8.0E-01	NC CUL
Aluminum	7429-90-5	1	CLARC (on-line)	1.6E+03	NA	NA	1.6E+03	NC CUL
Anthracene	120-12-7	1	CLARC (on-line)	4.8E+02	NA	NA	4.8E+02	NC CUL
Antimony	7440-36-0	1	CLARC (on-line)	6.4E-01	NA	6.0E-03	6.4E-01	NC CUL
Aroclor-1242	53469-21-9	1	CLARC (on-line)	NA	2.2E-01	NA	2.2E-01	Carc CUL
Aroclor-1248	12672-29-6	1	CLARC (on-line)	NA	2.2E-01	NA	2.2E-01	Carc CUL
Aroclor-1254	11097-69-1	1	CLARC (on-line)	3.2E-02	2.2E-01	NA	3.2E-02	NC CUL
Aroclor-1260	11096-82-5	1	CLARC (on-line)	NA	2.2E-01	NA	2.2E-01	Carc CUL
Aroclor-1262	37324-23-5	1	CLARC (on-line)	NA	2.2E-01	NA	2.2E-01	Carc CUL

Table J-6 Groundwater Cleanup Levels (GW CULs), and Chemical-Specific Inputs

Analyte Name	CAS ID	INH	Reference (a)	Noncarc GW CUL (ug/L)	Carc GW CUL (ug/L)	MCL (mg/L)	GW CUL (ug/L)	CUL Type
Total PCB Aroclors (MCL comparison)	NA			NA	NA	5.0E-04	5.0E-01	MCL
Arsenic	7440-38-2	1	CLARC (on-line)	4.8E-01	5.8E-02	1.0E-02	4.8E-01	NC CUL
Barium	7440-39-3	1	CLARC (on-line)	3.2E+02	NA	2.0E+00	3.2E+02	NC CUL
Benzo[a]anthracene	56-55-3	1	CLARC (on-line)	NA	1.2E-01	NA	1.2E-01	Carc CUL
Benzo[a]pyrene	50-32-8	1	CLARC (on-line)	NA	1.2E-02	2.0E-04	1.2E-01	Carc CUL
Benzo[b]fluoranthene	205-99-2	1	CLARC (on-line)	NA	1.2E-01	NA	1.2E-01	Carc CUL
Benzo[ghi]perylene	191-24-2	1	WAC volatile?	4.8E+01	NA	NA	4.8E+01	NC CUL
Benzo[k]fluoranthene	207-08-9	1	CLARC (on-line)	NA	1.2E-01	NA	1.2E-01	Carc CUL
Beryllium	7440-41-7	1	CLARC (on-line)	3.2E+00	NA	4.0E-03	3.2E+00	NC CUL
beta-1,2,3,4,5,6-Hexachlorocyclohexane	319-85-7	1	CLARC (on-line)	NA	4.9E-02	NA	4.9E-02	Carc CUL
Bis[2-ethylhexyl] phthalate	117-81-7	1	CLARC (on-line)	3.2E+01	6.3E+00	6.0E-03	6.0E+00	MCL
Bismuth	7440-69-9			NA	NA	NA	NA	NA
Boron	7440-42-8	1	CLARC (on-line)	3.2E+02	NA	NA	3.2E+02	NC CUL
Bromofluorobenzene	460-00-4	2	WAC volatile?	1.6E+01	NA	NA	1.6E+01	NC CUL
Butylbenzylphthalate	85-68-7	1	CLARC (on-line)	3.2E+02	NA	NA	3.2E+02	NC CUL
Cadmium	7440-43-9	1	CLARC (on-line)	8.0E-01	NA	5.0E-03	8.0E-01	NC CUL
Calcium	7440-70-2			NA	NA	NA	NA	NA
Carbazole	86-74-8	1	CLARC (on-line)	NA	4.4E+00	NA	4.4E+00	Carc CUL
Carbon Disulfide	75-15-0	2	CLARC (on-line)	8.0E+01	NA	NA	8.0E+01	NC CUL
Chloride	16887-00-6			NA	NA	NA	NA	NA
Chloroform	67-66-3	2	CLARC (on-line)	1.6E+02	NA	8.0E-02	8.0E+01	MCL
Chromium	7440-47-3	1	CLARC (on-line)	2.4E+03	NA	1.0E-01	1.0E+02	MCL
Chrysene	218-01-9	1	CLARC (on-line)	NA	1.2E+00	NA	1.2E+00	Carc CUL
cis-1,2-dichloroethene	156-59-2	2	CLARC (on-line)	8.0E+00	NA	7.0E-02	8.0E+00	NC CUL
Cobalt	7440-48-4	1	WAC volatile?	4.8E-01	NA	NA	4.8E-01	NC CUL
Copper	7440-50-8	1	CLARC (on-line)	6.4E+01	NA	1.3E+00	6.4E+01	NC CUL
Dalapon	75-99-0	2	CLARC (on-line)	2.4E+01	NA	2.0E-01	2.4E+01	NC CUL
Dibenz[a,h]anthracene	53-70-3	1	CLARC (on-line)	NA	1.2E-01	NA	1.2E-01	Carc CUL
Dibenzofuran	132-64-9	1	CLARC (on-line)	3.2E+00	NA	NA	3.2E+00	NC CUL

Table J-6 Groundwater Cleanup Levels (GW CULs), and Chemical-Specific Inputs

Analyte Name	CAS ID	INH	Reference (a)	Noncarc GW CUL (ug/L)	Carc GW CUL (ug/L)	MCL (mg/L)	GW CUL (ug/L)	CUL Type
Dicamba	1918-00-9	1	CLARC (on-line)	4.8E+01	NA	NA	4.8E+01	NC CUL
Dichlorodiphenyldichloroethane	72-54-8	1	CLARC (on-line)	NA	3.6E-01	NA	3.6E-01	Carc CUL
Dichlorodiphenyldichloroethylene	72-55-9	1	CLARC (on-line)	NA	2.6E-01	NA	2.6E-01	Carc CUL
Dichlorodiphenyltrichloroethane	50-29-3	1	CLARC (on-line)	8.0E-01	2.6E-01	NA	2.6E-01	Carc CUL
Dichloroprop	120-36-5			NA	NA	NA	NA	NA
Dieldrin	60-57-1	1	CLARC (on-line)	8.0E-02	5.5E-03	NA	5.5E-03	Carc CUL
Diethyl ether	60-29-7	2	CLARC (on-line)	1.6E+02	NA	NA	1.6E+02	NC CUL
Diethylphthalate	84-66-2	1	CLARC (on-line)	1.3E+03	NA	NA	1.3E+03	NC CUL
Di-n-butylphthalate	84-74-2	1	CLARC (on-line)	1.6E+02	NA	NA	1.6E+02	NC CUL
Di-n-octylphthalate	117-84-0	1	CLARC (on-line)	3.2E+01	6.3E+00	NA	6.3E+00	Carc CUL
Endosulfan I	959-98-8	1	CLARC (on-line)	9.6E+00	NA	NA	9.6E+00	NC CUL
Endosulfan II	33213-65-9	1	CLARC (on-line)	9.6E+00	NA	NA	9.6E+00	NC CUL
Endosulfan sulfate	1031-07-8	1	CLARC (on-line)	9.6E+00	NA	NA	9.6E+00	NC CUL
Endrin	72-20-8	1	CLARC (on-line)	4.8E-01	NA	2.0E-03	4.8E-01	NC CUL
Endrin aldehyde	7421-93-4	1	CLARC (on-line)	4.8E-01	NA	2.0E-03	4.8E-01	NC CUL
Endrin ketone	53494-70-5	1	CLARC (on-line)	4.8E-01	NA	2.0E-03	4.8E-01	NC CUL
Ethylene glycol	107-21-1	2	CLARC (on-line)	1.6E+03	NA	NA	1.6E+03	NC CUL
Fluoranthene	206-44-0	1	CLARC (on-line)	6.4E+01	NA	NA	6.4E+01	NC CUL
Fluorene	86-73-7	1	CLARC (on-line)	6.4E+01	NA	NA	6.4E+01	NC CUL
Fluoride	16984-48-8	1	CLARC (on-line)	9.6E+01	NA	4.0E+00	9.6E+01	NC CUL
Freon 113	76-13-1	2	CLARC (on-line)	2.4E+04	NA	NA	2.4E+04	NC CUL
gamma-Chlordane	5566-34-7	1	CLARC (on-line)	8.0E-01	2.5E-01	2.0E-03	8.0E-01	NC CUL
Heptachlor	76-44-8	1	CLARC (on-line)	8.0E-01	1.9E-02	4.0E-04	1.9E-01	Carc CUL
Heptachlor epoxide	1024-57-3	2	CLARC (on-line)	1.0E-02	4.8E-03	2.0E-04	1.0E-02	NC CUL
Heptacosane	593-49-7			NA	NA	NA	NA	NA
Heptadecane	629-78-7			NA	NA	NA	NA	NA
Hexadecanoic acid [9CI]	57-10-3			NA	NA	NA	NA	NA
Hexavalent Chromium	18540-29-9	1	CLARC (on-line)	4.8E+00	NA	1.0E-01	4.8E+00	NC CUL
Indeno[1,2,3-cd]pyrene	193-39-5	1	CLARC (on-line)	NA	1.2E-01	NA	1.2E-01	Carc CUL

Table J-6 Groundwater Cleanup Levels (GW CULs), and Chemical-Specific Inputs

Analyte Name	CAS ID	INH	Reference (a)	Noncarc GW CUL (ug/L)	Carc GW CUL (ug/L)	MCL (mg/L)	GW CUL (ug/L)	CUL Type
Iron	7439-89-6	1	CLARC (on-line)	1.1E+03	NA	3.0E-01	3.0E+02	MCL
Isophorone	78-59-1	2	CLARC (on-line)	1.6E+02	4.6E+01	NA	4.6E+01	Carc CUL
Lead	7439-92-1	1	CLARC (on-line)	NA	NA	1.5E-02	1.5E+01	MCL
Lithium	7439-93-2	1	WAC volatile?	3.2E+00	NA	NA	3.2E+00	NC CUL
Magnesium	7439-95-4			NA	NA	NA	NA	NA
Manganese	7439-96-5	1	CLARC (on-line)	7.5E+01	NA	5.0E-02	5.0E+01	MCL
Mercury	7439-97-6	1	CLARC (on-line)	4.8E-01	NA	2.0E-03	4.8E-01	NC CUL
Methoxychlor	72-43-5	1	CLARC (on-line)	8.0E+00	NA	4.0E-02	8.0E+00	NC CUL
Methylene chloride	75-09-2	2	CLARC (on-line)	4.8E+01	5.8E+00	5.0E-03	5.0E+00	MCL
Molybdenum	7439-98-7	1	CLARC (on-line)	8.0E+00	NA	NA	8.0E+00	NC CUL
Naphthalene	91-20-3	2	CLARC (on-line)	1.6E+01	NA	NA	1.6E+01	NC CUL
Nickel	7440-02-0	1	CLARC (on-line)	3.2E+01	NA	1.0E-01	3.2E+01	NC CUL
Nitrate	14797-55-8	1	CLARC (on-line)	2.6E+03	NA	1.0E+01	2.6E+03	NC CUL
Nitrite	14797-65-0	1	CLARC (on-line)	1.6E+02	NA	1.0E+00	1.6E+02	NC CUL
Octacosane	630-02-4			NA	NA	NA	NA	NA
Octadecanoic acid	57-11-4			NA	NA	NA	NA	NA
Pentachlorophenol	87-86-5	1	CLARC (on-line)	4.8E+01	7.3E-01	1.0E-03	1.0E+00	MCL
Phenanthrene	85-01-8	1	WAC volatile?	4.8E+01	NA	NA	4.8E+01	NC CUL
Phenol	108-95-2	2	CLARC (on-line)	2.4E+02	NA	NA	2.4E+02	NC CUL
Phosphate	14265-44-2			NA	NA	NA	NA	NA
Phosphorus	7723-14-0			NA	NA	NA	NA	NA
Picloram	1918-02-1	1	WAC volatile?	1.1E+02	NA	5.0E-01	1.1E+02	NC CUL
Potassium	7440-09-7			NA	NA	NA	NA	NA
Pyrene	129-00-0	1	CLARC (on-line)	4.8E+01	NA	NA	4.8E+01	NC CUL
Selenium	7782-49-2	1	CLARC (on-line)	8.0E+00	NA	5.0E-02	8.0E+00	NC CUL
Silicon	7440-21-3			NA	NA	NA	NA	NA
Silver	7440-22-4	1	CLARC (on-line)	8.0E+00	NA	1.0E-01	8.0E+00	NC CUL
Sodium	7440-23-5			NA	NA	NA	NA	NA
Strontium [elemental]	7440-24-6	1	CLARC (on-line)	9.6E+02	NA	NA	9.6E+02	NC CUL

Table J-6 Groundwater Cleanup Levels (GW CULs), and Chemical-Specific Inputs

Analyte Name	CAS ID	INH	Reference (a)	Noncarc GW CUL (ug/L)	Carc GW CUL (ug/L)	MCL (mg/L)	GW CUL (ug/L)	CUL Type
Sulfate	14808-79-8			NA	NA	NA	NA	NA
Sulfide	18496-25-8			NA	NA	NA	NA	NA
Tetrachloroethene	127-18-4	2	CLARC (on-line)	8.0E+00	8.1E-02	5.0E-03	8.1E-01	Carc CUL
Thallium	7440-28-0	1	CLARC (on-line)	1.3E-01	NA	2.0E-03	1.3E-01	NC CUL
Tin	7440-31-5	1	CLARC (on-line)	9.6E+02	NA	NA	9.6E+02	NC CUL
Titanium	7440-32-6			NA	NA	NA	NA	NA
Toluene	108-88-3	2	CLARC (on-line)	6.4E+01	NA	1.0E+00	6.4E+01	NC CUL
Toluene-d8	2037-26-5			6.4E+01	NA	1.0E+00	6.4E+01	NC CUL
Trichloroethene	79-01-6	2	CLARC (on-line)	NA	3.4E+00	5.0E-03	5.0E+00	MCL
Trichloromonofluoromethane	75-69-4	2	CLARC (on-line)	2.4E+02	NA	NA	2.4E+02	NC CUL
Uranium [inorganic]	7440-61-1	1	WAC volatile?	4.8E+00	NA	3.0E-02	4.8E+00	NC CUL
Vanadium	7440-62-2	1	CLARC (on-line)	1.4E+01	NA	NA	1.4E+01	NC CUL
Zinc	7440-66-6	1	CLARC (on-line)	4.8E+02	NA	5.0E+00	4.8E+02	NC CUL

(a) INH value is defined based on whether the analyte was analyzed by EPA volatiles method, or has similar properties as these analytes, plus petroleum hydrocarbons through C12 and naphthalene and methylnaphthalenes (WAC 173-340-200). The value of INH tabulated in CLARC (on-line) is given precedence over the definition of INH in WAC 173-340-200 since the tabulated values reflect Ecology's interpretation of the regulation.

(b) Copper and lead MCL values are action levels.

(c) Iron, manganese, silver, and zinc MCLs are secondary MCLs cited in WAC 246-290-310. All other MCLs were obtained on-line at: (http://www.epa.gov/safewater/contaminants/index.html).

(d) MCL is for total trihalomethanes. No other listed trihalomethanes were detected at the US Ecology site.

(e) Oral RfD divided by 2 to pertain to water exposures (5E-04 mg/kg-day); Integrated Risk Information System (IRIS) 2009.

CLARC: Cleanup Levels and Risk Calculations (on on-line database maintained by WA Dept of Ecology)

WAC: Washington Administrative Code

NA: Not applicable; no oral toxicity criteria for this health effect endpoint.

Table J-7 Groundwater Protection Soil Cleanup Levels (and chemical-specific inputs)

Analyte Name	CAS ID	Kd (L/kg)	Hcc (unitless)	Reference	Soil Cleanup Level (mg/kg)	Notes
1,1,1-Trichloroethane	71-55-6	0.44	0.71	CLARC (on-line)	2.2E+00	
1,1-Dichloroethane	75-34-3	0.166571429	0.23	CLARC (on-line)	3.6E-02	
1,1,2,2-Tetrachloroethane	79-34-5	0.248285714	0.014	CLARC (on-line)	1.3E-03	
1,2-Dichloroethane-d4	17060-07-0	0.119428571	0.04	CLARC (on-line)	1.6E-02	deuterated dichloroethane probably less volatile; the values for hydrogenated 1,2-dichloroethane used as a surrogate for Koc and Hcc
1,2-Dichloroethene (total)	540-59-0	0.137657143	0.167	ORNL RAIS	2.9E-02	
1,2,4-Trichlorobenzene	120-82-1	5.342857143	0.058	CLARC (on-line)	8.6E-01	
2,4,5-Trichlorophenoxyacetic acid	93-76-5	0.152837143	0.00000191	ORNL RAIS	6.4E-02	
2,4-Dichlorophenoxyacetic acid	94-75-7	0.092431429	0.00000145	ORNL RAIS	4.5E-02	
2-[2,4,5-Trichlorophenoxy]propionic acid	93-72-1	0.252685714	0.00000037	ORNL RAIS	7.7E-02	
2-Butanone	78-93-3	0.012027714	0.00233	ORNL RAIS	5.7E-01	
2-Butoxyethanol	111-76-2	0.003142857	0.0000654	ORNL RAIS	4.0E-01	
2-Methylnaphthalene	91-57-6	9.365714286	0.0212	ORNL RAIS	6.0E-01	
2-secButyl-4,6-dinitrophenol[DNBP]	88-85-7	11.13828571	0.0000186	ORNL RAIS	3.6E-01	
3+4 Methylphenol [cresol, m+p]	65794-96-9	1.364	0.000038	ORNL RAIS	1.1E-01	Koc and Hcc are the average of the values for each isomer
4-[2,4-Dichlorophenoxy]butanoic acid	94-82-6	0.3146	0.00000024	ORNL RAIS	9.3E-02	
Acenaphthene	83-32-9	15.4	0.0064	CLARC (on-line)	3.0E+01	
Acenaphthylene	208-96-8	19.23428571	0.00511	CLARC (on-line)	3.7E+01	
Acetone	67-64-1	0.001822857	0.0016	CLARC (on-line)	7.1E-01	
Aldrin	309-00-2	154	0.007	CLARC (on-line)	7.9E-03	
Alpha-BHC	319-84-6	5.657142857	0.00044	CLARC (on-line)	1.6E-03	
alpha-Chlordane	5103-71-9	160.2857143	0.002	CLARC (on-line)	2.6E+00	as "chlordane"
Aluminum	7429-90-5	1500	0	ORNL RAIS	4.8E+04	
Anthracene	120-12-7	72.28571429	0.0027	CLARC (on-line)	6.9E+02	
Antimony	7440-36-0	45	0	CLARC (on-line)	5.8E-01	
Aroclor-1242	53469-21-9	140.8	0.014	ORNL RAIS	6.2E-01	

Table J-7 Groundwater Protection Soil Cleanup Levels (and chemical-specific inputs)

Analyte Name	CAS ID	Kd (L/kg)	Hcc (unitless)	Reference	Soil Cleanup Level (mg/kg)	Notes
Aroclor-1248	12672-29-6	137.9714286	0.018	ORNL RAIS	6.0E-01	
Aroclor-1254	11097-69-1	237.6	0.0116	ORNL RAIS	1.5E-01	
Aroclor-1260	11096-82-5	650.5714286	0.0137	ORNL RAIS	2.8E+00	
Aroclor-1262	37324-23-5	650.5714286	0.0137	ORNL RAIS	2.8E+00	Aroclor-1260 used as a surrogate for Koc and Hcc
Total PCB Aroclors (MCL comparison)	NA	650.5714286	0.0137	ORNL RAIS	6.5E+00	Aroclor-1260 used as a surrogate for Koc and Hcc
Arsenic	7440-38-2	29	0	CLARC (on-line)	2.8E-01	
Barium	7440-39-3	41	0	CLARC (on-line)	2.6E+02	
Benzo[a]anthracene	56-55-3	1131.428571	0.00014	CLARC (on-line)	2.7E+00	
Benzo[a]pyrene	50-32-8	3048.571429	0.000046	CLARC (on-line)	7.3E+00	
Benzo[b]fluoranthene	205-99-2	3771.428571	0.0046	CLARC (on-line)	9.0E+00	
Benzo[ghi]perylene	191-24-2	8422.857143	0.0000135	ORNL RAIS	8.1E+03	
Benzo[k]fluoranthene	207-08-9	3771.428571	0.000034	CLARC (on-line)	9.0E+00	
Beryllium	7440-41-7	790	0	CLARC (on-line)	5.1E+01	
beta-1,2,3,4,5,6-Hexachlorocyclohexane	319-85-7	6.6	0.000031	CLARC (on-line)	6.5E-03	
Bis[2-ethylhexyl] phthalate	117-81-7	345.7142857	0.0000042	CLARC (on-line)	4.1E+01	
Bismuth	7440-69-9				NA	nontoxic
Boron	7440-42-8	3	0	ORNL RAIS	2.0E+01	Kd value for "boron and borates only"
Bromofluorobenzene	460-00-4	1.364	0.257	ORNL RAIS	4.6E-01	
Butylbenzylphthalate	85-68-7	44	0.000052	CLARC (on-line)	2.8E+02	
Cadmium	7440-43-9	6.7	0	CLARC (on-line)	1.1E-01	
Calcium	7440-70-2				NA	nontoxic
Carbazole	86-74-8	10.68571429	0.00000063	CLARC (on-line)	9.4E-01	
Carbon Disulfide	75-15-0	0.144571429	1.2	CLARC (on-line)	4.8E-01	
Chloride	16887-00-6				NA	nontoxic
Chloroform	67-66-3	0.166571429	0.15	CLARC (on-line)	3.6E-01	
Chromium	7440-47-3	1000	0	CLARC (on-line)	2.0E+03	Kd for chromium(III)
Chrysene	218-01-9	1257.142857	0.0039	CLARC (on-line)	3.0E+01	

Table J-7 Groundwater Protection Soil Cleanup Levels (and chemical-specific inputs)

Analyte Name	CAS ID	Kd (L/kg)	Hcc (unitless)	Reference	Soil Cleanup Level (mg/kg)	Notes
cis-1,2-dichloroethene	156-59-2	0.113142857	0.17	CLARC (on-line)	2.8E-02	
Cobalt	7440-48-4	45	0	ORNL RAIS	4.3E-01	
Copper	7440-50-8	22	0	CLARC (on-line)	2.8E+01	
Dalapon	75-99-0	0.008605143	0.00000369	ORNL RAIS	2.7E-02	
Dibenz[a,h]anthracene	53-70-3	5657.142857	0.0000006	CLARC (on-line)	1.4E+01	
Dibenzofuran	132-64-9	35.51428571	0.00871	ORNL RAIS	2.3E+00	
Dicamba	1918-00-9	0.090451429	8.91E-08	ORNL RAIS	1.3E-01	
Dichlorodiphenyldichloroethane	72-54-8	144.5714286	0.00016	CLARC (on-line)	1.1E+00	
Dichlorodiphenyldichloroethylene	72-55-9	270.2857143	0.00086	CLARC (on-line)	1.4E+00	
Dichlorodiphenyltrichloroethane	50-29-3	2137.142857	0.00033	CLARC (on-line)	1.1E+01	
Dichloroprop	120-36-5				7.7E-01	The groundwater protection value for a surrogate dichlorophenoxy pesticide (4-[2,4-Dichlorophenoxy]butanoic acid) used as a surrogate based on chemical similarity.Not listed in CLARC or ORNL RAIS.
Dieldrin	60-57-1	81.71428571	0.00062	CLARC (on-line)	8.9E-03	
Diethyl ether	60-29-7	0.013812857	0.0503	ORNL RAIS	2.1E-01	
Diethylphthalate	84-66-2	0.257714286	0.000019	CLARC (on-line)	7.8E+00	
Di-n-butylphthalate	84-74-2	5.028571429	0.000000039	CLARC (on-line)	1.6E+01	
Di-n-octylphthalate	117-84-0	260857.1429	0.0027	CLARC (on-line)	3.3E+04	
Endosulfan I	959-98-8	6.285714286	0.00046	CLARC (on-line)	1.2E+00	as "endosulfan"
Endosulfan II	33213-65-9	6.285714286	0.00046	CLARC (on-line)	1.2E+00	as "endosulfan"
Endosulfan sulfate	1031-07-8	6.285714286	0.00046	CLARC (on-line)	1.2E+00	as "endosulfan"
Endrin	72-20-8	34.57142857	0.00031	CLARC (on-line)	3.3E-01	
Endrin aldehyde	7421-93-4	34.57142857	0.00031	CLARC (on-line)	3.3E-01	endrin used as a surrogate for Koc and Hcc
Endrin ketone	53494-70-5	34.57142857	0.00031	CLARC (on-line)	3.3E-01	endrin used as a surrogate for Koc and Hcc
Ethylene glycol	107-21-1	0.003142857	0.00000245	ORNL RAIS	1.6E+00	
Fluoranthene	206-44-0	154	0.00066	CLARC (on-line)	2.0E+02	

Table J-7 Groundwater Protection Soil Cleanup Levels (and chemical-specific inputs)

Analyte Name	CAS ID	Kd (L/kg)	Hcc (unitless)	Reference	Soil Cleanup Level (mg/kg)	Notes
Fluorene	86-73-7	24.2	0.0026	CLARC (on-line)	3.1E+01	
Fluoride	16984-48-8	150	0	ORNL RAIS	2.9E+02	
Freon 113	76-13-1	0.707142857	21.5	ORNL RAIS	1.3E+03	
gamma-Chlordane	5566-34-7	160.2857143	0.002	CLARC (on-line)	2.6E+00	as "chlordane"
Heptachlor	76-44-8	29.85714286	0.045	CLARC (on-line)	1.2E-01	
Heptachlor epoxide	1024-57-3	260.8571429	0.00039	CLARC (on-line)	5.4E-02	
Heptacosane	593-49-7				NA	nontoxic
Heptadecane	629-78-7				NA	nontoxic
Hexadecanoic acid [9CI]	57-10-3				NA	nontoxic
Hexavalent Chromium	18540-29-9	0	0	CLARC (on-line)	4.5E-03	A conservative Kd of zero was used in the ZP-1 FS, based on an estimate in theZ-Plant Source Aggregate Area Management Study Report (DOE/RL-91-58)
Indeno[1,2,3-cd]pyrene	193-39-5	11000	0.000066	CLARC (on-line)	2.6E+01	
Iron	7439-89-6	25	0	ORNL RAIS	1.5E+02	
Isophorone	78-59-1	0.147714286	0.00027	CLARC (on-line)	1.8E-01	
Lead	7439-92-1	10000	0	CLARC (on-line)	3.0E+03	
Lithium	7439-93-2	300	0	ORNL RAIS	1.9E+01	
Magnesium	7439-95-4				NA	nontoxic
Manganese	7439-96-5	65	0	ORNL RAIS	6.5E+01	
Mercury	7439-97-6	52	0.47	ORNL RAIS; CLARC (on-line)	5.0E-01	
Methoxychlor	72-43-5	251.4285714	0.00065	CLARC (on-line)	4.0E+01	
Methylene chloride	75-09-2	0.031428571	0.09	CLARC (on-line)	8.7E-03	
Molybdenum	7439-98-7	20	0	ORNL RAIS	3.2E+00	
Naphthalene	91-20-3	3.771428571	0.02	CLARC (on-line)	1.2E+00	
Nickel	7440-02-0	65	0	CLARC (on-line)	4.2E+01	Kd for soluble salts of nickel
Nitrate	14797-55-8	0	0	CLARC (on-line)	2.4E+00	
Nitrite	14797-65-0	0	0	CLARC (on-line)	1.5E-01	
Octacosane	630-02-4				NA	nontoxic

Table J-7 Groundwater Protection Soil Cleanup Levels (and chemical-specific inputs)

Analyte Name	CAS ID	Kd (L/kg)	Hcc (unitless)	Reference	Soil Cleanup Level (mg/kg)	Notes
Octadecanoic acid	57-11-4				NA	nontoxic
Pentachlorophenol	87-86-5	1.854285714	0.000001	CLARC (on-line)	3.8E-02	
Phenanthrene	85-01-8	65.37142857	0.00173	ORNL RAIS	6.3E+01	
Phenol	108-95-2	0.091142857	0.000016	CLARC (on-line)	6.6E-01	
Phosphate	14265-44-2				NA	nontoxic
Phosphorus	7723-14-0				NA	nontoxic
Picloram	1918-02-1	0.056885714	2.18E-12	ORNL RAIS	2.3E-01	
Potassium	7440-09-7				NA	nontoxic
Pyrene	129-00-0	213.7142857	0.00045	CLARC (on-line)	2.1E+02	
Selenium	7782-49-2	5	0	CLARC (on-line)	8.1E-01	
Silicon	7440-21-3				NA	nontoxic
Silver	7440-22-4	8.3	0	CLARC (on-line)	1.3E+00	
Sodium	7440-23-5				NA	nontoxic
Strontium [elemental]	7440-24-6	25	0	100 Area Kd	4.8E+02	
Sulfate	14808-79-8				NA	nontoxic
Sulfide	18496-25-8				NA	nontoxic
Tetrachloroethene	127-18-4	0.848571429	0.75	CLARC (on-line)	1.6E-02	
Thallium	7440-28-0	71	0	ORNL RAIS	1.8E-01	Kd for soluble salts of thallium
Tin	7440-31-5	250	0	ORNL RAIS	4.8E+03	
Titanium	7440-32-6				NA	nontoxic
Toluene	108-88-3	0.44	0.27	CLARC (on-line)	6.6E-01	
Toluene-d8	2037-26-5				6.6E-01	(see toluene)
Trichloroethene	79-01-6	0.295428571	0.42	CLARC (on-line)	3.8E-02	
Trichloromonofluoromethane	75-69-4	0.152868571	3.97	ORNL RAIS	2.7E+00	
Uranium [inorganic]	7440-61-1	2	0	100 Area Kd	2.0E-01	
Vanadium	7440-62-2	1000	0	CLARC (on-line)	2.9E+02	
Zinc	7440-66-6	62	0	CLARC (on-line)	6.0E+02	

Table J-7 Groundwater Protection Soil Cleanup Levels (and chemical-specific inputs)

Analyte Name	CAS ID	Kd (L/kg)	Hcc (unitless)	Reference	Soil Cleanup Level (mg/kg)	Notes

For organic chemicals, Kd was calculated as organic carbon partition coefficient x fraction organic carbon [0.001; WAC 173-340-747(4)].
A fraction organic carbon value of 0.003 was used, based on site soil data described in the memorandum.

Kd: Soil-water partition coefficient

Hcc: Henry's constant (air-water partition coefficient)

CLARC: Cleanup Levels and Risk Calculations (on on-line database maintained by WA Dept of Ecology)

ORNL RAIS: Oak Ridge National Laboratory, Risk Assessment Information System

Table J-8 Toxicity Criteria Used for the Calculation of Air Cleanup Levels

Analyte Name	CAS ID	Inhalation CPF $(mg/kg\text{-}day)^{-1}$	Reference	Inahaltion RfD (mg/kg-day)	Reference	NOTES
1,1,1-Trichloroethane	71-55-6			1.4E+00	IRIS	
1,1,2,2-Tetrachloro-1,2-Difluoroethane	76-12-0					
1,1,2,2-Tetrachloroethane	79-34-5	2.0E-01	Reg; IRIS			
1,1,2-Trichloroethane	79-00-5	5.6E-02	Reg; IRIS			
1,1-Dichloroethane	75-34-3	5.6E-03	Reg; CalEPA			
1,1-Dichloroethene	75-35-4			5.7E-02	IRIS	
1,2,4-Trichlorobenzene	120-82-1			5.7E-04	Reg; PPRTV	
1,2,4-Trimethylbenzene	95-63-6			2.0E-03	Reg; PPRTV	
1,2-Dibromoethane	106-93-4	2.1E+00	Reg; IRIS	2.6E-03	Reg; IRIS	
1,2-Dichloro-1,1,2-Trifluoroethane	354-23-4			8.6E+00	Reg; HEAST	RfC value for trichlorotrifluoroethane used as a surrogate based on structural similarity.
1,2-Dichloro-1,2-Difluoroethene	598-88-9					
1,2-Dichlorobenzene	95-50-1			5.7E-02	Reg; HEAST	
1,2-Dichloroethane	107-06-2	9.1E-02	IRIS			An ATSDR RfC exists but is not used because IRIS publishes a unit risk.
1,2-Dichloropropane	78-87-5					
1,3,5-Trimethylbenzene	108-67-8					
1,3-Butadiene	106-99-0	1.1E-01	Reg; IRIS	5.7E-04	Reg; IRIS	
1,3-Dichlorobenzene	541-73-1	3.9E-02	Reg; IRIS	2.3E-01	Reg; IRIS	IUR and RfC values for 1,4-isomer used as a surrogate based on structural similarity.
1,4-Dichlorobenzene	106-46-7	3.9E-02	Reg; IRIS	2.3E-01	Reg; IRIS	

Table J-8 Toxicity Criteria Used for the Calculation of Air Cleanup Levels

Analyte Name	CAS ID	Inhalation CPF $(mg/kg\text{-}day)^{-1}$	Reference	Inahaltion RfD (mg/kg-day)	Reference	NOTES
1,5-Heptadiene, (E)-	7736-22-3					
1-Butene	106-98-9					
1-Butyne	107-00-6					
1-Decene	872-05-9					
1-Hexanol, 2-Ethyl	104-76-7					
1-Iodo-2-Methylnonane	100009-96-0					
1-Pentene	109-67-1					
1-Pentene, 2-Methyl-	763-29-1					
1-Propanol, 2-Methyl-	78-83-1					syn: isobutyl alcohol
1r-.Alpha.-Pinene	7785-70-8					this is just a natural component of conifer sap
1-Undecene	821-95-4					
1-Undecene, 4-Methyl-	74630-39-0					
2(3h)-Furanone, Dihydro-4-Methyl-	1679-49-8					
2,2-Dimethylbutane	75-83-2					
2,4-Dimethyl-1-Heptene	19549-87-2					
2,4-Hexadienenitrile	1516-01-4					
2,4-Pentadienenitrile	1615-70-9					
2,5-Dihydrothiophene Sulfone	77-79-2					
2,6-Dimethyldecane	13150-81-7					
2-Butanone	78-93-3			1.4E+00	IRIS	syn: methyl ethyl ketone
2-Butenenitrile	4786-20-3					
2-Butenoic Acid, Methyl Ester, (Z)	4358-59-2					
2-Decanone	693-54-9					
2-Ethyl-Hexanal	123-05-7					
2-Heptanone	110-43-0					

Table J-8 Toxicity Criteria Used for the Calculation of Air Cleanup Levels

Analyte Name	CAS ID	Inhalation CPF $(mg/kg\text{-}day)^{-1}$	Reference	Inahaltion RfD (mg/kg-day)	Reference	NOTES
2-Hexanone	591-78-6			2.0E-01	IRIS	n-hexane used as a surrogate. Neuropathy of both solvents depends on a gamma diketone metabolite of p450 oxidation (2,5-hexanedione). Syn: methyl n-butyl-ketone
2-Methyl-1-Propene	115-11-7					
2-Octanone	111-13-7					
2-Pentanone	107-87-9					
2-Propanol, 2-Methyl-	75-65-0					
3-Buten-1-Ol, 3-Methyl-	763-32-6					
3-Butenoic Acid, Methyl Ester	3724-55-8					
3-Heptanone	106-35-4					
3-Hydroxymandelic Acid, Ethyl Este	100006-92-0					
3-Methyl-Benzaldehyde	620-23-5					
3-Methyl-Butanal	590-86-3					
6-Methyl-2-Heptanone	928-68-7					
Acetaldehyde	75-07-0			2.6E-03	Reg; IRIS	metabolite of ethanol
Acetamide, N,N-Dimethyl-	127-19-5					
Acetone	67-64-1			8.9E+00	Reg; ATSDR	
Benzaldehyde	100-52-7					
Benzene	71-43-2	2.7E-02	IRIS	8.6E-03	IRIS	
Benzene, (Ethoxymethyl)-	539-30-0					
Benzene, 1,3-Dimethyl-	108-38-3			2.0E-01	Reg; CalEPA	syn: m-xylene
Benzonitrile, 2-Methyl-	529-19-1					
Benzyl Chloride	100-44-7	1.7E-01	Reg; CalEPA	2.9E-04	Reg; PPRTV	

Table J-8 Toxicity Criteria Used for the Calculation of Air Cleanup Levels

Analyte Name	CAS ID	Inhalation CPF $(mg/kg\text{-}day)^{-1}$	Reference	Inahaltion RfD (mg/kg-day)	Reference	NOTES
Bicyclo [1.1.0] Butane	157-33-5					
Bromomethane	74-83-9			1.4E-03	Reg; IRIS	
Butane	106-97-8					
Butane, 1,1,3,4-Tetrachloro-1,2,2,	423-38-1					
Butane, 2,2,3,3-Tetramethyl-	594-82-1					
Butane, 2-Methyl-	78-78-4					
Butanoic Acid, Heptafluoro-, Ethyl Ester	356-27-4					
Carbon Disulfide	75-15-0			2.0E-01	IRIS	
Carbon Tetrachloride	56-23-5	5.3E-02	IRIS			An ATSDR RfC exists but is not used because IRIS publishes a unit risk.
Chlorobenzene	108-90-7			1.4E-02	Reg; PPRTV	
Chloroethane	75-00-3					
Chloroform	67-66-3	8.1E-02	IRIS			An ATSDR RfC exists but is not used because IRIS publishes a unit risk.
Chloromethane	74-87-3			2.6E-02	IRIS	A HEAST unit risk exists but is not used because IRIS publishes an RfC.
Chlorotrifluoroethene	79-38-9					Detected in 38/38 samples at max conc of 6.9E+06 ppbv, the highest concentration of any analyte. No regulatory agency tox criteria for any chlorofluoroethene. Syn: R1113
Cis-1,2-Dichloroethene	156-59-2			1.7E-02	Reg; PPRTV	trans isomer used as a surrogate. Oral RfD values for cis and trans isomers are a factor of 2 different.

Table J-8 Toxicity Criteria Used for the Calculation of Air Cleanup Levels

Analyte Name	CAS ID	Inhalation CPF $(mg/kg\text{-}day)^{-1}$	Reference	Inahaltion RfD (mg/kg-day)	Reference	NOTES
Cis-1,3-Dichloropropene	10061-01-5	1.4E-02	Reg; IRIS	5.7E-03	Reg; IRIS	isomer is unspecified in RSL table
Cyclohexane	110-82-7			1.7E+00	Reg; IRIS	
Cyclohexene, 4-Ethenyl-	100-40-3					
Cyclopropane, 1,1-Dimethyl-	1630-94-0					
Cyclopropene, 3-Methyl-3-Vinyl-	71153-30-5					
Decane	124-18-5					
Decane, 2,3,6-Trimethyl-	62238-12-4					
Decane, 2,3,7-Trimethyl-	62238-13-5					
Decane, 2,4,6-Trimethyl-	62108-27-4					
Decane, 2,6,7-Trimethyl-	62108-25-2					
Decane, 3,6-Dimethyl-	17312-53-7					
Decane, 3,7-Dimethyl-	17312-54-8					
Dichlorodifluoromethane	75-71-8			5.7E-02	Reg; HEAST	
Dichlorofluoromethane	75-43-4			5.7E-02	Reg; HEAST	RfC value for dichlorodifluoromethane used as a surrogate based on structural similarity.
Dichlorotetrafluoroethane	76-14-2					
D-Limonene	5989-27-5					
Docosane	629-97-0					
Dodecane	112-40-3					
Eicosane	112-95-8					
Ethane, 1,1-Difluoro-	75-37-6					
Ethanethioic Acid, S-[8-(Diethylph	129065-11-8					
Ethanol	64-17-5					
Ethene, 1,1-Dichloro-2,2-Difluoro-	79-35-6					

Table J-8 Toxicity Criteria Used for the Calculation of Air Cleanup Levels

Analyte Name	CAS ID	Inhalation CPF $(mg/kg\text{-}day)^{-1}$	Reference	Inahaltion RfD (mg/kg-day)	Reference	NOTES
Ethyl Ether	60-29-7					syn: diethyl ether
Ethylbenzene	100-41-4			2.9E-01	IRIS	A CalEPA unit risk exists but is not used because IRIS publishes an RfC.
Formamide, N-Methylthio	1000196-87-7					
Freon 113	76-13-1			8.6E+00	Reg; HEAST	syn: Trichloro-1,2,2-trifluoroethane, 1,1,2-
Heneicosane	629-94-7					
Heptafluorobutyric Anhydride	336-59-4					
Heptafluoropropyl Bromide	422-85-5					
Heptane, 2,3,6-Trimethyl-	4032-93-3					
Heptane, 2,4-Dimethyl-	2213-23-2					
Heptane, 4-Methyl-	589-53-7					
Hexachlorobutadiene	87-68-3	7.7E-02	Reg; IRIS			
Hexadecafluoroheptane	335-57-9					
Hexadecane	544-76-3					
Hexadecane, 2,6,10,14-Tetramethyl-	638-36-8					
Hexadecane, 7,9-Dimethyl-	21164-95-4					
Hexanal	66-25-1					
Hexane, 2,4-Dimethyl-	589-43-5					
Isobutane	75-28-5					
Isopropanol	67-63-0					
M/P-Xylene	108-38-3 (*m*) 106-42-3 (*p*)			2.0E-01	Reg; CalEPA	
Methallyl Cyanide	4786-19-0					
Methane, Bromodichlorofluoro-	353-58-2					there is a CalEPA IUR for bromodichloromethane

Table J-8 Toxicity Criteria Used for the Calculation of Air Cleanup Levels

Analyte Name	CAS ID	Inhalation CPF $(mg/kg\text{-}day)^{-1}$	Reference	Inahaltion RfD (mg/kg-day)	Reference	NOTES
Methyl Isobutyl Ketone	108-10-1			8.6E-01	IRIS	
Methylcyclopentane	96-37-7					
Methylene Chloride	75-09-2	1.6E-03	IRIS			An ATSDR RfC exists but is not used because IRIS publishes a unit risk.
N-Butanol	71-36-3					
Nonadecane	629-92-5					
Nonafluoro-1-Bromobutane	1000222-72-3					
Nonanal	124-19-6					
Nonane, 2,3-Dimethyl-	2884-06-2					
Octadecane, 3-Ethyl-5-(2-Ethylbuty	55282-12-7					
Octanal	124-13-0					
Octane	111-65-9					
Octane, 2,3-Dimethyl-	7146-60-3					
Octane, 4-Methyl-	2216-34-4					
Oxetane, 2,2-Dimethyl-	6245-99-4					
Oxirane, Ethyl-	106-88-7					
O-Xylene	95-47-6			2.0E-01	Reg; CalEPA	
Pentadecane	629-62-9					
Pentane	109-66-0					
Pentane, 2-Methyl-	107-83-5					
Pentane, 3-Methyl-	96-14-0					
Perfluoro(2-Methylpentane)	355-04-4					
Perfluoro(Methylcyclohexane)	355-02-2					
Perfluoro[1,2-Bis(Tetrahydrofury	1000222-75-5					

Table J-8 Toxicity Criteria Used for the Calculation of Air Cleanup Levels

Analyte Name	CAS ID	Inhalation CPF $(mg/kg\text{-}day)^{-1}$	Reference	Inahaltion RfD (mg/kg-day)	Reference	NOTES
Phenol	108-95-2			5.7E-02	Reg; CalEPA	
Propanal	123-38-6					
Propane	74-98-6					
Propane, 2-Ethoxy-2-Methyl-	637-92-3					
Propene, Hexafluoro-	116-15-4					
Pyridine	110-86-1					
Silane, Difluorodimethyl-	353-66-2					
Styrene	100-42-5			2.9E-01	Reg; IRIS	
Sulfur Dioxide	7446-09-5					
Tetrachloroethene	127-18-4	2.1E-02	Reg; CalEPA	7.7E-02	Reg; ATSDR	No values are published in IRIS. Tier 3 (ATSDR; CalEPA) values are used for the RfC and unit risk, respectively.
Tetracosane	646-31-1					
Tetradecafluorohexane	355-42-0					
Tetradecane	629-59-4					
Tetradecane, 4-Methyl-	25117-24-2					
Thiirane	420-12-2					
Toluene	108-88-3			1.4E+00	Reg; IRIS	
Trans-1,2-Dichloroethene	156-60-5			1.7E-02	Reg; PPRTV	
Trans-1,3-Dichloropropene	10061-02-6	1.4E-02	Reg; IRIS	5.7E-03	Reg; IRIS	isomer is unspecified in RSL table
Trichloroethene	79-01-6	7.0E-03	Reg; CalEPA			
Trichlorofluoromethane (R11)	75-69-4			2.0E-01	Reg; HEAST	
Tricyclo[3.1.0.0(2,4)]Hex-3-Ene-3-	103495-51-8					

Table J-8 Toxicity Criteria Used for the Calculation of Air Cleanup Levels

Analyte Name	CAS ID	Inhalation CPF $(mg/kg\text{-}day)^{-1}$	Reference	Inahaltion RfD (mg/kg-day)	Reference	NOTES
Carbonitrile						
Tricyclo[3.1.0.02,6]Hex-3-Ene-3-Ca	100013-99-0					
Tridecane	629-50-5					
Tridecane, 1-Iodo-	35599-77-0					
Trifluoroethene	359-11-5					
Trimethylene Oxide	503-30-0					
Undecane	1120-21-4					
Undecane, 2,4-Dimethyl-	17301-24-5					
Undecane, 3,4-Dimethyl-	17312-78-6					
Undecane, 4,7-Dimethyl-	17301-32-5					
Undecane, 5-Methyl-	1632-70-8					
Unknown	NA					
Unknown Hydrocarbon	NA					
Vinyl Chloride	75-01-4	1.5E-02	Reg; IRIS	2.9E-02	Reg; IRIS	

CPF: cancer potency factor
RfC: reference concentration
RfD: reference dose
syn: synonym
IRIS: Integrated Risk Information System
PPRTV: Provisional Peer Reviewed Toxicity Value
HEAST: Health Effects Assessment Summary Tables
CalEPA: California EPA (state agency)
ATSDR: Agency for Toxic Substances and Disease Registry
NA: Not Applicable

Published toxicity reference concentrations (mg/m^3) and unit risk values $(\mu g/m^3)^{-1}$ were converted to the corresponding RfD and CPF values assuming an inhalation rate of 20 m^3/day and an adult body weight of 70 kg.

Table J-9 Unrestricted Use (Method B) Air Cleanup Levels

Analyte Name	CAS ID	Method B noncarc CUL (ppbv)	Method B carc CUL (ppbv)	Method B lowest CUL (ppbv)
1,1,1-Trichloroethane	71-55-6	4.2E+01	NA	4.2E+01
1,1,2,2-Tetrachloro-1,2-Difluoroethane	76-12-0	NA	NA	NA
1,1,2,2-Tetrachloroethane	79-34-5	NA	6.3E-03	6.3E-03
1,1,2-Trichloroethane	79-00-5	NA	2.9E-02	2.9E-02
1,1-Dichloroethane	75-34-3	NA	3.9E-01	3.9E-01
1,1-Dichloroethene	75-35-4	2.3E+00	NA	2.3E+00
1,2,4-Trichlorobenzene	120-82-1	1.2E-02	NA	1.2E-02
1,2,4-Trimethylbenzene	95-63-6	6.5E-02	NA	6.5E-02
1,2-Dibromoethane	106-93-4	5.4E-02	5.4E-04	5.4E-04
1,2-Dichloro-1,1,2-Trifluoroethane	354-23-4	2.2E+02	NA	2.2E+02
1,2-Dichloro-1,2-Difluoroethene	598-88-9	NA	NA	NA
1,2-Dichlorobenzene	95-50-1	1.5E+00	NA	1.5E+00
1,2-Dichloroethane	107-06-2	NA	2.4E-02	2.4E-02
1,2-Dichloropropane	78-87-5	NA	NA	NA
1,3,5-Trimethylbenzene	108-67-8	NA	NA	NA
1,3-Butadiene	106-99-0	4.1E-02	3.8E-02	3.8E-02
1,3-Dichlorobenzene	541-73-1	6.1E+00	3.8E-02	3.8E-02
1,4-Dichlorobenzene	106-46-7	6.1E+00	3.8E-02	3.8E-02
1,5-Heptadiene, (E)-	7736-22-3	NA	NA	NA
1-Butene	106-98-9	NA	NA	NA
1-Butyne	107-00-6	NA	NA	NA
1-Decene	872-05-9	NA	NA	NA
1-Hexanol, 2-Ethyl	104-76-7	NA	NA	NA
1-Iodo-2-Methylnonane	100009-96-0	NA	NA	NA
1-Pentene	109-67-1	NA	NA	NA
1-Pentene, 2-Methyl-	763-29-1	NA	NA	NA
1-Propanol, 2-Methyl-	78-83-1	NA	NA	NA
1r-.Alpha.-Pinene	7785-70-8	NA	NA	NA
1-Undecene	821-95-4	NA	NA	NA
1-Undecene, 4-Methyl-	74630-39-0	NA	NA	NA
2(3h)-Furanone, Dihydro-4-Methyl-	1679-49-8	NA	NA	NA
2,2-Dimethylbutane	75-83-2	NA	NA	NA
2,4-Dimethyl-1-Heptene	19549-87-2	NA	NA	NA
2,4-Hexadienenitrile	1516-01-4	NA	NA	NA
2,4-Pentadienenitrile	1615-70-9	NA	NA	NA
2,5-Dihydrothiophene Sulfone	77-79-2	NA	NA	NA
2,6-Dimethyldecane	13150-81-7	NA	NA	NA
2-Butanone	78-93-3	7.8E+01	NA	7.8E+01

Table J-9 Unrestricted Use (Method B) Air Cleanup Levels

Analyte Name	CAS ID	Method B noncarc CUL (ppbv)	Method B carc CUL (ppbv)	Method B lowest CUL (ppbv)
2-Butenenitrile	4786-20-3	NA	NA	NA
2-Butenoic Acid, Methyl Ester, (Z)	4358-59-2	NA	NA	NA
2-Decanone	693-54-9	NA	NA	NA
2-Ethyl-Hexanal	123-05-7	NA	NA	NA
2-Heptanone	110-43-0	NA	NA	NA
2-Hexanone	591-78-6	7.8E+00	NA	7.8E+00
2-Methyl-1-Propene	115-11-7	NA	NA	NA
2-Octanone	111-13-7	NA	NA	NA
2-Pentanone	107-87-9	NA	NA	NA
2-Propanol, 2-Methyl-	75-65-0	NA	NA	NA
3-Buten-1-Ol, 3-Methyl-	763-32-6	NA	NA	NA
3-Butenoic Acid, Methyl Ester	3724-55-8	NA	NA	NA
3-Heptanone	106-35-4	NA	NA	NA
3-Hydroxymandelic Acid, Ethyl Este	100006-92-0	NA	NA	NA
3-Methyl-Benzaldehyde	620-23-5	NA	NA	NA
3-Methyl-Butanal	590-86-3	NA	NA	NA
6-Methyl-2-Heptanone	928-68-7	NA	NA	NA
Acetaldehyde	75-07-0	2.3E-01	NA	2.3E-01
Acetamide, N,N-Dimethyl-	127-19-5	NA	NA	NA
Acetone	67-64-1	6.0E+02	NA	6.0E+02
Benzaldehyde	100-52-7	NA	NA	NA
Benzene	71-43-2	4.3E-01	1.0E-01	1.0E-01
Benzene, (Ethoxymethyl)-	539-30-0	NA	NA	NA
Benzene, 1,3-Dimethyl-	108-38-3	7.4E+00	NA	7.4E+00
Benzonitrile, 2-Methyl-	529-19-1	NA	NA	NA
Benzyl Chloride	100-44-7	8.8E-03	9.9E-03	8.8E-03
Bicyclo [1.1.0] Butane	157-33-5	NA	NA	NA
Bromomethane	74-83-9	5.9E-02	NA	5.9E-02
Butane	106-97-8	NA	NA	NA
Butane, 1,1,3,4-Tetrachloro-1,2,2,	423-38-1	NA	NA	NA
Butane, 2,2,3,3-Tetramethyl-	594-82-1	NA	NA	NA
Butane, 2-Methyl-	78-78-4	NA	NA	NA
Butanoic Acid, Heptafluoro-, Ethyl Ester	356-27-4	NA	NA	NA
Carbon Disulfide	75-15-0	1.0E+01	NA	1.0E+01
Carbon Tetrachloride	56-23-5	NA	2.6E-02	2.6E-02
Chlorobenzene	108-90-7	5.0E-01	NA	5.0E-01
Chloroethane	75-00-3	NA	NA	NA
Chloroform	67-66-3	NA	2.2E-02	2.2E-02

Table J-9 Unrestricted Use (Method B) Air Cleanup Levels

Analyte Name	CAS ID	Method B noncarc CUL (ppbv)	Method B carc CUL (ppbv)	Method B lowest CUL (ppbv)
Chloromethane	74-87-3	2.0E+00	NA	2.0E+00
Chlorotrifluoroethene	79-38-9	NA	NA	NA
Cis-1,2-Dichloroethene	156-59-2	6.9E-01	NA	6.9E-01
Cis-1,3-Dichloropropene	10061-01-5	2.0E-01	1.4E-01	1.4E-01
Cyclohexane	110-82-7	8.0E+01	NA	8.0E+01
Cyclohexene, 4-Ethenyl-	100-40-3	NA	NA	NA
Cyclopropane, 1,1-Dimethyl-	1630-94-0	NA	NA	NA
Cyclopropene, 3-Methyl-3-Vinyl-	71153-30-5	NA	NA	NA
Decane	124-18-5	NA	NA	NA
Decane, 2,3,6-Trimethyl-	62238-12-4	NA	NA	NA
Decane, 2,3,7-Trimethyl-	62238-13-5	NA	NA	NA
Decane, 2,4,6-Trimethyl-	62108-27-4	NA	NA	NA
Decane, 2,6,7-Trimethyl-	62108-25-2	NA	NA	NA
Decane, 3,6-Dimethyl-	17312-53-7	NA	NA	NA
Decane, 3,7-Dimethyl-	17312-54-8	NA	NA	NA
Dichlorodifluoromethane	75-71-8	1.8E+00	NA	1.8E+00
Dichlorofluoromethane	75-43-4	2.2E+00	NA	2.2E+00
Dichlorotetrafluoroethane	76-14-2	NA	NA	NA
D-Limonene	5989-27-5	NA	NA	NA
Docosane	629-97-0	NA	NA	NA
Dodecane	112-40-3	NA	NA	NA
Eicosane	112-95-8	NA	NA	NA
Ethane, 1,1-Difluoro-	75-37-6	NA	NA	NA
Ethanethioic Acid, S-[8-(Diethylph	129065-11-8	NA	NA	NA
Ethanol	64-17-5	NA	NA	NA
Ethene, 1,1-Dichloro-2,2-Difluoro-	79-35-6	NA	NA	NA
Ethyl Ether	60-29-7	NA	NA	NA
Ethylbenzene	100-41-4	1.1E+01	NA	1.1E+01
Formamide, N-Methylthio	1000196-87-7	NA	NA	NA
Freon 113	76-13-1	1.8E+02	NA	1.8E+02
Heneicosane	629-94-7	NA	NA	NA
Heptafluorobutyric Anhydride	336-59-4	NA	NA	NA
Heptafluoropropyl Bromide	422-85-5	NA	NA	NA
Heptane, 2,3,6-Trimethyl-	4032-93-3	NA	NA	NA
Heptane, 2,4-Dimethyl-	2213-23-2	NA	NA	NA
Heptane, 4-Methyl-	589-53-7	NA	NA	NA
Hexachlorobutadiene	87-68-3	NA	1.1E-02	1.1E-02
Hexadecafluoroheptane	335-57-9	NA	NA	NA

Table J-9 Unrestricted Use (Method B) Air Cleanup Levels

Analyte Name	CAS ID	Method B noncarc CUL (ppbv)	Method B carc CUL (ppbv)	Method B lowest CUL (ppbv)
Hexadecane	544-76-3	NA	NA	NA
Hexadecane, 2,6,10,14-Tetramethyl-	638-36-8	NA	NA	NA
Hexadecane, 7,9-Dimethyl-	21164-95-4	NA	NA	NA
Hexanal	66-25-1	NA	NA	NA
Hexane, 2,4-Dimethyl-	589-43-5	NA	NA	NA
Isobutane	75-28-5	NA	NA	NA
Isopropanol	67-63-0	NA	NA	NA
M/P-Xylene	108-38-3 (*m*) 106-42-3 (*p*)	7.4E+00	NA	7.4E+00
Methallyl Cyanide	4786-19-0	NA	NA	NA
Methane, Bromodichlorofluoro-	353-58-2	NA	NA	NA
Methyl Isobutyl Ketone	108-10-1	3.3E+01	NA	3.3E+01
Methylcyclopentane	96-37-7	NA	NA	NA
Methylene Chloride	75-09-2	NA	1.5E+00	1.5E+00
N-Butanol	71-36-3	NA	NA	NA
Nonadecane	629-92-5	NA	NA	NA
Nonafluoro-1-Bromobutane	1000222-72-3	NA	NA	NA
Nonanal	124-19-6	NA	NA	NA
Nonane, 2,3-Dimethyl-	2884-06-2	NA	NA	NA
Octadecane, 3-Ethyl-5-(2-Ethylbuty	55282-12-7	NA	NA	NA
Octanal	124-13-0	NA	NA	NA
Octane	111-65-9	NA	NA	NA
Octane, 2,3-Dimethyl-	7146-60-3	NA	NA	NA
Octane, 4-Methyl-	2216-34-4	NA	NA	NA
Oxetane, 2,2-Dimethyl-	6245-99-4	NA	NA	NA
Oxirane, Ethyl-	106-88-7	NA	NA	NA
O-Xylene	95-47-6	7.4E+00	NA	7.4E+00
Pentadecane	629-62-9	NA	NA	NA
Pentane	109-66-0	NA	NA	NA
Pentane, 2-Methyl-	107-83-5	NA	NA	NA
Pentane, 3-Methyl-	96-14-0	NA	NA	NA
Perfluoro(2-Methylpentane)	355-04-4	NA	NA	NA
Perfluoro(Methylcyclohexane)	355-02-2	NA	NA	NA
Perfluoro[1,2-Bis(Tetrahydrofury	1000222-75-5	NA	NA	NA
Phenol	108-95-2	2.4E+00	NA	2.4E+00
Propanal	123-38-6	NA	NA	NA
Propane	74-98-6	NA	NA	NA
Propane, 2-Ethoxy-2-Methyl-	637-92-3	NA	NA	NA
Propene, Hexafluoro-	116-15-4	NA	NA	NA

Table J-9 Unrestricted Use (Method B) Air Cleanup Levels

Analyte Name	CAS ID	Method B noncarc CUL (ppbv)	Method B carc CUL (ppbv)	Method B lowest CUL (ppbv)
Pyridine	110-86-1	NA	NA	NA
Silane, Difluorodimethyl-	353-66-2	NA	NA	NA
Styrene	100-42-5	1.1E+01	NA	1.1E+01
Sulfur Dioxide	7446-09-5	NA	NA	NA
Tetrachloroethene	127-18-4	1.8E+00	6.2E-02	6.2E-02
Tetracosane	646-31-1	NA	NA	NA
Tetradecafluorohexane	355-42-0	NA	NA	NA
Tetradecane	629-59-4	NA	NA	NA
Tetradecane, 4-Methyl-	25117-24-2	NA	NA	NA
Thiirane	420-12-2	NA	NA	NA
Toluene	108-88-3	6.1E+01	NA	6.1E+01
Trans-1,2-Dichloroethene	156-60-5	6.9E-01	NA	6.9E-01
Trans-1,3-Dichloropropene	10061-02-6	2.0E-01	1.4E-01	1.4E-01
Trichloroethene	79-01-6	NA	2.3E-01	2.3E-01
Trichlorofluoromethane (R11)	75-69-4	5.7E+00	NA	5.7E+00
Tricyclo[3.1.0.0(2,4)]Hex-3-Ene-3-Carbonitrile	103495-51-8	NA	NA	NA
Tricyclo[3.1.0.02,6]Hex-3-Ene-3-Ca	100013-99-0	NA	NA	NA
Tridecane	629-50-5	NA	NA	NA
Tridecane, 1-Iodo-	35599-77-0	NA	NA	NA
Trifluoroethene	359-11-5	NA	NA	NA
Trimethylene Oxide	503-30-0	NA	NA	NA
Undecane	1120-21-4	NA	NA	NA
Undecane, 2,4-Dimethyl-	17301-24-5	NA	NA	NA
Undecane, 3,4-Dimethyl-	17312-78-6	NA	NA	NA
Undecane, 4,7-Dimethyl-	17301-32-5	NA	NA	NA
Undecane, 5-Methyl-	1632-70-8	NA	NA	NA
Unknown	NA	NA	NA	NA
Unknown Hydrocarbon	NA	NA	NA	NA
Vinyl Chloride	75-01-4	1.8E+00	2.2E-01	2.2E-01

Table J-10 Ecological Toxicity Data and Soil Screening Value Calculations

Analyte	Min Wildlife SSV mg/kg	BAF_{Worm}	Reference	K_{Plant}	Reference	Shrew TRV mg/kg-d	Reference	Vole TRV mg/kg-d	Reference	Robin TRV mg/kg-d	Reference	Shrew SSV mg/kg	Vole SSV mg/kg	Robin SSV mg/kg
1,1,1-Trichloroethane	233.4	19	3	5.9	3	999.0	3	999.0	3	NA	-	233.4	535	NA
1,1-Dichloroethane	107.1	6.42	3	11.3	3	382.0	3	382.0	3	NA	-	263.6	107	NA
1,2,4-Trichlorobenzene	0.2	27.5	3	1.41	3	1.5	3	1.5	3	NA	-	0.2	3	NA
1,2-Dichloroethene (total)	16.7	9.42	3	8.57	3	45.2	3	45.2	3	NA	-	21.3	17	NA
2-Butanone	121.8	3.27	3	46.1	3	1770.0	3	1770.0	3	NA	-	2391.1	122	NA
Acetone	0.4	3.16	3	76	3	10.0	3	10.0	3	2.01E+02	-	14.0	0	555.80
Aluminum	NA	NA	-	NA	-	NA	-	NA	-	NA	-	NA	NA	NA
Antimony	0.26	1	3	0.2	3	0.059	2	0.059	2	NA	-	0.3	0.8	NA
Aroclor-1254	0.13	6.8	3	0.106	3	0.611	3	0.611	3	0.1	3	0.4	15	0.1
Aroclor-1260	2.85	6.8	3	0.027	3	13.8	3	13.8	3	2.15	3	9	841	2.9
Arsenic	132	1.16	1	0.06	1	35	1	35	1	22	2	132	1306	150.3
Barium	509	0.36	1	0.15	3	43.5	1	33.3	1	73.5	2	509	604	1219.9
Beryllium, Total	36.4	0.045	3	0.01	3	0.5	3	0.5	3	NA	-	36.4	48	NA
bis-2ethylhexyl phthalate	0.07	154	3	0.05	3	18.3	3	18.3	3	1.1	3	0.5	774	0.07
Boron	22	1	3	4	3	28	3	28	3	2.92	3	122	22	22.6
Butylbenzylphthalate	80.1	8.8	3	0.728	3	159.0	3	159.0	3	NA	-	80.1	670	NA
Cadmium	14	4.6	1	0.14	1	15	1	15	1	20	1	14	288	38.7
Carbon Disulfide	NA	NA	-	NA	-	NA	-	NA	-	NA	-	NA	NA	NA
Chloroform	5.0	9.1	3	9.59	3	15.0	3	15.0	3	NA	-	7.3	5	NA
Chromium (total)	67	0.49	1	0.0075	3	35.2	1	29.6	1	5	1	307	2884	67.3
Chromium (VI)	393	0.06	3	0.0075	3	9.24	2	9.24	2	11	3	513	900	393.4
cis-1,2-dichloroethene	16.7	9.42	3	8.57	3	45.2	3	45.2	3	NA	-	21.3	17	NA

Table J-10 Ecological Toxicity Data and Soil Screening Value Calculations

Analyte	Min Wildlife SSV mg/kg	BAF_{Worm}	Reference	K_{Plant}	Reference	Shrew TRV mg/kg-d	Reference	Vole TRV mg/kg-d	Reference	Robin TRV mg/kg-d	Reference	Shrew SSV mg/kg	Vole SSV mg/kg	Robin SSV mg/kg
Cobalt, Total	219.7	0.122	3	0.02	3	7.3	3	7.3	3	7.61E+00	-	229.4	516	219.74
Copper	217	0.88	1	0.02	1	44	1	33.6	1	61.7	1	217	2366	530.9
Cyanide	0.3	1	3	1	3	68.7	3	68.7	3	0.04	3	299	213	0.3
Diethylphthalate	2309	6.32	3	6.3	3	4600.0	3	4600.0	3	NA	-	3224.7	2309	NA
Di-n-butyl phthalate	0.04	35.6	3	0.9	3	1340.0	3	1340.0	3	0.14	3	167.2	4598	0.04
Di-n-octyl phthalate	1	358	3	0.031	3	79.4	3	79.4	3	NA	-	1.0	4495	NA
Freon 113	NA	NA	-	NA	-	NA	-	NA	-	NA	-	NA	NA	NA
gamma chlordane	2.72	17.8	1	0.011	1	10.9	1	8.36	1	10.7	1	3	736	5.5
Lead	118	0.69	1	0.0047	1	20	1	20	1	11.3	1	125	2132	118.0
Manganese, Total	1463	0.29	1	1.01	1	624.0	1	477.0	1	NA	-	8946.2	1463	NA
Mercury, inorganic	6	1.32	1	0.0854	1	2.86	1	2.18	1	0.9	1	9	63	5.5
Methylene Chloride	1.0	3.16	3	18.8	3	5.9	3	5.9	3	NA	-	8.2	1	NA
Molybdenum	7	0.48	1	1.01	1	3.09	1	2.36	1	35.3	1	27	7	482.5
Naphthalene	3.7	2.52	3	12.2	3	14.3	3	14.3	3	1.50E+01	-	25.0	4	51.24
Nickel	977	0.78	1	0.047	1	175.8	1	134.4	1	107	1	977	5919	1014.6
PCB mixtures (total)	0.65	4.58	1	0.087	1	0.668	1	0.51	1	1.8	1	0.6	14	3.5
Phenol	12.3	0.443	3	15.4	3	60.0	3	60.0	3	NA	-	576.0	12	NA
Pyrene	1.7	1.6	3	0.72	3	0.6	2	0.6	2	NA	-	1.7	3	NA
Selenium	0.3	10.5	1	0.0065	1	0.725	1	0.55	1	1	1	0.3	55	0.9
Silver	8	2.04	3	0.4	3	6.02	2	6.02	2	2.02	2	13	45	8.4
Strontium, Total	31.4	0.087	3	2.5	3	25.0	3	25.0	3	NA	-	1038.4	31	NA
Tetrachloroethene	0.2	53.4	3	2.5	3	2.0	3	2.0	3	NA	-	0.2	3	NA
Thallium	0.03	1	3	0.004	3	0.0071	3	0.0071	3	0.35	3	0.03	0.8	2.7
Tin	13.2	4.6	1	1.01	1	23.4	4	23.4	4	6.8	4	23	72	13.2
Titanium, Total	68.8	1	3	0.0055	3	15.8	3	15.8	3	NA	-	68.8	1640	NA

Table J-10 Ecological Toxicity Data and Soil Screening Value Calculations

Analyte	Min Wildlife SSV mg/kg	BAF_{Worm}	Reference	K_{Plant}	Reference	Shrew TRV mg/kg-d	Reference	Vole TRV mg/kg-d	Reference	Robin TRV mg/kg-d	Reference	Shrew SSV mg/kg	Vole SSV mg/kg	Robin SSV mg/kg
Trichloroethene	37.3	11.9	3	6.3	3	100.0	3	100.0	3	NA	-	37.3	50	NA
Uranium	8	0.033	3	0.0085	3	0.1	5	0.1	5	78	3	8	9	3113.5
Vanadium	13	0.042	3	0.0055	3	4.16	2	4.16	2	0.344	2	298	432	13.2
Zinc	359	3.19	1	0.095	1	703.3	1	537.4	1	131	1	974	14208	359.0

References

1=Washington Administrative Code, Tables 749-3 and 749-5

2=EPA EcoSSL

3=Los Alamos National Laboratory EcoRisk Database

4=Oak Ridge National Laboratory

5=Sheppard SC, Sheppard MI, Gallerand MO, Sanipelli B. 2005. Derivation of ecotoxicity thresholds for uranium. Journal Environmental Radioactivity 79:55-83.

Rules

WAC default replaced unless new TF results in lower SSV than WAC