APPENDIX B. TABLES

Table 1. Total Exposed Population Estimation Table

Pathway Types	Estimated Total Population in Potential Exposure Pathways	Minimum Population	Maximum Population
Potential Pathways On-site	10	2	1-50
Potential Pathways Off-site	1100	0	501 - 2500
Total Potential On and Off-site	1100	0	501 - 2500
Completed Pathways On-site	0	2	0
Completed Pathways Off-site	0	0	0
Total Completed On and Off-site	0	2	0
Potential and Completed Pathways On-site	10	0	1-50
Potential and Completed Pathways Off-site	1100	0	501 - 2500
Total Potential and Completed On and Off-site	1110	0	501 - 2500

DOH prepared this table for use by the ATSDR in their “HazDat” tracking system that includes people potentially impacted by hazardous waste sites.

Table 2. Maximum concentrations in on-site surface soil (0-6 inches below ground surface)

Contaminants of Concern	Maximum Concentration (mg/kg)	Location of sample with maximum	# Greater Than Comparison Value/ Total # of Samples	Comparison Value*	
				(mg/kg)	Source
Antimony	130	TF- SE	1/59	20/300 RMEG	ATSDR 2002
Arsenic	44	TF- SE	1/72	20/200 EMEG	ATSDR 2002
Dieldrin	0.99	Dump- NW	14/72	0.04 CREG	ATSDR 2002
Gamma Chlordane	3.5	Dump- SE	1/33	0.04 CREG	ATSDR 2002
Heptachlor	0.430	Dump- SE	1/33	0.2 CREG	ATSDR 2002
Heptachlor Epoxide	0.85	Dump- SE	3/72	0.08 CREG	ATSDR 2002
Lead	41000	Dump- SE	19/72	400 SCTL	DEP 1999
Manganese	5900	Dump- SW	1/33	3000/40000 RMEG	ATSDR 2002
PAH	42.6	Dump- SE	20/72	0.1 CREG	ATSDR 2002
PCB	0.85	Dump- Center	2/72	0.4 CREG	ATSDR 2002
Pentachlorophenol	54	Dump- S Center	1/33	4 CREG	ATSDR 2002
Toxaphene	2	Dump- SW	1/33	0.6 CREG	ATSDR 2002

*Comparison values used to select chemicals for further scrutiny, not for determining the possibility of illness.
mg/kg—milligrams per kilogram of soil
TF—Tampa Fiberglass **SE—**Southeast **NE—**Northeast **NW—**Northwest **SW—**Southwest **S—**South **PCB—**polychlorinated biphenyl
PAH—polycyclic aromatic hydrocarbons are expressed in terms of benzo(a)pyrene equivalents
CREG—ATSDR Cancer Risk Evaluation Guide
RMEG—ATSDR gives doses for child and adult Reference Dose Medial Evaluation Guide
EMEG—ATSDR gives doses for child and adult Environmental Medial Evaluation Guide
SCTL—DEP Soil Cleanup Target Level
Sources of Data: EPA 1980, DEP 1994, EPA 1999, CDM 2000, 2001 and 2003.

Table 3. Maximum concentrations in on-site subsurface soil (greater than 6 inches below ground surface)

Contaminants of Concern	Maximum Concentration (mg/kg)	Location of sample with maximum	# Greater Than Comparison Value/ Total # of Samples	Comparison Value*	
				(mg/kg)	Source
Antimony	100	TF- NE	4/38	20/300 RMEG	ATSDR 2002
Arsenic	35	TF- NE	1/48	20/200 EMEG	ATSDR 2002
Dieldrin	0.62	Dump- N	5/48	0.04 CREG	ATSDR 2002
Gamma Chlordane	ND	-	-	0.04 CREG	ATSDR 2002
Heptachlor	ND	-	-	0.2 CREG	ATSDR 2002
Heptachlor Epoxide	ND	-	-	0.08 CREG	ATSDR 2002
Lead	25000	TF N Central	5/48	400 SCTL	DEP 1999
Manganese	ND	-	-	3000/40000 RMEG	ATSDR 2002
PAH	3.2	Dump- N	9/48	0.1 CREG	ATSDR 2002
PCB	ND	-	-	0.4 CREG	ATSDR 2002
Pentachlorophenol	ND	-	-	4 CREG	ATSDR 2002
Toxaphene	ND	-	-	0.6 CREG	ATSDR 2002

Comparison values used to select chemicals for further scrutiny, not for determining the possibility of illness.
mg/kg—milligrams per kilogram of soil
TF—Tampa Fiberglass **SE—**Southeast **NE—**Northeast **NW—**Northwest **SW—**Southwest **S—**South **PCB—**polychlorinated biphenyl
ND—none detected
PAH—polycyclic aromatic hydrocarbons are expressed in terms of benzo(a)pyrene equivalents
CREG—ATSDR Cancer Risk Evaluation Guide
RMEG—ATSDR gives doses for child and adult Reference Dose Medial Evaluation Guide
EMEG—ATSDR gives doses for child and adult Environmental Medial Evaluation Guide
SCTL—DEP Soil Cleanup Target Level
Sources of Data: EPA 1980, DEP 1994, EPA 1999, CDM 2000, CDM 2001 and 2003.

Table 4. Maximum concentrations in on-site groundwater

Contaminants of Concern	Maximum Concentration (ug/L)	Location of sample with maximum	# Greater Than Comparison Value/ Total # of Samples	Comparison Value	
				(ug/L)	Source
Antimony	76	TF- NE	2/8	6 MCL	EPA 2002
Arsenic	27.8	Dump- SE	3/17	10 MCL	EPA 2002
Dieldrin	ND	-	0/17	0.002 CREG	ATSDR 2002
Gamma Chlordane	ND	-	0/17	2 CREG	ATSDR 2002
Heptachlor	ND	-	0/17	0.008 CREG	ATSDR 2002
Heptachlor Epoxide	ND	-	0/17	0.004 CREG	ATSDR 2002
Lead	9050	Dump- SE	4/17	15 GWCTL	DEP 1999
Manganese	640	Dump- NW	1/8	500/2000 RMEG	ATSDR 2002
PAH	1.44	Dump- SE	1/17	0.005 CREG	ATSDR 2002
PCB	ND	-	0/17	0.2/0.7 EMEG	ATSDR 2002
Pentachlorophenol	ND	-	0/17	0.2 CREG	ATSDR 2002
Toxaphene	ND	-	0/17	0.03 CREG	ATSDR 2002

Comparison values used to select chemicals for further scrutiny, not for determining the possibility of illness.
ug/L—micrograms per liter0
TF—Tampa Fiberglass **SE—**Southeast **NE—**Northeast **NW—**Northwest **SW—**Southwest **S—**South **PCB—**polychlorinated biphenyl
ND—none detected
PAH—polycyclic aromatic hydrocarbons are expressed in terms of benzo(a)pyrene equivalents
CREG—ATSDR Cancer Risk Evaluation Guide
RMEG—ATSDR gives doses for child and adult Reference Dose Medial Evaluation Guide
EMEG—ATSDR gives doses for child and adult Environmental Medial Evaluation Guide
GWCTL—DEP Groundwater Cleanup Target Level
Sources of Data: EPA 1980, DEP 1994, EPA 1999, CDM 2000, CDM 2001 and 2003.

Table 5. Maximum concentrations in on-site surface water

Contaminants of Concern	Maximum Concentration (ug/L)	Location of sample with maximum	# Greater Than Comparison Value/ Total # of Samples	Comparison Value	
				(ug/L)	Source
Antimony	ND	-	0/3	6 MCL	EPA 2002
Arsenic	ND	-	0/3	10 MCL	EPA 2002
Dieldrin	ND	-	0/3	0.002 CREG	ATSDR 2002
Gamma Chlordane	ND	-	0/3	2 CREG	ATSDR 2002
Heptachlor	ND	-	0/3	0.008 CREG	ATSDR 2002
Heptachlor Epoxide	ND	-	0/3	0.004 CREG	ATSDR 2002
Lead	40	Dump—SE	2/3	15 GWCTL	DEP 1999
Manganese	ND	-	0/3	500/2000 RMEG	ATSDR 2002
PAH	ND	-	0/3	0.005 CREG	ATSDR 2002
PCB	ND	-	0/3	0.2/0.7 EMEG	ATSDR 2002
Pentachlorophenol	ND	-	0/3	0.2 CREG	ATSDR 2002
Toxaphene	ND	-	0/2	0.03 CREG	ATSDR 2002

Comparison values used to select chemicals for further scrutiny, not for determining the possibility of illness.
mg/kg—milligrams per kilogram of soil
TF—Tampa Fiberglass **SE—**Southeast **NE**—Northeast **NW**—Northwest **SW**—Southwest **S**—South **PCB**—polychlorinated biphenyl
ND—none detected
PAH—polycyclic aromatic hydrocarbons are expressed in terms of benzo(a)pyrene equivalents
CREG—ATSDR Cancer Risk Evaluation Guide
RMEG—ATSDR gives doses for child and adult Reference Dose Medial Evaluation Guide
EMEG—ATSDR gives doses for child and adult Environmental Medial Evaluation Guide
GWCTL—DEP Groundwater Cleanup Target Level
Sources of Data: EPA 1980, DEP 1994, EPA 1999, CDM 2000, CDM 2001 and 2003.

Table 6. Maximum concentrations in on-site sediments

Contaminants of Concern	Maximum Concentration (mg/kg)	Location of sample with maximum	# Greater Than Comparison Value/ Total # of Samples	Comparison Value*	
				(mg/kg)	Source
Antimony	ND	-	0/3	20/300 RMEG	ATSDR 2002
Arsenic	ND	-	0/3	20/200 EMEG	ATSDR 2002
Dieldrin	ND	-	0/3	0.04 CREG	ATSDR 2002
Gamma Chlordane	ND	-	0/3	0.04 CREG	ATSDR 2002
Heptachlor	ND	-	0/3	0.2 CREG	ATSDR 2002
Heptachlor Epoxide	ND	-	0/3	0.08 CREG	ATSDR 2002
Lead	980	-	2/3	400 SCTL	DEP 1999
Manganese	ND	-	0/3	3000/40000 RMEG	ATSDR 2002
PAH	0.118	Dump NE	1/3	0.1 CREG	ATSDR 2002
PCB	ND	-	0/3	0.4 CREG	ATSDR 2002
Pentachlorophenol	ND	-	0/3	4 CREG	ATSDR 2002
Toxaphene	ND	-	0/3	0.6 CREG	ATSDR 2002

Comparison values used to select chemicals for further scrutiny, not for determining the possibility of illness.
mg/kg—milligrams per kilogram of soil
TF—Tampa Fiberglass **SE—**Southeast **NE**—Northeast **NW**—Northwest **SW**—Southwest **S**—South **PCB**—polychlorinated biphenyl
ND — none detected
PAH—polycyclic aromatic hydrocarbons are expressed in terms of benzo(a)pyrene equivalents
CREG—ATSDR Cancer Risk Evaluation Guide
RMEG—ATSDR gives doses for child and adult Reference Dose Medial Evaluation Guide
EMEG—ATSDR gives doses for child and adult Environmental Medial Evaluation Guide
SCTL—DEP Soil Cleanup Target Level
Sources of Data: EPA 1980, DEP 1994, EPA 1999, CDM 2000, CDM 2001 and 2003.

Table 7. Maximum concentrations in off-site surface soil

Contaminants of Concern	Maximum Concentration (mg/kg)	Location of sample with maximum	# Greater Than Comparison Value/ Total # of Samples	Comparison Value*	
				(mg/kg)	Source
Antimony	ND	-	0/9	20/300 RMEG	ATSDR 2002
Arsenic	ND	-	0/9	20/200 EMEG	ATSDR 2002
Dieldrin	ND	-	0/9	0.04 CREG	ATSDR 2002
Gamma Chlordane	ND	-	0/9	0.04 CREG	ATSDR 2002
Heptachlor	ND	-	0/9	0.2 CREG	ATSDR 2002
Heptachlor Epoxide	ND	-	0/9	0.08 CREG	ATSDR 2002
Lead	1400	SE of TF	3/9	400 SCTL	DEP 1999
Manganese	ND	-	0/9	3000/40000 RMEG	ATSDR 2002
PAH	ND	-	0/9	0.1 CREG	ATSDR 2002
PCB	ND	-	0/9	0.4 CREG	ATSDR 2002
Pentachlorophenol	ND	-	0/9	4 CREG	ATSDR 2002
Toxaphene	ND	-	0/9	0.6 CREG	ATSDR 2002

Comparison values used to select chemicals for further scrutiny, not for determining the possibility of illness.
mg/kg—milligrams per kilogram of soil
TF—Tampa Fiberglass **SE—**Southeast **NE**—Northeast **NW**—Northwest **SW**—Southwest **S**—South **PCB**—polychlorinated biphenyl
PCB—polychlorinated biphenyl **ND** — none detected
PAH—polycyclic aromatic hydrocarbons are expressed in terms of benzo(a)pyrene equivalents
CREG—ATSDR Cancer Risk Evaluation Guide
RMEG—ATSDR gives doses for child and adult Reference Dose Medial Evaluation Guide
EMEG—ATSDR gives doses for child and adult Environmental Medial Evaluation Guide
SCTL—DEP Soil Cleanup Target Level
Sources of Data: EPA 1980, DEP 1994, EPA 1999, CDM 2000, CDM 2001 and 2003.

Table 8. Maximum concentrations in off-site groundwater

Contaminants of Concern	Maximum Concentration (ug/L)	Location of sample with maximum	# Greater Than Comparison Value/ Total # of Samples	Comparison Value	
				(ug/L)	Source
Antimony	ND	-	0/5	6 MCL	EPA 2002
Arsenic	28	ESE of TF	1/9	10 MCL	EPA 2002
Dieldrin	ND	-	0/9	0.002 CREG	ATSDR 2002
Gamma Chlordane	ND	-	0/9	2 CREG	ATSDR 2002
Heptachlor	ND	-	0/9	0.008 CREG	ATSDR 2002
Heptachlor Epoxide	ND	-	0/9	0.004 CREG	ATSDR 2002
Lead	ND	-	0/9	15 GWCTL	DEP 1999
Manganese	ND	-	0/9	500/2000 RMEG	ATSDR 2002
PAH	ND	-	0/9	0.005 CREG	ATSDR 2002
PCB	ND	-	0/9	0.2/0.7 EMEG	ATSDR 2002
Pentachlorophenol	ND	-	0/9	0.2 CREG	ATSDR 2002
Toxaphene	ND	-	0/9	0.03 CREG	ATSDR 2002

Comparison values used to select chemicals for further scrutiny, not for determining the possibility of illness.
ug/L—micrograms per liter
TF—Tampa Fiberglass **SE—**Southeast **NE**—Northeast **NW**—Northwest **SW**—Southwest **S**—South
PCB—polychlorinated biphenyl **ND**—none detected
PAH—polycyclic aromatic hydrocarbons are expressed in terms of benzo(a)pyrene equivalents
CREG—ATSDR Cancer Risk Evaluation Guide
RMEG—ATSDR gives doses for child and adult Reference Dose Medial Evaluation Guide
EMEG—ATSDR gives doses for child and adult Environmental Medial Evaluation Guide
GWCTL—DEP Groundwater Cleanup Target Level
Sources of Data: EPA 1980, DEP 1994, EPA 1999, CDM 2000, CDM 2001 and 2003.

Table 9. Maximum concentrations in off-site surface water

Contaminants of Concern	Maximum Concentration (ug/L)	Location of sample with maximum	# Greater Than Comparison Value/ Total # of Samples	Comparison Value	
				(ug/L)	Source
Antimony	7.1	E on Delaney Creek	1/31	6 MCL	EPA 2002
Arsenic	19	-	10/50	10 MCL	EPA 2002
Dieldrin	ND	-	0/50	0.002 CREG	ATSDR 2002
Gamma Chlordane	ND	-	0/50	2 CREG	ATSDR 2002
Heptachlor	ND	-	0/50	0.008 CREG	ATSDR 2002
Heptachlor Epoxide	ND	-	0/50	0.004 CREG	ATSDR 2002
Lead	130	SW of TF	18/50	15 GWCTL	DEP 1999
Manganese	ND	-	0/50	500/2000 RMEG	ATSDR 2002
PAH	ND	-	0/50	0.005 CREG	ATSDR 2002
PCB	ND	-	0/50	0.2/0.7 EMEG	ATSDR 2002
Pentachlorophenol	ND	-	0/50	0.2 CREG	ATSDR 2002
Toxaphene	ND	-	0/50	0.03 CREG	ATSDR 2002

Comparison values used to select chemicals for further scrutiny, not for determining the possibility of illness.
ug/L—micrograms per liter
TF—Tampa Fiberglass **SE—**Southeast **NE**—Northeast **NW**—Northwest **SW**—Southwest **S**—South **PCB**—polychlorinated biphenyl
PCB—polychlorinated biphenyl **ND** — none detected
PAH—polycyclic aromatic hydrocarbons are expressed in terms of benzo(a)pyrene equivalents
CREG—ATSDR Cancer Risk Evaluation Guide
RMEG—ATSDR gives doses for child and adult Reference Dose Medial Evaluation Guide
EMEG—ATSDR gives doses for child and adult Environmental Medial Evaluation Guide
GWCTL— DEP Groundwater Cleanup Target Level
Sources of Data: EPA 1980, DEP 1994, EPA 1999, CDM 2000, CDM 2001 and 2003.

Table 10. Maximum concentrations in off-site sediments

Contaminants of Concern	Maximum Concentration (mg/kg)	Location of sample with maximum	# Greater Than Comparison Value/ Total # of Samples	Comparison Value*	
				(mg/kg)	Source
Antimony	34	Wetlands to East	1/40	20/300 RMEG	ATSDR 2002
Arsenic	ND	-	0/40	20/200 EMEG	ATSDR 2002
Dieldrin	ND	-	0/40	0.04 CREG	ATSDR 2002
Gamma Chlordane	ND	-	0/40	0.04 CREG	ATSDR 2002
Heptachlor	ND	-	0/40	0.2 CREG	ATSDR 2002
Heptachlor Epoxide	ND	-	0/40	0.08 CREG	ATSDR 2002
Lead	1200	Wetlands to East	5/40	400 SCTL	DEP 1999
Manganese	ND	-	0/40	3000/40000 RMEG	ATSDR 2002
PAH	1.18	Delaney Creek East of site	5/40	0.1 CREG	ATSDR 2002
PCB	ND	-	0/40	0.4 CREG	ATSDR 2002
Pentachlorophenol	ND	-	0/40	4 CREG	ATSDR 2002
Toxaphene	ND	-	0/40	0.6 CREG	ATSDR 2002

Comparison values used to select chemicals for further scrutiny, not for determining the possibility of illness.
mg/kg—milligrams per kilogram of soil
TF—Tampa Fiberglass **SE—**Southeast **NE**—Northeast **NW**—Northwest **SW**—Southwest **S**—South **PCB**—polychlorinated biphenyl
PCB—polychlorinated biphenyl **ND**—none detected
PAH—polycyclic aromatic hydrocarbons are expressed in terms of benzo(a)pyrene equivalents
CREG—ATSDR Cancer Risk Evaluation Guide
RMEG—ATSDR gives doses for child and adult Reference Dose Medial Evaluation Guide
EMEG—ATSDR gives doses for child and adult Environmental Medial Evaluation Guide
SCTL—DEP Soil Cleanup Target Level
Sources of Data: EPA 1980, DEP 1994, EPA 1999, CDM 2000, CDM 2001 and 2003

Table 11. Completed exposure pathways

Pathway Name	Exposure Pathway Elements					Time
	Source	Environmental/ Exposure Media	Point of Exposure	Route of Exposure	Exposed Population and land use	
On-site Soil	Contaminated On-site Soil	Surface Soil	On-site property	Incidental ingestion and inhalation	On-site trespassers	Past
Off-site Soil	Contaminated Off-site Soil	Surface Soil	Off-site property	Incidental ingestion and inhalation	Off-site residents/owners	Past/ Current

Table 12. Potential exposure pathways

Pathway Name	Exposure Pathway Elements					Time
	Source	Environmental/ Exposure Media	Point of Exposure	Route of Exposure	Exposed Population and land use	
On-site Soil	Contaminated On-site Soil	Surface Soil	On-site property	Incidental ingestion and inhalation	On-site residents and trespassers	Current/ Future
On-site Groundwater	Contaminated On-site Soil	Groundwater	On-site wells/ Tap water	Ingestion, skin absorption and inhalation	On-site residents or employees	Future
Off-site Soil	Contaminated Off-site Soil	Surface Soil	Off-site property	Incidental ingestion and inhalation	Off-site residents/owners	Current/ Future

Model Parameters and Assumptions for Tables 5, 6, and 7

Exposure Medium: Groundwater

Exposure Point:	**On-site tap water**
Scenario Time-frame:	Future
Land Use Conditions:	Residential

Receptor Population: Residents

These doses were calculated using Risk Assistant software by Hampshire Research Institute, Version 2.0. The part of this software DOH uses allows us to set custom exposures that we can use for every site with accepted values for groundwater consumption, shower inhalation exposure and dermal exposure parameters (EPA, 1991).

The following doses were calculated using the following values:

Adult body weight-	70 kg
Child body weight-	15 kg
Adult water consumption-	2 liters/day
Child water consumption-	1 liter/day
Adult shower time-	0.2 hours
Adult skin surface area-	23,000cm2
Child skin surface area-	7,200cm^2

* The air concentration is given in milligrams per cubic meter because the values for inhalation studies in most of the Toxicological Profiles are given in these units. The air concentration is not a dose, therefore it is the same for adults and children.

μg/L = microgram per liter of water
mg/kg/day = milligrams per kilogram body weight per day
mg/^{M3} = milligrams per cubic meter

N.D.- Not detected
N.A.- Not applicable
N.S.- Not significant

Exposure Medium: Soil

Exposure Point:	**On-site soil and dust**
Scenario Time frame:	Future
Land Use Conditions:	Residential

Receptor Population: Residents

These doses were calculated using Risk Assistant software and accepted values for soil consumption, dust inhalation exposure and dermal exposure parameters (EPA, 1991).

The following doses were calculated using the following values:

Adult body weight-	70 kg
Child body weight-	15 kg
Adult soil consumption-	100 mg/day
Child soil consumption-	200 mg/day
Adult/Child shower time-	0.2 hours
Adult skin surface area-	23,000cm^2
Child skin surface area-	7,200cm^2

* The air concentration is given in milligrams per cubic meter because the values for inhalation studies in most of the Toxicological Profiles are given in these units. The air concentration is not a dose, therefore it is the same for adults and children.

mg/kg = milligram per kilogram of soil
mg/kg/day = milligrams per kilogram body weight per day

Table 13. Estimated dose from exposure to on-site surface soil

Contaminant of Concern (maximum concentration)	Oral MRL (mg/kg/day)	Soil/dust-Ingestion (mg/kg/day)		Soil/dust-Dermal (mg/kg/day)		Inhalation MRL (mg/m^3)	Soil/dust-Inhalation (mg/m^3)
		Child	Adult	Child	Adult		Child and Adult
Antimony (130 mg/kg)	-	0.002	0.0002	N.S.	N.S.	-	0.000007
Arsenic (44 mg/kg)	0.0003 Chr	**0.0004**	0.00006	N.S.	N.S.	-	0.000002
Dieldrin (0.99 mg/kg)	0.00005 Chr	0.00001	0.000001	N.S.	N.S.	-	0.00000006
Gamma Chlordane (3.5 mg/kg)	0.0006 Chr	0.00005	0.000005	N.S.	N.S.	0.00002 Chr	0.0000002
Heptachlor (0.43 mg/kg)	-	0.000006	0.0000006	N.S.	N.S.	-	0.00000002
Heptachlor Epoxide (0.16 mg/kg)	-	0.00001	0.000001	N.S.	N.S.	-	0.00000005
Lead (41,000 mg/kg)	-	Model	Model	N.S.	N.S.	Model	Model
Manganese (5,400 mg/kg)	-	0.08	0.008	N.S.	N.S.	-	0.0003
PAHs (42.6 mg/kg)	-	0.0006	0.00006	N.S.	N.S.	-	0.000002
PCBs (0.85 mg/kg)	0.01 Acute	0.00001	0.000001	N.S.	N.S.	-	0.00000005
Pentachlorophenol (54 mg/kg)	0.01 Chr	0.0007	0.00008	N.S.	N.S.	-	0.000003
Toxaphene (2 mg/kg)	0.001 Int	0.00003	0.000003	N.S.	N.S.	-	0.0000001

Acute—Acute exposure length of 0-14 days **Int** —Intermediate exposure length of 15—364 days **Chr**—Chronic exposure length of more than 365 days
N.S. — Not Significant **mg/kg/day** — milligram chemical per kilogram body weight per day **mg/m^3** — microgram of chemical per cubic meter of air
Bolded values are greater than the chemical's MRL (Minimum Risk Level)

Table 14. Estimated dose from exposure to on-site groundwater

Contaminant of Concern (maximum concentration)	Oral MRL (mg/kg/day)	Groundwater-Ingestion (mg/kg/day)		Groundwater-Dermal (mg/kg/day)		Inhalation MRL (mg/m^3)	Groundwater-Inhalation (mg/m^3)
		Child	Adult	Child	Adult		Child and Adult
Antimony (76 µg/L)	-	0.005	0.001	0.000007	0.000005	-	M.D.
Arsenic (27.8 µg/L)	0.0003 Chr	0.002	0.0004	0.000003	0.000002	-	M.D.
Dieldrin	0.00005 Chr	-	-	-.	-	-	-
Gamma Chlordane	0.0006 Chr	-	-	-	-.	0.00002 Chr	-
Heptachlor	-	-	-	-	-.	-	-
Heptachlor Epoxide)		-	-	-	-	-	-
Lead (9,050 µg/L)	-	Model	Model	Model	Model	Model	Model
Manganese (640 µg/L)	-	0.04	0.009	0.000061	0.00004	-	M.D.
PAHs (1.44 µg/L)	-	0.0001	0.00002	0.002	0.001	-	0.02
PCBs	0.01 Acute	-	-	-	-	-	-
Pentachlorophenol	0.01 Chr	-	-	-	-	-	-
Toxaphene	0.001 Int	-	-	-	-	-	-

Acute—Acute exposure length of 0-14 days **Int** —Intermediate exposure length of 15—364 days **Chr** — Chronic exposure length of more than 365 days
N.S. — Not Significant **mg/kg/day** — milligram chemical per kilogram body weight per day **mg/m^3** — microgram of chemical per cubic meter of air
Bolded values are greater than the chemical's MRL (Minimum Risk Level) **M.D.** — Missing Data

Table 15. Estimated dose from exposure to off-site groundwater

Contaminant of Concern (maximum concentration)	Oral MRL (mg/kg/day)	Groundwater-Ingestion (mg/kg/day)		Groundwater-Dermal (mg/kg/day)		Inhalation MRL (mg/m^3)	Groundwater-Inhalation (mg/m^3)
		Child	Adult	Child	Adult		Child and Adult
Antimony	-	-	-	-	-	-	-
Arsenic (28µg/L)	0.0003 Chr	0.002	0.0004	0.000003	0.000002	-	M.D.
Dieldrin	0.00005 Chr	-	-	-.	-	-	-
Gamma Chlordane	0.0006 Chr	-	-	-	-.	0.00002 Chr	-
Heptachlor	-	-	-	-	-.	-	-
Heptachlor Epoxide)	-	-	-	-	-	-	-
Lead	-	Model	Model	Model	Model	Model	Model
Manganese	-	-	-	-	-	-	-
PAHs	-	-	-	-	-	-	-
PCBs	0.01 Acute	-	-	-	-	-	-
Pentachlorophenol	0.01 Chr	-	-	-	-	-	-
Toxaphene	0.001 Int	-	-	-	-	-	-

Acute—Acute exposure length of 0-14 days **Int** —Intermediate exposure length of 15—364 days **Chr** — Chronic exposure length of more than 365 days
N.S. — Not Significant **mg/kg/day** — milligram chemical per kilogram body weight per day **mg/m^3** — microgram of chemical per cubic meter of air
Bolded values are greater than the chemical's MRL (Minimum Risk Level) **M.D.** Missing Data

Table 16. Estimated dose from exposure to off-site sediments

Contaminant of Concern (maximum concentration)	Oral MRL (mg/kg/day)	Soil/dust-Ingestion (mg/kg/day)		Soil/dust-Dermal (mg/kg/day)		Inhalation MRL (mg/m^3)	Soil/dust—Inhalation (mg/m^3)
		Child	Adult	Child	Adult		Child and Adult
Antimony (34 mg/kg)	-	0.0005	0.00005	N.S.	N.S.	-	0.000002
Arsenic	0.0003 Chr	-	-	-	-	-	-
Dieldrin	0.00005 Chr	-	-	-	-	-	-
Gamma Chlordane	0.0006 Chr	-	-	-	-	0.00002 Chr	-
Heptachlor	-	-	-	-	-	-	-
Heptachlor Epoxide	-	-	-	-	-	-	-
Lead (12,000 mg/kg)	-	Model	Model	Model	Model	Model	Model
Manganese	-	-	-	-	-	-	-
PAHs (1.8 mg/kg)	-	0.0001	0.000002	N.S.	N.S.	-	0.00000007
PCBs	0.01 Acute	-	-	-	-	-	-
Pentachlorophenol	0.01 Chr	-	-	-	-	-	-
Toxaphene	0.001 Int	-	-	-	-	-	-

Acute—Acute exposure length of 0-14 days **Int** —Intermediate exposure length of 15—364 days **Chr** — Chronic exposure length of more than 365 days
N.S. — Not Significant **mg/kg/day** — milligram chemical per kilogram body weight per day **mg/m^3** — microgram of chemical per cubic meter of air
Bolded values are greater than the chemical's MRL (Minimum Risk Level)

Table 17. Estimated Blood Lead Concentrations in Children Ingesting On-site Surface Soil (micrograms per deciliter —µg/dl)

Media	Conc. *		Time	Slope§		**Low**	**High**
	low	**high**		**low**	**high**		
Air (out) *	0.1	0.2	0.125	2.46	3.04	0.03075	0.076
Air (in) *	0.3	0.6	0.125	2.46	3.04	0.09225	0.228
Food*	5	5	0.125	0.24	0.24	0.15	0.15
Water*	4	4	0.125	0.16	0.16	0.08	0.08
Soil	41000	41000	0.125	0.002	0.016	10.25	82
Dust	41000	41000	0.125	0.004	0.004	20.5	20.5
Total						**31.103**	**103.034**

*Default Value from ATSDR 1999a, Appendix D.
§These slopes were for children from ATSDR 1999a, Appendix D.
ATSDR's Regression Analysis with Multiple-uptake Parameters to Estimate Blood Lead from Environmental Exposures (ATSDR 1999a, Appendix D)

Table 18. Estimated Blood Lead Concentrations in Adults Ingesting On-site Surface Soil (micrograms per deciliter—µg/dl)

Media	Conc. *		Time	Slope§		**Low**	**High**
	low	**high**		**low**	**high**		
Air (out) *	0.1	0.2	0.125	1.59	3.56	0.01988	0.089
Air (in) *	0.3	0.6	0.125	1.53	3.56	0.05738	0.267
Food*	5	5	0.125	0.016	0.0195	0.01	0.01219
Water*	4	4	0.125	0.03	0.06	0.015	0.03
Soil	41000	41000	0.125	0.002	0.016	10.25	82
Dust	41000	41000	0.125	0.004	0.004	20.5	20.5
Total						**30.8523**	**102.898**

*Default Value from ATSDR 1999a, Appendix D.
§Slopes for adults from ATSDR 1999a, Appendix D.
ATSDR's Regression Analysis with Multiple-uptake Parameters to Estimate Blood Lead from Environmental Exposures (ATSDR 1999a, Appendix D)

Similarly ATSDR's Regression Analysis with Multiple-uptake Parameters to Estimate Blood Lead from Environmental Exposures (ATSDR 1999a, Appendix D) was used to estimate Blood Lead Concentrations from other media. Water estimates did not add any soil value contributions, so ground and surface water could be looked at as separate exposure pathways issues.)

Table 19. Estimated Blood Lead Concentrations from other Media

Media	Children	Adults
	Low-High (µg/dl)	Low-High (µg/dl)
On-site Surface Soil	31-103	31-103
On-site Subsurface Soil	19-63	19-63
On-site Groundwater	181-181	34-68
On-site Surface Water	1-1	0.23-0.82
Off-site Surface Soil	1-4	1-4
Off-site Surface Water	3-3	0.5-1.51
Off-site Sediment	0.6-3	0.4- 4