LEAD MODEL FOR WINDOWS Version 1.1

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Model Version: 1.1 Build11
User Name:
Date:
Site Name:
Operable Unit: East Tank Farm
Run Mode: Research Surface Soil

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******** Air ********

Indoor Air Pb Concentration: 30.000 percent of outdoor.
Other Air Parameters:

Age	Time Outdoors (hours)	Ventilation Rate (m^3/day)	Lung Absorption (%)	Outdoor Air Pb Conc (µg Pb/m^3)
.5-1	1.000	2.000	32.000	0.100
1-2	2.000	3.000	32.000	0.100
2-3	3.000	5.000	32.000	0.100
3-4	4.000	5.000	32.000	0.100
4-5	4.000	5.000	32.000	0.100
5-6	4.000	7.000	32.000	0.100
6-7	4.000	7.000	32.000	0.100

******** Diet ********

Age	Diet Intake(µg/day)
.5-1	2.260
1-2	1.960
2-3	2.130
3-4	2.040
4-5	1.950
5-6	2.050
6-7	2.220

******** Drinking Water ********

Water Consumption:

Age	Water (L/day)
.5-1	0.200
1-2	0.500
2-3	0.520
3-4	0.530
4-5	0.550
5-6	0.580
6-7	0.590

Drinking Water Concentration: 4.000 µg Pb/L

******** Soil & Dust ********

Multiple Source Analysis Used
Average multiple source concentration: 69.640 µg/g

Mass fraction of outdoor soil to indoor dust conversion factor: 0.700
Outdoor airborne lead to indoor household dust lead concentration: 100.000
Use alternate indoor dust Pb sources? No

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Age	Soil (µg Pb/g)	House Dust (µg Pb/g)
.5-1	85.200	69.640
1-2	85.200	69.640
2-3	85.200	69.640
3-4	85.200	69.640
4-5	85.200	69.640
5-6	85.200	69.640
6-7	85.200	69.640

****** Alternate Intake ******

Age	Alternate (µg Pb/day)
.5-1	0.000
1-2	0.000
2-3	0.000
3-4	0.000
4-5	0.000
5-6	0.000
6-7	0.000

****** Maternal Contribution: Infant Model ******

Maternal Blood Concentration: 0.600 µg Pb/dL

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CALCULATED BLOOD LEAD AND LEAD UPTAKES:
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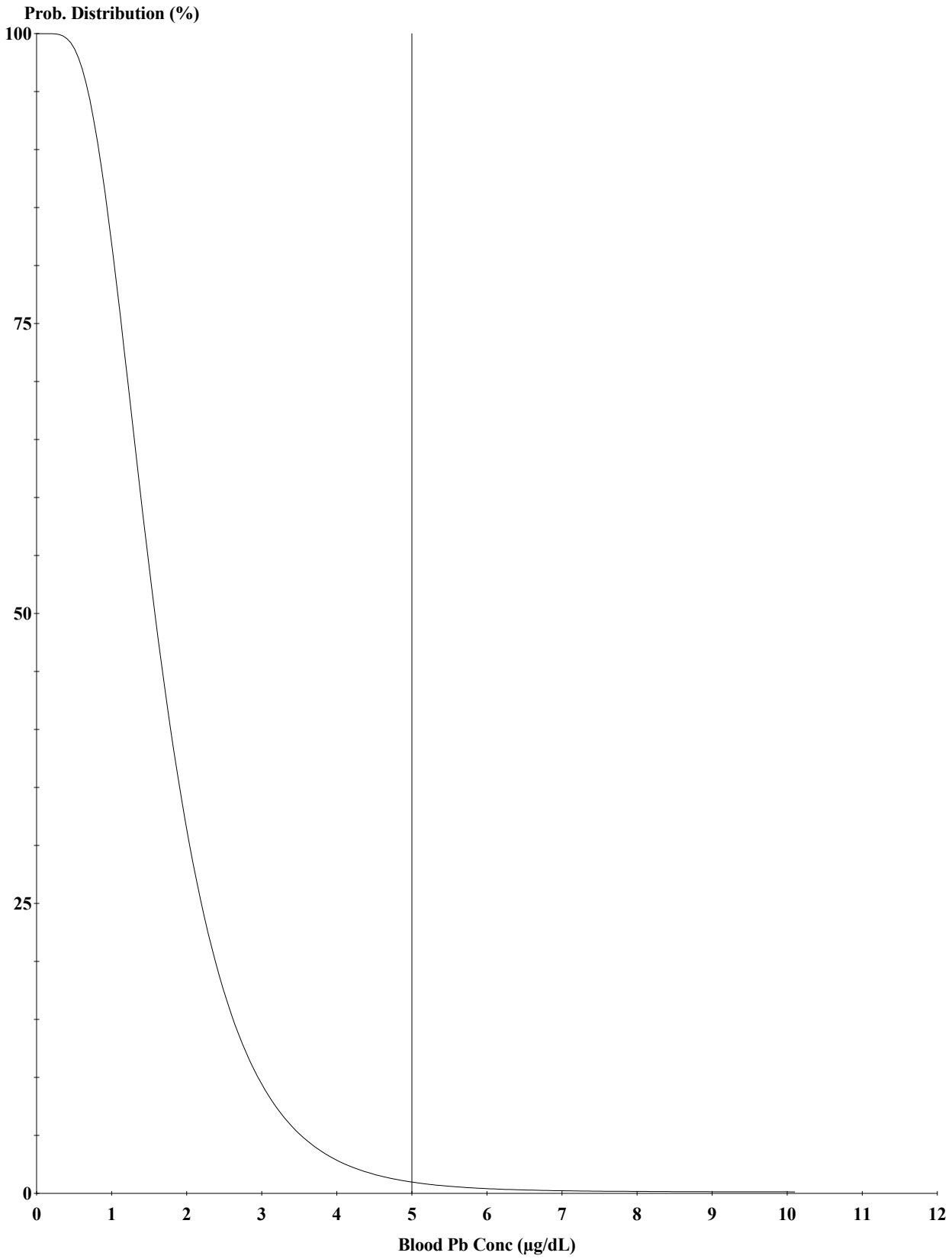
Year	Air (µg/day)	Diet (µg/day)	Alternate (µg/day)	Water (µg/day)
.5-1	0.021	1.088	0.000	0.385
1-2	0.034	0.939	0.000	0.958
2-3	0.062	1.026	0.000	1.002
3-4	0.067	0.988	0.000	1.027
4-5	0.067	0.953	0.000	1.075
5-6	0.093	1.005	0.000	1.137
6-7	0.093	1.090	0.000	1.158

Year	Soil+Dust (µg/day)	Total (µg/day)	Blood (µg/dL)
.5-1	1.881	3.375	1.8
1-2	2.975	4.907	2.0
2-3	2.991	5.081	1.9
3-4	3.007	5.089	1.8
4-5	2.246	4.340	1.5
5-6	2.028	4.263	1.3
6-7	1.919	4.260	1.2

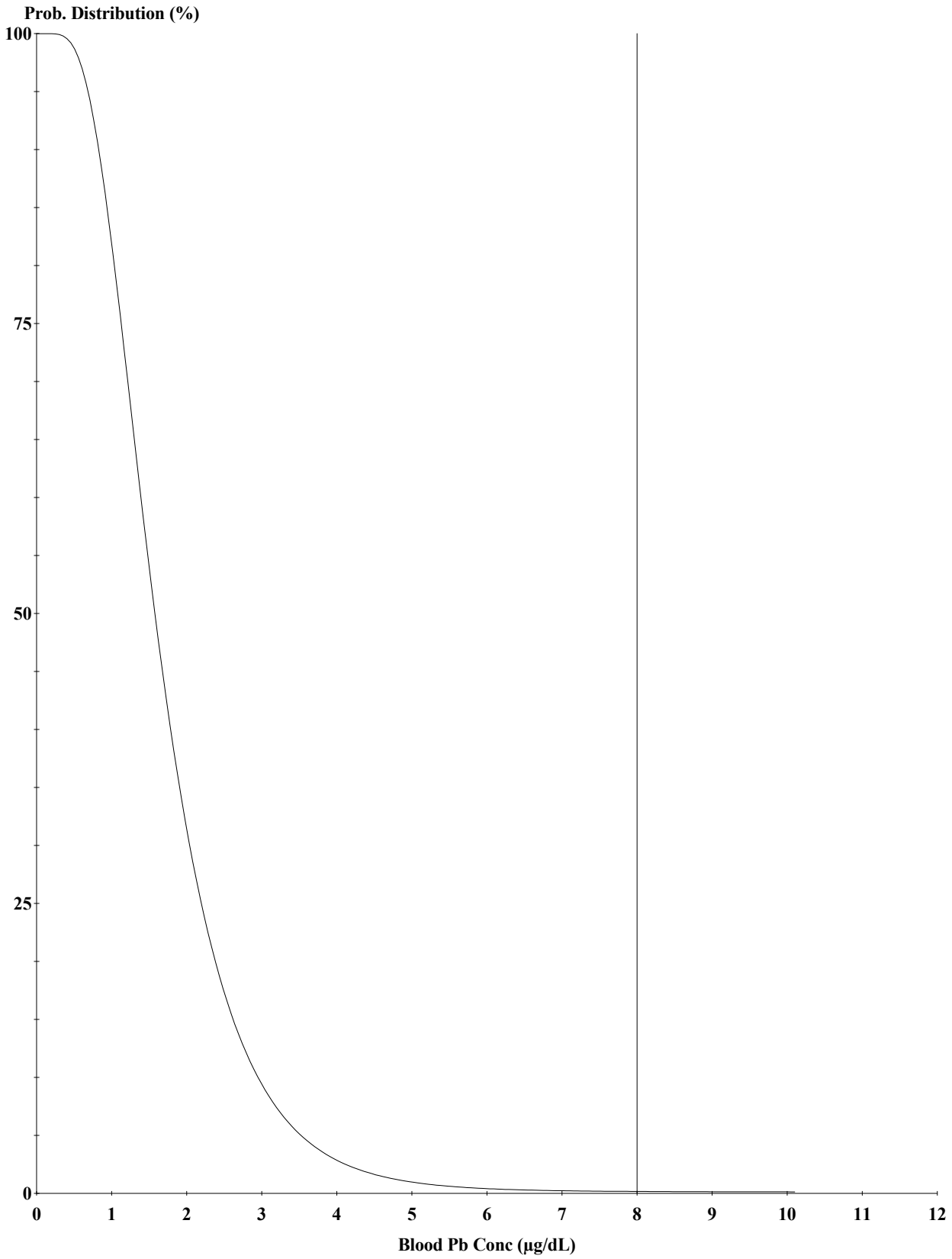


Cutoff = 5.000 µg/dl
Geo Mean = 1.652
GSD = 1.600
% Above = 0.924

Age Range = 0 to 84 months

Run Mode = Research

East Tank Farm - Surface Soil

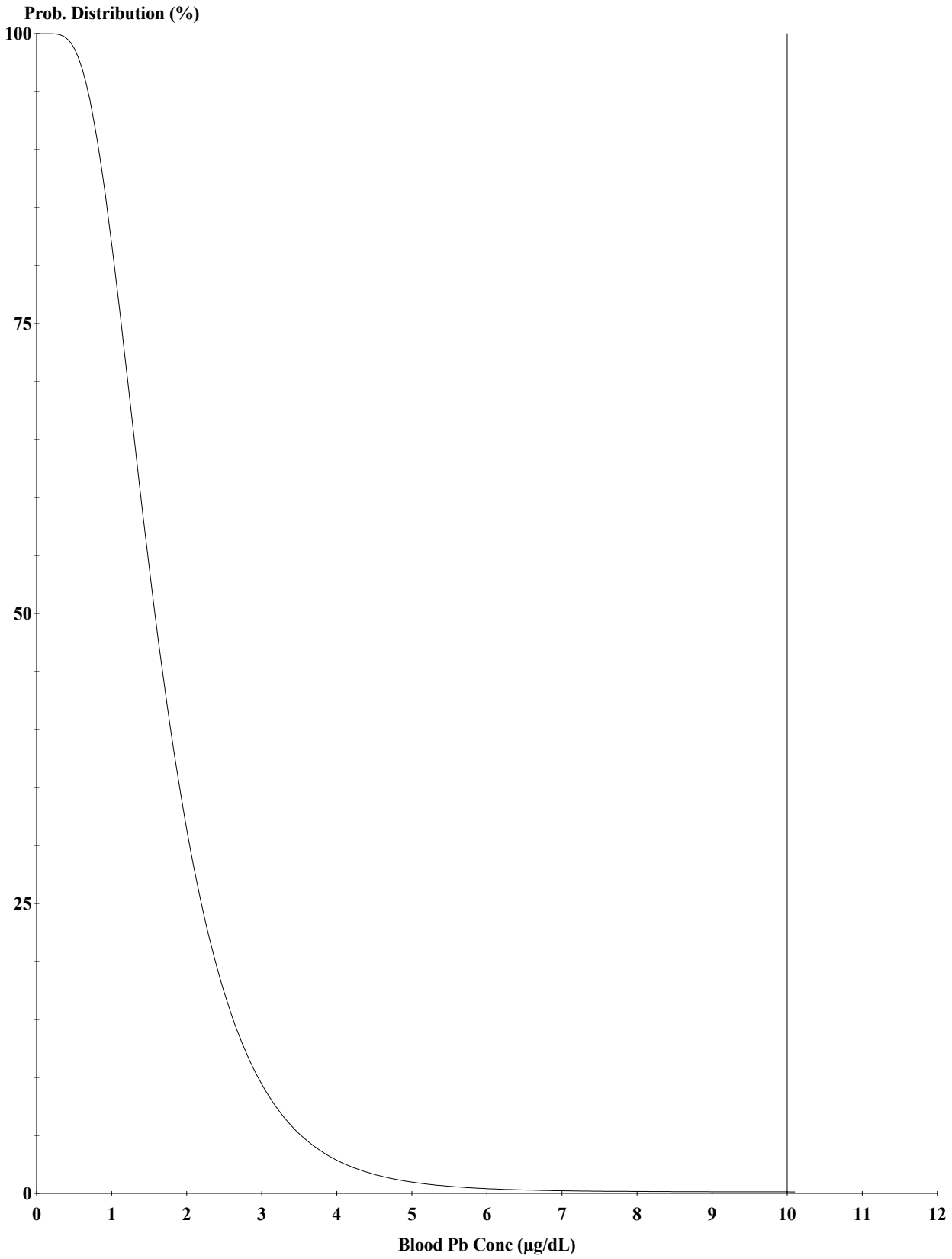


Cutoff = 8.000 µg/dl
Geo Mean = 1.652
GSD = 1.600
% Above = 0.040

Age Range = 0 to 84 months

Run Mode = Research

East Tank Farm - Surface Soil



Cutoff = 10.000 µg/dl
Geo Mean = 1.652
GSD = 1.600
% Above = 0.006

Age Range = 0 to 84 months

Run Mode = Research

East Tank Farm - Surface Soil

Calculations of Blood Lead Concentrations (PbBs) and Risk in Nonresidential Areas
U.S. EPA Technical Review Workgroup for Lead
Version date 06/14/2017

Edit Red Cells

Variable	Description of Variable	Units	GSDi and PbBo from Analysis of NHANES 2009-2014	GSDi and PbBo from Analysis of NHANES 2009-2014	GSDi and PbBo from Analysis of NHANES 2009-2014
PbS	Soil lead concentration	µg/g or ppm	85.2	85.2	85.2
$R_{fetal/maternal}$	Fetal/maternal PbB ratio	--	0.9	0.9	0.9
BKSF	Biokinetic Slope Factor	µg/dL per µg/day	0.4	0.4	0.4
GSD_i	Geometric standard deviation PbB	--	1.8	1.8	1.8
PbB_0	Baseline PbB	µg/dL	0.6	0.6	0.6
IR_S	Soil ingestion rate (including soil-derived indoor dust)	g/day	0.100	0.100	0.100
IR_{S+D}	Total ingestion rate of outdoor soil and indoor dust	g/day	--	--	--
W_S	Weighting factor; fraction of IR_{S+D} ingested as outdoor soil	--	--	--	--
K_{SD}	Mass fraction of soil in dust	--	--	--	--
$AF_{S,\ D}$	Absorption fraction (same for soil and dust)	--	0.12	0.12	0.12
$EF_{S,\ D}$	Exposure frequency (same for soil and dust)	days/yr	250	250	250
$AT_{S,\ D}$	Averaging time (same for soil and dust)	days/yr	365	365	365
PbB_{adult}	PbB of adult worker, geometric mean	µg/dL	0.9	0.9	0.9
$PbB_{fetal,\ 0.95}$	95th percentile PbB among fetuses of adult workers	µg/dL	2.1	2.1	2.1
PbB_t	Target PbB level of concern (e.g., 2-8 ug/dL)	µg/dL	**5.0**	**8.0**	**10.0**
$P(PbB_{fetal} > PbB_t)$	**Probability that fetal PbB exceeds target PbB, assuming lognormal distribution**	**%**	**0.1%**	**0.004%**	**0.0008%**

Source: U.S. EPA (1996). Recommendations of the Technical Review Workgroup for Lead for an Interim Approach to Assessing Risks Associated with Adult Exposures to Lead in Soil

LEAD MODEL FOR WINDOWS Version 1.1

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Model Version: 1.1 Build11
User Name:
Date:
Site Name:
Operable Unit: Lorraine Process Area
Run Mode: Research Surface Soil

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******** Air ********

Indoor Air Pb Concentration: 30.000 percent of outdoor.
Other Air Parameters:

Age	Time Outdoors (hours)	Ventilation Rate (m^3/day)	Lung Absorption (%)	Outdoor Air Pb Conc (µg Pb/m^3)
.5-1	1.000	2.000	32.000	0.100
1-2	2.000	3.000	32.000	0.100
2-3	3.000	5.000	32.000	0.100
3-4	4.000	5.000	32.000	0.100
4-5	4.000	5.000	32.000	0.100
5-6	4.000	7.000	32.000	0.100
6-7	4.000	7.000	32.000	0.100

******** Diet ********

Age	Diet Intake(µg/day)
.5-1	2.260
1-2	1.960
2-3	2.130
3-4	2.040
4-5	1.950
5-6	2.050
6-7	2.220

******** Drinking Water ********

Water Consumption:

Age	Water (L/day)
.5-1	0.200
1-2	0.500
2-3	0.520
3-4	0.530
4-5	0.550
5-6	0.580
6-7	0.590

Drinking Water Concentration: 4.000 µg Pb/L

******** Soil & Dust ********

Multiple Source Analysis Used
Average multiple source concentration: 383.100 µg/g

Mass fraction of outdoor soil to indoor dust conversion factor: 0.700
Outdoor airborne lead to indoor household dust lead concentration: 100.000
Use alternate indoor dust Pb sources? No

Age	Soil (µg Pb/g)	House Dust (µg Pb/g)
.5-1	533.000	383.100
1-2	533.000	383.100
2-3	533.000	383.100
3-4	533.000	383.100
4-5	533.000	383.100
5-6	533.000	383.100
6-7	533.000	383.100

****** Alternate Intake ******

Age	Alternate (µg Pb/day)
.5-1	0.000
1-2	0.000
2-3	0.000
3-4	0.000
4-5	0.000
5-6	0.000
6-7	0.000

****** Maternal Contribution: Infant Model ******

Maternal Blood Concentration: 0.600 µg Pb/dL

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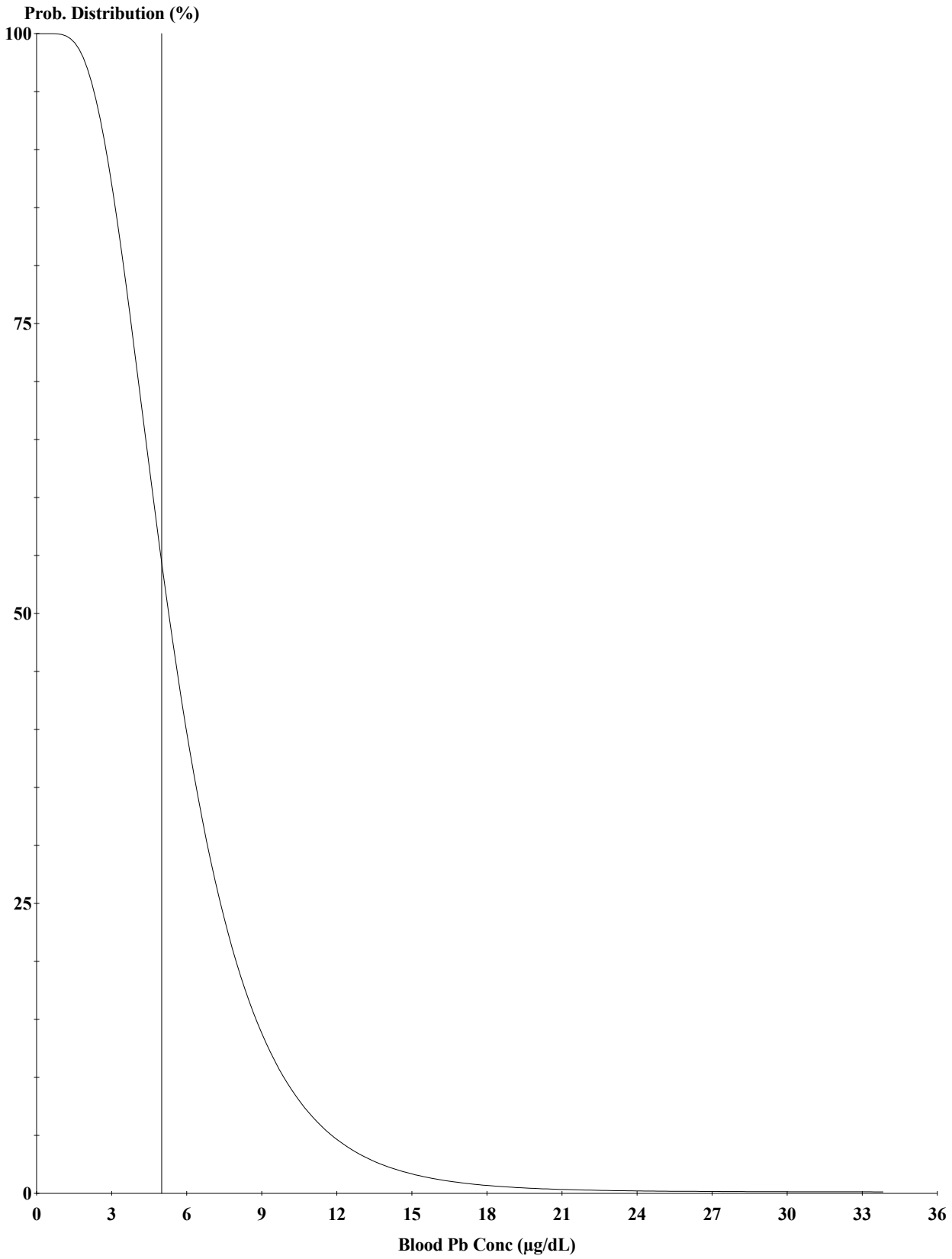
CALCULATED BLOOD LEAD AND LEAD UPTAKES:
****

Year	Air (µg/day)	Diet (µg/day)	Alternate (µg/day)	Water (µg/day)
.5-1	0.021	0.990	0.000	0.351
1-2	0.034	0.840	0.000	0.857
2-3	0.062	0.931	0.000	0.909
3-4	0.067	0.908	0.000	0.943
4-5	0.067	0.901	0.000	1.016
5-6	0.093	0.960	0.000	1.086
6-7	0.093	1.047	0.000	1.113

Year	Soil+Dust (µg/day)	Total (µg/day)	Blood (µg/dL)
.5-1	10.071	11.433	6.1
1-2	15.632	17.363	7.1
2-3	15.951	17.853	6.6
3-4	16.241	18.159	6.3
4-5	12.484	14.467	5.2
5-6	11.392	13.532	4.3
6-7	10.840	13.094	3.8

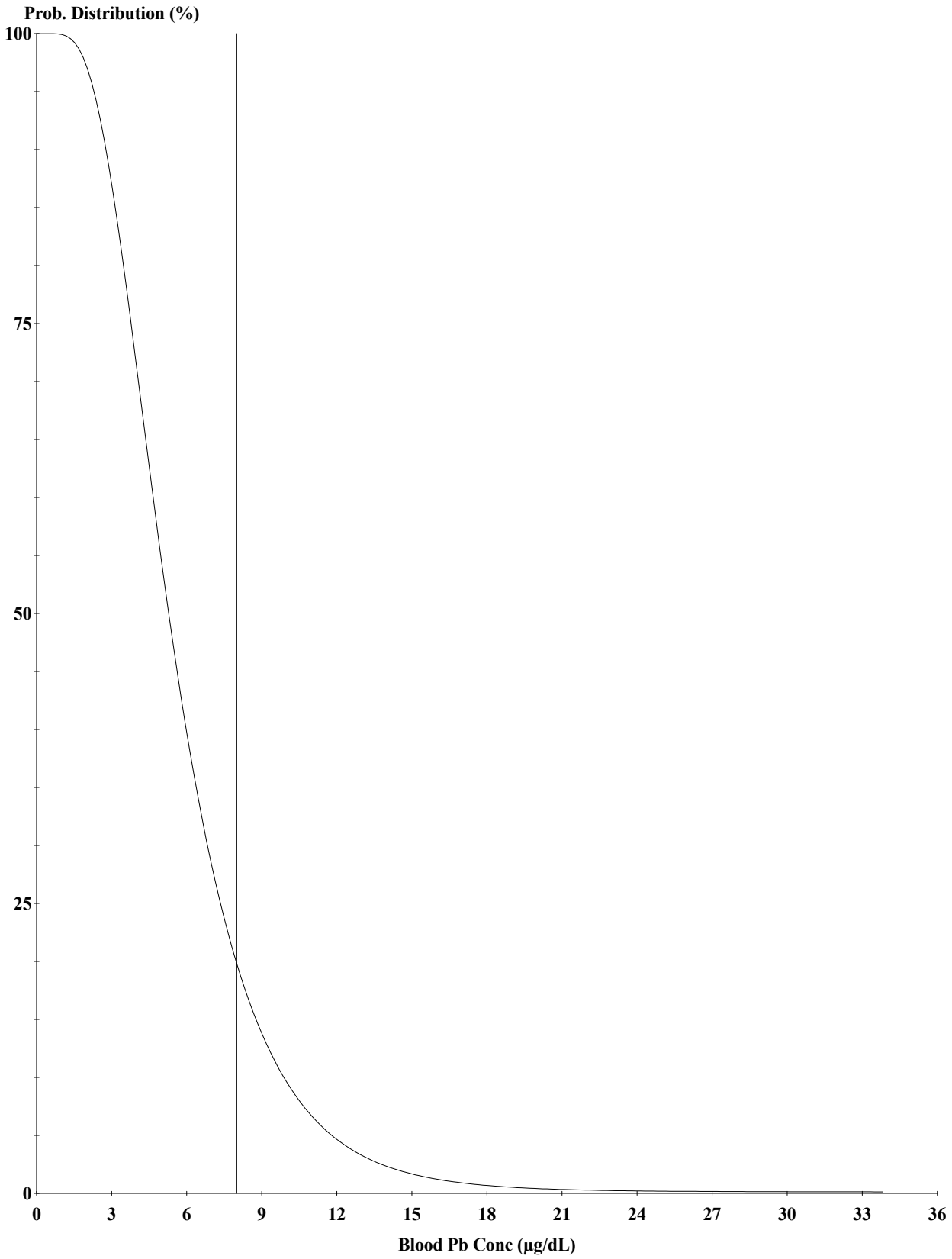


Cutoff = 5.000 µg/dl
Geo Mean = 5.534
GSD = 1.600
% Above = 58.550

Age Range = 0 to 84 months

Run Mode = Research

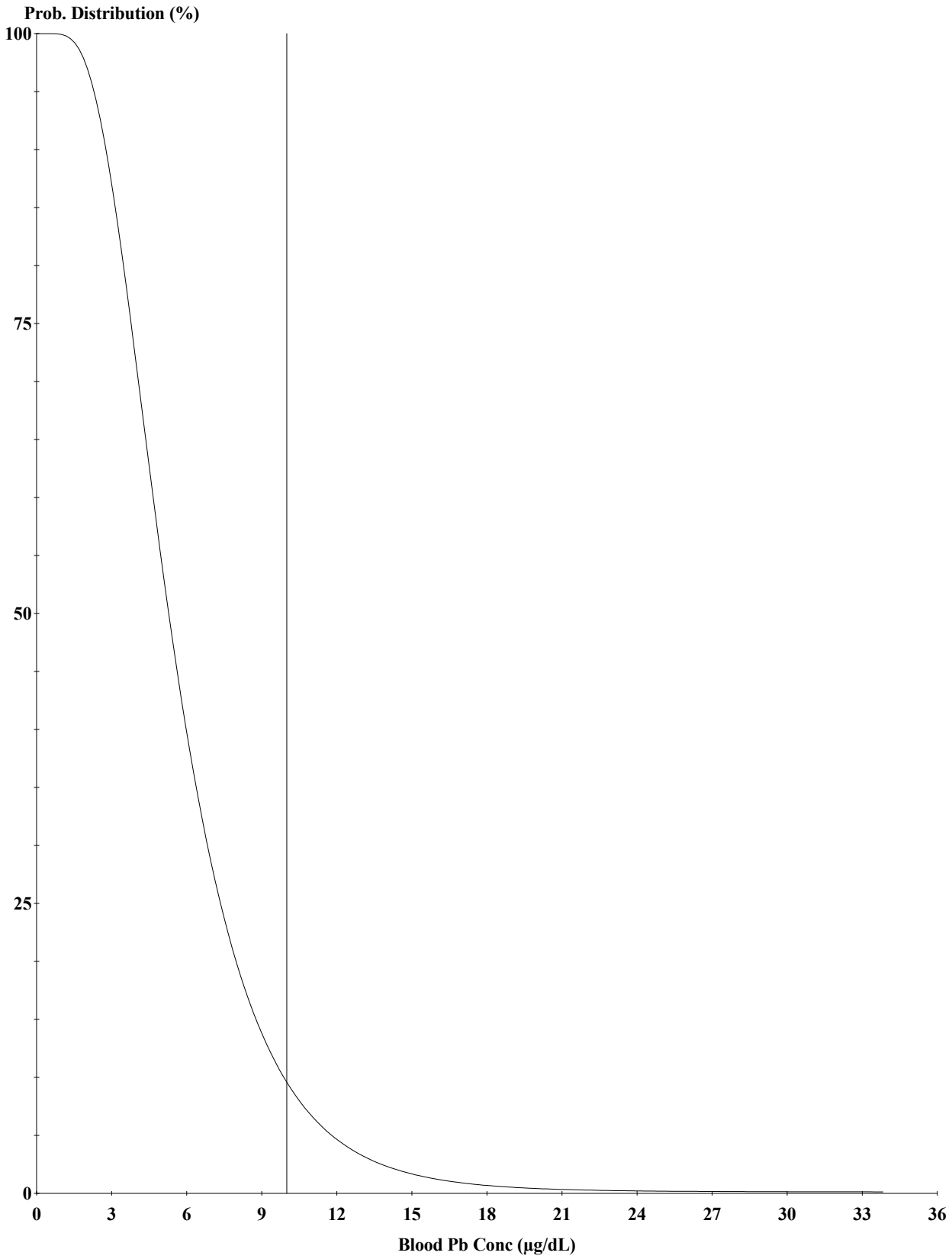
Lorraine Process Area - Surface Soil



Cutoff = 8.000 µg/dl
Geo Mean = 5.534
GSD = 1.600
% Above = 21.652

Age Range = 0 to 84 months

Run Mode = Research



Cutoff = 10.000 µg/dl
Geo Mean = 5.534
GSD = 1.600
% Above = 10.405

Age Range = 0 to 84 months

Run Mode = Research

Calculations of Blood Lead Concentrations (PbBs) and Risk in Nonresidential Areas
U.S. EPA Technical Review Workgroup for Lead
Version date 06/14/2017

Edit Red Cells

Variable	Description of Variable	Units	GSDi and PbBo from Analysis of NHANES 2009-2014	GSDi and PbBo from Analysis of NHANES 2009-2014	GSDi and PbBo from Analysis of NHANES 2009-2014
PbS	Soil lead concentration	µg/g or ppm	533	533	533
$R_{fetal/maternal}$	Fetal/maternal PbB ratio	--	0.9	0.9	0.9
BKSF	Biokinetic Slope Factor	µg/dL per µg/day	0.4	0.4	0.4
GSD_i	Geometric standard deviation PbB	--	1.8	1.8	1.8
PbB_0	Baseline PbB	µg/dL	0.6	0.6	0.6
IR_S	Soil ingestion rate (including soil-derived indoor dust)	g/day	0.100	0.100	0.100
IR_{S+D}	Total ingestion rate of outdoor soil and indoor dust	g/day	--	--	--
W_S	Weighting factor; fraction of IR_{S+D} ingested as outdoor soil	--	--	--	--
K_{SD}	Mass fraction of soil in dust	--	--	--	--
$AF_{S, D}$	Absorption fraction (same for soil and dust)	--	0.12	0.12	0.12
$EF_{S, D}$	Exposure frequency (same for soil and dust)	days/yr	250	250	250
$AT_{S, D}$	Averaging time (same for soil and dust)	days/yr	365	365	365
PbB_{adult}	PbB of adult worker, geometric mean	µg/dL	2.4	2.4	2.4
$PbB_{fetal, 0.95}$	95th percentile PbB among fetuses of adult workers	µg/dL	5.6	5.6	5.6
PbB_t	Target PbB level of concern (e.g., 2-8 ug/dL)	µg/dL	**5.0**	**8.0**	**10.0**
$P(PbB_{fetal} > PbB_t)$	**Probability that fetal PbB exceeds target PbB, assuming lognormal distribution**	**%**	**7.2%**	**1.2%**	**0.4%**

Source: U.S. EPA (1996). Recommendations of the Technical Review Workgroup for Lead for an Interim Approach to Assessing Risks Associated with Adult Exposures to Lead in Soil

LEAD MODEL FOR WINDOWS Version 1.1

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Model Version: 1.1 Build11
User Name:
Date:
Site Name:
Operable Unit: Lorraine Process Area
Run Mode: Research Subsurface Soil

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******** Air ********

Indoor Air Pb Concentration: 30.000 percent of outdoor.
Other Air Parameters:

Age	Time Outdoors (hours)	Ventilation Rate (m^3/day)	Lung Absorption (%)	Outdoor Air Pb Conc (µg Pb/m^3)
.5-1	1.000	2.000	32.000	0.100
1-2	2.000	3.000	32.000	0.100
2-3	3.000	5.000	32.000	0.100
3-4	4.000	5.000	32.000	0.100
4-5	4.000	5.000	32.000	0.100
5-6	4.000	7.000	32.000	0.100
6-7	4.000	7.000	32.000	0.100

******** Diet ********

Age	Diet Intake(µg/day)
.5-1	2.260
1-2	1.960
2-3	2.130
3-4	2.040
4-5	1.950
5-6	2.050
6-7	2.220

******** Drinking Water ********

Water Consumption:

Age	Water (L/day)
.5-1	0.200
1-2	0.500
2-3	0.520
3-4	0.530
4-5	0.550
5-6	0.580
6-7	0.590

Drinking Water Concentration: 4.000 µg Pb/L

******** Soil & Dust ********

Multiple Source Analysis Used
Average multiple source concentration: 23.650 µg/g

Mass fraction of outdoor soil to indoor dust conversion factor: 0.700
Outdoor airborne lead to indoor household dust lead concentration: 100.000
Use alternate indoor dust Pb sources? No

Age	Soil (µg Pb/g)	House Dust (µg Pb/g)
.5-1	19.500	23.650
1-2	19.500	23.650
2-3	19.500	23.650
3-4	19.500	23.650
4-5	19.500	23.650
5-6	19.500	23.650
6-7	19.500	23.650

****** Alternate Intake ******

Age	Alternate (µg Pb/day)
.5-1	0.000
1-2	0.000
2-3	0.000
3-4	0.000
4-5	0.000
5-6	0.000
6-7	0.000

****** Maternal Contribution: Infant Model ******

Maternal Blood Concentration: 0.600 µg Pb/dL

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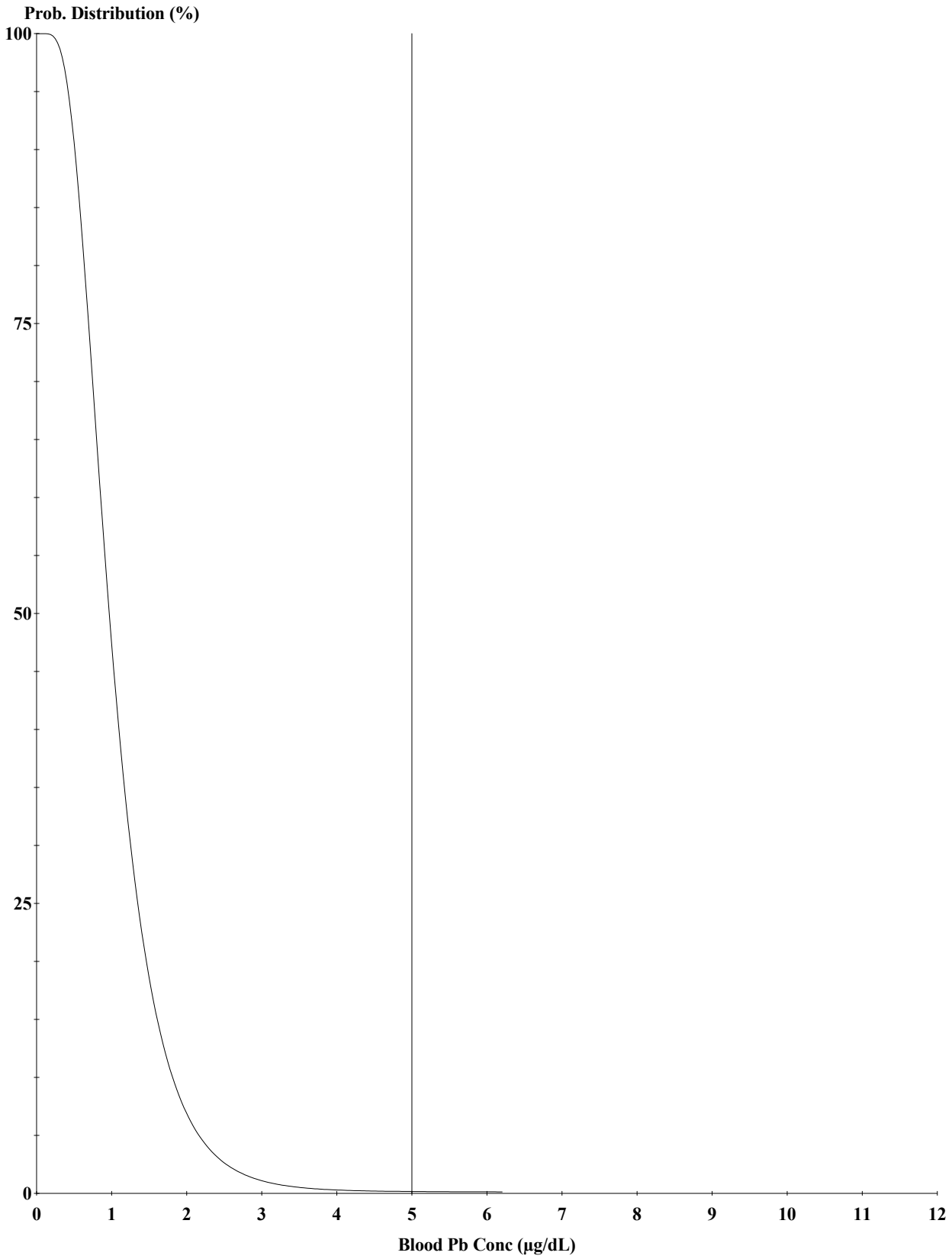
CALCULATED BLOOD LEAD AND LEAD UPTAKES:
****

Year	Air (µg/day)	Diet (µg/day)	Alternate (µg/day)	Water (µg/day)
.5-1	0.021	1.104	0.000	0.391
1-2	0.034	0.957	0.000	0.976
2-3	0.062	1.042	0.000	1.018
3-4	0.067	1.001	0.000	1.041
4-5	0.067	0.961	0.000	1.084
5-6	0.093	1.012	0.000	1.145
6-7	0.093	1.096	0.000	1.165

Year	Soil+Dust (µg/day)	Total (µg/day)	Blood (µg/dL)
.5-1	0.543	2.059	1.1
1-2	0.861	2.828	1.2
2-3	0.863	2.985	1.1
3-4	0.866	2.975	1.1
4-5	0.644	2.756	0.9
5-6	0.580	2.830	0.9
6-7	0.549	2.904	0.8

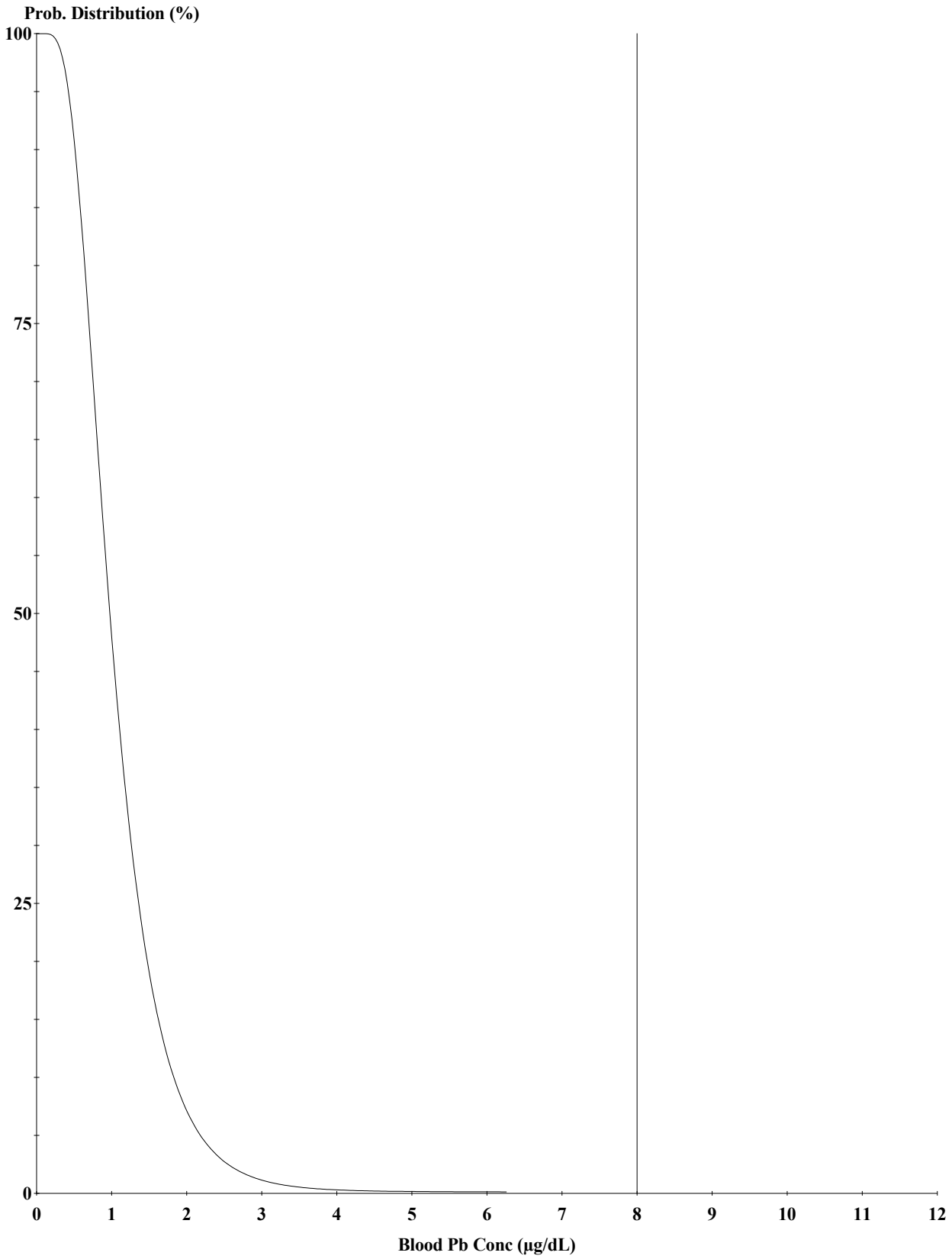


Cutoff = 5.000 µg/dl
Geo Mean = 1.015
GSD = 1.600
% Above = 0.035

Age Range = 0 to 84 months

Run Mode = Research

Lorraine Process Area - Subsurface Soil

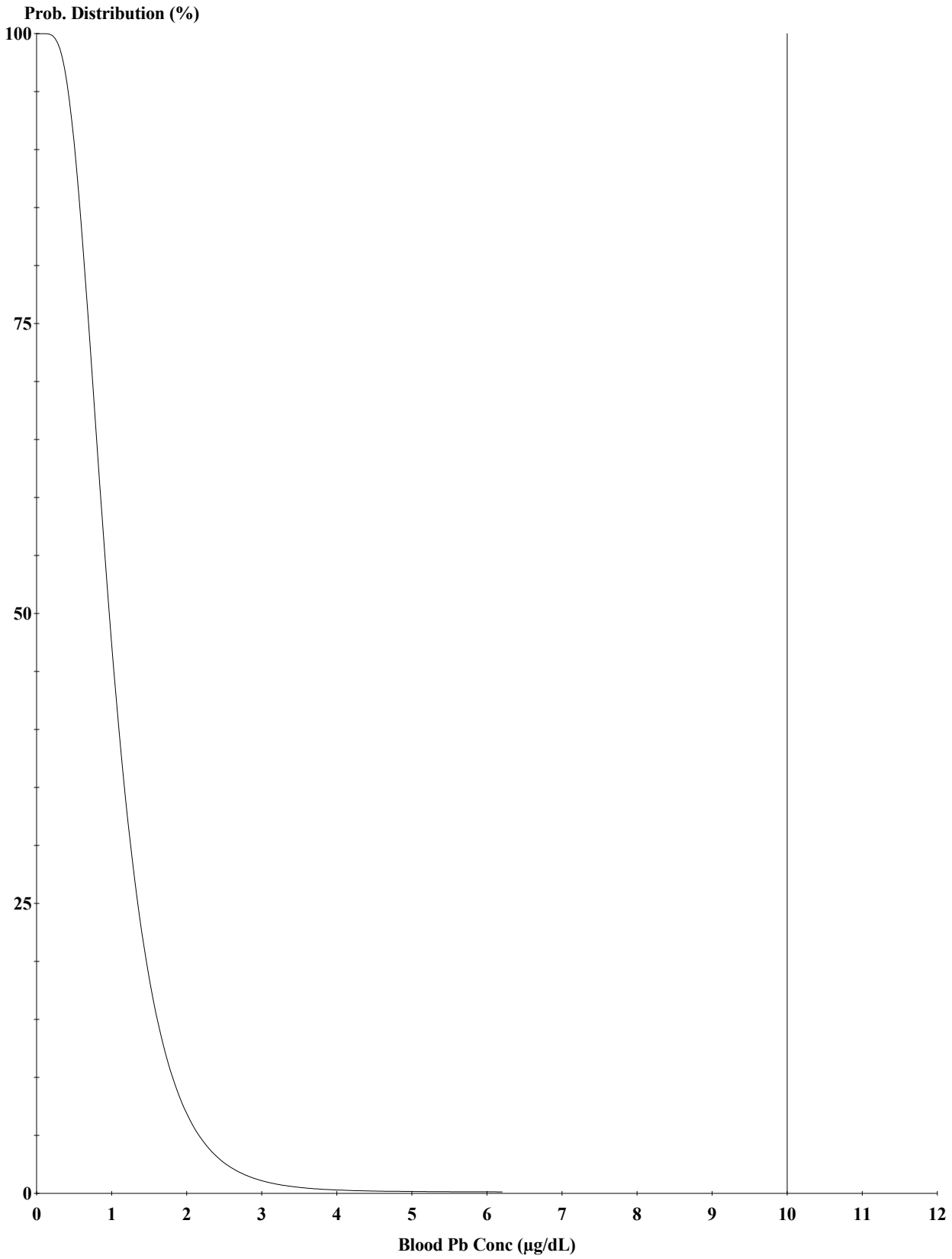


Cutoff = 8.000 µg/dl
Geo Mean = 1.024
GSD = 1.600
% Above = 0.001

Age Range = 0 to 84 months

Run Mode = Research

Lorraine Process Area - Subsurface Soil



Cutoff = 10.000 µg/dl
Geo Mean = 1.015
GSD = 1.600
% Above = 0.000

Age Range = 0 to 84 months

Run Mode = Research

Lorraine Process Area - Subsurface Soil

Calculations of Blood Lead Concentrations (PbBs) and Risk in Nonresidential Areas
U.S. EPA Technical Review Workgroup for Lead
Version date 06/14/2017

Edit Red Cells

Variable	Description of Variable	Units	GSDi and PbBo from Analysis of NHANES 2009-2014	GSDi and PbBo from Analysis of NHANES 2009-2014	GSDi and PbBo from Analysis of NHANES 2009-2014
PbS	Soil lead concentration	µg/g or ppm	19.5	19.5	19.5
$R_{fetal/maternal}$	Fetal/maternal PbB ratio	--	0.9	0.9	0.9
BKSF	Biokinetic Slope Factor	µg/dL per µg/day	0.4	0.4	0.4
GSD_i	Geometric standard deviation PbB	--	1.8	1.8	1.8
PbB_0	Baseline PbB	µg/dL	0.6	0.6	0.6
IR_S	Soil ingestion rate (including soil-derived indoor dust)	g/day	0.100	0.100	0.100
IR_{S+D}	Total ingestion rate of outdoor soil and indoor dust	g/day	--	--	--
W_S	Weighting factor; fraction of IR_{S+D} ingested as outdoor soil	--	--	--	--
K_{SD}	Mass fraction of soil in dust	--	--	--	--
$AF_{S,\ D}$	Absorption fraction (same for soil and dust)	--	0.12	0.12	0.12
$EF_{S,\ D}$	Exposure frequency (same for soil and dust)	days/yr	250	250	250
$AT_{S,\ D}$	Averaging time (same for soil and dust)	days/yr	365	365	365
PbB_{adult}	PbB of adult worker, geometric mean	µg/dL	0.7	0.7	0.7
$PbB_{fetal,\ 0.95}$	95th percentile PbB among fetuses of adult workers	µg/dL	1.6	1.6	1.6
PbB_t	Target PbB level of concern (e.g., 2-8 ug/dL)	µg/dL	**5.0**	**8.0**	**10.0**
$P(PbB_{fetal} > PbB_t)$	**Probability that fetal PbB exceeds target PbB, assuming lognormal distribution**	**%**	**0.02%**	**0.0005%**	**0.00008%**

Source: U.S. EPA (1996). Recommendations of the Technical Review Workgroup for Lead for an Interim Approach to Assessing Risks Associated with Adult Exposures to Lead in Soil

LEAD MODEL FOR WINDOWS Version 1.1

==========

Model Version: 1.1 Build11
User Name:
Date:
Site Name:
Operable Unit: Wilcox Process Area
Run Mode: Research Surface Soil

==========

******** Air ********

Indoor Air Pb Concentration: 30.000 percent of outdoor.
Other Air Parameters:

Age	Time Outdoors (hours)	Ventilation Rate (m^3/day)	Lung Absorption (%)	Outdoor Air Pb Conc (µg Pb/m^3)
.5-1	1.000	2.000	32.000	0.100
1-2	2.000	3.000	32.000	0.100
2-3	3.000	5.000	32.000	0.100
3-4	4.000	5.000	32.000	0.100
4-5	4.000	5.000	32.000	0.100
5-6	4.000	7.000	32.000	0.100
6-7	4.000	7.000	32.000	0.100

******** Diet ********

Age	Diet Intake(µg/day)
.5-1	2.260
1-2	1.960
2-3	2.130
3-4	2.040
4-5	1.950
5-6	2.050
6-7	2.220

******** Drinking Water ********

Water Consumption:

Age	Water (L/day)
.5-1	0.200
1-2	0.500
2-3	0.520
3-4	0.530
4-5	0.550
5-6	0.580
6-7	0.590

Drinking Water Concentration: 4.000 µg Pb/L

******** Soil & Dust ********

Multiple Source Analysis Used
Average multiple source concentration: 327.800 µg/g

Mass fraction of outdoor soil to indoor dust conversion factor: 0.700
Outdoor airborne lead to indoor household dust lead concentration: 100.000
Use alternate indoor dust Pb sources? No

Age	Soil (µg Pb/g)	House Dust (µg Pb/g)
.5-1	454.000	327.800
1-2	454.000	327.800
2-3	454.000	327.800
3-4	454.000	327.800
4-5	454.000	327.800
5-6	454.000	327.800
6-7	454.000	327.800

****** Alternate Intake ******

Age	Alternate (µg Pb/day)
.5-1	0.000
1-2	0.000
2-3	0.000
3-4	0.000
4-5	0.000
5-6	0.000
6-7	0.000

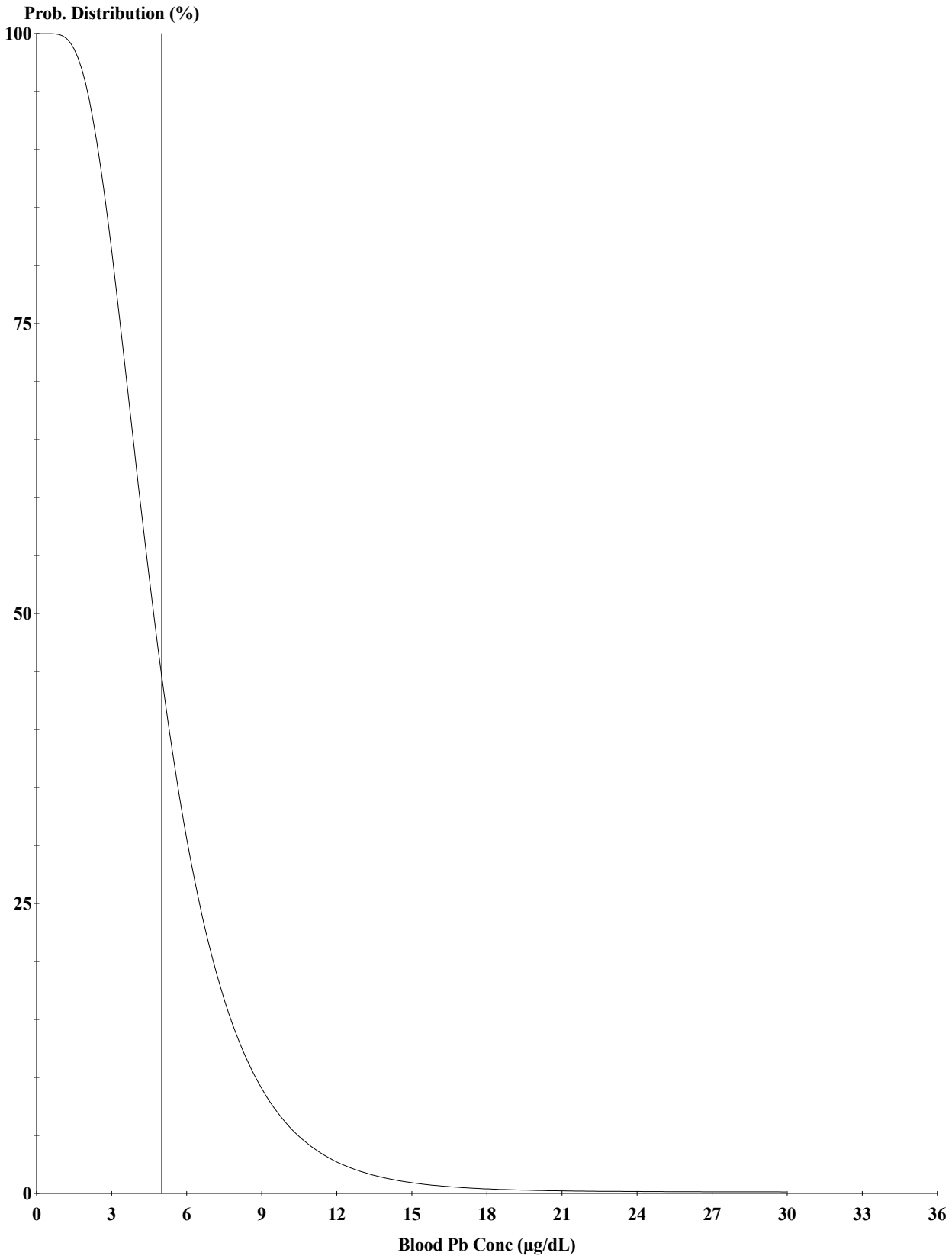
****** Maternal Contribution: Infant Model ******

Maternal Blood Concentration: 0.600 µg Pb/dL

****
CALCULATED BLOOD LEAD AND LEAD UPTAKES:
****

Year	Air (µg/day)	Diet (µg/day)	Alternate (µg/day)	Water (µg/day)
.5-1	0.021	1.006	0.000	0.356
1-2	0.034	0.855	0.000	0.873
2-3	0.062	0.946	0.000	0.924
3-4	0.067	0.921	0.000	0.957
4-5	0.067	0.909	0.000	1.026
5-6	0.093	0.967	0.000	1.095
6-7	0.093	1.054	0.000	1.121

Year	Soil+Dust (µg/day)	Total (µg/day)	Blood (µg/dL)
.5-1	8.731	10.114	5.4
1-2	13.591	15.354	6.3
2-3	13.837	15.769	5.9
3-4	14.061	16.005	5.6
4-5	10.759	12.760	4.6
5-6	9.801	11.956	3.8
6-7	9.316	11.585	3.4

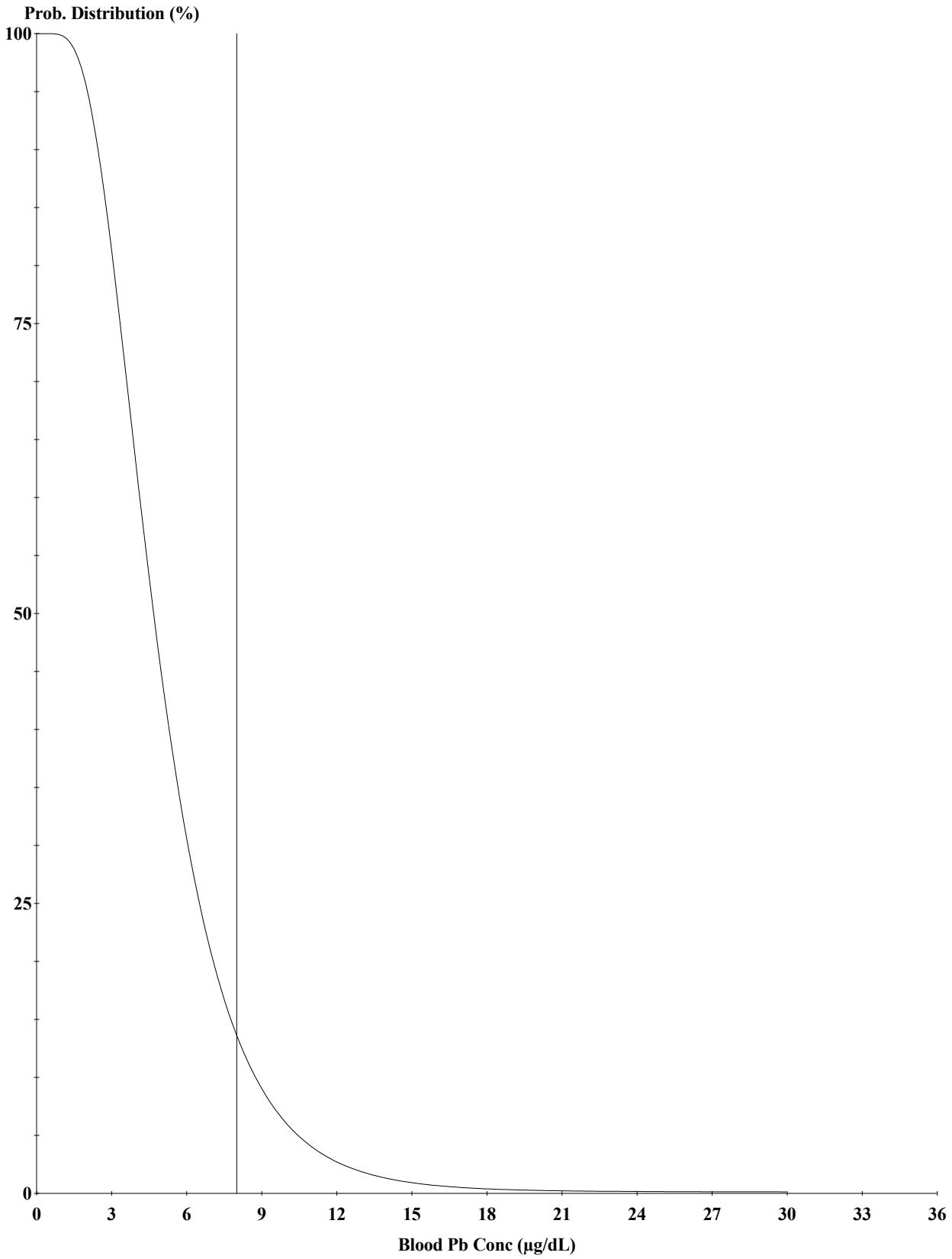


Cutoff = 5.000 µg/dl
Geo Mean = 4.901
GSD = 1.600
% Above = 48.302

Age Range = 0 to 84 months

Run Mode = Research

Wilcox Process Area - Surface Soil

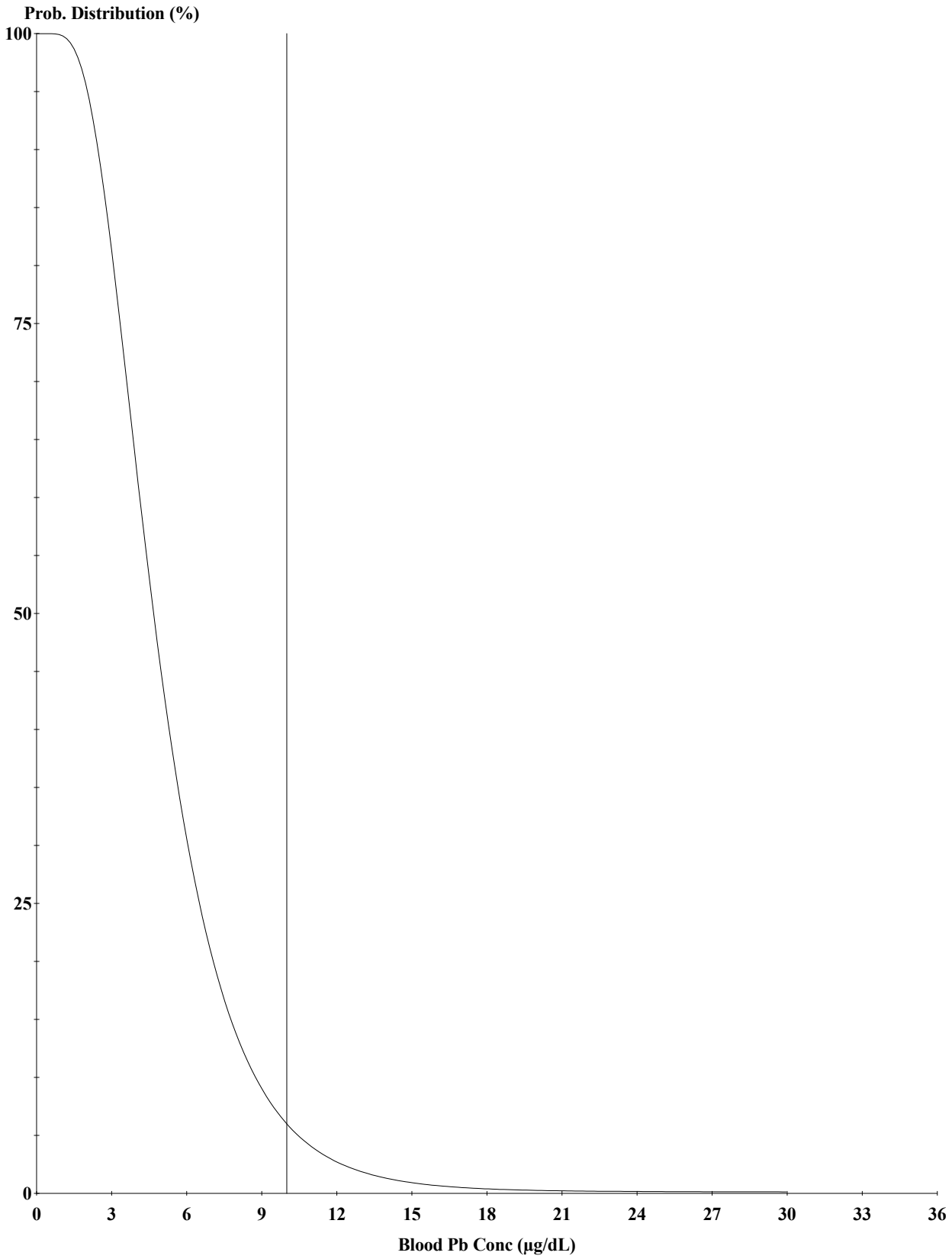


Cutoff = 8.000 µg/dl
Geo Mean = 4.901
GSD = 1.600
% Above = 14.857

Age Range = 0 to 84 months

Run Mode = Research

Wilcox Process Area - Surface Soil



Cutoff = 10.000 µg/dl
Geo Mean = 4.901
GSD = 1.600
% Above = 6.459

Age Range = 0 to 84 months

Run Mode = Research

Wilcox Process Area - Surface Soil

Calculations of Blood Lead Concentrations (PbBs) and Risk in Nonresidential Areas
U.S. EPA Technical Review Workgroup for Lead
Version date 06/14/2017

Edit Red Cells

Variable	Description of Variable	Units	GSDi and PbBo from Analysis of NHANES 2009-2014	GSDi and PbBo from Analysis of NHANES 2009-2014	GSDi and PbBo from Analysis of NHANES 2009-2014
PbS	Soil lead concentration	µg/g or ppm	454	454	454
$R_{fetal/maternal}$	Fetal/maternal PbB ratio	--	0.9	0.9	0.9
BKSF	Biokinetic Slope Factor	µg/dL per µg/day	0.4	0.4	0.4
GSD_i	Geometric standard deviation PbB	--	1.8	1.8	1.8
PbB_0	Baseline PbB	µg/dL	0.6	0.6	0.6
IR_S	Soil ingestion rate (including soil-derived indoor dust)	g/day	0.100	0.100	0.100
IR_{S+D}	Total ingestion rate of outdoor soil and indoor dust	g/day	--	--	--
W_S	Weighting factor; fraction of IR_{S+D} ingested as outdoor soil	--	--	--	--
K_{SD}	Mass fraction of soil in dust	--	--	--	--
$AF_{S, D}$	Absorption fraction (same for soil and dust)	--	0.12	0.12	0.12
$EF_{S, D}$	Exposure frequency (same for soil and dust)	days/yr	250	250	250
$AT_{S, D}$	Averaging time (same for soil and dust)	days/yr	365	365	365
PbB_{adult}	PbB of adult worker, geometric mean	µg/dL	2.1	2.1	2.1
$PbB_{fetal, 0.95}$	95th percentile PbB among fetuses of adult workers	µg/dL	5.0	5.0	5.0
PbB_t	Target PbB level of concern (e.g., 2-8 ug/dL)	µg/dL	**5.0**	**8.0**	**10.0**
$P(PbB_{fetal} > PbB_t)$	**Probability that fetal PbB exceeds target PbB, assuming lognormal distribution**	**%**	**4.8%**	**0.7%**	**0.2%**

Source: U.S. EPA (1996). Recommendations of the Technical Review Workgroup for Lead for an Interim Approach to Assessing Risks Associated with Adult Exposures to Lead in Soil

LEAD MODEL FOR WINDOWS Version 1.1

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Model Version: 1.1 Build11
User Name:
Date:
Site Name:
Operable Unit: Wilcox Process Area
Run Mode: Research Subsurface Soil

==========

******** Air ********

Indoor Air Pb Concentration: 30.000 percent of outdoor.
Other Air Parameters:

Age	Time Outdoors (hours)	Ventilation Rate (m^3/day)	Lung Absorption (%)	Outdoor Air Pb Conc (µg Pb/m^3)
.5-1	1.000	2.000	32.000	0.100
1-2	2.000	3.000	32.000	0.100
2-3	3.000	5.000	32.000	0.100
3-4	4.000	5.000	32.000	0.100
4-5	4.000	5.000	32.000	0.100
5-6	4.000	7.000	32.000	0.100
6-7	4.000	7.000	32.000	0.100

******** Diet ********

Age	Diet Intake(µg/day)
.5-1	2.260
1-2	1.960
2-3	2.130
3-4	2.040
4-5	1.950
5-6	2.050
6-7	2.220

******** Drinking Water ********

Water Consumption:

Age	Water (L/day)
.5-1	0.200
1-2	0.500
2-3	0.520
3-4	0.530
4-5	0.550
5-6	0.580
6-7	0.590

Drinking Water Concentration: 4.000 µg Pb/L

******** Soil & Dust ********

Multiple Source Analysis Used
Average multiple source concentration: 28.550 µg/g

Mass fraction of outdoor soil to indoor dust conversion factor: 0.700
Outdoor airborne lead to indoor household dust lead concentration: 100.000
Use alternate indoor dust Pb sources? No

Age	Soil (µg Pb/g)	House Dust (µg Pb/g)
.5-1	26.500	28.550
1-2	26.500	28.550
2-3	26.500	28.550
3-4	26.500	28.550
4-5	26.500	28.550
5-6	26.500	28.550
6-7	26.500	28.550

****** Alternate Intake ******

Age	Alternate (µg Pb/day)
.5-1	0.000
1-2	0.000
2-3	0.000
3-4	0.000
4-5	0.000
5-6	0.000
6-7	0.000

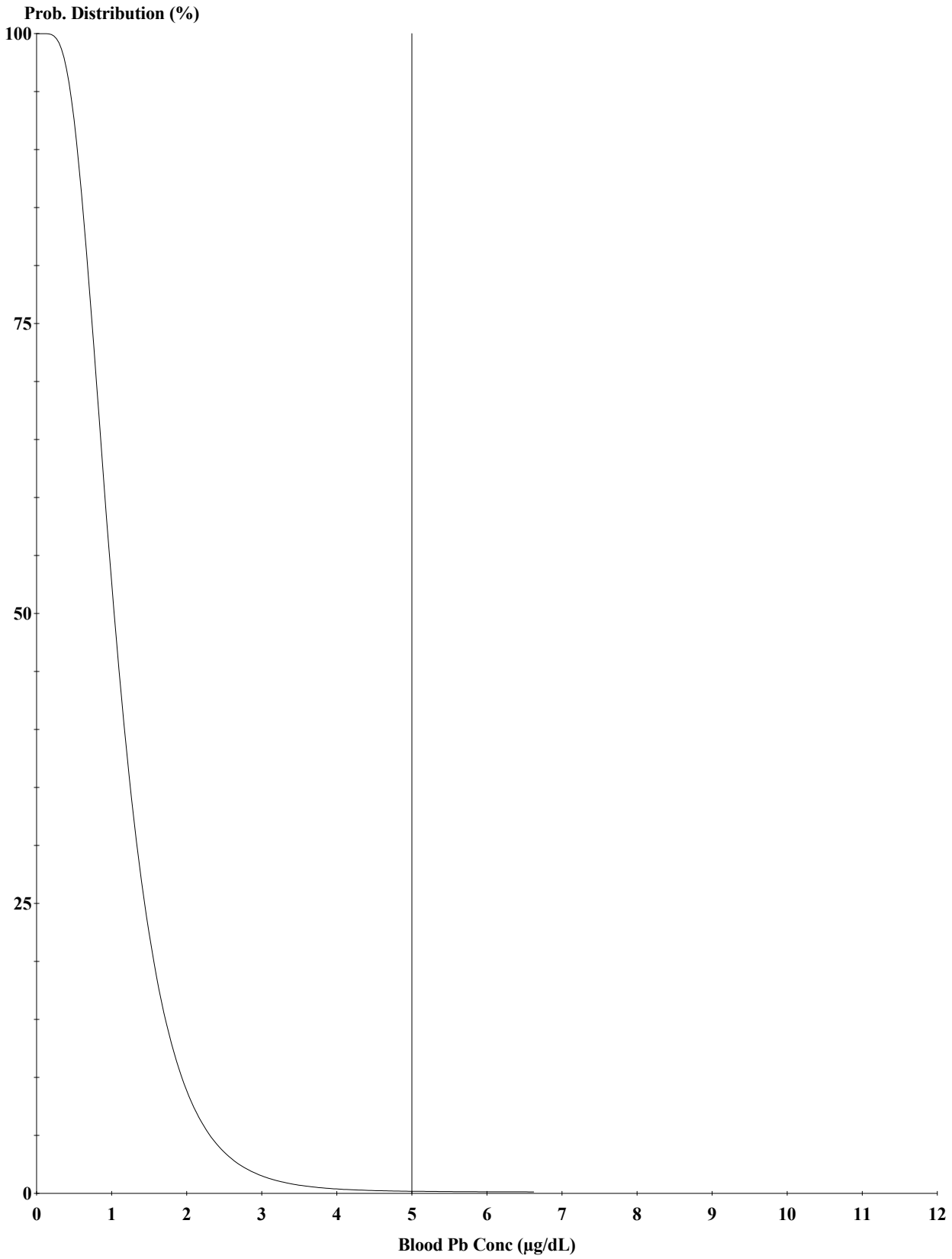
****** Maternal Contribution: Infant Model ******

Maternal Blood Concentration: 0.600 µg Pb/dL

****
CALCULATED BLOOD LEAD AND LEAD UPTAKES:
****

Year	Air (µg/day)	Diet (µg/day)	Alternate (µg/day)	Water (µg/day)
.5-1	0.021	1.103	0.000	0.390
1-2	0.034	0.955	0.000	0.974
2-3	0.062	1.041	0.000	1.016
3-4	0.067	1.000	0.000	1.039
4-5	0.067	0.960	0.000	1.083
5-6	0.093	1.011	0.000	1.144
6-7	0.093	1.096	0.000	1.165

Year	Soil+Dust (µg/day)	Total (µg/day)	Blood (µg/dL)
.5-1	0.687	2.201	1.2
1-2	1.090	3.053	1.3
2-3	1.093	3.212	1.2
3-4	1.097	3.203	1.1
4-5	0.816	2.926	1.0
5-6	0.736	2.984	0.9
6-7	0.695	3.049	0.9

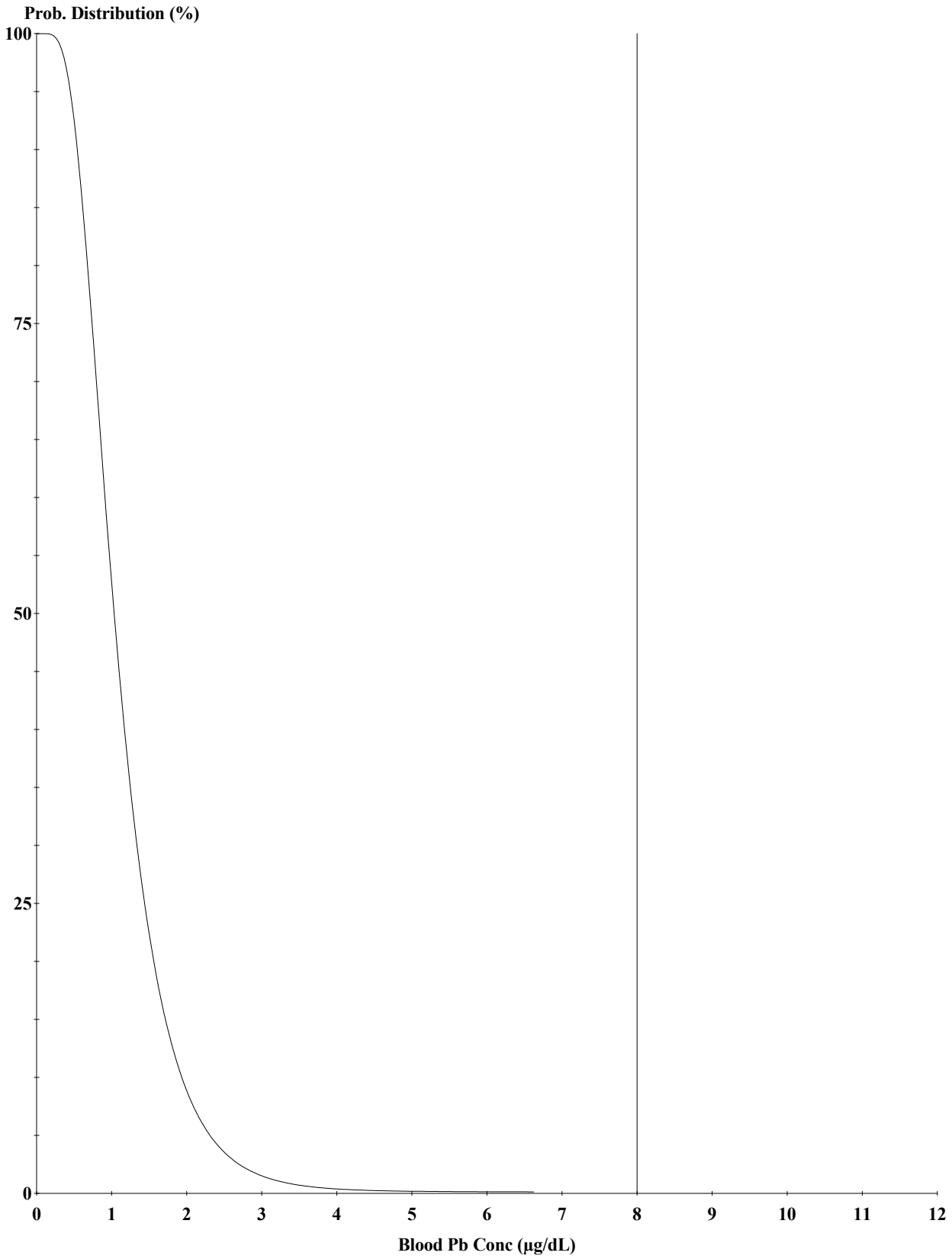


Cutoff = 5.000 µg/dl
Geo Mean = 1.084
GSD = 1.600
% Above = 0.057

Age Range = 0 to 84 months

Run Mode = Research

Wilcox Process Area - Subsurface Soil

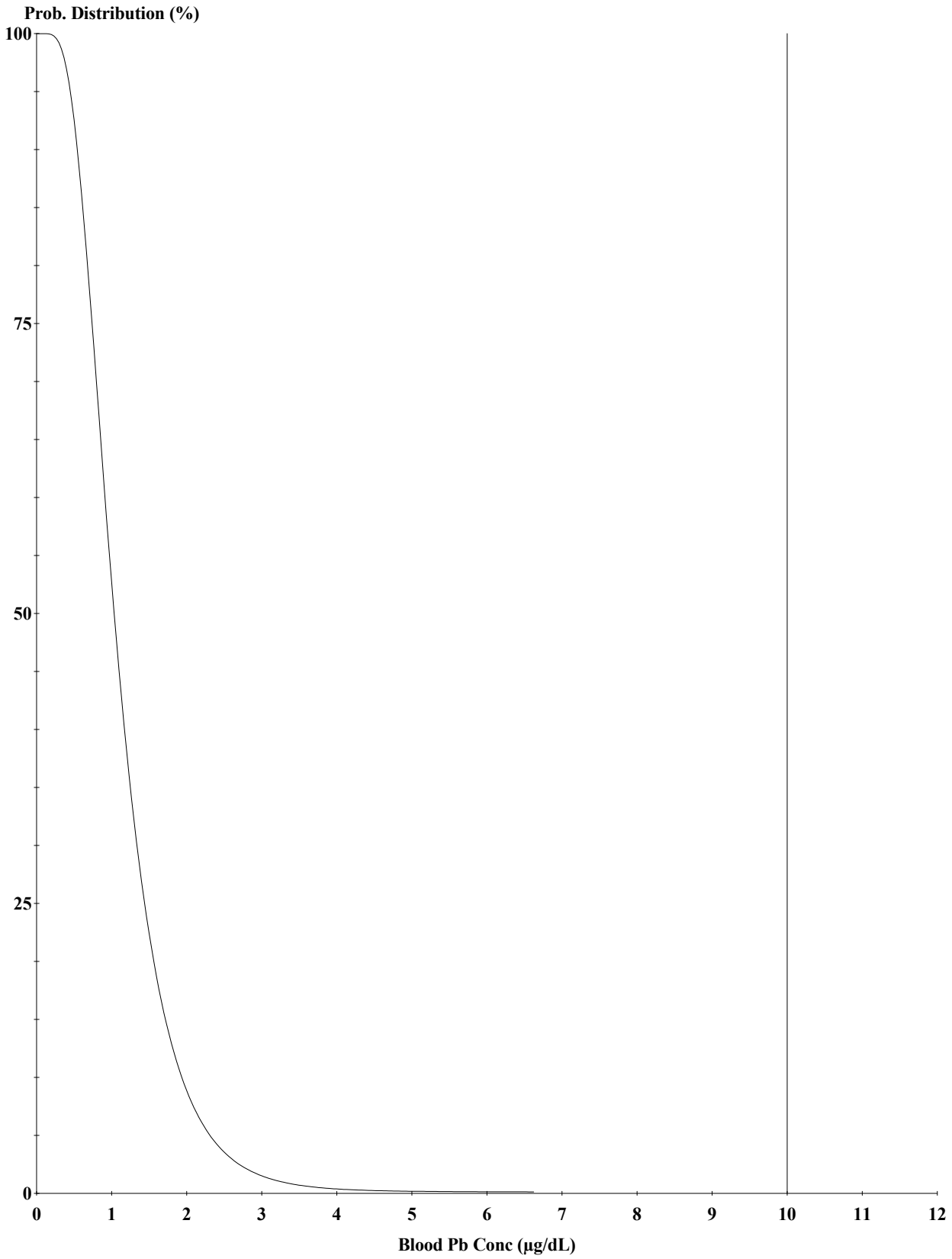


Cutoff = 8.000 µg/dl
Geo Mean = 1.084
GSD = 1.600
% Above = 0.001

Age Range = 0 to 84 months

Run Mode = Research

Wilcox Process Area - Subsurface Soil



Cutoff = 10.000 µg/dl
Geo Mean = 1.084
GSD = 1.600
% Above = 0.000

Age Range = 0 to 84 months

Run Mode = Research

Wilcox Process Area - Subsurface Soil

Calculations of Blood Lead Concentrations (PbBs) and Risk in Nonresidential Areas
U.S. EPA Technical Review Workgroup for Lead
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PbS	Soil lead concentration	µg/g or ppm	26.5	26.5	26.5
$R_{fetal/maternal}$	Fetal/maternal PbB ratio	--	0.9	0.9	0.9
BKSF	Biokinetic Slope Factor	µg/dL per µg/day	0.4	0.4	0.4
GSD_i	Geometric standard deviation PbB	--	1.8	1.8	1.8
PbB_0	Baseline PbB	µg/dL	0.6	0.6	0.6
IR_S	Soil ingestion rate (including soil-derived indoor dust)	g/day	0.100	0.100	0.100
IR_{S+D}	Total ingestion rate of outdoor soil and indoor dust	g/day	--	--	--
W_S	Weighting factor; fraction of IR_{S+D} ingested as outdoor soil	--	--	--	--
K_{SD}	Mass fraction of soil in dust	--	--	--	--
$AF_{S, D}$	Absorption fraction (same for soil and dust)	--	0.12	0.12	0.12
$EF_{S, D}$	Exposure frequency (same for soil and dust)	days/yr	250	250	250
$AT_{S, D}$	Averaging time (same for soil and dust)	days/yr	365	365	365
PbB_{adult}	PbB of adult worker, geometric mean	µg/dL	0.7	0.7	0.7
$PbB_{fetal, 0.95}$	95th percentile PbB among fetuses of adult workers	µg/dL	1.6	1.6	1.6
PbB_t	Target PbB level of concern (e.g., 2-8 ug/dL)	µg/dL	**5.0**	**8.0**	**10.0**
$P(PbB_{fetal} > PbB_t)$	**Probability that fetal PbB exceeds target PbB, assuming lognormal distribution**	**%**	**0.02%**	**0.0007%**	**0.0001%**

Source: U.S. EPA (1996). Recommendations of the Technical Review Workgroup for Lead for an Interim Approach to Assessing Risks Associated with Adult Exposures to Lead in Soil