

Probabilistic results summary : RESRAD Default

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Probabilistic Input

Number of Sample Runs: 3000

Number	Name	Distribution	Parameters							
1	DENSCV	TRUNCATED NORMAL	1.51	.159	.001	.999				
2	VCZ	CONTINUOUS LOGARITHMIC4	5.E-8	0	.0007	.22	.005	.95	.2	1
3	TPCZ	TRUNCATED NORMAL	.43	.06	.001	.999				
4	HCCZ	LOGUNIFORM	786	17000						
5	BCZ	TRUNCATED LOGNORMAL-N	-.0235	.216	.001	.999				
6	EVAPTR	UNIFORM	.5	.75						
7	WIND	BOUNDED LOGNORMAL-N	1.445	.2419	1.4	13				
8	RUNOFF	UNIFORM	.1	.8						
9	DENSAQ	TRUNCATED NORMAL	1.51	.16	.001	.999				
10	TPSZ	TRUNCATED NORMAL	.43	.06	.001	.999				
11	EPSZ	TRUNCATED NORMAL	.383	.061	.001	.999				
12	HCSZ	LOGUNIFORM	786	17000						
13	HGWT	BOUNDED LOGNORMAL-N	-5.11	1.77	.00007	.5				
14	DWIBWT	TRIANGULAR	6	10	30					
15	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003 .8119
16	DM	TRIANGULAR	0	.15	.6					
17	DROOT	UNIFORM	.3	4						
18	WLAM	TRIANGULAR	5.1	18	84					
19	YV(1)	TRUNCATED LOGNORMAL-N	.56	.48	.001	.999				
20	RWET(2)	TRIANGULAR	.06	.67	.95					
21	SHF3	UNIFORM	.15	.95						
22	SHF1	BOUNDED LOGNORMAL-N	-1.3	.59	.044	1				
23	VCV	CONTINUOUS LOGARITHMIC4	5.E-8	0	.0007	.22	.005	.95	.2	1
24	TPUZ(1)	TRUNCATED NORMAL	.43	.06	.001	.999				
25	EPUZ(1)	TRUNCATED NORMAL	.383	.061	.001	.999				
26	HCUZ(1)	LOGUNIFORM	786	17000						
27	BUZ(1)	TRUNCATED LOGNORMAL-N	-.0253	.216	.001	.999				
28	BRTF(27,1)	LOGNORMAL-N	-2.53	.916291						
29	BRTF(27,2)	LOGNORMAL-N	-3.51	1.029619						
30	BRTF(27,3)	LOGNORMAL-N	-6.21	.7						
31	BRTF(55,1)	LOGNORMAL-N	-3.22	.993252						
32	BRTF(55,2)	LOGNORMAL-N	-3	.405465						
33	BRTF(55,3)	LOGNORMAL-N	-4.61	.47						
34	BRTF(28,1)	LOGNORMAL-N	-3	.916291						
35	BRTF(28,2)	LOGNORMAL-N	-5.3	.916291						
36	BRTF(28,3)	LOGNORMAL-N	-3.91	.69315						
37	BRTF(38,1)	LOGNORMAL-N	-1.2	.993252						
38	BRTF(38,2)	LOGNORMAL-N	-4.61	.405465						
39	BRTF(38,3)	LOGNORMAL-N	-6.21	.47						
40	DENSCZ	TRUNCATED NORMAL	1.51	.16	.001	.999				
41	DENSUZ(1)	TRUNCATED NORMAL	1.51	.16	.001	.999				

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Probabilistic Total Dose Summary

Nuclide (j)	Peak Time	Peak Dose	DOSE(j,t), mrem/yr							
			t= 0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134										
Min	0.00E+00	1.05E+00	1.05E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	7.60E+00	7.60E+00	5.38E+00	2.70E+00	2.40E-01	7.06E-06	1.35E-14	0.00E+00	0.00E+00
Avg	0.00E+00	2.58E+00	2.58E+00	1.81E+00	9.03E-01	8.11E-02	1.96E-06	2.08E-15	0.00E+00	0.00E+00
Std	0.00E+00	8.65E-01	8.65E-01	6.38E-01	3.36E-01	3.22E-02	1.33E-06	2.61E-15	0.00E+00	0.00E+00
ΣALL										
Min	0.00E+00	1.05E+00	1.05E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	7.60E+00	7.60E+00	5.38E+00	2.70E+00	2.40E-01	7.06E-06	1.35E-14	0.00E+00	0.00E+00
Avg	0.00E+00	2.58E+00	2.58E+00	1.81E+00	9.03E-01	8.11E-02	1.96E-06	2.08E-15	0.00E+00	0.00E+00
Std	0.00E+00	8.65E-01	8.65E-01	6.38E-01	3.36E-01	3.22E-02	1.33E-06	2.61E-15	0.00E+00	0.00E+00

ΣALL is total dose summed for all nuclides.

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Probabilistic Risk Summary

Nuclide (j)	t=	RISK(j,t)							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134									
Min		7.65E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		1.88E-05	1.33E-05	6.68E-06	5.94E-07	1.77E-11	3.55E-20	3.12E-39	1.19E-39
Avg		6.52E-06	4.61E-06	2.31E-06	2.07E-07	4.96E-12	5.30E-21	1.48E-42	4.40E-43
Std		2.30E-06	1.68E-06	8.76E-07	8.35E-08	3.48E-12	6.78E-21	0.00E+00	0.00E+00
ΣALL									
Min		7.65E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		1.88E-05	1.33E-05	6.68E-06	5.94E-07	1.77E-11	3.55E-20	3.12E-39	1.19E-39
Avg		6.52E-06	4.61E-06	2.31E-06	2.07E-07	4.96E-12	5.30E-21	1.48E-42	4.40E-43
Std		2.30E-06	1.68E-06	8.76E-07	8.35E-08	3.48E-12	6.78E-21	0.00E+00	0.00E+00

ΣALL is total risk summed for all nuclides.

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Probabilistic Dose vs Pathway(i): Ground External

Nuclide (j)	t=	DOSE(i,j,t), mrem/yr							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134									
Min		8.67E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		5.53E+00	3.94E+00	2.00E+00	1.87E-01	6.59E-06	1.34E-14	0.00E+00	0.00E+00
Avg		2.28E+00	1.60E+00	8.01E-01	7.23E-02	1.77E-06	1.88E-15	0.00E+00	0.00E+00
Std		8.07E-01	5.94E-01	3.12E-01	2.99E-02	1.21E-06	2.37E-15	0.00E+00	0.00E+00
ΣALL									
Min		8.67E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		5.53E+00	3.94E+00	2.00E+00	1.87E-01	6.59E-06	1.34E-14	0.00E+00	0.00E+00
Avg		2.28E+00	1.60E+00	8.01E-01	7.23E-02	1.77E-06	1.88E-15	0.00E+00	0.00E+00
Std		8.07E-01	5.94E-01	3.12E-01	2.99E-02	1.21E-06	2.37E-15	0.00E+00	0.00E+00

ΣALL is total pathway dose summed for all nuclides.

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Probabilistic Dose vs Pathway(i): Inhalation (w/o Radon)

Nuclide (j)	t=	DOSE(i,j,t), mrem/yr							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134									
Min		9.77E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		2.79E-06	1.99E-06	1.01E-06	9.59E-08	3.02E-12	3.35E-21	0.00E+00	0.00E+00
Avg		2.95E-07	2.06E-07	1.02E-07	8.94E-09	1.98E-13	2.00E-22	0.00E+00	0.00E+00
Std		2.40E-07	1.71E-07	8.67E-08	7.94E-09	2.37E-13	3.61E-22	0.00E+00	0.00E+00
ΣALL									
Min		9.77E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		2.79E-06	1.99E-06	1.01E-06	9.59E-08	3.02E-12	3.35E-21	0.00E+00	0.00E+00
Avg		2.95E-07	2.06E-07	1.02E-07	8.94E-09	1.98E-13	2.00E-22	0.00E+00	0.00E+00
Std		2.40E-07	1.71E-07	8.67E-08	7.94E-09	2.37E-13	3.61E-22	0.00E+00	0.00E+00

ΣALL is total pathway dose summed for all nuclides.

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Probabilistic Dose vs Pathway(i): Radon (Water Ind.)

Nuclide (j)	t=	DOSE(i,j,t), mrem/yr							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134									
Min		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ΣALL									
Min		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

ΣALL is total pathway dose summed for all nuclides.

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Probabilistic Dose vs Pathway(i): Plant (Water Ind.)

Nuclide (j)	t=	DOSE(i,j,t), mrem/yr							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134									
Min		4.02E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		1.56E+00	1.11E+00	5.66E-01	5.34E-02	1.82E-06	3.49E-15	0.00E+00	0.00E+00
Avg		5.62E-02	3.91E-02	1.91E-02	1.63E-03	3.49E-08	3.68E-17	0.00E+00	0.00E+00
Std		1.00E-01	6.99E-02	3.46E-02	3.00E-03	7.88E-08	1.24E-16	0.00E+00	0.00E+00
ΣALL									
Min		4.02E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		1.56E+00	1.11E+00	5.66E-01	5.34E-02	1.82E-06	3.49E-15	0.00E+00	0.00E+00
Avg		5.62E-02	3.91E-02	1.91E-02	1.63E-03	3.49E-08	3.68E-17	0.00E+00	0.00E+00
Std		1.00E-01	6.99E-02	3.46E-02	3.00E-03	7.88E-08	1.24E-16	0.00E+00	0.00E+00

ΣALL is total pathway dose summed for all nuclides.

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Probabilistic Dose vs Pathway(i): Meat (Water Ind.)

Nuclide (j)	t=	DOSE(i,j,t), mrem/yr							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134									
Min		1.46E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		1.94E+00	1.37E+00	6.80E-01	5.88E-02	1.57E-06	3.01E-15	0.00E+00	0.00E+00
Avg		1.15E-01	8.06E-02	3.98E-02	3.44E-03	7.55E-08	7.82E-17	0.00E+00	0.00E+00
Std		1.00E-01	7.07E-02	3.54E-02	3.14E-03	9.09E-08	1.49E-16	0.00E+00	0.00E+00
ΣALL									
Min		1.46E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		1.94E+00	1.37E+00	6.80E-01	5.88E-02	1.57E-06	3.01E-15	0.00E+00	0.00E+00
Avg		1.15E-01	8.06E-02	3.98E-02	3.44E-03	7.55E-08	7.82E-17	0.00E+00	0.00E+00
Std		1.00E-01	7.07E-02	3.54E-02	3.14E-03	9.09E-08	1.49E-16	0.00E+00	0.00E+00

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Probabilistic Dose vs Pathway(i): Milk (Water Ind.)

Nuclide (j)	t=	DOSE(i,j,t), mrem/yr							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134									
Min		1.16E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		2.30E+00	1.60E+00	7.93E-01	7.04E-02	1.90E-06	3.67E-15	0.00E+00	0.00E+00
Avg		1.25E-01	8.74E-02	4.30E-02	3.70E-03	8.04E-08	8.50E-17	0.00E+00	0.00E+00
Std		1.52E-01	1.07E-01	5.31E-02	4.59E-03	1.22E-07	1.96E-16	0.00E+00	0.00E+00
ΣALL									
Min		1.16E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		2.30E+00	1.60E+00	7.93E-01	7.04E-02	1.90E-06	3.67E-15	0.00E+00	0.00E+00
Avg		1.25E-01	8.74E-02	4.30E-02	3.70E-03	8.04E-08	8.50E-17	0.00E+00	0.00E+00
Std		1.52E-01	1.07E-01	5.31E-02	4.59E-03	1.22E-07	1.96E-16	0.00E+00	0.00E+00

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Probabilistic Dose vs Pathway(i): Soil Ingestion

Nuclide (j)	t=	DOSE(i,j,t), mrem/yr							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134									
Min		1.25E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		8.81E-04	6.29E-04	3.21E-04	3.05E-05	1.07E-09	2.19E-18	0.00E+00	0.00E+00
Avg		5.88E-04	4.11E-04	2.04E-04	1.78E-05	3.96E-10	4.13E-19	0.00E+00	0.00E+00
Std		2.25E-04	1.66E-04	8.72E-05	8.54E-06	3.30E-10	5.99E-19	0.00E+00	0.00E+00
ΣALL									
Min		1.25E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		8.81E-04	6.29E-04	3.21E-04	3.05E-05	1.07E-09	2.19E-18	0.00E+00	0.00E+00
Avg		5.88E-04	4.11E-04	2.04E-04	1.78E-05	3.96E-10	4.13E-19	0.00E+00	0.00E+00
Std		2.25E-04	1.66E-04	8.72E-05	8.54E-06	3.30E-10	5.99E-19	0.00E+00	0.00E+00

ΣALL is total pathway dose summed for all nuclides.

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Probabilistic Dose vs Pathway(i): Water Ingestion

Nuclide (j)	t=	DOSE(i,j,t), mrem/yr							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134									
Min		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ΣALL									
Min		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

ΣALL is total pathway dose summed for all nuclides.

Probabilistic results summary : RESRAD Default

File : C:\USERS\DAVID FAUVER\DOCUMENTS\ZION\RESRAD\TSD\SOIL DCGL\SENSITIVITY ANALYSIS\RESRAD INPUT FILE\ZION SOIL SENSITIVITY.RAD

Probabilistic Dose vs Pathway(i): Fish Ingestion

Nuclide (j)	t=	DOSE(i,j,t), mrem/yr							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134									
Min		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ΣALL									
Min		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

ΣALL is total pathway dose summed for all nuclides.

Probabilistic results summary : RESRAD Default

File : C:\USERS\DAVID FAUVER\DOCUMENTS\ZION\RESRAD\TSD\SOIL DCGL\SENSITIVITY ANALYSIS\RESRAD INPUT FILE\ZION SOIL SENSITIVITY.RAD

Probabilistic Dose vs Pathway(i): Radon (Water Dep.)

Nuclide (j)	t=	DOSE(i,j,t), mrem/yr							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134									
Min		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ΣALL									
Min		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

ΣALL is total pathway dose summed for all nuclides.

Probabilistic results summary : RESRAD Default

File : C:\USERS\DAVID FAUVER\DOCUMENTS\ZION\RESRAD\TSD\SOIL DCGL\SENSITIVITY ANALYSIS\RESRAD INPUT FILE\ZION SOIL SENSITIVITY.RAD

Probabilistic Dose vs Pathway(i): Plant (Water Dep.)

Nuclide (j)	t=	DOSE(i,j,t), mrem/yr							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134									
Min		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ΣALL									
Min		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

ΣALL is total pathway dose summed for all nuclides.

Probabilistic results summary : RESRAD Default

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Probabilistic Dose vs Pathway(i): Meat (Water Dep.)

Nuclide (j)	t=	DOSE(i,j,t), mrem/yr							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134									
Min		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ΣALL									
Min		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

ΣALL is total pathway dose summed for all nuclides.

Probabilistic results summary : RESRAD Default

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Probabilistic Dose vs Pathway(i): Milk (Water Dep.)

Nuclide (j)	t=	DOSE(i,j,t), mrem/yr							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134									
Min		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ΣALL									
Min		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

ΣALL is total pathway dose summed for all nuclides.

Probabilistic results summary : RESRAD Default

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Cumulative Probability Summary for: Total Dose Over Pathways

Cumulative Probability	Dose(t), mrem/yr							
	t= 0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
0.025	1.44E+00	9.81E-01	4.20E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.050	1.54E+00	1.06E+00	5.20E-01	4.44E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.075	1.61E+00	1.12E+00	5.54E-01	4.91E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.100	1.67E+00	1.17E+00	5.80E-01	5.16E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.125	1.73E+00	1.21E+00	6.02E-01	5.35E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.150	1.77E+00	1.24E+00	6.21E-01	5.55E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.175	1.81E+00	1.27E+00	6.37E-01	5.74E-02	2.41E-07	0.00E+00	0.00E+00	0.00E+00
0.200	1.85E+00	1.30E+00	6.54E-01	5.90E-02	6.15E-07	0.00E+00	0.00E+00	0.00E+00
0.225	1.90E+00	1.34E+00	6.71E-01	6.03E-02	8.72E-07	0.00E+00	0.00E+00	0.00E+00
0.250	1.95E+00	1.37E+00	6.86E-01	6.16E-02	1.11E-06	0.00E+00	0.00E+00	0.00E+00
0.275	1.98E+00	1.40E+00	7.01E-01	6.32E-02	1.29E-06	0.00E+00	0.00E+00	0.00E+00
0.300	2.03E+00	1.43E+00	7.18E-01	6.48E-02	1.40E-06	0.00E+00	0.00E+00	0.00E+00
0.325	2.06E+00	1.46E+00	7.32E-01	6.61E-02	1.51E-06	0.00E+00	0.00E+00	0.00E+00
0.350	2.11E+00	1.49E+00	7.47E-01	6.74E-02	1.58E-06	0.00E+00	0.00E+00	0.00E+00
0.375	2.15E+00	1.52E+00	7.63E-01	6.86E-02	1.67E-06	0.00E+00	0.00E+00	0.00E+00
0.400	2.20E+00	1.55E+00	7.77E-01	7.03E-02	1.73E-06	0.00E+00	0.00E+00	0.00E+00
0.425	2.24E+00	1.58E+00	7.95E-01	7.16E-02	1.81E-06	0.00E+00	0.00E+00	0.00E+00
0.450	2.29E+00	1.62E+00	8.11E-01	7.35E-02	1.88E-06	0.00E+00	0.00E+00	0.00E+00
0.475	2.33E+00	1.65E+00	8.27E-01	7.49E-02	1.94E-06	0.00E+00	0.00E+00	0.00E+00
0.500	2.38E+00	1.68E+00	8.45E-01	7.63E-02	1.99E-06	7.38E-17	0.00E+00	0.00E+00
0.525	2.43E+00	1.72E+00	8.63E-01	7.80E-02	2.05E-06	9.37E-16	0.00E+00	0.00E+00
0.550	2.50E+00	1.76E+00	8.83E-01	7.98E-02	2.13E-06	1.55E-15	0.00E+00	0.00E+00
0.575	2.55E+00	1.80E+00	9.06E-01	8.18E-02	2.20E-06	2.00E-15	0.00E+00	0.00E+00
0.600	2.61E+00	1.84E+00	9.26E-01	8.38E-02	2.27E-06	2.30E-15	0.00E+00	0.00E+00
0.625	2.66E+00	1.88E+00	9.48E-01	8.59E-02	2.33E-06	2.60E-15	0.00E+00	0.00E+00
0.650	2.72E+00	1.92E+00	9.66E-01	8.79E-02	2.40E-06	2.87E-15	0.00E+00	0.00E+00
0.675	2.78E+00	1.97E+00	9.90E-01	9.00E-02	2.47E-06	3.06E-15	0.00E+00	0.00E+00
0.700	2.84E+00	2.02E+00	1.02E+00	9.21E-02	2.56E-06	3.35E-15	0.00E+00	0.00E+00
0.725	2.91E+00	2.06E+00	1.04E+00	9.47E-02	2.65E-06	3.58E-15	0.00E+00	0.00E+00
0.750	2.99E+00	2.12E+00	1.07E+00	9.68E-02	2.76E-06	3.84E-15	0.00E+00	0.00E+00
0.775	3.09E+00	2.19E+00	1.10E+00	9.98E-02	2.87E-06	4.08E-15	0.00E+00	0.00E+00
0.800	3.20E+00	2.26E+00	1.14E+00	1.03E-01	2.99E-06	4.36E-15	0.00E+00	0.00E+00
0.825	3.30E+00	2.33E+00	1.18E+00	1.07E-01	3.09E-06	4.69E-15	0.00E+00	0.00E+00
0.850	3.42E+00	2.43E+00	1.22E+00	1.11E-01	3.23E-06	5.00E-15	0.00E+00	0.00E+00
0.875	3.59E+00	2.54E+00	1.28E+00	1.16E-01	3.37E-06	5.39E-15	0.00E+00	0.00E+00
0.900	3.79E+00	2.69E+00	1.36E+00	1.24E-01	3.57E-06	5.86E-15	0.00E+00	0.00E+00
0.925	4.04E+00	2.86E+00	1.44E+00	1.31E-01	3.86E-06	6.25E-15	0.00E+00	0.00E+00
0.950	4.29E+00	3.04E+00	1.53E+00	1.41E-01	4.28E-06	6.99E-15	0.00E+00	0.00E+00
0.975	4.79E+00	3.39E+00	1.71E+00	1.57E-01	4.77E-06	8.31E-15	0.00E+00	0.00E+00
1.000	7.60E+00	5.38E+00	2.70E+00	2.40E-01	7.06E-06	1.35E-14	0.00E+00	0.00E+00

Probabilistic results summary : RESRAD Default

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Peak of the mean dose (averaged over observations) at graphical times

Repetition	Time of peak mean dose Years	Peak mean dose mrem/yr
1	0.000E+00	2.582E+00
2	0.000E+00	2.571E+00
3	0.000E+00	2.575E+00

Title : RESRAD Default

Input File : ZION SOIL SENSITIVITY.RAD

Coefficients for peak All Pathways Dose

Coefficient =	PCC		SRC		PRCC		SRRC	
Repetition =	1		1		1		1	
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Density of cover material	34	-0.01	34	0.00	35	-0.01	35	0.00
Contaminated zone erosion rate	4	-0.38	4	-0.11	8	-0.13	8	-0.04
Contaminated zone total porosity	13	0.04	13	0.01	40	0.00	40	0.00
Contaminated zone hydraulic conductivity	14	-0.04	14	-0.01	18	-0.03	18	-0.01
Contaminated zone b parameter	28	0.02	28	0.00	24	0.03	24	0.01
Evapotranspiration coefficient	38	-0.01	38	0.00	41	0.00	41	0.00
Wind Speed	16	-0.04	16	-0.01	21	0.03	21	0.01
Runoff coefficient	41	0.00	41	0.00	33	0.02	33	0.00
Density of saturated zone	40	0.00	40	0.00	28	-0.02	28	-0.01
Saturated zone total porosity	26	0.02	26	0.01	11	0.05	11	0.02
Saturated zone effective porosity	12	-0.05	12	-0.01	39	0.00	39	0.00
Saturated zone hydraulic conductivity	24	-0.02	24	-0.01	25	0.03	25	0.01
Saturated zone hydraulic gradient	18	0.03	18	0.01	13	0.05	13	0.01
Well pump intake depth	19	0.03	19	0.01	34	-0.01	34	0.00
Mass loading for inhalation	9	0.07	9	0.02	26	0.02	26	0.01
Depth of soil mixing layer	8	-0.13	8	-0.04	6	-0.21	6	-0.06
Depth of roots	3	-0.49	3	-0.15	3	-0.45	3	-0.14
Weathering removal constant of all vegetation	37	0.01	37	0.00	22	0.03	22	0.01
Wet weight crop yield of fruit, grain and non-leafy vegetables	30	0.02	30	0.00	15	0.04	15	0.01
Wet foliar interception fraction of leafy vegetables	17	0.03	17	0.01	32	-0.02	32	0.00
Indoor dust filtration factor	29	0.02	29	0.00	27	-0.02	27	-0.01
External gamma shielding factor	1	0.96	1	0.91	1	0.96	1	0.92
Cover erosion rate	15	0.04	15	0.01	19	0.03	19	0.01
Total Porosity of Unsaturated zone 1	20	0.02	20	0.01	36	-0.01	36	0.00
Effective Porosity of Unsaturated zone 1	31	-0.02	31	0.00	12	0.05	12	0.01
Hydraulic Conductivity of Unsaturated zone 1	35	-0.01	35	0.00	16	0.04	16	0.01
b Parameter of Unsaturated zone 1	25	-0.02	25	-0.01	37	-0.01	37	0.00
Plant transfer factor for Co	27	0.02	27	0.01	31	0.02	31	0.01
Meat transfer factor for Co	10	0.05	10	0.01	10	0.06	10	0.02
Milk transfer factor for Co	33	0.02	33	0.00	30	0.02	30	0.01
Plant transfer factor for Cs	2	0.68	2	0.25	2	0.52	2	0.17
Meat transfer factor for Cs	7	0.24	7	0.07	7	0.21	7	0.06
Milk transfer factor for Cs	6	0.27	6	0.07	5	0.24	5	0.07
Plant transfer factor for Ni	23	-0.02	23	-0.01	20	0.03	20	0.01
Meat transfer factor for Ni	11	0.05	11	0.01	17	-0.03	17	-0.01
Milk transfer factor for Ni	32	0.02	32	0.00	9	0.07	9	0.02
Plant transfer factor for Sr	22	-0.02	22	-0.01	38	0.01	38	0.00
Meat transfer factor for Sr	39	0.00	39	0.00	29	0.02	29	0.01
Milk transfer factor for Sr	36	0.01	36	0.00	14	-0.04	14	-0.01
Density of contaminated zone	5	0.28	5	0.08	4	0.26	4	0.08
Density of Unsaturated zone 1	21	0.02	21	0.01	23	-0.03	23	-0.01
R-SQUARE		0.93		0.93		0.92		0.92

-Rank is set to zero if the dose is zero or the correlation matrix is singular.

-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

Title : RESRAD Default
 Input File : ZION SOIL SENSITIVITY.RAD

Coefficients for peak All Pathways Dose

Coefficient =	PCC		SRC		PRCC		SRRC	
Repetition =	2		2		2		2	
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Density of cover material	12	0.05	12	0.01	15	0.04	15	0.01
Contaminated zone erosion rate	4	-0.36	4	-0.08	8	-0.11	8	-0.03
Contaminated zone total porosity	32	-0.01	32	0.00	22	-0.03	22	-0.01
Contaminated zone hydraulic conductivity	15	-0.04	15	-0.01	27	-0.02	27	-0.01
Contaminated zone b parameter	10	0.06	10	0.01	9	0.08	9	0.02
Evapotranspiration coefficient	14	0.04	14	0.01	19	0.03	19	0.01
Wind Speed	19	-0.03	20	-0.01	23	0.03	23	0.01
Runoff coefficient	33	-0.01	33	0.00	35	-0.01	35	0.00
Density of saturated zone	29	-0.02	29	0.00	20	-0.03	20	-0.01
Saturated zone total porosity	40	0.00	40	0.00	40	0.00	40	0.00
Saturated zone effective porosity	20	0.03	19	0.01	34	0.01	34	0.00
Saturated zone hydraulic conductivity	30	0.02	30	0.00	24	0.03	24	0.01
Saturated zone hydraulic gradient	9	0.07	9	0.01	18	0.04	18	0.01
Well pump intake depth	13	0.05	13	0.01	39	0.00	39	0.00
Mass loading for inhalation	31	-0.02	31	0.00	25	0.02	25	0.01
Depth of soil mixing layer	7	-0.27	7	-0.06	5	-0.29	5	-0.08
Depth of roots	3	-0.51	3	-0.12	3	-0.43	3	-0.13
Weathering removal constant of all vegetation	11	-0.06	11	-0.01	10	-0.08	10	-0.02
Wet weight crop yield of fruit, grain and non-leafy vegetables	25	0.02	25	0.00	17	-0.04	17	-0.01
Wet foliar interception fraction of leafy vegetables	37	0.00	37	0.00	38	0.00	38	0.00
Indoor dust filtration factor	24	0.03	24	0.01	21	-0.03	21	-0.01
External gamma shielding factor	1	0.98	1	0.93	1	0.96	1	0.92
Cover erosion rate	18	-0.03	18	-0.01	29	-0.01	29	0.00
Total Porosity of Unsaturated zone 1	26	0.02	27	0.00	33	0.01	33	0.00
Effective Porosity of Unsaturated zone 1	23	0.03	23	0.01	16	0.04	16	0.01
Hydraulic Conductivity of Unsaturated zone 1	17	-0.03	17	-0.01	32	-0.01	32	0.00
b Parameter of Unsaturated zone 1	41	0.00	41	0.00	12	0.05	12	0.01
Plant transfer factor for Co	39	0.00	39	0.00	36	0.01	36	0.00
Meat transfer factor for Co	27	-0.02	26	0.00	28	-0.02	28	0.00
Milk transfer factor for Co	16	-0.03	16	-0.01	41	0.00	41	0.00
Plant transfer factor for Cs	2	0.73	2	0.22	2	0.55	2	0.17
Meat transfer factor for Cs	8	0.24	8	0.05	7	0.14	7	0.04
Milk transfer factor for Cs	6	0.29	6	0.06	6	0.21	6	0.06
Plant transfer factor for Ni	21	-0.03	21	-0.01	14	-0.04	14	-0.01
Meat transfer factor for Ni	36	0.00	36	0.00	31	0.01	31	0.00
Milk transfer factor for Ni	38	0.00	38	0.00	26	0.02	26	0.01
Plant transfer factor for Sr	28	-0.02	28	0.00	13	-0.05	13	-0.01
Meat transfer factor for Sr	35	-0.01	35	0.00	11	-0.05	11	-0.01
Milk transfer factor for Sr	34	0.01	34	0.00	37	-0.01	37	0.00
Density of contaminated zone	5	0.34	5	0.08	4	0.32	4	0.09
Density of Unsaturated zone 1	22	-0.03	22	-0.01	30	-0.01	30	0.00
R-SQUARE		0.96		0.96		0.93		0.93

-Rank is set to zero if the dose is zero or the correlation matrix is singular.

-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

Title : RESRAD Default

Input File : ZION SOIL SENSITIVITY.RAD

Coefficients for peak All Pathways Dose

Coefficient =	PCC		SRC		PRCC		SRRC	
Repetition =	3		3		3		3	
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Density of cover material	36	-0.01	36	0.00	13	0.05	13	0.01
Contaminated zone erosion rate	5	-0.33	5	-0.08	12	-0.05	12	-0.01
Contaminated zone total porosity	26	0.02	26	0.00	22	0.03	22	0.01
Contaminated zone hydraulic conductivity	12	-0.04	12	-0.01	18	-0.03	18	-0.01
Contaminated zone b parameter	35	-0.01	35	0.00	40	0.00	40	0.00
Evapotranspiration coefficient	11	-0.04	11	-0.01	27	-0.02	27	0.00
Wind Speed	21	-0.03	21	-0.01	19	-0.03	19	-0.01
Runoff coefficient	17	0.03	17	0.01	15	0.05	15	0.01
Density of saturated zone	10	0.05	10	0.01	21	0.03	21	0.01
Saturated zone total porosity	34	-0.01	34	0.00	8	0.06	8	0.02
Saturated zone effective porosity	24	0.02	24	0.00	25	0.02	25	0.01
Saturated zone hydraulic conductivity	40	0.00	40	0.00	36	0.01	36	0.00
Saturated zone hydraulic gradient	39	0.00	39	0.00	33	0.01	33	0.00
Well pump intake depth	20	-0.03	20	-0.01	20	-0.03	20	-0.01
Mass loading for inhalation	29	-0.02	29	0.00	38	0.00	38	0.00
Depth of soil mixing layer	7	-0.27	7	-0.06	4	-0.30	4	-0.08
Depth of roots	3	-0.54	3	-0.13	3	-0.47	3	-0.14
Weathering removal constant of all vegetation	27	0.02	27	0.00	41	0.00	41	0.00
Wet weight crop yield of fruit, grain and non-leafy vegetables	31	-0.01	31	0.00	28	0.01	28	0.00
Wet foliar interception fraction of leafy vegetables	14	0.03	14	0.01	39	0.00	39	0.00
Indoor dust filtration factor	18	-0.03	19	-0.01	35	-0.01	35	0.00
External gamma shielding factor	1	0.97	1	0.92	1	0.96	1	0.92
Cover erosion rate	19	-0.03	18	-0.01	32	0.01	32	0.00
Total Porosity of Unsaturated zone 1	25	-0.02	25	0.00	30	0.01	30	0.00
Effective Porosity of Unsaturated zone 1	37	0.01	37	0.00	9	0.05	9	0.01
Hydraulic Conductivity of Unsaturated zone 1	9	0.06	9	0.01	26	-0.02	26	0.00
b Parameter of Unsaturated zone 1	13	0.04	13	0.01	14	0.05	14	0.01
Plant transfer factor for Co	30	-0.01	30	0.00	34	0.01	34	0.00
Meat transfer factor for Co	15	-0.03	15	-0.01	37	0.00	37	0.00
Milk transfer factor for Co	16	0.03	16	0.01	16	0.04	16	0.01
Plant transfer factor for Cs	2	0.76	2	0.25	2	0.57	2	0.19
Meat transfer factor for Cs	8	0.22	8	0.05	7	0.25	7	0.07
Milk transfer factor for Cs	6	0.29	6	0.07	6	0.25	6	0.07
Plant transfer factor for Ni	22	0.03	22	0.01	11	0.05	11	0.01
Meat transfer factor for Ni	32	0.01	32	0.00	24	-0.03	24	-0.01
Milk transfer factor for Ni	41	0.00	41	0.00	29	-0.01	29	0.00
Plant transfer factor for Sr	28	-0.02	28	0.00	31	0.01	31	0.00
Meat transfer factor for Sr	33	0.01	33	0.00	10	0.05	10	0.01
Milk transfer factor for Sr	23	-0.02	23	-0.01	17	0.04	17	0.01
Density of contaminated zone	4	0.36	4	0.08	5	0.27	5	0.07
Density of Unsaturated zone 1	38	0.00	38	0.00	23	0.03	23	0.01
R-SQUARE		0.96		0.96		0.93		0.93

-Rank is set to zero if the dose is zero or the correlation matrix is singular.

-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.