Concentration of Ammoniacal_N in groundwater [mg/l]

At 30 years

01% of values less than 0.06
05% of values less than 0.06
10% of values less than 0.06
50% of values less than 0.06
90% of values less than 0.06
95% of values less than 0.06
99% of values less than 0.06

Minimum 0.06	Maximum 0.06	
Mean 0.06	Std. Dev. 7.13308E-009	Variance -5.08808E-017

At 100 years

01% of values less than 0.06
05% of values less than 0.06
10% of values less than 0.06
50% of values less than 0.06
90% of values less than 0.06
95% of values less than 0.0600001
99% of values less than 0.0600002

Minimum 0.06	Maximum 0.0600005	
Mean 0.06	Std. Dev. 4.26816E-008	Variance 1.82172E-015

At 300 years

01% of values less than 0.06
05% of values less than 0.06
10% of values less than 0.06
50% of values less than 0.06
90% of values less than 0.06
95% of values less than 0.06
99% of values less than 0.06

Minimum 0.06	Maximum 0.0600001	
Mean 0.06	Std. Dev. 2.43019E-009	Variance -5.90581E-018

At 1000 years

01% of values less than 0.06
05% of values less than 0.06
10% of values less than 0.06
50% of values less than 0.06
90% of values less than 0.06
95% of values less than 0.06
99% of values less than 0.06

Minimum 0.06	Maximum 0.06	
Mean 0.06	Std. Dev. 6.35862E-009	Variance -4.04321E-017

Concentration of Ammoniacal_N in groundwater [mg/l]

At infinity

01% of values less than 0.06

05% of values less than 0.06

10% of values less than 0.06

50% of values less than 0.06

90% of values less than 0.06

95% of values less than 0.06

99% of values less than 0.06

Minimum 0.06	Maximum 0.06	
Mean 0.06	Std. Dev. 6.87361E-009	Variance -4.72465E-017

Concentration of Cadmium in groundwater [mg/l]

At 30 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

At 100 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

At 300 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

At 1000 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

Concentration of Cadmium in groundwater [mg/l]

At infinity

01% of values less than 0

05% of values less than 0

10% of values less than 0

50% of values less than 0

90% of values less than 0

95% of values less than 0

99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

Concentration of Chloride in groundwater [mg/l]

At 30 years

01% of values less than 29.7402
05% of values less than 30.326
10% of values less than 30.7696
50% of values less than 32.7091
90% of values less than 36.5086
95% of values less than 38.0552
99% of values less than 41.5744

Minimum 29.1216	Maximum 48.1474	
Mean 33.3031	Std. Dev. 2.47901	Variance 6.14551

At 100 years

01% of values less than 29.3936
05% of values less than 29.7364
10% of values less than 29.9478
50% of values less than 31.1573
90% of values less than 32.3662
95% of values less than 32.8587
99% of values less than 33.7933

Minimum 29.1076	Maximum 35.3183	
Mean 31.1593	Std. Dev. 0.965871	Variance 0.932907

At 300 years

01% of values less than 29.2849
05% of values less than 29.5226
10% of values less than 29.7053
50% of values less than 30.8134
90% of values less than 31.8405
95% of values less than 32.0869
99% of values less than 32.7347

Minimum 29.0854	Maximum 33.6226	
Mean 30.7899	Std. Dev. 0.813863	Variance 0.662372

At 1000 years

01% of values less than 29.1017
05% of values less than 29.2079
10% of values less than 29.3432
50% of values less than 30.3453
90% of values less than 31.3084
95% of values less than 31.4216
99% of values less than 31.5987

Minimum 29.0486	Maximum 32.2481	
Mean 30.3467	Std. Dev. 0.717937	Variance 0.515433

Concentration of Chloride in groundwater [mg/l]

At infinity

01% of values less than 29.0168
05% of values less than 29.1145
10% of values less than 29.2317
50% of values less than 30.2306
90% of values less than 31.1907
95% of values less than 31.3204
99% of values less than 31.3864

Minimum 29.0001	Maximum 31.3959	
Mean 30.221	Std. Dev. 0.701406	Variance 0.491971

Concentration of Copper in groundwater [mg/l]

At 30 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

At 100 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

At 300 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

At 1000 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

Concentration of Copper in groundwater [mg/l]

At infinity

01% of values less than 0

05% of values less than 0

10% of values less than 0

50% of values less than 0

90% of values less than 0

95% of values less than 0

99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

Concentration of Mercury in groundwater [mg/l]

At 30 years

01% of values less than 5.17396E-005
05% of values less than 6.03909E-005
10% of values less than 7.02368E-005
50% of values less than 0.000147989
90% of values less than 0.000219549
95% of values less than 0.000228954
99% of values less than 0.000238243

Minimum 5.01392E-005	Maximum 0.000239936	
Mean 0.000146638	Std. Dev. 5.41572E-005	Variance 2.933E-009

At 100 years

01% of values less than 5.17396E-005
05% of values less than 6.03909E-005
10% of values less than 7.02368E-005
50% of values less than 0.000147989
90% of values less than 0.000219549
95% of values less than 0.000228954
99% of values less than 0.000238243

Minimum 5.01392E-005	Maximum 0.000239936	
Mean 0.000146638	Std. Dev. 5.41572E-005	Variance 2.933E-009

At 300 years

01% of values less than 5.17396E-005
05% of values less than 6.03909E-005
10% of values less than 7.02368E-005
50% of values less than 0.000147989
90% of values less than 0.000219549
95% of values less than 0.000228954
99% of values less than 0.000238243

Minimum 5.01392E-005	Maximum 0.000239936	
Mean 0.000146638	Std. Dev. 5.41572E-005	Variance 2.933E-009

At 1000 years

01% of values less than 5.17396E-005
05% of values less than 6.03909E-005
10% of values less than 7.02368E-005
50% of values less than 0.000147989
90% of values less than 0.000219549
95% of values less than 0.000228954
99% of values less than 0.000238243

Minimum 5.01392E-005	Maximum 0.000239936	
Mean 0.000146638	Std. Dev. 5.41572E-005	Variance 2.933E-009

Concentration of Mercury in groundwater [mg/l]

At infinity

01% of values less than 5.17396E-005
05% of values less than 6.03926E-005
10% of values less than 7.02368E-005
50% of values less than 0.000147989
90% of values less than 0.000219549
95% of values less than 0.000228954
99% of values less than 0.000238243

Minimum 5.01392E-005	Maximum 0.000239936	
Mean 0.000146639	Std. Dev. 5.41571E-005	Variance 2.93299E-009

Concentration of Naphthalene in groundwater [mg/l]

At 30 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

At 100 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

At 300 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

At 1000 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

Concentration of Naphthalene in groundwater [mg/l]

At infinity

01% of values less than 0

05% of values less than 0

10% of values less than 0

50% of values less than 0

90% of values less than 0

95% of values less than 0

99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

Concentration of Toluene in groundwater [mg/l]

At 30 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

At 100 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

At 300 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

At 1000 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

Concentration of Toluene in groundwater [mg/l]

At infinity

01% of values less than 0

05% of values less than 0

10% of values less than 0

50% of values less than 0

90% of values less than 0

95% of values less than 0

99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

Concentration of Zinc in groundwater [mg/l]

At 30 years

01% of values less than 0.0314495
05% of values less than 0.0351241
10% of values less than 0.0405148
50% of values less than 0.0903446
90% of values less than 0.134053
95% of values less than 0.138946
99% of values less than 0.144073

Minimum 0.0300386	Maximum 0.144825	
Mean 0.0883738	Std. Dev. 0.0337989	Variance 0.00114236

At 100 years

01% of values less than 0.0314495
05% of values less than 0.0351241
10% of values less than 0.0405148
50% of values less than 0.0903446
90% of values less than 0.134053
95% of values less than 0.138946
99% of values less than 0.144073

Minimum 0.0300386	Maximum 0.144825	
Mean 0.0883738	Std. Dev. 0.0337989	Variance 0.00114236

At 300 years

01% of values less than 0.0314495
05% of values less than 0.0351241
10% of values less than 0.0405148
50% of values less than 0.0903446
90% of values less than 0.134053
95% of values less than 0.138946
99% of values less than 0.144073

Minimum 0.0300386	Maximum 0.144825	
Mean 0.0883745	Std. Dev. 0.0337988	Variance 0.00114236

At 1000 years

01% of values less than 0.0314495
05% of values less than 0.0353417
10% of values less than 0.0407746
50% of values less than 0.0908219
90% of values less than 0.134478
95% of values less than 0.13943
99% of values less than 0.144614

Minimum 0.0300386	Maximum 0.150125	
Mean 0.0886626	Std. Dev. 0.0338779	Variance 0.00114771

Concentration of Zinc in groundwater [mg/l]

At infinity

01% of values less than 0.0316489
05% of values less than 0.0353094
10% of values less than 0.0407746
50% of values less than 0.0905383
90% of values less than 0.134138
95% of values less than 0.138946
99% of values less than 0.144074

Minimum 0.0300386	Maximum 0.145023	
Mean 0.0885544	Std. Dev. 0.0338003	Variance 0.00114246

Project: Wodcote Quarry Landfill

Project Number: Risk 0060

Customer: CWoodcote Quarry Landfill

Write Project Notes Here

Calculation Settings

Number of iterations: 1001

Results calculated using sampled PDFs

Full Calculation

Clay Liner:

Retarded values used for simulation

Biodegradation

Unsaturated Pathway:

Retarded values used for simulation

Biodegradation

Saturated Vertical Pathway:

No Vertical Pathway

Aquifer Pathway:

Retarded values used for simulation

Biodegradation

Timeslices at: 30, 100, 300, 1000

Decline in Contaminant Concentration in Leachate

Ammoniacal_N	Non-Volatile
c (kg/l): 0.59	m (kg/l): 0
Cadmium	Non-Volatile
c (kg/l): 0.1589	m (kg/l): 0.0823
Chloride	Non-Volatile
c (kg/l): 0.2919	m (kg/l): 0.0298
Copper	Non-Volatile
c (kg/l): -0.0488	m (kg/l): 0.0664
Mercury	Non-Volatile
c (kg/l): 0.1643	m (kg/l): 0.0767
Naphthalene	Volatile
Half life (years): 10	
Toluene	Volatile
Half life (years): 10	
Zinc	Non-Volatile
c (kg/l): 0.0561	m (kg/l): 0.0403

Contaminant Half-lives (years)

Clay Liner:	
Ammoniacal_N	SINGLE(6)
Cadmium	SINGLE(1e+009)
Chloride	SINGLE(1e+009)
Copper	SINGLE(1e+009)
Mercury	SINGLE(1e+009)
Naphthalene	SINGLE(0.69)
Toluene	UNIFORM(0.16,0.57)
Zinc	SINGLE(1e+009)
Unsaturated Pathway:	
Ammoniacal_N	SINGLE(6)
Cadmium	SINGLE(1e+009)
Chloride	SINGLE(1e+009)
Copper	SINGLE(1e+009)
Mercury	SINGLE(1e+009)
Naphthalene	SINGLE(0.06)
Toluene	UNIFORM(0.14,1.5)
Zinc	SINGLE(1e+009)
Aquifer Pathway:	
Ammoniacal_N	SINGLE(6)
Cadmium	SINGLE(6e-005)
Chloride	SINGLE(1e+009)
Copper	LOGTRIANGULAR(0.009,0.02125,0.076)
Mercury	SINGLE(1e+009)
Naphthalene	SINGLE(0.387)
Toluene	UNIFORM(0.1,0.2)
Zinc	SINGLE(1e+009)

Background Concentrations of Contaminants

Justification for Contaminant Properties

WAC Soil Testing and Leachate tests at Chadwich Lane

All units in milligrams per litre

Ammoniacal_N	SINGLE(0.06)
Chloride	UNIFORM(29,31.4)
Mercury	UNIFORM(5e-005,0.00024)
Zinc	UNIFORM(0.03,0.145)

Phase: Phase 1

Infiltration Information

Cap design infiltration (mm/year):	SINGLE(50)
Infiltration to waste (mm/year):	SINGLE(160)
Infiltration to grassland (mm/year):	SINGLE(50)
End of filling (years from start of waste deposit):	10
Start of cap degradation (years from end of waste deposit):	100
End of cap degradation (years from end of waste deposit):	1000

Justification for Specified Infiltration
Based on ESID and Met Office Data

Duration of management control (years from the start of waste disposal): 18

Cell dimensions

Cell width (m):	500
Cell length (m):	750
Cell top area (ha):	39.375
Cell base area (ha):	37.5
Number of cells:	1
Total base area (ha):	37.5
Total top area (ha):	39.375
Head of Leachate when surface water breakout occurs (m)	SINGLE(17)
Waste porosity (fraction)	SINGLE(0.1)
Final waste thickness (m):	TRIANGULAR(17,30,43)
Field capacity (fraction):	SINGLE(0.3)
Waste dry density (kg/l)	SINGLE(2)

Justification for Landfill Geometry
Based on HRA 2 and HRA 3

Source concentrations of contaminants

All units in milligrams per litre

Declining source term

Ammoniacal_N	LOGTRIANGULAR(0.11,0.66,1.76)
	Data are spot measurements of Leachate Quality
Cadmium	LOGTRIANGULAR(0.00011,0.00176,0.0044)
	Substance to be treated as List 1
Chloride	LOGTRIANGULAR(0.011,21.01,176)
	Data are spot measurements of Leachate Quality
Copper	LOGTRIANGULAR(0.0099,0.0176,0.0836)
	Data are spot measurements of Leachate Quality
Mercury	LOGTRIANGULAR(1.1e-005,4.95e-005,0.00011)
	Substance to be treated as List 1
Naphthalene	LOGTRIANGULAR(0.011,0.11,0.22)
	Substance to be treated as List 1
Toluene	LOGTRIANGULAR(0.011,0.055,0.165)
	Substance to be treated as List 1
Zinc	LOGTRIANGULAR(0.011,0.0253,0.44)
	Data are spot measurements of Leachate Quality

Justification for Species Concentration in Leachate
Concentrations 1 plus 10%

Drainage Information

Fixed Head.

Head on EBS is given as (m):	SINGLE(1)

Justification for Specified Head
1metre limit assumed above geological barrier

Barrier Information

There is a single clay barrier

Justification for Engineered Barrier Type
1 metre geological barrier

Design thickness of clay (m):	SINGLE(1)
Density of clay (kg/l):	SINGLE(1.9)
Pathway moisture content (fraction):	UNIFORM(0.19,0.2)

Justification for Clay: Liner Thickness
CQA Design Spacification

Hydraulic conductivity of liner (m/s):	TRIANGULAR(1e-009,1e-008,1e-007)
Pathway longitudinal dispersivity (m):	SINGLE(0.1)

Justification for Clay: Hydraulics Properties
Source Evaluation Testing on adjoining phase

Retardation parameters for clay liner

Uncertainty in Kd (l/kg):	
Ammoniacal_N	UNIFORM(7.3,8.5)
Cadmium	SINGLE(222.2)
Chloride	SINGLE(0)
Copper	SINGLE(126.8)
Mercury	SINGLE(3835.5)
Naphthalene	LOGTRIANGULAR(488,1102,2309)
Toluene	LOGTRIANGULAR(57,130,272)
Zinc	SINGLE(20.7)

Justification for Liner Kd Values by Species
EA 2003 and USEPA1999

Sherwood Sandstone pathway parameters

Modelled as unsaturated pathway

Pathway length (m):	TRIANGULAR(1,6,10)
Flow Model:	porous medium
Pathway moisture content (fraction):	UNIFORM(0.15,0.2)
Pathway Density (kg/l):	SINGLE(1.9)

Justification for Unsat Zone Geometry

Based on groundwater level monitoring Appendix HRA 4 and Drawing HRA 3 [CHANGED]

Pathway hydraulic conductivity values (m/s):	TRIANGULAR(1.95e-005,2.46e-005,0.0001007)

Justification for Unsat Zone Hydraulics Properties

Site investigations Appendices 1-3

Pathway longitudinal dispersivity (m):	UNIFORM(0.05,0.13)

Justification for Unsat Zone Dispersion Properties

10% of pathway length

Retardation parameters for Sherwood Sandstone pathway

Modelled as unsaturated pathway

Uncertainty in Kd (l/kg):

Ammoniacal_N	LOGUNIFORM(0.43,1.79)
Cadmium	SINGLE(240)
Chloride	SINGLE(0)
Copper	SINGLE(295)
Mercury	SINGLE(450)
Naphthalene	LOGTRIANGULAR(488,1102,2309)
Toluene	LOGTRIANGULAR(57,130,272)
Zinc	LOGTRIANGULAR(1.1,200,600)

Justification for Kd Values by Species

EA2003 and USEPA 1999

Aquifer Pathway Dimensions for Phase

Pathway length (m):	UNIFORM(1000,1200)
Pathway width (m):	SINGLE(200)

pathway parameters

No Vertical Pathway

Sherwood Sandstone pathway parameters

Modelled as aquifer pathway.

Mixing zone (m):	SINGLE(50)

Justification for Aquifer Geometry
HRA 2

Pathway regional gradient (-):	SINGLE(0.0235)
Pathway hydraulic conductivity values (m/s):	LOGTRIANGULAR(1.95e-005,2.46e-005,0.0001007)
Pathway porosity (fraction):	SINGLE(0.28)

Justification for Aquifer Hydraulics Properties
Appendices HRA1-3

Pathway longitudinal dispersivity (m):	SINGLE(60)
Pathway transverse dispersivity (m):	SINGLE(18)

Justification for Aquifer Dispersion Details
10% of pathway length and 3% transverse [CHANGED]

Retardation parameters for Sherwood Sandstone pathway
Modelled as aquifer pathway.
Uncertainty in Kd (l/kg):

Ammoniacal_N	UNIFORM(0.43,1.79)
Cadmium	LOGTRIANGULAR(3.7,74,1500)
Chloride	SINGLE(0)
Copper	SINGLE(295)
Mercury	SINGLE(450)
Naphthalene	LOGTRIANGULAR(488,1102,2309)
Toluene	LOGTRIANGULAR(57,130,272)
Zinc	LOGTRIANGULAR(1.1,200,600)

Justification for Aquifer Kd Values by Species
EA 2003 and USEPA 1999

Pathway Density (kg/l):	SINGLE(1.9)

Phase: Phase 1

Concentration of Ammoniacal_N at Phase Monitor Well [mg/l]

At 30 years

01% of values less than 0.06
05% of values less than 0.06
10% of values less than 0.06
50% of values less than 0.06
90% of values less than 0.06
95% of values less than 0.06
99% of values less than 0.06

Minimum 0.06	Maximum 0.0600001	
Mean 0.06	Std. Dev. 4.90689E-009	Variance 2.40775E-017

At 100 years

01% of values less than 0.06
05% of values less than 0.06
10% of values less than 0.06
50% of values less than 0.0600002
90% of values less than 0.0600026
95% of values less than 0.0600053
99% of values less than 0.0600132

Minimum 0.06	Maximum 0.0600708	
Mean 0.0600011	Std. Dev. 3.48575E-006	Variance 1.21505E-011

At 300 years

01% of values less than 0.06
05% of values less than 0.06
10% of values less than 0.06
50% of values less than 0.06
90% of values less than 0.06
95% of values less than 0.0600002
99% of values less than 0.0600036

Minimum 0.06	Maximum 0.0600151	
Mean 0.0600001	Std. Dev. 9.54041E-007	Variance 9.10194E-013

At 1000 years

01% of values less than 0.06
05% of values less than 0.06
10% of values less than 0.06
50% of values less than 0.06
90% of values less than 0.06
95% of values less than 0.06
99% of values less than 0.0600013

Minimum 0.06	Maximum 0.0600089	
Mean 0.06	Std. Dev. 4.33632E-007	Variance 1.88037E-013

Phase: Phase 1

Concentration of Ammoniacal_N at Phase Monitor Well [mg/l]

At infinity

01% of values less than 0.06
05% of values less than 0.06
10% of values less than 0.06
50% of values less than 0.06
90% of values less than 0.06
95% of values less than 0.06
99% of values less than 0.0600005

Minimum 0.06	Maximum 0.0600039	
Mean 0.06	Std. Dev. 2.05339E-007	Variance 4.21643E-014

Phase: Phase 1

Concentration of Cadmium at Phase Monitor Well [mg/l]

At 30 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

At 100 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

At 300 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

At 1000 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

Phase: Phase 1

Concentration of Cadmium at Phase Monitor Well [mg/l]

At infinity

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

Phase: Phase 1

Concentration of Chloride at Phase Monitor Well [mg/l]

At 30 years

01% of values less than 29.4886
05% of values less than 29.8407
10% of values less than 30.1119
50% of values less than 31.3918
90% of values less than 32.822
95% of values less than 33.5044
99% of values less than 34.7555

Minimum 29.1263	Maximum 36.7727	
Mean 31.441	Std. Dev. 1.11655	Variance 1.24668

At 100 years

01% of values less than 29.3903
05% of values less than 29.7215
10% of values less than 29.9277
50% of values less than 31.1186
90% of values less than 32.2309
95% of values less than 32.7289
99% of values less than 33.5411

Minimum 29.1073	Maximum 34.5726	
Mean 31.099	Std. Dev. 0.919865	Variance 0.846152

At 300 years

01% of values less than 29.2846
05% of values less than 29.5132
10% of values less than 29.6896
50% of values less than 30.7891
90% of values less than 31.7896
95% of values less than 32.0228
99% of values less than 32.6371

Minimum 29.0854	Maximum 33.367	
Mean 30.7639	Std. Dev. 0.797449	Variance 0.635925

At 1000 years

01% of values less than 29.0978
05% of values less than 29.2036
10% of values less than 29.3432
50% of values less than 30.3453
90% of values less than 31.2965
95% of values less than 31.4152
99% of values less than 31.5987

Minimum 29.0486	Maximum 32.2481	
Mean 30.3425	Std. Dev. 0.716803	Variance 0.513807

Phase: Phase 1

Concentration of Chloride at Phase Monitor Well [mg/l]

At infinity

01% of values less than 29.0168
05% of values less than 29.1145
10% of values less than 29.2317
50% of values less than 30.2306
90% of values less than 31.1907
95% of values less than 31.3204
99% of values less than 31.3864

Minimum 29.0001	Maximum 31.3959	
Mean 30.221	Std. Dev. 0.701406	Variance 0.491971

Phase: Phase 1

Concentration of Copper at Phase Monitor Well [mg/l]

At 30 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

At 100 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

At 300 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

At 1000 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

Phase: Phase 1

Concentration of Copper at Phase Monitor Well [mg/l]

At infinity

01% of values less than 0

05% of values less than 0

10% of values less than 0

50% of values less than 0

90% of values less than 0

95% of values less than 0

99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

Phase: Phase 1

Concentration of Mercury at Phase Monitor Well [mg/l]

At 30 years

01% of values less than 5.17396E-005
05% of values less than 6.03909E-005
10% of values less than 7.02368E-005
50% of values less than 0.000147989
90% of values less than 0.000219549
95% of values less than 0.000228954
99% of values less than 0.000238243

Minimum 5.01392E-005	Maximum 0.000239936	
Mean 0.000146638	Std. Dev. 5.41572E-005	Variance 2.933E-009

At 100 years

01% of values less than 5.17396E-005
05% of values less than 6.03909E-005
10% of values less than 7.02368E-005
50% of values less than 0.000147989
90% of values less than 0.000219549
95% of values less than 0.000228954
99% of values less than 0.000238243

Minimum 5.01392E-005	Maximum 0.000239936	
Mean 0.000146638	Std. Dev. 5.41572E-005	Variance 2.933E-009

At 300 years

01% of values less than 5.17396E-005
05% of values less than 6.03909E-005
10% of values less than 7.02368E-005
50% of values less than 0.000147989
90% of values less than 0.000219549
95% of values less than 0.000228954
99% of values less than 0.000238243

Minimum 5.01392E-005	Maximum 0.000239936	
Mean 0.000146638	Std. Dev. 5.41572E-005	Variance 2.933E-009

At 1000 years

01% of values less than 5.17396E-005
05% of values less than 6.03909E-005
10% of values less than 7.02368E-005
50% of values less than 0.000147989
90% of values less than 0.000219549
95% of values less than 0.000228954
99% of values less than 0.000238243

Minimum 5.01392E-005	Maximum 0.000239936	
Mean 0.000146638	Std. Dev. 5.41572E-005	Variance 2.933E-009

Phase: Phase 1

Concentration of Mercury at Phase Monitor Well [mg/l]

At infinity

01% of values less than 5.2504E-005
05% of values less than 6.11127E-005
10% of values less than 7.06913E-005
50% of values less than 0.000148746
90% of values less than 0.000219827
95% of values less than 0.000230317
99% of values less than 0.000239185

Minimum 5.0145E-005	Maximum 0.000243193	
Mean 0.000147391	Std. Dev. 5.41723E-005	Variance 2.93464E-009

Phase: Phase 1

Concentration of Naphthalene at Phase Monitor Well [mg/l]

At 30 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

At 100 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

At 300 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

At 1000 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

Phase: Phase 1

Concentration of Naphthalene at Phase Monitor Well [mg/l]

At infinity

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

Phase: Phase 1

Concentration of Toluene at Phase Monitor Well [mg/l]

At 30 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

At 100 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

At 300 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

At 1000 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

Phase: Phase 1

Concentration of Toluene at Phase Monitor Well [mg/l]

At infinity

01% of values less than 0

05% of values less than 0

10% of values less than 0

50% of values less than 0

90% of values less than 0

95% of values less than 0

99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

Phase: Phase 1

Concentration of Zinc at Phase Monitor Well [mg/l]

At 30 years

01% of values less than 0.0314495
05% of values less than 0.0351241
10% of values less than 0.0405148
50% of values less than 0.0903446
90% of values less than 0.134053
95% of values less than 0.138946
99% of values less than 0.144073

Minimum 0.0300386	Maximum 0.144825	
Mean 0.0883738	Std. Dev. 0.0337989	Variance 0.00114236

At 100 years

01% of values less than 0.0314495
05% of values less than 0.0351241
10% of values less than 0.0405148
50% of values less than 0.0903446
90% of values less than 0.134053
95% of values less than 0.138946
99% of values less than 0.144073

Minimum 0.0300386	Maximum 0.144825	
Mean 0.0883738	Std. Dev. 0.0337989	Variance 0.00114236

At 300 years

01% of values less than 0.0314495
05% of values less than 0.0351241
10% of values less than 0.040564
50% of values less than 0.0905411
90% of values less than 0.134053
95% of values less than 0.138999
99% of values less than 0.144137

Minimum 0.0300386	Maximum 0.144827	
Mean 0.0884356	Std. Dev. 0.0338147	Variance 0.00114343

At 1000 years

01% of values less than 0.031646
05% of values less than 0.0368262
10% of values less than 0.0413993
50% of values less than 0.0931022
90% of values less than 0.136254
95% of values less than 0.140581
99% of values less than 0.147081

Minimum 0.0300386	Maximum 0.154485	
Mean 0.0903748	Std. Dev. 0.0341292	Variance 0.0011648

Phase: Phase 1

Concentration of Zinc at Phase Monitor Well [mg/l]

At infinity

01% of values less than 0.0314646
05% of values less than 0.0351245
10% of values less than 0.0405796
50% of values less than 0.0903446
90% of values less than 0.134053
95% of values less than 0.138946
99% of values less than 0.144074

Minimum 0.0300386	Maximum 0.144914	
Mean 0.0884059	Std. Dev. 0.0337949	Variance 0.0011421

Project: Wodcote Quarry Landfill

Project Number: Risk 0060

Customer: CWoodcote Quarry Landfill

Write Project Notes Here

Phase: Phase 1

Approx. time to Peak Conc. Ammoniacal_N at Base of Unsaturated Zone [years]

01% of values less than 57
05% of values less than 57
10% of values less than 64
50% of values less than 70
90% of values less than 105
95% of values less than 128
99% of values less than 210

Minimum 52	Maximum 1000	
Mean 79.3207	Std. Dev. 40.313	Variance 1625.14

Approx. time to Peak Conc. Cadmium at Base of Unsaturated Zone [years]

01% of values less than 6094
05% of values less than 7428
10% of values less than 7428
50% of values less than 11039
90% of values less than 13458
95% of values less than 16406
99% of values less than 20000

Minimum 4999	Maximum 20000	
Mean 10948.6	Std. Dev. 2937.9	Variance 8.63128E+006

Approx. time to Peak Conc. Chloride at Base of Unsaturated Zone [years]

01% of values less than 19
05% of values less than 19
10% of values less than 19
50% of values less than 19
90% of values less than 19
95% of values less than 19
99% of values less than 19

Minimum 19	Maximum 39	
Mean 19.05	Std. Dev. 0.73178	Variance 0.535502

Approx. time to Peak Conc. Copper at Base of Unsaturated Zone [years]

01% of values less than 4999
05% of values less than 6094
10% of values less than 6728
50% of values less than 9999
90% of values less than 14859
95% of values less than 18114
99% of values less than 20000

Minimum 4100	Maximum 20000	
Mean 10603.2	Std. Dev. 3254.85	Variance 1.0594E+007

Approx. time to Peak Conc. Mercury at Base of Unsaturated Zone [years]

01% of values less than 0
05% of values less than 20000
10% of values less than 20000
50% of values less than 20000
90% of values less than 20000
95% of values less than 20000

Project: Wodcote Quarry Landfill

Project Number: Risk 0060

Customer: CWoodcote Quarry Landfill

Write Project Notes Here

Phase: Phase 1

Approx. time to Peak Conc. Mercury at Base of Unsaturated Zone [years]

01% of values less than 0
05% of values less than 20000
10% of values less than 20000
50% of values less than 20000
90% of values less than 20000
95% of values less than 20000
99% of values less than 20000

Minimum 0	Maximum 20000	
Mean 19600.4	Std. Dev. 2800.03	Variance 7.84016E+006

Approx. time to Peak Conc. Naphthalene at Base of Unsaturated Zone [years]

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

Approx. time to Peak Conc. Toluene at Base of Unsaturated Zone [years]

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

Approx. time to Peak Conc. Zinc at Base of Unsaturated Zone [years]

01% of values less than 624
05% of values less than 624
10% of values less than 624
50% of values less than 1681
90% of values less than 8202
95% of values less than 9999
99% of values less than 16406

Minimum 624	Maximum 20000	
Mean 3411.53	Std. Dev. 3449.9	Variance 1.19018E+007

Approx. time to Peak Conc. Ammoniacal_N at Offsite Compliance Point [years]

01% of values less than 86
05% of values less than 95
10% of values less than 100
50% of values less than 128
90% of values less than 172
95% of values less than 210
99% of values less than 2050

Minimum 78	Maximum 2050	
Mean 177.456	Std. Dev. 301.453	Variance 90874.2

Approx. time to Peak Conc. Cadmium at Offsite Compliance Point [years]

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

Approx. time to Peak Conc. Chloride at Offsite Compliance Point [years]

01% of values less than 19
05% of values less than 21
10% of values less than 23
50% of values less than 26
90% of values less than 30
95% of values less than 30
99% of values less than 35

Minimum 19	Maximum 47	
Mean 26.4995	Std. Dev. 3.18532	Variance 10.1462

Approx. time to Peak Conc. Copper at Offsite Compliance Point [years]

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

Approx. time to Peak Conc. Mercury at Offsite Compliance Point [years]

01% of values less than 0
05% of values less than 0
10% of values less than 20000
50% of values less than 20000
90% of values less than 20000
95% of values less than 20000
99% of values less than 20000

Minimum 0	Maximum 20000	
Mean 18161.8	Std. Dev. 5780.81	Variance 3.34178E+007

Approx. time to Peak Conc. Naphthalene at Offsite Compliance Point [years]

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

Approx. time to Peak Conc. Toluene at Offsite Compliance Point [years]

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

Approx. time to Peak Conc. Zinc at Offsite Compliance Point [years]

01% of values less than 1024
05% of values less than 1523
10% of values less than 1856
50% of values less than 5519
90% of values less than 14859
95% of values less than 20000
99% of values less than 20000

Minimum 761	Maximum 20000	
Mean 7162.91	Std. Dev. 5319.31	Variance 2.8295E+007

Phase: Phase 1

Approx. time to Peak Conc. Ammoniacal_N at Phase Monitor Well [years]

01% of values less than 64
05% of values less than 64
10% of values less than 70
50% of values less than 78
90% of values less than 116
95% of values less than 141
99% of values less than 256

Minimum 64	Maximum 2050	
Mean 91.7263	Std. Dev. 93.134	Variance 8673.95

Approx. time to Peak Conc. Cadmium at Phase Monitor Well [years]

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

Approx. time to Peak Conc. Chloride at Phase Monitor Well [years]

01% of values less than 13
05% of values less than 21
10% of values less than 21
50% of values less than 21
90% of values less than 21
95% of values less than 21
99% of values less than 23

Minimum 13	Maximum 43	
Mean 20.964	Std. Dev. 1.19445	Variance 1.42671

Approx. time to Peak Conc. Copper at Phase Monitor Well [years]

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

Phase: Phase 1

Approx. time to Peak Conc. Mercury at Phase Monitor Well [years]

01% of values less than 0
05% of values less than 20000
10% of values less than 20000
50% of values less than 20000
90% of values less than 20000
95% of values less than 20000
99% of values less than 20000

Minimum 0	Maximum 20000	
Mean 19440.6	Std. Dev. 3299.5	Variance 1.08867E+007

Approx. time to Peak Conc. Naphthalene at Phase Monitor Well [years]

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

Approx. time to Peak Conc. Toluene at Phase Monitor Well [years]

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

Approx. time to Peak Conc. Zinc at Phase Monitor Well [years]

01% of values less than 689
05% of values less than 840
10% of values less than 1024
50% of values less than 2759
90% of values less than 9056
95% of values less than 11039
99% of values less than 18114

Minimum 689	Maximum 20000	
Mean 4100.2	Std. Dev. 3672.82	Variance 1.34896E+007

Phase: Phase 1

Concentration of Ammoniacal_N at base of Unsaturated Zone [mg/l]

At 30 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 3.31333E-010
90% of values less than 8.62892E-007
95% of values less than 2.24755E-006
99% of values less than 6.77117E-006

Minimum 0	Maximum 1.73219E-005	
Mean 3.92905E-007	Std. Dev. 1.41872E-006	Variance 2.01277E-012

At 100 years

01% of values less than 0
05% of values less than 2.22671E-011
10% of values less than 1.16655E-009
50% of values less than 2.21379E-007
90% of values less than 2.96166E-005
95% of values less than 0.000116243
99% of values less than 0.000405664

Minimum 0	Maximum 0.00154447	
Mean 2.06119E-005	Std. Dev. 8.94716E-005	Variance 8.00517E-009

At 300 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 2.52941E-018
90% of values less than 3.7098E-013
95% of values less than 2.25282E-006
99% of values less than 0.000102655

Minimum 0	Maximum 0.000485882	
Mean 3.73558E-006	Std. Dev. 2.65621E-005	Variance 7.05548E-010

At 1000 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 1.22353E-016
90% of values less than 1.39062E-015
95% of values less than 7.87234E-015
99% of values less than 3.66376E-005

Minimum 0	Maximum 0.000228144	
Mean 1.24786E-006	Std. Dev. 1.24601E-005	Variance 1.55255E-010

Phase: Phase 1

Concentration of Ammoniacal_N at base of Unsaturated Zone [mg/l]

At infinity

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 7.1522E-006

Minimum 0	Maximum 5.78351E-005	
Mean 2.37282E-007	Std. Dev. 2.6717E-006	Variance 7.13799E-012

Phase: Phase 1

Concentration of Cadmium at base of Unsaturated Zone [mg/l]

At 30 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

At 100 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

At 300 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

At 1000 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

Phase: Phase 1

Concentration of Cadmium at base of Unsaturated Zone [mg/l]

At infinity

01% of values less than 9.1127E-006
05% of values less than 1.23461E-005
10% of values less than 1.57129E-005
50% of values less than 4.4459E-005
90% of values less than 0.000144203
95% of values less than 0.00024434
99% of values less than 0.000521708

Minimum 7.56208E-015	Maximum 0.00124832	
Mean 7.52318E-005	Std. Dev. 0.000104566	Variance 1.0934E-008

Phase: Phase 1

Concentration of Chloride at base of Unsaturated Zone [mg/l]

At 30 years

01% of values less than 2.29796
05% of values less than 3.5196
10% of values less than 4.90406
50% of values less than 12.8045
90% of values less than 26.8782
95% of values less than 31.3449
99% of values less than 40.0333

Minimum 0.695351	Maximum 67.1377	
Mean 14.4951	Std. Dev. 8.78826	Variance 77.2336

At 100 years

01% of values less than 1.9035
05% of values less than 2.93562
10% of values less than 4.01041
50% of values less than 10.2803
90% of values less than 21.1261
95% of values less than 24.786
99% of values less than 31.5767

Minimum 0.54425	Maximum 46.0053	
Mean 11.5827	Std. Dev. 6.7932	Variance 46.1476

At 300 years

01% of values less than 1.07454
05% of values less than 1.7262
10% of values less than 2.32191
50% of values less than 5.95268
90% of values less than 12.5361
95% of values less than 14.8956
99% of values less than 21.1109

Minimum 0.290143	Maximum 28.3362	
Mean 6.84868	Std. Dev. 4.21696	Variance 17.7827

At 1000 years

01% of values less than 0.102924
05% of values less than 0.218954
10% of values less than 0.293112
50% of values less than 0.91046
90% of values less than 2.65684
95% of values less than 4.02101
99% of values less than 8.12013

Minimum 0.0271091	Maximum 18.4742	
Mean 1.36924	Std. Dev. 1.64385	Variance 2.70226

Phase: Phase 1

Concentration of Chloride at base of Unsaturated Zone [mg/l]

At infinity

01% of values less than 6.98856E-010
05% of values less than 1.17626E-009
10% of values less than 1.62965E-009
50% of values less than 4.58602E-009
90% of values less than 1.04885E-008
95% of values less than 1.47246E-008
99% of values less than 2.12273E-005

Minimum 2.28529E-010	Maximum 0.0432081	
Mean 0.000100917	Std. Dev. 0.00182994	Variance 3.34868E-006

Phase: Phase 1

Concentration of Copper at base of Unsaturated Zone [mg/l]

At 30 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

At 100 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

At 300 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

At 1000 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 1.65312E-013	
Mean 1.65228E-016	Std. Dev. 5.225E-015	Variance 2.73007E-029

Phase: Phase 1

Concentration of Copper at base of Unsaturated Zone [mg/l]

At infinity

01% of values less than 2.95442E-005
05% of values less than 3.65108E-005
10% of values less than 4.30722E-005
50% of values less than 0.000133089
90% of values less than 0.000964246
95% of values less than 0.00310202
99% of values less than 0.00837889

Minimum 3.44975E-016	Maximum 0.0217406	
Mean 0.000613379	Std. Dev. 0.00170327	Variance 2.90114E-006

Phase: Phase 1

Concentration of Mercury at base of Unsaturated Zone [mg/l]

At 30 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

At 100 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

At 300 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

At 1000 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

Phase: Phase 1

Concentration of Mercury at base of Unsaturated Zone [mg/l]

At infinity

01% of values less than 0
05% of values less than 2.59922E-012
10% of values less than 8.12169E-009
50% of values less than 2.17027E-006
90% of values less than 1.20297E-005
95% of values less than 1.47953E-005
99% of values less than 1.99994E-005

Minimum 0	Maximum 2.92516E-005	
Mean 4.18327E-006	Std. Dev. 5.06234E-006	Variance 2.56273E-011

Phase: Phase 1

Concentration of Naphthalene at base of Unsaturated Zone [mg/l]

At 30 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

At 100 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

At 300 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

At 1000 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

Phase: Phase 1

Concentration of Naphthalene at base of Unsaturated Zone [mg/l]

At infinity

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

Phase: Phase 1

Concentration of Toluene at base of Unsaturated Zone [mg/l]

At 30 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

At 100 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

At 300 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

At 1000 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

Phase: Phase 1

Concentration of Toluene at base of Unsaturated Zone [mg/l]

At infinity

01% of values less than 0

05% of values less than 0

10% of values less than 0

50% of values less than 0

90% of values less than 0

95% of values less than 0

99% of values less than 0

Minimum 0	Maximum 0	
Mean 0	Std. Dev. 0	Variance 0

Phase: Phase 1

Concentration of Zinc at base of Unsaturated Zone [mg/l]

At 30 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0
95% of values less than 0
99% of values less than 4.21463E-017

Minimum 0	Maximum 1.39517E-014	
Mean 2.89653E-017	Std. Dev. 5.32978E-016	Variance 2.84065E-031

At 100 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 5.78751E-013
95% of values less than 2.72942E-009
99% of values less than 3.65577E-006

Minimum 0	Maximum 6.06303E-005	
Mean 2.55084E-007	Std. Dev. 2.74813E-006	Variance 7.55219E-012

At 300 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 0
90% of values less than 0.0183852
95% of values less than 0.0583438
99% of values less than 0.103346

Minimum 0	Maximum 0.148932	
Mean 0.00659485	Std. Dev. 0.0206536	Variance 0.000426569

At 1000 years

01% of values less than 0
05% of values less than 0
10% of values less than 0
50% of values less than 2.5494E-005
90% of values less than 0.151503
95% of values less than 0.188352
99% of values less than 0.23301

Minimum 0	Maximum 0.304327	
Mean 0.0489579	Std. Dev. 0.0675776	Variance 0.00456673

Phase: Phase 1

Concentration of Zinc at base of Unsaturated Zone [mg/l]

At infinity

01% of values less than 2.2595E-009
05% of values less than 2.89554E-009
10% of values less than 3.38261E-009
50% of values less than 6.15572E-009
90% of values less than 1.33522E-006
95% of values less than 3.00973E-005
99% of values less than 0.00417548

Minimum 1.67048E-009	Maximum 0.01857	
Mean 0.000121466	Std. Dev. 0.00103824	Variance 1.07794E-006