

ATTACHMENT D4
RISK SUMMARIES

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Table D4.1. Summary of Risk Characterization for SWMU 1, EU 1

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI	
Current Industrial Worker - surface	1.64E-05	Beryllium	94.8	Ingestion	2.2	<0.1	*no COCs				
				Inhalation	0.3						
Future Industrial Worker - surface	2.93E-04	Beryllium Cesium-137 Neptunium-237 Thorium-230 Uranium-238	94.8 2.3 0.5 1.1 0.4	Derma	94.2	<0.1	*no COCs				
				External Exposure	3.3						
				Ingestion	2.2						
				Inhalation	0.3						
Outdoor Worker - surface	2.58E-04	Beryllium Cesium-137 Neptunium-237 PCB, Total Plutonium-239/240 Thorium-230 Uranium-238	86.8 2.0 0.5 0.4 1.5 7.8 0.7	Derma	94.2	<0.1	*no COCs				
				External Exposure	3.3						
				Ingestion	18.0						
				Inhalation	0.2						
				Derma	79.0						
				External Exposure	2.8						
				Outdoor Worker - subsurface	2.56E-04						
Inhalation	4.3										
Derma	70.7										
External Exposure	2.8										
Ingestion	0.6										
Inhalation	1.0										
Derma	96.2										

Table D4.1.1. Summary of Risk Characterization for SWMU 1, EU 1 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	3.20E-06	Beryllium	75.8	See Outdoor Worker (subsurface)	5.72	5.72	Vanadium	96.2	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	8.00E-04	Beryllium Cadmium Cesium-137 Neptunium-237 PCB, Total Plutonium-239/240 Thorium-230 Uranium-235 Uranium-238	91.4 0.2 4.3 0.9 0.3 0.3 1.5 0.2 0.7	Ingestion Inhalation Dermal External Exposure	0.16	0.16	Beryllium	95.3	Ingestion Inhalation Dermal	2.6 0.2 97.2
Future Child Resident - surface	8.00E-04	Beryllium Cadmium Cesium-137 Neptunium-237 PCB, Total Plutonium-239/240 Thorium-230 Uranium-235 Uranium-238	91.4 0.2 4.3 0.9 0.3 0.3 1.5 0.2 0.7	Ingestion Inhalation Dermal External Exposure	0.40	0.40	Beryllium	92.9	Ingestion Inhalation Dermal	9.7 0.4 89.9
Future Teen Recreational User - surface	1.96E-04	Beryllium Cesium-137	98.3 0.7	Ingestion Inhalation Dermal External Exposure	0.14	0.14	Beryllium	96.0	Ingestion Inhalation Dermal	0.4 0.1 99.5

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.2. Summary of Risk Characterization for SWMU 1, EU 2

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	4.30E-05	Beryllium PCB, Total	76.5 22.4	Ingestion	2.3	1.37	Vanadium	94.5	Ingestion	1.1
				Inhalation	2.5				Inhalation	0.0
				Derma External Exposure	95.2				Derma External Exposure	98.9
Future Industrial Worker - surface	7.67E-04	Beryllium Cadmium Chromium PCB, Total	76.5 0.3 0.9 22.4	Ingestion	2.3	24.51	Beryllium Mercury Nickel Silver Vanadium	0.8 2.7 0.5 1.3 94.5	Ingestion	1.1
				Inhalation	2.5				Inhalation	0.0
				Derma External Exposure	95.2				Derma External Exposure	98.9
Outdoor Worker - surface	6.82E-04	Beryllium Cadmium Chromium PCB, Total	69.5 0.6 0.7 29.1	Ingestion	18.6	19.84	Beryllium Mercury Nickel Silver Vanadium	0.8 2.8 0.5 1.3 94.2	Ingestion	9.6
				Inhalation	2.1				Inhalation	0.0
				Derma External Exposure	79.3				Derma External Exposure	90.4
Outdoor Worker - subsurface	1.47E-03	Arsenic Beryllium Cadmium Chromium PCB, Total Trichloroethene Vinyl chloride	1.3 19.8 0.2 0.2 6.2 71.0 1.3	Ingestion	7.5	63.55	Arsenic cis-1,2-Dichloroeth Mercury Silver Trichloroethene Vanadium	0.2 64.8 1.0 0.9 5.2 27.1	Ingestion	10.8
				Inhalation	65.8				Inhalation	43.5
				Derma External Exposure	26.7				Derma External Exposure	45.7

Table D4.2. Summary of Risk Characterization for SWMU 1, EU 2 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	1.84E-05	Beryllium PCB, Total Trichloroethene	19.8 6.2 71.0	See Outdoor Worker (subsurface)	19.86	19.86	cis-1,2-Dichloroeth Mercury Silver Trichloroethene Vanadium	64.8 1.0 0.9 5.2 27.1	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	2.07E-03	Beryllium Cadmium Chromium PCB, Total	74.6 0.4 0.6 24.4	Ingestion Inhalation Dermal External Exposure	41.90	41.90	Beryllium Mercury Nickel Silver Vanadium	0.8 2.7 0.5 1.3 94.4	Ingestion Inhalation Dermal	1.8 0.0 98.2
Future Child Resident - surface	2.07E-03	Beryllium Cadmium Chromium PCB, Total	74.6 0.4 0.6 24.4	Ingestion Inhalation Dermal External Exposure	101.33	101.33	Beryllium Cadmium Mercury Nickel Silver Thallium Vanadium	0.8 0.1 2.7 0.5 1.3 0.1 94.3	Ingestion Inhalation Dermal	6.9 0.0 93.1
Future Teen Recreational User - surface	5.17E-04	Beryllium Cadmium Chromium PCB, Total	78.7 0.2 0.2 20.8	Ingestion Inhalation Dermal External Exposure	35.36	35.36	Beryllium Mercury Nickel Silver Vanadium	0.8 2.7 0.5 1.3 94.5	Ingestion Inhalation Dermal	0.3 0.0 99.7

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.3. Summary of Risk Characterization for SWMU 1, EU 3

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	2.65E-06	PCB, Total Uranium-238	43.6	Ingestion	7.1	<0.1	*no COCs			
			38.3	Inhalation Dermal External Exposure	21.3 37.6 33.9					
Outdoor Worker - surface	3.17E-06	PCB, Total Uranium-238	42.2	Ingestion	42.5	<0.1	*no COCs			
			46.6	Inhalation Dermal External Exposure	13.2 23.3 21.0					
Outdoor Worker - subsurface	2.00E-05	Arsenic Cadmium PCB, Total Uranium-238	75.3	Ingestion	72.6	0.21	*no COCs			
			10.9	Inhalation Dermal External Exposure	0.4 23.7 3.3					

Table D4.3. Summary of Risk Characterization for SWMU 1, EU 3 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	9.33E-06	PCB, Total Uranium-238	36.4 53.6	Ingestion Inhalation Dermal External Exposure	<0.1	*no COCs			
Future Child Resident - surface	9.33E-06	PCB, Total Uranium-238	36.4 53.6	Ingestion Inhalation Dermal External Exposure	<0.1	*no COCs			
Future Teen Recreational User - surface	1.02E-06	*no COCs			<0.1	*no COCs			

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.4. Summary of Risk Characterization for SWMU 1, EU 4

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	3.20E-06	Beryllium	90.6	Ingestion	1.6	<0.1	*no COCs			
			5.5	Inhalation	5.5					
			90.7	Dermal	90.7					
			2.2	External Exposure	2.2					
Future Industrial Worker - surface	5.71E-05	Beryllium Chromium Cobalt-60	90.6	Ingestion	1.6	0.14	Nickel	79.7	Ingestion Inhalation Dermal	1.0 0.4 98.6
			5.4	Inhalation	5.5					
			2.2	Dermal	90.7					
				External Exposure	2.2					
Outdoor Worker - surface	4.80E-05	Beryllium Chromium Thorium-230	86.9	Ingestion	13.4	0.11	*no COCs			
			4.7	Inhalation	4.9					
			4.8	Dermal	79.7					
				External Exposure	1.9					
Outdoor Worker - subsurface	5.62E-05	Beryllium Cadmium Cesium-137 Chromium Thorium-230 Trichloroethene	77.1	Ingestion	13.5	15.48	Vanadium	99.4	Ingestion Inhalation Dermal	9.3 0.0 90.7
			2.4	Inhalation	8.2					
			5.2	Dermal	71.5					
			3.1	External Exposure	6.8					
			4.1							
5.5										

Table D4.4. Summary of Risk Characterization for SWMU 1, EU 4 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	4.84	Vanadium	99.4	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	1.52E-04	Beryllium	89.6	Ingestion	0.23	Nickel	79.7	Ingestion	1.6
		Chromium	3.9	Inhalation				Inhalation	0.2
		Cobalt-60	4.1	Dermal				Dermal	98.1
		PCB, Total	1.3	External Exposure					
		Thorium-230	0.9						
Future Child Resident - surface	1.52E-04	Beryllium	89.6	Ingestion	0.57	Nickel	80.0	Ingestion	6.3
		Chromium	3.9	Inhalation				Inhalation	0.5
		Cobalt-60	4.1	Dermal				Dermal	93.3
		PCB, Total	1.3	External Exposure					
		Thorium-230	0.9						
Future Teen Recreational User - surface	3.71E-05	Beryllium	96.5	Ingestion	0.20	Nickel	79.6	Ingestion	0.3
				Inhalation				Inhalation	0.1
				Dermal				Dermal	99.6
				External Exposure					

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.5. Summary of Risk Characterization for SWMU 1, EU 5

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	3.34E-05	Beryllium	99.4	Ingestion Inhalation Dermal External Exposure	1.1 0.0 98.9	<0.1	*no COCs			
Future Industrial Worker - surface	5.96E-04	Beryllium PCB, Total Total PAH	99.4 0.2 0.3	Ingestion Inhalation Dermal External Exposure	1.1 0.0 98.9	0.29	Beryllium	66.4	Ingestion Inhalation Dermal	1.2 0.4 98.4
Outdoor Worker - surface	4.82E-04	Beryllium PCB, Total Total PAH	99.1 0.3 0.4	Ingestion Inhalation Dermal External Exposure	9.6 0.0 90.4	0.24	Beryllium	65.4	Ingestion Inhalation Dermal	10.8 0.3 88.9
Outdoor Worker - subsurface	5.24E-04	Arsenic Beryllium Cadmium PCB, Total Total PAH	7.7 91.2 0.4 0.3 0.4	Ingestion Inhalation Dermal External Exposure	15.0 0.0 85.0	0.95	Arsenic Beryllium Cobalt Manganese	26.4 16.4 26.1 11.6	Ingestion Inhalation Dermal	51.5 4.4 44.1

Table D4.5. Summary of Risk Characterization for SWMU 1, EU 5 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	6.55E-06	Beryllium	91.2	See Outdoor Worker (subsurface)	0.30	0.30			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	1.57E-03	Beryllium Cadmium PCB, Total Total PAH	99.3 0.1 0.3 0.3	Ingestion Inhalation Dermal External Exposure	3.7 0.0 96.3	0.50	Beryllium Nickel	66.3 32.6	Ingestion Inhalation Dermal	2.0 0.2 97.8
Future Child Resident - surface	1.57E-03	Beryllium Cadmium PCB, Total Total PAH	99.3 0.1 0.3 0.3	Ingestion Inhalation Dermal External Exposure	3.7 0.0 96.3	1.21	Beryllium Nickel	65.7 32.3	Ingestion Inhalation Dermal	7.8 0.4 91.8
Future Teen Recreational User - surface	4.12E-04	Beryllium Total PAH	99.5 0.3	Ingestion Inhalation Dermal External Exposure	0.3 0.0 99.7	0.42	Beryllium Nickel	66.5 32.6	Ingestion Inhalation Dermal	0.3 0.1 99.6

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.6. Summary of Risk Characterization for SWMU 99

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	3.06E-06	Chromium	59.6	Ingestion	2.0	1.33	Mercury Nickel	79.9	Ingestion	1.4
				Inhalation	59.9			12.4	Inhalation	0.1
				Dermal					Dermal	98.6
Outdoor Worker - surface	2.66E-06	Chromium	50.8	Ingestion	16.6	1.10	Mercury Nickel	80.4	Ingestion	11.8
				Inhalation	51.0			12.1	Inhalation	0.1
				Dermal					Dermal	88.1
Outdoor Worker - subsurface	6.84E-05	Arsenic Beryllium Chromium	35.0 60.8 2.3	Ingestion	33.3	1.43	Arsenic Mercury Nickel	10.5	Ingestion	22.8
				Inhalation	2.3			61.7	Inhalation	1.0
				Dermal	63.1			11.2	Dermal	76.2
				External Exposure	1.3					

Table D4.6. Summary of Risk Characterization for SWMU 99 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.45	Mercury	61.7	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	9.69E-06	Chromium Cobalt-60 Uranium-238	36.6 35.1 28.2	Ingestion Inhalation Dermal External Exposure	2.27	Mercury Nickel Silver	80.0 12.3 7.2	Ingestion Inhalation Dermal	2.3 0.0 97.7
Future Child Resident - surface	9.69E-06	Chromium Cobalt-60 Uranium-238	36.6 35.1 28.2	Ingestion Inhalation Dermal External Exposure	5.57	Mercury Nickel Silver	80.3 12.2 7.1	Ingestion Inhalation Dermal	8.6 0.1 91.3
Future Teen Recreational User - surface	<1E-6	*no COCs			1.91	Mercury Nickel Silver	79.9 12.4 7.2	Ingestion Inhalation Dermal	0.4 0.0 99.6

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.7. Summary of Risk Characterization for SWMU 99, Pipeline Borings

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface		*no COCs					*no COCs			
Future Industrial Worker - surface		*no COCs					*no COCs			
Outdoor Worker - surface		*no COCs					*no COCs			
Outdoor Worker - subsurface	1.12E-06	Chromium	100.0	Ingestion Inhalation Dermal External Exposure	100.0	<0.1	*no COCs			

Table D4.7. Summary of Risk Characterization for SWMU 99, Pipeline Borings (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface		*no COCs				*no COCs			
Future Child Resident - surface		*no COCs				*no COCs			
Future Teen Recreational User - surface		*no COCs				*no COCs			

There are no surface data available for assessment.
 Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.8. Summary of Risk Characterization for SWMU 194, EU 1

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	1.29E-06	Chromium	99.5	Ingestion Inhalation Dermal External Exposure	100.0	1.05	Mercury Nickel Silver	71.2 13.0 9.7	Ingestion Inhalation Dermal	1.5 0.1 98.5
Outdoor Worker - surface	<1E-6	*no COCs				0.87	Mercury Nickel	71.2 12.6	Ingestion Inhalation Dermal	12.4 0.1 87.5
Outdoor Worker - subsurface	6.01E-05	Arsenic Beryllium Chromium	40.8 57.1 2.1	Ingestion Inhalation Dermal External Exposure	36.8 2.1 61.0	21.14	Arsenic Mercury Nickel Vanadium	0.7 2.9 0.5 94.9	Ingestion Inhalation Dermal	10.0 0.1 90.0

Table D4.8. Summary of Risk Characterization for SWMU 194, EU 1 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)		6.61	Mercury Vanadium	2.9 94.9	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	2.50E-06	Chromium	99.5	Ingestion Inhalation Dermal External Exposure	100.0	1.80	Antimony Mercury Nickel Silver	5.7 71.2 13.0 9.7	Ingestion Inhalation Dermal	2.4 0.0 97.6
Future Child Resident - surface	2.50E-06	Chromium	99.5	Ingestion Inhalation Dermal External Exposure	100.0	4.42	Antimony Mercury Nickel Silver	6.1 71.2 12.8 9.5	Ingestion Inhalation Dermal	9.0 0.1 90.9
Future Teen Recreational User - surface	<1E-6	*no COCs				1.51	Mercury Nickel Silver	71.2 13.0 9.7	Ingestion Inhalation Dermal	0.4 0.0 99.6

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.9. Summary of Risk Characterization for SWMU 194, EU 2

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	2.81E-06	Chromium	70.3	Ingestion	3.3	0.15	Silver	81.2	Ingestion	3.3
				Inhalation	70.4				Inhalation	0.1
				Derma	26.3				Derma	96.6
Outdoor Worker - surface	2.67E-06	Chromium Uranium-238	54.7	Ingestion	24.8	0.14	*no COCs			
			45.3	Inhalation	54.8					
				Derma	20.5					
Outdoor Worker - subsurface	6.71E-05	Arsenic Beryllium Chromium Uranium-238	36.6	Ingestion	34.6	20.03	Arsenic Mercury Silver Vanadium	0.8 3.2 0.5 94.9	Ingestion	10.1
			59.7	Inhalation	2.2				Inhalation	0.1
			2.2	Derma	62.4				Derma	89.8
			1.6	External Exposure	0.7					

Table D4.9. Summary of Risk Characterization for SWMU 194, EU 2 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)		6.26	Mercury Vanadium	3.2 94.9	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	7.94E-06	Chromium Uranium-238	48.3 51.7	Ingestion Inhalation Dermal External Exposure	4.7 48.3 46.9	0.26	Silver	80.0	Ingestion Inhalation Dermal	5.4 0.0 94.6
Future Child Resident - surface	7.94E-06	Chromium Uranium-238	48.3 51.7	Ingestion Inhalation Dermal External Exposure	4.7 48.3 46.9	0.70	Silver Uranium	72.3 23.7	Ingestion Inhalation Dermal	18.8 0.1 81.1
Future Teen Recreational User - surface	<1E-6	*no COCs				0.21	Silver	82.6	Ingestion Inhalation Dermal	0.9 0.0 99.1

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.10. Summary of Risk Characterization for SWMU 194, EU 3

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1		*no COCs		
Future Industrial Worker - surface	1.74E-05	Arsenic Chromium	84.4	Ingestion	22.8	0.27	Nickel	54.6	Ingestion	9.6
			7.4	Inhalation	7.6				Inhalation	0.7
				Derma External Exposure	65.7 3.8				Derma External Exposure	89.7
Outdoor Worker - surface	3.81E-05	Arsenic Uranium-238	92.5	Ingestion	74.0	0.37	Arsenic Nickel	59.5 32.6	Ingestion	50.5
			2.9	Inhalation	2.6				Inhalation	0.4
				Derma External Exposure	22.2 1.3				Derma External Exposure	49.1
Outdoor Worker - subsurface	3.97E-05	Arsenic Cesium-137 Chromium	87.5	Ingestion	69.8	0.36	Arsenic Nickel	59.9 32.9	Ingestion	50.6
			5.1	Inhalation	3.1				Inhalation	0.4
			3.1	Derma External Exposure	20.8 6.2				Derma External Exposure	49.0

Table D4.10. Summary of Risk Characterization for SWMU 194, EU 3 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.11			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	7.04E-05	Arsenic	88.3	Ingestion	0.49	Arsenic	37.0	Ingestion	15.0
		Chromium	3.6	Inhalation		Nickel		51.8	
		Total PAH	2.9	Derma					
		Uranium-238	5.3	External Exposure					
Future Child Resident - surface	7.04E-05	Arsenic	88.3	Ingestion	1.65	Antimony	7.6	Ingestion	41.6
		Chromium	3.6	Inhalation		Arsenic		53.9	
		Total PAH	2.9	Derma		Nickel		37.4	
		Uranium-238	5.3	External Exposure					
Future Teen Recreational User - surface	9.08E-06	Arsenic	90.9	Ingestion	0.37	Arsenic	29.2	Ingestion	2.7
				Inhalation		Nickel		58.5	
				Derma					
				External Exposure					

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.11. Summary of Risk Characterization for SWMU 194, EU 4

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	3.86E-06	Chromium	41.6	Ingestion	5.4	1.27	Mercury	78.2	Ingestion	1.4
		Total PAH	31.9	Inhalation	41.9		Nickel	12.7	Inhalation	0.1
		Uranium-238	26.3	Derma External Exposure	29.5 23.3		Silver	8.6	Derma	98.6
Outdoor Worker - surface	4.17E-06	Chromium	28.5	Ingestion	35.2	1.05	Mercury	78.8	Ingestion	11.8
		Total PAH	36.1	Inhalation	28.7		Nickel	12.4	Inhalation	0.1
		Uranium-238	35.4	Derma External Exposure	20.2 16.0				Derma	88.2
Outdoor Worker - subsurface	6.25E-05	Arsenic	39.4	Ingestion	36.7	17.89	Arsenic	0.9	Ingestion	10.6
		Beryllium	54.0	Inhalation	2.2		Iron	0.8	Inhalation	0.1
		Cesium-137	2.0	Derma	58.5		Mercury	4.6	Derma	89.3
		Chromium	2.2	External Exposure	2.6		Nickel	0.9		
									Vanadium	91.9

Table D4.11. Summary of Risk Characterization for SWMU 194, EU 4 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)		5.59	Mercury Vanadium	4.6 91.9	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	1.19E-05	Chromium Total PAH Uranium-238	26.2 31.6 42.1	Ingestion Inhalation Dermal External Exposure	10.9 26.4 24.5 38.2	2.17	Mercury Nickel Silver	78.3 12.7 8.6	Ingestion Inhalation Dermal	2.2 0.0 97.7
Future Child Resident - surface	1.19E-05	Chromium Total PAH Uranium-238	26.2 31.6 42.1	Ingestion Inhalation Dermal External Exposure	10.9 26.4 24.5 38.2	5.32	Mercury Nickel Silver	78.6 12.5 8.5	Ingestion Inhalation Dermal	8.5 0.1 91.4
Future Teen Recreational User - surface	1.31E-06	*no COCs				1.82	Mercury Nickel Silver	78.2 12.7 8.7	Ingestion Inhalation Dermal	0.4 0.0 99.6

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.12. Summary of Risk Characterization for SWMU 194, EU 5

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	2.74E-06	Chromium	55.5	Ingestion Inhalation Dermal External Exposure	4.4 55.9 13.5 26.2	1.26	Mercury Nickel Silver	76.5 14.0 9.2	Ingestion Inhalation Dermal	1.4 0.1 98.6
Outdoor Worker - surface	2.79E-06	Chromium Uranium-238	40.2 42.1	Ingestion Inhalation Dermal External Exposure	30.7 40.5 9.8 19.0	1.04	Mercury Nickel	77.1 13.6	Ingestion Inhalation Dermal	11.7 0.1 88.2
Outdoor Worker - subsurface	7.10E-05	Arsenic Beryllium Chromium Total PAH	32.9 50.7 1.9 13.1	Ingestion Inhalation Dermal External Exposure	36.6 2.0 60.8 0.6	18.42	Arsenic Mercury Nickel Vanadium	0.8 4.4 0.8 92.8	Ingestion Inhalation Dermal	10.2 0.1 89.6

Table D4.12. Summary of Risk Characterization for SWMU 194, EU 5 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)		5.76	Mercury Vanadium	4.4 92.8	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	8.17E-06	Chromium Total PAH Uranium-238	36.1 14.9 48.8	Ingestion Inhalation Dermal External Exposure	7.8 36.3 11.6 44.3	2.16	Mercury Nickel Silver	76.5 13.9 9.1	Ingestion Inhalation Dermal	2.2 0.0 97.7
Future Child Resident - surface	8.17E-06	Chromium Total PAH Uranium-238	36.1 14.9 48.8	Ingestion Inhalation Dermal External Exposure	7.8 36.3 11.6 44.3	5.30	Mercury Nickel Silver	76.9 13.7 9.0	Ingestion Inhalation Dermal	8.5 0.1 91.4
Future Teen Recreational User - surface	<1E-6	*no COCs				1.82	Mercury Nickel Silver	76.4 13.9 9.2	Ingestion Inhalation Dermal	0.4 0.0 99.6

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.13. Summary of Risk Characterization for SWMU 194, EU 6

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	2.01E-06	Chromium	61.0	Ingestion	4.3	0.33	Nickel	57.7	Ingestion	2.1
				Inhalation	61.5				Inhalation	7.6
				Dermal					Dermal	90.3
Outdoor Worker - surface	2.04E-06	Uranium-238	55.2	External Exposure	34.2	0.28	Nickel	53.4	Ingestion	16.8
				Ingestion	30.2				Inhalation	6.5
				Inhalation	44.9				Dermal	76.7
Outdoor Worker - subsurface	<1E-6			External Exposure	24.9	0.28	Nickel	47.7	Ingestion	19.3
									Inhalation	8.4
									Dermal	72.4

Table D4.13. Summary of Risk Characterization for SWMU 194, EU 6 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	6.21E-06	Chromium Uranium-238	38.3 61.4	Ingestion	0.54	Nickel Silver	59.2 29.0	Ingestion	3.5 4.3 92.3
				Inhalation				Inhalation	
				Dermal				Dermal	
Future Child Resident - surface	6.21E-06	Chromium Uranium-238	38.3 61.4	Ingestion	1.43	Manganese Nickel Silver	18.0 54.3 26.5	Ingestion	12.3 7.6 80.2
				Inhalation				Inhalation	
				Dermal				Dermal	
Future Teen Recreational User - surface	<1E-6	*no COCs			0.44	Nickel Silver	61.4 30.1	Ingestion Inhalation Dermal	0.6 2.1 97.3

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.14. Summary of Risk Characterization for SWMU 194, EU 7

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	1.77E-06	Chromium	99.6	Ingestion Inhalation Dermal External Exposure	100.0	0.30	Nickel Silver	59.5 38.4	Ingestion Inhalation Dermal	1.0 0.3 98.7
Outdoor Worker - surface	1.31E-06	Chromium	99.6	Ingestion Inhalation Dermal External Exposure	100.0	0.24	Nickel	59.6	Ingestion Inhalation Dermal	9.1 0.3 90.6
Outdoor Worker - subsurface	2.59E-05	Arsenic Chromium	94.9 5.0	Ingestion Inhalation Dermal External Exposure	73.3 5.1 21.5	0.44	Arsenic Nickel	35.1 33.2	Ingestion Inhalation Dermal	36.6 3.2 60.2

Table D4.1.14. Summary of Risk Characterization for SWMU 194, EU 7 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.14			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	3.44E-06	Chromium	99.6	Ingestion Inhalation Dermal External Exposure	0.52	Nickel Silver	59.5 38.4	Ingestion Inhalation Dermal	1.7 0.2 98.1
Future Child Resident - surface	3.44E-06	Chromium	99.6	Ingestion Inhalation Dermal External Exposure	1.25	Nickel Silver	59.6 38.4	Ingestion Inhalation Dermal	6.5 0.3 93.1
Future Teen Recreational User - surface	<1E-6	*no COCs			0.44	Nickel Silver	59.4 38.5	Ingestion Inhalation Dermal	0.3 0.1 99.6

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.15. Summary of Risk Characterization for SWMU 194, EU 8

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	1.08E-05	Chromium Total PAH	16.5 76.0	Ingestion Inhalation Dermal External Exposure	6.6 16.6 70.1 6.7	<0.1	*no COCs			
Outdoor Worker - surface	1.25E-05	Chromium Total PAH Uranium-238	10.5 80.0 9.5	Ingestion Inhalation Dermal External Exposure	40.3 10.6 44.8 4.3	<0.1	*no COCs			
Outdoor Worker - subsurface	3.89E-05	Arsenic Cesium-137 Chromium Total PAH Uranium-238	67.4 6.2 3.8 19.8 2.6	Ingestion Inhalation Dermal External Exposure	62.3 4.0 26.4 7.3	0.60	Arsenic Cobalt Nickel	27.2 38.4 18.8	Ingestion Inhalation Dermal	54.6 4.1 41.3

Table D4.15. Summary of Risk Characterization for SWMU 194, EU 8 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)		0.19			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	3.24E-05	Chromium Total PAH Uranium-238	10.6 77.0 12.4	Ingestion Inhalation Dermal External Exposure	18.2 10.7 59.8 11.2	<0.1	*no COCs			
Future Child Resident - surface	3.24E-05	Chromium Total PAH Uranium-238	10.6 77.0 12.4	Ingestion Inhalation Dermal External Exposure	18.2 10.7 59.8 11.2	0.22	Manganese	88.4	Ingestion Inhalation Dermal	34.1 35.6 30.3
Future Teen Recreational User - surface	5.88E-06	Total PAH	91.7	Ingestion Inhalation Dermal External Exposure	2.1 5.5 89.8 2.6	<0.1	*no COCs			

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.16. Summary of Risk Characterization for SWMU 194, EU 9

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	1.32E-05	Arsenic Chromium	87.0 13.0	Ingestion Inhalation Dermal External Exposure	22.7 13.2 64.1	<0.1	*no COCs			
Outdoor Worker - surface	2.88E-05	Arsenic Chromium	95.6 4.4	Ingestion Inhalation Dermal External Exposure	73.9 4.4 21.7	0.18	Arsenic	97.4	Ingestion Inhalation Dermal	75.1 0.4 24.6
Outdoor Worker - subsurface	2.47E-05	Arsenic Chromium	95.5 4.5	Ingestion Inhalation Dermal External Exposure	73.8 4.5 21.7	0.37	Arsenic Nickel	39.5 30.3	Ingestion Inhalation Dermal	38.9 2.7 58.4

Table D4.16. Summary of Risk Characterization for SWMU 194, EU 9 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)		0.12			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	5.18E-05	Arsenic Chromium	93.6 6.4	Ingestion Inhalation Dermal External Exposure	51.8 6.5 41.8	0.15	Arsenic	93.2	Ingestion Inhalation Dermal	34.2 0.5 65.3
Future Child Resident - surface	5.18E-05	Arsenic Chromium	93.6 6.4	Ingestion Inhalation Dermal External Exposure	51.8 6.5 41.8	0.72	Arsenic	96.6	Ingestion Inhalation Dermal	67.8 0.5 31.7
Future Teen Recreational User - surface	6.76E-06	Arsenic	95.4	Ingestion Inhalation Dermal External Exposure	8.1 4.7 87.2	<0.1	*no COCs			

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.17. Summary of Risk Characterization for SWMU 194, EU 10

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	1.42E-06	*no COCs				<0.1		*no COCs		
Future Industrial Worker - surface	2.54E-05	Arsenic Cesium-137 Chromium Total PAH	48.1 26.6 4.7 17.1	Ingestion Inhalation Dermal External Exposure	14.3 4.9 51.2 29.6	0.26	Nickel	68.7	Ingestion Inhalation Dermal	8.4 0.7 90.9
Outdoor Worker - surface	4.18E-05	Arsenic Cesium-137 Total PAH Uranium-238	70.1 12.1 12.7 3.0	Ingestion Inhalation Dermal External Exposure	61.5 2.2 23.0 13.3	0.33	Arsenic Nickel	55.5 43.5	Ingestion Inhalation Dermal	46.8 0.4 52.8
Outdoor Worker - subsurface	3.94E-05	Arsenic Cesium-137 Chromium Total PAH Uranium-238	67.4 12.8 3.1 13.5 3.2	Ingestion Inhalation Dermal External Exposure	59.9 3.2 22.8 14.1	1.09	Arsenic Mercury Nickel	15.2 68.6 13.1	Ingestion Inhalation Dermal	23.3 0.1 76.6

Table D4.17. Summary of Risk Characterization for SWMU 194, EU 10 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.34	Mercury	68.6	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	1.06E-04	Arsenic	48.9	Ingestion	0.46	Arsenic Nickel	32.8 65.6	Ingestion	13.2
		Cesium-137	32.2	Inhalation				0.4	
		Chromium	2.2	Dermal				86.5	
		Total PAH	12.5	External Exposure					
		Uranium-238	4.1						
Future Child Resident - surface	1.06E-04	Arsenic	48.9	Ingestion	1.49	Arsenic Nickel	49.7 49.2	Ingestion	38.1
		Cesium-137	32.2	Inhalation				0.5	
		Chromium	2.2	Dermal				61.4	
		Total PAH	12.5	External Exposure					
		Uranium-238	4.1						
Future Teen Recreational User - surface	1.15E-05	Arsenic	59.5	Ingestion	0.35	Nickel	72.8	Ingestion	2.4
		Cesium-137	12.3	Inhalation				0.2	
		Total PAH	24.8	Dermal				97.5	
				External Exposure					

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.18. Summary of Risk Characterization for SWMU 194, EU 11

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	2.88E-06	Chromium Total PAH	37.6	Ingestion	4.5	1.26	Mercury Nickel Silver	71.3	Ingestion	1.3
			46.6	Inhalation	39.1			18.6	Inhalation	0.1
				Dermal External Exposure	56.4			9.8	Dermal	98.6
Outdoor Worker - surface	2.97E-06	Total PAH	55.3	Ingestion	31.3	1.04	Mercury Nickel	71.9	Ingestion	11.6
				Inhalation	28.1			18.2	Inhalation	0.1
				Dermal External Exposure	40.6				Dermal	88.3
Outdoor Worker - subsurface	2.95E-05	Arsenic Chromium Total PAH	88.0	Ingestion	71.1	1.23	Arsenic Mercury Nickel	13.2	Ingestion	21.3
			4.7	Inhalation	4.9			60.9	Inhalation	0.1
			5.6	Dermal External Exposure	24.0			15.4	Dermal	78.6

Table D4.18. Summary of Risk Characterization for SWMU 194, EU 11 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.38	Mercury	60.9	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	7.53E-06	Chromium PCB, Total Total PAH	27.9 17.5 54.3	Ingestion Inhalation Dermal External Exposure	2.16	Mercury Nickel Silver	71.3 18.6 9.8	Ingestion Inhalation Dermal	2.2 0.1 97.7
Future Child Resident - surface	7.53E-06	Chromium PCB, Total Total PAH	27.9 17.5 54.3	Ingestion Inhalation Dermal External Exposure	5.29	Mercury Nickel Silver	71.7 18.4 9.6	Ingestion Inhalation Dermal	8.4 0.1 91.5
Future Teen Recreational User - surface	1.36E-06	*no COCs			1.82	Mercury Nickel Silver	71.2 18.6 9.8	Ingestion Inhalation Dermal	0.4 0.0 99.6

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.19. Summary of Risk Characterization for SWMU 194, EU 12

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	1.72E-05	Chromium Total PAH	12.2	Ingestion	6.6	0.30	Nickel Silver	60.7	Ingestion	1.0
			87.7	Inhalation	12.4			36.8	Inhalation	0.3
				Derma External Exposure	81.0				Derma	98.7
Outdoor Worker - surface	1.99E-05	Chromium Total PAH	7.8	Ingestion	40.5	0.24	Nickel	60.8	Ingestion	9.1
			92.2	Inhalation	7.9			0.3	Inhalation	0.3
				Derma External Exposure	51.6				Derma	90.6
Outdoor Worker - subsurface	3.83E-05	Arsenic Chromium Total PAH	57.8	Ingestion	61.4	0.44	Arsenic Nickel Silver	31.1	Ingestion	33.5
			4.1	Inhalation	4.1			33.3	Inhalation	3.0
			38.1	Derma External Exposure	34.4			25.9	Derma	63.5

Table D4.19. Summary of Risk Characterization for SWMU 194, EU 12 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)		0.14			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	4.99E-05	Chromium Total PAH	8.2 91.8	Ingestion Inhalation Dermal External Exposure	20.4 8.3 71.3	0.52	Nickel Silver	60.7 36.9	Ingestion Inhalation Dermal	1.7 0.2 98.1
Future Child Resident - surface	4.99E-05	Chromium Total PAH	8.2 91.8	Ingestion Inhalation Dermal External Exposure	20.4 8.3 71.3	1.25	Nickel Silver	60.8 36.8	Ingestion Inhalation Dermal	6.5 0.3 93.1
Future Teen Recreational User - surface	1.03E-05	Total PAH	96.3	Ingestion Inhalation Dermal External Exposure	2.0 3.8 94.2	0.44	Nickel Silver	60.6 36.9	Ingestion Inhalation Dermal	0.3 0.1 99.6

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.20. Summary of Risk Characterization for SWMU 194, EU 13

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	3.13E-06	Chromium Total PAH	50.5	Ingestion	3.7	0.15	Nickel	96.2	Ingestion	1.0
			49.3	Inhalation	50.8			Inhalation	0.5	
				Dermal External Exposure	45.5			Dermal	98.5	
Outdoor Worker - surface	3.06E-06	Chromium Total PAH	38.2	Ingestion	27.1	0.12	Nickel	96.4	Ingestion	9.0
			61.6	Inhalation	38.4			Inhalation	0.5	
				Dermal External Exposure	34.5			Dermal	90.6	
Outdoor Worker - subsurface	2.68E-05	Arsenic Chromium Total PAH	89.1	Ingestion	71.1	0.31	Arsenic Nickel	47.5	Ingestion	45.2
			5.7	Inhalation	5.8			Inhalation	3.5	
			5.2	Dermal External Exposure	23.1			Dermal	51.3	

Table D4.20. Summary of Risk Characterization for SWMU 194, EU 13 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	7.78E-06	Chromium Total PAH	39.4 60.4	Ingestion Inhalation Dermal External Exposure	0.25	Nickel	96.2	Ingestion Inhalation Dermal	1.7 0.3 98.1
Future Child Resident - surface	7.78E-06	Chromium Total PAH	39.4 60.4	Ingestion Inhalation Dermal External Exposure	0.60	Nickel	96.3	Ingestion Inhalation Dermal	6.5 0.5 93.0
Future Teen Recreational User - surface	1.30E-06	Total PAH	77.8	Ingestion Inhalation Dermal External Exposure	0.21	Nickel	96.1	Ingestion Inhalation Dermal	0.3 0.1 99.6

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.21. Summary of Risk Characterization for SWMU 194, EU 14

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	1.73E-06	Chromium	100.0	Ingestion Inhalation Dermal External Exposure	100.0	0.91	Mercury	99.3	Ingestion Inhalation Dermal	1.5 98.5
Outdoor Worker - surface	1.28E-06	Chromium	100.0	Ingestion Inhalation Dermal External Exposure	100.0	0.76	Mercury	99.4	Ingestion Inhalation Dermal	12.4 87.6
Outdoor Worker - subsurface	2.76E-05	Arsenic Chromium	94.6 5.4	Ingestion Inhalation Dermal External Exposure	73.1 5.5 21.5	20.06	Arsenic Mercury Nickel Vanadium	0.8 4.1 0.7 93.9	Ingestion Inhalation Dermal	10.2 0.1 89.7

Table D4.21. Summary of Risk Characterization for SWMU 194, EU 14 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)		6.27	Mercury Vanadium	4.1 93.9	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	3.35E-06	Chromium	100.0	Ingestion Inhalation Dermal External Exposure	100.0	1.56	Mercury	99.3	Ingestion Inhalation Dermal	2.4 97.6
Future Child Resident - surface	3.35E-06	Chromium	100.0	Ingestion Inhalation Dermal External Exposure	100.0	3.84	Mercury	99.4	Ingestion Inhalation Dermal	9.0 91.0
Future Teen Recreational User - surface	<1E-6	*no COCs				1.31	Mercury	99.3	Ingestion Inhalation Dermal	0.4 99.6

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.22. Summary of Risk Characterization for SWMU 194, EU 15

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	1.77E-06	Chromium	100.0	Ingestion Inhalation Dermal External Exposure	100.0	0.10	*no COCs			
Outdoor Worker - surface	1.31E-06	Chromium	100.0	Ingestion Inhalation Dermal External Exposure	100.0	<0.1	*no COCs			
Outdoor Worker - subsurface	2.31E-05	Arsenic Chromium	93.5 6.4	Ingestion Inhalation Dermal External Exposure	72.3 6.5 21.2	0.41	Arsenic Nickel	32.9 36.8	Ingestion Inhalation Dermal	34.5 2.7 62.8

Table D4.22. Summary of Risk Characterization for SWMU 194, EU 15 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.13			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	3.43E-06	Chromium	100.0	Ingestion Inhalation Dermal External Exposure	0.17	Silver	93.9	Ingestion Inhalation Dermal	1.6 98.4
Future Child Resident - surface	3.43E-06	Chromium	100.0	Ingestion Inhalation Dermal External Exposure	0.42	Silver	94.1	Ingestion Inhalation Dermal	6.4 93.6
Future Teen Recreational User - surface	<1E-6	*no COCs			0.15	Silver	93.8	Ingestion Inhalation Dermal	0.3 99.7

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.23. Summary of Risk Characterization for SWMU 194, EU 16

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	4.22E-06	Beryllium	82.3	Ingestion	4.9	1.55	Vanadium	98.8	Ingestion	1.1
				Inhalation	2.4				Inhalation	0.0
				Derma External Exposure	92.8				Derma	98.9
Future Industrial Worker - surface	7.54E-05	Arsenic Beryllium Chromium	15.3	Ingestion	4.9	27.61	Nickel Vanadium	0.6	Ingestion	1.1
			82.3	Inhalation	2.4				Inhalation	0.0
			2.3	Derma External Exposure	92.8				Derma	98.9
Outdoor Worker - surface	7.92E-05	Arsenic Beryllium Chromium	35.1	Ingestion	33.0	22.42	Arsenic Nickel Vanadium	0.8	Ingestion	9.9
			63.3	Inhalation	1.7				Inhalation	0.0
			1.6	Derma External Exposure	65.4				Derma	90.1
Outdoor Worker - subsurface	6.48E-05	Arsenic Beryllium Chromium	40.6	Ingestion	36.7	17.93	Arsenic Nickel Vanadium	0.9	Ingestion	10.2
			57.4	Inhalation	2.0				Inhalation	0.2
			2.0	Derma External Exposure	61.3				Derma	89.7

Table D4.23. Summary of Risk Characterization for SWMU 194, EU 16 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)		5.60	Vanadium	96.8	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	2.16E-04	Arsenic	22.7	Ingestion	15.3	47.22	Arsenic	0.3	Ingestion	1.9
		Beryllium	75.7	Inhalation	1.6		Nickel	0.6	Inhalation	0.0
		Chromium	1.6	Derma External Exposure	83.1		Vanadium	98.8	Derma	98.1
Future Child Resident - surface	2.16E-04	Arsenic	22.7	Ingestion	15.3	114.41	Antimony	0.1	Ingestion	7.1
		Beryllium	75.7	Inhalation	1.6		Arsenic	0.6	Inhalation	0.0
		Chromium	1.6	Derma External Exposure	83.1		Nickel	0.6	Derma	92.8
							Thallium	0.1		
		Vanadium	98.4							
Future Teen Recreational User - surface	4.98E-05	Arsenic	13.0	Ingestion	1.3	39.82	Nickel	0.6	Ingestion	0.3
		Beryllium	86.3	Inhalation	0.7		Vanadium	98.9	Inhalation	0.0
				Derma External Exposure	98.0				Derma	99.7

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.2.4. Summary of Risk Characterization for SWMU 194, EU 17

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	1.62E-05	Arsenic Chromium Total PAH	71.7 9.5 16.6	Ingestion Inhalation Dermal External Exposure	20.4 9.7 69.9	<0.1	*no COCs			
Outdoor Worker - surface	3.30E-05	Arsenic Chromium Total PAH	84.4 3.5 9.9	Ingestion Inhalation Dermal External Exposure	71.2 3.5 25.3	0.18	Arsenic	94.8	Ingestion Inhalation Dermal	75.1 0.4 24.5
Outdoor Worker - subsurface	3.31E-05	Arsenic Cesium-137 Chromium Total PAH	81.1 6.6 4.0 6.5	Ingestion Inhalation Dermal External Exposure	66.8 4.1 22.5 6.6	0.31	Arsenic Nickel	54.5 42.5	Ingestion Inhalation Dermal	46.9 0.4 52.6

Table D4.24. Summary of Risk Characterization for SWMU 194, EU 17 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	6.16E-05	Arsenic	79.7	Ingestion	0.16	Arsenic	90.9	Ingestion	34.3
		Cadmium	2.2	Inhalation		Inhalation		0.6	
		Chromium	4.9	Derma		Derma		65.1	
		Total PAH	13.3	External Exposure					
Future Child Resident - surface	6.16E-05	Arsenic	79.7	Ingestion	0.75	Arsenic	94.1	Ingestion	67.8
		Cadmium	2.2	Inhalation		Inhalation		0.6	
		Chromium	4.9	Derma		Derma		31.6	
		Total PAH	13.3	External Exposure					
Future Teen Recreational User - surface	8.77E-06	Arsenic	74.3	Ingestion	<0.1	*no COCs			
		Total PAH	20.1	Inhalation					
				Derma					

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.25. Summary of Risk Characterization for SWMU 194, EU 18

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	3.68E-06	Beryllium	80.4	Ingestion Inhalation Dermal External Exposure	5.1 3.5 91.4	<0.1	*no COCs			
Future Industrial Worker - surface	6.57E-05	Arsenic Beryllium Chromium	16.1 80.4 3.5	Ingestion Inhalation Dermal External Exposure	5.1 3.5 91.4	0.23	Nickel	59.5	Ingestion Inhalation Dermal	8.3 0.7 91.0
Outdoor Worker - surface	6.98E-05	Arsenic Beryllium Chromium	36.5 61.1 2.4	Ingestion Inhalation Dermal External Exposure	33.9 2.4 63.7	0.29	Arsenic Nickel	55.2 37.8	Ingestion Inhalation Dermal	46.5 0.4 53.1
Outdoor Worker - subsurface	7.18E-05	Arsenic Beryllium Chromium	39.8 57.8 2.3	Ingestion Inhalation Dermal External Exposure	36.1 2.4 61.5	21.63	Arsenic Iron Nickel Vanadium	0.8 0.7 0.9 96.7	Ingestion Inhalation Dermal	10.6 0.1 89.3

Table D4.25. Summary of Risk Characterization for SWMU 194, EU 18 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	6.76	Vanadium	96.7	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	1.88E-04	Arsenic	23.8	Ingestion	0.40	Arsenic Nickel	32.5	Ingestion	13.0
		Beryllium	73.8	Inhalation				0.4	
		Chromium	2.3	Derma l External Exposure				86.6	
Future Child Resident - surface	1.88E-04	Arsenic	23.8	Ingestion	1.30	Arsenic Nickel	49.3	Ingestion	37.8
		Beryllium	73.8	Inhalation				0.5	
		Chromium	2.3	Derma l External Exposure				61.7	
Future Teen Recreational User - surface	4.30E-05	Arsenic	13.9	Ingestion	0.31	Nickel	63.0	Ingestion	2.3
		Beryllium	85.2	Inhalation				0.2	
				Derma l External Exposure				97.5	

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.2.6. Summary of Risk Characterization for SWMU 194, EU 19

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	1.23E-05	Arsenic Chromium	87.0	Ingestion	22.7	0.21	Nickel	65.1	Ingestion	9.0
			13.0	Inhalation	13.2				Inhalation	0.7
				Dermal External Exposure	64.1				Dermal	90.3
Outdoor Worker - surface	2.70E-05	Arsenic Chromium	95.6	Ingestion	73.8	0.28	Arsenic Nickel	58.4 40.0	Ingestion	48.7
			4.4	Inhalation	4.5				Inhalation	0.4
				Dermal External Exposure	21.7				Dermal	50.9
Outdoor Worker - subsurface	2.52E-05	Arsenic Chromium	95.3	Ingestion	73.6	0.35	Arsenic Nickel	42.4 36.4	Ingestion	37.9
			4.7	Inhalation	4.8				Inhalation	0.3
				Dermal External Exposure	21.6				Dermal	61.8

Table D4.26. Summary of Risk Characterization for SWMU 194, EU 19 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)		0.11			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	4.85E-05	Arsenic Chromium	93.6 6.4	Ingestion Inhalation Dermal External Exposure	51.7 6.5 41.8	0.38	Arsenic Nickel	35.4 62.0	Ingestion Inhalation Dermal	14.1 0.4 85.5
Future Child Resident - surface	4.85E-05	Arsenic Chromium	93.6 6.4	Ingestion Inhalation Dermal External Exposure	51.7 6.5 41.8	1.24	Arsenic Nickel	52.6 45.5	Ingestion Inhalation Dermal	39.9 0.5 59.6
Future Teen Recreational User - surface	6.32E-06	Arsenic	95.4	Ingestion Inhalation Dermal External Exposure	8.1 4.7 87.2	0.28	Nickel	69.3	Ingestion Inhalation Dermal	2.5 0.2 97.3

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.27. Summary of Risk Characterization for SWMU 194, EU 20

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	5.19E-06	Beryllium	84.7	Ingestion	4.3	1.50	Vanadium	94.3	Ingestion	1.3
				Inhalation	2.0				Inhalation	0.2
				Derma	93.7				Derma	98.5
Future Industrial Worker - surface	9.27E-05	Arsenic Beryllium Chromium	12.8 84.7 1.9	Ingestion	4.3	26.82	Cobalt Mercury Nickel Silver Vanadium	0.7 3.0 0.6 0.4 94.3	Ingestion	1.3
				Inhalation	2.0				Inhalation	0.2
				Derma	93.7				Derma	98.5
Outdoor Worker - surface	9.39E-05	Arsenic Beryllium Chromium	30.4 67.5 1.4	Ingestion	30.0	22.04	Arsenic Cobalt Manganese Mercury Nickel Vanadium	0.8 1.7 0.5 3.1 0.6 92.6	Ingestion	11.1
				Inhalation	1.4				Inhalation	0.2
				Derma	68.5				Derma	88.7
Outdoor Worker - subsurface	7.96E-05	Arsenic Beryllium Chromium	34.6 62.6 2.2	Ingestion	32.8	19.10	Arsenic Cobalt Manganese Mercury Nickel Vanadium	0.9 1.4 0.6 3.5 0.6 92.2	Ingestion	11.0
				Inhalation	2.3				Inhalation	0.2
				Derma	65.0				Derma	88.8

Table D4.27. Summary of Risk Characterization for SWMU 194, EU 20 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	5.97	Mercury Vanadium	3.5 92.2	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	2.62E-04	Arsenic Beryllium Chromium Total PAH	19.2 78.8 1.3 0.6	Ingestion Inhalation Dermal External Exposure	45.88	Arsenic Cobalt Manganese Mercury Nickel Silver Vanadium	0.3 0.8 0.3 3.0 0.6 0.4 94.3	Ingestion Inhalation Dermal	2.1 0.1 97.8
Future Child Resident - surface	2.62E-04	Arsenic Beryllium Chromium Total PAH	19.2 78.8 1.3 0.6	Ingestion Inhalation Dermal External Exposure	112.08	Arsenic Barium Beryllium Cobalt Manganese Mercury Nickel Silver Vanadium	0.6 0.2 0.1 1.4 0.5 3.0 0.6 0.4 93.1	Ingestion Inhalation Dermal	8.0 0.2 91.8
Future Teen Recreational User - surface	6.17E-05	Arsenic Beryllium	10.8 88.1	Ingestion Inhalation Dermal External Exposure	38.59	Cobalt Mercury Nickel Silver Vanadium	0.6 3.0 0.6 0.4 94.6	Ingestion Inhalation Dermal	0.3 0.1 99.6

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.28. Summary of Risk Characterization for SWMU 194, EU 21

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs			<0.1		*no COCs			
Future Industrial Worker - surface	1.83E-06	Chromium	99.6	Ingestion Inhalation Dermal External Exposure	100.0	0.97	Mercury Nickel	76.2 17.0	Ingestion Inhalation Dermal	1.8 0.1 98.1
Outdoor Worker - surface	1.36E-06	Chromium	99.6	Ingestion Inhalation Dermal External Exposure	100.0	0.83	Mercury Nickel	74.2 16.0	Ingestion Inhalation Dermal	15.1 0.1 84.8
Outdoor Worker - subsurface	1.90E-04	Arsenic Beryllium Chromium	44.6 54.5 0.7	Ingestion Inhalation Dermal External Exposure	39.5 0.9 59.6	51.47	Arsenic Barium Cobalt Iron Manganese Mercury Nickel Vanadium	1.0 0.8 2.8 0.7 3.1 1.2 0.3 89.8	Ingestion Inhalation Dermal	13.4 1.0 85.6

Table D4.28. Summary of Risk Characterization for SWMU 194, EU 21 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	2.38E-06	Arsenic Beryllium	44.6 54.5	See Outdoor Worker (subsurface)	16.09	Arsenic Barium Cobalt Iron Manganese Mercury Vanadium	1.0 0.8 2.8 0.7 3.1 1.2 89.8	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	3.56E-06	Chromium	99.6	Ingestion Inhalation Dermal External Exposure	1.66	Mercury Nickel	76.1 16.9	Ingestion Inhalation Dermal	3.0 0.0 97.0
Future Child Resident - surface	3.56E-06	Chromium	99.6	Ingestion Inhalation Dermal External Exposure	4.15	Antimony Mercury Nickel Thallium	4.1 74.8 16.3 4.2	Ingestion Inhalation Dermal	11.1 0.1 88.8
Future Teen Recreational User - surface	<1E-6	*no COCs			1.38	Mercury Nickel	76.5 17.0	Ingestion Inhalation Dermal	0.5 0.0 99.5

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.29. Summary of Risk Characterization for SWMU 194, EU 22

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	3.35E-06	PCB, Total	97.3	Ingestion Inhalation Dermal External Exposure	6.4 9.7 84.0	<0.1	*no COCs			
Future Industrial Worker - surface	5.98E-05	Chromium PCB, Total	2.7 97.3	Ingestion Inhalation Dermal External Exposure	6.4 9.7 84.0	<0.1	*no COCs			
Outdoor Worker - surface	6.85E-05	Chromium PCB, Total	1.8 98.2	Ingestion Inhalation Dermal External Exposure	39.6 6.2 54.2	<0.1	*no COCs			
Outdoor Worker - subsurface	9.45E-05	Arsenic Cesium-137 Chromium PCB, Total	29.3 1.5 1.2 67.9	Ingestion Inhalation Dermal External Exposure	50.0 4.4 44.1 1.5	0.72	Arsenic Cobalt Nickel	24.1 26.1 18.6	Ingestion Inhalation Dermal	48.6 3.1 48.3

Table D4.29. Summary of Risk Characterization for SWMU 194, EU 22 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	1.18E-06			See Outdoor Worker (subsurface)		0.22			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	1.74E-04	Chromium PCB, Total	1.8 98.2	Ingestion Inhalation Dermal External Exposure	19.6 6.5 73.9	<0.1	*no COCs			
Future Child Resident - surface	1.74E-04	Chromium PCB, Total	1.8 98.2	Ingestion Inhalation Dermal External Exposure	19.6 6.5 73.9	0.22	Manganese	89.5	Ingestion Inhalation Dermal	34.5 36.1 29.5
Future Teen Recreational User - surface	3.68E-05	PCB, Total	99.2	Ingestion Inhalation Dermal External Exposure	1.9 2.9 95.2	<0.1	*no COCs			

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.30. Summary of Risk Characterization for SWMU 194, EU 23

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	1.38E-05	Arsenic Chromium	84.1	Ingestion	22.0	0.47	Nickel Silver	44.1	Ingestion	7.5
			15.9	Inhalation	16.1			22.9	Inhalation	0.4
				Dermal External Exposure	62.0				Dermal	92.1
Outdoor Worker - surface	2.95E-05	Arsenic Chromium	94.5	Ingestion	73.0	0.57	Arsenic Iron Nickel	30.7	Ingestion	43.8
			5.5	Inhalation	5.6			23.9	Inhalation	0.3
				Dermal External Exposure	21.4				Dermal	56.0
Outdoor Worker - subsurface	3.53E-05	Arsenic Cadmium Cesium-137 Chromium	76.7	Ingestion	68.1	1.32	Arsenic Iron Mercury Nickel	12.8	Ingestion	28.6
			12.2	Inhalation	4.2			10.8	Inhalation	1.0
			7.0	Dermal	20.8			54.4	Dermal	70.4
			4.1	External Exposure	6.9			10.5		

Table D4.30. Summary of Risk Characterization for SWMU 194, EU 23 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)		0.41	Mercury	54.4	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	5.33E-05	Arsenic Chromium	92.0 8.0	Ingestion Inhalation Dermal External Exposure	50.9 8.1 41.1	0.83	Arsenic Iron Nickel Silver	17.4 16.7 42.3 22.1	Ingestion Inhalation Dermal	11.8 0.2 88.0
Future Child Resident - surface	5.33E-05	Arsenic Chromium	92.0 8.0	Ingestion Inhalation Dermal External Exposure	50.9 8.1 41.1	2.59	Arsenic Iron Nickel Silver	27.2 21.9 32.7 17.0	Ingestion Inhalation Dermal	35.3 0.3 64.4
Future Teen Recreational User - surface	6.92E-06	Arsenic	94.2	Ingestion Inhalation Dermal External Exposure	8.0 5.8 86.2	0.64	Nickel Silver	46.2 24.2	Ingestion Inhalation Dermal	2.1 0.1 97.8

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.31. Summary of Risk Characterization for SWMU 194, EU 24

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	2.06E-06	Chromium	80.9	Ingestion	1.4	0.17	Nickel	96.5	Ingestion	1.0
				Inhalation	81.3				Inhalation	0.5
				Dermal External Exposure	17.3				Dermal	98.5
Outdoor Worker - surface	1.71E-06	Chromium	72.1	Ingestion	12.1	0.14	Nickel	96.7	Ingestion	9.0
				Inhalation	72.5				Inhalation	0.5
				Dermal External Exposure	15.4				Dermal	90.5
Outdoor Worker - subsurface	6.95E-05	Arsenic Beryllium Cesium-137 Chromium	41.4 53.9 2.7 1.6	Ingestion	37.2	1.21	Arsenic Iron Mercury Nickel	14.9 14.2 54.0 13.1	Ingestion	30.2
				Inhalation	1.7				Inhalation	0.9
				Dermal	58.5				Dermal	68.8
				External Exposure	2.6					

Table D4.31. Summary of Risk Characterization for SWMU 194, EU 24 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.38	Mercury	54.0	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	4.42E-06	Chromium Total PAH	73.1 26.6	Ingestion Inhalation Dermal External Exposure	0.29	Nickel	96.5	Ingestion Inhalation Dermal	1.7 0.3 98.0
Future Child Resident - surface	4.42E-06	Chromium Total PAH	73.1 26.6	Ingestion Inhalation Dermal External Exposure	0.71	Nickel	96.7	Ingestion Inhalation Dermal	6.5 0.5 93.0
Future Teen Recreational User - surface	<1E-6	*no COCs			0.25	Nickel	96.5	Ingestion Inhalation Dermal	0.3 0.1 99.6

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.32. Summary of Risk Characterization for SWMU 194, EU 25

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	2.38E-06	Chromium	85.1	Ingestion	1.1	0.24	Nickel	60.5	Ingestion	2.4
				Inhalation	85.4				Inhalation	9.6
				Dermal External Exposure	13.5				Dermal	88.1
Outdoor Worker - surface	1.93E-06	Chromium	77.8	Ingestion	9.7	0.22	Nickel	54.8	Ingestion	18.9
				Inhalation	78.0				Inhalation	8.0
				Dermal External Exposure	12.3				Dermal	73.2
Outdoor Worker - subsurface	7.48E-05	Arsenic Beryllium Chromium	33.9 63.9 1.7	Ingestion	32.3	0.47	Arsenic Nickel	33.8 25.5	Ingestion	45.9
				Inhalation	1.7				Inhalation	4.3
				Dermal External Exposure	65.9				Dermal	49.8

Table D4.32. Summary of Risk Characterization for SWMU 194, EU 25 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.15			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	5.01E-06	Chromium Total PAH	78.6 21.1	Ingestion Inhalation Dermal External Exposure	0.40	Nickel	62.5	Ingestion Inhalation Dermal	4.0 5.4 90.6
Future Child Resident - surface	5.01E-06	Chromium Total PAH	78.6 21.1	Ingestion Inhalation Dermal External Exposure	1.09	Barium Manganese Nickel	19.6 21.8 56.0	Ingestion Inhalation Dermal	13.9 9.3 76.8
Future Teen Recreational User - surface	<1E-6	*no COCs			0.32	Nickel	65.6	Ingestion Inhalation Dermal	0.7 2.7 96.6

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.33. Summary of Risk Characterization for SWMU 194, EU 26

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	2.87E-06	Beryllium	97.3	Ingestion Inhalation Dermal External Exposure	1.0 2.7 96.3	<0.1	*no COCs			
Future Industrial Worker - surface	5.13E-05	Beryllium Chromium	97.3 2.7	Ingestion Inhalation Dermal External Exposure	1.0 2.7 96.3	0.13	*no COCs			
Outdoor Worker - surface	4.13E-05	Beryllium Chromium	97.5 2.5	Ingestion Inhalation Dermal External Exposure	9.0 2.5 88.5	0.12	*no COCs			
Outdoor Worker - subsurface	6.52E-05	Arsenic Beryllium Chromium	33.6 64.5 1.8	Ingestion Inhalation Dermal External Exposure	31.9 1.9 66.2	21.16	Arsenic Cobalt Vanadium	0.6 1.1 97.3	Ingestion Inhalation Dermal	10.6 0.1 89.3

Table D4.33. Summary of Risk Characterization for SWMU 194, EU 26 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	6.61	Vanadium	97.3	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	1.34E-04	Beryllium Chromium	98.0 2.0	Ingestion Inhalation Dermal External Exposure	0.23	Silver	72.5	Ingestion Inhalation Dermal	4.4 0.0 95.5
Future Child Resident - surface	1.34E-04	Beryllium Chromium	98.0 2.0	Ingestion Inhalation Dermal External Exposure	0.59	Silver Thallium	67.1 18.1	Ingestion Inhalation Dermal	15.9 0.0 84.0
Future Teen Recreational User - surface	3.49E-05	Beryllium	99.3	Ingestion Inhalation Dermal External Exposure	0.19	Silver	74.2	Ingestion Inhalation Dermal	0.7 0.0 99.3

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.34. Summary of Risk Characterization for SWMU 194, EU 27

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI	
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs				
Future Industrial Worker - surface	1.74E-06	Chromium	99.6	Ingestion	100.0	0.25	Nickel	60.4	Ingestion	1.0	
				Inhalation					Inhalation		0.3
				Dermal External Exposure					Dermal		98.7
Outdoor Worker - surface	1.28E-06	Chromium	99.6	Ingestion	100.0	0.20	Nickel	60.5	Ingestion	9.1	
				Inhalation					Inhalation		0.3
				Dermal External Exposure					Dermal		90.6
Outdoor Worker - subsurface	2.69E-05	Arsenic Chromium	95.3 4.7	Ingestion	73.6	0.38	Arsenic Nickel	41.7	Ingestion	38.1	
				Inhalation					Inhalation		0.3
				Dermal External Exposure					Dermal		61.6

Table D4.34. Summary of Risk Characterization for SWMU 194, EU 27 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.12			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	3.37E-06	Chromium	99.6	Ingestion Inhalation Dermal External Exposure	0.43	Nickel Silver	60.4 37.2	Ingestion Inhalation Dermal	1.7 0.2 98.1
Future Child Resident - surface	3.37E-06	Chromium	99.6	Ingestion Inhalation Dermal External Exposure	1.04	Nickel Silver	60.5 37.2	Ingestion Inhalation Dermal	6.5 0.3 93.1
Future Teen Recreational User - surface	<1E-6	*no COCs			0.36	Nickel Silver	60.3 37.2	Ingestion Inhalation Dermal	0.3 0.1 99.6

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.35. Summary of Risk Characterization for SWMU 194, EU 28

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	3.63E-06	Beryllium	78.2	Ingestion	5.7	1.53	Vanadium	98.5	Ingestion	1.1
				Inhalation	3.2				Inhalation	0.1
				Derma	91.2				Derma	98.8
				External Exposure						
Future Industrial Worker - surface	6.47E-05	Arsenic Beryllium Chromium	18.6 78.2 3.1	Ingestion	5.7	27.36	Nickel Silver Vanadium	0.6 0.4 98.5	Ingestion	1.1
				Inhalation	3.2				Inhalation	0.1
				Derma	91.2				Derma	98.8
				External Exposure						
Outdoor Worker - surface	7.14E-05	Arsenic Beryllium Chromium	40.6 57.3 2.1	Ingestion	36.7	22.22	Arsenic Nickel Vanadium	0.8 0.6 97.9	Ingestion	9.9
				Inhalation	2.1				Inhalation	0.1
				Derma	61.2				Derma	90.0
				External Exposure						
Outdoor Worker - subsurface	7.14E-05	Arsenic Beryllium Chromium	38.1 59.7 2.2	Ingestion	34.9	21.12	Arsenic Nickel Silver Vanadium	0.8 0.6 0.5 97.7	Ingestion	9.9
				Inhalation	2.2				Inhalation	0.1
				Derma	62.8				Derma	90.0
				External Exposure						

Table D4.35. Summary of Risk Characterization for SWMU 194, EU 28 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)		6.60	Vanadium	97.7	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	1.88E-04	Arsenic	27.1	Ingestion	17.5	46.78	Arsenic	0.3	Ingestion	1.9
		Beryllium	70.8	Inhalation	2.1		Nickel	0.6	Inhalation	0.1
		Chromium	2.1	Derma	80.4		Silver	0.4	Derma	98.1
				External Exposure			Vanadium	98.5		
Future Child Resident - surface	1.88E-04	Arsenic	27.1	Ingestion	17.5	113.42	Arsenic	0.6	Ingestion	7.1
		Beryllium	70.8	Inhalation	2.1		Manganese	0.2	Inhalation	0.1
		Chromium	2.1	Derma	80.4		Nickel	0.6	Derma	92.7
				External Exposure			Silver	0.4		
Future Teen Recreational User - surface	4.23E-05	Arsenic	16.1	Ingestion	1.6	39.44	Nickel	0.6	Ingestion	0.3
		Beryllium	83.1	Inhalation	0.9		Silver	0.4	Inhalation	0.0
				Derma	97.5		Vanadium	98.6	Derma	99.7
				External Exposure						

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.36. Summary of Risk Characterization for SWMU 194, EU 29

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI	
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs				
Future Industrial Worker - surface	1.68E-06	Chromium	99.6	Ingestion	100.0	0.28	Nickel	54.9	Ingestion	1.2	
				Inhalation					Inhalation		0.3
				Dermal					Dermal		98.5
Outdoor Worker - surface	1.24E-06	Chromium	99.6	Ingestion	100.0	0.23	Nickel	54.1	Ingestion	10.8	
				Inhalation					Inhalation		0.3
				Dermal					Dermal		89.0
Outdoor Worker - subsurface	8.31E-05	Arsenic Beryllium Chromium	41.4 56.8 1.7	Ingestion	37.3	23.08	Arsenic Cobalt Manganese Nickel Vanadium	0.9 1.1 0.6 0.7 95.7	Ingestion	11.0	
				Inhalation					Inhalation		0.2
				Dermal					Dermal		88.8
				External Exposure					External Exposure		
				External Exposure					External Exposure		

Table D4.36. Summary of Risk Characterization for SWMU 194, EU 29 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	1.04E-06			See Outdoor Worker (subsurface)	7.21	Vanadium	95.7	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	3.26E-06	Chromium	99.6	Ingestion Inhalation Dermal External Exposure	0.47	Nickel Silver	54.8 32.8	Ingestion Inhalation Dermal	2.0 0.2 97.8
Future Child Resident - surface	3.26E-06	Chromium	99.6	Ingestion Inhalation Dermal External Exposure	1.15	Antimony Nickel Silver	11.1 54.4 32.5	Ingestion Inhalation Dermal	7.8 0.3 91.9
Future Teen Recreational User - surface	<1E-6	*no COCs			0.40	Nickel Silver	54.9 32.9	Ingestion Inhalation Dermal	0.3 0.1 99.6

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.37. Summary of Risk Characterization for SWMU 194, EU 30

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	1.88E-06	Chromium	99.6	Ingestion Inhalation Dermal External Exposure	100.0	1.24	Mercury Nickel	79.0 13.2	Ingestion Inhalation Dermal	1.4 0.1 98.6
Outdoor Worker - surface	1.39E-06	Chromium	99.6	Ingestion Inhalation Dermal External Exposure	100.0	1.02	Mercury Nickel	79.5 12.8	Ingestion Inhalation Dermal	11.8 0.1 88.1
Outdoor Worker - subsurface	2.06E-04	Arsenic Beryllium Chromium	11.0 88.3 0.7	Ingestion Inhalation Dermal External Exposure	16.7 0.7 82.6	16.20	Arsenic Mercury Nickel Vanadium	0.9 5.0 0.8 92.2	Ingestion Inhalation Dermal	10.1 0.1 89.8

Table D4.37. Summary of Risk Characterization for SWMU 194, EU 30 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	2.58E-06	Beryllium	88.3	See Outdoor Worker (subsurface)	5.06	Mercury Vanadium	5.0 92.2	See Outdoor Worker (subsurface) for %		
Future Adult Resident - surface	3.65E-06	Chromium	99.6	Ingestion Inhalation Dermal External Exposure	2.12	Mercury Nickel Silver	79.0 13.1 7.3	Ingestion Inhalation Dermal	2.2 0.0 97.7	
Future Child Resident - surface	3.65E-06	Chromium	99.6	Ingestion Inhalation Dermal External Exposure	5.20	Mercury Nickel Silver	79.3 13.0 7.2	Ingestion Inhalation Dermal	8.6 0.1 91.4	
Future Teen Recreational User - surface	<1E-6	*no COCs			1.78	Mercury Nickel Silver	78.9 13.2 7.3	Ingestion Inhalation Dermal	0.4 0.0 99.6	

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.38. Summary of Risk Characterization for SWMU 194, EU 31

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	7.63E-06	Cesium-137 Uranium-238	86.7	Ingestion	1.6	<0.1	*no COCs			
			13.3	Inhalation Dermal External Exposure	0.0 98.4					
Outdoor Worker - surface	6.41E-06	Cesium-137 Uranium-238	77.1	Ingestion	13.4	<0.1	*no COCs			
			22.9	Inhalation Dermal External Exposure	0.0 86.6					
Outdoor Worker - subsurface	6.41E-06	Cesium-137 Uranium-238	77.1	Ingestion	13.4	<0.1	*no COCs			
			22.9	Inhalation Dermal External Exposure	0.0 86.6					

Table D4.38. Summary of Risk Characterization for SWMU 194, EU 31 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)		<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	3.83E-05	Cesium-137 Uranium-238	87.0 13.0	Ingestion Inhalation Dermal External Exposure	1.3 0.0 98.7	<0.1	*no COCs			
Future Child Resident - surface	3.83E-05	Cesium-137 Uranium-238	87.0 13.0	Ingestion Inhalation Dermal External Exposure	1.3 0.0 98.7	<0.1	*no COCs			
Future Teen Recreational User - surface	1.59E-06	Cesium-137	87.4	Ingestion Inhalation Dermal External Exposure	0.8 0.0 99.1	<0.1	*no COCs			

There are no subsurface data available for assessment.
 Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.39. Summary of Risk Characterization for SWMU 196, EU 1

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs			<0.1		*no COCs			
Future Industrial Worker - surface	2.76E-06	Neptunium-237	41.6	Ingestion	4.2	1.35	Nickel	96.5	Ingestion	1.3
				Inhalation	25.8				Inhalation	0.5
				Dermal	70.0				Dermal	98.1
Outdoor Worker - surface	2.79E-06	Uranium-238	47.2	Ingestion	29.8	1.11	Nickel	94.3	Ingestion	11.6
				Inhalation	18.9				Inhalation	0.5
				Dermal	51.3				Dermal	88.0
Outdoor Worker - subsurface	6.61E-03	Arsenic Beryllium Cadmium	0.4 98.4 1.2	Ingestion	10.3	42.27	Antimony Arsenic Beryllium Cadmium Cobalt Iron Manganese Nickel Silver Thallium Vanadium	10.6 0.4 5.0 1.3 4.6 0.5 0.2 2.6 1.2 17.5 55.5	Ingestion	25.2
				Inhalation	0.0				Inhalation	0.2
				Dermal	89.7				Dermal	74.6
				External Exposure	0.0					

Table D4.39. Summary of Risk Characterization for SWMU 196, EU 1 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	8.27E-05	Beryllium	98.4	See Outdoor Worker (subsurface)	13.21	Antimony Beryllium Cadmium Cobalt Nickel Silver Thallium Vanadium	10.6 5.0 1.3 4.6 2.6 1.2 17.5 55.5	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	1.16E-05	Chromium Neptunium-237 Uranium-238	10.9 49.7 38.4	Ingestion Inhalation Dermal External Exposure	2.30	Nickel	96.3	Ingestion Inhalation Dermal	2.2 0.3 97.5
Future Child Resident - surface	1.16E-05	Chromium Neptunium-237 Uranium-238	10.9 49.7 38.4	Ingestion Inhalation Dermal External Exposure	5.65	Antimony Nickel Uranium	1.9 94.9 3.0	Ingestion Inhalation Dermal	8.4 0.5 91.1
Future Teen Recreational User - surface	<1E-6	*no COCs			1.93	Nickel	96.7	Ingestion Inhalation Dermal	0.4 0.1 99.5

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.40. Summary of Risk Characterization for SWMU 196, EU 2

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	1.25E-06	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	2.23E-05	PCB, Total Total PAH Uranium-238	36.0	Ingestion	7.7	0.21	Nickel	80.1	Ingestion	1.6
			51.4	Inhalation	5.8				Inhalation	0.8
			5.8	Derma External Exposure	81.4 5.2				Derma External Exposure	97.6
Outdoor Worker - surface	2.74E-05	Cadmium PCB, Total Total PAH Uranium-238	6.1	Ingestion	44.3	0.18	Nickel	76.5	Ingestion	13.9
			34.0	Inhalation	3.5				Inhalation	0.7
			51.2	Derma External Exposure	49.1 3.1				Derma External Exposure	85.5
Outdoor Worker - subsurface	2.23E-04	Arsenic Cadmium PCB, Total Total PAH Uranium-238	10.2	Ingestion	47.6	2.80	Antimony Arsenic Nickel	82.2	Ingestion	28.0
			1.3	Inhalation	0.3				Inhalation	0.2
			4.2	Derma External Exposure	51.7 0.4				Derma External Exposure	71.8

Table D4.40. Summary of Risk Characterization for SWMU 196, EU 2 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	2.79E-06	Total PAH	83.5	See Outdoor Worker (subsurface)	0.88	Antimony	82.2	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	6.95E-05	Cadmium Chromium PCB, Total Total PAH Uranium-238	4.5 1.9 34.0 50.3 9.2	Ingestion Inhalation Dermal External Exposure	0.37	Nickel	79.9	Ingestion Inhalation Dermal	2.7 0.4 96.9
Future Child Resident - surface	6.95E-05	Cadmium Chromium PCB, Total Total PAH Uranium-238	4.5 1.9 34.0 50.3 9.2	Ingestion Inhalation Dermal External Exposure	0.92	Barium Nickel	15.7 77.6	Ingestion Inhalation Dermal	10.1 0.8 89.1
Future Teen Recreational User - surface	1.35E-05	PCB, Total Total PAH	37.5 56.1	Ingestion Inhalation Dermal External Exposure	0.31	Nickel	80.6	Ingestion Inhalation Dermal	0.4 0.2 99.4

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.41. Summary of Risk Characterization for SWMU 211

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	9.66E-06	Chromium PCB, Total Total PAH Uranium-238	15.3 19.8 18.1 35.5	Ingestion Inhalation Dermal External Exposure	6.8 16.9 33.9 42.4	<0.1	*no COCs			
Outdoor Worker - surface	1.13E-05	Chromium PCB, Total Total PAH Uranium-238	9.7 19.6 18.9 43.9	Ingestion Inhalation Dermal External Exposure	41.3 10.7 21.3 26.7	<0.1	*no COCs			
Outdoor Worker - subsurface	9.58E-04	Arsenic Beryllium Chromium PCB, Total Total PAH Uranium-234 Uranium-235 Uranium-238	2.5 5.1 0.1 90.1 0.2 0.3 0.1 1.4	Ingestion Inhalation Dermal External Exposure	39.9 4.3 55.1 0.8	1.31	Arsenic Cobalt Nickel	11.5 65.6 12.7	Ingestion Inhalation Dermal	58.4 0.7 41.0

Table D4.41. Summary of Risk Characterization for SWMU 211 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	1.20E-05	PCB, Total	90.1	See Outdoor Worker (subsurface)	0.41	Cobalt	65.6	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	3.61E-05	Chromium Neptunium-237 PCB, Total Total PAH Uranium-235 Uranium-238	8.0 7.5 15.6 14.8 7.5 46.7	Ingestion Inhalation Dermal External Exposure	<0.1	*no COCs			
Future Child Resident - surface	3.61E-05	Chromium Neptunium-237 PCB, Total Total PAH Uranium-235 Uranium-238	8.0 7.5 15.6 14.8 7.5 46.7	Ingestion Inhalation Dermal External Exposure	0.18	Uranium	88.4	Ingestion Inhalation Dermal	52.1 0.2 47.7
Future Teen Recreational User - surface	3.54E-06	PCB, Total Total PAH	34.1 32.7	Ingestion Inhalation Dermal External Exposure	<0.1	*no COCs			

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.42. Summary of Risk Characterization for SWMU 483

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	<1E-6	*no COCs				0.38	Nickel Silver	72.4 27.6	Ingestion Inhalation Dermal	1.0 0.4 98.6
Outdoor Worker - surface	<1E-6	*no COCs				0.30	Nickel	72.4	Ingestion Inhalation Dermal	9.2 0.3 90.4
Outdoor Worker - subsurface	3.05E-05	Arsenic	98.4	Ingestion Inhalation Dermal External Exposure	76.7 0.1 23.2	0.52	Arsenic Nickel	36.2 42.5	Ingestion Inhalation Dermal	36.7 0.3 63.0

Table D4.42. Summary of Risk Characterization for SWMU 483 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.16			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	1.25E-06	Total PAH	98.1	Ingestion Inhalation Dermal External Exposure	0.64	Nickel Silver	72.3 27.7	Ingestion Inhalation Dermal	1.7 0.2 98.1
Future Child Resident - surface	1.25E-06	Total PAH	98.1	Ingestion Inhalation Dermal External Exposure	1.55	Nickel Silver	72.4 27.6	Ingestion Inhalation Dermal	6.6 0.4 93.0
Future Teen Recreational User - surface	<1E-6	*no COCs			0.54	Nickel Silver	72.3 27.7	Ingestion Inhalation Dermal	0.3 0.1 99.6

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.43. Summary of Risk Characterization for SWMU 489

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	3.64E-06	Chromium Total PAH	37.9 38.1	Ingestion	5.5	0.19	Nickel	97.4	Ingestion	1.0
				Inhalation	38.3				Inhalation	0.5
				Dermal	35.2				Dermal	98.5
Outdoor Worker - surface	3.97E-06	Chromium Total PAH Uranium-238	25.7 42.6 31.5	Ingestion	36.0	0.15	Nickel	97.6	Ingestion	9.1
				Inhalation	25.9				Inhalation	0.5
				Dermal	23.8				Dermal	90.5
Outdoor Worker - subsurface	2.76E-05	Arsenic Total PAH Uranium-238	87.2 6.1 4.5	Ingestion	74.1	0.30	Arsenic Nickel	49.6 49.0	Ingestion	43.7
				Inhalation	0.1				Inhalation	0.4
				Dermal	23.8				Dermal	55.8
				External Exposure	2.0					

Table D4.43. Summary of Risk Characterization for SWMU 489 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	1.12E-05	Chromium Total PAH Uranium-238	24.0 37.9 38.0	Ingestion Inhalation Dermal External Exposure	0.32	Nickel	97.4	Ingestion Inhalation Dermal	1.7 0.3 98.0
Future Child Resident - surface	1.12E-05	Chromium Total PAH Uranium-238	24.0 37.9 38.0	Ingestion Inhalation Dermal External Exposure	0.78	Nickel	97.5	Ingestion Inhalation Dermal	6.5 0.5 92.9
Future Teen Recreational User - surface	1.34E-06	*no COCs			0.27	Nickel	97.4	Ingestion Inhalation Dermal	0.3 0.1 99.6

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.44. Summary of Risk Characterization for SWMU 531

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	2.96E-06	Arsenic	88.7	Ingestion	24.1	<0.1	*no COCs			
				Inhalation	3.4					
				Dermal	68.4					
				External Exposure	4.1					
Future Industrial Worker - surface	5.29E-05	Arsenic Chromium Uranium-238	88.7 3.2 3.9	Ingestion	24.1	1.00	Arsenic Iron Nickel	29.5 22.7 37.9	Ingestion Inhalation Dermal	13.1 0.6 86.3
				Inhalation	3.4					
				Dermal	68.4					
				External Exposure	4.1					
Outdoor Worker - surface	1.20E-04	Arsenic Cadmium Chromium Total PAH Uranium-238	93.6 1.7 1.0 0.9 2.5	Ingestion	75.3	1.57	Arsenic Iron Nickel	44.8 26.8 19.5	Ingestion Inhalation Dermal	59.1 0.3 40.6
				Inhalation	1.1					
				Dermal	22.2					
				External Exposure	1.3					
Outdoor Worker - subsurface	1.21E-04	Arsenic Cadmium Chromium Total PAH Uranium-238	93.6 1.7 1.1 0.9 2.5	Ingestion	75.3	1.62	Arsenic Iron Nickel	43.6 26.0 18.9	Ingestion Inhalation Dermal	58.8 1.1 40.0
				Inhalation	1.2					
				Dermal	22.2					
				External Exposure	1.3					

Table D4.44. Summary of Risk Characterization for SWMU 531 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	1.51E-06	Arsenic	93.6	See Outdoor Worker (subsurface)	0.50	Arsenic Iron	43.6 26.0	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	2.20E-04	Arsenic Cadmium Chromium Total PAH Uranium-235 Uranium-238	90.2 1.7 1.5 1.2 0.8 4.6	Ingestion Inhalation Dermal External Exposure	1.84	Arsenic Iron Nickel	31.7 23.3 35.2	Ingestion Inhalation Dermal	19.9 0.3 79.8
Future Child Resident - surface	2.20E-04	Arsenic Cadmium Chromium Total PAH Uranium-235 Uranium-238	90.2 1.7 1.5 1.2 0.8 4.6	Ingestion Inhalation Dermal External Exposure	6.80	Antimony Arsenic Iron Nickel Uranium Zinc	2.7 41.9 26.0 23.0 2.6 2.6	Ingestion Inhalation Dermal	50.3 0.4 49.4
Future Teen Recreational User - surface	2.84E-05	Arsenic	93.1	Ingestion Inhalation Dermal External Exposure	1.31	Arsenic Iron Nickel	26.3 21.9 41.7	Ingestion Inhalation Dermal	3.8 0.2 96.0

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.45. Summary of Risk Characterization for SWMU 47

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total	Total HI	COCs	%Total	Routes of Exposure	%Total							
Current Industrial Worker - surface	5.76E-05	Arsenic	4.4	Ingestion	8.3	<0.1	*no COCs										
		Beryllium	4.9	Inhalation	0.5												
		Total PAH	88.9	Dermal	90.6												
			0.6	External Exposure	0.6												
Future Industrial Worker - surface	1.03E-03	Arsenic	4.4	Ingestion	8.3	0.92	Arsenic Cobalt Iron Nickel	30.8 14.7 12.7 20.9	Ingestion Inhalation Dermal	14.9 3.8 81.3							
		Beryllium	4.9	Inhalation	0.5												
		Cadmium	0.1	Dermal	90.6												
		Chromium	0.2	External	0.6												
		PCB, Total	0.5	Exposure													
		Thorium-230	0.3														
		Total PAH	88.9														
		Uranium-235	0.1														
		Uranium-238	0.5														
		Outdoor Worker - surface	1.31E-03	Arsenic	8.3						Ingestion	46.7	1.56	Arsenic Cobalt Iron Nickel	43.6 16.0 14.0 10.0	Ingestion Inhalation Dermal	62.7 1.7 35.7
Beryllium	3.1			Inhalation	0.3												
Cadmium	0.2			Dermal	52.7												
Chromium	0.1			External	0.3												
PCB, Total	0.5			Exposure													
Plutonium-239/240	0.2																
Thorium-230	1.4																
Total PAH	85.3																
Uranium-234	0.2																
Uranium-235	0.1																
Uranium-238	0.5																
Outdoor Worker - subsurface	1.34E-03			Arsenic	8.1	Ingestion	46.3	1.84	Arsenic Cobalt Iron Nickel	37.0 16.0 11.9 8.4	Ingestion Inhalation Dermal	60.2 4.7 35.1					
				Beryllium	3.0	Inhalation	1.8										
		Cadmium	0.6	Dermal	51.6												
		PCB, Total	0.4	External	0.3												
		Plutonium-239/240	0.2	Exposure													
		Thorium-230	1.9														
		Total PAH	83.1														
		Trichloroethene	1.7														
		Uranium-234	0.2														
		Uranium-238	0.5														

Table D4.45. Summary of Risk Characterization for SWMU 47 (Continued)

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total Worker (subsurface) for %	Total HI	COCs	%Total	Routes of Exposure	%Total Worker (subsurface) for %
Excavation Worker - subsurface	1.68E-05	Arsenic Total PAH	8.1 83.1	See Outdoor Worker (subsurface) for %	37	0.58	Arsenic	37	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	3.18E-03	Arsenic Beryllium Cadmium Chromium Naphthalene Neptunium-237 PCB, Total Plutonium-239/240 Thorium-230 Total PAH Uranium-234 Uranium-235 Uranium-238	6.0 4.1 0.2 0.1 0.1 1.0 0.5 0.0 0.4 87.6 0.0 0.2 0.7	Ingestion Inhalation Dermal External Exposure	23.6 0.3 75.2 0.9	1.69	Arsenic Cobalt Iron Nickel	33.2 15.0 13.1 19.4	Ingestion Inhalation Dermal	22.7 1.9 75.3
Future Child Resident - surface	3.18E-03	Arsenic Beryllium Cadmium Chromium Naphthalene Neptunium-237 PCB, Total Plutonium-239/240 Thorium-230 Total PAH Uranium-234 Uranium-235 Uranium-238	6.0 4.1 0.2 0.1 0.1 1.0 0.5 0.0 0.4 87.6 0.0 0.2 0.7	Ingestion Inhalation Dermal External Exposure	23.6 0.3 75.2 0.9	6.67	Aluminum Antimony Arsenic Cobalt Iron Naphthalene Nickel Pyrene Uranium	5.1 2.4 41.2 15.7 13.7 1.6 11.9 2.0 3.5	Ingestion Inhalation Dermal	53.9 2.3 43.8
Future Teen Recreational User - surface	6.68E-04	Arsenic Beryllium PCB, Total Total PAH	3.8 5.2 0.5 90.1	Ingestion Inhalation Dermal External Exposure	2.3 0.1 97.4 0.2	1.16	Arsenic Cobalt Nickel	28.6 14.6 12.8 23.9	Ingestion Inhalation Dermal	4.5 1.2 94.3

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.46. Summary of Risk Characterization for SWMU 200

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	1.42E-06	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	2.54E-05	Cesium-137	26.3	Ingestion	4.7	1.10	Mercury	67.8	Ingestion	1.7
		Chromium	7.5	Inhalation	11.5		Nickel	27.2	Inhalation	0.2
		PCB, Total	54.6	Derma	48.8				Derma	98.1
		Uranium-238	8.3	External Exposure	35.0					
Outdoor Worker - surface	2.64E-05	Cesium-137	18.9	Ingestion	32.2	0.94	Mercury	66.4	Ingestion	14.6
		Chromium	5.3	Inhalation	8.2		Nickel	25.8	Inhalation	0.1
		PCB, Total	60.8	Derma	34.8				Derma	85.3
		Uranium-238	11.6	External Exposure	24.9					
Outdoor Worker - subsurface	4.81E-05	Arsenic	48.8	Ingestion	54.3	1.18	Arsenic	12.4	Ingestion	22.5
		Cesium-137	8.4	Inhalation	4.7		Mercury	54.2	Inhalation	0.8
		Chromium	3.2	Derma	29.9		Nickel	20.0	Derma	76.7
		PCB, Total	33.3	External Exposure	11.0					
Uranium-238	5.0									

Table D4.46. Summary of Risk Characterization for SWMU 200 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.37	Mercury	54.2	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	9.17E-05	Cesium-137 Chromium PCB, Total Total PAH Uranium-235 Uranium-238	36.6 4.0 44.4 1.6 2.0 11.3	Ingestion Inhalation Dermal External Exposure	1.89	Mercury Nickel	67.8 27.0	Ingestion Inhalation Dermal	2.9 0.1 97.1
Future Child Resident - surface	9.17E-05	Cesium-137 Chromium PCB, Total Total PAH Uranium-235 Uranium-238	36.6 4.0 44.4 1.6 2.0 11.3	Ingestion Inhalation Dermal External Exposure	4.71	Antimony Mercury Nickel Uranium	2.2 66.8 26.2 4.2	Ingestion Inhalation Dermal	10.7 0.2 89.2
Future Teen Recreational User - surface	1.13E-05	Cesium-137 PCB, Total	12.4 77.3	Ingestion Inhalation Dermal External Exposure	1.58	Mercury Nickel	68.1 27.3	Ingestion Inhalation Dermal	0.5 0.0 99.5

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.47. Summary of Risk Characterization for SWMU 212

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total	Total HI	COCs	%Total	Routes of Exposure	%Total								
Current Industrial Worker - surface	6.64E-06	Beryllium Thorium-230	48.7	Ingestion	18.5	<0.1	*no COCs											
			15.9	Inhalation Dermal External Exposure	2.4 57.9 21.2													
Future Industrial Worker - surface	1.19E-04	Arsenic Beryllium Cesium-137 Chromium Neptunium-237 Thorium-230 Uranium-238	12.2	Ingestion	18.5	0.50	Iron Nickel	32.8 40.3	Ingestion Inhalation Dermal	11.6 0.4 87.9								
			48.8	Inhalation	2.4													
			5.9	Dermal	57.9													
			1.0	External	21.2													
			12.4	Exposure														
			15.9															
Outdoor Worker - surface	2.27E-04	Arsenic Beryllium Cesium-137 Neptunium-237 PCB, Total Plutonium-239/240 Thorium-230 Uranium-238	15.3	Ingestion	68.5	0.75	Arsenic Iron Nickel	29.1 41.1 22.0	Ingestion Inhalation Dermal	55.8 0.2 44.0								
			20.6	Inhalation	0.9													
			2.3	Dermal	22.4													
			5.4	External	8.2													
			0.5	Exposure														
			1.8															
			52.2															
			1.2															
			Outdoor Worker - subsurface	2.32E-04	Arsenic Beryllium Cesium-137 Chromium Neptunium-237 PCB, Total Plutonium-239/240 Thorium-230 Uranium-238						15.0	Ingestion	67.1	30.53	Arsenic Cobalt Iron Mercury Nickel Silver Vanadium	0.7 1.0 1.0 2.1 0.5 0.4 93.6	Ingestion Inhalation Dermal	11.2 0.1 88.7
											22.1	Inhalation	1.3					
2.2	Dermal	23.7																
0.7	External	8.0																
5.3	Exposure																	
0.5																		
1.8																		
51.0																		
1.2																		

Table D4.47. Summary of Risk Characterization for SWMU 212 (Continued)

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total Worker for %	Total HI	COCs	%Total	Routes of Exposure	%Total Worker for %
Excavation Worker - subsurface	2.90E-06	Thorium-230	51.0	See Outdoor Worker (subsurface) for %		9.54	Mercury Vanadium	2.1 93.6	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	4.17E-04	Arsenic Beryllium Cesium-137 Chromium Cobalt-60 Neptunium-237 PCB, Total Plutonium-239/240 Thorium-230 Uranium-235 Uranium-238	14.7 36.4 8.4 0.6 0.6 17.8 0.7 0.6 17.4 0.6 2.2	Ingestion Inhalation Dermal External Exposure	26.4 1.0 42.2 30.4	0.92	Arsenic Iron Nickel	19.6 34.0 37.7	Ingestion Inhalation Dermal	17.9 0.2 81.9
Future Child Resident - surface	4.17E-04	Arsenic Beryllium Cesium-137 Chromium Cobalt-60 Neptunium-237 PCB, Total Plutonium-239/240 Thorium-230 Uranium-235 Uranium-238	14.7 36.4 8.4 0.6 0.6 17.8 0.7 0.6 17.4 0.6 2.2	Ingestion Inhalation Dermal External Exposure	26.4 1.0 42.2 30.4	3.26	Arsenic Iron Nickel Uranium	26.9 39.4 25.7 5.1	Ingestion Inhalation Dermal	46.9 0.3 52.8
Future Teen Recreational User - surface	5.64E-05	Arsenic Beryllium Cesium-137 Neptunium-237 Thorium-230	14.4 71.0 2.6 5.5 3.9	Ingestion Inhalation Dermal External Exposure	4.9 0.7 85.0 9.4	0.67	Arsenic Iron Nickel	15.9 31.3 43.8	Ingestion Inhalation Dermal	3.3 0.1 96.5

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.48. Summary of Risk Characterization for SWMU 213, EU 1

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI	
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs				
Future Industrial Worker - surface	6.25E-06	Chromium	25.3	Ingestion	6.4	0.32	Nickel Silver	49.1	Ingestion	1.3	
		Total PAH	46.4	Inhalation	26.0			38.5	Inhalation	0.3	
		Uranium-238	21.9	Derma External Exposure	48.2 19.4				Derma External Exposure	98.5	
Outdoor Worker - surface	7.16E-06	Chromium	16.4	Ingestion	39.5	0.26	Nickel	48.3	Ingestion	10.9	
		Total PAH	49.5	Inhalation	16.8				Inhalation	0.2	
		Uranium-238	27.8	Derma External Exposure	31.2 12.5					Derma External Exposure	88.9
Outdoor Worker - subsurface	2.95E-05	Arsenic	75.2	Ingestion	67.7	0.45	Arsenic Nickel	31.1 28.2	Ingestion	35.3	
		Chromium	4.5	Inhalation	4.7				Inhalation	3.6	
		Total PAH	12.0	Derma External Exposure	24.6 3.0					Derma External Exposure	61.1
		Uranium-238	6.7								

Table D4.48. Summary of Risk Characterization for SWMU 213, EU 1 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.14			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	1.98E-05	Chromium PCB, Total Total PAH Uranium-238	15.5 5.8 44.6 34.0	Ingestion Inhalation Dermal External Exposure	0.54	Nickel Silver	49.0 38.5	Ingestion Inhalation Dermal	2.1 0.1 97.8
Future Child Resident - surface	1.98E-05	Chromium PCB, Total Total PAH Uranium-238	15.5 5.8 44.6 34.0	Ingestion Inhalation Dermal External Exposure	1.32	Antimony Nickel Silver	11.6 48.6 38.1	Ingestion Inhalation Dermal	7.8 0.3 91.9
Future Teen Recreational User - surface	2.72E-06	Total PAH	70.3	Ingestion Inhalation Dermal External Exposure	0.46	Nickel Silver	49.1 38.7	Ingestion Inhalation Dermal	0.3 0.1 99.6

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.49. Summary of Risk Characterization for SWMU 213, EU 2

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	1.49E-06	Chromium	99.4	Ingestion Inhalation Dermal External Exposure	100.0	0.32	Nickel Silver	65.9 32.5	Ingestion Inhalation Dermal	1.0 0.3 98.6
Outdoor Worker - surface	1.11E-06	Chromium	99.4	Ingestion Inhalation Dermal External Exposure	100.0	0.26	Nickel	66.0	Ingestion Inhalation Dermal	9.1 0.3 90.5
Outdoor Worker - subsurface	1.67E-06	Chromium	99.6	Ingestion Inhalation Dermal External Exposure	100.0	0.37	Manganese Nickel	29.0 46.5	Ingestion Inhalation Dermal	20.6 9.5 69.9

Table D4.49. Summary of Risk Characterization for SWMU 213, EU 2 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.12			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	2.90E-06	Chromium	99.4	Ingestion Inhalation Dermal External Exposure	0.55	Nickel Silver	65.9 32.5	Ingestion Inhalation Dermal	1.7 0.2 98.1
Future Child Resident - surface	2.90E-06	Chromium	99.4	Ingestion Inhalation Dermal External Exposure	1.33	Nickel Silver	66.0 32.5	Ingestion Inhalation Dermal	6.6 0.4 93.1
Future Teen Recreational User - surface	<1E-6	*no COCs			0.46	Nickel Silver	65.8 32.5	Ingestion Inhalation Dermal	0.3 0.1 99.6

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.50. Summary of Risk Characterization for SWMU 214

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Outdoor Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Outdoor Worker - subsurface	2.78E-05	Arsenic	100.0	Ingestion Inhalation Dermal External Exposure	77.3 0.1 22.7	0.19	Arsenic	89.1	Ingestion Inhalation Dermal	71.2 0.3 28.5

Table D4.50. Summary of Risk Characterization for SWMU 214 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	<1E-6	*no COCs			<0.1	*no COCs			
Future Child Resident - surface	<1E-6	*no COCs			0.10	Antimony	100.0	Ingestion Inhalation Dermal	17.6 82.4
Future Teen Recreational User - surface	<1E-6	*no COCs			<0.1	*no COCs			

There are no subsurface data available for assessment.

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.51. Summary of Risk Characterization for SWMU 215

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	3.27E-06	Chromium Total PAH	58.0	Ingestion	3.2	0.36	Iron Nickel	43.0	Ingestion	8.3
			41.7	Inhalation	58.3			47.6	Inhalation	0.3
				Derma External Exposure	38.5			Derma	91.5	
Outdoor Worker - surface	3.08E-06	Chromium Total PAH	45.7	Ingestion	23.8	0.45	Iron Nickel	63.0	Ingestion	46.4
			54.2	Inhalation	45.9			30.3	Inhalation	0.1
				Derma External Exposure	30.3			Derma	53.4	
Outdoor Worker - subsurface	3.62E-05	Arsenic Chromium Total PAH	67.6	Ingestion	64.8	0.68	Arsenic Iron Nickel	22.5	Ingestion	49.4
			3.9	Inhalation	4.0			42.2	Inhalation	0.2
			28.5	Derma External Exposure	31.3			20.3	Derma	50.4

Table D4.51. Summary of Risk Characterization for SWMU 215 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)		0.21			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	7.86E-06	Chromium Total PAH	46.9 52.9	Ingestion Inhalation Dermal External Exposure	11.8 47.1 41.1	0.64	Iron Nickel	45.5 45.5	Ingestion Inhalation Dermal	13.0 0.1 86.9
Future Child Resident - surface	7.86E-06	Chromium Total PAH	46.9 52.9	Ingestion Inhalation Dermal External Exposure	11.8 47.1 41.1	2.06	Antimony Iron Nickel	6.0 58.4 34.3	Ingestion Inhalation Dermal	37.7 0.2 62.1
Future Teen Recreational User - surface	1.25E-06	*no COCs				0.49	Iron Nickel	39.9 50.3	Ingestion Inhalation Dermal	2.3 0.1 97.6

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.52. Summary of Risk Characterization for SWMU 216

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	4.09E-06	Total PAH	61.6	Ingestion Inhalation Dermal External Exposure	6.8 19.4 56.9 16.9	<0.1	*no COCs			
Outdoor Worker - surface	4.80E-06	Total PAH Uranium-238	64.2 23.6	Ingestion Inhalation Dermal External Exposure	41.1 12.3 35.9 10.7	<0.1	*no COCs			
Outdoor Worker - subsurface	2.85E-05	Arsenic Cesium-137 Total PAH Uranium-238	72.7 12.5 10.8 4.0	Ingestion Inhalation Dermal External Exposure	63.3 0.1 22.5 14.1	0.13	Arsenic	100.0	Ingestion Inhalation Dermal	77.0 0.4 22.6

Table D4.52. Summary of Risk Characterization for SWMU 216 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)		<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	1.31E-05	Chromium Total PAH Uranium-238	11.7 58.8 29.4	Ingestion Inhalation Dermal External Exposure	15.8 11.8 45.7 26.7	<0.1	*no COCs			
Future Child Resident - surface	1.31E-05	Chromium Total PAH Uranium-238	11.7 58.8 29.4	Ingestion Inhalation Dermal External Exposure	15.8 11.8 45.7 26.7	<0.1	*no COCs			
Future Teen Recreational User - surface	1.96E-06	Total PAH	84.7	Ingestion Inhalation Dermal External Exposure	2.3 7.4 82.9 7.4	<0.1	*no COCs			

There are no subsurface data available for assessment.
 Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.53. Summary of Risk Characterization for SWMU 217, EU 1

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	3.60E-06	Chromium	79.0	Ingestion	2.1	0.55	Cobalt Nickel Silver	33.7	Ingestion	6.9
				Inhalation	81.2				Inhalation	3.9
				Derma External Exposure	16.7				Derma External Exposure	89.1
Outdoor Worker - surface	3.15E-06	Chromium	66.9	Ingestion	17.1	0.65	Cobalt Nickel Silver	52.4	Ingestion	41.6
				Inhalation	68.8				Inhalation	2.5
				Derma External Exposure	14.1				Derma External Exposure	55.9
Outdoor Worker - subsurface	2.53E-05	Arsenic Chromium	89.8 6.3	Ingestion	71.4	17.51	Arsenic Cobalt Mercury Nickel Silver Vanadium	0.8	Ingestion	11.0
				Inhalation	6.6				Inhalation	0.1
				Derma	20.4				Derma	88.9
				External Exposure	1.7					

Table D4.53. Summary of Risk Characterization for SWMU 217, EU 1 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	5.47	Mercury Vanadium	3.9 91.8	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	9.00E-06	Chromium Uranium-238	61.3 37.1	Ingestion Inhalation Dermal External Exposure	0.96	Cobalt Nickel Silver	36.2 35.5 22.3	Ingestion Inhalation Dermal	11.1 2.1 86.8
Future Child Resident - surface	9.00E-06	Chromium Uranium-238	61.3 37.1	Ingestion Inhalation Dermal External Exposure	3.00	Cobalt Manganese Nickel Silver	47.8 6.1 27.5 17.2	Ingestion Inhalation Dermal	33.2 3.1 63.7
Future Teen Recreational User - surface	<1E-6	*no COCs			0.74	Cobalt Nickel Silver	31.5 39.0 24.5	Ingestion Inhalation Dermal	2.0 1.1 96.9

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.54. Summary of Risk Characterization for SWMU 217, EU 2

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	1.30E-06	*no COCs				0.10	*no COCs			
Future Industrial Worker - surface	2.32E-05	Arsenic Chromium Total PAH	48.3 14.5 36.8	Ingestion Inhalation Dermal External Exposure	15.4 15.0 69.6	1.80	Cobalt Iron Mercury Nickel Silver	9.2 6.8 53.0 12.6 8.3	Ingestion Inhalation Dermal	5.1 1.3 93.6
Outdoor Worker - surface	3.99E-05	Arsenic Chromium Total PAH	67.5 6.3 26.1	Ingestion Inhalation Dermal External Exposure	63.6 6.4 29.9	1.91	Arsenic Cobalt Iron Mercury Nickel Silver	8.8 15.8 12.0 41.6 9.6 6.3	Ingestion Inhalation Dermal	33.9 0.9 65.2
Outdoor Worker - subsurface	6.79E-05	Arsenic Beryllium Chromium Total PAH	35.4 49.6 2.4 12.3	Ingestion Inhalation Dermal External Exposure	37.3 2.7 59.9	18.55	Antimony Arsenic Cobalt Iron Mercury Nickel Silver Vanadium	0.6 0.8 7.8 1.2 4.6 0.8 0.7 82.9	Ingestion Inhalation Dermal	15.5 0.2 84.4

Table D4.54. Summary of Risk Characterization for SWMU 217, EU 2 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	5.80	Cobalt Mercury Vanadium	7.8 4.6 82.9	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	8.00E-05	Arsenic Chromium Total PAH	59.2 8.2 32.5	Ingestion Inhalation Dermal External Exposure	3.14	Antimony Arsenic Cobalt Iron Mercury Nickel Silver	3.7 4.4 9.8 7.4 52.1 12.3 8.1	Ingestion Inhalation Dermal	8.1 0.7 91.2
Future Child Resident - surface	8.00E-05	Arsenic Chromium Total PAH	59.2 8.2 32.5	Ingestion Inhalation Dermal External Exposure	9.05	Antimony Arsenic Cobalt Iron Manganese Mercury Nickel Silver	3.4 7.5 14.1 10.6 2.2 44.5 10.4 6.8	Ingestion Inhalation Dermal	26.3 1.1 72.5
Future Teen Recreational User - surface	1.25E-05	Arsenic Total PAH	50.2 44.8	Ingestion Inhalation Dermal External Exposure	2.50	Cobalt Iron Mercury Nickel Silver	8.2 6.2 55.0 13.1 8.6	Ingestion Inhalation Dermal	1.4 0.4 98.3

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.55. Summary of Risk Characterization for SWMU 221

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	1.31E-06	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	2.34E-05	Chromium	9.9	Ingestion	6.9	0.32	Nickel	57.6	Ingestion	5.7
		PCB, Total	11.4	Inhalation	10.9				Inhalation	0.5
		Total PAH	73.8	Derma	77.9				Derma	93.8
		Uranium-238	4.9	External Exposure	4.3					
Outdoor Worker - surface	2.75E-05	Chromium	6.2	Ingestion	41.4	0.36	Iron Nickel	39.5 42.0	Ingestion	36.9
		PCB, Total	11.2	Inhalation	6.9				Inhalation	0.3
		Total PAH	76.6	Derma	49.0				Derma	62.8
		Uranium-238	6.0	External Exposure	2.7					
Outdoor Worker - subsurface	1.47E-04	Arsenic	20.3	Ingestion	29.1	32.45	Aluminum Arsenic Barium Cobalt Iron Manganese Mercury Nickel Vanadium	0.4 0.6 0.4 3.9 0.9 0.7 3.5 0.5 88.4	Ingestion	13.2
		Beryllium	60.9	Inhalation	1.4				Inhalation	0.3
		Chromium	1.1	Derma	69.0				Derma	86.5
		PCB, Total	2.1	External Exposure	0.5					
		Total PAH	14.4							
		Uranium-238	1.1							

Table D4.55. Summary of Risk Characterization for SWMU 221 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	1.84E-06	Beryllium	60.9	See Outdoor Worker (subsurface)	10.14	Cobalt Mercury Vanadium	3.9 3.5 88.4	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	7.05E-05	Chromium PCB, Total Total PAH Uranium-238	6.4 11.1 74.6 7.9	Ingestion Inhalation Dermal External Exposure	0.57	Iron Nickel	25.3 55.9	Ingestion Inhalation Dermal	9.1 0.3 90.6
Future Child Resident - surface	7.05E-05	Chromium PCB, Total Total PAH Uranium-238	6.4 11.1 74.6 7.9	Ingestion Inhalation Dermal External Exposure	1.66	Barium Iron Nickel Uranium	9.5 35.4 46.0 7.1	Ingestion Inhalation Dermal	29.0 0.4 70.6
Future Teen Recreational User - surface	1.37E-05	PCB, Total Total PAH	12.2 83.0	Ingestion Inhalation Dermal External Exposure	0.45	Nickel	59.6	Ingestion Inhalation Dermal	1.6 0.1 98.3

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.56. Summary of Risk Characterization for SWMU 222

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	1.45E-06	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	2.59E-05	Chromium PCB, Total Total PAH Uranium-235 Uranium-238	6.1 28.8 11.6 6.9 44.5	Ingestion Inhalation Dermal External Exposure	9.8 8.4 35.5 46.2	0.25	Nickel	87.1	Ingestion Inhalation Dermal	2.8 0.5 96.7
Outdoor Worker - surface	3.54E-05	Chromium PCB, Total Total PAH Uranium-234 Uranium-235 Uranium-238	3.3 24.4 10.3 10.4 4.4 47.2	Ingestion Inhalation Dermal External Exposure	51.2 4.5 19.2 25.0	0.23	Nickel	76.7	Ingestion Inhalation Dermal	21.5 0.4 78.1
Outdoor Worker - subsurface	5.58E-05	Arsenic Cesium-137 Chromium PCB, Total Total PAH Uranium-234 Uranium-235 Uranium-238	44.0 4.7 2.8 10.7 6.5 4.5 2.8 23.5	Ingestion Inhalation Dermal External Exposure	59.0 3.4 19.5 18.1	0.47	Arsenic Nickel	32.5 36.7	Ingestion Inhalation Dermal	46.7 2.9 50.4

Table D4.56. Summary of Risk Characterization for SWMU 222 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.15			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	1.02E-04	Chromium	3.0	Ingestion	0.42	Nickel	86.2	Ingestion	4.5
		PCB, Total	21.5	Inhalation				0.3	
		Total PAH	8.9	Derma				95.2	
		Uranium-234	2.1	External					
		Uranium-235	8.8	Exposure					
Uranium-238	55.6								
Future Child Resident - surface	1.02E-04	Chromium	3.0	Ingestion	1.11	Nickel Uranium	79.7 18.3	Ingestion	16.1
		PCB, Total	21.5	Inhalation				0.5	
		Total PAH	8.9	Derma				83.5	
		Uranium-234	2.1	External					
		Uranium-235	8.8	Exposure					
Uranium-238	55.6								
Future Teen Recreational User - surface	9.67E-06	PCB, Total	48.4	Ingestion	0.35	Nickel	88.3	Ingestion	0.7
		Total PAH	20.4	Inhalation				0.1	
		Uranium-238	23.7	Derma				99.1	
				External Exposure					

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.57. Summary of Risk Characterization for SWMU 224

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI	
Current Industrial Worker - surface	1.86E-04	PCB, Total Total PAH	76.4 23.1	Ingestion	6.8	<0.1	*no COCs				
				Inhalation	5.5						
Future Industrial Worker - surface	3.31E-03	Chromium PCB, Total Total PAH Uranium-238	0.0 76.4 23.1 0.5	Dermal	87.2	<0.1	*no COCs				
				External Exposure	0.4						
				Ingestion	6.8						
				Inhalation	5.5						
Outdoor Worker - surface	3.89E-03	Chromium PCB, Total Total PAH Uranium-238	0.0 75.4 24.0 0.6	Dermal	87.2	<0.1	*no COCs				
				External Exposure	0.4						
				Ingestion	41.2						
				Inhalation	3.5						
				Dermal	55.0						
Outdoor Worker - subsurface	3.92E-03	Arsenic PCB, Total Total PAH Uranium-238	0.7 74.7 23.8 0.6	External Exposure	0.3	1.20	Arsenic Mercury Nickel	15.0 53.2 16.9	Ingestion Inhalation Dermal	27.9 2.8 69.3	
				Ingestion	41.4						
				Inhalation	3.5						
				Dermal	54.7						
				External Exposure	0.4						

Table D4.57. Summary of Risk Characterization for SWMU 224 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	4.90E-05	PCB, Total Total PAH	74.7 23.8	See Outdoor Worker (subsurface)	0.37	Mercury	53.2	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	9.85E-03	Chromium PCB, Total Total PAH Uranium-235 Uranium-238	0.0 75.5 23.6 0.0 0.8	Ingestion Inhalation Dermal External Exposure	<0.1	*no COCs			
Future Child Resident - surface	9.85E-03	Chromium PCB, Total Total PAH Uranium-235 Uranium-238	0.0 75.5 23.6 0.0 0.8	Ingestion Inhalation Dermal External Exposure	0.32	Uranium	93.5	Ingestion Inhalation Dermal	55.0 0.2 44.8
Future Teen Recreational User - surface	2.10E-03	PCB, Total Total PAH Uranium-238	75.8 24.0 0.1	Ingestion Inhalation Dermal External Exposure	<0.1	*no COCs			

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.58. Summary of Risk Characterization for SWMU 225

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	3.36E-06	Total PAH Uranium-238	39.1 35.7	Ingestion Inhalation Dermal External Exposure	6.9 25.3 36.1 31.6	<0.1	*no COCs			
Outdoor Worker - surface	3.97E-06	Total PAH Uranium-238	40.4 43.8	Ingestion Inhalation Dermal External Exposure	41.7 15.9 22.6 19.8	<0.1	*no COCs			
Outdoor Worker - subsurface	2.65E-05	Arsenic Cesium-137 Total PAH Uranium-238	73.7 13.7 6.1 6.6	Ingestion Inhalation Dermal External Exposure	63.3 0.1 20.1 16.5	0.17	Arsenic	73.7	Ingestion Inhalation Dermal	69.6 8.7 21.7

Table D4.58. Summary of Risk Characterization for SWMU 225 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	1.15E-05	Chromium Total PAH Uranium-238	14.2 34.7 51.1	Ingestion Inhalation Dermal External Exposure	<0.1	*no COCs			
Future Child Resident - surface	1.15E-05	Chromium Total PAH Uranium-238	14.2 34.7 51.1	Ingestion Inhalation Dermal External Exposure	<0.1	*no COCs			
Future Teen Recreational User - surface	1.26E-06	*no COCs			<0.1	*no COCs			

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.59. Summary of Risk Characterization for SWMU 226

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total	Total HI	COCs	%Total	Routes of Exposure	%Total
Current Industrial Worker - surface	3.67E-05	Cesium-137	4.7	Ingestion	2.4	0.11	*no COCs			
		Neptunium-237	90.1	Inhalation	0.5					
				Dermal	1.3					
				External Exposure	95.9					
		Cesium-137	4.7	Ingestion	2.4					
		Chromium	0.2	Inhalation	0.5					
		Neptunium-237	90.1	Dermal	1.3					
		PCB, Total	1.2	External Exposure	95.9					
		Thorium-230	0.5							
		Total PAH	0.2							
Uranium-234	0.2									
Uranium-235	0.4									
Uranium-238	2.2									
Outdoor Worker - surface	5.84E-04	Cesium-137	3.9	Ingestion	18.9	2.05	Mercury	44.0	Ingestion	31.0
		Chromium	0.2	Inhalation	0.4		Nickel	19.3	Inhalation	0.6
		Neptunium-237	83.7	Dermal	1.1		Uranium	33.8	Dermal	68.4
		PCB, Total	1.6	External Exposure	79.7					
		Plutonium-238	0.2							
		Plutonium-239/240	0.7							
		Thorium-230	3.7							
		Total PAH	0.3							
		Uranium-234	1.4							
		Uranium-235	0.4							
Uranium-238	3.5									
Outdoor Worker - subsurface	5.89E-04	Arsenic	3.2	Ingestion	21.3	2.42	Arsenic	4.9	Ingestion	36.1
		Beryllium	5.3	Inhalation	0.6		Cobalt	5.5	Inhalation	0.9
		Cesium-137	3.4	Dermal	8.1		Mercury	37.3	Dermal	63.0
		Chromium	0.3	External Exposure	70.0		Nickel	17.0		
		Neptunium-237	73.2				Uranium	31.3		
		PCB, Total	4.3							
		Plutonium-238	0.2							
		Plutonium-239/240	0.6							
		Thorium-230	3.3							
		Total PAH	0.3							
Uranium-234	1.5									
Uranium-235	0.5									
Uranium-238	3.6									

Table D4.59. Summary of Risk Characterization for SWMU 226 (Continued)

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total Worker (subsurface) for %	Total HI	COCs	%Total	Routes of Exposure	%Total Worker (subsurface) for %
Excavation Worker - subsurface	7.36E-06	Neptunium-237	73.2	See Outdoor Worker (subsurface) for %		0.76	Mercury Nickel Uranium	37.3 17.0 31.3	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	3.26E-03	Americium-241 Cesium-137 Chromium Neptunium-237 PCB, Total Plutonium-239/240 Thorium-230 Total PAH Uranium-234 Uranium-235 Uranium-238	0.0 4.8 0.1 91.0 0.7 0.1 0.4 0.1 0.1 0.4 2.1	Ingestion Inhalation Dermal External Exposure	2.0 0.2 0.7 97.2	3.48	Mercury Nickel Uranium	53.3 24.0 20.3	Ingestion Inhalation Dermal	7.2 0.5 92.3
Future Child Resident - surface	3.26E-03	Americium-241 Cesium-137 Chromium Neptunium-237 PCB, Total Plutonium-239/240 Thorium-230 Total PAH Uranium-234 Uranium-235 Uranium-238	0.0 4.8 0.1 91.0 0.7 0.1 0.4 0.1 0.1 0.4 2.1	Ingestion Inhalation Dermal External Exposure	2.0 0.2 0.7 97.2	9.79	Antimony Manganese Mercury Nickel Uranium	1.2 1.5 46.6 20.6 29.7	Ingestion Inhalation Dermal	23.9 0.8 75.3
Future Teen Recreational User - surface	1.40E-04	Cesium-137 Neptunium-237 PCB, Total Total PAH Uranium-238	4.6 88.0 3.6 0.7 2.0	Ingestion Inhalation Dermal External Exposure	1.3 0.3 4.1 94.3	2.80	Mercury Nickel Uranium	55.7 25.2 16.9	Ingestion Inhalation Dermal	1.2 0.2 98.5

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.60. Summary of Risk Characterization for SWMU 227, EU 1

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total	Total HI	COCs	%Total	Routes of Exposure	%Total
Current Industrial Worker - surface	6.00E-06	Beryllium	36.8	Ingestion	5.9	<0.1	*No COCs			
		PCB, Total	20.6	Inhalation	3.1					
		Uranium-238	25.4	Dermal	59.1					
				External Exposure	31.9					
Future Industrial Worker - surface	1.07E-04	Beryllium	36.8	Ingestion	5.9	0.59	Nickel	80.7	Ingestion Inhalation Dermal	3.7 0.5 95.8
		Cesium-137	2.1	Inhalation	3.1					
		Chromium	1.5	Dermal	59.1					
		Neptunium-237	3.1	External	31.9					
		PCB, Total	20.6	Exposure						
		Total PAH	5.3							
		Uranium-235	3.5							
Uranium-238	25.4									
Outdoor Worker - surface	1.20E-04	Beryllium	26.6	Ingestion	37.6	0.57	Nickel Uranium	66.8 30.7	Ingestion Inhalation Dermal	26.9 0.4 72.7
		Cesium-137	1.4	Inhalation	2.0					
		Chromium	1.0	Dermal	39.2					
		Neptunium-237	2.3	External	21.2					
		PCB, Total	21.4	Exposure						
		Total PAH	5.8							
		Uranium-234	4.6							
		Uranium-235	2.7							
Uranium-238	33.0									
Outdoor Worker - subsurface	1.33E-04	Arsenic	15.3	Ingestion	43.0	0.73	Arsenic Nickel Uranium	17.5 51.7 24.2	Ingestion Inhalation Dermal	37.7 0.4 62.0
		Beryllium	23.7	Inhalation	1.9					
		Cesium-137	1.1	Dermal	38.0					
		Chromium	1.0	External	17.1					
		Neptunium-237	1.8	Exposure						
		PCB, Total	18.2							
		Total PAH	5.2							
		Uranium-234	3.7							
Uranium-235	2.2									
Uranium-238	26.7									

Table D4.60. Summary of Risk Characterization for SWMU 227, EU 1 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	1.67E-06			See Outdoor Worker (subsurface)	0.23	Nickel	51.7	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	3.78E-04	Beryllium Cesium-137 Chromium Cobalt-60 Neptunium-237 PCB, Total Total PAH Uranium-234 Uranium-235 Uranium-238	27.4 2.9 0.8 1.2 4.4 17.2 4.6 0.8 5.0 35.4	Ingestion Inhalation Dermal External Exposure	1.02	Nickel Uranium	79.4 17.6	Ingestion Inhalation Dermal	6.0 0.3 93.8
Future Child Resident - surface	3.78E-04	Beryllium Cesium-137 Chromium Cobalt-60 Neptunium-237 PCB, Total Total PAH Uranium-234 Uranium-235 Uranium-238	27.4 2.9 0.8 1.2 4.4 17.2 4.6 0.8 5.0 35.4	Ingestion Inhalation Dermal External Exposure	2.77	Nickel Uranium	70.7 26.6	Ingestion Inhalation Dermal	20.5 0.5 79.1
Future Teen Recreational User - surface	5.28E-05	Beryllium PCB, Total Total PAH Uranium-238	51.6 26.2 7.1 10.2	Ingestion Inhalation Dermal External Exposure	0.83	Nickel Uranium	82.3 14.5	Ingestion Inhalation Dermal	1.0 0.1 98.9

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.61. Summary of Risk Characterization for SWMU 227, EU 2

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	4.17E-06	Beryllium PCB, Total	50.9	Ingestion	3.6	<0.1	*no COCs			
			41.6	Inhalation	5.5					
			88.7	Dermal	88.7					
			2.1	External Exposure	2.1					
Future Industrial Worker - surface	7.45E-05	Beryllium Chromium PCB, Total Total PAH	50.9	Ingestion	3.6	1.34	Mercury Nickel	69.5 21.7	Ingestion Inhalation Dermal	2.5 0.2 97.2
			2.5	Inhalation	5.5					
			41.6	Dermal	88.7					
			2.6	External Exposure	2.1					
Outdoor Worker - surface	7.22E-05	Beryllium Chromium PCB, Total Total PAH Uranium-238	42.4	Ingestion	26.4	1.21	Cobalt Mercury Nickel	12.9 64.3 19.4	Ingestion Inhalation Dermal	20.0 0.2 79.8
			1.9	Inhalation	4.2					
			49.7	Dermal	67.7					
			3.3	External Exposure	1.6					
Outdoor Worker - subsurface	8.74E-05	Arsenic Beryllium Chromium PCB, Total Total PAH Uranium-238	23.0	Ingestion	36.8	14.64	Arsenic Cobalt Mercury Nickel Vanadium	0.9 1.3 5.3 1.6 89.9	Ingestion Inhalation Dermal	10.9 0.1 88.9
			37.1	Inhalation	2.9					
			1.3	Dermal	58.9					
			33.5	External Exposure	1.5					

Table D4.61. Summary of Risk Characterization for SWMU 227, EU 2 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	1.09E-06			See Outdoor Worker (subsurface)	4.58	Mercury Vanadium	5.3 89.9	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	2.09E-04	Beryllium Chromium Cobalt-60 PCB, Total Total PAH Uranium-238	47.7 1.7 1.9 43.6 2.8 2.2	Ingestion Inhalation Dermal External Exposure	2.32	Cobalt Mercury Nickel	6.9 69.1 21.5	Ingestion Inhalation Dermal	4.1 0.1 95.8
Future Child Resident - surface	2.09E-04	Beryllium Chromium Cobalt-60 PCB, Total Total PAH Uranium-238	47.7 1.7 1.9 43.6 2.8 2.2	Ingestion Inhalation Dermal External Exposure	5.99	Cobalt Mercury Nickel Uranium	11.0 65.8 20.1 1.8	Ingestion Inhalation Dermal	14.8 0.2 84.9
Future Teen Recreational User - surface	4.77E-05	Beryllium PCB, Total Total PAH	55.1 40.8 2.7	Ingestion Inhalation Dermal External Exposure	1.92	Cobalt Mercury Nickel	5.6 70.2 21.9	Ingestion Inhalation Dermal	0.7 0.1 99.3

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.62. Summary of Risk Characterization for SWMU 228

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	1.43E-05	Cadmium	8.7	Ingestion	4.5	1.41	Mercury	74.1	Ingestion	1.7
		Chromium	43.9	Inhalation	44.1		Nickel	13.2	Inhalation	0.1
		Neptunium-237	20.7	Derma	14.1		Silver	7.7	Derma	98.2
		Total PAH	7.9	External Exposure	37.3					
		Uranium-238	15.6							
Outdoor Worker - surface	1.46E-05	Cadmium	17.5	Ingestion	31.1	1.19	Mercury	72.9	Ingestion	14.1
		Chromium	31.7	Inhalation	31.8		Nickel	12.5	Inhalation	0.1
		Neptunium-237	16.7	Derma	10.2				Derma	85.8
		Total PAH	9.4	External Exposure	26.9					
		Uranium-238	22.0							
Outdoor Worker - subsurface	1.26E-04	Arsenic	53.5	Ingestion	48.2	1.95	Arsenic	21.5	Ingestion	36.0
		Beryllium	34.4	Inhalation	3.7		Iron	14.3	Inhalation	1.0
		Cadmium	2.0	Derma	44.5		Mercury	44.4	Derma	63.0
		Chromium	3.7	External Exposure	3.6		Nickel	7.6		
		Neptunium-237	1.9							
Total PAH	1.1									
Uranium-238	2.6									

Table D4.62. Summary of Risk Characterization for SWMU 228 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	1.57E-06			See Outdoor Worker (subsurface)	0.61	Arsenic Mercury	21.5 44.4	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	4.84E-05	Cadmium Chromium Neptunium-237 Total PAH Uranium-235 Uranium-238	10.0 25.1 30.6 7.1 4.7 22.5	Ingestion Inhalation Dermal External Exposure	2.41	Mercury Nickel Silver	74.0 13.1 7.7	Ingestion Inhalation Dermal	2.7 0.1 97.2
Future Child Resident - surface	4.84E-05	Cadmium Chromium Neptunium-237 Total PAH Uranium-235 Uranium-238	10.0 25.1 30.6 7.1 4.7 22.5	Ingestion Inhalation Dermal External Exposure	5.99	Antimony Mercury Nickel Silver Uranium	1.9 73.3 12.7 7.4 1.8	Ingestion Inhalation Dermal	10.3 0.1 89.6
Future Teen Recreational User - surface	3.76E-06	Chromium	30.3	Ingestion Inhalation Dermal External Exposure	2.02	Mercury Nickel Silver	74.3 13.2 7.7	Ingestion Inhalation Dermal	0.4 0.0 99.5

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.63. Summary of Risk Characterization for SWMU 229, EU 1

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	4.34E-06	Total PAH Uranium-238	61.0	Ingestion	8.9	0.36	Nickel Uranium	59.5	Ingestion	7.7
			38.8	Inhalation	0.4			40.5	Inhalation	0.5
Outdoor Worker - surface	5.68E-06	Total PAH Uranium-238	56.9	Ingestion	48.5	0.44	Nickel Uranium	39.0	Ingestion	44.5
			43.0	Inhalation	0.2			61.0	Inhalation	0.3
Outdoor Worker - subsurface	3.49E-05	Arsenic Chromium Total PAH Uranium-238	80.4	Ingestion	70.0	1.48	Arsenic Mercury Nickel Uranium	11.9	Ingestion	29.7
			3.3	Inhalation	3.4			58.0	Inhalation	0.1
			9.2	Dermal	23.4			11.6	Dermal	70.2
			7.0	External Exposure	3.2			18.2		

Table D4.63. Summary of Risk Characterization for SWMU 229, EU 1 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI	
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.46	Mercury	58.0	See Outdoor Worker (subsurface) for %		
Future Adult Resident - surface	1.64E-05	Total PAH Uranium-238	49.3 50.6	Ingestion	0.64	Nickel Uranium	57.0 43.0	Ingestion	12.1	
				Inhalation				Inhalation		0.2
				Dermal External Exposure				Dermal		
Future Child Resident - surface	1.64E-05	Total PAH Uranium-238	49.3 50.6	Ingestion	2.01	Nickel Uranium	43.8 56.2	Ingestion	35.9	
				Inhalation				Inhalation		0.4
				Dermal External Exposure				Dermal		
Future Teen Recreational User - surface	2.08E-06	Total PAH	83.8	Ingestion	0.49	Nickel Uranium	62.6 37.4	Ingestion	2.1	
				Inhalation				Inhalation		0.1
				Dermal External Exposure				Dermal		

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.64. Summary of Risk Characterization for SWMU 229, EU 2

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	7.04E-06	Arsenic	16.9	Ingestion	8.4	<0.1	*no COCs			
		Beryllium	44.8	Inhalation	0.9					
		Total PAH	22.8	Dermal	77.9					
				External Exposure	12.8					
Future Industrial Worker - surface	1.26E-04	Arsenic	16.9	Ingestion	8.4	0.46	Arsenic Nickel	29.2 50.8	Ingestion Inhalation Dermal	10.8 0.7 88.5
		Beryllium	44.8	Inhalation	0.9					
		Neptunium-237	0.8	Dermal	77.9					
		Total PAH	22.8	External Exposure	12.8					
		Uranium-235	1.7							
		Uranium-238	11.6							
Outdoor Worker - surface	1.61E-04	Arsenic	31.8	Ingestion	46.9	0.65	Arsenic Nickel Uranium	48.9 28.7 19.7	Ingestion Inhalation Dermal	53.8 0.4 45.9
		Beryllium	28.3	Inhalation	0.5					
		Total PAH	21.8	Dermal	45.1					
		Uranium-234	2.7	External Exposure	7.4					
		Uranium-235	1.2							
		Uranium-238	13.2							
Outdoor Worker - subsurface	1.64E-04	Arsenic	31.2	Ingestion	46.0	1.33	Arsenic Mercury Nickel Uranium	24.0 50.8 14.1 9.7	Ingestion Inhalation Dermal	32.7 0.2 67.1
		Beryllium	27.8	Inhalation	0.8					
		Cesium-137	1.7	Dermal	44.2					
		Chromium	0.7	External Exposure	9.0					
		Total PAH	21.3							
		Uranium-234	2.6							
		Uranium-235	1.1							
Uranium-238	13.0									

Table D4.64. Summary of Risk Characterization for SWMU 229, EU 2 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	2.05E-06			See Outdoor Worker (subsurface)	0.42	Mercury	50.8	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	4.18E-04	Arsenic Beryllium Chromium Neptunium-237 Total PAH Uranium-234 Uranium-235 Uranium-238	21.5 35.5 0.4 1.3 20.9 0.6 2.6 17.2	Ingestion Inhalation Dermal External Exposure	0.83	Arsenic Nickel Uranium	31.9 47.8 15.9	Ingestion Inhalation Dermal	16.7 0.3 83.0
Future Child Resident - surface	4.18E-04	Arsenic Beryllium Chromium Neptunium-237 Total PAH Uranium-234 Uranium-235 Uranium-238	21.5 35.5 0.4 1.3 20.9 0.6 2.6 17.2	Ingestion Inhalation Dermal External Exposure	2.88	Arsenic Nickel Uranium	44.8 33.3 18.8	Ingestion Inhalation Dermal	44.8 0.5 54.7
Future Teen Recreational User - surface	7.37E-05	Arsenic Beryllium Total PAH Uranium-238	16.2 53.0 25.6 3.9	Ingestion Inhalation Dermal External Exposure	0.61	Arsenic Nickel	25.6 54.8	Ingestion Inhalation Dermal	3.1 0.2 96.7

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.65. Summary of Risk Characterization for SWMU 26, EU 1

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total	Total HI	COCs	%Total	Routes of Exposure	%Total		
Current Industrial Worker - surface	7.19E-06	Beryllium	37.2	Ingestion	5.9	<0.1	*no COCs					
		Cesium-137	28.6	Inhalation	0.9							
		Uranium-238	15.9	Dermal	48.5							
Future Industrial Worker - surface	1.28E-04	Arsenic	10.1	Ingestion	5.9	0.28	Uranium	42.4	Ingestion	15.5		
		Beryllium	37.2	Inhalation	0.9						Inhalation	0.7
		Cesium-137	28.6	Dermal	48.5							
		PCB, Total	3.9	External	44.7							
		Uranium-235	1.3	Exposure								
Uranium-238	15.9				83.9							
Outdoor Worker - surface	1.43E-04	Arsenic	21.7	Ingestion	37.6	0.49	Arsenic Uranium	39.6	Ingestion	63.7		
		Beryllium	26.9	Inhalation	0.6						Inhalation	0.3
		Cadmium	0.9	Dermal	32.2							
		Cesium-137	19.2	External	29.6							
		PCB, Total	4.0	Exposure								
		Plutonium-239/240	1.7									
		Thorium-230	1.2									
		Total PAH	0.7									
		Uranium-234	1.2									
		Uranium-235	1.0									
		Uranium-238	20.6									
		Outdoor Worker - subsurface	4.71E-04	Arsenic	5.4							
Beryllium	79.6			Inhalation	0.2	Inhalation	0.9					
Cadmium	0.3			Dermal	75.8							
Cesium-137	3.3			External	6.2							
PCB, Total	3.3			Exposure								
Plutonium-239/240	0.5											
Thorium-230	0.4											
Total PAH	0.8											
Uranium-234	0.3											
Uranium-235	0.3											
Uranium-238	5.7											

Table D4.65. Summary of Risk Characterization for SWMU 26, EU 1 (Continued)

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total Worker for %	Total HI	COCs	%Total	Routes of Exposure	%Total Worker for %
Excavation Worker - subsurface	5.88E-06	Beryllium	79.6	See Outdoor Worker (subsurface) for %		0.53	Mercury	36.9	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	5.04E-04	Arsenic Beryllium Cadmium Cesium-137 Chromium Neptunium-237 PCB, Total Plutonium-239/240 Thorium-230 Total PAH Uranium-235 Uranium-238	10.9 24.9 0.5 36.8 0.2 1.0 2.9 0.3 0.2 0.5 1.6 19.9	Ingestion Inhalation Dermal External Exposure	10.4 0.4 31.7 57.5	0.53	Arsenic Uranium	30.3 42.9	Ingestion Inhalation Dermal	23.2 0.3 76.4
Future Child Resident - surface	5.04E-04	Arsenic Beryllium Cadmium Cesium-137 Chromium Neptunium-237 PCB, Total Plutonium-239/240 Thorium-230 Total PAH Uranium-235 Uranium-238	10.9 24.9 0.5 36.8 0.2 1.0 2.9 0.3 0.2 0.5 1.6 19.9	Ingestion Inhalation Dermal External Exposure	10.4 0.4 31.7 57.5	2.08	Arsenic Nickel Uranium	37.7 8.2 44.9	Ingestion Inhalation Dermal	55.1 0.4 44.5
Future Teen Recreational User - surface	5.69E-05	Arsenic Beryllium Cesium-137 PCB, Total Uranium-238	12.8 58.1 13.5 5.5 7.1	Ingestion Inhalation Dermal External Exposure	2.0 0.3 76.4 21.2	0.36	Uranium	41.7	Ingestion Inhalation Dermal	4.6 0.2 95.2

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.66. Summary of Risk Characterization for SWMU 26, EU 2

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total	Total HI	COCs	%Total	Routes of Exposure	%Total
Current Industrial Worker - surface	4.82E-05	Arsenic	5.5	Ingestion	3.0	1.31	Vanadium	88.5	Ingestion	2.7
		Beryllium	80.3	Inhalation	0.3				Inhalation	0.1
		Cesium-137	8.0	Dermal	84.7				Dermal	97.2
		Uranium-238	3.5	External Exposure	11.9					
Future Industrial Worker - surface	8.61E-04	Arsenic	5.5	Ingestion	3.0	23.44	Arsenic Beryllium Cobalt Iron Nickel Thallium Uranium Vanadium	1.3	Ingestion	2.7
		Beryllium	80.3	Inhalation	0.3				Inhalation	0.1
		Cesium-137	8.0	Dermal	84.7				Dermal	97.2
		Chromium	0.2	External Exposure	11.9					
		Neptunium-237	0.3							
		PCB, Total	1.4							
		Thorium-230	0.1							
		Uranium-234	0.1							
		Uranium-235	0.5							
		Uranium-238	3.5							
Outdoor Worker - surface	8.03E-04	Arsenic	14.2	Ingestion	23.1	21.33	Aluminum Arsenic Beryllium Cobalt Iron Nickel Thallium Uranium Vanadium	0.5	Ingestion	20.9
		Beryllium	69.5	Inhalation	0.2				Inhalation	0.1
		Cadmium	0.2	Dermal	67.2				Dermal	79.1
		Cesium-137	6.4	External Exposure	9.5					
		Neptunium-237	0.3							
		PCB, Total	1.7							
		Thorium-230	0.9							
		Uranium-234	0.8							
		Uranium-235	0.5							
		Uranium-238	5.5							
Outdoor Worker - subsurface	6.52E-04	Arsenic	7.1	Ingestion	18.8	19.12	Arsenic Beryllium Cobalt Iron Mercury Nickel Thallium Uranium Vanadium	1.5	Ingestion	16.0
		Beryllium	74.5	Inhalation	0.4				Inhalation	0.1
		Cadmium	0.2	Dermal	71.1				Dermal	83.9
		Cesium-137	6.5	External Exposure	9.6					
		Chromium	0.2							
		Neptunium-237	0.4							
		PCB, Total	3.4							
		Thorium-230	0.9							
		Uranium-234	0.9							
		Uranium-235	0.5							
Uranium-238	5.5									

Table D4.66. Summary of Risk Characterization for SWMU 26, EU 2 (Continued)

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total Worker for %	Total HI	COCs	%Total	Routes of Exposure	%Total Worker for %			
Excavation Worker - subsurface	8.15E-06	Beryllium	74.5	See Outdoor Worker (subsurface) for %		5.98			See Outdoor Worker (subsurface) for %				
		Arsenic	7.7	Ingestion	7.9	40.47	Aluminum	0.3	Ingestion	4.3			
		Beryllium	70.0	Inhalation	0.2		Arsenic	1.5	Inhalation	0.1			
		Cadmium	0.1	Dermal	72.0		Beryllium	1.0	Dermal	95.6			
		Cesium-137	13.3	External	19.9		Cobalt	2.3					
		Chromium	0.1	Exposure			Iron	1.0					
		Neptunium-237	0.6				Nickel	1.1					
		PCB, Total	1.3				Thallium	2.3					
		Thorium-230	0.2				Uranium	2.8					
		Uranium-234	0.2				Vanadium	87.6					
		Uranium-235	0.8										
		Uranium-238	5.7										
		Future Adult Resident - surface	2.60E-03	Arsenic	7.7		Ingestion	7.9	105.17	Aluminum	0.5	Ingestion	15.6
Beryllium	70.0			Inhalation	0.2		Arsenic	2.7		Inhalation	0.1		
Cadmium	0.1			Dermal	72.0	Barium	0.1	Dermal		84.3			
Cesium-137	13.3			External	19.9	Beryllium	0.9						
Chromium	0.1			Exposure		Cobalt	3.6						
Neptunium-237	0.6					Iron	1.6						
PCB, Total	1.3					Nickel	1.0						
Thorium-230	0.2					Thallium	3.6						
Uranium-234	0.2					Vanadium	81.4						
Uranium-235	0.8												
Uranium-238	5.7												
Future Child Resident - surface	2.60E-03			Arsenic	7.7	Ingestion	7.9	33.40		Arsenic	1.0	Ingestion	0.7
				Beryllium	70.0	Inhalation	0.1			Beryllium	1.0	Inhalation	0.0
		Cadmium	0.1	Dermal	95.1	Cobalt	1.8		Dermal	99.3			
		Cesium-137	2.7	External	4.0	Iron	0.8						
		Chromium	1.4	Exposure		Nickel	1.1						
		Neptunium-237	1.1			Thallium	1.8						
		PCB, Total	5.0			Uranium	1.8						
		Thorium-230	89.4			Vanadium	2.3						
		Uranium-234	2.7										
		Uranium-235	1.4										
		Uranium-238	1.1										
		Future Teen Recreational User - surface	5.36E-04	Arsenic	5.0	Ingestion	0.8		89.7	Arsenic	1.0	Ingestion	0.7
				Beryllium	89.4	Inhalation	0.1			Beryllium	1.0	Inhalation	0.0
Cesium-137	2.7			Dermal	95.1	Cobalt	1.8	Dermal		99.3			
Chromium	1.4			External	4.0	Iron	0.8						
Neptunium-237	1.1			Exposure		Nickel	1.1						
PCB, Total	5.0					Thallium	1.8						
Thorium-230	89.4					Uranium	2.3						
Uranium-234	2.7												
Uranium-235	1.4												
Uranium-238	1.1												

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.67. Summary of Risk Characterization for SWMU 26, EU 3

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total	Total HI	COCs	%Total	Routes of Exposure	%Total
Current Industrial Worker - surface	1.78E-05	Arsenic	16.1	Ingestion	7.6	1.46	Vanadium	95.6	Ingestion	1.5
		Beryllium	57.0	Inhalation	1.0				Inhalation	0.1
		Total PAH	6.3	Dermal	77.9				Dermal	98.4
		Uranium-238	9.6	External Exposure	13.5					
Future Industrial Worker - surface	3.17E-04	Arsenic	16.1	Ingestion	7.6	26.16	Arsenic Cobalt Silver Vanadium	1.2	Ingestion	1.5
		Beryllium	57.0	Inhalation	1.0				Inhalation	0.1
		Cesium-137	2.7	Dermal	77.9				Dermal	98.4
		Chromium	0.3	External Exposure	13.5					
		Neptunium-237	0.9							
		PCB, Total	4.2							
		Total PAH	6.3							
		Uranium-234	0.8							
Outdoor Worker - surface	3.89E-04	Arsenic	31.5	Ingestion	44.2	21.90	Arsenic Cobalt Silver Uranium Vanadium	3.5	Ingestion	12.9
		Beryllium	37.5	Inhalation	0.6				Inhalation	0.1
		Cadmium	0.4	Dermal	47.0				Dermal	87.0
		Cesium-137	1.7	External Exposure	8.1					
		Neptunium-237	0.6							
		PCB, Total	4.0							
		Technetium-99	0.3							
		Thorium-230	0.8							
		Total PAH	6.3							
		Uranium-234	4.2							
		Uranium-235	1.0							
		Uranium-238	11.4							
Outdoor Worker - subsurface	4.27E-04	Arsenic	23.5	Ingestion	36.3	20.31	Arsenic Cobalt Iron Mercury Silver Uranium Vanadium	3.1	Ingestion	13.0
		Beryllium	52.0	Inhalation	0.5				Inhalation	0.1
		Cadmium	0.4	Dermal	56.9				Dermal	86.8
		Cesium-137	1.2	External Exposure	6.4					
		Neptunium-237	0.5							
		PCB, Total	2.7							
		Technetium-99	0.4							
		Thorium-230	1.0							
		Total PAH	4.9							
		Uranium-234	3.3							
Uranium-235	0.8									
Uranium-238	9.0									

Table D4.67. Summary of Risk Characterization for SWMU 26, EU 3 (Continued)

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total Worker (subsurface) for %	Total HI	COCs	%Total	Routes of Exposure	%Total Worker (subsurface) for %
Excavation Worker - subsurface	5.34E-06	Arsenic	23.5	See Outdoor Worker (subsurface) for %		6.35	Arsenic	3.1	See Outdoor Worker (subsurface) for %	
		Beryllium	52.0				Mercury	1.9		
Future Adult Resident - surface	1.04E-03	Arsenic	20.8	Ingestion Inhalation Dermal External Exposure	17.8 0.6 60.9 20.7	44.83	Arsenic	1.4	Ingestion Inhalation Dermal	2.5 0.1 97.5
		Beryllium	45.8				Barium	0.3		
		Cadmium	0.3				Beryllium	0.2		
		Cesium-137	4.2				Cobalt	0.5		
		Chromium	0.2				Nickel	0.3		
		Naphthalene	0.1				Silver	0.9		
		Neptunium-237	1.3				Uranium	0.4		
		PCB, Total	3.8				Vanadium	95.4		
		Thorium-230	0.2							
		Total PAH	5.9							
		Uranium-234	0.9							
		Uranium-235	2.1							
		Uranium-238	14.4							
Future Child Resident - surface	1.04E-03	Arsenic	20.8	Ingestion Inhalation Dermal External Exposure	17.8 0.6 60.9 20.7	110.70	Aluminum	0.2	Ingestion Inhalation Dermal	9.4 0.1 90.5
		Beryllium	45.8				Antimony	0.2		
		Cadmium	0.3				Arsenic	2.8		
		Cesium-137	4.2				Barium	0.3		
		Chromium	0.2				Beryllium	0.2		
		Naphthalene	0.1				Cobalt	0.8		
		Neptunium-237	1.3				Mercury	0.2		
		PCB, Total	3.8				Nickel	0.3		
		Thorium-230	0.2				Thallium	0.1		
		Total PAH	5.9				Uranium	0.6		
		Uranium-234	0.9				Vanadium	93.2		
		Uranium-235	2.1							
		Uranium-238	14.4							
Future Teen Recreational User - surface	1.86E-04	Arsenic	15.4	Ingestion Inhalation Dermal External Exposure	2.1 0.3 92.8 4.8	37.60	Arsenic	1.0	Ingestion Inhalation Dermal	0.4 0.0 99.6
		Beryllium	67.3				Barium	0.3		
		Cesium-137	1.0				Cobalt	0.4		
		PCB, Total	4.5				Silver	0.9		
		Total PAH	7.1				Uranium	0.3		
Uranium-238	3.3	Vanadium	96.0							

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.68. Summary of Risk Characterization for SWMU 26, EU 4

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total	Total HI	COCs	%Total	Routes of Exposure	%Total
Current Industrial Worker - surface	2.07E-05	Beryllium	13.4	Ingestion	10.2	<0.1	*no COCs			
		Neptunium-237	13.6	Inhalation	1.2					
		Uranium-235	7.4	Dermal	14.2					
		Uranium-238	58.3	External Exposure	74.4					
Future Industrial Worker - surface	3.69E-04	Beryllium	13.4	Ingestion	10.2	1.52	Mercury	22.4	Ingestion	11.5
		Cesium-137	2.0	Inhalation	1.2		Nickel	11.6	Inhalation	0.5
		Chromium	0.8	Dermal	14.2		Uranium	59.8	Dermal	88.1
		Neptunium-237	13.6	External Exposure	74.4					
		PCB, Total	0.8							
		Technetium-99	0.4							
		Thorium-230	0.6							
		Uranium-234	2.2							
Outdoor Worker - surface	5.14E-04	Uranium-235	7.4			2.24	Mercury	12.7	Ingestion	55.4
		Uranium-238	58.3				Nickel	6.4	Inhalation	0.2
		Beryllium	7.7	Ingestion	52.2		Uranium	75.4	Dermal	44.4
		Cadmium	0.3	Inhalation	0.6					
		Cesium-137	1.1	Dermal	7.5					
		Chromium	0.4	External Exposure	39.6					
		Neptunium-237	8.1							
		PCB, Total	0.7							
		Plutonium-239/240	0.6							
		Technetium-99	2.0							
		Thorium-230	2.9							
		Uranium-234	10.6							
Outdoor Worker - subsurface	4.92E-04	Uranium-235	4.6			29.64	Arsenic	0.6	Ingestion	13.8
		Uranium-238	60.8				Cobalt	0.6	Inhalation	0.2
		Arsenic	5.9	Ingestion	52.0		Copper	0.8	Dermal	86.0
		Beryllium	8.9	Inhalation	1.0		Iron	0.5		
		Cadmium	0.3	Dermal	10.9		Mercury	2.1		
		Cesium-137	1.0	External Exposure	36.2		Nickel	28.0		
		Chromium	0.7				Uranium	4.7		
		Neptunium-237	7.4				Vanadium	61.8		
		PCB, Total	0.7							
		Plutonium-239/240	0.6							

Table D4.68. Summary of Risk Characterization for SWMU 26, EU 4 (Continued)

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total Worker (subsurface) for %	Total HI	COCs	%Total	Routes of Exposure	%Total Worker (subsurface) for %
Excavation Worker - subsurface	6.15E-06	Uranium-238	56.7	See Outdoor Worker (subsurface) for %		9.26	Mercury Nickel Uranium Vanadium	2.1 28.0 4.7 61.8	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	1.68E-03	Americium-241 Beryllium Cadmium Cesium-137 Chromium Neptunium-237 PCB, Total Plutonium-239/240 Technetium-99 Thorium-230 Total PAH Uranium-234 Uranium-235 Uranium-238	0.1 7.7 0.1 2.2 0.3 14.9 0.5 0.1 0.4 0.5 0.1 1.9 8.2 62.8	Ingestion Inhalation Dermal External Exposure	9.3 0.4 8.0 82.3	2.77	Mercury Nickel Uranium	21.1 10.8 62.0	Ingestion Inhalation Dermal	17.6 0.2 82.1
Future Child Resident - surface	1.68E-03	Americium-241 Beryllium Cadmium Cesium-137 Chromium Neptunium-237 PCB, Total Plutonium-239/240 Technetium-99 Thorium-230 Total PAH Uranium-234 Uranium-235 Uranium-238	0.1 7.7 0.1 2.2 0.3 14.9 0.5 0.1 0.4 0.5 0.1 1.9 8.2 62.8	Ingestion Inhalation Dermal External Exposure	9.3 0.4 8.0 82.3	9.81	Aluminum Antimony Mercury Nickel Uranium	2.5 1.1 14.7 7.4 72.2	Ingestion Inhalation Dermal	46.5 0.3 53.2
Future Teen Recreational User - surface	9.92E-05	Beryllium Cesium-137 Neptunium-237 PCB, Total Uranium-235 Uranium-238	34.4 1.6 10.5 1.9 5.7 43.1	Ingestion Inhalation Dermal External Exposure	4.3 0.7 36.8 58.2	2.02	Mercury Nickel Uranium	24.3 12.5 56.9	Ingestion Inhalation Dermal	3.3 0.1 96.6

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.69. Summary of Risk Characterization for SWMU 27

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface		*no COCs					*no COCs			
Future Industrial Worker - surface		*no COCs					*no COCs			
Outdoor Worker - surface		*no COCs					*no COCs			
Outdoor Worker - subsurface	<1E-6					<0.1	*no COCs			

Table D4.69. Summary of Risk Characterization for SWMU 27 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface		*no COCs				*no COCs			
Future Child Resident - surface		*no COCs				*no COCs			
Future Teen Recreational User - surface		*no COCs				*no COCs			

There are no surface data available for assessment.
 Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.70. Summary of Risk Characterization for SWMU 76

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	1.79E-06	Total PAH	93.0	Ingestion	7.6	<0.1	*no COCs			
				Inhalation	0.5					
				Dermal	89.6					
				External Exposure	2.4					
Future Industrial Worker - surface	3.19E-05	PCB, Total Total PAH	4.3 93.0	Ingestion	7.6	<0.1	*no COCs			
				Inhalation	0.5					
				Dermal	89.6					
				External Exposure	2.4					
Outdoor Worker - surface	3.91E-05	PCB, Total Total PAH Uranium-238	4.1 92.7 3.2	Ingestion	44.1	<0.1	*no COCs			
				Inhalation	0.3					
				Dermal	54.2					
				External Exposure	1.4					
Outdoor Worker - subsurface	7.07E-05	Arsenic PCB, Total Total PAH Uranium-238	44.7 2.3 51.3 1.8	Ingestion	58.9	0.92	Arsenic Mercury	21.3 74.6	Ingestion Inhalation Dermal	26.2 0.1 73.6
				Inhalation	0.2					
				Dermal	40.1					
				External Exposure	0.8					

Table D4.70. Summary of Risk Characterization for SWMU 76 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.29	Mercury	74.6	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	9.87E-05	PCB, Total Total PAH Uranium-238	4.1 91.6 4.2	Ingestion Inhalation Dermal External Exposure	<0.1	*no COCs			
Future Child Resident - surface	9.87E-05	PCB, Total Total PAH Uranium-238	4.1 91.6 4.2	Ingestion Inhalation Dermal External Exposure	0.19	Barium	100.0	Ingestion Inhalation Dermal	9.0 1.3 89.7
Future Teen Recreational User - surface	2.06E-05	Total PAH	95.0	Ingestion Inhalation Dermal External Exposure	<0.1	*no COCs			

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.71. Summary of Risk Characterization for SWMU 165

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total	Total HI	COCs	%Total	Routes of Exposure	%Total
Current Industrial Worker - surface	1.56E-05	Arsenic	22.9	Ingestion	10.9	<0.1	*no COCs			
		Beryllium	17.5	Inhalation	2.0					
		Cesium-137	14.5	Dermal	58.3					
		PCB, Total	15.8	External Exposure	28.9					
		Total PAH	11.3							
		Uranium-238	13.5							
Future Industrial Worker - surface	2.78E-04	Arsenic	22.9	Ingestion	10.9	1.14	Arsenic	35.2	Ingestion	11.4
		Beryllium	17.5	Inhalation	2.0		Silver	25.3	Inhalation	2.3
		Cesium-137	14.5	Dermal	58.3		Uranium	8.8	Dermal	86.2
		Chromium	0.4	External Exposure	28.9					
		Neptunium-237	0.6							
		PCB, Total	15.8							
		Total PAH	11.3							
		Uranium-234	1.1							
		Uranium-235	1.9							
		Uranium-238	13.5							
Outdoor Worker - surface	3.99E-04	Arsenic	38.4	Ingestion	53.9	1.67	Arsenic	57.2	Ingestion	55.3
		Beryllium	9.9	Inhalation	1.0		Silver	13.9	Inhalation	1.2
		Cesium-137	7.6	Dermal	30.1		Uranium	11.1	Dermal	43.5
		Neptunium-237	0.3	External Exposure	14.9					
		PCB, Total	12.8							
		Plutonium-239/240	0.4							
		Thorium-230	0.7							
		Total PAH	9.7							
		Uranium-234	5.1							
		Uranium-235	1.1							
Uranium-238	13.7									
Outdoor Worker - subsurface	4.17E-04	Arsenic	36.8	Ingestion	52.8	1.85	Arsenic	51.7	Ingestion	56.7
		Beryllium	11.2	Inhalation	1.1		Cobalt	7.9	Inhalation	1.1
		Cesium-137	7.2	Dermal	31.8		Silver	12.5	Dermal	42.2
		Neptunium-237	0.3	External Exposure	14.3		Uranium	10.0		
		PCB, Total	14.6							
		Plutonium-239/240	0.4							
		Thorium-230	0.7							
		Total PAH	9.2							
		Uranium-234	4.9							
		Uranium-235	1.1							
Uranium-238	13.1									

Table D4.71. Summary of Risk Characterization for SWMU 165 (Continued)

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total Worker for %	Total HI	COCs	%Total	Routes of Exposure	%Total Worker for %
Excavation Worker - subsurface	5.21E-06	Arsenic	36.8	See Outdoor Worker (subsurface) for %	0.58	Arsenic	51.7	See Outdoor Worker (subsurface) for %		
Future Adult Resident - surface	1.06E-03	Arsenic	25.3	Ingestion	21.9			7.3	Ingestion	17.7
		Beryllium	12.0	Inhalation	1.0			38.5	Inhalation	1.2
		Cesium-137	19.1	Dermal	39.1			8.2	Dermal	81.1
		Chromium	0.2	External	38.1			6.7		
		Naphthalene	0.1	Exposure				23.9		
		Neptunium-237	0.7					9.2		
		PCB, Total	12.2							
		Plutonium-239/240	0.1							
		Thorium-230	0.2							
		Total PAH	9.0							
		Uranium-234	1.1							
		Uranium-235	2.4							
		Uranium-238	17.4							
Future Child Resident - surface	1.06E-03	Arsenic	25.3	Ingestion	21.9	7.33	Antimony	5.4	Ingestion	46.3
		Beryllium	12.0	Inhalation	1.0		Arsenic	52.7	Inhalation	1.6
		Cesium-137	19.1	Dermal	39.1		Barium	5.7	Dermal	52.1
		Chromium	0.2	External	38.1		Mercury	2.4		
		Naphthalene	0.1	Exposure			Nickel	4.6		
		Neptunium-237	0.7				Silver	16.2		
		PCB, Total	12.2				Uranium	10.6		
		Plutonium-239/240	0.1							
		Thorium-230	0.2							
		Total PAH	9.0							
		Uranium-234	1.1							
		Uranium-235	2.4							
		Uranium-238	17.4							
Future Teen Recreational User - surface	1.36E-04	Arsenic	26.3	Ingestion	3.6	1.49	Antimony	8.3	Ingestion	3.3
		Beryllium	24.8	Inhalation	0.7		Arsenic	31.3	Inhalation	0.7
		Cesium-137	6.2	Dermal	83.2		Barium	9.5	Dermal	96.0
		PCB, Total	20.3	External	12.4		Nickel	7.8		
		Total PAH	15.3	Exposure			Silver	27.9		
		Uranium-235	0.8				Uranium	8.5		
		Uranium-238	5.5							

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.72. Summary of Risk Characterization for SWMU 170

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	1.32E-06	*no COCs				<0.1	*no COCs			
Outdoor Worker - surface	1.66E-06	Uranium-238	78.8	Ingestion Inhalation Dermal	45.6 0.1	<0.1	*no COCs			
Outdoor Worker - subsurface	5.83E-06	Cesium-137 Uranium-238	49.9 37.3	Ingestion Inhalation Dermal External Exposure	21.7 0.1 78.3	<0.1	*no COCs			

Table D4.72. Summary of Risk Characterization for SWMU 170 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	6.55E-06	Neptunium-237 Uranium-238	32.5 67.5	Ingestion Inhalation Dermal External Exposure	<0.1	*no COCs			
Future Child Resident - surface	6.55E-06	Neptunium-237 Uranium-238	32.5 67.5	Ingestion Inhalation Dermal External Exposure	<0.1	*no COCs			
Future Teen Recreational User - surface	<1E-6	*no COCs			<0.1	*no COCs			

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.73. Summary of Risk Characterization for SWMU 158

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	1.18E-06	*no COCs			<0.1		*no COCs			
Future Industrial Worker - surface	2.11E-05	Arsenic	48.1	Ingestion	16.0	1.68	Cobalt	9.1	Ingestion	4.3
		Chromium	9.5	Inhalation	10.0		Mercury	69.1	Inhalation	1.6
		Total PAH	29.5	Dermal	62.7		Nickel	10.1	Dermal	94.1
		Uranium-238	10.6	External Exposure	11.3					
Outdoor Worker - surface	3.71E-05	Arsenic	65.7	Ingestion	64.7	1.70	Arsenic	8.9	Ingestion	29.9
		Chromium	4.0	Inhalation	4.2		Cobalt	16.6	Inhalation	1.2
		Total PAH	20.5	Dermal	26.4		Mercury	56.9	Dermal	68.9
		Uranium-238	8.7	External Exposure	4.7		Nickel	8.1		
Outdoor Worker - subsurface	7.00E-05	Arsenic	32.7	Ingestion	38.0	1.73	Arsenic	8.3	Ingestion	27.3
		Beryllium	46.8	Inhalation	1.9		Cobalt	12.6	Inhalation	1.2
		Chromium	1.8	Dermal	57.8		Mercury	56.1	Dermal	71.5
		Total PAH	14.1	External Exposure	2.3		Nickel	8.9		
Uranium-238	3.8									

Table D4.73. Summary of Risk Characterization for SWMU 158 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.54	Mercury	56.1	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	7.90E-05	Arsenic	54.4	Ingestion	2.92	Arsenic	4.3	Ingestion	6.9
		Chromium	4.9	Inhalation		9.9	Inhalation	0.9	
		Total PAH	24.0	Derma		68.3	Derma	92.3	
		Uranium-235	2.6	External Exposure		15.2			
		Uranium-238	13.9						
Future Child Resident - surface	7.90E-05	Arsenic	54.4	Ingestion	8.16	Arsenic	7.5	Ingestion	23.0
		Chromium	4.9	Inhalation		1.9	Inhalation	1.4	
		Total PAH	24.0	Derma		14.6	Derma	75.6	
		Uranium-235	2.6	External Exposure		2.9			
		Uranium-238	13.9			60.1			
Future Teen Recreational User - surface	1.07E-05	Arsenic	53.3	Ingestion	2.34	Cobalt	8.2	Ingestion	1.2
		Total PAH	38.3	Inhalation		71.4	Inhalation	0.4	
				Derma		86.2	Derma	98.4	
				External Exposure		4.7			

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.74. Summary of Risk Characterization for SWMU 169

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total	Total HI	COCs	%Total	Routes of Exposure	%Total
Current Industrial Worker - surface	1.24E-05	Arsenic	9.2	Ingestion	7.3	0.15	*no COCs			
		Beryllium	25.8	Inhalation	5.0					
		PCB, Total	24.0	Dermal	85.3					
		Total PAH	34.9	External Exposure	2.4					
Future Industrial Worker - surface	2.22E-04	Arsenic	9.2	Ingestion	7.3	2.68	Arsenic	4.8	Ingestion	4.2
		Beryllium	25.8	Inhalation	5.0		Iron	6.2	Inhalation	0.4
		Chromium	3.2	Dermal	85.3		Mercury	32.7	Dermal	95.4
		PCB, Total	24.0	External Exposure	2.4		Nickel	47.9		
		Total PAH	34.9							
		Uranium-235	0.5							
Uranium-238	2.2									
Outdoor Worker - surface	2.67E-04	Arsenic	18.3	Ingestion	43.0	2.70	Arsenic	11.3	Ingestion	29.7
		Beryllium	17.3	Inhalation	3.1		Iron	11.4	Inhalation	0.3
		Chromium	2.0	Dermal	52.4		Mercury	27.0	Dermal	70.0
		PCB, Total	23.1	External Exposure	1.5		Nickel	38.3		
		Total PAH	35.4							
		Uranium-234	0.9							
Uranium-235	0.4									
Uranium-238	2.6									
Outdoor Worker - subsurface	3.54E-04	Arsenic	13.8	Ingestion	34.7	28.78	Aluminum	0.4	Ingestion	14.1
		Beryllium	37.4	Inhalation	2.4		Arsenic	1.1	Inhalation	0.2
		Chromium	1.5	Dermal	61.7		Cobalt	4.7	Dermal	85.8
		PCB, Total	17.4	External Exposure	1.2		Iron	1.1		
		Total PAH	26.7				Mercury	2.5		
		Uranium-234	0.7				Nickel	5.3		
Uranium-235	0.3			Vanadium	83.6					
Uranium-238	2.0									

Table D4.74. Summary of Risk Characterization for SWMU 169

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total	Total HI	COCs	%Total	Routes of Exposure	%Total
Excavation Worker - subsurface	4.42E-06	Beryllium Total PAH	37.4 26.7	See Outdoor Worker (subsurface) for %	9.00		Cobalt Mercury Nickel Vanadium	4.7 2.5 5.3 83.6	See Outdoor Worker (subsurface) for %	4.7 2.5 5.3 83.6
Future Adult Resident - surface	6.74E-04	Arsenic Beryllium Chromium PCB, Total Total PAH Uranium-234 Uranium-235 Uranium-238	12.8 22.3 2.1 23.3 35.0 0.2 0.9 3.5	Ingestion Inhalation Dermal External Exposure	4.66		Arsenic Iron Mercury Nickel	5.4 6.7 32.2 46.9	Ingestion Inhalation Dermal	6.8 0.2 93.0
Future Child Resident - surface	6.74E-04	Arsenic Beryllium Chromium PCB, Total Total PAH Uranium-234 Uranium-235 Uranium-238	12.8 22.3 2.1 23.3 35.0 0.2 0.9 3.5	Ingestion Inhalation Dermal External Exposure	12.93		Aluminum Antimony Arsenic Chromium Copper Iron Mercury Nickel Thallium Uranium	2.5 1.8 9.5 0.8 1.6 10.0 28.5 40.9 1.0 2.8	Ingestion Inhalation Dermal	22.8 0.4 76.8
Future Teen Recreational User - surface	1.38E-04	Arsenic Beryllium Chromium PCB, Total Total PAH	8.3 28.7 0.9 24.2 37.0	Ingestion Inhalation Dermal External Exposure	3.76		Arsenic Iron Mercury Nickel	4.0 5.6 33.5 49.0	Ingestion Inhalation Dermal	1.1 0.1 98.7

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.75. Summary of Risk Characterization for SWMU 176

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	2.81E-06	Arsenic	97.2	Ingestion Inhalation Dermal External Exposure	25.4 3.0 71.6	<0.1	*no COCs			
Future Industrial Worker - surface	5.01E-05	Arsenic Chromium	97.2 2.8	Ingestion Inhalation Dermal External Exposure	25.4 3.0 71.6	0.58	Arsenic Nickel	52.6 43.0	Ingestion Inhalation Dermal	14.7 0.9 84.5
Outdoor Worker - surface	1.18E-04	Arsenic Chromium	99.1 0.9	Ingestion Inhalation Dermal External Exposure	76.6 0.9 22.5	0.97	Arsenic Nickel	75.0 20.7	Ingestion Inhalation Dermal	62.3 0.4 37.3
Outdoor Worker - subsurface	1.19E-04	Arsenic Chromium	98.7 1.3	Ingestion Inhalation Dermal External Exposure	76.3 1.3 22.4	1.00	Arsenic Nickel	72.7 20.1	Ingestion Inhalation Dermal	62.3 0.4 37.3

Table D4.75. Summary of Risk Characterization for SWMU 176 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	1.48E-06	Arsenic	98.7	See Outdoor Worker (subsurface)	0.31	Arsenic	72.7	See Outdoor Worker (subsurface) for %		
Future Adult Resident - surface	2.09E-04	Arsenic Chromium	98.7 1.3	Ingestion Inhalation Dermal External Exposure	1.08	Arsenic Nickel	56.0 39.6	22.2 0.4 77.4	Ingestion Inhalation Dermal	
Future Child Resident - surface	2.09E-04	Arsenic Chromium	98.7 1.3	Ingestion Inhalation Dermal External Exposure	4.17	Arsenic Nickel Uranium	70.9 24.8 3.8	53.6 0.5 45.9	Ingestion Inhalation Dermal	
Future Teen Recreational User - surface	2.77E-05	Arsenic	99.1	Ingestion Inhalation Dermal External Exposure	0.75	Arsenic Nickel	47.5 48.0	4.3 0.3 95.4	Ingestion Inhalation Dermal	

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.76. Summary of Risk Characterization for SWMU 177

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface		*no COCs					*no COCs			
Future Industrial Worker - surface		*no COCs					*no COCs			
Outdoor Worker - surface		*no COCs					*no COCs			
Outdoor Worker - subsurface	2.45E-05	Arsenic Chromium	93.4 6.6	Ingestion Inhalation Dermal External Exposure	72.1 6.7 21.2	1.47	Arsenic Mercury Nickel Silver	9.7 66.5 10.9 7.4	Ingestion Inhalation Dermal	20.3 1.2 78.5

Table D4.76. Summary of Risk Characterization for SWMU 177 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.46	Mercury	66.5	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface		*no COCs				*no COCs			
Future Child Resident - surface		*no COCs				*no COCs			
Future Teen Recreational User - surface		*no COCs				*no COCs			

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.77. Summary of Risk Characterization for SWMU 19

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	9.36E-06	Beryllium Total PAH	47.0 52.8	Ingestion	4.5	<0.1	*no COCs			
				Inhalation	0.1					
				Dermal External Exposure	95.4					
Future Industrial Worker - surface	1.67E-04	Beryllium Total PAH	47.0 52.8	Ingestion	4.5	<0.1	*no COCs			
				Inhalation	0.1					
				Dermal External Exposure	95.4					
Outdoor Worker - surface	1.72E-04	Beryllium Total PAH	36.9 62.7	Ingestion	31.3	<0.1	*no COCs			
				Inhalation	0.1					
				Dermal External Exposure	68.6					
Outdoor Worker - subsurface	2.55E-04	Arsenic Beryllium Cadmium Total PAH Uranium-234 Uranium-235 Uranium-238	9.5 31.6 1.5 42.2 3.8 1.1 10.2	Ingestion	39.5	22.37	Arsenic Cobalt Copper Nickel Uranium Vanadium	0.7 1.0 1.0 3.7 1.3 91.7	Ingestion Inhalation Dermal	11.9 0.0 88.1
				Inhalation	0.1					
				Dermal	54.8					
				External Exposure	5.6					

Table D4.77. Summary of Risk Characterization for SWMU 19 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	3.19E-06	Beryllium Total PAH	31.6 42.2	See Outdoor Worker (subsurface)		6.99	Nickel Vanadium	3.7 91.7	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	4.77E-04	Beryllium Cadmium Total PAH	43.3 0.3 56.4	Ingestion Inhalation Dermal External Exposure	14.2 0.1 85.7	0.11	*no COCs			
Future Child Resident - surface	4.77E-04	Beryllium Cadmium Total PAH	43.3 0.3 56.4	Ingestion Inhalation Dermal External Exposure	14.2 0.1 85.7	0.40	Beryllium Thallium	26.7 67.1	Ingestion Inhalation Dermal	45.1 0.2 54.6
Future Teen Recreational User - surface	1.13E-04	Beryllium Total PAH	48.2 51.6	Ingestion Inhalation Dermal External Exposure	1.2 0.0 98.8	<0.1	*no COCs			

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.78. Summary of Risk Characterization for SWMU 138, EU 1

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	1.03E-06	*no COCs				0.11	*no COCs			
Future Industrial Worker - surface	1.85E-05	Arsenic Cadmium Chromium PCB, Total Total PAH	57.7 9.3 9.7 14.4 8.9	Ingestion Inhalation Dermal External Exposure	18.6 10.9 70.5	2.00	Antimony Mercury Nickel	10.7 72.1 8.2	Ingestion Inhalation Dermal	2.5 0.1 97.4
Outdoor Worker - surface	3.56E-05	Arsenic Cadmium Chromium PCB, Total Total PAH	71.9 10.0 3.7 8.7 5.6	Ingestion Inhalation Dermal External Exposure	68.7 4.2 27.1	1.80	Antimony Arsenic Mercury Nickel	11.1 8.9 66.7 7.4	Ingestion Inhalation Dermal	19.9 0.1 80.0
Outdoor Worker - subsurface	7.18E-05	Arsenic Beryllium Cadmium Chromium PCB, Total Total PAH	36.1 50.3 4.5 1.9 4.3 2.8	Ingestion Inhalation Dermal External Exposure	38.7 2.2 59.1	18.42	Antimony Arsenic Cobalt Iron Mercury Nickel Vanadium	0.9 0.9 0.9 0.8 7.3 0.8 86.9	Ingestion Inhalation Dermal	11.6 0.1 88.3

Table D4.78. Summary of Risk Characterization for SWMU 138, EU 1 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	5.76	Mercury Vanadium	7.3 86.9	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	6.81E-05	Arsenic Cadmium Chromium PCB, Total Total PAH	66.2 9.8 5.1 11.5 7.4	Ingestion Inhalation Dermal External Exposure	3.45	Antimony Arsenic Mercury Nickel Silver	10.7 3.8 71.7 8.1 4.6	Ingestion Inhalation Dermal	4.1 0.1 95.8
Future Child Resident - surface	6.81E-05	Arsenic Cadmium Chromium PCB, Total Total PAH	66.2 9.8 5.1 11.5 7.4	Ingestion Inhalation Dermal External Exposure	8.91	Antimony Arsenic Cadmium Mercury Nickel Silver	11.0 7.2 1.2 68.3 7.6 4.3	Ingestion Inhalation Dermal	14.8 0.1 85.1
Future Teen Recreational User - surface	1.01E-05	Arsenic Cadmium PCB, Total Total PAH	59.4 10.0 16.6 10.7	Ingestion Inhalation Dermal External Exposure	2.86	Antimony Mercury Nickel Silver	10.6 72.8 8.3 4.7	Ingestion Inhalation Dermal	0.7 0.0 99.3

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.79. Summary of Risk Characterization for SWMU 138, EU 2

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	1.15E-06	*no COCs			0.28		Nickel	65.8	Ingestion Inhalation Dermal	1.0 0.3 98.6
Outdoor Worker - surface	1.37E-06	*no COCs			0.23		Nickel	65.8	Ingestion Inhalation Dermal	9.2 0.3 90.4
Outdoor Worker - subsurface	2.81E-05	Arsenic Chromium	88.5 5.5	Ingestion Inhalation Dermal External Exposure	71.3 5.6 23.1	1.25	Arsenic Mercury Nickel Silver	12.5 61.7 14.5 9.2	Ingestion Inhalation Dermal	20.7 0.1 79.2

Table D4.79. Summary of Risk Characterization for SWMU 138, EU 2 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.39	Mercury	61.7	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	3.43E-06	PCB, Total PAH	42.0 57.5	Ingestion Inhalation Dermal External Exposure	0.48	Nickel Silver	65.7 34.3	Ingestion Inhalation Dermal	1.7 0.2 98.1
Future Child Resident - surface	3.43E-06	PCB, Total PAH	42.0 57.5	Ingestion Inhalation Dermal External Exposure	1.17	Nickel Silver	65.8 34.2	Ingestion Inhalation Dermal	6.6 0.4 93.0
Future Teen Recreational User - surface	<1E-6	*no COCs			0.41	Nickel Silver	65.7 34.3	Ingestion Inhalation Dermal	0.3 0.1 99.6

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.80. Summary of Risk Characterization for SWMU 180, EU 1

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	4.30E-06	Arsenic	97.6	Ingestion Inhalation Dermal External Exposure	25.5 2.6 71.9	<0.1	*no COCs			
Future Industrial Worker - surface	7.69E-05	Arsenic Chromium	97.6 2.4	Ingestion Inhalation Dermal External Exposure	25.5 2.6 71.9	1.63	Arsenic Mercury Nickel	29.0 56.6 12.6	Ingestion Inhalation Dermal	8.5 0.4 91.1
Outdoor Worker - surface	1.82E-04	Arsenic Chromium	99.2 0.7	Ingestion Inhalation Dermal External Exposure	76.7 0.8 22.5	2.08	Arsenic Mercury Nickel	54.0 36.8 7.9	Ingestion Inhalation Dermal	47.2 0.2 52.6
Outdoor Worker - subsurface	2.20E-04	Arsenic Beryllium Chromium	82.9 16.4 0.7	Ingestion Inhalation Dermal External Exposure	65.6 0.8 33.7	2.51	Arsenic Cobalt Mercury Nickel	45.3 9.5 30.5 6.8	Ingestion Inhalation Dermal	47.9 0.8 51.3

Table D4.80. Summary of Risk Characterization for SWMU 180, EU 1 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	2.75E-06	Arsenic	82.9	See Outdoor Worker (subsurface)	0.79		Arsenic Mercury	45.3 30.5	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	3.21E-04	Arsenic Chromium	98.9 1.1	Ingestion Inhalation Dermal External Exposure	2.91		Arsenic Mercury Nickel	32.0 54.2 12.0	Ingestion Inhalation Dermal	13.3 0.2 86.5
Future Child Resident - surface	3.21E-04	Arsenic Chromium	98.9 1.1	Ingestion Inhalation Dermal External Exposure	9.41		Antimony Arsenic Mercury Nickel	1.1 48.4 41.3 9.0	Ingestion Inhalation Dermal	38.4 0.3 61.3
Future Teen Recreational User - surface	4.25E-05	Arsenic	99.2	Ingestion Inhalation Dermal External Exposure	2.21		Arsenic Mercury Nickel	24.8 59.9 13.3	Ingestion Inhalation Dermal	2.4 0.1 97.5

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.81. Summary of Risk Characterization for SWMU 180, EU 2

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	1.57E-05	Arsenic Chromium Total PAH	80.7	Ingestion	21.8	0.30	Nickel	65.6	Ingestion	7.8
			9.4	Inhalation	9.6				Inhalation	0.7
			9.9	Derma External Exposure	68.6				Derma External Exposure	91.6
Outdoor Worker - surface	3.35E-05	Arsenic Chromium Total PAH	91.1	Ingestion	72.8	0.37	Arsenic Nickel	51.5 42.9	Ingestion	44.7
			3.3	Inhalation	3.3				Inhalation	0.4
			5.7	Derma External Exposure	23.8				Derma External Exposure	54.9
Outdoor Worker - subsurface	3.15E-05	Arsenic Chromium Total PAH	89.3	Ingestion	71.6	1.16	Arsenic Mercury Nickel	15.2 65.9 14.0	Ingestion	23.0
			4.7	Inhalation	4.8				Inhalation	1.1
			6.0	Derma External Exposure	23.6				Derma External Exposure	75.9

Table D4.81. Summary of Risk Characterization for SWMU 180, EU 2 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.36	Mercury	65.9	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	6.13E-05	Arsenic Chromium Total PAH	87.6 4.7 7.7	Ingestion Inhalation Dermal External Exposure	0.53	Arsenic Nickel	29.5 62.9	Ingestion Inhalation Dermal	12.2 0.3 87.4
Future Child Resident - surface	6.13E-05	Arsenic Chromium Total PAH	87.6 4.7 7.7	Ingestion Inhalation Dermal External Exposure	1.68	Arsenic Nickel	45.7 48.2	Ingestion Inhalation Dermal	36.1 0.5 63.4
Future Teen Recreational User - surface	8.43E-06	Arsenic Total PAH	84.7 12.1	Ingestion Inhalation Dermal External Exposure	0.41	Nickel	69.1	Ingestion Inhalation Dermal	2.2 0.2 97.7

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.82. Summary of Risk Characterization for SWMU 180, EU 3

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1				
Future Industrial Worker - surface	1.50E-05	Arsenic Chromium	89.5	Ingestion	23.4	0.35	Nickel Silver	44.7	Ingestion	6.9
			10.4	Inhalation	10.6			29.9	Inhalation	0.5
				Derma External Exposure	66.0				Derma External Exposure	92.5
Outdoor Worker - surface	3.33E-05	Arsenic Chromium	96.5	Ingestion	74.6	0.42	Arsenic Nickel	48.0	Ingestion	41.7
			3.5	Inhalation	3.5			30.5	Inhalation	0.3
				Derma External Exposure	21.9				Derma External Exposure	58.0
Outdoor Worker - subsurface	6.31E-05	Arsenic Beryllium Chromium	52.0	Ingestion	44.4	15.83	Arsenic Nickel Vanadium	1.3	Ingestion	10.2
			45.9	Inhalation	2.2			0.9	Inhalation	0.1
			2.1	Derma External Exposure	53.4				Derma External Exposure	89.7

Table D4.82. Summary of Risk Characterization for SWMU 180, EU 3 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	4.95	Vanadium	97.1	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	5.97E-05	Arsenic Chromium	94.9 5.1	Ingestion Inhalation Dermal External Exposure	0.63	Arsenic Nickel Silver	26.5 43.1 28.9	Ingestion Inhalation Dermal	11.0 0.3 88.8
Future Child Resident - surface	5.97E-05	Arsenic Chromium	94.9 5.1	Ingestion Inhalation Dermal External Exposure	1.92	Arsenic Nickel Silver	42.2 33.9 22.7	Ingestion Inhalation Dermal	33.4 0.4 66.2
Future Teen Recreational User - surface	7.82E-06	Arsenic	96.4	Ingestion Inhalation Dermal External Exposure	0.49	Nickel Silver	46.8 31.4	Ingestion Inhalation Dermal	1.9 0.1 97.9

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.83. Summary of Risk Characterization for SWMU 180, EU 4

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	7.17E-06	Beryllium	89.1	Ingestion	3.3	1.83	Vanadium	98.5	Ingestion	1.1
				Inhalation	1.6				Inhalation	0.1
				Derma External Exposure	95.1				Derma	98.8
Future Industrial Worker - surface	1.28E-04	Arsenic Beryllium Chromium	9.0	Ingestion	3.3	32.69	Nickel Vanadium	0.5	Ingestion	1.1
				Inhalation	1.6				Inhalation	0.1
				Derma External Exposure	95.1				Derma	98.8
Outdoor Worker - surface	1.22E-04	Arsenic Beryllium Chromium	22.8	Ingestion	24.8	26.57	Arsenic Iron Nickel Vanadium	0.7	Ingestion	10.0
				Inhalation	1.2				Inhalation	0.1
				Derma External Exposure	74.0				Derma	89.9
Outdoor Worker - subsurface	9.41E-05	Arsenic Beryllium Chromium	28.3	Ingestion	28.5	20.15	Arsenic Cobalt Iron Mercury Nickel Vanadium	0.8	Ingestion	10.8
				Inhalation	1.6				Inhalation	0.1
				Derma External Exposure	69.9				Derma	89.1

Table D4.83. Summary of Risk Characterization for SWMU 180, EU 4 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	1.18E-06			See Outdoor Worker (subsurface)	6.30	Mercury Vanadium	3.2 93.0	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	3.54E-04	Arsenic Beryllium Chromium Total PAH	13.8 84.8 1.1 0.3	Ingestion Inhalation Dermal External Exposure	55.89	Arsenic Iron Nickel Silver Vanadium	0.3 0.2 0.5 0.3 98.5	Ingestion Inhalation Dermal	1.9 0.0 98.1
Future Child Resident - surface	3.54E-04	Arsenic Beryllium Chromium Total PAH	13.8 84.8 1.1 0.3	Ingestion Inhalation Dermal External Exposure	135.55	Arsenic Barium Beryllium Iron Manganese Nickel Silver Vanadium	0.5 0.1 0.1 0.4 0.1 0.5 0.3 98.0	Ingestion Inhalation Dermal	7.2 0.1 92.7
Future Teen Recreational User - surface	8.62E-05	Arsenic Beryllium	7.5 91.8	Ingestion Inhalation Dermal External Exposure	47.13	Nickel Silver Vanadium	0.5 0.3 98.6	Ingestion Inhalation Dermal	0.3 0.0 99.7

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.84. Summary of Risk Characterization for SWMU 181

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	1.34E-06	*no COCs			0.12		Thallium	97.8	Ingestion Inhalation Dermal	17.2 82.8
Outdoor Worker - surface	1.27E-06	*no COCs			0.23		Thallium	99.1	Ingestion Inhalation Dermal	66.6 33.4
Outdoor Worker - subsurface	2.19E-06				0.23		Thallium	98.7	Ingestion Inhalation Dermal	66.3 33.7

Table D4.84. Summary of Risk Characterization for SWMU 181 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	3.23E-06	Chromium Total PAH	45.4 54.6	Ingestion Inhalation Dermal External Exposure	0.24	Thallium	98.0	Ingestion Inhalation Dermal	25.5 74.5
Future Child Resident - surface	3.23E-06	Chromium Total PAH	45.4 54.6	Ingestion Inhalation Dermal External Exposure	0.96	Thallium	98.9	Ingestion Inhalation Dermal	58.2 41.8
Future Teen Recreational User - surface	<1E-6	*no COCs			0.16	Thallium	97.5	Ingestion Inhalation Dermal	5.1 94.9

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.85. Summary of Risk Characterization for SWMU 195, EU 1

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	2.10E-06	Chromium	99.7	Ingestion Inhalation Dermal External Exposure	100.0	0.26	Nickel	63.4	Ingestion Inhalation Dermal	1.0 0.3 98.6
Outdoor Worker - surface	1.56E-06	Chromium	99.7	Ingestion Inhalation Dermal External Exposure	100.0	0.21	Nickel	63.5	Ingestion Inhalation Dermal	9.1 0.3 90.6
Outdoor Worker - subsurface	3.32E-05	Arsenic Cesium-137 Chromium	85.1 9.7 4.3	Ingestion Inhalation Dermal External Exposure	66.2 4.4 19.8 9.6	0.42	Arsenic Nickel	41.8 35.7	Ingestion Inhalation Dermal	40.1 0.3 59.5

Table D4.85. Summary of Risk Characterization for SWMU 195, EU 1 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.13			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	4.08E-06	Chromium	99.7	Ingestion Inhalation Dermal External Exposure	0.44	Nickel Silver	63.4 33.7	Ingestion Inhalation Dermal	1.7 0.2 98.1
Future Child Resident - surface	4.08E-06	Chromium	99.7	Ingestion Inhalation Dermal External Exposure	1.07	Nickel Silver	63.5 33.7	Ingestion Inhalation Dermal	6.5 0.4 93.1
Future Teen Recreational User - surface	<1E-6	*no COCs			0.37	Nickel Silver	63.3 33.8	Ingestion Inhalation Dermal	0.3 0.1 99.6

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.86. Summary of Risk Characterization for SWMU 195, EU 2

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	1.95E-06	Chromium	76.8	Ingestion Inhalation Dermal External Exposure	1.8 76.8 21.4	<0.1	*no COCs			
Outdoor Worker - surface	1.66E-06	Chromium	66.7	Ingestion Inhalation Dermal External Exposure	14.6 66.8 18.6	<0.1	*no COCs			
Outdoor Worker - subsurface	1.78E-06	Chromium	77.6	Ingestion Inhalation Dermal External Exposure	9.8 77.7 12.5	<0.1	*no COCs			

Table D4.86. Summary of Risk Characterization for SWMU 195, EU 2 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	4.29E-06	Chromium Total PAH	67.8 32.2	Ingestion Inhalation Dermal External Exposure	0.16	Silver	94.3	Ingestion Inhalation Dermal	1.7 98.3
Future Child Resident - surface	4.29E-06	Chromium Total PAH	67.8 32.2	Ingestion Inhalation Dermal External Exposure	0.38	Silver	94.5	Ingestion Inhalation Dermal	6.4 93.6
Future Teen Recreational User - surface	<1E-6	*no COCs			0.13	Silver	94.3	Ingestion Inhalation Dermal	0.3 99.7

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.87. Summary of Risk Characterization for SWMU 195, EU 3

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	2.36E-06	Chromium	70.7	Ingestion	2.2	0.13	Nickel	95.3	Ingestion	1.0
				Inhalation	71.0				Inhalation	0.5
				Dermal External Exposure	26.8				Dermal	98.5
Outdoor Worker - surface	2.07E-06	Chromium	59.5	Ingestion	17.7	0.10	*no COCs			
				Inhalation	59.7					
				Dermal External Exposure	22.6					
Outdoor Worker - subsurface	2.81E-05	Arsenic Chromium	92.9 4.6	Ingestion	72.9	0.37	Arsenic Nickel	43.6 48.5	Ingestion	41.3
				Inhalation	4.7				Inhalation	2.5
				Dermal External Exposure	22.4				Dermal	56.2

Table D4.87. Summary of Risk Characterization for SWMU 195, EU 3 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.12			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	5.33E-06	Chromium Total PAH	60.6 39.2	Ingestion Inhalation Dermal External Exposure	0.22	Nickel	95.4	Ingestion Inhalation Dermal	1.7 0.3 98.1
Future Child Resident - surface	5.33E-06	Chromium Total PAH	60.6 39.2	Ingestion Inhalation Dermal External Exposure	0.53	Nickel	95.5	Ingestion Inhalation Dermal	6.4 0.5 93.1
Future Teen Recreational User - surface	<1E-6	*no COCs			0.18	Nickel	95.3	Ingestion Inhalation Dermal	0.3 0.1 99.6

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.88. Summary of Risk Characterization for SWMU 195, EU 4

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	1.76E-06	Chromium	99.6	Ingestion Inhalation Dermal External Exposure	100.0	0.15	Nickel	95.9	Ingestion Inhalation Dermal	1.0 0.5 98.5
Outdoor Worker - surface	1.30E-06	Chromium	99.6	Ingestion Inhalation Dermal External Exposure	100.0	0.12	Nickel	96.1	Ingestion Inhalation Dermal	9.0 0.5 90.6
Outdoor Worker - subsurface	2.55E-05	Arsenic Chromium	95.1 4.9	Ingestion Inhalation Dermal External Exposure	73.5 4.9 21.6	0.40	Arsenic Nickel	37.7 39.2	Ingestion Inhalation Dermal	37.9 0.3 61.8

Table D4.88. Summary of Risk Characterization for SWMU 195, EU 4 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.13			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	3.41E-06	Chromium	99.6	Ingestion Inhalation Dermal External Exposure	0.26	Nickel	95.9	Ingestion Inhalation Dermal	1.7 0.3 98.1
Future Child Resident - surface	3.41E-06	Chromium	99.6	Ingestion Inhalation Dermal External Exposure	0.63	Nickel	96.0	Ingestion Inhalation Dermal	6.4 0.5 93.0
Future Teen Recreational User - surface	<1E-6	*no COCs			0.22	Nickel	95.8	Ingestion Inhalation Dermal	0.3 0.1 99.6

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.89. Summary of Risk Characterization for SWMU 195, EU 5

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	2.32E-06	Chromium	82.1	Ingestion	1.3	0.20	Nickel	96.5	Ingestion	1.0
				Inhalation	82.5				Inhalation	0.5
				Dermal External Exposure	16.1				Dermal	98.5
Outdoor Worker - surface	1.91E-06	Chromium	73.8	Ingestion	11.4	0.16	Nickel	96.7	Ingestion	9.0
				Inhalation	74.1				Inhalation	0.5
				Dermal External Exposure	14.5				Dermal	90.5
Outdoor Worker - subsurface	2.61E-05	Arsenic Cesium-137 Chromium	81.3 11.3 5.4	Ingestion	63.8	0.39	Arsenic Nickel	34.0 39.3	Ingestion	37.5
				Inhalation	5.5				Inhalation	0.3
				Dermal External Exposure	19.5 11.2				Dermal	62.2

Table D4.89. Summary of Risk Characterization for SWMU 195, EU 5 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.12			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	4.94E-06	Chromium Total PAH	74.7 25.0	Ingestion Inhalation Dermal External Exposure	0.33	Nickel	96.5	Ingestion Inhalation Dermal	1.7 0.3 98.0
Future Child Resident - surface	4.94E-06	Chromium Total PAH	74.7 25.0	Ingestion Inhalation Dermal External Exposure	0.81	Nickel	96.7	Ingestion Inhalation Dermal	6.5 0.5 93.0
Future Teen Recreational User - surface	<1E-6	*no COCs			0.28	Nickel	96.5	Ingestion Inhalation Dermal	0.3 0.1 99.6

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.90. Summary of Risk Characterization for SWMU 195, EU 6

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	5.67E-06	Chromium Total PAH	26.0	Ingestion	5.6	0.21	Nickel	97.5	Ingestion	1.0
			73.8	Inhalation	26.3				Inhalation	0.5
				Dermal External Exposure	68.1				Dermal	98.5
Outdoor Worker - surface	6.21E-06	Chromium Total PAH	17.6	Ingestion	36.2	0.17	Nickel	97.6	Ingestion	9.1
			82.3	Inhalation	17.8				Inhalation	0.5
				Dermal External Exposure	46.0				Dermal	90.5
Outdoor Worker - subsurface	3.25E-05	Arsenic Cesium-137 Chromium Total PAH	77.7	Ingestion	65.4	0.42	Arsenic Nickel	37.3 43.7	Ingestion	34.5
			6.0	Inhalation	4.2				Inhalation	0.3
			4.2	Dermal	24.4				Dermal	65.2
			12.1	External Exposure	6.0					

Table D4.90. Summary of Risk Characterization for SWMU 195, EU 6 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.13			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	1.56E-05	Chromium Total PAH	18.3 81.6	Ingestion Inhalation Dermal External Exposure	0.36	Nickel	97.5	Ingestion Inhalation Dermal	1.7 0.3 98.0
Future Child Resident - surface	1.56E-05	Chromium Total PAH	18.3 81.6	Ingestion Inhalation Dermal External Exposure	0.86	Nickel	97.6	Ingestion Inhalation Dermal	6.5 0.5 92.9
Future Teen Recreational User - surface	3.03E-06	Total PAH	91.1	Ingestion Inhalation Dermal External Exposure	0.30	Nickel	97.5	Ingestion Inhalation Dermal	0.3 0.1 99.6

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.91. Summary of Risk Characterization for SWMU 195, EU 7

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	1.63E-06	Chromium	100.0	Ingestion Inhalation Dermal External Exposure	100.0	<0.1	*no COCs			
Outdoor Worker - surface	1.21E-06	Chromium	100.0	Ingestion Inhalation Dermal External Exposure	100.0	<0.1	*no COCs			
Outdoor Worker - subsurface	2.17E-05	Arsenic Chromium	94.5 5.4	Ingestion Inhalation Dermal External Exposure	73.0 5.6 21.4	0.39	Arsenic Cobalt	32.8 50.6	Ingestion Inhalation Dermal	60.4 0.5 39.1

Table D4.91. Summary of Risk Characterization for SWMU 195, EU 7 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.12			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	3.17E-06	Chromium	100.0	Ingestion Inhalation Dermal External Exposure	0.14	Silver	92.8	Ingestion Inhalation Dermal	1.6 98.4
Future Child Resident - surface	3.17E-06	Chromium	100.0	Ingestion Inhalation Dermal External Exposure	0.33	Silver	93.1	Ingestion Inhalation Dermal	6.3 93.7
Future Teen Recreational User - surface	<1E-6	*no COCs			0.12	Silver	92.7	Ingestion Inhalation Dermal	0.3 99.7

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.92. Summary of Risk Characterization for SWMU 195, EU 8

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	3.94E-06	Beryllium	75.0	Ingestion	5.5	1.53	Vanadium	98.4	Ingestion	1.2
				Inhalation	3.3			Inhalation	0.0	
				Derma	91.2			Derma	98.8	
				External Exposure						
Future Industrial Worker - surface	7.04E-05	Arsenic Beryllium Chromium Total PAH	16.5	Ingestion	5.5	27.26	Cobalt Nickel Vanadium	0.6	Ingestion	1.2
			75.0	Inhalation	3.3			Inhalation	0.0	
			3.2	Derma	91.2			Derma	98.8	
			5.2	External Exposure						
Outdoor Worker - surface	7.66E-05	Arsenic Beryllium Chromium Total PAH	36.4	Ingestion	35.8	22.29	Arsenic Cobalt Nickel Vanadium	0.8	Ingestion	10.6
			55.6	Inhalation	2.3			Inhalation	0.0	
			2.2	Derma	61.9			Derma	89.4	
			5.8	External Exposure						
Outdoor Worker - subsurface	7.23E-05	Arsenic Beryllium Cesium-137 Chromium Total PAH	37.2	Ingestion	35.5	20.51	Arsenic Cobalt Nickel Vanadium	0.8	Ingestion	10.6
			54.0	Inhalation	1.9			Inhalation	0.1	
			2.9	Derma	59.7			Derma	89.4	
			1.8	External Exposure	2.9			External Exposure		
4.0	Total PAH									

Table D4.92. Summary of Risk Characterization for SWMU 195, EU 8 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)		6.41	Vanadium	96.6	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	2.04E-04	Arsenic	24.1	Ingestion	17.0	46.64	Arsenic	0.3	Ingestion	2.0
		Beryllium	68.2	Inhalation	2.2		Cobalt	0.7	Inhalation	0.0
		Chromium	2.1	Derma	80.8		Nickel	0.6	Derma	98.0
		Total PAH	5.4	External Exposure			Vanadium	98.3		
Future Child Resident - surface	2.04E-04	Arsenic	24.1	Ingestion	17.0	113.50	Arsenic	0.6	Ingestion	7.7
		Beryllium	68.2	Inhalation	2.2		Cobalt	1.2	Inhalation	0.0
		Chromium	2.1	Derma	80.8		Nickel	0.6	Derma	92.3
		Total PAH	5.4	External Exposure			Vanadium	97.5		
Future Teen Recreational User - surface	4.59E-05	Arsenic	14.2	Ingestion	1.5	39.29	Cobalt	0.5	Ingestion	0.3
		Beryllium	79.7	Inhalation	0.9		Nickel	0.6	Inhalation	0.0
		Total PAH	5.2	Derma	97.5		Vanadium	98.5	Derma	99.7

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.93. Summary of Risk Characterization for SWMU 195, EU 9

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	2.02E-06	Chromium	99.6	Ingestion Inhalation Dermal External Exposure	100.0	0.19	Nickel	96.3	Ingestion Inhalation Dermal	1.0 0.5 98.5
Outdoor Worker - surface	1.50E-06	Chromium	99.6	Ingestion Inhalation Dermal External Exposure	100.0	0.15	Nickel	96.5	Ingestion Inhalation Dermal	9.0 0.5 90.5
Outdoor Worker - subsurface	2.64E-05	Arsenic Chromium	94.3 5.6	Ingestion Inhalation Dermal External Exposure	72.9 5.7 21.4	0.40	Arsenic Nickel	38.6 42.7	Ingestion Inhalation Dermal	35.3 0.3 64.4

Table D4.93. Summary of Risk Characterization for SWMU 195, EU 9 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.13			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	3.93E-06	Chromium	99.6	Ingestion Inhalation Dermal External Exposure	0.33	Nickel	96.3	Ingestion Inhalation Dermal	1.7 0.3 98.1
Future Child Resident - surface	3.93E-06	Chromium	99.6	Ingestion Inhalation Dermal External Exposure	0.79	Nickel	96.4	Ingestion Inhalation Dermal	6.5 0.5 93.0
Future Teen Recreational User - surface	<1E-6	*no COCs			0.28	Nickel	96.2	Ingestion Inhalation Dermal	0.3 0.1 99.6

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.94. Summary of Risk Characterization for SWMU 195, EU 10

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	1.50E-06	Chromium	99.5	Ingestion Inhalation Dermal External Exposure	100.0	0.30	Nickel Silver	57.6 40.6	Ingestion Inhalation Dermal	1.0 0.3 98.7
Outdoor Worker - surface	1.11E-06	Chromium	99.5	Ingestion Inhalation Dermal External Exposure	100.0	0.24	Nickel	57.7	Ingestion Inhalation Dermal	9.1 0.3 90.6
Outdoor Worker - subsurface	2.47E-05	Arsenic Chromium	95.7 4.2	Ingestion Inhalation Dermal External Exposure	74.0 4.3 21.7	0.42	Arsenic Nickel	35.2 35.8	Ingestion Inhalation Dermal	34.9 1.8 63.4

Table D4.94. Summary of Risk Characterization for SWMU 195, EU 10 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.13			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	2.91E-06	Chromium	99.5	Ingestion Inhalation Dermal External Exposure	0.51	Nickel Silver	57.6 40.7	Ingestion Inhalation Dermal	1.7 0.2 98.1
Future Child Resident - surface	2.91E-06	Chromium	99.5	Ingestion Inhalation Dermal External Exposure	1.24	Nickel Silver	57.7 40.6	Ingestion Inhalation Dermal	6.6 0.3 93.1
Future Teen Recreational User - surface	<1E-6	*no COCs			0.43	Nickel Silver	57.5 40.7	Ingestion Inhalation Dermal	0.3 0.1 99.6

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.95. Summary of Risk Characterization for SWMU 195, EU 11

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				3.01	Vanadium	98.6	Ingestion Inhalation Dermal	1.2 0.0 98.7
Future Industrial Worker - surface	1.53E-05	Arsenic Chromium	88.4 11.0	Ingestion Inhalation Dermal External Exposure	23.1 11.8 65.1	53.69	Cobalt Nickel Vanadium	0.5 0.3 98.6	Ingestion Inhalation Dermal	1.2 0.0 98.7
Outdoor Worker - surface	3.38E-05	Arsenic Chromium	96.1 3.7	Ingestion Inhalation Dermal External Exposure	74.2 4.0 21.8	43.92	Aluminum Arsenic Cobalt Iron Nickel Vanadium	0.3 0.5 1.1 0.3 0.3 97.2	Ingestion Inhalation Dermal	10.7 0.0 89.3
Outdoor Worker - subsurface	3.51E-05	Arsenic Cesium-137 Chromium	88.9 5.3 4.0	Ingestion Inhalation Dermal External Exposure	69.5 4.2 21.1 5.2	30.82	Aluminum Arsenic Cobalt Iron Nickel Vanadium	0.3 0.6 1.1 0.5 0.5 96.4	Ingestion Inhalation Dermal	10.9 0.1 89.1

Table D4.95. Summary of Risk Characterization for SWMU 195, EU 11 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	9.63	Cobalt Vanadium	1.1 96.4	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	6.06E-05	Arsenic Chromium	94.3 5.4	Ingestion Inhalation Dermal External Exposure	91.88	Aluminum Arsenic Barium Cobalt Iron Nickel Vanadium	0.2 0.2 0.1 0.5 0.2 0.3 98.5	Ingestion Inhalation Dermal	2.0 0.0 98.0
Future Child Resident - surface	6.06E-05	Arsenic Chromium	94.3 5.4	Ingestion Inhalation Dermal External Exposure	223.64	Aluminum Arsenic Barium Cobalt Iron Nickel Thallium Vanadium	0.3 0.4 0.1 0.9 0.3 0.3 0.1 97.6	Ingestion Inhalation Dermal	7.7 0.0 92.3
Future Teen Recreational User - surface	7.92E-06	Arsenic	95.9	Ingestion Inhalation Dermal External Exposure	77.38	Aluminum Barium Cobalt Nickel Vanadium	0.1 0.1 0.4 0.3 98.7	Ingestion Inhalation Dermal	0.3 0.0 99.7

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.96. Summary of Risk Characterization for SWMU 195, EU 12

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	3.13E-06	Beryllium	95.8	Ingestion Inhalation Dermal External Exposure	1.0 4.2 94.8	<0.1	*no COCs			
Future Industrial Worker - surface	5.58E-05	Beryllium Chromium	95.8 4.2	Ingestion Inhalation Dermal External Exposure	1.0 4.2 94.8	0.18	Nickel	86.0	Ingestion Inhalation Dermal	1.0 0.5 98.5
Outdoor Worker - surface	4.49E-05	Beryllium Chromium	96.1 3.8	Ingestion Inhalation Dermal External Exposure	8.9 3.9 87.2	0.15	Nickel	86.2	Ingestion Inhalation Dermal	8.9 0.4 90.6
Outdoor Worker - subsurface	6.33E-05	Arsenic Beryllium Chromium	40.9 56.6 2.5	Ingestion Inhalation Dermal External Exposure	36.9 2.5 60.6	20.09	Arsenic Nickel Vanadium	0.8 0.9 98.1	Ingestion Inhalation Dermal	9.9 0.0 90.1

Table D4.96. Summary of Risk Characterization for SWMU 195, EU 12 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	6.28	Vanadium	98.1	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	1.45E-04	Beryllium Chromium	96.9 3.1	Ingestion Inhalation Dermal External Exposure	0.31	Nickel	86.0	Ingestion Inhalation Dermal	1.7 0.3 98.1
Future Child Resident - surface	1.45E-04	Beryllium Chromium	96.9 3.1	Ingestion Inhalation Dermal External Exposure	0.76	Nickel	86.2	Ingestion Inhalation Dermal	6.4 0.5 93.1
Future Teen Recreational User - surface	3.75E-05	Beryllium	98.9	Ingestion Inhalation Dermal External Exposure	0.26	Nickel	85.9	Ingestion Inhalation Dermal	0.3 0.1 99.6

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.97. Summary of Risk Characterization for SWMU 195, EU 13

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	2.18E-06	Chromium	99.7	Ingestion Inhalation Dermal External Exposure	100.0	0.17	Nickel	95.4	Ingestion Inhalation Dermal	1.0 0.5 98.5
Outdoor Worker - surface	1.61E-06	Chromium	99.7	Ingestion Inhalation Dermal External Exposure	100.0	0.14	Nickel	95.7	Ingestion Inhalation Dermal	8.9 0.5 90.6
Outdoor Worker - subsurface	2.33E-05	Arsenic Chromium	94.5 5.5	Ingestion Inhalation Dermal External Exposure	73.0 5.6 21.4	0.36	Arsenic Nickel	37.6 43.1	Ingestion Inhalation Dermal	34.7 0.3 65.0

Table D4.97. Summary of Risk Characterization for SWMU 195, EU 13 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.11			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	4.23E-06	Chromium	99.7	Ingestion Inhalation Dermal External Exposure	0.29	Nickel	95.4	Ingestion Inhalation Dermal	1.7 0.3 98.1
Future Child Resident - surface	4.23E-06	Chromium	99.7	Ingestion Inhalation Dermal External Exposure	0.70	Nickel	95.6	Ingestion Inhalation Dermal	6.4 0.5 93.1
Future Teen Recreational User - surface	<1E-6	*no COCs			0.24	Nickel	95.4	Ingestion Inhalation Dermal	0.3 0.1 99.6

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.98. Summary of Risk Characterization for SWMU 195, EU 14

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI	
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs				
Future Industrial Worker - surface	1.98E-06	Chromium	99.6	Ingestion	100.0	0.17	Nickel	95.9	Ingestion	1.0	
				Inhalation					Inhalation		0.5
				Dermal External Exposure					Dermal		98.5
Outdoor Worker - surface	1.46E-06	Chromium	99.6	Ingestion	100.0	0.14	Nickel	96.1	Ingestion	9.0	
				Inhalation					Inhalation		0.5
				Dermal External Exposure					Dermal		90.6
Outdoor Worker - subsurface	2.61E-05	Arsenic Chromium	94.4 5.6	Ingestion	72.9	0.98	Arsenic Mercury Nickel	15.7 61.2 15.8	Ingestion	21.8	
				Inhalation					Inhalation		0.1
				Dermal External Exposure					Dermal		78.0

Table D4.98. Summary of Risk Characterization for SWMU 195, EU 14 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.31	Mercury	61.2	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	3.84E-06	Chromium	99.6	Ingestion Inhalation Dermal External Exposure	0.29	Nickel	95.9	Ingestion Inhalation Dermal	1.7 0.3 98.1
Future Child Resident - surface	3.84E-06	Chromium	99.6	Ingestion Inhalation Dermal External Exposure	0.71	Nickel	96.1	Ingestion Inhalation Dermal	6.4 0.5 93.0
Future Teen Recreational User - surface	<1E-6	*no COCs			0.25	Nickel	95.9	Ingestion Inhalation Dermal	0.3 0.1 99.6

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.99. Summary of Risk Characterization for SWMU 195, EU 15

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	1.60E-06	Chromium	100.0	Ingestion Inhalation Dermal External Exposure	100.0	<0.1	*no COCs			
Outdoor Worker - surface	1.18E-06	Chromium	100.0	Ingestion Inhalation Dermal External Exposure	100.0	<0.1	*no COCs			
Outdoor Worker - subsurface	2.56E-05	Arsenic Cesium-137 Chromium	86.0 8.8 5.1	Ingestion Inhalation Dermal External Exposure	66.6 5.2 19.5 8.7	0.14	Arsenic	96.6	Ingestion Inhalation Dermal	74.5 0.3 25.1

Table D4.99. Summary of Risk Characterization for SWMU 195, EU 15 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	3.10E-06	Chromium	100.0	Ingestion Inhalation Dermal External Exposure	<0.1	*no COCs			
Future Child Resident - surface	3.10E-06	Chromium	100.0	Ingestion Inhalation Dermal External Exposure	<0.1	*no COCs			
Future Teen Recreational User - surface	<1E-6	*no COCs			<0.1	*no COCs			

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.100. Summary of Risk Characterization for SWMU 195, EU 16

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI	
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs				
Future Industrial Worker - surface	1.48E-06	Chromium	99.4	Ingestion	100.0	0.20	Nickel	97.3	Ingestion	1.0	
				Inhalation					Inhalation		0.5
				Dermal Exposure					Dermal		98.5
Outdoor Worker - surface	1.10E-06	Chromium	99.4	Ingestion	100.0	0.16	Nickel	97.5	Ingestion	9.1	
				Inhalation					Inhalation		0.5
				Dermal Exposure					Dermal		90.5
Outdoor Worker - subsurface	3.84E-06	Cesium-137 Chromium	66.5 33.4	Ingestion	0.7 33.5 65.7	0.97	Mercury Nickel	80.7 16.7	Ingestion	12.6 0.7 86.6	
				Inhalation					Inhalation		
				Dermal Exposure					Dermal		

Table D4.100. Summary of Risk Characterization for SWMU 195, EU 16 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.30	Mercury	80.7	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	2.88E-06	Chromium	99.4	Ingestion Inhalation Dermal External Exposure	0.33	Nickel	97.3	Ingestion Inhalation Dermal	1.7 0.3 98.0
Future Child Resident - surface	2.88E-06	Chromium	99.4	Ingestion Inhalation Dermal External Exposure	0.81	Nickel	97.4	Ingestion Inhalation Dermal	6.5 0.5 93.0
Future Teen Recreational User - surface	<1E-6	*no COCs			0.28	Nickel	97.3	Ingestion Inhalation Dermal	0.3 0.1 99.6

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.101. Summary of Risk Characterization for SWMU 195, EU 17

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI	
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs				
Future Industrial Worker - surface	1.38E-05	Chromium PCB, Total Total PAH Uranium-238	19.7	Ingestion	6.0	0.31	Nickel	45.0	Ingestion	2.1	
			28.6	Inhalation	21.9				Inhalation	0.2	
			38.7	Derma	60.3				Derma	97.7	
		10.6	External Exposure	11.7							
Outdoor Worker - surface	1.55E-05	Chromium PCB, Total Total PAH Uranium-238	13.0	Ingestion	38.1	0.27	Nickel	41.6		Ingestion	17.1
			29.4	Inhalation	14.4					Inhalation	0.2
			42.0	Derma	39.8					Derma	82.7
			13.6	External Exposure	7.7						
Outdoor Worker - subsurface	3.47E-05	Arsenic Chromium PCB, Total Total PAH Uranium-238	65.0	Ingestion	63.3	1.10	Arsenic Mercury Nickel	12.8		Ingestion	22.5
			4.8	Inhalation	5.5					Inhalation	0.9
			13.1	Derma	28.8					Derma	76.7
			12.2	External Exposure	2.5						
			4.3								

Table D4.101. Summary of Risk Characterization for SWMU 195, EU 17 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.34	Mercury	61.1	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	4.20E-05	Chromium	12.6	Ingestion	0.53	Nickel Silver	44.7	Ingestion	3.4
		PCB, Total Total PAH Uranium-235 Uranium-238	27.6 38.7 4.0 17.1	Inhalation Dermal External Exposure				0.1 96.5	
Future Child Resident - surface	4.20E-05	Chromium	12.6	Ingestion	1.34	Mercury Nickel Silver Thallium	14.6	Ingestion	12.6
		PCB, Total Total PAH Uranium-235 Uranium-238	27.6 38.7 4.0 17.1	Inhalation Dermal External Exposure				0.2 87.2	
Future Teen Recreational User - surface	6.85E-06	PCB, Total Total PAH	36.2 51.3	Ingestion Inhalation Dermal External Exposure	0.44	Nickel Silver	45.3 30.9	Ingestion Inhalation Dermal	0.6 0.1 99.4

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.102. Summary of Risk Characterization for SWMU 204, EU 1

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	6.57E-06	Beryllium	82.7	Ingestion	2.1	2.82	Vanadium	99.5	Ingestion	1.1
				Inhalation	2.9				Inhalation	0.0
				Dermal	92.3				Dermal	98.9
				External Exposure	2.7					
Future Industrial Worker - surface	1.17E-04	Beryllium Chromium PCB, Total Uranium-238	82.7 2.1 11.5 2.6	Ingestion	2.1	50.39	Iron Vanadium	0.3 99.5	Ingestion	1.1
				Inhalation	2.9				Inhalation	0.0
				Dermal	92.3				Dermal	98.9
				External Exposure	2.7					
Outdoor Worker - surface	1.02E-04	Beryllium Cadmium Chromium PCB, Total Uranium-238	76.5 1.8 1.8 15.2 4.3	Ingestion	16.9	40.89	Iron Vanadium	0.8 98.9	Ingestion	9.8
				Inhalation	2.5				Inhalation	0.0
				Dermal	78.3				Dermal	90.2
				External Exposure	2.3					
Outdoor Worker - subsurface	1.27E-04	Arsenic Beryllium Cadmium Chromium PCB, Total Uranium-238	19.7 61.5 1.4 1.4 12.2 3.5	Ingestion	28.8	41.05	Arsenic Iron Vanadium	0.4 0.8 98.6	Ingestion	10.1
				Inhalation	2.0				Inhalation	0.0
				Dermal	67.4				Dermal	89.9
				External Exposure	1.8					

Table D4.102. Summary of Risk Characterization for SWMU 204, EU 1 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI		
Excavation Worker - subsurface	1.59E-06			See Outdoor Worker (subsurface)	12.83	Vanadium	98.6	See Outdoor Worker (subsurface) for %			
Future Adult Resident - surface	3.20E-04	Beryllium	79.7	Ingestion	86.17	Iron	0.4	Ingestion	1.8		
		Cadmium	1.1	Inhalation		Vanadium		99.4		Inhalation	0.0
		Chromium	1.5	Derma						Derma	98.2
		PCB, Total	12.4	External Exposure							
		Uranium-235	0.7								
Uranium-238	4.7										
Future Child Resident - surface	3.20E-04	Beryllium	79.7	Ingestion	208.71	Aluminum	0.2	Ingestion	7.1		
		Cadmium	1.1	Inhalation		Beryllium		0.1		Inhalation	0.0
		Chromium	1.5	Derma		Iron		0.6		Derma	92.9
		PCB, Total	12.4	External Exposure		Vanadium		99.1			
		Uranium-235	0.7								
Uranium-238	4.7										
Future Teen Recreational User - surface	7.73E-05	Beryllium	86.9	Ingestion	72.69	Iron	0.3	Ingestion	0.3		
		PCB, Total	10.9	Inhalation		Vanadium		99.5		Inhalation	0.0
				Derma						Derma	99.7
				External Exposure							

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.103. Summary of Risk Characterization for SWMU 204, EU 2

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	1.50E-06	*no COCs				<0.1	*no COCs			
Outdoor Worker - surface	1.49E-06	PCB, Total	70.4	Ingestion Inhalation Dermal External Exposure	28.3 32.8 38.8	<0.1	*no COCs			
Outdoor Worker - subsurface	1.05E-06	PCB, Total	100.0	Ingestion Inhalation Dermal External Exposure	40.3 4.6 55.2	<0.1	*no COCs			

Table D4.103. Summary of Risk Characterization for SWMU 204, EU 2 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	3.82E-06	Chromium PCB, Total	30.3 69.7	Ingestion Inhalation Dermal External Exposure	<0.1	*no COCs			
Future Child Resident - surface	3.82E-06	Chromium PCB, Total	30.3 69.7	Ingestion Inhalation Dermal External Exposure	0.32	Aluminum	97.4	Ingestion Inhalation Dermal	54.9 4.1 41.0
Future Teen Recreational User - surface	<1E-6	*no COCs			<0.1	*no COCs			

There are no subsurface data available for assessment.

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.104. Summary of Risk Characterization for SWMU 204, EU 3

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	2.15E-06	Uranium-238	68.3	Ingestion	7.6	<0.1	*no COCs			
				Inhalation	31.9					
				Dermal External Exposure	60.4					
Outdoor Worker - surface	2.64E-06	Uranium-238	80.8	Ingestion	44.2	<0.1	*no COCs			
				Inhalation	19.3					
				Dermal External Exposure	36.5					
Outdoor Worker - subsurface	2.13E-06	Uranium-238	100.0	Ingestion	54.7	<0.1	*no COCs			
				Inhalation	0.2					
				Dermal External Exposure	45.2					

Table D4.104. Summary of Risk Characterization for SWMU 204, EU 3 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	8.55E-06	Chromium Uranium-238	15.5	Ingestion	<0.1	*no COCs	*no COCs		*no COCs
			84.5	Inhalation					
				Dermal					
Future Child Resident - surface	8.55E-06	Chromium Uranium-238	15.5	Ingestion	<0.1	*no COCs	*no COCs		*no COCs
			84.5	Inhalation					
				Dermal					
Future Teen Recreational User - surface	<1E-6	*no COCs		External Exposure	<0.1	*no COCs	*no COCs		*no COCs
				External Exposure					
				External Exposure					

There are no subsurface data available for assessment.

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.105. Summary of Risk Characterization for SWMU 204, EU 4

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	7.15E-06	Uranium-238	80.0	Ingestion	9.1	<0.1	*no COCs			
				Inhalation	13.7					
				Dermal	77.3					
Outdoor Worker - surface	9.41E-06	Uranium-238	88.1	Ingestion	48.9	<0.1	*no COCs			
				Inhalation	7.7					
				Dermal	43.4					
Outdoor Worker - subsurface	8.70E-06	Uranium-238	95.3	Ingestion	52.9	0.64	Antimony	100.0	Ingestion Inhalation Dermal	23.5
				Inhalation	0.2					
				Dermal	47.0					

Table D4.105. Summary of Risk Characterization for SWMU 204, EU 4 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)		0.20	Antimony	100.0	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	3.23E-05	Chromium Uranium-235 Uranium-238	5.7 7.4 86.9	Ingestion	8.1	<0.1	*no COCs			
				Inhalation	5.8					
				Dermal						
Future Child Resident - surface	3.23E-05	Chromium Uranium-235 Uranium-238	5.7 7.4 86.9	Ingestion	8.1	0.21	Antimony	93.6	Ingestion	16.6
				Inhalation	5.8				Inhalation	
				Dermal					Dermal	83.4
Future Teen Recreational User - surface	1.41E-06	Uranium-238	80.6	Ingestion	5.1	<0.1	*no COCs			
				Inhalation	12.5					
				Dermal						
				External Exposure	82.3					

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.106. Summary of Risk Characterization for SWMU 204, EU 18

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	1.08E-05	Cesium-137 Uranium-238	67.8	Ingestion	3.4	<0.1	*no COCs			
			29.3	Inhalation Dermal External Exposure	0.1 96.5					
Outdoor Worker - surface	1.03E-05	Cesium-137 Uranium-238	53.0	Ingestion	25.3	<0.1	*no COCs			
			44.4	Inhalation Dermal External Exposure	0.1 74.6					
Outdoor Worker - subsurface	1.03E-05	Cesium-137 Uranium-238	53.0	Ingestion	25.3	<0.1	*no COCs			
			44.4	Inhalation Dermal External Exposure	0.1 74.6					

Table D4.106. Summary of Risk Characterization for SWMU 204, EU 18 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)		<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	5.40E-05	Cesium-137	68.3	Ingestion	2.7	<0.1	*no COCs			
		Uranium-235	2.9	Inhalation	0.0					
		Uranium-238	28.8	Derma						
			97.2	External Exposure						
Future Child Resident - surface	5.40E-05	Cesium-137	68.3	Ingestion	2.7	0.12	Uranium	100.0	Ingestion Inhalation Derma	58.7 0.2 41.1
		Uranium-235	2.9	Inhalation	0.0					
		Uranium-238	28.8	Derma						
			97.2	External Exposure						
Future Teen Recreational User - surface	2.23E-06	Cesium-137	68.9	Ingestion	1.8	<0.1	*no COCs			
			0.1	Inhalation						
			98.1	Derma						
				External Exposure						

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.107. Summary of Risk Characterization for SWMU 204, EU 22

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface		*no COCs					*no COCs			
Future Industrial Worker - surface		*no COCs					*no COCs			
Outdoor Worker - surface		*no COCs					*no COCs			
Outdoor Worker - subsurface	<1E-6					0.64	Uranium	100.0	Ingestion Inhalation Dermal	67.0 0.2 32.8

Table D4.107. Summary of Risk Characterization for SWMU 204, EU 22 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.20	Uranium	100.0	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface		*no COCs				*no COCs			
Future Child Resident - surface		*no COCs				*no COCs			
Future Teen Recreational User - surface		*no COCs				*no COCs			

There are no surface data available for assessment.
 Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.108. Summary of Risk Characterization for SWMU 204, EU 23

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total	Total HI	COCs	%Total	Routes of Exposure	%Total
Current Industrial Worker - surface	1.84E-04	Beryllium	2.9	Ingestion	10.4	0.69	Uranium	99.6	Ingestion	17.4
		PCB, Total	12.8	Inhalation	1.4				Inhalation	0.4
		Uranium-234	0.7	Dermal	13.9				Dermal	82.2
		Uranium-235	4.4	External Exposure	74.3					
		Uranium-238	78.5							
Future Industrial Worker - surface	3.28E-03	Beryllium	2.9	Ingestion	10.4	12.25	Uranium	99.6	Ingestion	17.4
		Cesium-137	0.4	Inhalation	1.4				Inhalation	0.4
		Chromium	0.2	Dermal	13.9				Dermal	82.2
		PCB, Total	12.8	External Exposure	74.3					
		Uranium-234	0.7							
		Uranium-235	4.4							
		Uranium-238	78.5							
Outdoor Worker - surface	4.60E-03	Americium-241	0.0	Ingestion	52.7	22.63	Uranium	99.8	Ingestion	66.9
		Beryllium	1.7	Inhalation	0.7				Inhalation	0.2
		Cesium-137	0.2	Dermal	7.3				Dermal	32.9
		Chromium	0.1	External Exposure	39.2					
		PCB, Total	10.6							
		Uranium-234	3.4							
		Uranium-235	2.7							
Uranium-238	81.2									
Outdoor Worker - subsurface	4.60E-03	Beryllium	1.7	Ingestion	52.7	22.63	Uranium	99.8	Ingestion	66.9
		Cesium-137	0.2	Inhalation	0.8				Inhalation	0.2
		PCB, Total	10.6	Dermal	7.3				Dermal	32.9
		Uranium-234	3.4	External Exposure	39.2					
		Uranium-235	2.7							
Uranium-238	81.2									

Table D4.108. Summary of Risk Characterization for SWMU 204, EU 23 (Continued)

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total Worker for %	Total HI	COCs	%Total	Routes of Exposure	%Total Worker for %
Excavation Worker - subsurface	5.76E-05	PCB, Total	10.6	See Outdoor Worker (subsurface) for %		7.07	Uranium	99.8	See Outdoor Worker (subsurface) for %	
		Uranium-234	3.4							
		Uranium-235	2.7							
		Uranium-238	81.2							
Future Adult Resident - surface	1.51E-02	Americium-241	0.0	Ingestion Inhalation Dermal External Exposure	10.1 0.5 7.8 81.6	23.11	Uranium	99.6	Ingestion Inhalation Dermal	25.8 0.2 74.0
		Beryllium	1.7							
		Cesium-137	0.5							
		Chromium	0.1							
		Cobalt-60	0.0							
		PCB, Total	8.2							
		Uranium-234	0.6							
		Uranium-235	4.8							
Uranium-238	84.1									
Future Child Resident - surface	1.51E-02	Americium-241	0.0	Ingestion Inhalation Dermal External Exposure	10.1 0.5 7.8 81.6	95.11	Beryllium Uranium	0.1 99.8	Ingestion Inhalation Dermal	58.6 0.2 41.2
		Beryllium	1.7							
		Cesium-137	0.5							
		Chromium	0.1							
		Cobalt-60	0.0							
		PCB, Total	8.2							
		Uranium-234	0.6							
		Uranium-235	4.8							
Uranium-238	84.1									
Future Teen Recreational User - surface	8.79E-04	Beryllium	7.5	Ingestion Inhalation Dermal External Exposure	4.6 0.9 36.3 58.3	15.48	Uranium	99.5	Ingestion Inhalation Dermal	5.2 0.1 94.6
		Cesium-137	0.3							
		Chromium	0.1							
		PCB, Total	30.0							
		Uranium-234	0.3							
		Uranium-235	3.4							
Uranium-238	58.3									

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.109. Summary of Risk Characterization for SWMU 486

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	1.11E-06	Cesium-137	100.0	Ingestion	0.1	<0.1	*no COCs			
				Inhalation	0.0					
				Dermal External Exposure	99.9					
Future Industrial Worker - surface	1.99E-05	Cesium-137	100.0	Ingestion	0.1	<0.1	*no COCs			
				Inhalation	0.0					
				Dermal External Exposure	99.9					
Outdoor Worker - surface	1.48E-05	Cesium-137	100.0	Ingestion	1.1	<0.1	*no COCs			
				Inhalation	0.0					
				Dermal External Exposure	98.9					
Outdoor Worker - subsurface	1.48E-05	Cesium-137	100.0	Ingestion	1.1	<0.1	*no COCs			
				Inhalation	0.0					
				Dermal External Exposure	98.9					

Table D4.109. Summary of Risk Characterization for SWMU 486 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)		<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	1.00E-04	Cesium-137	100.0	Ingestion Inhalation Dermal External Exposure	0.1 0.0 99.9	<0.1	*no COCs			
Future Child Resident - surface	1.00E-04	Cesium-137	100.0	Ingestion Inhalation Dermal External Exposure	0.1 0.0 99.9	<0.1	*no COCs			
Future Teen Recreational User - surface	4.17E-06	Cesium-137	100.0	Ingestion Inhalation Dermal External Exposure	0.1 0.0 99.9	<0.1	*no COCs			

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.110. Summary of Risk Characterization for SWMU 487

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	1.60E-05	Cesium-137	100.0	Ingestion	0.1	<0.1	*no COCs			
				Inhalation	0.0					
				Dermal External Exposure	99.9					
Outdoor Worker - surface	1.20E-05	Cesium-137	100.0	Ingestion	1.1	<0.1	*no COCs			
				Inhalation	0.0					
				Dermal External Exposure	98.9					
Outdoor Worker - subsurface	1.20E-05	Cesium-137	100.0	Ingestion	1.1	<0.1	*no COCs			
				Inhalation	0.0					
				Dermal External Exposure	98.9					

Table D4.110. Summary of Risk Characterization for SWMU 487 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)		<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	8.07E-05	Cesium-137	100.0	Ingestion Inhalation Dermal External Exposure	0.1 0.0 99.9	<0.1	*no COCs			
Future Child Resident - surface	8.07E-05	Cesium-137	100.0	Ingestion Inhalation Dermal External Exposure	0.1 0.0 99.9	<0.1	*no COCs			
Future Teen Recreational User - surface	3.36E-06	Cesium-137	100.0	Ingestion Inhalation Dermal External Exposure	0.1 0.0 99.9	<0.1	*no COCs			

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.111. Summary of Risk Characterization for SWMU 492

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total	Total HI	COCs	%Total	Routes of Exposure	%Total
Current Industrial Worker - surface	7.12E-05	Beryllium	58.4	Ingestion	4.4	1.72	Vanadium	93.1	Ingestion	2.0
		Chromium	2.7	Inhalation	4.1				Inhalation	0.0
		PCB, Total	18.5	Dermal	74.6				Dermal	98.0
		Uranium-238	17.7	External Exposure	16.9					
Future Industrial Worker - surface	1.27E-03	Arsenic	1.2	Ingestion	4.4	30.80	Beryllium Chromium Uranium Vanadium	0.8 0.4 5.4 93.1	Ingestion	2.0
		Beryllium	58.4	Inhalation	4.1				Inhalation	0.0
		Chromium	2.7	Dermal	74.6				Dermal	98.0
		PCB, Total	18.5	External Exposure	16.9					
		Uranium-234	0.2							
		Uranium-235	1.1							
Uranium-238	17.7									
Outdoor Worker - surface	1.29E-03	Arsenic	2.7	Ingestion	30.4	26.73	Arsenic Beryllium Uranium Vanadium	0.8 0.7 11.4 86.6	Ingestion	16.4
		Beryllium	46.3	Inhalation	3.0				Inhalation	0.0
		Cadmium	0.2	Dermal	54.3				Dermal	83.5
		Chromium	2.0	External Exposure	12.3					
		PCB, Total	21.0							
		Uranium-234	1.5							
		Uranium-235	1.0							
Uranium-238	25.3									
Outdoor Worker - subsurface	1.30E-03	Arsenic	2.7	Ingestion	30.4	26.73	Arsenic Beryllium Uranium Vanadium	0.8 0.7 11.4 86.6	Ingestion	16.4
		Beryllium	46.2	Inhalation	3.0				Inhalation	0.0
		Cadmium	0.2	Dermal	54.2				Dermal	83.5
		Cesium-137	0.2	External Exposure	12.5					
		Chromium	2.0							
		PCB, Total	21.0							
		Uranium-234	1.5							
Uranium-235	1.0									
Uranium-238	25.2									

Table D4.111. Summary of Risk Characterization for SWMU 492 (Continued)

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total Worker for %	Total HI	COCs	%Total	Routes of Exposure	%Total Worker for %
Excavation Worker - subsurface	1.62E-05	Beryllium	46.2	See Outdoor Worker (subsurface) for %	9.0	8.36	Uranium	11.4	See Outdoor Worker (subsurface) for %	3.3
		PCB, Total	21.0					86.6		
		Uranium-238	25.2							
Future Adult Resident - surface	3.97E-03	Arsenic	1.6	Ingestion Inhalation Dermal External Exposure	9.0 2.5 61.2 27.3	52.97	Arsenic Beryllium Chromium Uranium Vanadium	0.3	Ingestion Inhalation Dermal	3.3 0.0 96.7
		Beryllium	49.1					0.8		
		Cadmium	0.1					0.4		
		Chromium	1.7					5.9		
		Cobalt-60	0.1					92.6		
		Neptunium-237	0.1							
		PCB, Total	17.4							
		Uranium-234	0.3							
		Uranium-235	1.8							
		Uranium-238	27.9							
Future Child Resident - surface	3.97E-03	Arsenic	1.6	Ingestion Inhalation Dermal External Exposure	9.0 2.5 61.2 27.3	133.65	Arsenic Beryllium Chromium Uranium Vanadium	0.7	Ingestion Inhalation Dermal	12.1 0.0 87.9
		Beryllium	49.1					0.7		
		Cadmium	0.1					0.4		
		Chromium	1.7					9.6		
		Cobalt-60	0.1					88.6		
		Neptunium-237	0.1							
		PCB, Total	17.4							
		Uranium-234	0.3							
		Uranium-235	1.8							
		Uranium-238	27.9							
Future Teen Recreational User - surface	7.25E-04	Arsenic	1.1	Ingestion Inhalation Dermal External Exposure	1.1 1.3 91.4 6.2	44.13	Arsenic Beryllium Chromium Uranium Vanadium	0.2	Ingestion Inhalation Dermal	0.5 0.0 99.5
		Beryllium	70.9					0.8		
		Chromium	0.9					0.4		
		PCB, Total	20.3					4.7		
		Uranium-235	0.4					93.8		
		Uranium-238	6.2							

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.112. Summary of Risk Characterization for SWMU 493

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	4.91E-06	Beryllium	80.6	Ingestion	2.1	1.57	Vanadium	95.8	Ingestion	1.3
				Inhalation	2.8				Inhalation	0.3
				Derma	90.0				Derma	98.3
				External Exposure	5.1					
Future Industrial Worker - surface	8.78E-05	Beryllium Chromium PCB, Total Total PAH Uranium-238	80.6 2.5 1.6 9.6 3.7	Ingestion	2.1	28.06	Cobalt Manganese Nickel Vanadium	1.3 0.5 1.8 95.8	Ingestion	1.3
				Inhalation	2.8				Inhalation	0.3
				Derma	90.0				Derma	98.3
				External Exposure	5.1					
Outdoor Worker - surface	7.67E-05	Beryllium Chromium PCB, Total Total PAH Uranium-238	74.4 2.1 2.1 13.4 6.1	Ingestion	17.1	23.12	Cobalt Manganese Nickel Vanadium	2.9 0.8 1.7 93.8	Ingestion	11.4
				Inhalation	2.4				Inhalation	0.3
				Derma	76.2				Derma	88.3
				External Exposure	4.3					
Outdoor Worker - subsurface	1.08E-04	Arsenic Beryllium Cesium-137 Chromium PCB, Total Total PAH Uranium-238	26.4 53.0 2.4 1.5 1.5 9.6 4.4	Ingestion	32.6	23.35	Arsenic Cobalt Manganese Nickel Vanadium	0.8 2.8 0.8 1.7 93.0	Ingestion	12.0
				Inhalation	1.7				Inhalation	0.3
				Derma	60.2				Derma	87.7
				External Exposure	5.4					

Table D4.112. Summary of Risk Characterization for SWMU 493 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	1.35E-06			See Outdoor Worker (subsurface)		7.30	Cobalt Nickel Vanadium	2.8 1.7 93.0	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	2.45E-04	Beryllium Chromium Cobalt-60 Neptunium-237 PCB, Total Total PAH Uranium-235 Uranium-238	76.1 1.7 1.6 0.9 1.7 10.5 0.9 6.5	Ingestion Inhalation Dermal External Exposure	6.0 2.0 82.8 9.2	47.97	Barium Cobalt Manganese Nickel Vanadium	0.2 1.4 0.4 1.8 95.8	Ingestion Inhalation Dermal	2.2 0.2 97.7
Future Child Resident - surface	2.45E-04	Beryllium Chromium Cobalt-60 Neptunium-237 PCB, Total Total PAH Uranium-235 Uranium-238	76.1 1.7 1.6 0.9 1.7 10.5 0.9 6.5	Ingestion Inhalation Dermal External Exposure	6.0 2.0 82.8 9.2	117.50	Aluminum Barium Cobalt Manganese Mercury Nickel Vanadium	0.3 0.2 2.4 0.7 0.1 1.7 94.4	Ingestion Inhalation Dermal	8.3 0.3 91.4
Future Teen Recreational User - surface	5.68E-05	Beryllium Total PAH	86.2 9.8	Ingestion Inhalation Dermal External Exposure	0.5 0.8 97.0 1.7	40.32	Cobalt Manganese Nickel Vanadium	1.1 0.3 1.8 96.3	Ingestion Inhalation Dermal	0.3 0.1 99.6

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.113. Summary of Risk Characterization for SWMU 517

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	3.59E-06	Beryllium	82.3	Ingestion	1.6	<0.1	*no COCs			
				Inhalation	2.9					
Future Industrial Worker - surface	6.40E-05	Beryllium Chromium Neptunium-237 PCB, Total Uranium-238	82.3	External Exposure	10.4	0.42	Nickel	94.6	Ingestion Inhalation Dermal	1.0 0.5 98.5
				Ingestion	1.6					
				Inhalation	2.9					
				Dermal	85.1					
Outdoor Worker - surface	5.41E-05	Beryllium Chromium Neptunium-237 PCB, Total Uranium-238	78.7	External Exposure	9.1	0.34	Nickel	94.7	Ingestion Inhalation Dermal	9.1 0.5 90.4
				Ingestion	13.8					
				Inhalation	2.5					
				Dermal	74.6					
				Dermal	9.1					
Outdoor Worker - subsurface	5.41E-05	Beryllium Chromium Neptunium-237 PCB, Total Uranium-238	78.7	External Exposure	9.1	0.43	Nickel	74.7	Ingestion Inhalation Dermal	21.0 0.8 78.1
				Ingestion	13.8					
				Inhalation	2.5					
				Dermal	74.6					
				Dermal	9.1					

Table D4.113. Summary of Risk Characterization for SWMU 517 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.14	Nickel	74.7	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	1.85E-04	Beryllium Chromium Cobalt-60 Neptunium-237 PCB, Total Uranium-235 Uranium-238	75.1 1.7 1.0 10.7 4.2 1.1 6.1	Ingestion Inhalation Dermal External Exposure	0.72	Nickel	94.6	Ingestion Inhalation Dermal	1.7 0.3 98.0
Future Child Resident - surface	1.85E-04	Beryllium Chromium Cobalt-60 Neptunium-237 PCB, Total Uranium-235 Uranium-238	75.1 1.7 1.0 10.7 4.2 1.1 6.1	Ingestion Inhalation Dermal External Exposure	1.75	Nickel	94.6	Ingestion Inhalation Dermal	6.6 0.5 92.9
Future Teen Recreational User - surface	3.99E-05	Beryllium PCB, Total	91.5 4.2	Ingestion Inhalation Dermal External Exposure	0.61	Nickel	94.6	Ingestion Inhalation Dermal	0.3 0.1 99.6

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.114. Summary of Risk Characterization for SWMU 541

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total	Total HI	COCs	%Total	Routes of Exposure	%Total
Current Industrial Worker - surface	6.13E-05	Beryllium	4.6	Ingestion	9.0	1.48	Uranium Vanadium	22.5	Ingestion	4.8
		Chromium	2.5	Inhalation	4.8			Inhalation	0.1	
		PCB, Total	29.5	Derma	33.3			Derma	95.1	
		Total PAH	3.6	External Exposure	52.8					
		Uranium-235	4.1							
		Uranium-238	53.8							
Future Industrial Worker - surface	1.09E-03	Americium-241	0.1	Ingestion	9.0	26.47	Uranium Vanadium	22.5	Ingestion	4.8
		Beryllium	4.6	Inhalation	4.8			Inhalation	0.1	
		Cesium-137	1.0	Derma	33.3			Derma	95.1	
		Chromium	2.5	External Exposure	52.8					
		PCB, Total	29.5							
		Total PAH	3.6							
Uranium-234	0.7									
Uranium-235	4.1									
Uranium-238	53.8									
Outdoor Worker - surface	1.44E-03	Americium-241	0.3	Ingestion	48.8	27.69	Iron Uranium Vanadium	0.4	Ingestion	32.7
		Beryllium	2.8	Inhalation	2.7			Inhalation	0.1	
		Cadmium	0.1	Derma	18.7			Derma	67.2	
		Cesium-137	0.6	External Exposure	29.7					
		Chromium	1.4							
		PCB, Total	26.0							
Total PAH	3.3									
Uranium-234	3.5									
Uranium-235	2.7									
Uranium-238	59.3									
Outdoor Worker - subsurface	1.60E-03	Americium-241	0.3	Ingestion	49.1	32.29	Arsenic Iron Uranium Vanadium	0.4	Ingestion	32.8
		Arsenic	1.4	Inhalation	2.7			Inhalation	0.1	
		Beryllium	2.7	Derma	18.2			Derma	67.1	
		Cesium-137	0.5	External Exposure	30.0					
		Chromium	1.5							
		PCB, Total	23.9							
Total PAH	4.1									
Uranium-234	3.2									
Uranium-235	3.1									
Uranium-238	59.3									

Table D4.114. Summary of Risk Characterization for SWMU 541 (Continued)

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total	Total HI	COCs	%Total	Routes of Exposure	%Total
Excavation Worker - subsurface	2.00E-05	PCB, Total Uranium-238	23.9 59.3	See Outdoor Worker (subsurface) for %	10.09	10.09	Uranium Vanadium	39.6 58.7	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	4.47E-03	Americium-241 Beryllium Cadmium Cesium-137 Chromium Cobalt-60 Neptunium-237 PCB, Total Total PAH Uranium-234 Uranium-235 Uranium-238	0.2 2.9 0.0 1.3 1.2 0.1 0.0 21.2 2.7 0.7 5.0 64.7	Ingestion Inhalation Dermal External Exposure	46.32	46.32	Chromium Iron Uranium Vanadium	0.4 0.3 24.3 74.6	Ingestion Inhalation Dermal	7.7 0.1 92.2
Future Child Resident - surface	4.47E-03	Americium-241 Beryllium Cadmium Cesium-137 Chromium Cobalt-60 Neptunium-237 PCB, Total Total PAH Uranium-234 Uranium-235 Uranium-238	0.2 2.9 0.0 1.3 1.2 0.1 0.0 21.2 2.7 0.7 5.0 64.7	Ingestion Inhalation Dermal External Exposure	131.37	131.37	Aluminum Chromium Iron Nickel Uranium	0.2 0.3 0.4 0.1 35.3	Ingestion Inhalation Dermal	25.3 0.1 74.5
Future Teen Recreational User - surface	3.98E-04	Beryllium Cesium-137 Chromium PCB, Total Total PAH Uranium-235 Uranium-238	8.7 0.6 1.3 50.9 6.5 2.3 29.4	Ingestion Inhalation Dermal External Exposure	37.10	37.10	Chromium Uranium Vanadium	0.4 20.3 78.6	Ingestion Inhalation Dermal	1.3 0.0 98.7

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.115. Summary of Risk Characterization for SWMU 561, EU 1

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total	Total HI	COCs	%Total	Routes of Exposure	%Total
Current Industrial Worker - surface	8.25E-06	Beryllium	33.2	Ingestion	8.7	1.44	Vanadium	97.3	Ingestion	1.5
		Uranium-238	42.5	Inhalation	2.4				Inhalation	0.2
Future Industrial Worker - surface	1.47E-04	Arsenic	11.3	Ingestion	8.7	25.69	Arsenic Cobalt Uranium Vanadium	0.4 0.4 1.0 97.3	Ingestion	1.5
		Beryllium	33.2	Inhalation	2.4				Inhalation	0.2
		Chromium	1.9	Dermal	46.1				Dermal	98.4
		Cobalt-60	2.7	External Exposure	42.7					
		PCB, Total	3.8							
		Total PAH	1.9							
Uranium-235	2.3									
Uranium-238	42.5									
Outdoor Worker - surface	1.91E-04	Arsenic	20.9	Ingestion	47.9	21.39	Arsenic Cobalt Iron Uranium Vanadium	1.2 0.9 0.7 2.1 94.3	Ingestion	12.4
		Beryllium	20.7	Inhalation	1.4				Inhalation	0.1
		Chromium	1.1	Dermal	26.3				Dermal	87.4
		Cobalt-60	1.6	External Exposure	24.4					
		PCB, Total	3.4							
		Total PAH	1.8							
		Uranium-234	1.5							
		Uranium-235	1.6							
		Uranium-238	47.6							
Outdoor Worker - subsurface	2.09E-04	Arsenic	18.8	Ingestion	47.4	22.46	Arsenic Cobalt Iron Uranium Vanadium	1.1 0.9 0.7 2.0 94.0	Ingestion	12.5
		Beryllium	18.5	Inhalation	1.3				Inhalation	0.2
		Cesium-137	1.0	Dermal	27.0				Dermal	87.3
		Chromium	1.1	External Exposure	24.3					
		Cobalt-60	1.4							
		PCB, Total	3.0							
		Total PAH	7.7							
		Uranium-234	1.4							
Uranium-235	1.5									
Uranium-238	45.5									

Table D4.115. Summary of Risk Characterization for SWMU 561, EU 1 (Continued)

Receptor	Total ELCR	COCs	%Total	Routes of Exposure (subsurface) for %	%Total	Total HI	COCs	%Total	Routes of Exposure (subsurface) for %	%Total
Excavation Worker - subsurface	2.62E-06	Uranium-238	45.5	See Outdoor Worker	2.0	7.02	Uranium Vanadium	94.0	See Outdoor Worker	2.0
Future Adult Resident - surface	5.77E-04	Arsenic Beryllium Chromium Cobalt-60 PCB, Total Total PAH Uranium-234 Uranium-235 Uranium-238	12.2 22.3 1.0 3.5 2.8 1.5 0.3 3.0 53.4	Ingestion Inhalation Dermal External Exposure	13.6 1.2 30.2 55.0	43.99	Arsenic Cobalt Iron Uranium Vanadium	0.5 0.4 0.4 1.1 97.1	Ingestion Inhalation Dermal	2.4 0.1 97.5
Future Child Resident - surface	5.77E-04	Arsenic Beryllium Chromium Cobalt-60 PCB, Total Total PAH Uranium-234 Uranium-235 Uranium-238	12.2 22.3 1.0 3.5 2.8 1.5 0.3 3.0 53.4	Ingestion Inhalation Dermal External Exposure	13.6 1.2 30.2 55.0	108.32	Antimony Arsenic Cobalt Iron Manganese Uranium Vanadium	0.2 0.9 0.7 0.6 0.4 1.8 95.2	Ingestion Inhalation Dermal	9.0 0.2 90.8
Future Teen Recreational User - surface	6.31E-05	Arsenic Beryllium PCB, Total Total PAH Uranium-238	14.8 53.6 5.5 2.9 19.7	Ingestion Inhalation Dermal External Exposure	2.9 1.0 75.2 20.9	36.92	Arsenic Cobalt Iron Uranium Vanadium	0.3 0.3 0.3 0.8 97.7	Ingestion Inhalation Dermal	0.4 0.0 99.6

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.116. Summary of Risk Characterization for SWMU 561, EU 2

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total	Total HI	COCs	%Total	Routes of Exposure	%Total
Current Industrial Worker - surface	2.38E-05	Beryllium	10.7	Ingestion	9.1	1.39	Vanadium	92.7	Ingestion	2.1
		PCB, Total	20.5	Inhalation	3.9				Inhalation	0.1
		Uranium-235	4.2	Dermal	32.2				Dermal	97.8
		Uranium-238	55.4	External Exposure	54.7					
Future Industrial Worker - surface	4.25E-04	Arsenic	3.1	Ingestion	9.1	24.74	Antimony Cobalt Uranium Vanadium	0.9 0.4 5.2 92.7	Ingestion	2.1
		Beryllium	10.7	Inhalation	3.9				Inhalation	0.1
		Cesium-137	1.1	Dermal	32.2				Dermal	97.8
		Chromium	2.2	External Exposure	54.7					
		Cobalt-60	0.4							
		PCB, Total	20.5							
		Total PAH	1.8							
		Uranium-234	0.5							
		Uranium-235	4.2							
		Uranium-238	55.4							
Outdoor Worker - surface	5.61E-04	Arsenic	5.6	Ingestion	49.1	21.62	Antimony Arsenic Cobalt Uranium Vanadium	0.9 0.9 0.9 11.1 85.6	Ingestion	17.1
		Beryllium	6.5	Inhalation	2.2				Inhalation	0.1
		Cesium-137	0.6	Dermal	18.0				Dermal	82.8
		Chromium	1.3	External Exposure	30.6					
		Cobalt-60	0.2							
		PCB, Total	18.0							
		Total PAH	1.6							
		Uranium-234	2.6							
		Uranium-235	2.8							
		Uranium-238	60.8							
Outdoor Worker - subsurface	5.49E-04	Arsenic	5.6	Ingestion	49.0	20.96	Antimony Arsenic Cobalt Uranium Vanadium	0.9 0.9 0.9 11.6 84.9	Ingestion	17.5
		Beryllium	6.5	Inhalation	2.3				Inhalation	0.1
		Cesium-137	0.6	Dermal	18.5				Dermal	82.4
		Chromium	1.4	External Exposure	30.2					
		Cobalt-60	0.2							
		PCB, Total	18.7							
		Total PAH	1.7							
		Uranium-234	2.5							
Uranium-235	2.7									
Uranium-238	60.0									

Table D4.116. Summary of Risk Characterization for SWMU 561, EU 2 (Continued)

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total Worker (subsurface) for %	Total HI	COCs	%Total	Routes of Exposure	%Total Worker (subsurface) for %
Excavation Worker - subsurface	6.86E-06	PCB, Total Uranium-238	18.7 60.0	See Outdoor Worker (subsurface) for %		6.55	Uranium Vanadium	11.6 84.9	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	1.76E-03	Arsenic Beryllium Cesium-137 Chromium Cobalt-60 PCB, Total Total PAH Uranium-234 Uranium-235 Uranium-238	3.1 6.8 1.4 1.1 0.4 14.6 1.3 0.5 5.1 65.7	Ingestion Inhalation Dermal External Exposure	11.7 1.8 19.9 66.6	42.55	Antimony Arsenic Cobalt Uranium Vanadium	0.9 0.4 0.5 5.7 92.2	Ingestion Inhalation Dermal	3.4 0.1 96.5
Future Child Resident - surface	1.76E-03	Arsenic Beryllium Cesium-137 Chromium Cobalt-60 PCB, Total Total PAH Uranium-234 Uranium-235 Uranium-238	3.1 6.8 1.4 1.1 0.4 14.6 1.3 0.5 5.1 65.7	Ingestion Inhalation Dermal External Exposure	11.7 1.8 19.9 66.6	107.88	Antimony Arsenic Chromium Cobalt Manganese Thallium Uranium Vanadium	0.9 0.7 0.1 0.8 0.2 0.1 9.3 87.7	Ingestion Inhalation Dermal	12.6 0.1 87.3
Future Teen Recreational User - surface	1.52E-04	Arsenic Beryllium Chromium PCB, Total Total PAH Uranium-235 Uranium-238	4.8 20.6 1.1 35.9 3.2 2.5 30.7	Ingestion Inhalation Dermal External Exposure	3.3 2.0 62.6 32.1	35.39	Antimony Cobalt Uranium Vanadium	0.8 0.4 4.6 93.6	Ingestion Inhalation Dermal	0.6 0.0 99.4

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.117. Summary of Risk Characterization for SWMU 562, EU 1

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	1.61E-06	Uranium-238	100.0	Ingestion Inhalation Dermal External Exposure	11.2 0.3 88.5	<0.1	*no COCs			
Outdoor Worker - surface	2.33E-06	Uranium-238	100.0	Ingestion Inhalation Dermal External Exposure	54.7 0.2 45.2	0.15	Uranium	100.0	Ingestion Inhalation Dermal	67.0 0.2 32.8
Outdoor Worker - subsurface	9.15E-05	Arsenic Cesium-137 Chromium PCB, Total Uranium-235 Uranium-238	31.1 4.3 8.4 13.6 1.4 41.2	Ingestion Inhalation Dermal External Exposure	52.3 9.1 14.5 24.0	0.60	Arsenic Uranium	29.7 65.6	Ingestion Inhalation Dermal	67.0 0.2 32.8

Table D4.117. Summary of Risk Characterization for SWMU 562, EU 1 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	1.14E-06			See Outdoor Worker (subsurface)	0.19	Uranium	65.6	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	7.89E-06	Uranium-238	100.0	Ingestion Inhalation Dermal External Exposure	0.15	Uranium	100.0	Ingestion Inhalation Dermal	25.9 0.2 73.9
Future Child Resident - surface	7.89E-06	Uranium-238	100.0	Ingestion Inhalation Dermal External Exposure	0.63	Uranium	100.0	Ingestion Inhalation Dermal	58.7 0.2 41.1
Future Teen Recreational User - surface	<1E-6	*no COCs			0.10	Uranium	100.0	Ingestion Inhalation Dermal	5.3 0.1 94.6

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.118. Summary of Risk Characterization for SWMU 562, EU 2

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	2.10E-05	Uranium-235	6.0	Ingestion	11.1	<0.1	*no COCs			
		Uranium-238	91.0	Inhalation	0.5					
				Dermal	1.9					
				External Exposure	86.5					
Future Industrial Worker - surface	3.76E-04	PCB, Total	2.2	Ingestion	11.1	<0.1	*no COCs			
		Uranium-234	0.8	Inhalation	0.5					
		Uranium-235	6.0	Dermal	1.9					
		Uranium-238	91.0	External Exposure	86.5					
Outdoor Worker - surface	5.44E-04	PCB, Total	1.8	Ingestion	54.6	<0.1	*no COCs			
		Uranium-234	3.5	Inhalation	0.2					
		Uranium-235	3.6	Dermal	1.0					
		Uranium-238	91.1	External Exposure	44.2					
Outdoor Worker - subsurface	5.47E-04	Cesium-137	0.6	Ingestion	54.3	<0.1	*no COCs			
		PCB, Total	1.8	Inhalation	0.2					
		Uranium-234	3.4	Dermal	1.0					
		Uranium-235	3.6	External Exposure	44.5					
Uranium-238	90.6									

Table D4.118. Summary of Risk Characterization for SWMU 562, EU 2 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	6.84E-06	Uranium-238	90.6	See Outdoor Worker (subsurface)	<0.1	<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	1.83E-03	PCB, Total	1.4	Ingestion	9.4	<0.1	*no COCs			
		Uranium-234	0.6	Inhalation	0.1					
		Uranium-235	6.2	Dermal	1.0					
		Uranium-238	91.8	External Exposure	89.5					
Future Child Resident - surface	1.83E-03	PCB, Total	1.4	Ingestion	9.4	<0.1	*no COCs			
		Uranium-234	0.6	Inhalation	0.1					
		Uranium-235	6.2	Dermal	1.0					
		Uranium-238	91.8	External Exposure	89.5					
Future Teen Recreational User - surface	7.82E-05	PCB, Total	6.8	Ingestion	6.0	<0.1	*no COCs			
		Uranium-235	6.0	Inhalation	0.3					
		Uranium-238	86.8	Dermal	6.5					
				External Exposure	87.2					

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.119. Summary of Risk Characterization for SWMU 562, EU 3

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI	
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs				
Future Industrial Worker - surface	1.31E-05	Chromium PCB, Total Total PAH Uranium-238	9.7	Ingestion	8.3	<0.1	*no COCs				
			9.8	Inhalation	10.6						
			28.4	Dermal	34.7						
			49.0	External Exposure	46.5						
Outdoor Worker - surface	1.66E-05	PCB, Total Total PAH Uranium-238	8.9	Ingestion	46.6	0.11	Uranium	96.8		Ingestion Inhalation Dermal	64.9 0.2 34.9
			27.3	Inhalation	6.2						
			56.0	Dermal	20.2						
				External Exposure	27.1						
Outdoor Worker - subsurface	1.57E-05	PCB, Total Total PAH Uranium-238	9.4	Ingestion	49.3	0.10	Uranium	100.0		Ingestion Inhalation Dermal	67.0 0.2 32.8
			28.9	Inhalation	0.6						
			59.3	Dermal	21.4						
				External Exposure	28.7						

Table D4.119. Summary of Risk Characterization for SWMU 562, EU 3 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)		<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	5.11E-05	Chromium	4.8	Ingestion	12.1	0.11	Uranium	93.1	Ingestion	24.2
		PCB, Total	7.4	Inhalation	5.2				Inhalation	0.2
		Total PAH	22.1	Derma	22.7				Derma	75.6
		Uranium-235	4.1	External Exposure	59.9					
		Uranium-238	61.6							
Future Child Resident - surface	5.11E-05	Chromium	4.8	Ingestion	12.1	0.45	Uranium	96.0	Ingestion	56.4
		PCB, Total	7.4	Inhalation	5.2				Inhalation	0.2
		Total PAH	22.1	Derma	22.7				Derma	43.4
		Uranium-235	4.1	External Exposure	59.9					
		Uranium-238	61.6							
Future Teen Recreational User - surface	4.84E-06	Total PAH	50.6	Ingestion	3.0	<0.1	*no COCs			
		Uranium-238	26.3	Inhalation	5.2					
				Derma	65.4					
				External Exposure	26.4					

There are no subsurface data available for assessment.

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.120. Summary of Risk Characterization for SWMU 562, EU 4

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	2.86E-06	Chromium Uranium-238	54.0	Ingestion	5.1	<0.1	*no COCs			
			46.0	Inhalation Dermal External Exposure	54.1 40.7					
Outdoor Worker - surface	3.05E-06	Chromium Uranium-238	37.5	Ingestion	34.2	<0.1	*no COCs			
			62.5	Inhalation Dermal External Exposure	37.6 28.2					
Outdoor Worker - subsurface	7.47E-06	Cesium-137 Chromium Uranium-238	57.0	Ingestion	15.7	<0.1	*no COCs			
			15.3 27.6	Inhalation Dermal External Exposure	15.4 68.9					

Table D4.120. Summary of Risk Characterization for SWMU 562, EU 4 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	9.48E-06	Chromium Uranium-238	31.7 68.3	Ingestion Inhalation Dermal External Exposure	<0.1	*no COCs			
Future Child Resident - surface	9.48E-06	Chromium Uranium-238	31.7 68.3	Ingestion Inhalation Dermal External Exposure	0.17	Uranium	87.5	Ingestion Inhalation Dermal	51.6 0.2 48.2
Future Teen Recreational User - surface	<1E-6	*no COCs			<0.1	*no COCs			

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.121. Summary of Risk Characterization for SWMU 562, EU 5

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	2.85E-06	Uranium-238	72.1	Ingestion	9.8	<0.1	*no COCs			
				Inhalation	11.0					
				Dermal	10.7					
				External Exposure	68.5					
Future Industrial Worker - surface	5.09E-05	Chromium PCB, Total Total PAH Uranium-235 Uranium-238	10.0 9.9 2.3 4.7 72.1	Ingestion	9.8	0.21	Uranium	91.5	Ingestion Inhalation Dermal	16.0 0.4 83.6
				Inhalation	11.0					
				Dermal	10.7					
				External Exposure	68.5					
Outdoor Worker - surface	6.94E-05	Chromium PCB, Total Total PAH Uranium-234 Uranium-235 Uranium-238	5.4 8.4 2.1 4.4 3.0 76.7	Ingestion	51.1	0.37	Uranium	96.3	Ingestion Inhalation Dermal	64.7 0.2 35.2
				Inhalation	5.9					
				Dermal	5.8					
				External Exposure	37.2					
Outdoor Worker - subsurface	7.27E-05	Cesium-137 Chromium PCB, Total Total PAH Uranium-234 Uranium-235 Uranium-238	4.5 5.2 8.1 2.0 4.2 2.9 73.2	Ingestion	48.8	0.37	Uranium	96.3	Ingestion Inhalation Dermal	64.7 0.2 35.2
				Inhalation	5.7					
				Dermal	5.6					
				External Exposure	40.0					

Table D4.121. Summary of Risk Characterization for SWMU 562, EU 5 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.12	Uranium	96.3	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	2.23E-04	Chromium PCB, Total Total PAH Uranium-234 Uranium-235 Uranium-238	4.4 6.7 1.6 0.8 5.4 81.0	Ingestion Inhalation Dermal External Exposure	0.40	Uranium	92.2	Ingestion Inhalation Dermal	23.9 0.2 75.9
Future Child Resident - surface	2.23E-04	Chromium PCB, Total Total PAH Uranium-234 Uranium-235 Uranium-238	4.4 6.7 1.6 0.8 5.4 81.0	Ingestion Inhalation Dermal External Exposure	1.58	Uranium	95.5	Ingestion Inhalation Dermal	56.1 0.2 43.7
Future Teen Recreational User - surface	1.27E-05	PCB, Total Uranium-238	25.0 57.3	Ingestion Inhalation Dermal External Exposure	0.27	Uranium	90.3	Ingestion Inhalation Dermal	4.8 0.1 95.1

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.122. Summary of Risk Characterization for SWMU 563, EU 1

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	1.53E-05	Chromium PCB, Total Uranium-238	61.8	Ingestion	3.3	<0.1	*no COCs			
			25.8	Inhalation	63.6					
			10.6	Dermal	23.7					
				External Exposure	9.4					
Outdoor Worker - surface	1.45E-05	Chromium PCB, Total Uranium-238	48.2	Ingestion	24.5	<0.1	*no COCs			
			31.5	Inhalation	49.7					
			16.2	Dermal	18.5					
				External Exposure	7.3					
Outdoor Worker - subsurface	3.60E-05	Cesium-137 Chromium PCB, Total Uranium-238	6.9	Ingestion	29.6	<0.1	*no COCs			
			22.7	Inhalation	25.5					
			60.6	Dermal	33.9					
			7.0	External Exposure	10.9					

Table D4.122. Summary of Risk Characterization for SWMU 563, EU 1 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	3.90E-05	Cadmium Chromium PCB, Total Uranium-238	2.8 47.0 29.7 20.5	Ingestion Inhalation Dermal External Exposure	<0.1	*no COCs			
Future Child Resident - surface	3.90E-05	Cadmium Chromium PCB, Total Uranium-238	2.8 47.0 29.7 20.5	Ingestion Inhalation Dermal External Exposure	0.26	Chromium Uranium	51.0 42.0	Ingestion Inhalation Dermal	29.9 0.3 69.8
Future Teen Recreational User - surface	4.69E-06	Chromium PCB, Total	36.7 52.8	Ingestion Inhalation Dermal External Exposure	<0.1	*no COCs			

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.123. Summary of Risk Characterization for SWMU 563, EU 2

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	8.39E-06	Cesium-137	89.6	Ingestion Inhalation Dermal External Exposure	1.3 0.0 98.7	<0.1	*no COCs			
Outdoor Worker - surface	6.89E-06	Cesium-137 Uranium-238	81.5 18.5	Ingestion Inhalation Dermal External Exposure	11.0 0.0 89.0	<0.1	*no COCs			
Outdoor Worker - subsurface	6.89E-06	Cesium-137 Uranium-238	81.5 18.5	Ingestion Inhalation Dermal External Exposure	11.0 0.0 89.0	<0.1	*no COCs			

Table D4.123. Summary of Risk Characterization for SWMU 563, EU 2 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)		<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	4.22E-05	Cesium-137 Uranium-238	89.8 10.2	Ingestion Inhalation Dermal External Exposure	1.0 0.0 99.0	<0.1	*no COCs			
Future Child Resident - surface	4.22E-05	Cesium-137 Uranium-238	89.8 10.2	Ingestion Inhalation Dermal External Exposure	1.0 0.0 99.0	<0.1	*no COCs			
Future Teen Recreational User - surface	1.75E-06	Cesium-137	90.1	Ingestion Inhalation Dermal External Exposure	0.7 0.0 99.3	<0.1	*no COCs			

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.124. Summary of Risk Characterization for SWMU 564

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	1.24E-05	Arsenic	19.5	Ingestion	6.7	3.04	Vanadium	98.7	Ingestion	1.3
		Beryllium	68.3	Inhalation	1.5		Inhalation		0.0	
				Dermal	86.1		Dermal		98.7	
				External Exposure	5.6					
Future Industrial Worker - surface	2.22E-04	Arsenic	19.5	Ingestion	6.7	54.21	Arsenic	0.5	Ingestion	1.3
		Beryllium	68.3	Inhalation	1.5		Inhalation		0.0	
		Cesium-137	3.2	Dermal	86.1		Dermal		98.7	
		Chromium	1.1	External Exposure	5.6					
		PCB, Total	4.6							
		Uranium-238	2.2							
Outdoor Worker - surface	2.59E-04	Arsenic	40.0	Ingestion	40.9	44.48	Arsenic	1.5	Ingestion	10.9
		Beryllium	47.2	Inhalation	1.0		Inhalation		0.0	
		Cadmium	0.5	Dermal	54.6		Dermal		89.0	
		Cesium-137	2.1	External Exposure	3.6					
		Chromium	0.7							
		PCB, Total	4.6							
		Thorium-230	0.9							
		Uranium-234	0.9							
Uranium-238	2.7									
Outdoor Worker - subsurface	2.59E-04	Arsenic	40.0	Ingestion	40.9	44.55	Arsenic	1.5	Ingestion	11.0
		Beryllium	47.1	Inhalation	1.0		Inhalation		0.0	
		Cadmium	0.5	Dermal	54.5		Dermal		89.0	
		Cesium-137	2.1	External Exposure	3.6					
		Chromium	0.8							
		PCB, Total	4.6							
Thorium-230	0.9									
Uranium-234	0.9									
Uranium-238	2.8									

Table D4.124. Summary of Risk Characterization for SWMU 564 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	3.24E-06	Arsenic Beryllium	40.0 47.1	See Outdoor Worker (subsurface)	13.92	Arsenic Vanadium	1.5 96.9	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	6.86E-04	Arsenic Beryllium Cadmium Cesium-137 Chromium PCB, Total Thorium-230 Uranium-234 Uranium-235 Uranium-238	26.6 58.0 0.4 5.3 0.7 4.4 0.2 0.2 0.7 3.5	Ingestion Inhalation Dermal External Exposure	92.79	Arsenic Iron Thallium Uranium Vanadium	0.6 0.3 0.2 0.1 98.6	Ingestion Inhalation Dermal	2.1 0.0 97.9
Future Child Resident - surface	6.86E-04	Arsenic Beryllium Cadmium Cesium-137 Chromium PCB, Total Thorium-230 Uranium-234 Uranium-235 Uranium-238	26.6 58.0 0.4 5.3 0.7 4.4 0.2 0.2 0.7 3.5	Ingestion Inhalation Dermal External Exposure	226.25	Arsenic Beryllium Iron Mercury Nickel Thallium Uranium Vanadium	1.2 0.1 0.5 0.0 0.1 0.3 0.2 97.6	Ingestion Inhalation Dermal	7.9 0.0 92.1
Future Teen Recreational User - surface	1.39E-04	Arsenic Beryllium Cesium-137 PCB, Total	17.4 75.3 1.1 4.6	Ingestion Inhalation Dermal External Exposure	78.12	Arsenic Iron Thallium Vanadium	0.4 0.2 0.1 98.9	Ingestion Inhalation Dermal	0.3 0.0 99.7

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.125. Summary of Risk Characterization for SWMU 565

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface		*no COCs								
Future Industrial Worker - surface		*no COCs								
Outdoor Worker - surface		*no COCs								
Outdoor Worker - subsurface	3.47E-06	Cesium-137	100.0	Ingestion Inhalation Dermal External Exposure	1.1 0.0 98.9	<0.1	*no COCs			

Table D4.125. Summary of Risk Characterization for SWMU 565 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface		*no COCs				*no COCs			
Future Child Resident - surface		*no COCs				*no COCs			
Future Teen Recreational User - surface		*no COCs				*no COCs			

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.126. Summary of Risk Characterization for SWMU 567, EU 1

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface		*no COCs					*no COCs			
Future Industrial Worker - surface		*no COCs					*no COCs			
Outdoor Worker - surface		*no COCs					*no COCs			
Outdoor Worker - subsurface	<1E-6					0.14	*no COCs			

Table D4.126. Summary of Risk Characterization for SWMU 567, EU 1 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface		*no COCs				*no COCs			
Future Child Resident - surface		*no COCs				*no COCs			
Future Teen Recreational User - surface		*no COCs				*no COCs			

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.127. Summary of Risk Characterization for SWMU 567, EU 3

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	1.26E-06	Chromium	100.0	Ingestion Inhalation Dermal External Exposure	100.0	<0.1	*no COCs			
Outdoor Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Outdoor Worker - subsurface	2.74E-06	Chromium Uranium-238	46.6 53.4	Ingestion Inhalation Dermal External Exposure	29.2 46.6 24.1	<0.1	*no COCs			

Table D4.127. Summary of Risk Characterization for SWMU 567, EU 3 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	2.44E-06	Chromium	100.0	Ingestion Inhalation Dermal External Exposure	<0.1	*no COCs			
Future Child Resident - surface	2.44E-06	Chromium	100.0	Ingestion Inhalation Dermal External Exposure	<0.1	*no COCs			
Future Teen Recreational User - surface	<1E-6	*no COCs			<0.1	*no COCs			

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.128. Summary of Risk Characterization for SWMU 567, EU 4

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	1.16E-06	*no COCs				<0.1	*no COCs			
Outdoor Worker - surface	1.29E-06	*no COCs				<0.1	*no COCs			
Outdoor Worker - subsurface	2.72E-05	Arsenic	96.6	Ingestion Inhalation Dermal External Exposure	76.5 0.1 21.9 1.5	0.23	Arsenic	71.0	Ingestion Inhalation Dermal	73.6 1.1 25.3

Table D4.128. Summary of Risk Characterization for SWMU 567, EU 4 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	4.08E-06	Chromium Uranium-238	25.7 74.3	Ingestion Inhalation Dermal External Exposure	<0.1	*no COCs			
Future Child Resident - surface	4.08E-06	Chromium Uranium-238	25.7 74.3	Ingestion Inhalation Dermal External Exposure	0.29	Aluminum	97.4	Ingestion Inhalation Dermal	54.9 4.1 41.0
Future Teen Recreational User - surface	<1E-6	*no COCs			<0.1	*no COCs			

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.129. Summary of Risk Characterization for SWMU 12

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total	Total HI	COCs	%Total	Routes of Exposure	%Total
Current Industrial Worker - surface	3.05E-05	Beryllium Uranium-238	88.1	Ingestion	2.6	1.17	Vanadium	89.4	Ingestion	1.7
			7.2	Inhalation	0.5				Inhalation	
Future Industrial Worker - surface	5.44E-04	Arsenic Beryllium Chromium PCB, Total Total PAH Uranium-235 Uranium-238	2.5	Ingestion	2.6	20.83	Beryllium Iron Mercury Nickel Silver Uranium Vanadium	0.8	Ingestion	1.7
			88.1	Inhalation	0.5			Inhalation	0.1	
			0.4	Derma	89.8			Derma	98.2	
			0.4	External	7.1					
			0.5	Exposure						
			0.7							
Outdoor Worker - surface	4.93E-04	Arsenic Beryllium Chromium PCB, Total Total PAH Uranium-234 Uranium-235 Uranium-238	6.5	Ingestion	20.4	17.65	Arsenic Beryllium Cobalt Iron Mercury Nickel Uranium Vanadium	1.1	Ingestion	14.1
			78.5	Inhalation	0.4			Inhalation	0.1	
			0.3	Derma	73.4			Derma	85.7	
			0.5	External	5.8					
			0.7	Exposure						
			1.1							
			0.7							
			11.6							
Outdoor Worker - subsurface	3.63E-04	Arsenic Beryllium Chromium PCB, Total Total PAH Uranium-234 Uranium-235 Uranium-238	9.5	Ingestion	22.1	20.55	Arsenic Cobalt Iron Mercury Nickel Uranium Vanadium	1.0	Ingestion	17.2
			75.4	Inhalation	0.4			Inhalation	0.1	
			0.3	Derma	72.2			Derma	82.7	
			1.2	External	5.2					
			1.5	Exposure						
			0.9							
0.6										
10.1										

Table D4.129. Summary of Risk Characterization for SWMU 12 (Continued)

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total Worker for %	Total HI	COCs	%Total	Routes of Exposure	%Total Worker for %
Excavation Worker - subsurface	4.53E-06	Beryllium	75.4	See Outdoor Worker (subsurface) for %		6.42	Cobalt Mercury Uranium Vanadium	2.1 4.0 7.9 80.7	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	1.55E-03	Arsenic Beryllium Cadmium Chromium PCB, Total Total PAH Uranium-234 Uranium-235 Uranium-238	3.7 81.2 0.1 0.3 0.4 0.6 0.2 1.2 12.4	Ingestion Inhalation Dermal External Exposure	6.5 0.3 80.7 12.5	35.73	Arsenic Beryllium Cobalt Iron Mercury Nickel Silver Uranium Vanadium	0.5 0.7 0.5 0.6 4.7 0.9 0.5 1.9 89.1	Ingestion Inhalation Dermal	2.7 0.1 97.2
Future Child Resident - surface	1.55E-03	Arsenic Beryllium Cadmium Chromium PCB, Total Total PAH Uranium-234 Uranium-235 Uranium-238	3.7 81.2 0.1 0.3 0.4 0.6 0.2 1.2 12.4	Ingestion Inhalation Dermal External Exposure	6.5 0.3 80.7 12.5	88.88	Aluminum Arsenic Beryllium Cobalt Iron Manganese Mercury Nickel Silver Thallium Uranium Vanadium	0.2 0.9 0.7 0.8 1.1 0.3 4.6 0.8 0.5 3.1 86.4	Ingestion Inhalation Dermal	10.3 0.1 89.5
Future Teen Recreational User - surface	3.52E-04	Arsenic Beryllium PCB, Total Total PAH Uranium-238	2.1 94.3 0.4 0.5 2.2	Ingestion Inhalation Dermal External Exposure	0.6 0.1 96.9 2.3	29.89	Beryllium Cobalt Iron Mercury Nickel Silver Uranium Vanadium	0.8 0.4 0.5 4.7 0.9 0.5 1.5 89.9	Ingestion Inhalation Dermal	0.4 0.0 99.5

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs
*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.130. Summary of Risk Characterization for SWMU 13, EU 1

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	3.73E-06	PCB, Total	100.0	Ingestion Inhalation Dermal External Exposure	6.6 7.1 86.3	<0.1	*no COCs			
Outdoor Worker - surface	4.32E-06	PCB, Total	100.0	Ingestion Inhalation Dermal External Exposure	40.3 4.6 55.2	<0.1	*no COCs			
Outdoor Worker - subsurface	4.09E-05	Beryllium Cadmium PCB, Total Uranium-238	87.8 3.6 5.2 2.9	Ingestion Inhalation Dermal External Exposure	14.4 0.2 83.6 1.8	13.98	Vanadium	99.8	Ingestion Inhalation Dermal	9.3 0.0 90.7

Table D4.130. Summary of Risk Characterization for SWMU 13, EU 1 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)		4.37	Vanadium	99.8	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	1.10E-05	PCB, Total	100.0	Ingestion Inhalation Dermal External Exposure	20.0 4.7 75.3	<0.1	*no COCs			
Future Child Resident - surface	1.10E-05	PCB, Total	100.0	Ingestion Inhalation Dermal External Exposure	20.0 4.7 75.3	<0.1	*no COCs			
Future Teen Recreational User - surface	2.34E-06	PCB, Total	100.0	Ingestion Inhalation Dermal External Exposure	1.9 2.1 96.0	<0.1	*no COCs			

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.131. Summary of Risk Characterization for SWMU 13, EU 2

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface		*no COCs								
Future Industrial Worker - surface		*no COCs								
Outdoor Worker - surface		*no COCs								
Outdoor Worker - subsurface	1.35E-06	Cadmium	89.9	Ingestion Inhalation Dermal External Exposure	64.6 0.1 25.3 10.1	<0.1	*no COCs			

Table D4.131 . Summary of Risk Characterization for SWMU 13, EU 2 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface		*no COCs				*no COCs			
Future Child Resident - surface		*no COCs				*no COCs			
Future Teen Recreational User - surface		*no COCs				*no COCs			

There are no surface data available for assessment.
 Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.132. Summary of Risk Characterization for SWMU 13, EU 3

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface		*no COCs					*no COCs			
Future Industrial Worker - surface		*no COCs					*no COCs			
Outdoor Worker - surface		*no COCs					*no COCs			
Outdoor Worker - subsurface	3.76E-05	Beryllium Cadmium	94.1 3.7	Ingestion Inhalation Dermal External Exposure	11.4 0.0 86.5 2.2	17.75	Vanadium	99.9	Ingestion Inhalation Dermal	9.3 0.0 90.7

Table D4.132. Summary of Risk Characterization for SWMU 13, EU 3 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	5.55	Vanadium	99.9	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface		*no COCs				*no COCs			
Future Child Resident - surface		*no COCs				*no COCs			
Future Teen Recreational User - surface		*no COCs				*no COCs			

There are no surface data available for assessment.
 Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.133. Summary of Risk Characterization for SWMU 13, EU 4

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Outdoor Worker - surface	1.13E-06	Uranium-238	100.0	Ingestion Inhalation Dermal	54.7 0.2	<0.1	*no COCs			
Outdoor Worker - subsurface	8.58E-06	Cobalt-60 PCB, Total Uranium-238	39.4 22.3 31.2	Ingestion Inhalation Dermal External Exposure	27.1 1.1 12.3 59.6	<0.1	*no COCs			

Table D4.133. Summary of Risk Characterization for SWMU 13, EU 4 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	3.82E-06	Uranium-238	100.0	Ingestion Inhalation Dermal External Exposure	<0.1	*no COCs			
Future Child Resident - surface	3.82E-06	Uranium-238	100.0	Ingestion Inhalation Dermal External Exposure	<0.1	*no COCs			
Future Teen Recreational User - surface	<1E-6	*no COCs			<0.1	*no COCs			

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.134. Summary of Risk Characterization for SWMU 13, EU 5

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1		*no COCs		
Future Industrial Worker - surface	7.60E-06	PCB, Total Total PAH	73.5	Ingestion	7.0	0.45	Nickel Uranium	59.9	Ingestion	6.5
			14.8	Inhalation	12.0			24.5	Inhalation	1.0
				Derma External Exposure	81.0				Derma	92.5
Outdoor Worker - surface	9.01E-06	PCB, Total Total PAH	71.8	Ingestion	41.9	0.52	Nickel Uranium	42.0	Ingestion	39.9
			15.2	Inhalation	7.5			39.3	Inhalation	0.6
				Derma External Exposure	50.6				Derma	59.5
Outdoor Worker - subsurface	1.74E-05	Cadmium Cesium-137 Chromium PCB, Total Total PAH Uranium-238	8.9	Ingestion	29.4	0.50	Nickel Uranium	38.0	Ingestion	40.9
			19.9	Inhalation	18.6			41.0	Inhalation	0.6
			17.0	Derma	25.0				Derma	58.5
			32.7	External Exposure	27.1					
			7.9							
	10.9									

Table D4.134. Summary of Risk Characterization for SWMU 13, EU 5 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.16			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	2.23E-05	Cadmium PCB, Total Total PAH	6.6 73.6 15.3	Ingestion Inhalation Dermal External Exposure	0.80	Nickel Uranium	58.0 26.2	Ingestion Inhalation Dermal	10.3 0.5 89.2
Future Child Resident - surface	2.23E-05	Cadmium PCB, Total Total PAH	6.6 73.6 15.3	Ingestion Inhalation Dermal External Exposure	2.42	Aluminum Antimony Nickel Uranium	10.5 6.1 46.3 35.7	Ingestion Inhalation Dermal	31.7 0.8 67.5
Future Teen Recreational User - surface	4.57E-06	PCB, Total	76.9	Ingestion Inhalation Dermal External Exposure	0.62	Nickel Uranium	62.7 22.5	Ingestion Inhalation Dermal	1.8 0.3 97.9

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.135. Summary of Risk Characterization for SWMU 13, EU 6

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Outdoor Worker - surface	1.12E-06	Uranium-238	100.0	Ingestion Inhalation Dermal	54.7 0.2	<0.1	*no COCs			
Outdoor Worker - subsurface	5.93E-05	Beryllium Cadmium Cesium-137 PCB, Total Total PAH Uranium-238	55.5 4.4 3.4 2.7 27.8 5.2	Ingestion Inhalation Dermal External Exposure	24.5 0.2 68.7 6.6	<0.1	*no COCs			

Table D4.135. Summary of Risk Characterization for SWMU 13, EU 6 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)		<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	3.80E-06	Uranium-238	100.0	Ingestion Inhalation Dermal External Exposure	9.2 0.1 90.8	<0.1	*no COCs			
Future Child Resident - surface	3.80E-06	Uranium-238	100.0	Ingestion Inhalation Dermal External Exposure	9.2 0.1 90.8	<0.1	*no COCs			
Future Teen Recreational User - surface	<1E-6	*no COCs				<0.1	*no COCs			

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.136. Summary of Risk Characterization for SWMU 13, EU 7

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface		*no COCs					*no COCs			
Future Industrial Worker - surface		*no COCs					*no COCs			
Outdoor Worker - surface		*no COCs					*no COCs			
Outdoor Worker - subsurface	7.50E-06	PCB, Total Uranium-238	45.2 54.8	Ingestion Inhalation Dermal External Exposure	48.2 2.2 24.9 24.7	<0.1	*no COCs			

Table D4.136. Summary of Risk Characterization for SWMU 13, EU 7 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface		*no COCs				*no COCs			
Future Child Resident - surface		*no COCs				*no COCs			
Future Teen Recreational User - surface		*no COCs				*no COCs			

There are no surface data available for assessment.

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.137. Summary of Risk Characterization for SWMU 13, EU 9

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	7.65E-06	Neptunium-237 Uranium-238	42.9	Ingestion	6.0	<0.1	*no COCs			
			46.8	Inhalation Dermal External Exposure	0.2 93.8					
Outdoor Worker - surface	8.58E-06	Neptunium-237 Uranium-238	31.6	Ingestion	38.1	<0.1	*no COCs			
			60.4	Inhalation Dermal External Exposure	0.1 61.8					
Outdoor Worker - subsurface	9.27E-06	Cesium-137 Neptunium-237 Uranium-238	28.5	Ingestion	27.7	<0.1	*no COCs			
			22.5	Inhalation	0.1					
			43.7	Dermal External Exposure	72.2					

Table D4.137. Summary of Risk Characterization for SWMU 13, EU 9 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	3.80E-05	Neptunium-237 Uranium-235 Uranium-238	43.4 10.4 46.2	Ingestion Inhalation Dermal External Exposure	<0.1	*no COCs			
Future Child Resident - surface	3.80E-05	Neptunium-237 Uranium-235 Uranium-238	43.4 10.4 46.2	Ingestion Inhalation Dermal External Exposure	0.13	Uranium	100.0	Ingestion Inhalation Dermal	58.7 0.2 41.1
Future Teen Recreational User - surface	1.56E-06	*no COCs			<0.1				*no COCs

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.138. Summary of Risk Characterization for SWMU 13, EU 10

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface		*no COCs					*no COCs			
Future Industrial Worker - surface		*no COCs					*no COCs			
Outdoor Worker - surface		*no COCs					*no COCs			
Outdoor Worker - subsurface	<1E-6					<0.1	*no COCs			

Table D4.138. Summary of Risk Characterization for SWMU 13, EU 10 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface		*no COCs				*no COCs			
Future Child Resident - surface		*no COCs				*no COCs			
Future Teen Recreational User - surface		*no COCs				*no COCs			

There are no surface data available for assessment.

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.139. Summary of Risk Characterization for SWMU 13, EU 11

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Outdoor Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Outdoor Worker - subsurface	<1E-6					<0.1	*no COCs			

Table D4.139. Summary of Risk Characterization for SWMU 13, EU 11 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	3.71E-06	Cobalt-60	100.0	Ingestion 0.0 Inhalation 0.0 Dermal External Exposure 100.0	<0.1	*no COCs			
Future Child Resident - surface	3.71E-06	Cobalt-60	100.0	Ingestion 0.0 Inhalation 0.0 Dermal External Exposure 100.0	<0.1	*no COCs			
Future Teen Recreational User - surface	<1E-6	*no COCs			<0.1	*no COCs			

There are no subsurface data available for assessment.

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.1.140. Summary of Risk Characterization for SWMU 13, EU 12

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface		*no COCs					*no COCs			
Future Industrial Worker - surface		*no COCs					*no COCs			
Outdoor Worker - surface		*no COCs					*no COCs			
Outdoor Worker - subsurface	4.20E-05	Beryllium Cadmium PCB, Total	85.6 4.1 10.3	Ingestion Inhalation Dermal External Exposure	15.0 0.5 84.5	<0.1	*no COCs			

Table D4.140. Summary of Risk Characterization for SWMU 13, EU 12 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface		*no COCs				*no COCs			
Future Child Resident - surface		*no COCs				*no COCs			
Future Teen Recreational User - surface		*no COCs				*no COCs			

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.141. Summary of Risk Characterization for SWMU 13, EU 13

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface		*no COCs					*no COCs			
Future Industrial Worker - surface		*no COCs					*no COCs			
Outdoor Worker - surface		*no COCs					*no COCs			
Outdoor Worker - subsurface	<1E-6					<0.1	*no COCs			

Table D4.141. Summary of Risk Characterization for SWMU 13, EU 13 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface		*no COCs				*no COCs			
Future Child Resident - surface		*no COCs				*no COCs			
Future Teen Recreational User - surface		*no COCs				*no COCs			

There are no surface data available for assessment.

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.142. Summary of Risk Characterization for SWMU 13, EU 14

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface		*no COCs					*no COCs			
Future Industrial Worker - surface		*no COCs					*no COCs			
Outdoor Worker - surface		*no COCs					*no COCs			
Outdoor Worker - subsurface	4.25E-06	Uranium-238	89.5	Ingestion Inhalation Dermal External Exposure	50.7 0.2 49.2	<0.1	*no COCs			

Table D4.142. Summary of Risk Characterization for SWMU 13, EU 14 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface		*no COCs				*no COCs			
Future Child Resident - surface		*no COCs				*no COCs			
Future Teen Recreational User - surface		*no COCs				*no COCs			

There are no surface data available for assessment.
 Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.143. Summary of Risk Characterization for SWMU 14, EU 1

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	1.06E-06	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	1.90E-05	Arsenic	58.1	Ingestion	22.3	0.70	Nickel	46.6	Ingestion	6.8
		Chromium	11.1	Inhalation	12.4		Silver	22.1	Inhalation	0.4
		PCB, Total	14.1	Dermal	54.9				Dermal	92.8
		Technetium-99	5.9	External Exposure	10.4					
Outdoor Worker - surface	4.10E-05	Arsenic	64.6	Ingestion	73.4	0.82	Arsenic	20.1	Ingestion	41.3
		Chromium	3.8	Inhalation	4.2		Iron	16.9	Inhalation	0.3
		PCB, Total	7.5	Dermal	18.8		Nickel	32.0	Dermal	58.4
		Technetium-99	17.1	External Exposure	3.6		Silver	15.2		
		Uranium-238	3.5				Uranium	15.1		
Outdoor Worker - subsurface	8.65E-05	Arsenic	31.4	Ingestion	42.0	18.57	Arsenic	0.9	Ingestion	12.3
		Beryllium	45.6	Inhalation	2.1		Iron	1.7	Inhalation	0.1
		Chromium	1.9	Dermal	50.4		Nickel	7.5	Dermal	87.5
		Cobalt-60	1.2	External Exposure	5.4		Silver	0.7		
		PCB, Total	3.6				Uranium	2.4		
		Technetium-99	8.1				Vanadium	86.4		

Table D4.143. Summary of Risk Characterization for SWMU 14, EU 1 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	1.08E-06			See Outdoor Worker (subsurface)	5.80	Nickel Uranium Vanadium	7.5 2.4 86.4	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	7.33E-05	Americium-241 Arsenic Chromium Neptunium-237 PCB, Total Technetium-99 Uranium-238	1.6 63.6 5.6 5.4 10.7 6.4 6.7	Ingestion Inhalation Dermal External Exposure	1.24	Arsenic Iron Nickel Silver Uranium	11.0 11.5 44.9 21.4 10.2	Ingestion Inhalation Dermal	10.8 0.2 89.0
Future Child Resident - surface	7.33E-05	Americium-241 Arsenic Chromium Neptunium-237 PCB, Total Technetium-99 Uranium-238	1.6 63.6 5.6 5.4 10.7 6.4 6.7	Ingestion Inhalation Dermal External Exposure	3.79	Arsenic Iron Nickel Silver Uranium	17.6 15.4 35.5 16.9 13.8	Ingestion Inhalation Dermal	33.0 0.3 66.7
Future Teen Recreational User - surface	8.80E-06	Arsenic PCB, Total	70.4 19.0	Ingestion Inhalation Dermal External Exposure	0.96	Nickel Silver	48.6 23.2	Ingestion Inhalation Dermal	1.9 0.1 98.0

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.144. Summary of Risk Characterization for SWMU 14, EU 2

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total	Total HI	COCs	%Total	Routes of Exposure	%Total
Current Industrial Worker - surface	6.63E-06	Beryllium	42.8	Ingestion	9.0	0.13	*no COCs		Ingestion	
		Uranium-238	27.9	Inhalation	2.3		Inhalation			
Future Industrial Worker - surface	1.18E-04	Arsenic	12.3	Ingestion	9.0	2.37	Antimony	6.2	Ingestion	5.3
		Beryllium	42.8	Inhalation	2.3		Iron	6.3	Inhalation	1.8
		Chromium	1.9	Dermal	57.4		Nickel	66.9	Dermal	92.9
		Neptunium-237	2.4	External Exposure	31.3		Uranium	11.6		
		PCB, Total	1.8							
		Total PAH	4.8							
		Uranium-234	1.4							
Uranium-235	4.3									
Uranium-238	27.9									
Outdoor Worker - surface	1.56E-04	Arsenic	22.5	Ingestion	48.9	2.56	Antimony	5.4	Ingestion	35.2
		Beryllium	26.3	Inhalation	1.3		Arsenic	8.6	Inhalation	1.2
		Chromium	1.0	Dermal	32.3		Iron	10.8	Dermal	63.6
		Neptunium-237	1.5	External Exposure	17.6		Nickel	50.0		
		PCB, Total	1.5				Uranium	19.8		
		Thorium-230	1.7							
		Total PAH	4.5							
		Uranium-234	7.4							
		Uranium-235	2.8							
		Uranium-238	30.7							
Outdoor Worker - subsurface	2.23E-04	Arsenic	15.9	Ingestion	49.6	3.99	Antimony	3.3	Ingestion	30.3
		Beryllium	17.5	Inhalation	1.6		Arsenic	5.5	Inhalation	0.9
		Cadmium	0.5	Dermal	28.5		Iron	8.1	Dermal	68.8
		Chromium	0.8	External Exposure	20.4		Mercury	20.6		
		Neptunium-237	2.3				Nickel	39.7		
		PCB, Total	13.9				Uranium	15.8		
		Thorium-230	1.6							
		Total PAH	2.1							
		Uranium-234	7.6							
		Uranium-235	3.4							
Uranium-238	34.3									

Table D4.144. Summary of Risk Characterization for SWMU 14, EU 2 (Continued)

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total Worker (subsurface) for %	Total HI	COCs	%Total	Routes of Exposure	%Total Worker (subsurface) for %
Excavation Worker - subsurface	2.78E-06	*no COCs		See Outdoor Worker (subsurface) for %		1.25	Iron Mercury Nickel Uranium	8.1 20.6 39.7 15.8	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	4.33E-04	Arsenic Beryllium Chromium Neptunium-237 PCB, Total Thorium-230 Total PAH Uranium-234 Uranium-235 Uranium-238	14.2 30.8 1.0 3.3 1.4 0.4 4.0 1.6 5.9 37.4	Ingestion Inhalation Dermal External Exposure	15.6 1.2 40.2 43.1	4.12	Antimony Arsenic Iron Nickel Uranium	6.1 4.4 6.8 65.5 12.5	Ingestion Inhalation Dermal	8.6 1.0 90.5
Future Child Resident - surface	4.33E-04	Arsenic Beryllium Chromium Neptunium-237 PCB, Total Thorium-230 Total PAH Uranium-234 Uranium-235 Uranium-238	14.2 30.8 1.0 3.3 1.4 0.4 4.0 1.6 5.9 37.4	Ingestion Inhalation Dermal External Exposure	15.6 1.2 40.2 43.1	12.04	Antimony Arsenic Iron Manganese Mercury Nickel Uranium	5.6 7.3 9.6 2.9 1.0 54.3 17.7	Ingestion Inhalation Dermal	27.4 1.5 71.0
Future Teen Recreational User - surface	5.72E-05	Arsenic Beryllium PCB, Total Total PAH Uranium-235 Uranium-238	14.3 61.3 2.3 6.6 1.8 11.5	Ingestion Inhalation Dermal External Exposure	2.7 0.8 82.9 13.6	3.26	Antimony Arsenic Iron Nickel Uranium	6.4 3.3 5.8 69.8 10.6	Ingestion Inhalation Dermal	1.5 0.5 98.0

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.145. Summary of Risk Characterization for SWMU 14, EU 3

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	3.49E-06	PCB, Total	73.9	Ingestion	10.5	0.15	*no COCs			
				Inhalation	9.1					
				Dermal	79.2					
				External Exposure	1.3					
Future Industrial Worker - surface	6.23E-05	Arsenic Chromium PCB, Total	20.9 3.7 73.9	Ingestion	10.5	2.67	Iron Mercury Nickel Uranium	5.2 31.1 50.4 7.6	Ingestion Inhalation Dermal	4.3 1.2 94.5
				Inhalation	9.1					
				Dermal	79.2					
				External Exposure	1.3					
Outdoor Worker - surface	8.76E-05	Arsenic Chromium PCB, Total Uranium-238	35.7 2.0 60.9 1.5	Ingestion	52.9	2.71	Arsenic Iron Mercury Nickel Uranium	7.2 9.5 25.6 40.1 13.9	Ingestion Inhalation Dermal	30.1 0.9 69.0
				Inhalation	4.8					
				Dermal	41.7					
				External Exposure	0.7					
Outdoor Worker - subsurface	2.33E-04	Arsenic Beryllium Chromium PCB, Total Uranium-234 Uranium-238	19.7 51.3 0.7 23.2 0.7 4.0	Ingestion	32.2	36.67	Arsenic Cobalt Iron Mercury Nickel Silver Uranium Vanadium	0.8 0.8 0.9 1.9 3.4 0.3 1.0 90.5	Ingestion Inhalation Dermal	11.6 0.1 88.4
				Inhalation	1.9					
				Dermal	63.8					
				External Exposure	2.2					

Table D4.145. Summary of Risk Characterization for SWMU 14, EU 3 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	2.91E-06	Beryllium	51.3	See Outdoor Worker (subsurface)	11.46	Iron Mercury Nickel Uranium Vanadium	0.9 1.9 3.4 1.0 90.5	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	1.99E-04	Arsenic Chromium PCB, Total Uranium-238	27.6 2.3 67.9 2.2	Ingestion Inhalation Dermal External Exposure	4.64	Arsenic Iron Mercury Nickel Uranium	3.5 5.7 30.7 49.5 8.3	Ingestion Inhalation Dermal	6.9 0.6 92.4
Future Child Resident - surface	1.99E-04	Arsenic Chromium PCB, Total Uranium-238	27.6 2.3 67.9 2.2	Ingestion Inhalation Dermal External Exposure	12.97	Arsenic Iron Manganese Mercury Nickel Uranium	6.1 8.3 1.9 27.0 42.9 12.2	Ingestion Inhalation Dermal	23.1 1.1 75.8
Future Teen Recreational User - surface	3.68E-05	Arsenic PCB, Total	19.9 78.5	Ingestion Inhalation Dermal External Exposure	3.73	Iron Mercury Nickel Uranium	4.7 32.1 51.9 6.9	Ingestion Inhalation Dermal	1.2 0.3 98.5

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.146. Summary of Risk Characterization for SWMU 14, EU 4

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total	Total HI	COCs	%Total	Routes of Exposure	%Total		
Current Industrial Worker - surface	1.07E-05	PCB, Total	18.4	Ingestion	12.5	0.15	*no COCs					
		Uranium-235	10.6	Inhalation	3.0							
		Uranium-238	51.9	Dermal	23.1							
Future Industrial Worker - surface	1.91E-04	Arsenic	7.0	External Exposure	61.5	2.66						
		Chromium	1.2	Ingestion	12.5			Antimony	6.4	Ingestion	5.2	
		Neptunium-237	5.2	Inhalation	3.0			Iron	5.8	Inhalation	0.4	
		PCB, Total	18.4	Dermal	23.1			Nickel	64.2	Dermal	94.4	
		Total PAH	2.2	External Exposure	61.5			Silver	4.1			
		Uranium-234	3.1					Uranium	13.1			
Uranium-235	10.6											
Uranium-238	51.9											
Outdoor Worker - surface	2.93E-04	Arsenic	10.9	Ingestion	57.8	2.85						
		Chromium	0.6	Inhalation	1.4			Antimony	5.6	Ingestion	34.6	
		Neptunium-237	2.8	Dermal	11.1			Arsenic	7.0	Inhalation	0.3	
		PCB, Total	13.9	External Exposure	29.7			Iron	10.1	Dermal	65.1	
		Thorium-230	1.3					Nickel	48.3			
		Total PAH	1.8					Uranium	22.5			
		Uranium-234	13.6									
		Uranium-235	6.0									
Uranium-238	49.1											
Outdoor Worker - subsurface	2.49E-04	Arsenic	12.1	Ingestion	56.7	3.86						
		Chromium	0.6	Inhalation	1.7			Antimony	3.2	Ingestion	33.4	
		Neptunium-237	2.5	Dermal	15.0			Arsenic	4.8	Inhalation	0.7	
		PCB, Total	20.6	External Exposure	26.7			Cobalt	6.6	Dermal	65.9	
		Thorium-230	1.0					Iron	7.4			
		Total PAH	1.6					Mercury	19.2			
		Uranium-234	12.2					Nickel	35.6			
Uranium-235	5.4				Uranium	16.6						
Uranium-238	44.1											

Table D4.146. Summary of Risk Characterization for SWMU 14, EU 4 (Continued)

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total Worker for %	Total HI	COCs	%Total	Routes of Exposure	%Total Worker for %
Excavation Worker - subsurface	3.11E-06	Uranium-238	44.1	See Outdoor Worker (subsurface) for %	1.21	Mercury Nickel Uranium	19.2 35.6 16.6	See Outdoor Worker (subsurface) for %	8.3 0.2 91.4	
Future Adult Resident - surface	8.43E-04	Arsenic Chromium Neptunium-237 PCB, Total Thorium-230 Total PAH Uranium-234 Uranium-235 Uranium-238	6.7 0.5 5.9 12.3 0.3 1.5 2.8 12.1 57.9	Ingestion Inhalation Dermal External Exposure	15.0 1.2 13.4 70.4	4.66	Antimony Arsenic Iron Nickel Silver Uranium	6.3 3.5 6.3 62.5 4.0 14.1	Ingestion Inhalation Dermal	8.3 0.2 91.4
Future Child Resident - surface	8.43E-04	Arsenic Chromium Neptunium-237 PCB, Total Thorium-230 Total PAH Uranium-234 Uranium-235 Uranium-238	6.7 0.5 5.9 12.3 0.3 1.5 2.8 12.1 57.9	Ingestion Inhalation Dermal External Exposure	15.0 1.2 13.4 70.4	13.44	Antimony Arsenic Copper Iron Mercury Nickel Silver Uranium	5.8 6.0 1.4 9.0 1.7 52.4 3.3 20.1	Ingestion Inhalation Dermal	27.0 0.4 72.6
Future Teen Recreational User - surface	5.96E-05	Arsenic Neptunium-237 PCB, Total Total PAH Uranium-235 Uranium-238	12.6 3.5 37.1 4.7 7.1 33.1	Ingestion Inhalation Dermal External Exposure	5.2 1.7 51.7 41.5	3.71	Antimony Iron Nickel Silver Uranium	6.5 5.3 66.2 4.2 11.8	Ingestion Inhalation Dermal	1.4 0.1 98.5

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs
*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.147. Summary of Risk Characterization for SWMU 14, EU 5

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total	Total HI	COCs	%Total	Routes of Exposure	%Total
Current Industrial Worker – surface	5.47E-06	Uranium-238	56.7	Ingestion Inhalation Dermal External Exposure	14.7 2.5 17.5 65.3	0.18	*no COCs			
		Arsenic Cadmium Chromium Neptunium-237 PCB, Total Thorium-230 Total PAH Uranium-234 Uranium-235 Uranium-238	13.4 1.3 1.6 6.6 5.5 1.0 2.1 2.8 8.6 56.7	Ingestion Inhalation Dermal External Exposure	14.7 2.5 17.5 65.3		Cobalt Iron Mercury Nickel Silver Uranium	4.2 4.9 38.1 33.8 3.7 7.7	Ingestion Inhalation Dermal	4.9 0.9 94.2
Outdoor Worker - surface	1.63E-04	Arsenic Cadmium Chromium Neptunium-237 PCB, Total Technetium-99 Thorium-230 Total PAH Uranium-234 Uranium-235 Uranium-238	19.3 1.6 0.7 3.2 3.8 1.1 3.9 1.5 11.3 4.5 49.1	Ingestion Inhalation Dermal External Exposure	62.3 1.1 7.8 28.9	3.36	Arsenic Cobalt Iron Mercury Nickel Uranium	5.9 7.3 8.6 30.2 25.9 13.5	Ingestion Inhalation Dermal	33.1 0.6 66.3
		Arsenic Beryllium Cadmium Chromium Neptunium-237 PCB, Total Technetium-99 Thorium-230 Total PAH Uranium-234 Uranium-235 Uranium-238	13.8 20.6 0.8 0.5 2.4 21.3 0.6 2.2 0.9 6.4 2.6 27.9	Ingestion Inhalation Dermal External Exposure	47.2 1.6 34.3 16.9		23.01	Arsenic Cobalt Iron Mercury Nickel Uranium Vanadium	0.8 0.8 1.3 4.4 3.8 2.0 85.7	Ingestion Inhalation Dermal

Table D4.147. Summary of Risk Characterization for SWMU 14, EU 5 (Continued)

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total Worker (subsurface) for %	Total HI	COCs	%Total	Routes of Exposure	%Total Worker (subsurface) for %
Excavation Worker - subsurface	2.77E-06	*no COCs		See Outdoor Worker (subsurface) for %		7.19	Mercury Nickel Uranium Vanadium	4.4 3.8 2.0 85.7	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	4.48E-04	Arsenic Cadmium Chromium Neptunium-237 PCB, Total Technetium-99 Thorium-230 Total PAH Uranium-234 Uranium-235 Uranium-238	12.4 1.1 0.7 7.2 3.5 0.3 0.9 1.4 2.4 9.4 60.8	Ingestion Inhalation Dermal External Exposure	17.5 1.0 9.8 71.7	5.57	Antimony Arsenic Cobalt Iron Mercury Nickel Silver Uranium	2.8 2.9 4.5 5.3 37.4 33.0 3.7 8.3	Ingestion Inhalation Dermal	7.9 0.5 91.6
Future Child Resident - surface	4.48E-04	Arsenic Cadmium Chromium Neptunium-237 PCB, Total Technetium-99 Thorium-230 Total PAH Uranium-234 Uranium-235 Uranium-238	12.4 1.1 0.7 7.2 3.5 0.3 0.9 1.4 2.4 9.4 60.8	Ingestion Inhalation Dermal External Exposure	17.5 1.0 9.8 71.7	15.91	Antimony Arsenic Cobalt Iron Manganese Mercury Nickel Silver Thallium Uranium	2.6 5.0 6.4 7.6 1.2 32.2 28.0 3.1 0.7 12.0	Ingestion Inhalation Dermal	25.7 0.8 73.5
Future Teen Recreational User - surface	2.77E-05	Arsenic Neptunium-237 PCB, Total Total PAH Uranium-235 Uranium-238	26.7 4.8 12.1 4.9 6.3 39.8	Ingestion Inhalation Dermal External Exposure	6.9 1.5 43.2 48.4	4.44	Antimony Cobalt Iron Mercury Nickel Silver Uranium	2.9 3.7 4.5 39.4 34.9 3.9 7.0	Ingestion Inhalation Dermal	1.3 0.2 98.4

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs
*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.148. Summary of Risk Characterization for SWMU 14, EU 6

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	4.98E-06	PCB, Total Uranium-238	29.9 33.6	Ingestion	7.9	0.17	Nickel	72.4	Ingestion	4.0
				Inhalation	19.1				Inhalation	0.5
				Dermal	26.1				Dermal	95.5
				External Exposure	46.9					
Future Industrial Worker - surface	8.90E-05	Chromium Neptunium-237 PCB, Total Uranium-234 Uranium-235 Uranium-238	16.6 11.0 29.9 2.0 6.5 33.6	Ingestion	7.9	3.11	Antimony Nickel Silver Uranium	3.4 72.4 3.6 17.4	Ingestion	4.0
				Inhalation	19.1				Inhalation	0.5
				Dermal	26.1				Dermal	95.5
				External Exposure	46.9					
Outdoor Worker - surface	1.11E-04	Chromium Neptunium-237 PCB, Total Uranium-234 Uranium-235 Uranium-238	9.9 7.3 27.8 10.9 4.5 39.1	Ingestion	45.3	3.10	Antimony Nickel Uranium	3.2 58.6 32.3	Ingestion	28.7
				Inhalation	11.3				Inhalation	0.3
				Dermal	15.5				Dermal	71.0
				External Exposure	27.9					
Outdoor Worker - subsurface	1.22E-04	Arsenic Chromium Neptunium-237 PCB, Total Uranium-234 Uranium-235 Uranium-238	20.8 8.8 5.1 25.3 7.5 3.2 28.8	Ingestion	50.8	3.28	Arsenic Nickel Silver Uranium	4.8 55.3 3.3 30.4	Ingestion	31.1
				Inhalation	10.2				Inhalation	0.7
				Dermal	18.8				Dermal	68.3
				External Exposure	20.2					

Table D4.148. Summary of Risk Characterization for SWMU 14, EU 6 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	1.52E-06			See Outdoor Worker (subsurface)	1.03	Nickel Uranium	55.3 30.4	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	3.40E-04	Cadmium Chromium Neptunium-237 PCB, Total Uranium-234 Uranium-235 Uranium-238	0.3 8.4 14.4 23.0 2.1 8.5 43.2	Ingestion Inhalation Dermal External Exposure	5.41	Antimony Nickel Silver Uranium	3.4 71.0 3.5 18.9	Ingestion Inhalation Dermal	6.5 0.2 93.3
Future Child Resident - surface	3.40E-04	Cadmium Chromium Neptunium-237 PCB, Total Uranium-234 Uranium-235 Uranium-238	0.3 8.4 14.4 23.0 2.1 8.5 43.2	Ingestion Inhalation Dermal External Exposure	14.89	Antimony Chromium Mercury Nickel Silver Uranium	3.3 1.4 1.1 62.4 3.1 28.2	Ingestion Inhalation Dermal	21.9 0.4 77.6
Future Teen Recreational User - surface	2.90E-05	Chromium Neptunium-237 PCB, Total Uranium-235 Uranium-238	9.3 7.0 57.7 4.1 20.5	Ingestion Inhalation Dermal External Exposure	4.37	Antimony Nickel Silver Uranium	3.5 74.0 3.6 15.6	Ingestion Inhalation Dermal	1.1 0.1 98.8

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.149. Summary of Risk Characterization for SWMU 14, EU 7

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI			
Current Industrial Worker - surface	4.32E-06	PCB, Total	52.5	Ingestion	10.4	0.23	Nickel	68.8	Ingestion	2.8			
				Inhalation	6.8		Inhalation		0.4				
				Dermal	58.3		Dermal				96.7		
				External Exposure	24.5								
Future Industrial Worker - surface	7.72E-05	Arsenic	14.7	Ingestion	10.4	4.15	Mercury	20.9		Ingestion		2.8	
		Chromium	2.8	Inhalation	6.8		Inhalation		0.4				
		Neptunium-237	7.1	Dermal	58.3		Dermal			96.7			
		PCB, Total	52.5	External Exposure	24.5								
		Total PAH	1.4										
Uranium-235	3.2												
Uranium-238	16.2												
Outdoor Worker - surface	1.08E-04	Arsenic	25.2	Ingestion	52.7	3.82	Arsenic	4.4	Ingestion	21.9			
		Cadmium	1.6	Inhalation	3.6		Mercury		19.0				
		Chromium	1.5	Dermal	30.8		Nickel				60.3		
		Neptunium-237	4.2	External Exposure	12.9		Uranium					15.1	
		PCB, Total	43.3										
		Total PAH	1.2										
		Uranium-234	4.2										
		Uranium-235	1.9										
Uranium-238	16.8												
Outdoor Worker - subsurface	1.00E-04	Arsenic	27.0	Ingestion	52.7	3.96	Arsenic	4.3	Ingestion	21.6			
		Cadmium	1.4	Inhalation	3.9		Mercury		18.3				
		Chromium	1.6	Dermal	32.9		Nickel				58.1		
		Neptunium-237	3.5	External Exposure	10.6		Silver					3.1	
		PCB, Total	46.7				Uranium						14.5
		Total PAH	1.0										
		Uranium-234	3.5										
		Uranium-235	1.6										
Uranium-238	13.6												

Table D4.149. Summary of Risk Characterization for SWMU 14, EU 7 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	1.25E-06			See Outdoor Worker (subsurface)	1.24	Mercury Nickel Uranium	18.3 58.1 14.5	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	2.82E-04	Arsenic Cadmium Chromium Neptunium-237 PCB, Total Total PAH Uranium-234 Uranium-235 Uranium-238	17.0 1.2 1.5 9.8 42.2 1.2 0.9 4.3 21.8	Ingestion Inhalation Dermal External Exposure	7.17	Arsenic Mercury Nickel Uranium	2.0 20.8 68.0 8.2	Ingestion Inhalation Dermal	4.6 0.2 95.2
Future Child Resident - surface	2.82E-04	Arsenic Cadmium Chromium Neptunium-237 PCB, Total Total PAH Uranium-234 Uranium-235 Uranium-238	17.0 1.2 1.5 9.8 42.2 1.2 0.9 4.3 21.8	Ingestion Inhalation Dermal External Exposure	18.78	Antimony Arsenic Mercury Nickel Uranium	0.7 3.7 19.5 62.8 12.9	Ingestion Inhalation Dermal	16.4 0.4 83.2
Future Teen Recreational User - surface	3.76E-05	Arsenic Neptunium-237 PCB, Total Uranium-238	16.9 3.0 67.6 6.6	Ingestion Inhalation Dermal External Exposure	5.89	Mercury Nickel Uranium	21.2 69.7 6.7	Ingestion Inhalation Dermal	0.8 0.1 99.1

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.150. Summary of Risk Characterization for SWMU 14, EU 8

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	2.69E-06	PCB, Total	55.5	Ingestion Inhalation Dermal External Exposure	10.9 7.3 67.4 14.3	0.17	*no COCs			
		Arsenic Chromium Neptunium-237 PCB, Total Total PAH Uranium-238	23.8 3.2 6.8 55.5 2.2 7.2	Ingestion Inhalation Dermal External Exposure	10.9 7.3 67.4 14.3		2.95	Mercury Nickel Uranium	29.7 53.2 10.6	Ingestion Inhalation Dermal
Outdoor Worker - surface	6.90E-05	Arsenic Chromium Neptunium-237 PCB, Total Total PAH Uranium-238	39.8 1.6 3.9 44.7 1.9 7.3	Ingestion Inhalation Dermal External Exposure	54.1 3.8 34.7 7.4	2.85	Arsenic Mercury Nickel Uranium	6.0 25.7 44.5 20.3	Ingestion Inhalation Dermal	26.0 0.3 73.7
		Arsenic Chromium Neptunium-237 PCB, Total Uranium-238	43.1 1.8 3.0 45.2 5.0	Ingestion Inhalation Dermal External Exposure	55.2 4.0 35.4 5.3		3.08	Arsenic Mercury Nickel Uranium	5.9 26.1 41.1 22.7	Ingestion Inhalation Dermal

Table D4.150. Summary of Risk Characterization for SWMU 14, EU 8 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.96	Mercury Nickel Uranium	26.1 41.1 22.7	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	1.69E-04	Arsenic Chromium Neptunium-237 PCB, Total Total PAH Uranium-235 Uranium-238	28.5 1.7 9.6 46.2 1.9 1.8 10.1	Ingestion Inhalation Dermal External Exposure	5.12	Arsenic Mercury Nickel Silver Uranium	2.8 29.4 52.3 3.0 11.5	Ingestion Inhalation Dermal	5.7 0.2 94.1
Future Child Resident - surface	1.69E-04	Arsenic Chromium Neptunium-237 PCB, Total Total PAH Uranium-235 Uranium-238	28.5 1.7 9.6 46.2 1.9 1.8 10.1	Ingestion Inhalation Dermal External Exposure	13.82	Antimony Arsenic Mercury Nickel Silver Uranium	0.8 5.0 26.8 46.9 2.7 17.6	Ingestion Inhalation Dermal	19.7 0.3 80.0
Future Teen Recreational User - surface	2.56E-05	Arsenic PCB, Total	25.1 65.3	Ingestion Inhalation Dermal External Exposure	4.17	Mercury Nickel Silver Uranium	30.3 54.1 3.1 9.5	Ingestion Inhalation Dermal	0.9 0.1 99.0

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.151. Summary of Risk Characterization for SWMU 14, EU 9

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total	Total HI	COCs	%Total	Routes of Exposure	%Total
Current Industrial Worker - surface	5.57E-05	Neptunium-237	4.1	Ingestion	13.1	0.22	Nickel	56.9	Ingestion Inhalation Dermal	7.5
		PCB, Total	3.7	Inhalation	0.9					
		Uranium-234	4.4	Dermal	5.0					
		Uranium-235	13.9	External	81.0					
		Uranium-238	71.0	Exposure						
Future Industrial Worker - surface	9.95E-04	Arsenic	1.4	Ingestion	13.1	3.87	Mercury Nickel Uranium	3.2 56.9 35.3	Ingestion Inhalation Dermal	7.5 0.5 92.1
		Cesium-137	0.5	Inhalation	0.9					
		Chromium	0.2	Dermal	5.0					
		Neptunium-237	4.1	External	81.0					
		PCB, Total	3.7	Exposure						
		Total PAH	0.8							
		Uranium-234	4.4							
		Uranium-235	13.9							
Uranium-238	71.0									
Outdoor Worker - surface	1.57E-03	Arsenic	2.2	Ingestion	59.2	4.71	Arsenic Mercury Nickel Uranium	4.5 2.2 37.8 53.8	Ingestion Inhalation Dermal	43.7 0.3 56.0
		Cesium-137	0.3	Inhalation	0.4					
		Chromium	0.1	Dermal	2.3					
		Neptunium-237	2.1	External	38.1					
		PCB, Total	2.7	Exposure						
		Technetium-99	0.2							
		Total PAH	0.6							
		Uranium-234	18.8							
		Uranium-235	7.7							
		Uranium-238	65.4							
		Outdoor Worker - subsurface	1.57E-03	Arsenic	2.1					
Cesium-137	0.3			Inhalation	0.4					
Neptunium-237	2.1			Dermal	2.3					
PCB, Total	2.7			External	38.1					
Technetium-99	0.2			Exposure						
Total PAH	0.6									
Uranium-234	18.8									
Uranium-235	7.7									
Uranium-238	65.4									

Table D4.151. Summary of Risk Characterization for SWMU 14, EU 9 (Continued)

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total Worker for %	Total HI	COCs	%Total	Routes of Exposure	%Total Worker for %		
Excavation Worker - subsurface	1.96E-05	Uranium-234	18.8	See Outdoor Worker (subsurface) for %		1.47	Nickel	37.8	See Outdoor Worker (subsurface) for %			
		Uranium-235	7.7				Uranium	53.8				
		Uranium-238	65.4									
Future Adult Resident - surface	4.76E-03	Arsenic	1.3	Ingestion Inhalation Dermal External Exposure	11.7	6.88	Antimony	2.0	Ingestion Inhalation Dermal	11.8		
		Cadmium	0.0				Arsenic	2.5			0.2	
		Cesium-137	0.6				Mercury	3.1				88.0
		Chromium	0.1				Nickel	54.6				
		Neptunium-237	4.3				Uranium	37.5				
		PCB, Total	2.3									
		Technetium-99	0.0									
		Total PAH	0.5									
		Uranium-234	3.6									
		Uranium-235	14.6									
		Uranium-238	72.8									
Future Child Resident - surface	4.76E-03	Arsenic	1.3	Ingestion Inhalation Dermal External Exposure	11.7	21.51	Antimony	1.7	Ingestion Inhalation Dermal	35.2		
		Cadmium	0.0				Arsenic	4.0			0.4	
		Cesium-137	0.6				Mercury	2.5				64.5
		Chromium	0.1				Nickel	42.3				
		Neptunium-237	4.3				Uranium	49.4				
		PCB, Total	2.3									
		Technetium-99	0.0									
		Total PAH	0.5									
		Uranium-234	3.6									
		Uranium-235	14.6									
		Uranium-238	72.8									
Future Teen Recreational User - surface	2.20E-04	Arsenic	3.6	Ingestion Inhalation Dermal External Exposure	6.8	5.30	Antimony	2.1	Ingestion Inhalation Dermal	2.1		
		Cesium-137	0.5				Arsenic	1.9			0.1	
		Neptunium-237	3.8				Mercury	3.4				97.8
		PCB, Total	10.4				Nickel	59.8				
		Total PAH	2.5				Uranium	32.5				
		Uranium-234	2.3									
		Uranium-235	13.0									
Uranium-238	63.7											

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.152. Summary of Risk Characterization for SWMU 14, EU 10

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI		
Current Industrial Worker - surface	5.98E-06	PCB, Total	46.8	Ingestion	10.0	0.26	Mercury	59.4	Ingestion	3.0		
		Uranium-238	22.5	Inhalation	4.9		Inhalation		0.2			
				Dermal	52.1		Dermal		96.8			
				External Exposure	33.0							
Future Industrial Worker - surface	1.07E-04	Arsenic	10.6	Ingestion	10.0	4.69	Iron	2.3	Ingestion	3.0		
		Chromium	1.3	Inhalation	4.9		Mercury		59.4		Inhalation	0.2
		Neptunium-237	9.1	Dermal	52.1		Nickel		29.9		Dermal	96.8
		PCB, Total	46.8	External Exposure	33.0		Uranium		5.7			
		Total PAH	4.3									
		Uranium-234	1.2									
Outdoor Worker - surface	1.47E-04	Uranium-235	4.2			4.38	Arsenic	3.9	Ingestion	23.2		
		Uranium-238	22.5				Iron		4.6		Inhalation	0.2
				Ingestion	51.6		Mercury		53.0		Dermal	76.7
				Inhalation	2.6		Nickel		25.8			
				Dermal	28.0		Uranium		11.4			
				External Exposure	17.8							
Outdoor Worker - subsurface	1.30E-04	Arsenic	21.4	Ingestion	51.6	4.44	Arsenic	3.9	Ingestion	23.1		
		Chromium	0.8	Inhalation	3.0		Iron		4.5		Inhalation	0.4
		Neptunium-237	4.8	Dermal	31.2		Mercury		51.9		Dermal	76.5
		PCB, Total	44.3	External Exposure	14.2		Nickel		24.6			
		Total PAH	3.3				Uranium		10.9			
		Uranium-234	5.2									
		Uranium-235	2.4									
Uranium-238	17.7											

Table D4.152. Summary of Risk Characterization for SWMU 14, EU 10 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	1.62E-06			See Outdoor Worker (subsurface)	1.39	Mercury Nickel Uranium	51.9 24.6 10.9	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	4.06E-04	Arsenic Chromium Neptunium-237 PCB, Total Total PAH Uranium-234 Uranium-235 Uranium-238	11.8 0.7 12.0 36.2 3.4 1.2 5.5 29.1	Ingestion Inhalation Dermal External Exposure	8.12	Arsenic Iron Mercury Nickel Uranium	1.7 2.5 58.9 29.5 6.3	Ingestion Inhalation Dermal	4.9 0.1 95.0
Future Child Resident - surface	4.06E-04	Arsenic Chromium Neptunium-237 PCB, Total Total PAH Uranium-234 Uranium-235 Uranium-238	11.8 0.7 12.0 36.2 3.4 1.2 5.5 29.1	Ingestion Inhalation Dermal External Exposure	21.45	Antimony Arsenic Iron Mercury Nickel Uranium	0.8 3.2 4.0 54.8 27.0 9.8	Ingestion Inhalation Dermal	17.4 0.2 82.4
Future Teen Recreational User - surface	4.89E-05	Arsenic Neptunium-237 PCB, Total Total PAH Uranium-238	13.0 4.2 64.2 6.2 9.8	Ingestion Inhalation Dermal External Exposure	6.66	Iron Mercury Nickel Uranium	2.1 60.2 30.3 5.1	Ingestion Inhalation Dermal	0.8 0.1 99.1

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.153. Summary of Risk Characterization for SWMU 15, EU 1

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI	
Current Industrial Worker - surface	2.51E-06	Total PAH	64.7	Ingestion	12.5	<0.1	*no COCs				
				Inhalation	4.4						
Future Industrial Worker - surface	4.47E-05	Arsenic Chromium Total PAH Uranium-238	27.7 4.2 64.7 2.4	Derma	81.0	0.69	Iron Nickel Silver	16.9 44.6 16.5		Ingestion	7.7
				External Exposure	2.2						
				Inhalation	4.4						
				Derma	81.0						
Outdoor Worker - surface	6.86E-05	Arsenic Chromium Total PAH Uranium-238	43.5 2.0 51.5 2.3	Ingestion	57.8	0.85	Arsenic Iron Nickel	21.8 25.6 29.3		Ingestion	44.5
				Inhalation	2.1						
				Derma	39.1						
				External Exposure	1.0						
Outdoor Worker - subsurface	6.06E-05	Arsenic Chromium Technetium-99 Total PAH Uranium-238	52.7 2.3 3.0 39.3 1.8	Ingestion	62.3	0.93	Arsenic Iron Nickel	21.4 23.6 26.9		Ingestion	45.9
				Inhalation	2.4						
				Derma	34.4						
				External Exposure	0.9						

Table D4.153. Summary of Risk Characterization for SWMU 15, EU 1 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.29			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	1.51E-04	Arsenic	34.8	Ingestion	1.24	Arsenic	12.5	Ingestion	12.1
		Chromium	2.4	Inhalation		18.0	Inhalation	0.2	
		PCB, Total	0.8	Dermal		42.8	Dermal	87.7	
		Total PAH	58.4	External Exposure		15.8			
		Uranium-238	3.5						
Future Child Resident - surface	1.51E-04	Arsenic	34.8	Ingestion	3.89	Antimony	3.0	Ingestion	35.9
		Chromium	2.4	Inhalation		Arsenic	19.3	Inhalation	0.3
		PCB, Total	0.8	Dermal		Copper	2.7	Dermal	63.8
		Total PAH	58.4	External Exposure		Iron	23.6		
		Uranium-238	3.5			Nickel	32.9		
						Silver	12.1		
						Uranium	5.8		
Future Teen Recreational User - surface	2.69E-05	Arsenic	26.0	Ingestion	0.95	Iron	15.7	Ingestion	2.1
		Total PAH	71.0	Inhalation		Nickel	46.9	Inhalation	0.1
				Dermal		Silver	17.4	Dermal	97.8
				External Exposure					

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.154. Summary of Risk Characterization for SWMU 15, EU 2

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	3.62E-06	Total PAH	55.1	Ingestion Inhalation Dermal External Exposure	12.7 3.4 71.9 12.0	0.11	*no COCs			
		Arsenic Chromium PCB, Total Total PAH Uranium-238	25.3 3.0 2.7 55.1 11.0	Ingestion Inhalation Dermal External Exposure	12.7 3.4 71.9 12.0		Arsenic Iron Mercury Nickel Uranium	5.4 8.1 54.3 24.1 6.4	Ingestion Inhalation Dermal	5.0 0.2 94.8
Future Industrial Worker - surface	6.46E-05	Arsenic Chromium PCB, Total Total PAH Uranium-238	25.3 3.0 2.7 55.1 11.0	Ingestion Inhalation Dermal External Exposure	12.7 3.4 71.9 12.0	1.91	Arsenic Iron Mercury Nickel Uranium	5.4 8.1 54.3 24.1 6.4	Ingestion Inhalation Dermal	5.0 0.2 94.8
		Arsenic Chromium PCB, Total Total PAH Uranium-234 Uranium-238	39.2 1.4 2.0 43.5 2.3 10.3	Ingestion Inhalation Dermal External Exposure	58.3 1.6 34.3 5.7		Arsenic Iron Mercury Nickel Uranium	12.1 14.2 42.7 18.4 11.2	Ingestion Inhalation Dermal	33.7 0.1 66.2
Outdoor Worker - surface	1.00E-04	Arsenic Cadmium Chromium Neptunium-237 PCB, Total Total PAH Uranium-234 Uranium-238	38.3 1.0 1.4 1.7 2.0 42.5 2.2 10.1	Ingestion Inhalation Dermal External Exposure	57.8 1.6 33.8 6.7	22.54	Arsenic Iron Mercury Nickel Uranium Vanadium	1.1 1.3 3.8 3.1 1.0 88.4	Ingestion Inhalation Dermal	11.8 0.1 88.0
		Arsenic Chromium PCB, Total Total PAH Uranium-234 Uranium-238	39.2 1.4 2.0 43.5 2.3 10.3	Ingestion Inhalation Dermal External Exposure	58.3 1.6 34.3 5.7		Arsenic Iron Mercury Nickel Uranium	12.1 14.2 42.7 18.4 11.2	Ingestion Inhalation Dermal	33.7 0.1 66.2

Table D4.154. Summary of Risk Characterization for SWMU 15, EU 2 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	1.28E-06			See Outdoor Worker (subsurface)	7.04	Mercury Nickel Vanadium	3.8 3.1 88.4	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	2.30E-04	Arsenic Chromium Neptunium-237 PCB, Total Total PAH Uranium-234 Uranium-235 Uranium-238	30.0 1.6 1.1 2.2 47.1 0.6 2.1 15.2	Ingestion Inhalation Dermal External Exposure	3.35	Arsenic Iron Mercury Nickel Uranium	6.0 8.8 53.1 23.5 6.9	Ingestion Inhalation Dermal	8.0 0.1 91.9
Future Child Resident - surface	2.30E-04	Arsenic Chromium Neptunium-237 PCB, Total Total PAH Uranium-234 Uranium-235 Uranium-238	30.0 1.6 1.1 2.2 47.1 0.6 2.1 15.2	Ingestion Inhalation Dermal External Exposure	9.58	Antimony Arsenic Iron Mercury Nickel Uranium	1.2 10.3 12.6 45.7 19.9 10.0	Ingestion Inhalation Dermal	26.2 0.2 73.6
Future Teen Recreational User - surface	3.58E-05	Arsenic PCB, Total Total PAH Uranium-238	25.6 3.1 65.4 3.9	Ingestion Inhalation Dermal External Exposure	2.67	Arsenic Iron Mercury Nickel Uranium	4.5 7.3 55.8 24.8 5.8	Ingestion Inhalation Dermal	1.4 0.1 98.6

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.155. Summary of Risk Characterization for SWMU 15, EU 3

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total	Total HI	COCs	%Total	Routes of Exposure	%Total
Current Industrial Worker - surface	1.32E-05	Arsenic	11.1	Ingestion	10.2	0.24	*no COCs			
		Beryllium	23.0	Inhalation	2.5					
		PCB, Total	15.4	Dermal	55.1					
		Total PAH	10.4	External Exposure	32.2					
		Uranium-238	24.1							
Future Industrial Worker - surface	2.36E-04	Arsenic	11.1	Ingestion	10.2	4.37	Antimony	22.2	Ingestion	6.5
		Beryllium	23.0	Inhalation	2.5		Arsenic	3.7	Inhalation	1.3
		Cadmium	1.6	Dermal	55.1		Cobalt	7.4	Dermal	92.2
		Chromium	1.1	External Exposure	32.2		Iron	8.4		
		Neptunium-237	6.4				Mercury	7.0		
		PCB, Total	15.4				Nickel	40.4		
		Technetium-99	0.4				Uranium	4.6		
		Total PAH	10.4							
		Uranium-234	1.6							
		Uranium-235	4.5							
Uranium-238	24.1									
Outdoor Worker - surface	3.27E-04	Arsenic	19.2	Ingestion	52.1	5.05	Antimony	18.0	Ingestion	40.1
		Beryllium	13.4	Inhalation	1.3		Arsenic	7.7	Inhalation	0.8
		Cadmium	2.4	Dermal	29.4		Cobalt	11.7	Dermal	59.1
		Chromium	0.6	External Exposure	17.2		Copper	3.6		
		Neptunium-237	3.8				Iron	13.5		
		PCB, Total	12.9				Mercury	5.0		
		Technetium-99	1.9				Nickel	28.2		
		Thorium-230	1.0				Uranium	7.4		
		Total PAH	9.2							
		Uranium-234	7.5							
		Uranium-235	2.8							
		Uranium-238	25.2							
		Outdoor Worker - subsurface	3.43E-04	Arsenic	25.7		Ingestion	54.2	5.68	Antimony
Beryllium	9.5			Inhalation	1.5	Arsenic	9.7	Inhalation		0.7
Cadmium	1.4			Dermal	28.1	Cobalt	7.3	Dermal		62.7
Chromium	0.6			External Exposure	16.2	Copper	3.2			
Neptunium-237	3.6					Iron	12.4			
PCB, Total	18.0					Mercury	20.0			
Technetium-99	1.1					Nickel	25.1			
Thorium-230	0.6					Uranium	6.6			
Total PAH	5.9									
Uranium-234	7.1									
Uranium-235	2.7									
Uranium-238	23.8									

Table D4.155. Summary of Risk Characterization for SWMU 15, EU 3 (Continued)

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total Worker for %	Total HI	COCs	%Total	Routes of Exposure	%Total Worker for %		
Excavation Worker - subsurface	4.28E-06	Arsenic	25.7	See Outdoor Worker (subsurface) for %		1.77	Antimony	10.8	See Outdoor Worker (subsurface) for %			
		Uranium-238	23.8				Arsenic	9.7				
							Cobalt	7.3				
							Iron	12.4				
							Mercury	20.0				
							Nickel	25.1				
							Uranium	6.6				
Future Adult Resident - surface	8.84E-04	Arsenic	12.5	Ingestion Inhalation Dermal External Exposure	17.8	7.70	Antimony	21.8	Ingestion Inhalation Dermal	10.4		
		Beryllium	16.1				Arsenic	4.2				0.7
		Cadmium	1.7				Cobalt	7.9				89.0
		Chromium	0.5				Copper	2.4				
		Neptunium-237	8.6				Iron	9.0				
		PCB, Total	12.1				Mercury	6.8				
		Technetium-99	0.5				Nickel	39.2				
		Thorium-230	0.2				Uranium	4.9				
		Total PAH	8.5									
		Uranium-234	1.6									
Future Child Resident - surface	8.84E-04	Arsenic	12.5	Ingestion Inhalation Dermal External Exposure	17.8	23.39	Antimony	19.0	Ingestion Inhalation Dermal	31.9		
		Beryllium	16.1				Arsenic	6.8				1.0
		Cadmium	1.7				Cadmium	1.0				67.1
		Chromium	0.5				Cobalt	10.7				
		Neptunium-237	8.6				Copper	3.2				
		PCB, Total	12.1				Iron	12.2				
		Technetium-99	0.5				Manganese	1.6				
		Thorium-230	0.2				Mercury	5.5				
		Total PAH	8.5				Nickel	31.2				
		Uranium-234	1.6				Selenium	0.5				
Future Teen Recreational User - surface	1.11E-04	Arsenic	13.2	Ingestion Inhalation Dermal External Exposure	3.2	6.0	Antimony	23.0	Ingestion Inhalation Dermal	1.8		
		Beryllium	33.8				Arsenic	3.2				0.3
		Cadmium	2.0				Cobalt	6.7				97.8
		Neptunium-237	2.8				Copper	2.1				
		PCB, Total	20.5				Iron	7.7				
		Total PAH	14.5				Mercury	7.3				
		Uranium-235	2.0				Nickel	42.4				
		Uranium-238	10.2				Uranium	4.2				

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.156. Summary of Risk Characterization for SWMU 15, EU 4

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total	Total HI	COCs	%Total	Routes of Exposure	%Total		
Current Industrial Worker - surface	1.33E-05	Arsenic	14.6	Ingestion	9.9	0.34	Nickel	53.4	Ingestion Inhalation Dermal	3.7		
		PCB, Total	59.8	Inhalation	5.8						0.9	
		Total PAH	17.3	Dermal	78.6							95.4
Future Industrial Worker - surface	2.38E-04	Arsenic	14.6	Ingestion	9.9	6.01	Antimony Arsenic Iron Mercury Nickel Silver Uranium	4.9	Ingestion Inhalation Dermal	3.7		
		Chromium	1.4	Inhalation	5.8						0.9	
		Neptunium-237	1.2	Dermal	78.6							95.4
		PCB, Total	59.8	External	5.8						26.0	
		Total PAH	17.3	Exposure	5.8							53.4
		Uranium-235	0.5	5.8	2.3							
		Uranium-238	4.6									
Outdoor Worker - surface	3.25E-04	Arsenic	25.7	Ingestion	51.2	5.85	Antimony Arsenic Iron Mercury Nickel Silver Uranium	4.7	Ingestion Inhalation Dermal	26.7		
		Chromium	0.8	Inhalation	3.2						0.7	
		Neptunium-237	0.8	Dermal	42.5							72.6
		PCB, Total	50.6	External	3.1						22.3	
		Total PAH	15.5	Exposure	3.1							44.2
		Uranium-234	1.2	4.9	1.9							
		Uranium-238	4.9									
Outdoor Worker - subsurface	2.95E-04	Arsenic	28.3	Ingestion	51.6	6.01	Antimony Arsenic Iron Mercury Nickel Silver Uranium	4.6	Ingestion Inhalation Dermal	26.6		
		Cadmium	0.3	Inhalation	3.4						0.7	
		Chromium	0.8	Dermal	43.1							72.8
		Neptunium-237	0.4	External	1.9						23.5	
		PCB, Total	55.8	Exposure	1.9							43.1
		Total PAH	10.2	0.7	2.2							
		Uranium-234	0.7									
Uranium-238	3.1											

Table D4.156. Summary of Risk Characterization for SWMU 15, EU 4 (Continued)

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total Worker for %	Total HI	COCs	%Total	Routes of Exposure	%Total Worker for %
Excavation Worker - subsurface	3.69E-06	Arsenic PCB, Total	28.3 55.8	See Outdoor Worker (subsurface) for %	1.88	Arsenic Iron Mercury Nickel	8.7 9.6 23.5 43.1	See Outdoor Worker (subsurface) for %	5.9 0.5 93.6	
Future Adult Resident - surface	7.77E-04	Arsenic Cadmium Chromium Neptunium-237 PCB, Total Total PAH Uranium-234 Uranium-235 Uranium-238	18.9 0.2 0.8 1.9 53.9 16.2 0.3 0.7 7.0	Ingestion Inhalation Dermal External Exposure	25.9 3.5 61.7 8.9	10.41	Antimony Arsenic Iron Mercury Nickel Silver Uranium	4.9 4.1 5.7 25.8 52.6 2.2 2.6	Ingestion Inhalation Dermal	
Future Child Resident - surface	7.77E-04	Arsenic Cadmium Chromium Neptunium-237 PCB, Total Total PAH Uranium-234 Uranium-235 Uranium-238	18.9 0.2 0.8 1.9 53.9 16.2 0.3 0.7 7.0	Ingestion Inhalation Dermal External Exposure	25.9 3.5 61.7 8.9	28.34	Antimony Arsenic Copper Iron Manganese Mercury Nickel Silver Uranium	4.7 7.4 1.4 8.6 1.3 23.3 46.8 2.0 4.0	Ingestion Inhalation Dermal	
Future Teen Recreational User - surface	1.40E-04	Arsenic PCB, Total Total PAH Uranium-238	14.0 63.8 19.4 1.6	Ingestion Inhalation Dermal External Exposure	3.0 1.8 93.2 2.1	8.45	Antimony Arsenic Iron Mercury Nickel Silver Uranium	4.9 3.0 4.7 26.6 54.6 2.3 2.2	Ingestion Inhalation Dermal	

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.157. Summary of Risk Characterization for SWMU 15, EU 5

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total	Total HI	COCs	%Total	Routes of Exposure	%Total
Current Industrial Worker - surface	9.39E-06	PCB, Total	79.9	Ingestion Inhalation Dermal External Exposure	8.4 6.6 79.5 5.4	0.12	*no COCs			
Future Industrial Worker - surface	1.68E-04	Arsenic Chromium Neptunium-237 PCB, Total Total PAH Uranium-235 Uranium-238	7.7 0.8 1.5 79.9 5.1 0.7 3.6	Ingestion Inhalation Dermal External Exposure	8.4 6.6 79.5 5.4	2.18	Antimony Copper Nickel Silver Uranium	5.6 18.0 54.6 6.2 9.1	Ingestion Inhalation Dermal	6.7 0.4 92.9
Outdoor Worker - surface	2.14E-04	Arsenic Chromium Neptunium-237 PCB, Total Technetium-99 Total PAH Uranium-234 Uranium-235 Uranium-238	14.4 0.5 1.0 72.3 0.9 4.9 1.0 0.5 4.1	Ingestion Inhalation Dermal External Exposure	47.0 3.8 46.1 3.1	2.54	Antimony Arsenic Copper Nickel Silver Uranium	4.5 7.6 28.6 37.8 4.3 14.5	Ingestion Inhalation Dermal	40.8 0.2 59.0
Outdoor Worker - subsurface	2.08E-04	Arsenic Chromium Neptunium-237 PCB, Total Technetium-99 Total PAH Uranium-234 Uranium-238	15.4 0.8 0.8 74.2 0.9 3.3 0.7 3.3	Ingestion Inhalation Dermal External Exposure	46.9 4.2 46.3 2.5	3.47	Arsenic Copper Iron Mercury Nickel Silver Uranium	5.8 21.0 4.9 28.3 18.9 3.3 12.1	Ingestion Inhalation Dermal	38.1 0.5 61.4

Table D4.157. Summary of Risk Characterization for SWMU 15, EU 5 (Continued)

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total Worker for %	Total HI	COCs	%Total	Routes of Exposure	%Total Worker for %
Excavation Worker - subsurface	2.60E-06	PCB, Total	74.2	See Outdoor Worker (subsurface) for %	1.09	1.09	Copper Mercury Nickel Uranium	21.0 28.3 18.9 12.1	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	5.30E-04	Arsenic Cadmium Chromium Neptunium-237 PCB, Total Technetium-99 Total PAH Uranium-234 Uranium-235 Uranium-238	10.3 0.4 0.5 2.4 74.3 0.2 5.0 0.2 1.1 5.6	Ingestion Inhalation Dermal External Exposure	22.8 4.1 64.5 8.6	3.86	Antimony Arsenic Copper Nickel Silver Uranium	5.5 4.1 19.2 52.6 6.0 9.7	Ingestion Inhalation Dermal	10.6 0.2 89.2
Future Child Resident - surface	5.30E-04	Arsenic Cadmium Chromium Neptunium-237 PCB, Total Technetium-99 Total PAH Uranium-234 Uranium-235 Uranium-238	10.3 0.4 0.5 2.4 74.3 0.2 5.0 0.2 1.1 5.6	Ingestion Inhalation Dermal External Exposure	22.8 4.1 64.5 8.6	11.75	Antimony Arsenic Copper Mercury Nickel Silver Uranium Zinc	4.8 6.6 26.0 1.3 41.9 4.8 13.2 0.9	Ingestion Inhalation Dermal	32.5 0.3 67.2
Future Teen Recreational User - surface	9.95E-05	Arsenic PCB, Total Total PAH Uranium-238	7.2 84.4 5.7 1.2	Ingestion Inhalation Dermal External Exposure	2.5 2.0 93.5 1.9	3.01	Antimony Copper Nickel Silver Uranium	5.8 16.5 56.9 6.5 8.4	Ingestion Inhalation Dermal	1.8 0.1 98.1

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.158. Summary of Risk Characterization for SWMU 15, EU 6

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI		
Current Industrial Worker - surface	4.96E-06	PCB, Total	37.1	Ingestion	10.3	<0.1	*no COCs					
		Total PAH	31.0	Inhalation	5.1							
				Dermal	71.4							
				External Exposure	13.3							
Future Industrial Worker - surface	8.85E-05	Arsenic	14.1	Ingestion	10.3	1.57	Antimony	12.9	Ingestion	6.5		
		Chromium	2.2	Inhalation	5.1		Cobalt	9.8	Inhalation	0.5		
		Neptunium-237	2.7	Dermal	71.4		Iron	8.0	Dermal	93.0		
		PCB, Total	37.1	External Exposure	13.3		Nickel	48.3				
		Total PAH	31.0				Silver	6.5				
		Uranium-235	1.6									
Uranium-238	10.2											
Outdoor Worker - surface	1.23E-04	Arsenic	24.3	Ingestion	52.3	1.80	Antimony	10.5	Ingestion	40.0		
		Chromium	1.2	Inhalation	2.7		Arsenic	10.4	Inhalation	0.3		
		Neptunium-237	1.6	Dermal	37.9		Cobalt	15.6	Dermal	59.7		
		PCB, Total	30.8	External Exposure	7.1		Iron	12.9				
		Total PAH	27.1				Nickel	33.8				
		Uranium-234	2.5				Uranium	6.4				
		Uranium-235	1.0									
Uranium-238	10.6											
Outdoor Worker - subsurface	1.10E-04	Arsenic	26.3	Ingestion	52.6	2.39	Antimony	6.2	Ingestion	31.3		
		Chromium	1.3	Inhalation	3.0		Arsenic	7.6	Inhalation	0.7		
		Neptunium-237	1.4	Dermal	38.3		Cobalt	8.2	Dermal	68.0		
		PCB, Total	34.5	External Exposure	6.2		Iron	9.8				
		Total PAH	23.4				Mercury	30.4				
		Uranium-234	2.2				Nickel	25.6				
Uranium-238	9.3			Uranium	4.5							

Table D4.158. Summary of Risk Characterization for SWMU 15, EU 6 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	1.38E-06			See Outdoor Worker (subsurface)	0.75	Mercury Nickel	30.4 25.6	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	3.04E-04	Arsenic Cadmium Chromium Neptunium-237 PCB, Total Total PAH Uranium-234 Uranium-235 Uranium-238	17.4 0.6 1.2 3.9 31.8 27.5 0.6 2.4 14.6	Ingestion Inhalation Dermal External Exposure	2.76	Antimony Arsenic Cobalt Iron Nickel Silver Uranium	12.6 5.6 10.4 8.6 46.7 6.3 4.3	Ingestion Inhalation Dermal	10.3 0.3 89.4
Future Child Resident - surface	3.04E-04	Arsenic Cadmium Chromium Neptunium-237 PCB, Total Total PAH Uranium-234 Uranium-235 Uranium-238	17.4 0.6 1.2 3.9 31.8 27.5 0.6 2.4 14.6	Ingestion Inhalation Dermal External Exposure	8.35	Antimony Arsenic Cobalt Copper Iron Mercury Nickel Silver Uranium	11.1 9.1 14.2 2.8 11.7 2.3 37.4 5.0 5.8	Ingestion Inhalation Dermal	31.7 0.4 67.8
Future Teen Recreational User - surface	4.90E-05	Arsenic PCB, Total Total PAH Uranium-238	14.3 42.1 36.9 3.7	Ingestion Inhalation Dermal External Exposure	2.16	Antimony Cobalt Iron Nickel Silver	13.3 8.9 7.4 50.4 6.8	Ingestion Inhalation Dermal	1.8 0.1 98.1

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.159. Summary of Risk Characterization for SWMU 15, EU 7

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	9.27E-06	PCB, Total	82.6	Ingestion	8.7	0.10	*no COCs			
				Inhalation	7.5					
				Dermal	80.1					
				External Exposure	3.7					
Future Industrial Worker - surface	1.66E-04	Arsenic Chromium PCB, Total Total PAH Uranium-235 Uranium-238	9.7	Ingestion	8.7	1.85	Arsenic Iron Nickel Silver	5.5 7.4 70.4 6.5	Ingestion Inhalation Dermal	4.8 1.8 93.4
			1.6	Inhalation	7.5					
			82.6	Dermal	80.1					
			1.6	External Exposure	3.7					
Outdoor Worker - surface	2.14E-04	Arsenic Chromium PCB, Total Total PAH Uranium-234 Uranium-238	18.1	Ingestion	47.6	1.94	Arsenic Iron Nickel	12.5 13.1 54.3	Ingestion Inhalation Dermal	32.6 1.3 66.1
			0.9	Inhalation	4.3					
			74.0	Dermal	45.9					
			1.5	External Exposure	2.1					
Outdoor Worker - subsurface	2.47E-04	Arsenic Beryllium Chromium PCB, Total Total PAH Uranium-234 Uranium-238	15.7	Ingestion	41.7	2.04	Arsenic Iron Nickel	11.9 12.9 51.7	Ingestion Inhalation Dermal	33.5 1.3 65.2
			15.4	Inhalation	3.6					
			0.6	Dermal	53.3					
			63.7	External Exposure	1.4					

Table D4.159. Summary of Risk Characterization for SWMU 15, EU 7 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI	
Excavation Worker - subsurface	3.09E-06	PCB, Total	63.7	See Outdoor Worker (subsurface)	0.64	Nickel	51.7	See Outdoor Worker (subsurface) for %		
Future Adult Resident - surface	5.19E-04	Arsenic	13.1	Ingestion	3.22	Arsenic	6.2	Ingestion	7.7	
		Cadmium	0.2	Inhalation		8.0	Iron	8.0	Inhalation	0.9
		Chromium	1.0	Derma		65.5	Nickel	69.1	Derma	91.3
		Neptunium-237	0.8	External Exposure		5.9	Silver	6.3		
		PCB, Total	77.4							
		Total PAH	1.6							
		Uranium-234	0.3							
		Uranium-235	1.1							
		Uranium-238	4.5							
Future Child Resident - surface	5.19E-04	Arsenic	13.1	Ingestion	9.21	Antimony	1.5	Ingestion	25.3	
		Cadmium	0.2	Inhalation		4.7	Arsenic	10.6	Inhalation	1.5
		Chromium	1.0	Derma		65.5	Copper	4.3	Derma	73.2
		Neptunium-237	0.8	External Exposure		5.9	Iron	11.5		
		PCB, Total	77.4				Manganese	2.9		
		Total PAH	1.6				Nickel	58.5		
		Uranium-234	0.3				Silver	5.4		
		Uranium-235	1.1				Uranium	4.2		
		Uranium-238	4.5							
Future Teen Recreational User - surface	9.88E-05	Arsenic	9.2	Ingestion	2.56	Arsenic	4.6	Ingestion	1.3	
		PCB, Total	86.9	Inhalation		2.3	Iron	6.7	Inhalation	0.5
		Total PAH	1.8	Derma		93.8	Nickel	73.2	Derma	98.2
				External Exposure		1.3	Silver	6.7		

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.160. Summary of Risk Characterization for SWMU 15, EU 8

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	2.94E-06	PCB, Total	49.8	Ingestion Inhalation Dermal External Exposure	10.9 8.6 70.0 10.6	0.12	*no COCs			
		Arsenic Chromium Neptunium-237 PCB, Total Total PAH Uranium-238	22.3 4.9 2.6 49.8 11.6 7.4	Ingestion Inhalation Dermal External Exposure	10.9 8.6 70.0 10.6		Antimony Iron Mercury Nickel Silver	10.0 5.3 52.4 20.0 5.9	Ingestion Inhalation Dermal	3.6 0.2 96.2
Outdoor Worker - surface	7.50E-05	Arsenic Chromium Neptunium-237 PCB, Total Total PAH Uranium-238	37.4 2.5 1.5 40.3 9.9 7.5	Ingestion Inhalation Dermal External Exposure	53.9 4.4 36.2 5.5	2.06	Antimony Arsenic Iron Mercury Nickel Silver	9.7 8.5 10.1 45.1 16.6 4.9	Ingestion Inhalation Dermal	26.4 0.1 73.4
		Arsenic Chromium PCB, Total Total PAH Uranium-238	39.0 2.6 42.8 8.2 5.5	Ingestion Inhalation Dermal External Exposure	54.2 4.6 37.1 4.1		Antimony Arsenic Iron Mercury Nickel Silver	6.6 8.5 10.3 45.8 16.9 5.3	Ingestion Inhalation Dermal	26.7 0.6 72.6

Table D4.160. Summary of Risk Characterization for SWMU 15, EU 8 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)		0.64	Mercury Nickel	45.8 16.9	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	1.80E-04	Arsenic Chromium Neptunium-237 PCB, Total Total PAH Uranium-235 Uranium-238	27.6 2.8 3.8 42.8 10.3 2.2 10.7	Ingestion Inhalation Dermal External Exposure	27.1 4.9 52.5 15.5	3.69	Antimony Arsenic Iron Mercury Nickel Silver	10.0 3.9 5.8 51.8 19.6 5.8	Ingestion Inhalation Dermal	5.8 0.1 94.1
Future Child Resident - surface	1.80E-04	Arsenic Chromium Neptunium-237 PCB, Total Total PAH Uranium-235 Uranium-238	27.6 2.8 3.8 42.8 10.3 2.2 10.7	Ingestion Inhalation Dermal External Exposure	27.1 4.9 52.5 15.5	9.99	Antimony Arsenic Iron Mercury Nickel Silver Uranium	9.8 7.1 8.8 47.1 17.5 5.2 3.2	Ingestion Inhalation Dermal	20.1 0.1 79.8
Future Teen Recreational User - surface	2.86E-05	Arsenic PCB, Total Total PAH	22.9 57.2 13.9	Ingestion Inhalation Dermal External Exposure	3.5 2.9 89.6 4.1	3.01	Antimony Iron Mercury Nickel Silver	10.1 4.7 53.4 20.3 6.0	Ingestion Inhalation Dermal	1.0 0.0 99.0

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.161. Summary of Risk Characterization for SWMU 15, EU 9

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	1.42E-06	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	2.53E-05	Arsenic Chromium PCB, Total Total PAH Uranium-238	43.7 12.5 6.9 15.9 16.5	Ingestion Inhalation Dermal External Exposure	15.0 13.2 52.9 18.9	0.72	Iron Nickel Silver	15.3 48.3 19.9	Ingestion Inhalation Dermal	6.8 0.4 92.8
Outdoor Worker - surface	4.29E-05	Arsenic Chromium PCB, Total Total PAH Uranium-238	62.0 5.5 4.7 11.5 14.2	Ingestion Inhalation Dermal External Exposure	62.9 5.8 23.1 8.2	0.85	Arsenic Iron Nickel Silver	19.6 24.1 33.2 13.7	Ingestion Inhalation Dermal	41.3 0.2 58.5
Outdoor Worker - subsurface	4.32E-05	Arsenic Chromium PCB, Total Total PAH Uranium-238	70.6 5.1 4.7 8.8 9.2	Ingestion Inhalation Dermal External Exposure	65.6 5.4 23.6 5.5	1.57	Arsenic Iron Mercury Nickel Silver	12.1 14.2 38.5 17.9 7.3	Ingestion Inhalation Dermal	31.5 1.8 66.8

Table D4.161. Summary of Risk Characterization for SWMU 15, EU 9 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.49	Mercury	38.5	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	9.65E-05	Arsenic Chromium Neptunium-237 PCB, Total Total PAH Uranium-235 Uranium-238	48.6 6.4 2.5 5.4 12.7 3.2 21.3	Ingestion Inhalation Dermal External Exposure	1.27	Arsenic Iron Nickel Silver	10.8 16.3 46.5 19.2	Ingestion Inhalation Dermal	10.8 0.2 89.0
Future Child Resident - surface	9.65E-05	Arsenic Chromium Neptunium-237 PCB, Total Total PAH Uranium-235 Uranium-238	48.6 6.4 2.5 5.4 12.7 3.2 21.3	Ingestion Inhalation Dermal External Exposure	3.90	Arsenic Iron Nickel Silver Uranium	17.2 22.0 36.8 15.2 5.7	Ingestion Inhalation Dermal	33.0 0.3 66.7
Future Teen Recreational User - surface	1.16E-05	Arsenic PCB, Total Total PAH	53.6 9.5 22.8	Ingestion Inhalation Dermal External Exposure	0.99	Iron Nickel Silver	14.0 50.4 20.9	Ingestion Inhalation Dermal	1.9 0.1 98.0

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.162. Summary of Risk Characterization for SWMU 15, EU 10

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	3.36E-06	Chromium Total PAH	35.0	Ingestion	4.9	1.38	Mercury Nickel Silver	63.3	Ingestion	2.0
			64.5	Inhalation	35.6			24.7	Inhalation	0.1
				Dermal External Exposure	59.6			7.3	Dermal	97.8
Outdoor Worker - surface	3.53E-06	Total PAH	75.0	Ingestion	33.0	1.20	Mercury Nickel Uranium	60.7	Ingestion	16.6
				Inhalation	25.0			22.9	Inhalation	0.1
				Dermal External Exposure	42.0			9.3	Dermal	83.3
Outdoor Worker - subsurface	2.68E-05	Arsenic Chromium Total PAH	87.6	Ingestion	70.6	1.37	Arsenic Mercury Nickel Uranium	10.7	Ingestion	22.8
			5.8	Inhalation	5.9			52.9	Inhalation	0.2
			6.6	Dermal External Exposure	23.6			22.0	Dermal	77.0

Table D4.162. Summary of Risk Characterization for SWMU 15, EU 10 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.43	Mercury	52.9	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	8.92E-06	Chromium Total PAH	25.6 74.1	Ingestion Inhalation Dermal External Exposure	2.37	Mercury Nickel Silver Uranium	63.1 24.5 7.3 4.8	Ingestion Inhalation Dermal	3.3 0.1 96.6
Future Child Resident - surface	8.92E-06	Chromium Total PAH	25.6 74.1	Ingestion Inhalation Dermal External Exposure	5.98	Mercury Nickel Silver Uranium	61.4 23.5 6.9 7.9	Ingestion Inhalation Dermal	12.2 0.1 87.6
Future Teen Recreational User - surface	1.65E-06	Total PAH	86.8	Ingestion Inhalation Dermal External Exposure	1.97	Mercury Nickel Silver	63.6 24.8 7.4	Ingestion Inhalation Dermal	0.5 0.0 99.4

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.163. Summary of Risk Characterization for SWMU 16, EU 1

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	1.37E-05	Cesium-137	92.9	Ingestion Inhalation Dermal External Exposure	0.6 0.3 6.3 92.8	<0.1	*no COCs			
Outdoor Worker - surface	1.07E-05	Cesium-137	89.2	Ingestion Inhalation Dermal External Exposure	5.5 0.3 6.0 88.2	<0.1	*no COCs			
Outdoor Worker - subsurface	4.65E-05	Beryllium Cesium-137	77.0 20.6	Ingestion Inhalation Dermal External Exposure	8.4 0.1 71.2 20.3	<0.1	*no COCs			

Table D4.163. Summary of Risk Characterization for SWMU 16, EU 1 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)		<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	6.73E-05	Cesium-137 PCB, Total Total PAH	95.7 2.2 2.1	Ingestion Inhalation Dermal External Exposure	1.0 0.1 3.3 95.6	<0.1	*no COCs			
Future Child Resident - surface	6.73E-05	Cesium-137 PCB, Total Total PAH	95.7 2.2 2.1	Ingestion Inhalation Dermal External Exposure	1.0 0.1 3.3 95.6	<0.1	*no COCs			
Future Teen Recreational User - surface	3.30E-06	Cesium-137	81.1	Ingestion Inhalation Dermal External Exposure	0.4 0.2 18.3 81.1	<0.1	*no COCs			

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.164. Summary of Risk Characterization for SWMU 16, EU 2

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	3.39E-06	Beryllium	98.9	Ingestion Inhalation Dermal External Exposure	1.0 1.1 97.8	<0.1	*no COCs			
Future Industrial Worker - surface	6.06E-05	Beryllium	98.9	Ingestion Inhalation Dermal External Exposure	1.0 1.1 97.8	<0.1	*no COCs			
Outdoor Worker - surface	4.89E-05	Beryllium	99.0	Ingestion Inhalation Dermal External Exposure	9.2 1.0 89.8	<0.1	*no COCs			
Outdoor Worker - subsurface	6.27E-05	Arsenic Beryllium Chromium	33.5 63.2 2.0	Ingestion Inhalation Dermal External Exposure	32.3 2.1 65.7	0.37	Arsenic Nickel	35.7 38.8	Ingestion Inhalation Dermal	33.4 0.3 66.3

Table D4.164. Summary of Risk Characterization for SWMU 16, EU 2 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)		0.11			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	1.59E-04	Beryllium Chromium	99.2 0.8	Ingestion Inhalation Dermal External Exposure	3.6 0.8 95.6	0.12	*no COCs			
Future Child Resident - surface	1.59E-04	Beryllium Chromium	99.2 0.8	Ingestion Inhalation Dermal External Exposure	3.6 0.8 95.6	0.30	Nickel	69.8	Ingestion Inhalation Dermal	6.5 0.5 93.1
Future Teen Recreational User - surface	4.16E-05	Beryllium	99.7	Ingestion Inhalation Dermal External Exposure	0.3 0.3 99.4	0.10	*no COCs			

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.165. Summary of Risk Characterization for SWMU 16, EU 3

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	5.06E-06	PCB, Total	100.0	Ingestion Inhalation Dermal External Exposure	6.6 7.1 86.3	<0.1	*no COCs			
Outdoor Worker - surface	5.85E-06	PCB, Total	100.0	Ingestion Inhalation Dermal External Exposure	40.3 4.6 55.2	<0.1	*no COCs			
Outdoor Worker - subsurface	6.58E-05	Arsenic Beryllium Chromium PCB, Total	31.6 53.8 1.7 12.8	Ingestion Inhalation Dermal External Exposure	34.6 2.4 63.1	0.40	Arsenic Nickel	32.8 33.8	Ingestion Inhalation Dermal	43.3 4.0 52.6

Table D4.165. Summary of Risk Characterization for SWMU 16, EU 3 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)		0.12			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	1.49E-05	PCB, Total	100.0	Ingestion Inhalation Dermal External Exposure	20.0 4.7 75.3	<0.1	*no COCs			
Future Child Resident - surface	1.49E-05	PCB, Total	100.0	Ingestion Inhalation Dermal External Exposure	20.0 4.7 75.3	<0.1	*no COCs			
Future Teen Recreational User - surface	3.17E-06	PCB, Total	100.0	Ingestion Inhalation Dermal External Exposure	1.9 2.1 96.0	<0.1	*no COCs			

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.166. Summary of Risk Characterization for SWMU 16, EU 4

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total	Total HI	COCs	%Total	Routes of Exposure	%Total
Current Industrial Worker - surface	3.86E-05	Cesium-137	61.6	Ingestion	4.3	<0.1	*no COCs			
		Neptunium-237	3.8	Inhalation	0.2					
		Total PAH	7.2	Dermal	6.8					
		Uranium-235	3.0	External	88.7					
		Uranium-238	23.0	Exposure						
Future Industrial Worker - surface	6.90E-04	Cesium-137	61.6	Ingestion	4.3	<0.1	*no COCs			
		Neptunium-237	3.8	Inhalation	0.2					
		PCB, Total	0.2	Dermal	6.8					
		Total PAH	7.2	External	88.7					
		Uranium-234	0.9	Exposure						
Uranium-235	3.0									
Uranium-238	23.0									
Outdoor Worker - surface	7.00E-04	Cesium-137	45.4	Ingestion	30.2	<0.1	*no COCs			
		Neptunium-237	3.1	Inhalation	0.1					
		PCB, Total	0.3	Dermal	5.0					
		Technetium-99	0.7	External	64.7					
		Thorium-230	0.3	Exposure						
Total PAH	8.6									
Uranium-234	6.0									
Uranium-235	2.6									
Uranium-238	32.9									
Outdoor Worker - subsurface	6.83E-04	Cesium-137	46.5	Ingestion	30.0	0.22	Nickel		75.7	22.8
		Neptunium-237	3.2	Inhalation	0.1					
		PCB, Total	0.4	Dermal	3.7					
		Technetium-99	0.9	External	66.3					
		Thorium-230	0.4	Exposure						
Total PAH	6.2									
Uranium-234	6.2									
Uranium-235	2.6									
Uranium-238	33.7									

Table D4.166. Summary of Risk Characterization for SWMU 16, EU 4 (Continued)

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total Worker for %	Total HI	COCs	%Total	Routes of Exposure	%Total Worker for %
Excavation Worker - subsurface	8.54E-06	Cesium-137 Uranium-238	46.5 33.7	See Outdoor Worker (subsurface) for %		<0.1	*no COCs		See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	3.34E-03	Cesium-137 Cobalt-60 Neptunium-237 PCB, Total Technetium-99 Thorium-230 Total PAH Uranium-234 Uranium-235 Uranium-238	64.0 0.1 3.9 0.1 0.1 0.0 4.5 0.7 3.1 23.3	Ingestion Inhalation Dermal External Exposure	4.2 0.0 3.6 92.2	<0.1	*no COCs			
Future Child Resident - surface	3.34E-03	Cesium-137 Cobalt-60 Neptunium-237 PCB, Total Technetium-99 Thorium-230 Total PAH Uranium-234 Uranium-235 Uranium-238	64.0 0.1 3.9 0.1 0.1 0.0 4.5 0.7 3.1 23.3	Ingestion Inhalation Dermal External Exposure	4.2 0.0 3.6 92.2	<0.1	*no COCs			
Future Teen Recreational User - surface	1.65E-04	Cesium-137 Neptunium-237 PCB, Total Total PAH Uranium-235 Uranium-238	54.0 3.3 0.6 19.7 2.6 19.1	Ingestion Inhalation Dermal External Exposure	2.2 0.1 19.9 77.8	<0.1	*no COCs		Ingestion Inhalation Dermal	

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.167. Summary of Risk Characterization for SWMU 518

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	4.66E-06	Total PAH	94.1	Ingestion	7.5	<0.1	*no COCs			
				Inhalation	0.5					
				Dermal	90.8					
				External Exposure	1.1					
Future Industrial Worker - surface	8.32E-05	PCB, Total Total PAH	4.0 94.1	Ingestion	7.5	0.31	Uranium	66.2	Ingestion	15.5
				Inhalation	0.5				Inhalation	0.8
				Dermal	90.8				Dermal	83.7
				External Exposure	1.1					
Outdoor Worker - surface	1.02E-04	PCB, Total Total PAH Uranium-238	3.8 94.2 1.3	Ingestion	43.9	0.53	Cobalt Uranium	22.4 71.0	Ingestion	63.8
				Inhalation	0.3				Inhalation	0.3
				Dermal	55.1				Dermal	35.8
				External Exposure	0.7					
Outdoor Worker - subsurface	1.17E-04	Arsenic PCB, Total Total PAH Uranium-238	13.3 3.3 81.7 1.1	Ingestion	48.4	0.63	Cobalt Uranium	18.9 60.0	Ingestion	65.9
				Inhalation	0.3				Inhalation	0.4
				Dermal	50.8				Dermal	33.8
				External Exposure	0.6					

Table D4.167. Summary of Risk Characterization for SWMU 518 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	1.46E-06	Total PAH	81.7	See Outdoor Worker (subsurface)	0.20	0.20	Uranium	60.0	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	2.55E-04	Carbazole	0.5	Ingestion	21.9	0.57	Cobalt Uranium	21.2	Ingestion	23.3
		PCB, Total	3.9	Inhalation	0.3				Inhalation	0.4
		Total PAH	93.5	Derma	76.0				Derma	76.3
		Uranium-238	1.7	External Exposure	1.9					
Future Child Resident - surface	2.55E-04	Carbazole	0.5	Ingestion	21.9	2.25	Cobalt Nickel Uranium	22.2	Ingestion	55.2
		PCB, Total	3.9	Inhalation	0.3				Inhalation	0.5
		Total PAH	93.5	Derma	76.0				Derma	44.3
		Uranium-238	1.7	External Exposure	1.9					
Future Teen Recreational User - surface	5.42E-05	PCB, Total	3.9	Ingestion	2.1	0.39	Uranium	65.4	Ingestion	4.6
		Total PAH	95.2	Inhalation	0.1				Inhalation	0.2
				Derma	97.4				Derma	95.2
				External Exposure	0.4					

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.168. Summary of Risk Characterization for SWMU 520, EU 1

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	1.04E-06	*no COCs				0.11	*no COCs			
Future Industrial Worker - surface	1.87E-05	Cesium-137	59.9	Ingestion	5.7	2.00	Mercury	59.3	Ingestion	2.0
		Chromium	5.6	Inhalation	6.2		Nickel	30.4	Inhalation	0.2
		Neptunium-237	13.0	Dermal	2.7		Silver	6.0	Dermal	97.9
		Uranium-238	12.4	External Exposure	85.4					
Outdoor Worker - surface	2.06E-05	Cesium-137	40.5	Ingestion	36.8	1.73	Iron	6.6	Ingestion	16.3
		Neptunium-237	9.7	Inhalation	4.1		Mercury	57.0	Inhalation	0.1
		Thorium-230	25.1	Dermal	1.8		Nickel	28.3	Dermal	83.6
		Uranium-238	16.3	External Exposure	57.3					
Outdoor Worker - subsurface	7.38E-05	Arsenic	28.8	Ingestion	35.8	2.18	Arsenic	6.1	Ingestion	25.9
		Beryllium	45.0	Inhalation	2.1		Cobalt	8.6	Inhalation	0.8
		Cesium-137	10.0	Dermal	47.9		Iron	5.8	Dermal	73.2
		Chromium	2.0	External Exposure	14.1		Mercury	45.4		
		Neptunium-237	2.2	External Exposure			Nickel	22.1		
		Thorium-230	6.3				Silver	4.8		

Table D4.168. Summary of Risk Characterization for SWMU 520, EU 1 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)		0.68	Mercury Nickel	45.4 22.1	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	8.83E-05	Cesium-137 Chromium Neptunium-237 Thorium-230 Total PAH Uranium-235 Uranium-238	63.7 2.3 13.8 3.6 1.9 1.8 12.9	Ingestion Inhalation Dermal External Exposure	5.1 2.5 1.4 91.0	3.44	Iron Mercury Nickel Silver	3.4 59.1 30.1 6.0	Ingestion Inhalation Dermal	3.2 0.1 96.7
Future Child Resident - surface	8.83E-05	Cesium-137 Chromium Neptunium-237 Thorium-230 Total PAH Uranium-235 Uranium-238	63.7 2.3 13.8 3.6 1.9 1.8 12.9	Ingestion Inhalation Dermal External Exposure	5.1 2.5 1.4 91.0	8.68	Iron Mercury Nickel Silver Uranium	5.6 57.7 28.9 5.7 1.9	Ingestion Inhalation Dermal	12.0 0.2 87.9
Future Teen Recreational User - surface	4.02E-06	Cesium-137	58.3	Ingestion Inhalation Dermal External Exposure	3.0 5.1 8.6 83.2	2.87	Mercury Nickel Silver	59.6 30.5 6.1	Ingestion Inhalation Dermal	0.5 0.0 99.4

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.169. Summary of Risk Characterization for SWMU 520, EU 2

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	2.81E-06	Beryllium	82.2	Ingestion	1.9	0.12	*no COCs			
			4.5	Inhalation	4.5					
			91.2	Dermal	91.2					
			2.4	External Exposure	2.4					
Future Industrial Worker - surface	5.02E-05	Beryllium Chromium Total PAH Uranium-238	82.2	Ingestion	1.9	2.13	Mercury Nickel	62.1 34.1	Ingestion Inhalation Dermal	1.7 0.8 97.5
			4.4	Inhalation	4.5					
			10.7	Dermal	91.2					
			2.1	External Exposure	2.4					
Outdoor Worker - surface	4.33E-05	Beryllium Chromium Total PAH Uranium-238	77.0	Ingestion	15.8	1.80	Mercury Nickel	61.1 32.5	Ingestion Inhalation Dermal	14.1 0.7 85.2
			3.8	Inhalation	3.9					
			15.1	Dermal	78.3					
			3.5	External Exposure	2.0					
Outdoor Worker - subsurface	3.22E-05	Arsenic Chromium Total PAH Uranium-238	73.9	Ingestion	66.6	1.94	Arsenic Mercury Nickel	7.6 56.7 30.1	Ingestion Inhalation Dermal	19.0 0.7 80.3
			5.1	Inhalation	5.2					
			16.2	Dermal	25.8					
			4.2	External Exposure	2.4					

Table D4.169. Summary of Risk Characterization for SWMU 520, EU 2 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.61	Mercury Nickel	56.7 30.1	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	1.36E-04	Beryllium Chromium Neptunium-237 Total PAH Uranium-238	80.0 3.2 1.0 12.0 3.8	Ingestion Inhalation Dermal External Exposure	3.64	Mercury Nickel	62.2 34.0	Ingestion Inhalation Dermal	2.7 0.4 96.8
Future Child Resident - surface	1.36E-04	Beryllium Chromium Neptunium-237 Total PAH Uranium-238	80.0 3.2 1.0 12.0 3.8	Ingestion Inhalation Dermal External Exposure	9.08	Manganese Mercury Nickel Uranium	1.5 61.3 33.0 3.2	Ingestion Inhalation Dermal	10.3 0.8 88.9
Future Teen Recreational User - surface	3.28E-05	Beryllium Total PAH	87.2 10.7	Ingestion Inhalation Dermal External Exposure	3.04	Mercury Nickel	62.5 34.3	Ingestion Inhalation Dermal	0.4 0.2 99.3

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.170. Summary of Risk Characterization for SWMU 520, EU 3

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	4.26E-06	Chromium Total PAH	30.9	Ingestion	6.0	0.77	Nickel Silver	80.6	Ingestion	1.6
			46.8	Inhalation	31.7			15.3	Inhalation	0.4
				Derma External Exposure	43.2 19.2				Derma External Exposure	98.0
Outdoor Worker - surface	4.77E-06	Total PAH Uranium-238	51.1	Ingestion	37.8	0.65	Nickel	77.2	Ingestion	13.5
			28.1	Inhalation	20.9			0.4	Inhalation	0.4
				Derma External Exposure	28.6 12.7				Derma External Exposure	86.1
Outdoor Worker - subsurface	2.95E-05	Arsenic Chromium Total PAH Uranium-238	85.4	Ingestion	70.4	1.54	Arsenic Mercury Nickel	10.2	Ingestion	19.2
			5.5	Inhalation	5.6			39.9	Inhalation	0.2
			5.2	Derma	22.3			40.4	Derma	80.6
			3.9	External Exposure	1.7				External Exposure	

Table D4.170. Summary of Risk Characterization for SWMU 520, EU 3 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)		0.48	Mercury Nickel	39.9 40.4	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	1.32E-05	Chromium Total PAH Uranium-238	19.3 46.0 34.3	Ingestion Inhalation Dermal External Exposure	13.4 19.8 35.7 31.2	1.31	Nickel Silver	80.3 15.3	Ingestion Inhalation Dermal	2.6 0.2 97.1
Future Child Resident - surface	1.32E-05	Chromium Total PAH Uranium-238	19.3 46.0 34.3	Ingestion Inhalation Dermal External Exposure	13.4 19.8 35.7 31.2	3.26	Nickel Silver Uranium	78.3 14.9 4.3	Ingestion Inhalation Dermal	9.9 0.4 89.7
Future Teen Recreational User - surface	1.74E-06	Total PAH	75.4	Ingestion Inhalation Dermal External Exposure	2.2 14.1 73.8 9.9	1.10	Nickel Silver	80.9 15.5	Ingestion Inhalation Dermal	0.4 0.1 99.5

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.171. Summary of Risk Characterization for SWMU 520, EU 4

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs			0.10		*no COCs			
Future Industrial Worker - surface	1.76E-05	Chromium	7.2	Ingestion	6.6	1.87	Mercury	57.7	Ingestion	1.6
		Neptunium-237	15.5	Inhalation	7.5		Nickel	35.3	Inhalation	0.2
		Total PAH	52.9	Derma	48.8				Derma	98.3
		Uranium-238	20.9	External Exposure	37.1					
Outdoor Worker - surface	2.05E-05	Neptunium-237	11.0	Ingestion	40.4	1.57	Mercury	57.3	Ingestion	13.2
		Total PAH	55.6	Inhalation	4.8		Nickel	33.9	Inhalation	0.2
		Uranium-238	26.1	Derma	31.1				Derma	86.7
				External Exposure	23.7					
Outdoor Worker - subsurface	8.63E-05	Arsenic	26.1	Ingestion	34.9	25.62	Arsenic	0.5	Ingestion	10.2
		Beryllium	48.5	Inhalation	1.9		Iron	0.5	Inhalation	0.1
		Chromium	1.9	Derma	57.6		Mercury	3.5	Derma	89.7
		Neptunium-237	2.6	External Exposure	5.6		Nickel	2.1		
		Total PAH	13.2				Vanadium	92.6		
Uranium-238	6.2									

Table D4.171. Summary of Risk Characterization for SWMU 520, EU 4 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	1.08E-06			See Outdoor Worker (subsurface)	8.01	Mercury Nickel Vanadium	3.5 2.1 92.6	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	6.58E-05	Chromium Neptunium-237 Total PAH Uranium-235 Uranium-238	3.7 20.8 43.2 4.7 27.5	Ingestion Inhalation Dermal External Exposure	3.20	Mercury Nickel Silver	57.7 35.1 5.2	Ingestion Inhalation Dermal	2.5 0.1 97.4
Future Child Resident - surface	6.58E-05	Chromium Neptunium-237 Total PAH Uranium-235 Uranium-238	3.7 20.8 43.2 4.7 27.5	Ingestion Inhalation Dermal External Exposure	7.91	Mercury Nickel Silver Uranium	57.4 34.3 5.1 2.2	Ingestion Inhalation Dermal	9.6 0.2 90.2
Future Teen Recreational User - surface	7.81E-06	Total PAH	78.7	Ingestion Inhalation Dermal External Exposure	2.68	Mercury Nickel Silver	57.8 35.3 5.2	Ingestion Inhalation Dermal	0.4 0.1 99.5

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.172. Summary of Risk Characterization for SWMU 520, EU 5

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	9.20E-06	Chromium Total PAH	13.3	Ingestion	6.5	0.39	Nickel	89.0	Ingestion	1.2
			71.1	Inhalation	13.6			Inhalation	0.5	
				Dermal External Exposure	65.6 14.3			Dermal	98.3	
Outdoor Worker - surface	1.06E-05	Total PAH Uranium-238	75.3	Ingestion	40.0	0.32	Nickel	87.7	Ingestion	10.8
			11.7	Inhalation	8.7			Inhalation	0.4	
				Dermal External Exposure	42.1 9.2			Dermal	88.8	
Outdoor Worker - subsurface	7.53E-05	Arsenic Beryllium Chromium Total PAH Uranium-238	31.9	Ingestion	35.2	17.34	Arsenic Iron Mercury Nickel Vanadium	0.9	Ingestion	10.5
			53.6	Inhalation	1.7			Inhalation	0.1	
			1.6	Dermal	61.8			Dermal	89.5	
			10.6	External Exposure	1.3					
			1.6						93.0	

Table D4.172. Summary of Risk Characterization for SWMU 520, EU 5 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	5.42	Mercury Vanadium	3.7 93.0	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	2.94E-05	Chromium Neptunium-237 Total PAH Uranium-238	8.1 9.8 67.8 14.3	Ingestion Inhalation Dermal External Exposure	0.66	Nickel	88.9	Ingestion Inhalation Dermal	2.0 0.3 97.7
Future Child Resident - surface	2.94E-05	Chromium Neptunium-237 Total PAH Uranium-238	8.1 9.8 67.8 14.3	Ingestion Inhalation Dermal External Exposure	1.61	Antimony Nickel	10.8 88.1	Ingestion Inhalation Dermal	7.8 0.5 91.7
Future Teen Recreational User - surface	4.82E-06	Total PAH	89.3	Ingestion Inhalation Dermal External Exposure	0.55	Nickel	89.1	Ingestion Inhalation Dermal	0.3 0.1 99.5

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.173. Summary of Risk Characterization for SWMU 74

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	5.17E-06	Total PAH Uranium-238	57.9 24.5	Ingestion	8.6	<0.1	*no COCs			
				Inhalation	1.4					
				Dermal	68.2					
				External Exposure	21.7					
Future Industrial Worker - surface	9.23E-05	PCB, Total Total PAH Uranium-238	17.2 57.9 24.5	Ingestion	8.6	<0.1	*no COCs			
				Inhalation	1.4					
				Dermal	68.2					
				External Exposure	21.7					
Outdoor Worker - surface	1.19E-04	PCB, Total Total PAH Uranium-234 Uranium-238	15.4 54.8 2.2 27.6	Ingestion	47.6	<0.1	*no COCs			
				Inhalation	0.8					
				Dermal	39.1					
				External Exposure	12.5					
Outdoor Worker - subsurface	1.23E-04	Cesium-137 PCB, Total Total PAH Uranium-234 Uranium-238	3.4 14.9 52.9 2.2 26.7	Ingestion	46.0	<0.1	*no COCs			
				Inhalation	0.8					
				Dermal	37.8					
				External Exposure	15.4					

Table D4.173. Summary of Risk Characterization for SWMU 74 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	1.54E-06			See Outdoor Worker (subsurface)		<0.1			See Outdoor Worker (subsurface)	
Future Adult Resident - surface	3.22E-04	PCB, Total Total PAH Uranium-234 Uranium-238	14.5 50.5 0.5 34.5	Ingestion Inhalation Dermal External Exposure	17.7 0.8 50.1 31.4	<0.1	*no COCs			
Future Child Resident - surface	3.22E-04	PCB, Total Total PAH Uranium-234 Uranium-238	14.5 50.5 0.5 34.5	Ingestion Inhalation Dermal External Exposure	17.7 0.8 50.1 31.4	<0.1	*no COCs			
Future Teen Recreational User - surface	4.97E-05	PCB, Total Total PAH Uranium-238	20.0 70.8 9.1	Ingestion Inhalation Dermal External Exposure	2.5 0.5 88.5 8.5	<0.1	*no COCs			

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.174. Summary of Risk Characterization for SWMU 75

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	7.70E-06	Chromium PCB, Total Total PAH	30.9	Ingestion	5.7	0.24	Nickel	86.2	Ingestion	2.7
			15.9	Inhalation	32.2				Inhalation	0.5
			48.6	Derma External Exposure	62.1				Derma	96.8
Outdoor Worker - surface	8.47E-06	Chromium PCB, Total Total PAH	20.8	Ingestion	36.5	0.22	Nickel	76.1	Ingestion	21.3
			16.7	Inhalation	21.7				Inhalation	0.4
			53.9	Derma External Exposure	41.8				Derma	78.3
Outdoor Worker - subsurface	4.90E-05	Arsenic Chromium PCB, Total Total PAH	82.7	Ingestion	70.2	0.80	Arsenic Iron Nickel	31.6 40.9 20.9	Ingestion	57.7
			3.6	Inhalation	3.8				Inhalation	0.2
			2.9	Derma External Exposure	26.0				Derma	42.1

Table D4.174. Summary of Risk Characterization for SWMU 75 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.25	Iron	40.9	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	2.10E-05	Cadmium Chromium PCB, Total Total PAH	6.5 22.0 17.2 54.3	Ingestion Inhalation Dermal External Exposure	0.41	Nickel	85.3	Ingestion Inhalation Dermal	4.4 0.3 95.3
Future Child Resident - surface	2.10E-05	Cadmium Chromium PCB, Total Total PAH	6.5 22.0 17.2 54.3	Ingestion Inhalation Dermal External Exposure	1.08	Copper Nickel	15.8 79.0	Ingestion Inhalation Dermal	15.9 0.5 83.6
Future Teen Recreational User - surface	3.87E-06	Total PAH	63.6	Ingestion Inhalation Dermal External Exposure	0.34	Nickel	87.3	Ingestion Inhalation Dermal	0.7 0.1 99.1

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.175. Summary of Risk Characterization for SWMU 79

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	1.21E-05	PCB, Total Uranium-238	70.3	Ingestion	7.0	<0.1	*no COCs			
			15.8	Inhalation Dermal External Exposure	5.1 66.4 21.6					
Outdoor Worker - surface	1.44E-05	PCB, Total Uranium-238	68.8	Ingestion	41.8	<0.1	*no COCs			
			19.3	Inhalation Dermal External Exposure	3.2 41.5 13.5					
Outdoor Worker - subsurface	2.77E-06	Uranium-238	100.0	Ingestion	54.7	<0.1	*no COCs			
				Inhalation Dermal External Exposure	0.2 45.2					

Table D4.175. Summary of Risk Characterization for SWMU 79 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)		<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	4.15E-05	Neptunium-237 PCB, Total Total PAH Uranium-235 Uranium-238	7.5 60.4 5.5 4.0 22.6	Ingestion Inhalation Dermal External Exposure	15.5 2.9 49.8 31.8	<0.1	*no COCs			
Future Child Resident - surface	4.15E-05	Neptunium-237 PCB, Total Total PAH Uranium-235 Uranium-238	7.5 60.4 5.5 4.0 22.6	Ingestion Inhalation Dermal External Exposure	15.5 2.9 49.8 31.8	0.22	Barium	100.0	Ingestion Inhalation Dermal	9.0 1.3 89.7
Future Teen Recreational User - surface	6.42E-06	PCB, Total	83.3	Ingestion Inhalation Dermal External Exposure	2.1 1.8 87.5 8.6	<0.1	*no COCs			

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.176. Summary of Risk Characterization for SWMU 80

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total	Total HI	COCs	%Total	Routes of Exposure	%Total
Current Industrial Worker - surface	7.63E-05	Beryllium	4.1	Ingestion	10.7	0.31	Uranium	97.7	Ingestion	17.1
		PCB, Total	5.7	Inhalation	1.1				Inhalation	0.4
		Uranium-235	5.6	Dermal	9.1				Dermal	82.5
		Uranium-238	82.9	External Exposure	79.1					
Future Industrial Worker - surface	1.36E-03	Americium-241	0.1	Ingestion	10.7	5.47	Uranium	97.7	Ingestion	17.1
		Beryllium	4.1	Inhalation	1.1				Inhalation	0.4
		Chromium	0.4	Dermal	9.1				Dermal	82.5
		Neptunium-237	0.1	External Exposure	79.1					
		PCB, Total	5.7							
		Total PAH	0.2							
		Uranium-234	0.9							
		Uranium-235	5.6							
Uranium-238	82.9									
Outdoor Worker - surface	1.93E-03	Americium-241	0.2	Ingestion	53.4	10.00	Uranium	99.0	Ingestion	66.5
		Beryllium	2.3	Inhalation	0.6				Inhalation	0.2
		Chromium	0.2	Dermal	4.8				Dermal	33.4
		Neptunium-237	0.1	External Exposure	41.2					
		PCB, Total	4.7							
		Thorium-230	0.1							
		Total PAH	0.2							
		Uranium-234	4.2							
		Uranium-235	3.4							
		Uranium-238	84.7							
Outdoor Worker - subsurface	2.13E-03	Americium-241	0.2	Ingestion	52.6	10.15	Arsenic Uranium	1.5 97.5	Ingestion	66.6
		Arsenic	1.1	Inhalation	0.9				Inhalation	0.2
		Beryllium	2.1	Dermal	9.1				Dermal	33.2
		Chromium	0.2	External Exposure	37.4					
		PCB, Total	12.5							
		Total PAH	0.1							
		Uranium-234	3.8							
		Uranium-235	3.1							
Uranium-238	76.8									

Table D4.176. Summary of Risk Characterization for SWMU 80 (Continued)

Receptor	Total ELCR	COCs	%Total	Routes of Exposure	%Total Worker for %	Total HI	COCs	%Total	Routes of Exposure	%Total Worker for %
Excavation Worker - subsurface	2.67E-05	PCB, Total Uranium-234 Uranium-238	12.5 3.8 76.8	See Outdoor Worker (subsurface) for %		3.17	Uranium	97.5	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	6.39E-03	Americium-241 Beryllium Chromium Neptunium-237 PCB, Total Thorium-230 Total PAH Uranium-234 Uranium-235 Uranium-238	0.1 2.3 0.2 0.1 3.6 0.0 0.1 0.7 6.0 86.9	Ingestion Inhalation Dermal External Exposure	9.6 0.4 5.0 85.0	10.29	Uranium	97.9	Ingestion Inhalation Dermal	25.4 0.2 74.4
Future Child Resident - surface	6.39E-03	Americium-241 Beryllium Chromium Neptunium-237 PCB, Total Thorium-230 Total PAH Uranium-234 Uranium-235 Uranium-238	0.1 2.3 0.2 0.1 3.6 0.0 0.1 0.7 6.0 86.9	Ingestion Inhalation Dermal External Exposure	9.6 0.4 5.0 85.0	42.09	Antimony Mercury Uranium	0.4 0.5 98.7	Ingestion Inhalation Dermal	58.1 0.2 41.7
Future Teen Recreational User - surface	3.32E-04	Beryllium PCB, Total Total PAH Uranium-234 Uranium-235 Uranium-238	11.6 14.7 0.5 0.4 4.8 67.6	Ingestion Inhalation Dermal External Exposure	5.0 0.8 26.2 68.1	6.92	Uranium	97.4	Ingestion Inhalation Dermal	5.1 0.1 94.8

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.177. Summary of Risk Characterization for SWMU 81

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	5.20E-05	Beryllium PCB, Total	5.8	Ingestion	6.5	0.41	Uranium	83.0	Ingestion	15.0
			91.6	Inhalation	6.8			Inhalation	0.4	
				Derma	86.6			Derma	84.6	
Future Industrial Worker - surface	9.29E-04	Arsenic Beryllium Chromium PCB, Total Total PAH Uranium-238	1.1	Ingestion	6.5	7.31	Mercury Nickel Uranium	12.7	Ingestion	15.0
			5.8	Inhalation	6.8			Inhalation	0.4	
			0.3	Derma	86.6			Derma	84.6	
Outdoor Worker - surface	1.07E-03	Arsenic Beryllium Chromium PCB, Total Total PAH Uranium-238	2.3	Ingestion	39.8	12.39	Arsenic Mercury Nickel Uranium	1.2	Ingestion	62.9
			4.1	Inhalation	4.4			Inhalation	0.2	
			0.2	Derma	55.7			Derma	36.9	
Outdoor Worker - subsurface	1.07E-03	Arsenic Beryllium Chromium PCB, Total Total PAH Uranium-238	2.5	Ingestion	40.0	12.76	Arsenic Cobalt Mercury Nickel Uranium	1.3	Ingestion	62.9
			3.8	Inhalation	4.4			Inhalation	0.3	
			0.1	Derma	55.5			Derma	36.7	
			92.4	External	0.1			1.1		
			1.0	Exposure				88.1		
			0.2							

Table D4.177. Summary of Risk Characterization for SWMU 81 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	1.33E-05	PCB, Total	92.4	See Outdoor Worker (subsurface)	3.99	Mercury Uranium	6.0 88.1	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	2.73E-03	Arsenic Beryllium Chromium PCB, Total Total PAH Uranium-238	1.6 5.2 0.2 91.7 1.0 0.2	Ingestion Inhalation Dermal External Exposure	13.60	Arsenic Mercury Nickel Uranium	0.9 11.7 2.1 84.2	Ingestion Inhalation Dermal	22.6 0.2 77.2
Future Child Resident - surface	2.73E-03	Arsenic Beryllium Chromium PCB, Total Total PAH Uranium-238	1.6 5.2 0.2 91.7 1.0 0.2	Ingestion Inhalation Dermal External Exposure	52.86	Aluminum Arsenic Mercury Nickel Silver Uranium	0.4 1.2 7.4 1.3 0.2 89.3	Ingestion Inhalation Dermal	54.2 0.2 45.5
Future Teen Recreational User - surface	5.85E-04	Arsenic Beryllium PCB, Total Total PAH	1.0 6.4 91.4 1.1	Ingestion Inhalation Dermal External Exposure	9.42	Mercury Nickel Uranium	14.1 2.6 81.3	Ingestion Inhalation Dermal	4.4 0.1 95.5

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.178. Summary of Risk Characterization for SWMU 153

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	4.18E-06	PCB, Total Total PAH	64.9	Ingestion	6.9	<0.1	*no COCs			
			35.1	Inhalation Dermal External Exposure	4.7 88.4					
Outdoor Worker - surface	4.93E-06	PCB, Total Total PAH	63.7	Ingestion	41.6	<0.1	*no COCs			
			36.3	Inhalation Dermal External Exposure	2.9 55.5					
Outdoor Worker - subsurface	3.07E-05	Arsenic Chromium PCB, Total Total PAH	77.8	Ingestion	67.1	0.43	Arsenic Nickel	34.6 34.3	Ingestion Inhalation Dermal	35.3 2.5 62.2
			5.3	Inhalation	5.9					
			12.0 4.9	Dermal External Exposure	27.0					

Table D4.178. Summary of Risk Characterization for SWMU 153 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	0.13			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	1.24E-05	PCB, Total Total PAH	64.1 35.9	Ingestion Inhalation Dermal External Exposure	<0.1	*no COCs			
Future Child Resident - surface	1.24E-05	PCB, Total Total PAH	64.1 35.9	Ingestion Inhalation Dermal External Exposure	<0.1	*no COCs			
Future Teen Recreational User - surface	2.67E-06	PCB, Total	63.8	Ingestion Inhalation Dermal External Exposure	<0.1	*no COCs			

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.179. Summary of Risk Characterization for SWMU 154, EU 1

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	2.97E-06	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	5.31E-05	Arsenic Chromium PCB, Total Total PAH Uranium-238	28.7 2.7 32.1 33.1 3.4	Ingestion Inhalation Dermal External Exposure	12.5 5.1 79.4 3.0	0.37	Nickel	62.9	Ingestion Inhalation Dermal	9.1 0.7 90.2
Outdoor Worker - surface	8.14E-05	Arsenic Chromium PCB, Total Total PAH Uranium-238	44.9 1.3 24.2 26.3 3.2	Ingestion Inhalation Dermal External Exposure	57.8 2.5 38.3 1.4	0.48	Arsenic Nickel	47.1 38.5	Ingestion Inhalation Dermal	49.0 0.4 50.6
Outdoor Worker - subsurface	8.21E-05	Arsenic Chromium PCB, Total Total PAH Uranium-238	44.5 2.2 24.0 26.1 3.2	Ingestion Inhalation Dermal External Exposure	57.3 3.3 38.0 1.4	0.54	Arsenic Nickel	42.4 34.6	Ingestion Inhalation Dermal	48.7 3.4 47.8

Table D4.179. Summary of Risk Characterization for SWMU 154, EU 1 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	1.03E-06			See Outdoor Worker (subsurface)	0.17			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	1.80E-04	Arsenic Chromium PCB, Total Total PAH Uranium-238	35.9 1.5 27.9 29.8 4.9	Ingestion Inhalation Dermal External Exposure	0.66	Arsenic Nickel	28.7 59.8	Ingestion Inhalation Dermal	14.2 0.4 85.4
Future Child Resident - surface	1.80E-04	Arsenic Chromium PCB, Total Total PAH Uranium-238	35.9 1.5 27.9 29.8 4.9	Ingestion Inhalation Dermal External Exposure	2.17	Arsenic Nickel Uranium	42.5 43.9 12.8	Ingestion Inhalation Dermal	40.2 0.5 59.3
Future Teen Recreational User - surface	3.15E-05	Arsenic PCB, Total Total PAH	27.2 34.0 36.8	Ingestion Inhalation Dermal External Exposure	0.50	Arsenic Nickel	22.5 67.0	Ingestion Inhalation Dermal	2.6 0.2 97.3

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.180. Summary of Risk Characterization for SWMU 154, EU 2

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	2.13E-06	PCB, Total	100.0	Ingestion Inhalation Dermal External Exposure	6.6 7.1 86.3	<0.1	*no COCs			
Outdoor Worker - surface	2.47E-06	PCB, Total	100.0	Ingestion Inhalation Dermal External Exposure	40.3 4.6 55.2	<0.1	*no COCs			
Outdoor Worker - subsurface	2.47E-06	PCB, Total	100.0	Ingestion Inhalation Dermal External Exposure	40.3 4.6 55.2	<0.1	*no COCs			

Table D4.180. Summary of Risk Characterization for SWMU 154, EU 2 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)		<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	6.27E-06	PCB, Total	100.0	Ingestion Inhalation Dermal External Exposure	20.0 4.7 75.3	<0.1	*no COCs			
Future Child Resident - surface	6.27E-06	PCB, Total	100.0	Ingestion Inhalation Dermal External Exposure	20.0 4.7 75.3	<0.1	*no COCs			
Future Teen Recreational User - surface	1.34E-06	PCB, Total	100.0	Ingestion Inhalation Dermal External Exposure	1.9 2.1 96.0	<0.1	*no COCs			

There are no subsurface data available for assessment.
 Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.181. Summary of Risk Characterization for SWMU 155

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	2.83E-06	PCB, Total	97.0	Ingestion Inhalation Dermal External Exposure	6.4 9.2 83.7 0.7	<0.1	*no COCs			
Future Industrial Worker - surface	5.05E-05	Chromium PCB, Total	2.3 97.0	Ingestion Inhalation Dermal External Exposure	6.4 9.2 83.7 0.7	0.43	Antimony Nickel Silver	33.6 41.5 23.9	Ingestion Inhalation Dermal	1.7 0.2 98.1
Outdoor Worker - surface	5.79E-05	PCB, Total	98.0	Ingestion Inhalation Dermal External Exposure	39.5 5.9 54.1 0.5	0.37	Antimony Nickel	37.0 39.4	Ingestion Inhalation Dermal	14.4 0.2 85.4
Outdoor Worker - subsurface	7.88E-05	Arsenic PCB, Total	27.6 72.0	Ingestion Inhalation Dermal External Exposure	50.3 3.3 46.0 0.4	0.50	Antimony Arsenic Nickel	27.2 27.2 28.9	Ingestion Inhalation Dermal	31.5 0.2 68.2

Table D4.181. Summary of Risk Characterization for SWMU 155 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)		0.16			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	1.48E-04	Chromium Neptunium-237 PCB, Total	1.5 1.3 97.2	Ingestion	19.4	0.74	Antimony	33.9	Ingestion	2.8
				Inhalation	6.1		Nickel	41.3	Inhalation	0.1
				Derma External Exposure	73.2 1.3		Silver	23.9	Derma	97.1
Future Child Resident - surface	1.48E-04	Chromium Neptunium-237 PCB, Total	1.5 1.3 97.2	Ingestion	19.4	1.84	Antimony	36.0	Ingestion	10.6
				Inhalation	6.1		Nickel	40.1	Inhalation	0.2
				Derma External Exposure	73.2 1.3		Silver	23.1	Derma	89.2
Future Teen Recreational User - surface	3.11E-05	PCB, Total	99.1	Ingestion	1.9	0.62	Antimony	33.3	Ingestion	0.5
				Inhalation	2.7		Nickel	41.7	Inhalation	0.1
				Derma External Exposure	95.1 0.3		Silver	24.1	Derma	99.5

There are no subsurface data available for assessment.
 Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.182. Summary of Risk Characterization for SWMU 156

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	5.91E-06	Chromium	27.5	Ingestion	6.0	1.38	Manganese	8.0	Ingestion	2.3
		PCB, Total	27.0	Inhalation	29.6		Mercury	79.6	Inhalation	4.6
		Total PAH	23.6	Dermal	45.1		Nickel	10.4	Dermal	93.1
		Uranium-238	21.8	External Exposure	19.3					
Outdoor Worker - surface	6.63E-06	Chromium	18.1	Ingestion	37.9	1.22	Manganese	11.8	Ingestion	18.2
		PCB, Total	27.9	Inhalation	19.6		Mercury	75.0	Inhalation	3.8
		Total PAH	25.7	Dermal	29.8		Nickel	9.5	Dermal	77.9
		Uranium-238	28.2	External Exposure	12.7					
Outdoor Worker - subsurface	9.13E-05	Arsenic	29.3	Ingestion	31.2	1.79	Arsenic	9.3	Ingestion	31.2
		Beryllium	63.0	Inhalation	1.9		Cobalt	16.7	Inhalation	2.8
		Chromium	1.7	Dermal	66.0		Manganese	8.0	Dermal	66.0
		PCB, Total	2.0	External Exposure	0.9		Mercury	50.9		
		Total PAH	1.9	External Exposure	2.0		Nickel	6.5		

Table D4.182. Summary of Risk Characterization for SWMU 156 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI	
Excavation Worker - subsurface	1.14E-06			See Outdoor Worker (subsurface)	0.56	Mercury	50.9	See Outdoor Worker (subsurface) for %		
Future Adult Resident - surface	1.84E-05	Chromium	17.1	Ingestion	2.33	Manganese	6.4	Ingestion	3.8	
		PCB, Total	25.5	Inhalation		80.8		Inhalation		2.5
		Total PAH	23.0	Derma		10.6		Derma		93.7
		Uranium-238	34.3	External Exposure						
Future Child Resident - surface	1.84E-05	Chromium	17.1	Ingestion	6.09	Manganese	11.1	Ingestion	13.4	
		PCB, Total	25.5	Inhalation		76.0		Inhalation		4.5
		Total PAH	23.0	Derma		9.8		Derma		82.0
		Uranium-238	34.3	External Exposure						
Future Teen Recreational User - surface	2.48E-06	PCB, Total	40.5	Ingestion	1.90	Mercury	83.0	Ingestion	0.6	
				Inhalation		10.9		Inhalation		1.3
				Derma				Derma		
				External Exposure		9.7				98.1

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.183. Summary of Risk Characterization for SWMU 160

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Outdoor Worker - surface	1.09E-06	Total PAH	100.0	Ingestion Inhalation Dermal External Exposure	44.0 0.1 56.0	<0.1	*no COCs			
Outdoor Worker - subsurface	2.31E-05	Arsenic Chromium Total PAH	85.9 4.9 9.1	Ingestion Inhalation Dermal External Exposure	70.4 5.0 24.6	0.24	Arsenic	52.1	Ingestion Inhalation Dermal	45.9 0.2 53.9

Table D4.183. Summary of Risk Characterization for SWMU 160 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	2.72E-06	Total PAH	100.0	Ingestion Inhalation Dermal External Exposure	<0.1	*no COCs			
Future Child Resident - surface	2.72E-06	Total PAH	100.0	Ingestion Inhalation Dermal External Exposure	0.12	Antimony	100.0	Ingestion Inhalation Dermal	17.6 82.4
Future Teen Recreational User - surface	<1E-6	*no COCs			<0.1	*no COCs			

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COPCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.184. Summary of Risk Characterization for SWMU 163

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	4.39E-06	Chromium Total PAH	37.3 62.7	Ingestion Inhalation Dermal External Exposure	4.7 37.4 57.9	<0.1	*no COCs			
Outdoor Worker - surface	4.57E-06	Chromium Total PAH	26.5 73.5	Ingestion Inhalation Dermal External Exposure	32.3 26.6 41.1	<0.1	*no COCs			
Outdoor Worker - subsurface	2.78E-05	Arsenic Chromium Total PAH	86.8 5.2 7.9	Ingestion Inhalation Dermal External Exposure	70.6 5.3 24.2	18.28	Arsenic Mercury Nickel Vanadium	0.8 3.8 0.8 94.1	Ingestion Inhalation Dermal	9.9 0.0 90.0

Table D4.184. Summary of Risk Characterization for SWMU 163 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)		5.71	Mercury Vanadium	3.8 94.1	See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	1.16E-05	Chromium Total PAH	27.5 72.5	Ingestion Inhalation Dermal External Exposure	16.1 27.6 56.3	<0.1	*no COCs			
Future Child Resident - surface	1.16E-05	Chromium Total PAH	27.5 72.5	Ingestion Inhalation Dermal External Exposure	16.1 27.6 56.3	<0.1	*no COCs			
Future Teen Recreational User - surface	2.11E-06	Total PAH	85.9	Ingestion Inhalation Dermal External Exposure	1.8 14.2 84.0	<0.1	*no COCs			

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.185. Summary of Risk Characterization for SWMU 219

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	<1E-6	*no COCs				<0.1	*no COCs			
Future Industrial Worker - surface	5.57E-06	Neptunium-237	21.9	Ingestion	7.4	0.16	Nickel	100.0	Ingestion	1.0
		Total PAH	22.8	Inhalation	0.3				Inhalation	0.5
		Uranium-238	46.5	Derma	21.0				Derma	98.4
Outdoor Worker - surface	6.74E-06	Neptunium-237	15.0	Ingestion	43.3	0.13	Nickel	100.0	Ingestion	9.2
		Total PAH	23.0	Inhalation	0.2				Inhalation	0.5
		Uranium-238	55.7	Derma	12.8				Derma	90.3
Outdoor Worker - subsurface	6.74E-06	Neptunium-237	15.0	Ingestion	43.3	0.13	Nickel	100.0	Ingestion	9.2
		Total PAH	23.0	Inhalation	0.2				Inhalation	0.5
		Uranium-238	55.7	Derma	12.8				Derma	90.3
				External Exposure	43.6					
				External Exposure	43.6					

Table D4.185. Summary of Risk Characterization for SWMU 219 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	<1E-6			See Outdoor Worker (subsurface)	<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	2.52E-05	Neptunium-237 Total PAH Uranium-235 Uranium-238	24.4 15.3 9.7 50.5	Ingestion Inhalation Dermal External Exposure	0.27	Nickel	100.0	Ingestion Inhalation Dermal	1.7 0.3 98.0
Future Child Resident - surface	2.52E-05	Neptunium-237 Total PAH Uranium-235 Uranium-238	24.4 15.3 9.7 50.5	Ingestion Inhalation Dermal External Exposure	0.65	Nickel	100.0	Ingestion Inhalation Dermal	6.6 0.6 92.8
Future Teen Recreational User - surface	1.71E-06	*no COCs			0.23	Nickel	100.0	Ingestion Inhalation Dermal	0.3 0.1 99.6

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs
 *No COCs = There are no COCs.
 ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.

Table D4.186. Summary of Risk Characterization for SWMU 488

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	%Total ELCR	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Current Industrial Worker - surface	3.82E-06	PCB, Total	80.5	Ingestion	6.2	<0.1	*no COCs			
				Inhalation	5.8					
				Dermal	75.2					
				External Exposure	12.9					
Future Industrial Worker - surface	6.82E-05	Cesium-137 PCB, Total Total PAH Uranium-238	8.9 80.5 6.2 3.9	Ingestion	6.2	<0.1	*no COCs			
				Inhalation	5.8					
				Dermal	75.2					
				External Exposure	12.9					
Outdoor Worker - surface	7.74E-05	Cesium-137 PCB, Total Total PAH Uranium-238	5.8 82.1 6.7 5.0	Ingestion	38.8	<0.1	*no COCs			
				Inhalation	3.8					
				Dermal	49.0					
				External Exposure	8.4					
Outdoor Worker - subsurface	1.00E-04	Arsenic Cesium-137 Chromium PCB, Total Total PAH Uranium-238	21.4 4.5 1.3 63.5 5.1 3.9	Ingestion	46.6	0.16	Arsenic	81.5	Ingestion Inhalation Dermal	73.3 0.3 26.4
				Inhalation	4.2					
				Dermal	42.7					
				External Exposure	6.5					

Table D4.186. Summary of Risk Characterization for SWMU 488 (Continued)

Receptor	Total ELCR	COCs	%Total ELCR	Routes of Exposure	Total HI	COCs	%Total HI	Routes of Exposure	%Total HI
Excavation Worker - subsurface	1.25E-06			See Outdoor Worker (subsurface)	<0.1			See Outdoor Worker (subsurface) for %	
Future Adult Resident - surface	2.20E-04	Cesium-137 PCB, Total Total PAH Uranium-235 Uranium-238	13.9 73.5 5.8 0.9 6.0	Ingestion Inhalation Dermal External Exposure	<0.1	*no COCs			
Future Child Resident - surface	2.20E-04	Cesium-137 PCB, Total Total PAH Uranium-235 Uranium-238	13.9 73.5 5.8 0.9 6.0	Ingestion Inhalation Dermal External Exposure	0.11	Uranium	100.0	Ingestion Inhalation Dermal	58.7 0.2 41.1
Future Teen Recreational User - surface	3.91E-05	Cesium-137 PCB, Total Total PAH	3.2 88.1 7.1	Ingestion Inhalation Dermal External Exposure	<0.1	*no COCs			

Total ELCR and total HI represent total risk or hazard summed across all routes of exposure for all COCs

*No COCs = There are no COCs.

ELCR for Future Adult Resident and Future Child Resident are the combined lifetime scenario.