F

Details for Cancer and Noncancer Risk Calculations

TableF-1
Adult Camper Cancer Risk
Central Tendency
Contact-Sonoma Mines

Scenario Timeframe: Current/Future
Medium: Surface Soil
Exposure Medium: Soil
Exposure Point: Contact-Sonoma Mines
Receptor Population: Camper (CT)
Receptor Age: Adult

Exposure Route	Exposure Medium	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation	Intake (Cancer)	Intake (Cancer) Units	Slope Factor	Slope Factor Units	Cancer Risk
Ingestion	Soil	Arsenic	7.581	mg/kg	7.581	mg/kg	7.581	2.67E-08	mg/kg-d	1.5E+00	(mg/kg-d)-1	4.0E-08
		Cobalt	105.1	mg/kg	105.1	mg/kg	105.1	3.70E-07	mg/kg-d	nv	(mg/kg-d)-1	--
		Iron	79287	mg/kg	79287	mg/kg	79287	2.79E-04	mg/kg-d	nv	(mg/kg-d)-1	--
		Lead	222.1	mg/kg	222.1	mg/kg	222.1	7.82E-07	mg/kg-d	nv	(mg/kg-d)-1	--
		Manganese	2352	mg/kg	2352	mg/kg	2352	8.28E-06	mg/kg-d	nv	(mg/kg-d)-1	--
		Mercury	395.2	mg/kg	395.2	mg/kg	395.2	1.39E-06	mg/kg-d	nv	(mg/kg-d)-1	--
		Nickel	1030	mg/kg	1030	mg/kg	1030	3.63E-06	mg/kg-d	nv	(mg/kg-d)-1	--
								Risk				4.0E-08
Dermal	Soil	Arsenic	7.581	mg/kg	7.581	mg/kg	7.581	5.29E-10	mg/kg-d	1.5E+00	(mg/kg-d)-1	7.9E-10
		Cobalt	105.1	mg/kg	105.1	mg/kg	105.1	2.44E-10	mg/kg-d	nv	(mg/kg-d)-1	--
		Iron	79287	mg/kg	79287	mg/kg	79287	1.84E-07	mg/kg-d	nv	(mg/kg-d)-1	--
		Lead	222.1	mg/kg	222.1	mg/kg	222.1	5.16E-10	mg/kg-d	nv	(mg/kg-d)-1	--
		Manganese	2352	mg/kg	2352	mg/kg	2352	5.47E-09	mg/kg-d	nv	(mg/kg-d)-1	--
		Mercury	395.2	mg/kg	395.2	mg/kg	395.2	9.19E-10	mg/kg-d	nv	(mg/kg-d)-1	--
		Nickel	1030	mg/kg	1030	mg/kg	1030	2.39E-09	mg/kg-d	nv	(mg/kg-d)-1	--
								Risk				7.9E-10

Table F-2
Adult Camper Cancer Risk
Reasonable Maximum Exposure
Contact-Sonoma Mines

Scenario Timeframe: Current/Future
Medium: Surface Soil
Exposure Medium: Soil
Exposure Point: Contact-Sonoma Mines
Receptor Population: Camper (RME)
Receptor Age: Adult

Exposure Route	Exposure Medium	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation	Intake (Cancer)	Intake (Cancer) Units	Slope Factor	Slope Factor Units	Cancer Risk
Ingestion	Soil	Arsenic	7.581	mg/kg	7.581	mg/kg	7.581	8.55E-07	mg/kg-d	1.5E+00	(mg/kg-d)-1	**1.3E-06**
		Cobalt	105.1	mg/kg	105.1	mg/kg	105.1	1.18E-05	mg/kg-d	nv	(mg/kg-d)-1	--
		Iron	79287	mg/kg	79287	mg/kg	79287	8.94E-03	mg/kg-d	nv	(mg/kg-d)-1	--
		Lead	222.1	mg/kg	222.1	mg/kg	222.1	2.50E-05	mg/kg-d	nv	(mg/kg-d)-1	--
		Manganese	2352	mg/kg	2352	mg/kg	2352	2.65E-04	mg/kg-d	nv	(mg/kg-d)-1	--
		Mercury	395.2	mg/kg	395.2	mg/kg	395.2	4.45E-05	mg/kg-d	nv	(mg/kg-d)-1	--
		Nickel	1030	mg/kg	1030	mg/kg	1030	1.16E-04	mg/kg-d	nv	(mg/kg-d)-1	--
								Risk				1.3E-06
Dermal	Soil	Arsenic	7.581	mg/kg	7.581	mg/kg	7.581	1.41E-08	mg/kg-d	1.5E+00	(mg/kg-d)-1	2.1E-08
		Cobalt	105.1	mg/kg	105.1	mg/kg	105.1	6.52E-09	mg/kg-d	nv	(mg/kg-d)-1	--
		Iron	79287	mg/kg	79287	mg/kg	79287	4.92E-06	mg/kg-d	nv	(mg/kg-d)-1	--
		Lead	222.1	mg/kg	222.1	mg/kg	222.1	1.38E-08	mg/kg-d	nv	(mg/kg-d)-1	--
		Manganese	2352	mg/kg	2352	mg/kg	2352	1.46E-07	mg/kg-d	nv	(mg/kg-d)-1	--
		Mercury	395.2	mg/kg	395.2	mg/kg	395.2	2.45E-08	mg/kg-d	nv	(mg/kg-d)-1	--
		Nickel	1030	mg/kg	1030	mg/kg	1030	6.39E-08	mg/kg-d	nv	(mg/kg-d)-1	--
								Risk				2.1E-08

Table F-2
Adult Camper Cancer Risk
Reasonable Maximum Exposure
Contact-Sonoma Mines

Scenario Timeframe: Current/Future
Medium: Air
Exposure Medium: Air
Exposure Point: Contact Sonoma Mines
Receptor Population: Camper (RME)
Receptor Age: Adult

Exposure Route	Exposure Medium	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation	Intake (Cancer)	Intake (Cancer) Units	IUR	IUR Units	Cancer Risk
Inhalation	Air	Arsenic	7.581	mg/kg	5.76E-09	mg/m^3	5.76E-09	9.47E-11	mg/m^3	4.3E-03	$(ug/m^3)^{-1}$	4.1E-16
		Cobalt	105.1	mg/kg	7.99E-08	mg/m^3	7.99E-08	1.31E-09	mg/m^3	9.0E-03	$(ug/m^3)^{-1}$	1.2E-14
		Iron	79287	mg/kg	6.02E-05	mg/m^3	6.02E-05	9.90E-07	mg/m^3	nv	$(ug/m^3)^{-1}$	--
		Lead	222.1	mg/kg	1.69E-07	mg/m^3	1.69E-07	2.77E-09	mg/m^3	nv	$(ug/m^3)^{-1}$	--
		Manganese	2352	mg/kg	1.79E-06	mg/m^3	1.79E-06	2.94E-08	mg/m^3	nv	$(ug/m^3)^{-1}$	--
		Mercury	395.2	mg/kg	3.00E-07	mg/m^3	3.00E-07	4.94E-09	mg/m^3	nv	$(ug/m^3)^{-1}$	--
		Nickel	1030	mg/kg	7.83E-07	mg/m^3	7.83E-07	1.29E-08	mg/m^3	2.6E-04	$(ug/m^3)^{-1}$	3.3E-15
								Risk				1.6E-14

Bolded text indicates cancer risk for individual compound exceeds 1 x 10-6.

Total Cancer Risk - All Pathways	*1.3E-06*

Table F-1
Adult Camper Cancer Risk
Central Tendency
Contact-Sonoma Mines

Scenario Timeframe: Current/Future
Medium: Air
Exposure Medium: Air
Exposure Point: Contact Sonoma Mines
Receptor Population: Camper (CT)
Receptor Age: Adult

Exposure Route	Exposure Medium	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation	Intake (Cancer)	Intake (Cancer) Units	IUR	IUR Units	Cancer Risk
Inhalation	Air	Arsenic	7.581	mg/kg	5.76E-09	mg/m^3	5.76E-09	2.84E-11	mg/m^3	4.3E-03	$(ug/m^3)^{-1}$	1.2E-16
		Cobalt	105.1	mg/kg	7.99E-08	mg/m^3	7.99E-08	3.94E-10	mg/m^3	9.0E-03	$(ug/m^3)^{-1}$	3.5E-15
		Iron	79287	mg/kg	6.02E-05	mg/m^3	6.02E-05	2.97E-07	mg/m^3	nv	$(ug/m^3)^{-1}$	--
		Lead	222.1	mg/kg	1.69E-07	mg/m^3	1.69E-07	8.32E-10	mg/m^3	nv	$(ug/m^3)^{-1}$	--
		Manganese	2352	mg/kg	1.79E-06	mg/m^3	1.79E-06	8.81E-09	mg/m^3	nv	$(ug/m^3)^{-1}$	--
		Mercury	395.2	mg/kg	3.00E-07	mg/m^3	3.00E-07	1.48E-09	mg/m^3	nv	$(ug/m^3)^{-1}$	--
		Nickel	1030	mg/kg	7.83E-07	mg/m^3	7.83E-07	3.86E-09	mg/m^3	2.6E-04	$(ug/m^3)^{-1}$	1.0E-15
								Risk				4.7E-15

Bolded text indicates cancer risk for individual compound exceeds 1 x 10-6.

Total Cancer Risk - All Pathways *4.1E-08*

Table F-3
Adult Camper Noncancer Hazard
Central Tendency
Contact-Sonoma Mines

Scenario Timeframe: Current/Future
Medium: Surface Soil
Exposure Medium: Soil
Exposure Point: Contact-Sonoma Mines
Receptor Population: Camper (CT)
Receptor Age: Adult

Exposure Route	Exposure Medium	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation	Intake (Noncancer)	Intake (Noncancer) Units	Reference Dose	Reference Dose Units	**Hazard Quotient**
Ingestion	Soil	Arsenic	7.581	mg/kg	7.581	mg/kg	7.581	2.08E-07	mg/kg-d	3.0E-04	mg/kg-d	6.9E-04
		Cobalt	105.1	mg/kg	105.1	mg/kg	105.1	2.88E-06	mg/kg-d	3.0E-04	mg/kg-d	9.6E-03
		Iron	79287	mg/kg	79287	mg/kg	79287	2.17E-03	mg/kg-d	7.0E-01	mg/kg-d	3.1E-03
		Lead	222.1	mg/kg	222.1	mg/kg	222.1	6.08E-06	mg/kg-d	nv	mg/kg-d	--
		Manganese	2352	mg/kg	2352	mg/kg	2352	6.44E-05	mg/kg-d	1.4E-01	mg/kg-d	4.6E-04
		Mercury	395.2	mg/kg	395.2	mg/kg	395.2	1.08E-05	mg/kg-d	1.6E-04	mg/kg-d	6.8E-02
		Nickel	1030	mg/kg	1030	mg/kg	1030	2.82E-05	mg/kg-d	2.0E-02	mg/kg-d	1.4E-03
								Hazard Index				8.3E-02
Dermal	Soil	Arsenic	7.581	mg/kg	7.581	mg/kg	7.581	4.11E-09	mg/kg-d	3.0E-04	mg/kg-d	1.4E-05
		Cobalt	105.1	mg/kg	105.1	mg/kg	105.1	1.90E-09	mg/kg-d	3.0E-04	mg/kg-d	6.3E-06
		Iron	79287	mg/kg	79287	mg/kg	79287	1.43E-06	mg/kg-d	7.0E-01	mg/kg-d	2.0E-06
		Lead	222.1	mg/kg	222.1	mg/kg	222.1	4.02E-09	mg/kg-d	nv	mg/kg-d	--
		Manganese	2352	mg/kg	2352	mg/kg	2352	4.25E-08	mg/kg-d	1.4E-01	mg/kg-d	3.0E-07
		Mercury	395.2	mg/kg	395.2	mg/kg	395.2	7.15E-09	mg/kg-d	1.6E-04	mg/kg-d	4.5E-05
		Nickel	1030	mg/kg	1030	mg/kg	1030	1.86E-08	mg/kg-d	8.0E-04	mg/kg-d	2.3E-05
								Hazard Index				9.0E-05

Table F-3
Adult Camper Noncancer Hazard
Central Tendency
Contact-Sonoma Mines

Scenario Timeframe: Current/Future
Medium: Air
Exposure Medium: Air
Exposure Point: Contact Sonoma Mines
Receptor Population: Camper (CT)
Receptor Age: Adult

Exposure Route	Exposure Medium	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation	Intake (Noncancer)	Intake (Noncancer) Units	Reference Concentration	Reference Concentration Units	**Hazard Quotient**
Inhalation	Air	Arsenic	7.581	mg/kg	5.76E-09	mg/m3	5.76E-09	2.21E-10	mg/m3	1.5E-05	mg/m3	1.5E-05
		Cobalt	105.1	mg/kg	7.99E-08	mg/m3	7.99E-08	3.06E-09	mg/m3	6.0E-06	mg/m3	5.1E-04
		Iron	79287	mg/kg	6.02E-05	mg/m3	6.02E-05	2.31E-06	mg/m3	nv	mg/m3	--
		Lead	222.1	mg/kg	1.69E-07	mg/m3	1.69E-07	6.47E-09	mg/m3	nv	mg/m3	--
		Manganese	2352	mg/kg	1.79E-06	mg/m3	1.79E-06	6.86E-08	mg/m3	5.0E-05	mg/m3	1.4E-03
		Mercury	395.2	mg/kg	3.00E-07	mg/m3	3.00E-07	1.15E-08	mg/m3	3.0E-04	mg/m3	3.8E-05
		Nickel	1030	mg/kg	7.83E-07	mg/m3	7.83E-07	3.00E-08	mg/m3	9.0E-05	mg/m3	3.3E-04
								Hazard Index				2.3E-03

Bolded text indicates hazard for individual compound exceeds 1

Hazard Index - All Pathways	*8.5E-02*

Table F-4
Adult Camper Noncancer Hazard
Reasonable Maximum Exposure
Contact-Sonoma Mines

Scenario Timeframe: Current/Future
Medium: Surface Soil
Exposure Medium: Soil
Exposure Point: Contact-Sonoma Mines
Receptor Population: Camper (RME)
Receptor Age: Adult

Exposure Route	Exposure Medium	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation	Intake (Noncancer)	Intake (Noncancer) Units	Reference Dose	Reference Dose Units	**Hazard Quotient**
Ingestion	Soil	Arsenic	7.581	mg/kg	7.581	mg/kg	7.581	1.99E-06	mg/kg-d	3.0E-04	mg/kg-d	6.6E-03
		Cobalt	105.1	mg/kg	105.1	mg/kg	105.1	2.76E-05	mg/kg-d	3.0E-04	mg/kg-d	9.2E-02
		Iron	79287	mg/kg	79287	mg/kg	79287	2.09E-02	mg/kg-d	7.0E-01	mg/kg-d	3.0E-02
		Lead	222.1	mg/kg	222.1	mg/kg	222.1	5.84E-05	mg/kg-d	nv	mg/kg-d	--
		Manganese	2352	mg/kg	2352	mg/kg	2352	6.19E-04	mg/kg-d	1.4E-01	mg/kg-d	4.4E-03
		Mercury	395.2	mg/kg	395.2	mg/kg	395.2	1.04E-04	mg/kg-d	1.6E-04	mg/kg-d	6.5E-01
		Nickel	1030	mg/kg	1030	mg/kg	1030	2.71E-04	mg/kg-d	2.0E-02	mg/kg-d	1.4E-02
								Hazard Index				8.0E-01
Dermal	Soil	Arsenic	7.581	mg/kg	7.581	mg/kg	7.581	3.29E-08	mg/kg-d	3.0E-04	mg/kg-d	1.1E-04
		Cobalt	105.1	mg/kg	105.1	mg/kg	105.1	1.52E-08	mg/kg-d	3.0E-04	mg/kg-d	5.1E-05
		Iron	79287	mg/kg	79287	mg/kg	79287	1.15E-05	mg/kg-d	7.0E-01	mg/kg-d	1.6E-05
		Lead	222.1	mg/kg	222.1	mg/kg	222.1	3.21E-08	mg/kg-d	nv	mg/kg-d	--
		Manganese	2352	mg/kg	2352	mg/kg	2352	3.40E-07	mg/kg-d	1.4E-01	mg/kg-d	2.4E-06
		Mercury	395.2	mg/kg	395.2	mg/kg	395.2	5.72E-08	mg/kg-d	1.6E-04	mg/kg-d	3.6E-04
		Nickel	1030	mg/kg	1030	mg/kg	1030	1.49E-07	mg/kg-d	8.0E-04	mg/kg-d	1.9E-04
								Hazard Index				7.2E-04

Table F-4
Adult Camper Noncancer Hazard
Reasonable Maximum Exposure
Contact-Sonoma Mines

Scenario Timeframe: Current/Future
Medium: Air
Exposure Medium: Air
Exposure Point: Contact Sonoma Mines
Receptor Population: Camper (RME)
Receptor Age: Adult

Exposure Route	Exposure Medium	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation	Intake (Noncancer)	Intake (Noncancer) Units	Reference Concentration	Reference Concentration Units	**Hazard Quotient**
Inhalation	Air	Arsenic	7.581	mg/kg	5.76E-09	mg/m3	5.76E-09	2.21E-10	mg/m3	1.5E-05	mg/m3	1.5E-05
		Cobalt	105.1	mg/kg	7.99E-08	mg/m3	7.99E-08	3.06E-09	mg/m3	6.0E-06	mg/m3	5.1E-04
		Iron	79287	mg/kg	6.02E-05	mg/m3	6.02E-05	2.31E-06	mg/m3	nv	mg/m3	--
		Lead	222.1	mg/kg	1.69E-07	mg/m3	1.69E-07	6.47E-09	mg/m3	nv	mg/m3	--
		Manganese	2352	mg/kg	1.79E-06	mg/m3	1.79E-06	6.86E-08	mg/m3	5.0E-05	mg/m3	1.4E-03
		Mercury	395.2	mg/kg	3.00E-07	mg/m3	3.00E-07	1.15E-08	mg/m3	3.0E-04	mg/m3	3.8E-05
		Nickel	1030	mg/kg	7.83E-07	mg/m3	7.83E-07	3.00E-08	mg/m3	9.0E-05	mg/m3	3.3E-04
								Hazard Index				2.3E-03

Bolded text indicates hazard for individual compound exceeds 1

Hazard Index - All Pathways *8.0E-01*

Table F-5
Adolescent Camper Cancer Risk
Central Tendency
Contact-Sonoma Mines

Scenario Timeframe: Current/Future
Medium: Surface Soil
Exposure Medium: Soil
Exposure Point: Contact-Sonoma Mines
Receptor Population: Camper (CT)
Receptor Age: Adolescent

Exposure Route	Exposure Medium	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation	Intake (Cancer)	Intake (Cancer) Units	Slope Factor	Slope Factor Units	Cancer Risk
Ingestion	Soil	Arsenic	7.581	mg/kg	7.581	mg/kg	7.581	5.19E-08	mg/kg-d	1.5E+00	(mg/kg-d)-1	7.8E-08
		Cobalt	105.1	mg/kg	105.1	mg/kg	105.1	7.20E-07	mg/kg-d	nv	(mg/kg-d)-1	--
		Iron	79287	mg/kg	79287	mg/kg	79287	5.43E-04	mg/kg-d	nv	(mg/kg-d)-1	--
		Lead	222.1	mg/kg	222.1	mg/kg	222.1	1.52E-06	mg/kg-d	nv	(mg/kg-d)-1	--
		Manganese	2352	mg/kg	2352	mg/kg	2352	1.61E-05	mg/kg-d	nv	(mg/kg-d)-1	--
		Mercury	395.2	mg/kg	395.2	mg/kg	395.2	2.71E-06	mg/kg-d	nv	(mg/kg-d)-1	--
		Nickel	1030	mg/kg	1030	mg/kg	1030	7.05E-06	mg/kg-d	nv	(mg/kg-d)-1	--
								Risk				7.8E-08
Dermal	Soil	Arsenic	7.581	mg/kg	7.581	mg/kg	7.581	2.03E-09	mg/kg-d	1.5E+00	(mg/kg-d)-1	3.0E-09
		Cobalt	105.1	mg/kg	105.1	mg/kg	105.1	9.36E-10	mg/kg-d	nv	(mg/kg-d)-1	--
		Iron	79287	mg/kg	79287	mg/kg	79287	7.06E-07	mg/kg-d	nv	(mg/kg-d)-1	--
		Lead	222.1	mg/kg	222.1	mg/kg	222.1	1.98E-09	mg/kg-d	nv	(mg/kg-d)-1	--
		Manganese	2352	mg/kg	2352	mg/kg	2352	2.09E-08	mg/kg-d	nv	(mg/kg-d)-1	--
		Mercury	395.2	mg/kg	395.2	mg/kg	395.2	3.52E-09	mg/kg-d	nv	(mg/kg-d)-1	--
		Nickel	1030	mg/kg	1030	mg/kg	1030	9.17E-09	mg/kg-d	nv	(mg/kg-d)-1	--
								Risk				3.0E-09

Scenario Timeframe: Current/Future
Medium: Air
Exposure Medium: Air
Exposure Point: Contact Sonoma Mines
Receptor Population: Camper (CT)
Receptor Age: Adolescent

Exposure Route	Exposure Medium	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation	Intake (Cancer)	Intake (Cancer) Units	IUR	IUR Units	Cancer Risk
Inhalation	Air	Arsenic	7.581	mg/kg	5.76E-09	mg/m^3	5.76E-09	1.89E-11	mg/m^3	4.3E-03	$(ug/m^3)^{-1}$	8.1E-17
		Cobalt	105.1	mg/kg	7.99E-08	mg/m^3	7.99E-08	2.63E-10	mg/m^3	9.0E-03	$(ug/m^3)^{-1}$	2.4E-15
		Iron	79287	mg/kg	6.02E-05	mg/m^3	6.02E-05	1.98E-07	mg/m^3	nv	$(ug/m^3)^{-1}$	--
		Lead	222.1	mg/kg	1.69E-07	mg/m^3	1.69E-07	5.55E-10	mg/m^3	nv	$(ug/m^3)^{-1}$	--
		Manganese	2352	mg/kg	1.79E-06	mg/m^3	1.79E-06	5.88E-09	mg/m^3	nv	$(ug/m^3)^{-1}$	--
		Mercury	395.2	mg/kg	3.00E-07	mg/m^3	3.00E-07	9.87E-10	mg/m^3	nv	$(ug/m^3)^{-1}$	--
		Nickel	1030	mg/kg	7.83E-07	mg/m^3	7.83E-07	2.57E-09	mg/m^3	2.6E-04	$(ug/m^3)^{-1}$	6.7E-16
								Risk				3.1E-15

Bolded text indicates cancer risk for individual compound exceeds 1 x 10-6.

Total Cancer Risk - All Pathways *8.1E-08*

Table F-6
Adolescent Camper Cancer Risk
Reasonable Maximum Exposure
Contact-Sonoma Mines

Scenario Timeframe: Current/Future
Medium: Surface Soil
Exposure Medium: Soil
Exposure Point: Contact-Sonoma Mines
Receptor Population: Camper (RME)
Receptor Age: Adolescent

Exposure Route	Exposure Medium	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation	Intake (Cancer)	Intake (Cancer) Units	Slope Factor	Slope Factor Units	Cancer Risk
Ingestion	Soil	Arsenic	7.581	mg/kg	7.581	mg/kg	7.581	2.08E-07	mg/kg-d	1.5E+00	(mg/kg-d)-1	3.1E-07
		Cobalt	105.1	mg/kg	105.1	mg/kg	105.1	2.88E-06	mg/kg-d	nv	(mg/kg-d)-1	--
		Iron	79287	mg/kg	79287	mg/kg	79287	2.17E-03	mg/kg-d	nv	(mg/kg-d)-1	--
		Lead	222.1	mg/kg	222.1	mg/kg	222.1	6.08E-06	mg/kg-d	nv	(mg/kg-d)-1	--
		Manganese	2352	mg/kg	2352	mg/kg	2352	6.44E-05	mg/kg-d	nv	(mg/kg-d)-1	--
		Mercury	395.2	mg/kg	395.2	mg/kg	395.2	1.08E-05	mg/kg-d	nv	(mg/kg-d)-1	--
		Nickel	1030	mg/kg	1030	mg/kg	1030	2.82E-05	mg/kg-d	nv	(mg/kg-d)-1	--
								Risk				3.1E-07
Dermal	Soil	Arsenic	7.581	mg/kg	7.581	mg/kg	7.581	2.03E-08	mg/kg-d	1.5E+00	(mg/kg-d)-1	3.0E-08
		Cobalt	105.1	mg/kg	105.1	mg/kg	105.1	9.36E-09	mg/kg-d	nv	(mg/kg-d)-1	--
		Iron	79287	mg/kg	79287	mg/kg	79287	7.06E-06	mg/kg-d	nv	(mg/kg-d)-1	--
		Lead	222.1	mg/kg	222.1	mg/kg	222.1	1.98E-08	mg/kg-d	nv	(mg/kg-d)-1	--
		Manganese	2352	mg/kg	2352	mg/kg	2352	2.09E-07	mg/kg-d	nv	(mg/kg-d)-1	--
		Mercury	395.2	mg/kg	395.2	mg/kg	395.2	3.52E-08	mg/kg-d	nv	(mg/kg-d)-1	--
		Nickel	1030	mg/kg	1030	mg/kg	1030	9.17E-08	mg/kg-d	nv	(mg/kg-d)-1	--
								Risk				3.0E-08

Table F-6
Adolescent Camper Cancer Risk
Reasonable Maximum Exposure
Contact-Sonoma Mines

Scenario Timeframe: Current/Future
Medium: Air
Exposure Medium: Air
Exposure Point: Contact Sonoma Mines
Receptor Population: Camper (RME)
Receptor Age: Adolescent

Exposure Route	Exposure Medium	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation	Intake (Cancer)	Intake (Cancer) Units	IUR	IUR Units	Cancer Risk
Inhalation	Air	Arsenic	7.581	mg/kg	5.76E-09	mg/m^3	5.76E-09	1.89E-11	mg/m^3	4.3E-03	$(ug/m^3)^{-1}$	8.1E-17
		Cobalt	105.1	mg/kg	7.99E-08	mg/m^3	7.99E-08	2.63E-10	mg/m^3	9.0E-03	$(ug/m^3)^{-1}$	2.4E-15
		Iron	79287	mg/kg	6.02E-05	mg/m^3	6.02E-05	1.98E-07	mg/m^3	nv	$(ug/m^3)^{-1}$	--
		Lead	222.1	mg/kg	1.69E-07	mg/m^3	1.69E-07	5.55E-10	mg/m^3	nv	$(ug/m^3)^{-1}$	--
		Manganese	2352	mg/kg	1.79E-06	mg/m^3	1.79E-06	5.88E-09	mg/m^3	nv	$(ug/m^3)^{-1}$	--
		Mercury	395.2	mg/kg	3.00E-07	mg/m^3	3.00E-07	9.87E-10	mg/m^3	nv	$(ug/m^3)^{-1}$	--
		Nickel	1030	mg/kg	7.83E-07	mg/m^3	7.83E-07	2.57E-09	mg/m^3	2.6E-04	$(ug/m^3)^{-1}$	6.7E-16
								Risk				3.1E-15

Bolded text indicates cancer risk for individual compound exceeds 1 x 10-6.

Total Cancer Risk - All Pathways *3.4E-07*

Table F-7
Adolescent Camper Noncancer Hazard
Central Tendency
Contact-Sonoma Mines

Scenario Timeframe: Current/Future
Medium: Surface Soil
Exposure Medium: Soil
Exposure Point: Contact-Sonoma Mines
Receptor Population: Camper (CT)
Receptor Age: Adolescent

Exposure Route	Exposure Medium	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation	Intake (Noncancer)	Intake (Noncancer) Units	Reference Dose	Reference Dose Units	**Hazard Quotient**
Ingestion	Soil	Arsenic	7.581	mg/kg	7.581	mg/kg	7.581	6.06E-07	mg/kg-d	3.0E-04	mg/kg-d	2.0E-03
		Cobalt	105.1	mg/kg	105.1	mg/kg	105.1	8.40E-06	mg/kg-d	3.0E-04	mg/kg-d	2.8E-02
		Iron	79287	mg/kg	79287	mg/kg	79287	6.34E-03	mg/kg-d	7.0E-01	mg/kg-d	9.1E-03
		Lead	222.1	mg/kg	222.1	mg/kg	222.1	1.77E-05	mg/kg-d	nv	mg/kg-d	--
		Manganese	2352	mg/kg	2352	mg/kg	2352	1.88E-04	mg/kg-d	1.4E-01	mg/kg-d	1.3E-03
		Mercury	395.2	mg/kg	395.2	mg/kg	395.2	3.16E-05	mg/kg-d	1.6E-04	mg/kg-d	2.0E-01
		Nickel	1030	mg/kg	1030	mg/kg	1030	8.23E-05	mg/kg-d	2.0E-02	mg/kg-d	4.1E-03
								Hazard Index				2.4E-01
Dermal	Soil	Arsenic	7.581	mg/kg	7.581	mg/kg	7.581	2.36E-08	mg/kg-d	3.0E-04	mg/kg-d	7.9E-05
		Cobalt	105.1	mg/kg	105.1	mg/kg	105.1	1.09E-08	mg/kg-d	3.0E-04	mg/kg-d	3.6E-05
		Iron	79287	mg/kg	79287	mg/kg	79287	8.24E-06	mg/kg-d	7.0E-01	mg/kg-d	1.2E-05
		Lead	222.1	mg/kg	222.1	mg/kg	222.1	2.31E-08	mg/kg-d	nv	mg/kg-d	--
		Manganese	2352	mg/kg	2352	mg/kg	2352	2.44E-07	mg/kg-d	1.4E-01	mg/kg-d	1.7E-06
		Mercury	395.2	mg/kg	395.2	mg/kg	395.2	4.11E-08	mg/kg-d	1.6E-04	mg/kg-d	2.6E-04
		Nickel	1030	mg/kg	1030	mg/kg	1030	1.07E-07	mg/kg-d	8.0E-04	mg/kg-d	1.3E-04
								Hazard Index				5.2E-04

Table F-7
Adolescent Camper Noncancer Hazard
Central Tendency
Contact-Sonoma Mines

Scenario Timeframe: Current/Future
Medium: Air
Exposure Medium: Air
Exposure Point: Contact Sonoma Mines
Receptor Population: Camper (CT)
Receptor Age: Adolescent

Exposure Route	Exposure Medium	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation	Intake (Noncancer)	Intake (Noncancer) Units	Reference Concentration	Reference Concentration Units	**Hazard Quotient**
Inhalation	Air	Arsenic	7.581	mg/kg	5.76E-09	mg/m3	5.76E-09	2.21E-10	mg/m3	1.5E-05	mg/m3	1.5E-05
		Cobalt	105.1	mg/kg	7.99E-08	mg/m3	7.99E-08	3.06E-09	mg/m3	6.0E-06	mg/m3	5.1E-04
		Iron	79287	mg/kg	6.02E-05	mg/m3	6.02E-05	2.31E-06	mg/m3	nv	mg/m3	--
		Lead	222.1	mg/kg	1.69E-07	mg/m3	1.69E-07	6.47E-09	mg/m3	nv	mg/m3	--
		Manganese	2352	mg/kg	1.79E-06	mg/m3	1.79E-06	6.86E-08	mg/m3	5.0E-05	mg/m3	1.4E-03
		Mercury	395.2	mg/kg	3.00E-07	mg/m3	3.00E-07	1.15E-08	mg/m3	3.0E-04	mg/m3	3.8E-05
		Nickel	1030	mg/kg	7.83E-07	mg/m3	7.83E-07	3.00E-08	mg/m3	9.0E-05	mg/m3	3.3E-04
								Hazard Index				2.3E-03

Bolded text indicates hazard for individual compound exceeds 1

Hazard Index - All Pathways	*2.4E-01*

Table F-8
Adolescent Camper Noncancer Hazard
Reasonable Maximum Exposure
Contact-Sonoma Mines

Scenario Timeframe: Current/Future
Medium: Surface Soil
Exposure Medium: Soil
Exposure Point: Contact-Sonoma Mines
Receptor Population: Camper (RME)
Receptor Age: Adolescent

Exposure Route	Exposure Medium	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation	Intake (Noncancer)	Intake (Noncancer) Units	Reference Dose	Reference Dose Units	**Hazard Quotient**
Ingestion	Soil	Arsenic	7.581	mg/kg	7.581	mg/kg	7.581	2.42E-06	mg/kg-d	3.0E-04	mg/kg-d	8.1E-03
		Cobalt	105.1	mg/kg	105.1	mg/kg	105.1	3.36E-05	mg/kg-d	3.0E-04	mg/kg-d	1.1E-01
		Iron	79287	mg/kg	79287	mg/kg	79287	2.53E-02	mg/kg-d	7.0E-01	mg/kg-d	3.6E-02
		Lead	222.1	mg/kg	222.1	mg/kg	222.1	7.10E-05	mg/kg-d	nv	mg/kg-d	--
		Manganese	2352	mg/kg	2352	mg/kg	2352	7.52E-04	mg/kg-d	1.4E-01	mg/kg-d	5.4E-03
		Mercury	395.2	mg/kg	395.2	mg/kg	395.2	1.26E-04	mg/kg-d	1.6E-04	mg/kg-d	7.9E-01
		Nickel	1030	mg/kg	1030	mg/kg	1030	3.29E-04	mg/kg-d	2.0E-02	mg/kg-d	1.6E-02
								Hazard Index				9.7E-01
Dermal	Soil	Arsenic	7.581	mg/kg	7.581	mg/kg	7.581	2.36E-07	mg/kg-d	3.0E-04	mg/kg-d	7.9E-04
		Cobalt	105.1	mg/kg	105.1	mg/kg	105.1	1.09E-07	mg/kg-d	3.0E-04	mg/kg-d	3.6E-04
		Iron	79287	mg/kg	79287	mg/kg	79287	8.24E-05	mg/kg-d	7.0E-01	mg/kg-d	1.2E-04
		Lead	222.1	mg/kg	222.1	mg/kg	222.1	2.31E-07	mg/kg-d	nv	mg/kg-d	--
		Manganese	2352	mg/kg	2352	mg/kg	2352	2.44E-06	mg/kg-d	1.4E-01	mg/kg-d	1.7E-05
		Mercury	395.2	mg/kg	395.2	mg/kg	395.2	4.11E-07	mg/kg-d	1.6E-04	mg/kg-d	2.6E-03
		Nickel	1030	mg/kg	1030	mg/kg	1030	1.07E-06	mg/kg-d	8.0E-04	mg/kg-d	1.3E-03
								Hazard Index				5.2E-03

Table F-8
Adolescent Camper Noncancer Hazard
Reasonable Maximum Exposure
Contact-Sonoma Mines

Scenario Timeframe: Current/Future
Medium: Air
Exposure Medium: Air
Exposure Point: Contact Sonoma Mines
Receptor Population: Camper (RME)
Receptor Age: Adolescent

Exposure Route	Exposure Medium	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation	Intake (Noncancer)	Intake (Noncancer) Units	Reference Concentration	Reference Concentration Units	**Hazard Quotient**
Inhalation	Air	Arsenic	7.581	mg/kg	5.76E-09	mg/m3	5.76E-09	2.21E-10	mg/m3	1.5E-05	mg/m3	1.5E-05
		Cobalt	105.1	mg/kg	7.99E-08	mg/m3	7.99E-08	3.06E-09	mg/m3	6.0E-06	mg/m3	5.1E-04
		Iron	79287	mg/kg	6.02E-05	mg/m3	6.02E-05	2.31E-06	mg/m3	nv	mg/m3	--
		Lead	222.1	mg/kg	1.69E-07	mg/m3	1.69E-07	6.47E-09	mg/m3	nv	mg/m3	--
		Manganese	2352	mg/kg	1.79E-06	mg/m3	1.79E-06	6.86E-08	mg/m3	5.0E-05	mg/m3	1.4E-03
		Mercury	395.2	mg/kg	3.00E-07	mg/m3	3.00E-07	1.15E-08	mg/m3	3.0E-04	mg/m3	3.8E-05
		Nickel	1030	mg/kg	7.83E-07	mg/m3	7.83E-07	3.00E-08	mg/m3	9.0E-05	mg/m3	3.3E-04
								Hazard Index				2.3E-03

Bolded text indicates hazard for individual compound exceeds 1

Hazard Index - All Pathways	*9.8E-01*

Table F-9
Child Camper Cancer Risk
Central Tendency
Contact-Sonoma Mines

Scenario Timeframe: Current/Future
Medium: Surface Soil
Exposure Medium: Soil
Exposure Point: Contact-Sonoma Mines
Receptor Population: Camper (CT)
Receptor Age: Child

Exposure Route	Exposure Medium	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation	Intake (Cancer)	Intake (Cancer) Units	Slope Factor	Slope Factor Units	Cancer Risk
Ingestion	Soil	Arsenic	7.581	mg/kg	7.581	mg/kg	7.581	1.04E-07	mg/kg-d	1.5E+00	(mg/kg-d)-1	1.6E-07
		Cobalt	105.1	mg/kg	105.1	mg/kg	105.1	1.44E-06	mg/kg-d	nv	(mg/kg-d)-1	--
		Iron	79287	mg/kg	79287	mg/kg	79287	1.09E-03	mg/kg-d	nv	(mg/kg-d)-1	--
		Lead	222.1	mg/kg	222.1	mg/kg	222.1	3.04E-06	mg/kg-d	nv	(mg/kg-d)-1	--
		Manganese	2352	mg/kg	2352	mg/kg	2352	3.22E-05	mg/kg-d	nv	(mg/kg-d)-1	--
		Mercury	395.2	mg/kg	395.2	mg/kg	395.2	5.41E-06	mg/kg-d	nv	(mg/kg-d)-1	--
		Nickel	1030	mg/kg	1030	mg/kg	1030	1.41E-05	mg/kg-d	nv	(mg/kg-d)-1	--
								Risk				1.6E-07
Dermal	Soil	Arsenic	7.581	mg/kg	7.581	mg/kg	7.581	1.50E-08	mg/kg-d	1.5E+00	(mg/kg-d)-1	2.2E-08
		Cobalt	105.1	mg/kg	105.1	mg/kg	105.1	6.91E-09	mg/kg-d	nv	(mg/kg-d)-1	--
		Iron	79287	mg/kg	79287	mg/kg	79287	5.21E-06	mg/kg-d	nv	(mg/kg-d)-1	--
		Lead	222.1	mg/kg	222.1	mg/kg	222.1	1.46E-08	mg/kg-d	nv	(mg/kg-d)-1	--
		Manganese	2352	mg/kg	2352	mg/kg	2352	1.55E-07	mg/kg-d	nv	(mg/kg-d)-1	--
		Mercury	395.2	mg/kg	395.2	mg/kg	395.2	2.60E-08	mg/kg-d	nv	(mg/kg-d)-1	--
		Nickel	1030	mg/kg	1030	mg/kg	1030	6.77E-08	mg/kg-d	nv	(mg/kg-d)-1	--
								Risk				2.2E-08

Table F-9
Child Camper Cancer Risk
Central Tendency
Contact-Sonoma Mines

Scenario Timeframe: Current/Future
Medium: Air
Exposure Medium: Air
Exposure Point: Contact Sonoma Mines
Receptor Population: Camper (CT)
Receptor Age: Child

Exposure Route	Exposure Medium	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation	Intake (Cancer)	Intake (Cancer) Units	IUR	IUR Units	Cancer Risk
Inhalation	Air	Arsenic	7.581	mg/kg	5.76E-09	mg/m^3	5.76E-09	1.89E-11	mg/m^3	4.3E-03	$(ug/m^3)^{-1}$	8.1E-17
		Cobalt	105.1	mg/kg	7.99E-08	mg/m^3	7.99E-08	2.63E-10	mg/m^3	9.0E-03	$(ug/m^3)^{-1}$	2.4E-15
		Iron	79287	mg/kg	6.02E-05	mg/m^3	6.02E-05	1.98E-07	mg/m^3	nv	$(ug/m^3)^{-1}$	--
		Lead	222.1	mg/kg	1.69E-07	mg/m^3	1.69E-07	5.55E-10	mg/m^3	nv	$(ug/m^3)^{-1}$	--
		Manganese	2352	mg/kg	1.79E-06	mg/m^3	1.79E-06	5.88E-09	mg/m^3	nv	$(ug/m^3)^{-1}$	--
		Mercury	395.2	mg/kg	3.00E-07	mg/m^3	3.00E-07	9.87E-10	mg/m^3	nv	$(ug/m^3)^{-1}$	--
		Nickel	1030	mg/kg	7.83E-07	mg/m^3	7.83E-07	2.57E-09	mg/m^3	2.6E-04	$(ug/m^3)^{-1}$	6.7E-16
								Risk				3.1E-15

Bolded text indicates cancer risk for individual compound exceeds 1 x 10-6.

Total Cancer Risk - All Pathways	*1.8E-07*

Table F-10
Child Camper Cancer Risk
Reasonable Maximum Exposure
Contact-Sonoma Mines

Scenario Timeframe: Current/Future
Medium: Surface Soil
Exposure Medium: Soil
Exposure Point: Contact-Sonoma Mines
Receptor Population: Camper (RME)
Receptor Age: Child

Exposure Route	Exposure Medium	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation	Intake (Cancer)	Intake (Cancer) Units	Slope Factor	Slope Factor Units	Cancer Risk
Ingestion	Soil	Arsenic	7.581	mg/kg	7.581	mg/kg	7.581	4.15E-07	mg/kg-d	1.5E+00	(mg/kg-d)-1	**1.2E-06**
		Cobalt	105.1	mg/kg	105.1	mg/kg	105.1	5.76E-06	mg/kg-d	nv	(mg/kg-d)-1	--
		Iron	79287	mg/kg	79287	mg/kg	79287	4.34E-03	mg/kg-d	nv	(mg/kg-d)-1	--
		Lead	222.1	mg/kg	222.1	mg/kg	222.1	1.22E-05	mg/kg-d	nv	(mg/kg-d)-1	--
		Manganese	2352	mg/kg	2352	mg/kg	2352	1.29E-04	mg/kg-d	nv	(mg/kg-d)-1	--
		Mercury	395.2	mg/kg	395.2	mg/kg	395.2	2.17E-05	mg/kg-d	nv	(mg/kg-d)-1	--
		Nickel	1030	mg/kg	1030	mg/kg	1030	5.64E-05	mg/kg-d	nv	(mg/kg-d)-1	--
								Risk				1.2E-06
Dermal	Soil	Arsenic	7.581	mg/kg	7.581	mg/kg	7.581	2.99E-08	mg/kg-d	1.5E+00	(mg/kg-d)-1	9.0E-08
		Cobalt	105.1	mg/kg	105.1	mg/kg	105.1	1.38E-08	mg/kg-d	nv	(mg/kg-d)-1	--
		Iron	79287	mg/kg	79287	mg/kg	79287	1.04E-05	mg/kg-d	nv	(mg/kg-d)-1	--
		Lead	222.1	mg/kg	222.1	mg/kg	222.1	2.92E-08	mg/kg-d	nv	(mg/kg-d)-1	--
		Manganese	2352	mg/kg	2352	mg/kg	2352	3.09E-07	mg/kg-d	nv	(mg/kg-d)-1	--
		Mercury	395.2	mg/kg	395.2	mg/kg	395.2	5.20E-08	mg/kg-d	nv	(mg/kg-d)-1	--
		Nickel	1030	mg/kg	1030	mg/kg	1030	1.35E-07	mg/kg-d	nv	(mg/kg-d)-1	--
								Risk				9.0E-08

Table F-10
Child Camper Cancer Risk
Reasonable Maximum Exposure
Contact-Sonoma Mines

Scenario Timeframe: Current/Future
Medium: Air
Exposure Medium: Air
Exposure Point: Contact Sonoma Mines
Receptor Population: Camper (RME)
Receptor Age: Child

Exposure Route	Exposure Medium	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation	Intake (Cancer)	Intake (Cancer) Units	IUR	IUR Units	Cancer Risk
Inhalation	Air	Arsenic	7.581	mg/kg	5.76E-09	mg/m^3	5.76E-09	1.89E-11	mg/m^3	4.3E-03	$(ug/m^3)^{-1}$	8.1E-17
		Cobalt	105.1	mg/kg	7.99E-08	mg/m^3	7.99E-08	2.63E-10	mg/m^3	9.0E-03	$(ug/m^3)^{-1}$	2.4E-15
		Iron	79287	mg/kg	6.02E-05	mg/m^3	6.02E-05	1.98E-07	mg/m^3	nv	$(ug/m^3)^{-1}$	--
		Lead	222.1	mg/kg	1.69E-07	mg/m^3	1.69E-07	5.55E-10	mg/m^3	nv	$(ug/m^3)^{-1}$	--
		Manganese	2352	mg/kg	1.79E-06	mg/m^3	1.79E-06	5.88E-09	mg/m^3	nv	$(ug/m^3)^{-1}$	--
		Mercury	395.2	mg/kg	3.00E-07	mg/m^3	3.00E-07	9.87E-10	mg/m^3	nv	$(ug/m^3)^{-1}$	--
		Nickel	1030	mg/kg	7.83E-07	mg/m^3	7.83E-07	2.57E-09	mg/m^3	2.6E-04	$(ug/m^3)^{-1}$	6.7E-16
								Risk				3.1E-15

Bolded text indicates cancer risk for individual compound exceeds 1 x 10-6.

Total Cancer Risk - All Pathways	*1.3E-06*

Table F-11
Child Camper Noncancer Hazard
Central Tendency
Contact-Sonoma Mines

Scenario Timeframe: Current/Future
Medium: Surface Soil
Exposure Medium: Soil
Exposure Point: Contact-Sonoma Mines
Receptor Population: Camper (CT)
Receptor Age: Child

Exposure Route	Exposure Medium	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation	Intake (Noncancer)	Intake (Noncancer) Units	Reference Dose	Reference Dose Units	**Hazard Quotient**
Ingestion	Soil	Arsenic	7.581	mg/kg	7.581	mg/kg	7.581	1.21E-06	mg/kg-d	3.0E-04	mg/kg-d	4.0E-03
		Cobalt	105.1	mg/kg	105.1	mg/kg	105.1	1.68E-05	mg/kg-d	3.0E-04	mg/kg-d	5.6E-02
		Iron	79287	mg/kg	79287	mg/kg	79287	1.27E-02	mg/kg-d	7.0E-01	mg/kg-d	1.8E-02
		Lead	222.1	mg/kg	222.1	mg/kg	222.1	3.55E-05	mg/kg-d	nv	mg/kg-d	--
		Manganese	2352	mg/kg	2352	mg/kg	2352	3.76E-04	mg/kg-d	1.4E-01	mg/kg-d	2.7E-03
		Mercury	395.2	mg/kg	395.2	mg/kg	395.2	6.32E-05	mg/kg-d	1.6E-04	mg/kg-d	3.9E-01
		Nickel	1030	mg/kg	1030	mg/kg	1030	1.65E-04	mg/kg-d	2.0E-02	mg/kg-d	8.2E-03
								Hazard Index				4.8E-01
Dermal	Soil	Arsenic	7.581	mg/kg	7.581	mg/kg	7.581	1.74E-07	mg/kg-d	3.0E-04	mg/kg-d	5.8E-04
		Cobalt	105.1	mg/kg	105.1	mg/kg	105.1	8.06E-08	mg/kg-d	3.0E-04	mg/kg-d	2.7E-04
		Iron	79287	mg/kg	79287	mg/kg	79287	6.08E-05	mg/kg-d	7.0E-01	mg/kg-d	8.7E-05
		Lead	222.1	mg/kg	222.1	mg/kg	222.1	1.70E-07	mg/kg-d	nv	mg/kg-d	--
		Manganese	2352	mg/kg	2352	mg/kg	2352	1.80E-06	mg/kg-d	1.4E-01	mg/kg-d	1.3E-05
		Mercury	395.2	mg/kg	395.2	mg/kg	395.2	3.03E-07	mg/kg-d	1.6E-04	mg/kg-d	1.9E-03
		Nickel	1030	mg/kg	1030	mg/kg	1030	7.90E-07	mg/kg-d	8.0E-04	mg/kg-d	9.9E-04
								Hazard Index				3.8E-03

Table F-11
Child Camper Noncancer Hazard
Central Tendency
Contact-Sonoma Mines

Scenario Timeframe: Current/Future
Medium: Air
Exposure Medium: Air
Exposure Point: Contact Sonoma Mines
Receptor Population: Camper (CT)
Receptor Age: Child

Exposure Route	Exposure Medium	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation	Intake (Noncancer)	Intake (Noncancer) Units	Reference Concentration	Reference Concentration Units	**Hazard Quotient**
Inhalation	Air	Arsenic	7.581	mg/kg	5.76E-09	mg/m3	5.76E-09	2.21E-10	mg/m3	1.5E-05	mg/m3	1.5E-05
		Cobalt	105.1	mg/kg	7.99E-08	mg/m3	7.99E-08	3.06E-09	mg/m3	6.0E-06	mg/m3	5.1E-04
		Iron	79287	mg/kg	6.02E-05	mg/m3	6.02E-05	2.31E-06	mg/m3	nv	mg/m3	--
		Lead	222.1	mg/kg	1.69E-07	mg/m3	1.69E-07	6.47E-09	mg/m3	nv	mg/m3	--
		Manganese	2352	mg/kg	1.79E-06	mg/m3	1.79E-06	6.86E-08	mg/m3	5.0E-05	mg/m3	1.4E-03
		Mercury	395.2	mg/kg	3.00E-07	mg/m3	3.00E-07	1.15E-08	mg/m3	3.0E-04	mg/m3	3.8E-05
		Nickel	1030	mg/kg	7.83E-07	mg/m3	7.83E-07	3.00E-08	mg/m3	9.0E-05	mg/m3	3.3E-04
								Hazard Index				2.3E-03

Bolded text indicates hazard for individual compound exceeds 1

Hazard Index - All Pathways	*4.9E-01*

Table F-12
Child Camper Noncancer Hazard
Reasonable Maximum Exposure
Contact-Sonoma Mines

Scenario Timeframe: Current/Future
Medium: Surface Soil
Exposure Medium: Soil
Exposure Point: Contact-Sonoma Mines
Receptor Population: Camper (RME)
Receptor Age: Child

Exposure Route	Exposure Medium	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation	HIDE Dose/Cs	HIDE ABSdermal	Intake (Noncancer)	Intake (Noncancer) Units	Reference Dose	Reference Dose Units	**Hazard Quotient**
Ingestion	Soil	Arsenic	7.581	mg/kg	7.581	mg/kg	7.581	6.39E-07		4.85E-06	mg/kg-d	3.0E-04	mg/kg-d	1.6E-02
		Cobalt	105.1	mg/kg	105.1	mg/kg	105.1	6.39E-07		6.72E-05	mg/kg-d	3.0E-04	mg/kg-d	2.2E-01
		Iron	79287	mg/kg	79287	mg/kg	79287	6.39E-07		5.07E-02	mg/kg-d	7.0E-01	mg/kg-d	7.2E-02
		Lead	222.1	mg/kg	222.1	mg/kg	222.1	6.39E-07		1.42E-04	mg/kg-d	nv	mg/kg-d	--
		Manganese	2352	mg/kg	2352	mg/kg	2352	6.39E-07		1.50E-03	mg/kg-d	1.4E-01	mg/kg-d	1.1E-02
		Mercury	395.2	mg/kg	395.2	mg/kg	395.2	6.39E-07		2.53E-04	mg/kg-d	1.6E-04	mg/kg-d	**1.6E+00**
		Nickel	1030	mg/kg	1030	mg/kg	1030	6.39E-07		6.58E-04	mg/kg-d	2.0E-02	mg/kg-d	3.3E-02
										Hazard Index				**1.9E+00**
Dermal	Soil	Arsenic	7.581	mg/kg	7.581	mg/kg	7.581	1.53E-06	3.00E-02	3.49E-07	mg/kg-d	3.0E-04	mg/kg-d	1.2E-03
		Cobalt	105.1	mg/kg	105.1	mg/kg	105.1	1.53E-06	1.00E-03	1.61E-07	mg/kg-d	3.0E-04	mg/kg-d	5.4E-04
		Iron	79287	mg/kg	79287	mg/kg	79287	1.53E-06	1.00E-03	1.22E-04	mg/kg-d	7.0E-01	mg/kg-d	1.7E-04
		Lead	222.1	mg/kg	222.1	mg/kg	222.1	1.53E-06	1.00E-03	3.41E-07	mg/kg-d	nv	mg/kg-d	--
		Manganese	2352	mg/kg	2352	mg/kg	2352	1.53E-06	1.00E-03	3.61E-06	mg/kg-d	1.4E-01	mg/kg-d	2.6E-05
		Mercury	395.2	mg/kg	395.2	mg/kg	395.2	1.53E-06	1.00E-03	6.06E-07	mg/kg-d	1.6E-04	mg/kg-d	3.8E-03
		Nickel	1030	mg/kg	1030	mg/kg	1030	1.53E-06	1.00E-03	1.58E-06	mg/kg-d	8.0E-04	mg/kg-d	2.0E-03
										Hazard Index				7.7E-03

Table F-12
Child Camper Noncancer Hazard
Reasonable Maximum Exposure
Contact-Sonoma Mines

Scenario Timeframe: Current/Future
Medium: Air
Exposure Medium: Air
Exposure Point: Contact Sonoma Mines
Receptor Population: Camper (RME)
Receptor Age: Child

Exposure Route	Exposure Medium	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Route EPC Value	Route EPC Units	EPC Selected for Risk Calculation	HIDE Intake/EPC	HIDE PEF	Intake (Noncancer)	Intake (Noncancer) Units	Reference Concentration	Reference Concentration Units	**Hazard Quotient**
Inhalation	Air	Arsenic	7.581	mg/kg	5.76E-09	mg/m3	5.76E-09	3.84E-02	1.32E+09	2.21E-10	mg/m3	1.5E-05	mg/m3	1.5E-05
		Cobalt	105.1	mg/kg	7.99E-08	mg/m3	7.99E-08	3.84E-02	1.32E+09	3.06E-09	mg/m3	6.0E-06	mg/m3	5.1E-04
		Iron	79287	mg/kg	6.02E-05	mg/m3	6.02E-05	3.84E-02	1.32E+09	2.31E-06	mg/m3	nv	mg/m3	--
		Lead	222.1	mg/kg	1.69E-07	mg/m3	1.69E-07	3.84E-02	1.32E+09	6.47E-09	mg/m3	nv	mg/m3	--
		Manganese	2352	mg/kg	1.79E-06	mg/m3	1.79E-06	3.84E-02	1.32E+09	6.86E-08	mg/m3	5.0E-05	mg/m3	1.4E-03
		Mercury	395.2	mg/kg	3.00E-07	mg/m3	3.00E-07	3.84E-02	1.32E+09	1.15E-08	mg/m3	3.0E-04	mg/m3	3.8E-05
		Nickel	1030	mg/kg	7.83E-07	mg/m3	7.83E-07	3.84E-02	1.32E+09	3.00E-08	mg/m3	9.0E-05	mg/m3	3.3E-04
										Hazard Index				2.3E-03

Bolded text indicates hazard for individual compound exceeds 1

Hazard Index - All Pathways	**1.9E+00**