TABLES

TABLE 1
SAMPLE COLLECTION SUMMARY
BLUE LEDGE MINE

Station Name	Location	Water	Sediment	Riparian Soil	Fish Tissue	Waste Rock
Applegate Reservoir						
ARV-01	Applegate Reservoir		X			
ARV-02	Applegate Reservoir		X		X	
ARV-03	Applegate Reservoir		X			
ARV-04	Applegate Reservoir	X	X			
Rivers/Creeks						
AR-01	Applegate River	X	X	X		
AR-02	Applegate River	X	X		X	
EC-01	Elliott Creek	X	X	X		
EC-02	Elliott Creek	X	X	X	X	
EC-03	Elliott Creek	X	X			
EC-04	Elliott Creek	X	X		X	
EC-05	Elliott Creek	X	X	X		
EC-06	Elliott Creek*	X	X			
EC-07	Elliott Creek*	X	X	X	X	
EC-08	Elliott Creek					
JC-01	Joe Creek *	X	X	X		
JC-02	Joe Creek	X	X			
JC-03	Joe Creek	X	X	X		
JC-04	Joe Creek *	X	X	X		
JC-05	Joe Creek					
JC-06	Joe Creek *					
JC-07	Joe Creek *	X				
JC-08	Joe Creek *	X	X			
JC-09	Joe Creek *	X				
JC-10	Joe Creek *	X	X			
JC-11	Joe Creek	X	X			
JC-12	Joe Creek	X	X	X		
JC-13	Joe Creek	X	X			
JC-14	Joe Creek	X	X	X		
JC-15	Joe Creek	X	X			
T1JC-01	Unnamed tributary 1 to Joe Creek					
T2JC-01	Unnamed tributary 2 to Joe Creek					
MG-01	Manzanita Gulch	X				
T3JC-01	Unnamed tributary 3 to Joe Creek	X				
T4JC-01	Unnamed tributary 4 to Joe Creek	X				
T4JC-02	Unnamed tributary 4 to Joe Creek	X				
Adits/Seeps						
AD-01	Upper North Adit **	X				
AD-02	Lower North Adit **	X				
AD-03	Upper South Adit **					
DAM-01	DAM	X				
SP-01	Seep	X				
SP-02	Seep	X				
Waste Rock Piles						
WR-01	Waste Rock					X
WR-02	Waste Rock					X
WR-03	Waste Rock					X
WR-04	Waste Rock					X
WR-05	Waste Rock					
	Total Number of Unique Samples	32	24	10	5	4
	Number of Duplicates	2	2	1	1	1
	Total Samples	**34**	**26**	**11**	**6**	**5**

Notes:

* = existing sampling station
** = opportunistic sampling if flow is present

TABLE 2
SURFACE WATER AND GROUNDWATER ANALYTICAL SUMMARY AND SCREENING
BLUE LEDGE MINE

	Field Parameters			General Chemistry Parameters - mg/L											Dissolved Metals - ug/L											
Sample Name	pH (SU)	Conductivity (uS/cm)	Temperature (degrees Celsius)	Alkalinity		Hardness		TDS		TSS		Sulfate			Arsenic		Cadmium		Copper		Iron		Lead		Zinc	
Background																										
JC-15-SW-080627-URS	7.78	55	11.2	26		23.9		18		5	U	2.5			0.07	U	0.008	U	0.74		4.0	U	0.020	U	0.92	
JC-14-SW-080627-URS	7.76	55	10.8	26		23.8		17		5	U	2.5			0.07	U	0.008	U	0.71		4.0	U	0.020	U	1.10	
JC-13-SW-080627-URS	7.89	56	10.7	25		24		29		5	U	2.5			0.07	U	0.008	U	0.84		4.0	U	0.020	U	0.82	
JC-12-SW-080627-URS	7.93	56	10.1	24		23.6		33		5	U	2.5			0.07	U	0.008	U	0.73		4.0	U	0.020	U	0.75	
JC-11-SW-080627-URS	7.93	54	10.0	25		23.8		14		5	U	2.5			0.08	J	0.008	U	0.75		4.0	U	0.020	U	0.49	J
JC-10-SW-080627-URS	8.13	55	9.7	25		24.5		26		5	U	2.5			0.07	U	0.008	U	0.77		4.0	U	0.020	U	0.65	
Rivers and Creeks																										
JC-09-SW-080627-URS	7.29	48	9.1	22		21.3		15		5	U	2.3			0.07	U	0.031		3.45		4.0	U	0.020	U	6.01	
JC-08-SW-080626-URS	6.94	47	10.5	21		20.6		21		5	U	2.8			0.07	U	0.228		29.0		4.0	U	0.043		42.9	
JC-07-SW-080626-URS	7.45	64	12.8	20		20.8		43		5	U	3.6			0.07	U	0.537		62.8		4.0	U	0.060		88.5	
JC-07-SW-DUP-080626-URS	NA	NA	NA	22		20.9		15		5	U	3.6			0.07	U	0.519		62.4		4.0	U	0.066		87.6	
JC-04-SW-080627-URS	7.19	79	16.9	32		35		40		5	U	5.1			0.07	U	0.504		31.8		5.1	J	0.020	U	61.2	
JC-03-SW-080625-URS	6.97	75	12.2	31		36.4		55		5	U	5.1			0.07	U	0.496		34.9		4.0	U	0.020	U	63.7	
JC-02-SW-080625-URS	6.97	74	11.6	33		37.1		37		5	U	5.1			0.07	U	0.519		35.6		4.0	U	0.020	U	69.3	
JC-01-SW-080625-URS	7.40	75	10.5	35		37		48		5	U	5.1			0.07	U	0.564		31.3		4.0	U	0.020	U	79.4	
EC-07-SW-080625-URS	7.56	91	10.8	47		44.9		71		5	U	2.8			0.35	J	0.008	U	0.46		4.0	U	0.020	U	0.61	
EC-06-SW-080625-URS	6.92	82	10.9	38		40.4		73		5	U	3.1			0.22	J	0.180		13.9		4.0	U	0.020	U	22.3	
EC-05-SW-080625-URS	7.45	90	11.3	42		43.4		66		5	U	3.0			0.39	J	0.042		3.03		4.0	U	0.020	U	3.49	
EC-04-SW-080625-URS	7.51	101	13.5	42		44		64		5	U	3.0			0.37		0.040		3.22		4.0	U	0.020	U	3.82	
EC-04-SW-DUP-080625-URS	NA	NA	NA	44		43.1		82		5	U	2.9			0.40		0.049		3.25		4.0	U	0.020	U	4.73	
EC-03-SW-080625-URS	7.39	103	11.6	41		44.3		76		5	U	3.0			0.31	J	0.046		3.22		4.0	U	0.020	U	4.38	
EC-02-SW-080625-URS	7.50	103	11.1	43		43.9		77		5	U	3.0			0.37	J	0.038		3.62		4.0	U	0.020	U	4.94	
EC-01-SW-080624-URS	7.57	103	14.7	40		42.3		81		5	U	3.0			0.50	J	0.049		7.82		6.0	J	0.023		3.95	
AR-01-SW-080624-URS	7.62	100	14.1	36		41.6		64		5	U	2.5			0.07	U	0.018	J	0.02	U	5.6	J	0.016	J	0.50	U
AR-02-SW-080624-URS	7.65	95	14.2	38		41.1		50		5	U	1.9			0.29	J	0.025		1.61		4.6	J	0.008	J	2.15	
ARV-04-SW-080624-URS	7.47	95	21.2	42		39.3		77		5	U	1.8			0.37	J	0.012	J	1.89		7.9	J	0.011	J	2.2	
Tributaries																										
T4JC-01-SW-08627-URS	6.96	20	13.6	12		11.5		24		5	U	1.0			0.07	U	0.008	U	0.86		4.0	U	0.035		1.90	
T4JC-02-SW-08627-URS	6.62	19	13.3	12		11.5		23		5	U	1.0			0.07	U	0.008	U	0.89		7.4	J	0.020	U	1.93	
DAM-01-080624-URS	3.42	310	16.1	2	U	63.5		160		5	U	112			0.07	U	33.7		4680		1670		8.370		6180	
T3JC-01-SW-080626	7.27	155	19.3	78		74.1		91		8		1.9			0.50	U	0.01		0.42		97.9		0.007		1.75	
MG-01-SW-080626-URS	7.78	164	13.4	77		82.2		120		5	U	9.0			0.29	J	0.008	U	0.51		22.4		0.020	U	1.13	
T2JC-01	Not Sampled - Tributary Dry																									
T1JC-01	Not Sampled - Tributary Dry																									
Adits and Seeps																										
AD-01-080624-URS	2.40	>3999	26	2	U	576		5060		5	U	2770			3.19		70.9		194000		748000		8.640		300000	
AD-02-080624-URS	7.73	435	9.2	134		548		801		6		393			1.81		0.598		4.77		53.6		0.020		1200	
SP-01-080624-URS	6.84	92	19.5	31		31		23		5	U	5.7			0.10	J	0.839		65.9		20.3		0.210		132	
SP-02-080627-URS	5.98	70	7.7	22		36.8		81		5	U	18.3			0.07	U	5.450		699		4.0	U	0.219		913	
Screening Criteria																										
Ecological																										
California Water Quality Standards CCC	--	--	--	--		--		--		--		--			150		2.2		9		NA		2.5		120	
DEQ Table 33A, 33B, and 33C AWQC CCC	--	--	--	20		--		--		--		--			48		b		b		1000		b		b	
EPA NRWQC CCC 2006	--	--	--	--		--		--		--		--			150		0.25		9		NA		2.5		120	
Human Health																										
CalWQS - humans ingesting organisms only	--	--	--	--		--		--		--		--			--		--		--		--		--		--	
DEQ Tables 33A, 33B, and 33C AWQC - humans ingesting organisms only	--	--	--	20		--		--		--		--			0.14		--		--		--		--		26,000	
EPA NRWQC - protective of humans ingesting organisms only	--	--	--	--		--		--		--		--			0.14		--		--		--		--		26,000	

[a] Values are hardness dependent. Values shown for CA WQS and USEPA NRWQC are based on a default hardness of 100 mg/L. Site-specific CCCs are based on hardness values specific to each waterbody.

b Guidance recommends calculation of site-specific criteria using hardness data collected from the site (Table 33B). For calculated hardness dependent values see Appendix C.

U - The analyte was analyzed for, but was not detected above the reported sample method detection limit (MDL).

J - The result is an estimated quantity. The associated numeric value is the approximate concentration of the analyte in the sample.

Highlighted results exceed one or more screening level values.

TABLE 3
DRINKING WATER ANALYTICAL SUMMARY AND SCREENING
BLUE LEDGE MINE

		General Chemistry Parameters - mg/L										Dissolved Metals - ug/L											
Sample Name	Sample Location	Alkalinity		Hardness		TDS		TSS		Sulfate		Arsenic		Cadmium		Copper		Iron		Lead		Zinc	
WS-1	Ziem's Residence	244		256		267		5	U	18.2		6.24		0.554		9.67		20	U	2.82		540	
WS-2	Ruetiger's Residence	258		271		276		5	U	21		0.22	J	0.019	J	1.16		4	U	0.092		7	
WS-3	Neilson's Residence	160		246		324		5	U	77.4		2.04		0.062		4		20	U	0.166		43	
Screening Criteria - Human Health																							
USEPA Drinking Water Standards (MCLs)		--		--		--		--		--		10		5		1,300		300		15		--	
Cal MCLS		--		--		--		--		--		10		5		1,300		300		15		--	
USEPA Regional Screening Levels for tap water		--		--		--		--		--		0.045		18		1,500		26,000		--		11,000	

J - The result is an estimated concentration
U - The compound was analyzed for, but was not detected at or above the MDL
Highlighted results exceed one or more screening

TABLE 4
RIPARIAN SOIL ANALYTICAL SUMMARY AND SCREENING
BLUE LEDGE MINE

Sample Name	Arsenic	Cadmium	Copper	Iron[a]	Lead	Zinc
Background						
JC-14-RS-080627-URS	1.24	0.092	45.2	17100	1.83	38.9
JC-12-RS-080627-URS	3.16	0.166	67.1	21800	5.29	73.1
Average of background data	2.2	0.13	56.2	19450	3.6	56
California Regional Soil Levels[b]	3.5	0.36	28.7	--	23.9	149
Rivers and Creeks						
JC-06	Not sampled					
JC-05	Not sampled					
JC-04-RS-080627-URS	3.44	0.354	204	24900	15.1	86.7
JC-03-RS-080626-URS	17.8	0.202	141	52400	11.6	119
JC-01-RS-080626-URS	4.73	1.09	378	26600	31.2	172
EC-08	Not sampled					
EC-07-RS-080625-URS	5.84	0.220	51.9	40400	6.08	84.6
EC-05-RS-080625-URS	5.37	0.281	60.4	28200	6.37	74.0
EC-05-RS-DUP-080625-URS	5.01	0.311	80.0	28000	6.17	74.0
EC-02-RS-080625-URS	3.29	0.191	56.0	23000	5.75	64.9
EC-01-RS-080624-URS	5.61	0.324	74.1	35400	5.99	97.9
AR-01-RS-080624-URS	4.65	0.654	85.0	28600	7.06	185
Screening Criteria						
Ecological						
DEQ SLVs						
Plants	10	4	100	--	50	50
Inverts	60	20	50	--	500	200
Birds	10	6	190	--	16	60
Mammals	29	125	390	--	4000	20000
EPA Eco-SSLs						
Plants	18	32	70	--	120	160
Soil invertebrates	NA	140	80	--	1,700	120
Avian receptors	43	0.77	~~28~~	--	11	~~46~~
Mammalian Receptors	46	0.36	~~49~~	--	56	79
Applicable Ecological Criterion	10	0.36	56.2[c]	--	11	56[c]
Human Health						
EPA R6 HHMSSLs	~~0.39~~	39	2,900	--	400	23,000
Applicable Human Health Criteria	2.2[c]	39	2,900	--	400	23,000

All results are in mg/kg on a dry weight basis unless otherwise noted.
Highlighted results exceed one or more screening level values.
-- = not available.

a = iron results are presented, but iron is considered an essential nutrient.

b - Because site-specific background concentrations are available for riparian soil, the California Regional Soil Levels are presented here for informational purposes only.

c - Because the site-specific background concentration is greater than the flagged screening criteria, the site-specific background concentration is used as the applicable criterion. Criteria lower than the background concentration are shown in strikethrough font.

TABLE 5
SEDIMENT ANALYTICAL SUMMARY AND SCREENING
BLUE LEDGE MINE

Sample Name	Arsenic	Cadmium	Copper	Iron[a]	Lead	Zinc
Background						
JC-15-SD-080627-URS	1.43	0.121	47.2	20000	1.63	44.1
JC-14-SD-080627-URS	0.74	0.093	34.4	14900	1.20	26.9
JC-13-SD-080627-URS	1.19	0.113	37.7	18500	1.63	40.2
JC-12-SD-080627-URS	1.77	0.097	39.0	16500	2.09 J	35.4
JC-11-SD-080627-URS	1.36	0.139	47.5	20700	1.49	36.6
JC-10-SD-080627-URS	2.68	0.214	51.7	24000	2.67	55.6
Average of background data	1.5	0.13	42.9	19100.0	1.8	39.8
California Regional Soil Levels[b]	3.5	0.36	28.7	--	23.9	149
Rivers and Creeks						
JC-08-SD-080627-URS	2.54 J	0.941	978	24700	13.8	208
JC-06	Not sampled					
JC-05	Not sampled					
JC-04-SD-080627-URS	4.27	2.93	558	11300	10.0	317
JC-03-SD-080626-URS	3.22	2.70	386	20400	7.72	423
JC-02-SD-080626-URS	1.14	2.80	536	22400	6.27	533
JC-01-SD-080626-URS	3.01	2.14	430	26200	5.85	440
EC-08	Not sampled					
EC-07-SD-080625-URS	7.59	0.281	28.0	23200	6.91	59.0
EC-06-SD-080625-URS	4.92	0.581	119	33200	10.4	114
EC-05-SD-080625-URS	3.50	0.213	38.5	25500	4.07	74.5
EC-05-SD-DUP-080625-URS	3.61	0.260	47.0	24300	3.54	77.8
EC-04-SD-080625-URS	6.20	0.211	39.9	27700	5.52	77.1
EC-04-SD-DUP-080625-URS	5.20	0.270	51.3	32200	4.72	75.1
EC-03-SD-080625-URS	4.35	0.528	42.9	28500	4.52	72.7
EC-02-SD-080625-URS	4.04	0.315	57.5	37200	5.72	109
EC-01-SD-080624-URS	4.23	0.388	43.1	20400	5.14	75.8
AR-01-SD-080624-URS	3.95	0.416	68.8	31800	5.97	120
AR-02-SD-080624-URS	4.36	0.406	62.7	33200	4.94	107
ARV-01-SD-080624-URS	4.76	0.422	70.8	31000	6.54	111
ARV-02-SD-080624-URS	4.77	0.519	81.8	33400	6.34	128
ARV-03-SD-080624-URS	4.71	0.572	107	36700	8.24	116
ARV-04-SD-080624-URS	3.98	0.434	73.8	27600	6.37	93.1
Screening Criteria						
Ecological						
TECs	9.79	0.99	~~31.6~~	--	35.8	121
PECs	33	4.98	149	--	128	459
DEQ SLVs	7[c]	1[c]	NA	--	17[c]	NA
SQS	57	5.1	390	--	450	410
Applicable Ecological Screening Level	7	0.99	42.9[d]	--	17	121
Human Health						
EPA R6 HHMSSLs	~~0.39~~[d]	39	2,900	--	400	23,000
Applicable Human Health Screening Level	1.5[d]	39	2,900	--	400	23,000

All results are in mg/kg on a dry weight basis unless otherwise noted.

J - The result is an estimated quantity. The associated numeric value is the approximate concentration of the analyte in the sample.

Highlighted results exceed one or more screening level values.

-- = not available.

a = iron results are presented, but iron is considered an essential nutrient.

b = Because site-specific background concentrations are available for sediment, the California Regional Soil Levels are presented here for informational purposes only.

c = Default DEQ regional background concentration. DEQ Ecological Risk Assessment Guidance recommends using regional or site-specific background concentration for screening purposes (DEQ 2007).

d = because background concentration was higher than at least one criterion, background concentration is used here as the most stringent criterion. Criterion lower than the background concentration is shown in strikethrough font.

TABLE 6
FISH TISSUE ANALYTICAL SUMMARY AND SCREENING
BLUE LEDGE MINE

Sample Name	Arsenic		Cadmium		Copper		Iron		Lead		Zinc	
JC-01												
EC-07-FT-080626-URS	0.24		0.068		2.32		295		0.065		24.8	
EC-06	Not sampled											
EC-04-FT-080626-URS	0.15		0.134		4.79		1140		0.194		29.2	
EC-02-FT-080626-URS	0.15		0.173		5.73		103		0.062		37.1	
AR-01	Not sampled											
AR-02-FT-080627-URS	0.16		0.145		3.15		69	J	0.017		33.5	
AR-02-FT-DUP-080627-URS	0.13		0.133		3.30		116	J	0.024		30.3	
ARV-02-FT-080627-URS	0.14		0.049		2.29		43		0.027		22.9	
ARV-01	Not sampled											
Screening Criteria												
Ecological												
DEQ CTLs (mg/kg - wet wt)	6.6		0.15		--		--		0.12		--	
DEQ ATLs (mg/kg - wet wt)												
Birds (Individual)	13		8.4		--		--		9.3		--	
Birds (Population)	64		42		--		--		46		--	
Mammals (Individual)	7.6		5.6		--		--		34		--	
Mammals (Population)	38		28		--		--		170		--	
Applicable Ecological Criteria	6.6		0.15		--		--		0.12		--	
Human Health												
Human (Carcinogens General/Recreational)	0.0062		--		--		--		--		--	
Human (Carcinogens Subsistence/Tribal))	0.00076		--		--		--		--		--	
Human Non-carcinogens (General/Recreational)	1.2		4.0		--		--		0.5		--	
Human Non-carcinogens (Subsistence/Tribal)	0.15		0.49		--		--		0.5		--	
Applicable Human Health Criteria	0.0062[a]		0.49		--		--		0.5		--	

mg/Kg - wet weight basis
-- = not available.

J - The result is an estimated quantity. The associated numeric value is the approximate concentration of the analyte in the sample.
Highlighted results exceed one or more screening level values.

a - Because there is no evidence of subsistance/tribal fishing activities in the project area, the criterion based on protection of recreational fishers from carcinogenic effects of arsenic was chosen as the applicable human health criterion for screening.

TABLE 7
WASTE ROCK ANALYTICAL SUMMARY
BLUE LEDGE MINE

	SPLP Metals - mg/L												**TCLP Metals - mg/L**															
Sample Name	Arsenic		Cadmium		Copper		Iron		Lead		Zinc		Arsenic		Barium		Cadmium		Chromium		Lead		Mercury		Selenium		Silver	
WRS-1	0.0005	U	0.00067		0.110		0.04		0.0012		0.26		0.10	U	0.40		0.0010		0.010	U	0.05	U	0.001	U	0.10	U	0.02	U
WRS-1-DUP	0.0005	U	0.00073		0.130		0.06		0.0009		0.26		0.10	U	0.30		0.0008	U	0.002		0.05	U	0.001	U	0.10	U	0.02	U
WRS-2	0.0005	U	0.00010		0.086		0.03		0.0170		0.14		0.10	U	0.30		0.0008	U	0.010	U	0.04		0.001	U	0.10	U	0.02	U
WRS-3	0.0005	U	0.00050		0.230		0.03		0.0210		0.20		0.10	U	0.30		0.0008	U	0.010	U	0.04		0.001	U	0.10	U	0.02	U
WRS-4	0.0005	U	0.00086		0.230		0.06		0.0069		0.20		0.10	U	0.30		0.0008	U	0.010	U	0.05	U	0.001	U	0.10	U	0.02	U
Maximum concentration of contaminants for the toxicity characteristic													5.0		100		1.0		5.0		5.0		0.2		1.0		5.0	

U - The analyte was analyzed for, but was not detected above the reported sample method detection limit (MDL).