

Texas Custodial Trust

2301 West Paisano Drive • El Paso, Texas 79922

Appendix F
Soil Analytical Data

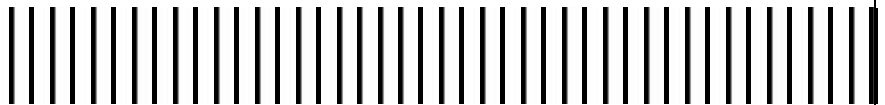


Table F-1
Soil Analytical Data - East Mountain Area
Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	AM-SS01 0 - 0.5 5/26/2011	AM-SS02 0 - 0.5 5/26/2011	AM-SS03 0 - 0.5 5/26/2011	AM-SS04 0 - 0.5 5/26/2011	AM-SS05 0 - 0.5 5/26/2011	AM-SS06 0 - 0.5 5/26/2011	AM-SS07 0 - 0.5 5/26/2011	AM-SS08 0 - 0.5 5/26/2011	AM-SS09 0 - 0.5 5/26/2011	AM-SS10 0 - 0.5 5/26/2011	AM-SS11 0 - 0.5 5/26/2011	AM-SS12 0 - 0.5 5/26/2011	AM-SS13 0 - 0.5 5/26/2011	AM-SS14 0 - 0.5 5/26/2011	AM-SS15 0 - 0.5 5/26/2011	AM-SS16 0 - 0.5 5/26/2011	AM-SS17 0 - 0.5 5/26/2011	AM-SS18 0 - 0.5 5/26/2011	AM-SS19 0 - 0.5 5/26/2011	BL43 0 - 0.17 6/28/2001	BL44 0 - 0.17 6/27/2001	BL44 0.17 - 0.33 6/28/2001	
Metals (mg/kg)																							
Antimony	<5.97 UJ	<2.14 UJ	<3.2 UJ	<4.28 UJ	137	15.8	26.1	11.5	9.83	5.33	6.35	27.3	8.01	8.27	13.7	5.62	38.6	9.69	9.96				
Arsenic	30.8	25.8	41.5	36.1	615	141	165	112	74.5	104	42.3	159	100	81.9	106	60.1	234	93.2	86				
Barium	150	128	169	159	153	135	142	147	133	187	158	142	138	115	136	106	134	113	110				
Cadmium	8.61	5.98	5.98	9.07	92.1	27.5	37.6	25.3	9.5	11.4	6.6	35.8	20.8	20.3	29.6	15.1	62	26.4	26.3				
Chromium	2.59	2.07	2.86	1.86	8.26	2.86	4.39	2.67	5.34	3.73	3.65	5.05	2.72	2.8	4.36	4.05	12.5	3.56	9.1				
Cobalt	4.63	4.57	5.21	4.11	14.6	5.68	6.56	5.3	5.3	4.86	5.27	6.93	5.81	4.91	5.05	4.57	11.5	4.95	7.28				
Copper	393	187	196	275	5460	1020	1920	822	386	229	256	2380	708	724	822	464	3790	787	1080				
Iron	15400	16800	17200	14300	21200	15500	16000	15400	15900	15900	15400	16300	21800	15700	15600	14700	18300	15000	16900				
Lead	261	241	233	373	5570	1290	1640	1130	400	428	222	1420	959	807	1110	575	1690	828	677				
Mercury	0.113 J	0.0639 J	0.0879 J	0.0201 J	0.436	0.218	0.91	0.105 J	0.712	0.0204 J	0.304	0.302	0.0705 J	0.0848 J	0.564	0.0708 J	1.14	0.241	0.115 J				
Molybdenum	1.68 J	0.615 J	0.728 J	0.661 J	26.5	4.08	7.22	2.73	1.53 J	1.92	1.06 J	8.34	2.17	2.56	2.82	2.13	34.1	4.34	12				
Nickel	3.97	3.49	3.96	3.49	22.1	6.55	8.64	6.3	5.59	3.69	4.89	9.95	5.73	5.29	6.1	5.17	12.3	5.51	9.23				
Selenium	0.817 J	0.372 J	0.544 J	0.477 J	16.3	3.45	3.98	2.69	1.44	1.18	1.42	3.69	2.39	1.87	2.62	1.37	4.24	1.98	1.76				
Silver	1.55	0.191 J	0.759	0.279 J	44.5	4.44	7.84	2.49	3.31	1.36	1.31	9.25	1.42	1.86	3.58	0.99	14.5	2.27	3.15				
Thallium																							
Zinc	170	143	129	198	3270	675	950	542	186	208	133	1080	472	422	492	312	1870	521	642				
Metals (mg/kg)¹																							
Arsenic																				235	27	40	
Cadmium																				34	12	11	
Chromium																				130	90	<80	
Copper																				1790	46	56	
Iron																				38000	23000	15000	
Lead																				1180	46	73	
Selenium																				<20	<20	<20	
Zinc																				1940	18	<10	

Notes are included on Page 2.

Table F-1
Soil Analytical Data - East Mountain Area
Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	BL45 0 - 0.17 6/27/2001	BL46 0 - 0.17 6/28/2001	BL47 0 - 0.17 6/27/2001	BL48 0 - 0.17 6/28/2001	E140-33 0 - 0.5 7/31/2012	E140-33 0 - 0.5 7/31/2012	E140-37 0 - 0.5 8/1/2012	E140-37 0.5 - 1 8/1/2012	E140-38 0 - 0.5 8/7/2012	E140-39 0 - 0.5 7/31/2012	E140-41 0 - 0.5 7/31/2012	E140-41 0.5 - 1 7/31/2012	E140-42 0 - 0.5 8/1/2012	E140-42 0 - 0.5 8/7/2012	E140-42 0.5 - 1 8/7/2012	E140-43 0 - 0.5 8/1/2012	E140-43 0 - 0.5 8/1/2012	E140-43 0.5 - 1 8/1/2012	E140-44 0 - 0.5 7/31/2012	E140-44 0.5 - 1 7/31/2012
Metals (mg/kg)																				
Antimony					<0.235	<0.211	3.76	2.49 J	2.29 J	0.588 J	0.918 J	2.54 J	3.13	6.35 J	10.7	1.79	4.96	0.415 J	<0.25 UJ	17.6 J
Arsenic					4.75	4.25	170	74.3	33.2	17.5	29.9	44.1	114	81.7	187	45.5	63.9	8.66	209	337
Barium					85.5 J	277 J	220	189	306	158	223	342	154	132	133	122	152	52.3	158	183
Cadmium					0.0431 J	0.331 J	28.2	6.15	4.04	0.718	6.15	1.31	36.3	28.3	66.2	15.2 J	17.8	4	116	132
Chromium					1.05	1.7	9.54	9.94	9.72	4.66	5.52	3.81	3.53	4	5.25	6.92	6.66	3.11	36	8.87
Cobalt					2.43 J	3.83 J	6.32	6.33	6.11	4.88	7.26	4.78	5.01	4.82	7.61	5.68	6.54	2.98	<0.0262	11.1
Copper					2.83	4.77	1370	284	125	27.3	195	27.2	820	703	1700	752 J	1030 J	93.1	6.4	3030
Iron					3910 J	6410 J	10500	10300 J	13700	7350	10700	7850 J	8250	10400	9810	12000	12700	6280 J	11500	12500 J
Lead					2.51 J	4.15 J	795	163	91.2	16.6	120	16.8	825	695	1490	355	558	69.9	2350	2380
Mercury					<0.016	<0.0141	1.01	0.294 J	0.142 J	0.114 J	0.201	0.145 J	0.775	0.582	1.35	0.0691 J	0.123	0.0378 J	1.06	1.82 J
Molybdenum					<0.11	0.353 J	8.12	2.54	0.784 J	<0.114	0.89 J	0.302 J	3.08	4.68	8.78	4.3 J	5.96 J	0.348 J	23.3	20.5
Nickel					1.98	3.15	9.34	8.78	11.6	4.95	6.8	4.53	6.59	5.86	10.2	8.01	9.34	3.75	62.1	13.8
Selenium					<0.174	<0.156	2.75	1.15	0.908 J	0.328 J	0.6 J	0.866 J	2.03	1.82	4.42	0.572 J	1.79	<0.196	<0.185	7.5
Silver					<0.0968	<0.0867	6.95	1.03	0.484 J	<0.1	0.325 J	<0.112	3.45	2.64 J	9.47	1.41	2.45 J	0.142 J	9.86	14.2
Thallium																	0.493			
Zinc					18.2 J	27.1 J	601	173	109	53.6 J	164 J	46.5	614	499	1090	402	486	75.6	1800 J	2020
Metals (mg/kg) ¹																				
Arsenic	37	36	33	39																
Cadmium	<10	<10	<10	10																
Chromium	85	<80	83	83																
Copper	38	48	46	109																
Iron	26000	22000	22000	20000																
Lead	36	47	42	96																
Selenium	<20	<20	<20	<20																
Zinc	59	62	79	118																

Notes:
¹ Samples analysed using field x-ray diffraction method
ft bgs = sample interval in feet below ground surface
mg/kg = miligram per kilogram

Laboratory Qualifiers:
-12
U = Compound was analyzed for but not detected. The value shown in the laboratory method detection limit.

Table F-2
Soil Analytical Data - East Property

Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	BH11-10 0 - 1 5/9/2001	BH11-10 1 - 2 5/9/2001	BH11-10 2 - 3 5/9/2001	BH11-10 3 - 4 5/9/2001	BH11-11 0 - 1 5/9/2001	BH11-11 1 - 2 5/9/2001	BH11-11 2 - 3 5/9/2001	BH11-11 3 - 4 5/9/2001	BH11-12 0 - 1 5/9/2001	BH11-12 1 - 2 5/9/2001	BH11-12 2 - 3 5/9/2001	BH11-12 3 - 4 5/9/2001	BH11-13 0 - 1 5/9/2001	BH11-13 1 - 2 5/9/2001	BH11-13 2 - 3 5/9/2001	BH11-14 0 - 1 5/9/2001	BH11-14 1 - 2 5/9/2001	BH11-14 2 - 3 5/9/2001	BH11-14 3 - 4 5/9/2001
Metals (mg/kg)																			
Antimony																			
Arsenic																			
Barium																			
Cadmium																			
Chromium																			
Cobalt																			
Copper																			
Iron																			
Lead																			
Mercury																			
Molybdenum																			
Nickel																			
Selenium																			
Silver																			
Thallium																			
Zinc																			
Metals (mg/kg) ¹																			
Arsenic	110	55	68	41	180	63	71	60	270	35	23	46	91	40	21	140	84	32	33
Cadmium	14	13	12	18	48	26	19	23	53	11	15	14	18	12	15	38	<10	<10	12
Chromium	81	<80	<80	<80	87	<80	<80	92	92	<80	<80	<80	110	<80	<80	95	<80	<80	<80
Copper	930	280	700	280	2000	870	590	650	2700	200	130	280	810	360	100	1800	820	200	300
Iron	24000	20000	16000	12000	29000	16000	14000	16000	33000	11000	11000	13000	31000	11000	14000	27000	16000	12000	14000
Lead	620	320	640	260	1500	760	520	590	1900	200	130	300	370	360	120	990	640	180	290
Selenium	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Zinc	720	190	440	180	1200	520	390	360	1700	170	77	190	620	290	75	1100	470	92	180
VOCs (mg/kg)																			
1,1,1-Trichloroethane																			
1,1,2-Trichloro-1,2,2-trifluoroethane																			
1,1,2-Trichloroethane																			
1,2-Dichlorobenzene																			
4-Methyl-2-pentanone (MIBK)																			
Acetone																			
Carbon tetrachloride																			
Chlorobenzene																			
Cyclohexane																			
Dichlorodifluoromethane																			
Ethyl acetate																			
Ethyl ether																			
Ethylbenzene																			
Methylene chloride																			
Tetrachloroethene																			
Total Xylenes																			
Trichloroethene																			
Trichlorofluoromethane																			
SVOCs (mg/kg)																			
Hexachlorocyclopentadiene																			
Pesticides (mg/kg)																			
Chlordane																			
Endrin																			
Methyl parathion																			

Notes are included on Page 20.

Table F-2
Soil Analytical Data - East Property

Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	BH11-2 0 - 0.33 7/19/1999	BH11-2 10 - 12 8/4/1999	BH11-2 15 - 17 8/4/1999	BH11-2 20 - 22 8/4/1999	BH11-2 25 - 27 8/5/1999	BH11-2 30 - 32 8/5/1999	BH11-2 35 - 37 8/5/1999	BH11-2 40 - 42 8/5/1999	BH11-2 6 - 8 7/19/1999	BH11-24 15 - 16 7/20/2001	BH11-25 10 - 11 7/20/2001	BH11-26 0 - 1 4/30/2001	BH11-26 1 - 2 4/30/2001	BH11-26 10 - 11 4/30/2001	BH11-26 15 - 16 4/30/2001	BH11-26 2 - 3 4/30/2001	BH11-26 25 - 26 4/30/2001	BH11-26 3 - 4 4/30/2001	BH11-26 4 - 5 4/30/2001
Metals (mg/kg)																			
Antimony																			
Arsenic																			
Barium																			
Cadmium																			
Chromium																			
Cobalt																			
Copper																			
Iron																			
Lead																			
Mercury																			
Molybdenum																			
Nickel																			
Selenium																			
Silver																			
Thallium																			
Zinc																			
Metals (mg/kg) ¹																			
Arsenic	210	17	<10	<10	<10	<10	<10	<10	340	24	22	34	15	15	25	15	22	16	33
Cadmium	36	<10	<10	<10	<10	<10	<10	<10	120	11	<10	10	12	<10	<10	<10	<10	<10	<10
Chromium	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80
Copper	1700	28	<20	27	39	<20	<20	<20	1900	<20	24	120	23	44	65	25	37	32	66
Iron	39000	24000	15000	21000	15000	24000	15000	18000	27000	17000	14000	17000	11000	11000	4000	6700	9400	3800	11000
Lead	660	<10	<10	<10	<10	<10	<10	<10	3300	43	26	170	73	51	56	57	48	51	59
Selenium	11	<10	<10	<10	<10	<10	<10	<10	33	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Zinc	1600	20	16	34	<10	22	15	15	1400	<10	<10	77	14	<10	<10	<10	<10	<10	<10
VOCs (mg/kg)																			
1,1,1-Trichloroethane																			
1,1,2-Trichloro-1,2,2-trifluoroethane																			
1,1,2-Trichloroethane																			
1,2-Dichlorobenzene																			
4-Methyl-2-pentanone (MIBK)																			
Acetone																			
Carbon tetrachloride																			
Chlorobenzene																			
Cyclohexane																			
Dichlorodifluoromethane																			
Ethyl acetate																			
Ethyl ether																			
Ethylbenzene																			
Methylene chloride																			
Tetrachloroethene																			
Total Xylenes																			
Trichloroethene																			
Trichlorofluoromethane																			
SVOCs (mg/kg)																			
Hexachlorocyclopentadiene																			
Pesticides (mg/kg)																			
Chlordane																			
Endrin																			
Methyl parathion																			

Notes are included on Page 20.

Table F-2
Soil Analytical Data - East Property

Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	BH11-3 10 - 12 8/5/1999	BH11-4 1 - 2 8/5/1999	BH11-4 10 - 12 8/5/1999	BH11-4 15 - 17 8/5/1999	BH11-4 2 - 3 8/5/1999	BH11-4 3 - 4 8/5/1999	BH11-4 4 - 5 8/5/1999	BH11-5 0 - 1 5/9/2001	BH11-5 1 - 2 5/9/2001	BH11-5 2 - 3 5/9/2001	BH11-5 3 - 4 5/9/2001	BH11-6 0 - 1 5/9/2001	BH11-6 1 - 2 5/9/2001	BH11-7 0 - 1 5/9/2001	BH11-7 1 - 2 5/9/2001	BH11-7 2 - 3 5/9/2001	BH11-8 0 - 1 5/9/2001	BH11-8 1 - 2 5/9/2001	BH11-8 2 - 3 5/9/2001	
Metals (mg/kg)																				
Antimony																				
Arsenic																				
Barium																				
Cadmium																				
Chromium																				
Cobalt																				
Copper																				
Iron																				
Lead																				
Mercury																				
Molybdenum																				
Nickel																				
Selenium																				
Silver																				
Thallium																				
Zinc																				
Metals (mg/kg) ¹																				
Arsenic	55	46	<10	<10	33	<10	19	170	45	35	41	95	140	82	89	54	98	190	53	
Cadmium	17	<10	<10	<10	<10	<10	<10	31	18	<10	<10	31	32	18	26	<10	22	36	16	
Chromium	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	87	<80	<80	86	<80	<80	
Copper	830	73	<20	<20	46	69	35	2000	490	270	480	1300	1400	830	1300	380	1300	1800	500	
Iron	33000	24000	12000	21000	30000	23000	24000	30000	14000	12000	14000	22000	20000	22000	17000	14000	29000	23000	15000	
Lead	1000	17	<10	<10	20	<10	11	1400	460	280	410	930	980	540	960	370	640	1700	440	
Selenium	<10	<10	<10	<10	<10	<10	<10	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	
Zinc	520	200	12	28	170	92	51	1200	340	180	260	770	830	620	680	260	930	1100	240	
VOCs (mg/kg)																				
1,1,1-Trichloroethane																				
1,1,2-Trichloro-1,2,2-trifluoroethane																				
1,1,2-Trichloroethane																				
1,2-Dichlorobenzene																				
4-Methyl-2-pentanone (MIBK)																				
Acetone																				
Carbon tetrachloride																				
Chlorobenzene																				
Cyclohexane																				
Dichlorodifluoromethane																				
Ethyl acetate																				
Ethyl ether																				
Ethylbenzene																				
Methylene chloride																				
Tetrachloroethene																				
Total Xylenes																				
Trichloroethene																				
Trichlorofluoromethane																				
SVOCs (mg/kg)																				
Hexachlorocyclopentadiene																				
Pesticides (mg/kg)																				
Chlordane																				
Endrin																				
Methyl parathion																				

Notes are included on Page 20.

**Table F-2
Soil Analytical Data - East Property**

**Supplemental Remedial Investigation Report
Former ASARCO Smelter Site**

Sample Location: Sample Depth (ft bgs): Sample Date:	BH11-8 3 - 4 5/9/2001	BH11-9 0 - 1 5/9/2001	BH11-9 1 - 2 5/9/2001	BH11-9 2 - 3 5/9/2001	BL14 0 - 0.17 6/7/2000	BL17 0 - 0.17 6/5/2000	BL18 0 - 0.17 6/5/2000	BL3 0 - 0.2 7/27/2000	BL3 10 - 11.5 7/27/2000	BL3 14 - 15.5 7/27/2000	BL3 16.5 - 17 7/31/2000	BL3 21.3 - 21.8 7/31/2000	BL3 5 - 6.5 7/27/2000	BL39 0 - 0.17 6/27/2001	BL39 0.17 - 0.33 6/27/2001	BL4 0 - 0.2 7/28/2000	BL4 10 - 11.5 7/28/2000	BL4 15 - 16.5 7/28/2000	BL4 17.5 - 18 7/31/2000
Metals (mg/kg)																			
Antimony																			
Arsenic					15	30	46	<20	<20	<20	12	13	32			<20	<20	<20	<10
Barium																			
Cadmium					<10	<10	<10	<10	<10	<10	<10	<10	<10			<10	<10	<10	<10
Chromium					93	114	107	158	91	102	69	69	126			105	58	76	61
Cobalt																			
Copper					28	114	344	156	116	112	26	24	311			50	<20	149	71
Iron					25000	22000	16000	20000	23000	22000	21000	16000	21000			12000	11000	5700	2400
Lead					24	59	197	194	106	97	19	15	285			77	22	52	73
Mercury																			
Molybdenum																			
Nickel																			
Selenium					<10	<10	<10	<20	<20	<20	<10	<10	<20			<20	<20	<20	<10
Silver																			
Thallium																			
Zinc					111	160	267	166	140	256	99	107	279			85	36	48	45
Metals (mg/kg) ¹																			
Arsenic	43	110	59	62	21	34	30	<10	11	21	13	<10	34	62	51	<10	<10	<10	<10
Cadmium	14	20	10	22	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Chromium	<80	110	<80	<80	<80	140	120	170	91	110	<80	180	150	<80	<80	<80	72	<80	140
Copper	390	1400	510	720	52	100	440	160	98	120	<20	39	340	668	101	86	30	87	120
Iron	15000	30000	16000	18000	25000	21000	19000	18000	23000	22000	20000	16000	21000	20000	16000	14000	15000	7300	3000
Lead	340	670	510	620	29	71	220	190	130	110	25	25	340	414	95	85	42	61	110
Selenium	<20	<20	<20	<20	<10	<10	<10	<10	<10	<10	<10	<10	<10	<20	<20	<10	<10	<10	<10
Zinc	250	1000	380	440	69	120	250	140	120	130	50	71	240	344	<10	62	<10	38	14
VOCs (mg/kg)																			
1,1,1-Trichloroethane																			
1,1,2-Trichloro-1,2,2-trifluoroethane																			
1,1,2-Trichloroethane																			
1,2-Dichlorobenzene																			
4-Methyl-2-pentanone (MIBK)																			
Acetone																			
Carbon tetrachloride																			
Chlorobenzene																			
Cyclohexane																			
Dichlorodifluoromethane																			
Ethyl acetate																			
Ethyl ether																			
Ethylbenzene																			
Methylene chloride																			
Tetrachloroethene																			
Total Xylenes																			
Trichloroethene																			
Trichlorofluoromethane																			
SVOCs (mg/kg)																			
Hexachlorocyclopentadiene																			
Pesticides (mg/kg)																			
Chlordane																			
Endrin																			
Methyl parathion																			

Notes are included on Page 20.

Table F-2
Soil Analytical Data - East Property

Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	BL4 5 - 6 7/28/2000	BL40 0 - 0.17 6/27/2001	BL40 0.17 - 0.33 6/27/2001	BL41 0 - 0.17 6/27/2001	BL41 0.17 - 0.33 6/27/2001	BL49 0 - 0.17 6/28/2001	BL49 0.17 - 0.33 6/28/2001	BL50 0 - 0.17 6/28/2001	BL50 0.17 - 0.33 6/28/2001	BL6 0 - 0.17 6/5/2000	EP-129 0 - 1 5/2/2001	EP-129 1 - 2 5/2/2001	EP-129 10 - 11 5/2/2001	EP-129 15 - 16 5/2/2001	EP-129 2 - 3 5/2/2001	EP-129 20 - 21 5/2/2001	EP-129 25 - 26 5/2/2001	EP-129 3 - 4 5/2/2001	EP-129 4 - 5 5/2/2001	
Metals (mg/kg)																				
Antimony																				
Arsenic	<20									<10										
Barium																				
Cadmium	<10									<10										
Chromium	53									221										
Cobalt																				
Copper	<20									16										
Iron	9300									23000										
Lead	<20									21										
Mercury																				
Molybdenum																				
Nickel																				
Selenium	<20									<10										
Silver																				
Thallium																				
Zinc	28									64										
Metals (mg/kg) ¹																				
Arsenic	<10	54	54	20	38	62	43	187	60	27	150	33	22	26	32	37	31	21	25	
Cadmium	<10	18	<10	12	<10	<10	<10	47	<10	<10	33	<10	<10	<10	<10	<10	<10	<10	<10	
Chromium	<80	91	<80	<80	<80	<80	83	117	<80	160	98	<80	<80	<80	<80	<80	<80	<80	<80	
Copper	<20	711	177	274	284	449	34	1940	59	<20	1600	37	59	68	22	28	80	34	63	
Iron	14000	22000	13000	13000	11000	24000	16000	32000	13000	24000	30000	22000	15000	18000	23000	18000	16000	18000	18000	
Lead	34	440	171	205	258	245	28	1160	64	27	910	39	48	50	36	69	64	51	40	
Selenium	<10	<20	<20	<20	<20	<20	<20	<20	<20	<10	<20	<20	<20	<20	<20	<20	<20	<20	<20	
Zinc	17	306	<10	277	105	254	14	1440	<10	35	1300	22	<10	<10	<10	<10	<10	<10	<10	
VOCs (mg/kg)																				
1,1,1-Trichloroethane																				
1,1,2-Trichloro-1,2,2-trifluoroethane																				
1,1,2-Trichloroethane																				
1,2-Dichlorobenzene																				
4-Methyl-2-pentanone (MIBK)																				
Acetone																				
Carbon tetrachloride																				
Chlorobenzene																				
Cyclohexane																				
Dichlorodifluoromethane																				
Ethyl acetate																				
Ethyl ether																				
Ethylbenzene																				
Methylene chloride																				
Tetrachloroethene																				
Total Xylenes																				
Trichloroethene																				
Trichlorofluoromethane																				
SVOCs (mg/kg)																				
Hexachlorocyclopentadiene																				
Pesticides (mg/kg)																				
Chlordane																				
Endrin																				
Methyl parathion																				

Notes are included on Page 20.

Table F-2
Soil Analytical Data - East Property

Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	EP-84 0 - 0.5 6/11/1997	EP-84 10 - 10 6/11/1997	EP-84 15 - 15 6/11/1997	EP-84 5 - 5 6/11/1997	EP-87 0 - 0.5 6/16/1997	EP-87 10 - 10 6/16/1997	EP-87 5 - 5 6/16/1997	EP-93 25 - 27 7/21/1999	EP-93 30 - 32 7/21/1999	EP-93 35 - 37 7/21/1999	EP-93 40 - 42 7/21/1999	EP-93 45 - 47 7/21/1999	EP-93 50 - 52 7/21/1999	EP-94 10 - 12 7/26/1999	EP-94 20 - 22 7/26/1999	EP-94 25 - 27 7/26/1999	EP-94 30 - 32 7/26/1999	EP-94 35 - 37 7/26/1999	EP-94 4 - 5 7/26/1999
Metals (mg/kg)																			
Antimony																			
Arsenic	<20	<20	<20	<20	<20	<20	<20												
Barium																			
Cadmium	14	<10	<10	16	<10	<10	<10												
Chromium	47	29	48	65	86	<30	<30												
Cobalt																			
Copper	490	47	33	490	20	<20	41												
Iron	22000	24000	22000	23000	14000	12000	14000												
Lead	500	61	33	500	14	11	54												
Mercury																			
Molybdenum																			
Nickel																			
Selenium	<10	<10	<10	<10	<10	<10	<10												
Silver																			
Thallium																			
Zinc	390	98	110	380	42	19	68												
Metals (mg/kg) ¹																			
Arsenic								<20	<20	<20	<20	<10	<10	36	130	<10	<10	27	680
Cadmium								<10	<10	<10	<10	<10	<10	17	85	<10	<10	<10	170
Chromium								<80	140	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80
Copper								39	<20	<20	57	<20	21	1900	2000	28	88	54	150000
Iron								22000	23000	19000	24000	24000	24000	15000	22000	22000	21000	32000	65000
Lead								38	49	42	39	<10	<10	580	1200	40	<10	40	3400
Selenium								<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	34
Zinc								39	51	15	69	36	34	370	990	33	47	33	2900
VOCs (mg/kg)																			
1,1,1-Trichloroethane																			
1,1,2-Trichloro-1,2,2-trifluoroethane																			
1,1,2-Trichloroethane																			
1,2-Dichlorobenzene																			
4-Methyl-2-pentanone (MIBK)																			
Acetone																			
Carbon tetrachloride																			
Chlorobenzene																			
Cyclohexane																			
Dichlorodifluoromethane																			
Ethyl acetate																			
Ethyl ether																			
Ethylbenzene																			
Methylene chloride																			
Tetrachloroethene																			
Total Xylenes																			
Trichloroethene																			
Trichlorofluoromethane																			
SVOCs (mg/kg)																			
Hexachlorocyclopentadiene																			
Pesticides (mg/kg)																			
Chlordane																			
Endrin																			
Methyl parathion																			

Notes are included on Page 20.

Table F-2
Soil Analytical Data - East Property

Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	EP-94 40 - 42 7/26/1999	EP-94 45 - 47 7/26/1999	EP-94 50 - 52 7/26/1999	EP-94 55 - 57 7/26/1999	EP-95 0 - 1 7/28/1999	EP-95 1 - 1 7/28/1999	EP-95 2 - 2 7/28/1999	EP-95 3 - 3 7/28/1999	EP-95 4 - 4 7/28/1999	EP-95R 0 - 1 10/18/1999	EP-95R 1 - 2 10/18/1999	EP-95R 10 - 12 10/18/1999	EP-95R 15 - 17 10/18/1999	EP-95R 2 - 3 10/18/1999	EP-95R 20 - 22 10/18/1999	EP-95R 25 - 27 10/18/1999	EP-95R 3 - 4 10/18/1999	EP-95R 30 - 32 10/20/1999	EP-95R 35 - 37 10/20/1999	
Metals (mg/kg)																				
Antimony																				
Arsenic																				
Barium																				
Cadmium																				
Chromium																				
Cobalt																				
Copper																				
Iron																				
Lead																				
Mercury																				
Molybdenum																				
Nickel																				
Selenium																				
Silver																				
Thallium																				
Zinc																				
Metals (mg/kg) ¹																				
Arsenic	<10	<10	<10	<10	<10	<10	13	<10	<10	26	<10	<10	<10	<10	<10	16	<10	<10	<10	
Cadmium	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Chromium	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	
Copper	72	26	150	49	230	75	160	<20	50	290	79	<20	<20	<20	21	<20	<20	<20	<20	
Iron	12000	12000	11000	18000	20000	22000	22000	16000	14000	23000	20000	13000	11000	22000	5700	24000	18000	18000	21000	
Lead	<10	<10	<10	<10	190	120	150	21	<10	250	130	48	40	68	39	39	87	30	39	
Selenium	12	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Zinc	20	<10	29	12	140	94	110	24	22	260	98	<10	<10	50	<10	43	25	35	15	
VOCs (mg/kg)																				
1,1,1-Trichloroethane																				
1,1,2-Trichloro-1,2,2-trifluoroethane																				
1,1,2-Trichloroethane																				
1,2-Dichlorobenzene																				
4-Methyl-2-pentanone (MIBK)																				
Acetone																				
Carbon tetrachloride																				
Chlorobenzene																				
Cyclohexane																				
Dichlorodifluoromethane																				
Ethyl acetate																				
Ethyl ether																				
Ethylbenzene																				
Methylene chloride																				
Tetrachloroethene																				
Total Xylenes																				
Trichloroethene																				
Trichlorofluoromethane																				
SVOCs (mg/kg)																				
Hexachlorocyclopentadiene																				
Pesticides (mg/kg)																				
Chlordane																				
Endrin																				
Methyl parathion																				

Notes are included on Page 20.

Table F-2
Soil Analytical Data - East Property
Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	EP-95R 4 - 5 10/18/1999	EP-96 25 - 27 7/20/1999	EP-96 30 - 32 7/20/1999	EP-96 35 - 37 7/20/1999	EP-96 40 - 42 7/20/1999	EP-96 45 - 47 7/20/1999	EP-96 50 - 52 7/20/1999	EP-96 55 - 57 7/20/1999	EP-96 60 - 62 7/20/1999	EP-97 0 - 1 8/4/1999	EP-97 1 - 2 8/4/1999	EP-97 2 - 3 8/4/1999	EP-98 0 - 1 8/6/1999	EP-98 1 - 2 8/6/1999	EP-98 1 - 3 8/6/1999	EP-98 10 - 12 8/6/1999	EP-98 15 - 17 8/6/1999	EP-98 20 - 22 8/6/1999	EP-98 3 - 4 8/6/1999	
Metals (mg/kg)																				
Antimony																				
Arsenic																				
Barium																				
Cadmium																				
Chromium																				
Cobalt																				
Copper																				
Iron																				
Lead																				
Mercury																				
Molybdenum																				
Nickel																				
Selenium																				
Silver																				
Thallium																				
Zinc																				
Metals (mg/kg) ¹																				
Arsenic	<10	<20	25	<20	<20	<20	<20	31	<20	64	46	71	41	<10	<10	<10	<10	<10	<10	
Cadmium	<10	<10	<10	<10	<10	<10	<10	<10	<10	19	20	16	12	<10	<10	<10	<10	<10	<10	
Chromium	<80	<80	84	<80	<80	<80	188	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	
Copper	94	<20	<20	33	47	41	32	37	12	690	640	800	210	44	37	41	<20	<20	<20	
Iron	19000	24000	27000	23000	23000	20000	20000	28000	21000	33000	32000	30000	25000	20000	10000	8000	13000	14000	8500	
Lead	110	50	11	49	54	46	49	37	27	340	340	500	250	<10	<10	<10	<10	<10	<10	
Selenium	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Zinc	61	34	56	65	43	41	30	58	57	470	450	470	320	32	<10	<10	14	28	19	
VOCs (mg/kg)																				
1,1,1-Trichloroethane																				
1,1,2-Trichloro-1,2,2-trifluoroethane																				
1,1,2-Trichloroethane																				
1,2-Dichlorobenzene																				
4-Methyl-2-pentanone (MIBK)																				
Acetone																				
Carbon tetrachloride																				
Chlorobenzene																				
Cyclohexane																				
Dichlorodifluoromethane																				
Ethyl acetate																				
Ethyl ether																				
Ethylbenzene																				
Methylene chloride																				
Tetrachloroethene																				
Total Xylenes																				
Trichloroethene																				
Trichlorofluoromethane																				
SVOCs (mg/kg)																				
Hexachlorocyclopentadiene																				
Pesticides (mg/kg)																				
Chlordane																				
Endrin																				
Methyl parathion																				

Notes are included on Page 20.

Table F-2
Soil Analytical Data - East Property

Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	EP-98 4 - 5 8/6/1999	SS1 0 - 0.5 6/5/2000	SS2 0 - 0.5 6/5/2000	SSIA11-1 0 - 1 7/19/1999	SSIA11-1 1 - 2 7/19/1999	SSIA11-1 2 - 3 7/19/1999	SSIA11-10 0 - 1 8/4/1999	SSIA11-10 1 - 2 8/4/1999	SSIA11-10 3 - 4 8/4/1999	SSIA11-11 0 - 1 8/14/1999	SSIA11-11 1 - 2 8/14/1999	SSIA11-11 2 - 3 8/14/1999	SSIA11-11 3 - 4 8/14/1999	SSIA11-11 4 - 5 8/14/1999	SSIA11-14 1 - 2 8/6/1999	SSIA11-14 2 - 3 8/6/1999	SSIA11-14 3 - 4 8/6/1999	SSIA11-14 4 - 5 8/6/1999	SSIA11-15 0 - 1 8/6/1999
Metals (mg/kg)																			
Antimony																			
Arsenic		30	46																
Barium																			
Cadmium		1	4.6																
Chromium		114	107																
Cobalt																			
Copper		114	344																
Iron		22000	16000																
Lead		59	197																
Mercury																			
Molybdenum																			
Nickel																			
Selenium		<10	<10																
Silver																			
Thallium																			
Zinc		160	267																
Metals (mg/kg) ¹																			
Arsenic	<10	34	30	170	33	<10	160	23	10	65	42	17	<10	11	17	23	13	17	51
Cadmium	<10	<10	<10	50	16	<10	12	<10	<10	22	<10	<10	<10	<10	13	<10	<10	<10	<10
Chromium	<80	140	120	160	<80	<80	<80	<80	<80	100	<80	<80	<80	<80	<80	<80	<80	<80	<80
Copper	89	100	440	2900	740	330	980	140	<20	640	270	<20	40	<20	52	29	<20	14	210
Iron	10000	21000	19000	34000	17000	17000	44000	21000	19000	34000	32000	27000	19000	26000	20000	27000	25000	26000	29000
Lead	<10	71	220	1500	520	290	730	150	<10	450	180	11	<10	<10	<10	<10	<10	<10	130
Selenium	11	<10	<10	<10	<10	<10	21	19	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	22
Zinc	120	120	250	1400	340	150	2200	110	45	740	510	58	12	54	41	30	43	37	420
VOCs (mg/kg)																			
1,1,1-Trichloroethane																			
1,1,2-Trichloro-1,2,2-trifluoroethane																			
1,1,2-Trichloroethane																			
1,2-Dichlorobenzene																			
4-Methyl-2-pentanone (MIBK)																			
Acetone																			
Carbon tetrachloride																			
Chlorobenzene																			
Cyclohexane																			
Dichlorodifluoromethane																			
Ethyl acetate																			
Ethyl ether																			
Ethylbenzene																			
Methylene chloride																			
Tetrachloroethene																			
Total Xylenes																			
Trichloroethene																			
Trichlorofluoromethane																			
SVOCs (mg/kg)																			
Hexachlorocyclopentadiene																			
Pesticides (mg/kg)																			
Chlordane																			
Endrin																			
Methyl parathion																			

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Soil Analytical Data - East Property

Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	SSIA11-15 1 - 2 8/6/1999	SSIA11-15 2 - 3 8/6/1999	SSIA11-15 3 - 4 8/6/1999	SSIA11-15 4 - 5 8/6/1999	SSIA11-16 1 - 2 8/6/1999	SSIA11-16 2 - 3 8/6/1999	SSIA11-16 3 - 4 8/6/1999	SSIA11-16 4 - 5 8/6/1999	SSIA11-17 0 - 1 11/4/1999	SSIA11-18 0 - 1 11/5/1999	SSIA11-18 1 - 2 11/5/1999	SSIA11-18 2 - 3 11/5/1999	SSIA11-2 0 - 1 7/19/1999	SSIA11-2 1 - 2 7/19/1999	SSIA11-6 0 - 1 7/20/1999	SSIA11-6 1 - 2 7/20/1999	SSIA11-6 2 - 3 7/20/1999	SSIA11-6 3 - 4 7/20/1999	SSIA11-6 4 - 5 7/20/1999
Metals (mg/kg)																			
Antimony																			
Arsenic																			
Barium																			
Cadmium																			
Chromium																			
Cobalt																			
Copper																			
Iron																			
Lead																			
Mercury																			
Molybdenum																			
Nickel																			
Selenium																			
Silver																			
Thallium																			
Zinc																			
Metals (mg/kg) ¹																			
Arsenic	30	44	84	13	21	19	20	<10	110	150	230	140	82	12	480	920	4400	7300	14000
Cadmium	<10	<10	14	<10	<10	<10	<10	<10	15	45	86	61	25	<10	120	380	350	620	1400
Chromium	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	290	180	<80	170
Copper	300	350	480	64	63	<20	33	<20	1000	1600	3000	1700	1500	170	3600	5800	18000	48000	37000
Iron	31000	43000	26000	20000	21000	22000	25000	19000	31000	36000	34000	28000	25000	19000	29000	28000	35000	42000	38000
Lead	380	950	430	35	34	<10	<10	<10	920	1100	2200	1300	1100	150	2000	12000	2100	3100	21000
Selenium	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	17	<10	<10	<10	<10	29	<10	<10	110
Zinc	1000	1600	1500	73	21	32	19	15	810	1100	1600	990	770	110	1200	4100	4100	10000	14000
VOCs (mg/kg)																			
1,1,1-Trichloroethane																			
1,1,2-Trichloro-1,2,2-trifluoroethane																			
1,1,2-Trichloroethane																			
1,2-Dichlorobenzene																			
4-Methyl-2-pentanone (MIBK)																			
Acetone																			
Carbon tetrachloride																			
Chlorobenzene																			
Cyclohexane																			
Dichlorodifluoromethane																			
Ethyl acetate																			
Ethyl ether																			
Ethylbenzene																			
Methylene chloride																			
Tetrachloroethene																			
Total Xylenes																			
Trichloroethene																			
Trichlorofluoromethane																			
SVOCs (mg/kg)																			
Hexachlorocyclopentadiene																			
Pesticides (mg/kg)																			
Chlordane																			
Endrin																			
Methyl parathion																			

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Soil Analytical Data - East Property

Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	E140-1 0 - 0.5 7/30/2012	E140-10 0 - 0.5 7/30/2012	E140-11 0 - 0.5 7/30/2012	E140-11 0.5 - 1 7/30/2012	E140-12 0 - 0.5 7/31/2012	E140-12 0 - 0.5 7/31/2012	E140-13 0 - 0.5 7/31/2012	E140-14 0 - 0.5 7/31/2012	E140-15 0 - 0.5 7/30/2012	E140-16 0 - 0.5 8/7/2012	E140-17 0 - 0.5 7/30/2012	E140-18 0 - 0.5 8/7/2012	E140-19 0 - 0.5 7/30/2012	E140-2 0 - 0.5 7/30/2012	E140-20 0 - 0.5 8/7/2012	E140-21 0 - 0.5 7/31/2012	E140-21 0.5 - 1 8/7/2012	E140-22 0 - 0.5 7/30/2012	E140-23 0 - 0.5 7/30/2012
Metals (mg/kg)																			
Antimony	<0.269	0.984 J	1.41 J	2.21 J	0.871 J	0.738	1.33 J	<0.257	<0.274	1.44 J	1.44 J	0.902 J	0.841 J	1.24 J	0.787 J	2.22	<0.228	1.48 J	0.784 J
Arsenic	1.19 J	3.91	29.9	22.5	14.5	16.9	17.5	2.28	2.32	17.2	15.6	3.54	6.46	17	4.86	41.9	3.84	15	3.67
Barium	93.9	85.5	115	95	124	126	65.8	109	143	76.5	267	111	59.6	135	77.7	230	78.7	168	78.1
Cadmium	0.348 J	1.89	6.07	2.95	2.83	2.27	7.55	0.51	0.586	2.49	1.67	1.79	1.04	4.29	1.64	11.8	0.434	5.21	0.792
Chromium	3.93	<2.95 UJ	5.13	4.08	6.33	6.05	4.64	5.11	4.12	7.21	3.56	4.33	5.03	5.99	4.46	6.49	3.22	4.59	4.13
Cobalt	2.25	1.72	2.77	2.28	3.52	3.46	2.9	2.98	2.48	3.75	2.31	2.24	3.45	3.36	2.69	7.95	4.18	2.54	2.39
Copper	10.3	42.4	194	93.4	82.8 J	36.3 J	254	16.8	16.9	107	47.5	16	19.3	172	29.9	589	15.2	58.8	20
Iron	4290	4330	5210	3980 J	7380	7170	5230	5980	5170	7900	3170	4580	5630	6040	5490	11400	8730	5170	4280
Lead	7.37	49.4	191	89	61.1	66.7	206	13.2	14.8	86.5	43.9	17.6	36.4	135	42.7	299	4.76	116	18.4
Mercury	0.0431 J	<0.0147	0.179	0.146 J	0.0804 J	0.0864 J	0.117 J	<0.0169	<0.0131	0.138 J	<0.0145	<0.016	0.0416 J	0.0856 J	0.0263 J	0.279	0.244	0.286	<0.0145
Molybdenum	0.193 J	0.369 J	1.34 J	0.755 J	0.321 J	0.925 J	2.91	0.275 J	0.253 J	0.573 J	0.378 J	0.366 J	0.688 J	1.08 J	0.513 J	20.7	0.322 J	0.825 J	0.528 J
Nickel	<3.19 UJ	<2.68 UJ	5.19	4.21	6.5	6.03	4.94	3.69	2.87	5.86	<4.51 UJ	3.73	5.82	5.77	3.12	9.11	5.23	<4.77 UJ	<3.34 UJ
Selenium	<0.199	0.666 J	1	1.34	0.419 J	0.966	0.571 J	0.191 J	<0.203	0.68 J	1.83	0.855 J	0.433 J	1.04	0.254 J	1.26	<0.169	2.14	0.716 J
Silver	0.16 J	0.118 J	1.07	0.594	0.225 J	0.3 J	1.07	<0.106	<0.113	0.484 J	<0.115	<0.104	<0.0868	0.859	<0.102	2.07	<0.0938	0.698	<0.0912
Thallium						<0.064													
Zinc	19.5	53.2	164	77.3	58.9 J	82.6 J	221	32.6	23.7	66.4	44.4	38.7	28.7	130	47.8	925	35.6	64.8	31.4
Metals (mg/kg) ¹																			
Arsenic																			
Cadmium																			
Chromium																			
Copper																			
Iron																			
Lead																			
Selenium																			
Zinc																			
VOCs (mg/kg)																			
1,1,1-Trichloroethane																			
1,1,2-Trichloro-1,2,2-trifluoroethane																			
1,1,2-Trichloroethane																			
1,2-Dichlorobenzene																			
4-Methyl-2-pentanone (MIBK)																			
Acetone																			
Carbon tetrachloride																			
Chlorobenzene																			
Cyclohexane																			
Dichlorodifluoromethane																			
Ethyl acetate																			
Ethyl ether																			
Ethylbenzene																			
Methylene chloride																			
Tetrachloroethene																			
Total Xylenes																			
Trichloroethene																			
Trichlorofluoromethane																			
SVOCs (mg/kg)																			
Hexachlorocyclopentadiene																			
Pesticides (mg/kg)																			
Chlordane																			
Endrin																			
Methyl parathion																			

Notes are included on Page 20.

**Table F-2
Soil Analytical Data - East Property**

**Supplemental Remedial Investigation Report
Former ASARCO Smelter Site**

Sample Location: Sample Depth (ft bgs): Sample Date:	E140-24 0 - 0.5 8/7/2012	E140-24 0.5 - 1 8/1/2012	E140-25 0 - 0.5 7/31/2012	E140-26 0 - 0.5 7/31/2012	E140-27 0 - 0.5 7/31/2012	E140-28 0 - 0.5 8/7/2012	E140-28 0.5 - 1 7/31/2012	E140-29 0 - 0.5 7/31/2012	E140-29 0.5 - 1 8/7/2012	E140-3 0 - 0.5 7/30/2012	E140-30 0 - 0.5 8/7/2012	E140-30 0.5 - 1 7/31/2012	E140-31 0 - 0.5 7/31/2012	E140-32 0 - 0.5 7/31/2012	E140-34 0 - 0.5 8/1/2012	E140-35 0 - 0.5 7/31/2012	E140-35 0.5 - 1 7/31/2012	E140-36 0 - 0.5 7/31/2012	E140-4 0 - 0.5 7/30/2012
Metals (mg/kg)																			
Antimony	4.53 J	2.35	<0.284	1.34 J	0.313 J	19.3 J	7.8	6.91	6.65	0.544 J	5.3 J	2.57	0.361 J	0.444 J	1.74 J	80.8 J	1.05 J	70.1 J	<0.225
Arsenic	44.5	35.3	5.36	23.9	6.33	152	49.6	105	48.7	7.78	29	30.9	8.82	16.1	19.9	193	7.74	59.5	4.23
Barium	140	160	74.4	88.9	67.8	143	105	173	130	81.9	104	144	109	128	97.8	<0.182	102	<0.168	164
Cadmium	10.2	0.878	0.414 J	5.08	0.465 J	51.5	8.64	17.7	8	2.03	6.61	0.704	2.43	0.638	2.43	127	1.29	58.7	0.295 J
Chromium	7.44	7.69	3.91	5.32	2.79	12.2	10.3	10.3	7.65	5.65	8.14	5.92	1.99	4.4	4.43	28.2	3.97	<0.119	4.47
Cobalt	4.72	3.53	4.73	4.24	3.85	14.2	7	25.9	12.7	3.29	5.69	2.88	3.49	4.58	2.91	<0.027	3.83	54.4	2.63
Copper	362	12	5.96	278	8.63	1610	419	1940	844	70.4	510	8.95	58.9	22.6	122	6.42	73.9	3.37	8.27
Iron	8640	7890	7410	7410	5750	18200	12300	33700	16700	6300	11500	7290	7100	6850	5800	<11.4	6630 J	<10.5	5280
Lead	301	10.9	4.02	148	5.87	1280	234	487	233	61.3	188	6.16	59.4	14.5	55.7	2090	25.1	1320	4.4
Mercury	0.19	0.0194 R	<0.0139	0.136 J	<0.0138	1.1 J	0.231 R	0.372	0.243	0.0729 J	0.137 J	0.0225 R	<0.0124	<0.0141	0.163 J	0.0181 J	<0.0137 UJ	0.54	<0.0175
Molybdenum	7.68	0.163 J	<0.133	4.86	<0.14	59.1	26	113	45.9	0.218 J	15	0.283 J	0.281 J	<0.1	1.52 J	28.8	3.91	21.7	<0.106
Nickel	7.17	5.7	4.82	5.61	3.82	15.5	8.6	18.1	10.9	4.32	7.93	4.7	3.04	4.56	4.4	52.3	4.16	<0.111	2.89
Selenium	1.38	0.893 J	<0.21	0.685 J	<0.222	3.97	1.38	1.96	1.67	<0.173	1.34	0.555 J	<0.18	0.309 J	1.17	84.3	0.613 J	38.2	<0.167
Silver	1.63 J	<0.11	<0.117	0.984	<0.124	8.48 J	1.71	4.94	2.53	0.237 J	2.03 J	<0.111	<0.0999	<0.0884	0.319 J	<0.106	<0.108	<0.098	<0.0929
Thallium																			
Zinc	310	22	29.2	231	27	1580	523	3550	1180	57.4	361	19.7	66.6	47.7 J	85.7	<0.55	143	5860 J	14.4
Metals (mg/kg) ¹																			
Arsenic																			
Cadmium																			
Chromium																			
Copper																			
Iron																			
Lead																			
Selenium																			
Zinc																			
VOCs (mg/kg)																			
1,1,1-Trichloroethane																			
1,1,2-Trichloro-1,2,2-trifluoroethane																			
1,1,2-Trichloroethane																			
1,2-Dichlorobenzene																			
4-Methyl-2-pentanone (MIBK)																			
Acetone																			
Carbon tetrachloride																			
Chlorobenzene																			
Cyclohexane																			
Dichlorodifluoromethane																			
Ethyl acetate																			
Ethyl ether																			
Ethylbenzene																			
Methylene chloride																			
Tetrachloroethene																			
Total Xylenes																			
Trichloroethene																			
Trichlorofluoromethane																			
SVOCs (mg/kg)																			
Hexachlorocyclopentadiene																			
Pesticides (mg/kg)																			
Chlordane																			
Endrin																			
Methyl parathion																			

Notes are included on Page 20.

Table F-2
Soil Analytical Data - East Property

Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	E140-40 0 - 0.5 8/7/2012	E140-40 0.5 - 1 7/31/2012	E140-5 0 - 0.5 7/30/2012	E140-6 0 - 0.5 7/30/2012	E140-7 0 - 0.5 7/30/2012	E140-7 0 - 0.5 7/30/2012	E140-8 0 - 0.5 7/30/2012	E140-9 0 - 0.5 7/30/2012	E140-9 0.5 - 1 7/30/2012	E140-TP1 3 - 3.5 8/6/2012	E140-TP10 3 - 3.5 8/6/2012	E140-TP11 3 - 3.5 8/6/2012	E140-TP12 7 - 7.5 8/6/2012	E140-TP12 7 - 7.5 8/6/2012	E140-TP13 7.5 - 8 8/6/2012	E140-TP14 10 - 10.5 8/6/2012	E140-TP15 7.5 - 8 8/6/2012	E140-TP2 11 - 11.5 8/6/2012	E140-TP3 4.5 - 5 8/6/2012	
Metals (mg/kg)																				
Antimony	2.12 J	1.32 J	1.18 J	<0.266	1.28 J	1.18 J	1.23 J	2.65	2.4 J	1.27 J	1.05 J	0.915 J	1.18 J	0.986 J	0.498 J	0.929 J	0.64 J	0.655 J	0.73 J	
Arsenic	27.9	34.1	15	1.43 J	15.3	13.4	16.2	37.4	28.7	41.2	8.77	9.69	12.6 J	8.95 J	5.65	8.36	5.64	11	4.69	
Barium	103	131	127	92.3	124	123	140	301	131	144	89.1	67.2	52.8	65.6	43.2	83.9	42	64.6	302	
Cadmium	4.29	1.39	4	0.279 J	3.38 J	2.36 J	0.918	14	9.88	7.75	3.01	2.57	3.34	2.71	1.48	0.474 J	1.4	4.78	1.21	
Chromium	2.76	4.31	5.63	2.95	4.95	4.68	5.03	5.46	6.06	7.28	4.89	3.39	3.26	3.23	3	4.9	3.42	6.61	6.52	
Cobalt	4.3	5.05	3.11	1.74	2.76	2.5	2.51	3.38	3.06	6.46	2.87	2.52	3.33	2.79	2.47	3.19	2.31	6.61	4.39	
Copper	144	14.7	220	9.66	120 J	78.1 J	38.6	279	215	281	68.1	77.3	83.3 J	56.7 J	37.5	16.9	33.1	137	22.6	
Iron	10200	13000	5850	3690	5050	4670	4930	4320	5100 J	8610	5630	5490	8610	7190	5950	6990	5330	7990	6950	
Lead	194	88.5	141	5.12	92.2 J	58.1 J	18.5	398	261	195	60.7	57.8	86.4	84.9	32.9	10.7	60.3	99.4	8.45	
Mercury	0.211	0.315 R	0.156 J	<0.0137	0.0871 J	0.0806 J	0.0716 J	0.237	0.197 J	0.184 J	0.0337 J	0.0737 J	<0.0129	<0.0141	0.0247 J	<0.0153	<0.0122	0.112 J	<0.0143	
Molybdenum	1.94 J	0.409 J	0.704 J	0.136 J	1.26 J	0.526 J	0.119 J	2.2	2.7	6.08	1.14 J	0.373 J	6.4	5.98	0.394 J	0.214 J	2.35	1.21 J	0.934 J	
Nickel	4.02	4.51	6.13	2.59	5.4	5.05	5.27	5.37	4.87	8.34	3.59	3.17	4.01	3.04	2.57	4.38	2.8	7.34	6.94	
Selenium	<0.193	0.35 J	0.74 J	<0.197	0.739 J	1.04	0.983	1.38	1.13	<1.8 UJ	0.511 J	1.39	1.34	1.37	0.31 J	0.493 J	0.189 J	<1.83 UJ	<0.86 UJ	
Silver	1.48 J	0.614	0.965	<0.11	0.545	0.203 J	<0.0979	1.7	1.08	1.16	<0.113	0.137 J	<0.108	<0.108	<0.11	0.319 J	<0.102	0.526	<0.111	
Thallium																				
Zinc	119	47.6	132	15.6	109 J	64.4 J	24.2	417	285	920	62.4	56	132 J	54.3 J	39	26.2	46	322	58.7	
Metals (mg/kg) ¹																				
Arsenic																				
Cadmium																				
Chromium																				
Copper																				
Iron																				
Lead																				
Selenium																				
Zinc																				
VOCs (mg/kg)																				
1,1,1-Trichloroethane																				
1,1,2-Trichloro-1,2,2-trifluoroethane																				
1,1,2-Trichloroethane																				
1,2-Dichlorobenzene																				
4-Methyl-2-pentanone (MIBK)																				
Acetone																				
Carbon tetrachloride																				
Chlorobenzene																				
Cyclohexane																				
Dichlorodifluoromethane																				
Ethyl acetate																				
Ethyl ether																				
Ethylbenzene																				
Methylene chloride																				
Tetrachloroethene																				
Total Xylenes																				
Trichloroethene																				
Trichlorofluoromethane																				
SVOCs (mg/kg)																				
Hexachlorocyclopentadiene																				
Pesticides (mg/kg)																				
Chlordane																				
Endrin																				
Methyl parathion																				

Notes are included on Page 20.

**Table F-2
Soil Analytical Data - East Property**

**Supplemental Remedial Investigation Report
Former ASARCO Smelter Site**

Sample Location: Sample Depth (ft bgs): Sample Date:	E140-TP4 3 - 3.5 8/6/2012	E140-TP5 3 - 3.5 8/6/2012	E140-TP6 10 - 10.5 8/6/2012	E140-TP7 3.5 - 4 8/6/2012	E140-TP8 2.5 - 3 8/6/2012	E140-TP8 2.5 - 3 8/6/2012	E140-TP9 5.5 - 6 8/6/2012	SB10 0 - 0.5 12/17/2007	SB10 10 - 11 12/17/2007	SB10 15 - 16 12/17/2007	SB10 2 - 2 12/17/2007	SB10 20 - 21 12/17/2007	SB10 25 - 26 12/17/2007	SB10 29 - 30 12/17/2007	SB10 5 - 6 12/17/2007	SB11 0 - 0.5 12/18/2007	SB11 10 - 11 12/18/2007	SB11 15 - 16 12/18/2007	SB11 2 - 2 12/18/2007	
Metals (mg/kg)																				
Antimony	<0.259	0.379 J	<0.244	1.53 J	0.496 J	0.343 J	1.58 J													
Arsenic	3.13	3.47	6.42	6.02	4.34	4.38	10.1	734	6630	1250	1560	5380	4660	10.3	1310	1210	4450	220	910	
Barium	37.7	138	87.3	56.2	160 J	92.6 J	85.3													
Cadmium	0.462 J	0.391 J	0.458	0.707	0.405 J	0.393 J	1.98	425	1620	250	79.2	840	733	0.638	350	317	410	40.7	335	
Chromium	3.81	5.6	5.99	4.02	7.15	7.59	5.46	8.25	34.8	21.5	4.37	39.2	43.7	10.6	13	12.4	18.1	12.2	25.3	
Cobalt	5.9	4.23	5.25	2.43	4.17	4.40	3.73													
Copper	5.3	5.5	10.2	18.8	6.44	6.31	62.9	2100	25300	11300	4280	25900	23000	21	6970	5210	26800	830	4150	
Iron	6680	8890	11900	4790	9140	9280	6240	13700	26400	19200	6240	12000	44500	42900	12600	32900	11200	15100	12600	45200
Lead	3.4	4.45	5.09	13	4.89	5.67	41.7	6190	17600	5110	2140	15600	13600	15.7	7280	5580	74100	2040	4960	
Mercury	<0.0166	<0.015	0.039 J	<0.0165	<0.0176	0.000721 J	0.0454 J													
Molybdenum	8.89	1.14 J	0.475 J	2.75	1.87 J	1.69 J	3.17													
Nickel	7.33	6.22	8.01	5.24	6.62	7.04	4.73													
Selenium	2.97	<0.208	0.273 J	1.53	0.831 J	1.09	2.79	33.7	70.2	31.6	<2	57	44.5	<2	<2	34.4	210	24.2	3.15	
Silver	<0.107	<0.115	<0.1	<0.108	<0.115	<0.11	0.144 J													
Thallium																				
Zinc	26.7	27.4	31.3	35.3	23.2	22.8	93.9	820	7890	4120	680	12200	7470	39.3	6450	2410	5850	705	18300	
Metals (mg/kg) ¹																				
Arsenic																				
Cadmium																				
Chromium																				
Copper																				
Iron																				
Lead																				
Selenium																				
Zinc																				
VOCs (mg/kg)																				
1,1,1-Trichloroethane																				
1,1,2-Trichloro-1,2,2-trifluoroethane																				
1,1,2-Trichloroethane																				
1,2-Dichlorobenzene																				
4-Methyl-2-pentanone (MIBK)																				
Acetone																				
Carbon tetrachloride																				
Chlorobenzene																				
Cyclohexane																				
Dichlorodifluoromethane																				
Ethyl acetate																				
Ethyl ether																				
Ethylbenzene																				
Methylene chloride																				
Tetrachloroethene																				
Total Xylenes																				
Trichloroethene																				
Trichlorofluoromethane																				
SVOCs (mg/kg)																				
Hexachlorocyclopentadiene																				
Pesticides (mg/kg)																				
Chlordane																				
Endrin																				
Methyl parathion																				

Notes are included on Page 20.

**Table F-2
Soil Analytical Data - East Property**

**Supplemental Remedial Investigation Report
Former ASARCO Smelter Site**

Sample Location: Sample Depth (ft bgs): Sample Date:	SB11 20 - 21 12/18/2007	SB11 25 - 26 12/18/2007	SB11 29 - 30 12/18/2007	SB11 5 - 6 12/18/2007	SB13 10 - 11 12/18/2007	SB13 15 - 16 12/18/2007	SB13 20 - 21 12/18/2007	SB13 25 - 26 12/18/2007	SB13 29 - 30 12/18/2007	SB14 0 - 0.5 12/18/2007	SB14 10 - 11 12/18/2007	SB14 15 - 16 12/18/2007	SB14 2 - 2 12/18/2007	SB14 20 - 21 12/18/2007	SB14 25 - 26 12/18/2007	SB14 29 - 30 12/18/2007	SB14 5 - 6 12/18/2007	SB15 15 - 16 12/18/2007	SB15 20 - 21 12/18/2007
Metals (mg/kg)																			
Antimony																			
Arsenic	35.5	<2	<2	142	89.1	110	215	1660	15.7	29.6	730	710	21.6	1410	1370	<2	440	223	560
Barium																			
Cadmium	5.69	0.35	0.602	195	21.8	21.6	5.21	116	1.83	6.37	305	154	5.24	297	247	0.518	235	388	280
Chromium	11.7	10.1	5.83	10.5	9.26	9.91	7.26	16.2	7.12	4.33	7.01	10.8	3.08	12.7	27.9	8.81	7.73	26.7	68.4
Cobalt																			
Copper	131	9.74	7.13	1030	570	540	136	1500	18.1	353	2880	2970	185	2400	3820	8.96	2570	997	4850
Iron	12600	11200	12500	12000	9110	8960	7780	11300	12400	9380	8360	8360	9350	15100	45300	10000	8310	4690	150000
Lead	236	11.5	<1	1050	730	790	148	2420	23.7	185	4260	2780	122	3600	7070	12.4	3040	970	2790
Mercury																			
Molybdenum																			
Nickel																			
Selenium	<2	<2	<2	<2	<2	<2	<2	13.1	<2	<2	8.46	6.17	<2	12.3	56.9	<2	3.76	7.08	<2
Silver																			
Thallium																			
Zinc	117	34.4	39	1350	540	865	144	1520	47	362	1700	1490	175	2660	5290	30.5	2040	1580	18900
Metals (mg/kg) ¹																			
Arsenic																			
Cadmium																			
Chromium																			
Copper																			
Iron																			
Lead																			
Selenium																			
Zinc																			
VOCs (mg/kg)																			
1,1,1-Trichloroethane																			
1,1,2-Trichloro-1,2,2-trifluoroethane																			
1,1,2-Trichloroethane																			
1,2-Dichlorobenzene																			
4-Methyl-2-pentanone (MIBK)																			
Acetone																			
Carbon tetrachloride																			
Chlorobenzene																			
Cyclohexane																			
Dichlorodifluoromethane																			
Ethyl acetate																			
Ethyl ether																			
Ethylbenzene																			
Methylene chloride																			
Tetrachloroethene																			
Total Xylenes																			
Trichloroethene																			
Trichlorofluoromethane																			
SVOCs (mg/kg)																			
Hexachlorocyclopentadiene																			
Pesticides (mg/kg)																			
Chlordane																			
Endrin																			
Methyl parathion																			

Notes are included on Page 20.

Table F-2
Soil Analytical Data - East Property

Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	SB15 25 - 26 12/18/2007	SB15 29 - 30 12/18/2007	SB16 0 - 0.5 12/18/2007	SB16 10 - 11 12/18/2007	SB16 15 - 16 12/18/2007	SB16 2 - 2 12/18/2007	SB16 20 - 21 12/18/2007	SB16 25 - 26 12/18/2007	SB16 29 - 30 12/18/2007	SB16 5 - 6 12/18/2007	SB17 0 - 0.5 12/18/2007	SB17 10 - 11 12/18/2007	SB17 15 - 16 12/18/2007	SB17 2 - 2 12/18/2007	SB17 20 - 21 12/18/2007	SB17 25 - 26 12/18/2007	SB17 5 - 6 12/18/2007	SB18 0 - 0.5 12/19/2007	SB18 10 - 11 12/19/2007
Metals (mg/kg)																			
Antimony																			
Arsenic	157	2.75	440	93.8	3810	1960	46.2	330	3	1490	7550	4270	15600	3400	13.1	9.85	4480	176	680
Barium																			
Cadmium	29	0.831	129	18.2	660	3500	24.5	140	0.448	167	820	184	166	1260	0.465	0.861	480	28.2	172
Chromium	87	9.61	17.3	9.43	168	12.1	7.15	41.1	7.47	19.8	174	16.5	19.5	110	11.5	10.6	17.9	4.31	11.5
Cobalt																			
Copper	3670	20.8	3240	560	3510	19600	470	1030	13.8	6340	20300	16500	9960	10900	16.2	16.3	5540	765	5960
Iron	197000	10500	11600	10300	273000	23500	7530	26400	8580	30100	23500	13000	17800	19200	12200	11600	18100	13400	15500
Lead	267	16.4	4860	910	2880	10700	437	1070	10.1	31900	13900	7960	4580	33700	20.1	29	15000	610	6290
Mercury																			
Molybdenum																			
Nickel																			
Selenium	<2	<2	8.86	<2	62.6	139	<2	7.97	<2	7.61	25.9	49.6	50.6	110	<2	<2	51.4	<2	15.3
Silver																			
Thallium																			
Zinc	19800	70.1	1980	1220	3120	2780	630	1530	63	7750	6440	6110	4270	8400	44.1	39.6	5490	480	2720
Metals (mg/kg)¹																			
Arsenic																			
Cadmium																			
Chromium																			
Copper																			
Iron																			
Lead																			
Selenium																			
Zinc																			
VOCs (mg/kg)																			
1,1,1-Trichloroethane																			
1,1,2-Trichloro-1,2,2-trifluoroethane																			
1,1,2-Trichloroethane																			
1,2-Dichlorobenzene																			
4-Methyl-2-pentanone (MIBK)																			
Acetone																			
Carbon tetrachloride																			
Chlorobenzene																			
Cyclohexane																			
Dichlorodifluoromethane																			
Ethyl acetate																			
Ethyl ether																			
Ethylbenzene																			
Methylene chloride																			
Tetrachloroethene																			
Total Xylenes																			
Trichloroethene																			
Trichlorofluoromethane																			
SVOCs (mg/kg)																			
Hexachlorocyclopentadiene																			
Pesticides (mg/kg)																			
Chlordane																			
Endrin																			
Methyl parathion																			

Notes are included on Page 20.

**Table F-2
Soil Analytical Data - East Property**

**Supplemental Remedial Investigation Report
Former ASARCO Smelter Site**

Sample Location: Sample Depth (ft bgs): Sample Date:	SB18 15 - 16 12/19/2007	SB18 2 - 2 12/19/2007	SB18 20 - 21 12/19/2007	SB18 25 - 26 12/19/2007	SB18 29 - 30 12/19/2007	SB18 5 - 6 12/19/2007	SB19 0 - 0.5 12/19/2007	SB19 10 - 11 12/19/2007	SB19 15 - 16 12/19/2007	SB19 2 - 2 12/19/2007	SB19 20 - 21 12/19/2007	SB19 25 - 26 12/19/2007	SB19 29 - 30 12/19/2007	SB19 5 - 6 12/19/2007	SB20 0 - 0.5 12/19/2007	SB20 10 - 11 12/19/2007	SB20 15 - 16 12/19/2007	SB20 2 - 2 12/19/2007	SB20 20 - 21 12/19/2007
Metals (mg/kg)																			
Antimony																			
Arsenic	4240	1070	580	169	68.2	360	5200	980	730	1630	246	88.4	3.48	840	169	2520	104	1180	2.9
Barium																			
Cadmium	378	176	175	32.9	16.2	287	780	96.5	413	350	116	26.7	0.376	150	43.4	165	13.2	240	0.332
Chromium	16.6	4.91	12.4	51.5	48.7	18	26.2	16.2	21.1	15.6	54.8	62.1	7.65	5.56	5.82	10.5	6.02	13.1	9.82
Cobalt																			
Copper	14800	2930	2160	2900	2600	5120	13100	7220	2960	6620	3060	2500	9.4	3430	930	4450	1130	7380	12.6
Iron	17200	12800	21000	154000	161000	24000	19100	17900	50300	15400	148000	156000	9410	7330	8970	7040	6200	13600	10700
Lead	17100	3190	4160	720	180	3290	16000	5750	8430	11300	2560	430	10.7	4330	1160	6300	330	6350	14.4
Mercury																			
Molybdenum																			
Nickel																			
Selenium	42.2	9.09	3.82	<2	<2	<2	33.3	6.28	16.1	14.6	<2	<2	<2	<2	<2	38.1	<2	6.09	<2
Silver																			
Thallium																			
Zinc	5290	1230	4840	13300	12200	5100	8360	3480	9570	3730	12600	11800	44	1630	680	3160	950	3010	39
Metals (mg/kg) ¹																			
Arsenic																			
Cadmium																			
Chromium																			
Copper																			
Iron																			
Lead																			
Selenium																			
Zinc																			
VOCs (mg/kg)																			
1,1,1-Trichloroethane																			
1,1,2-Trichloro-1,2,2-trifluoroethane																			
1,1,2-Trichloroethane																			
1,2-Dichlorobenzene																			
4-Methyl-2-pentanone (MIBK)																			
Acetone																			
Carbon tetrachloride																			
Chlorobenzene																			
Cyclohexane																			
Dichlorodifluoromethane																			
Ethyl acetate																			
Ethyl ether																			
Ethylbenzene																			
Methylene chloride																			
Tetrachloroethene																			
Total Xylenes																			
Trichloroethene																			
Trichlorofluoromethane																			
SVOCs (mg/kg)																			
Hexachlorocyclopentadiene																			
Pesticides (mg/kg)																			
Chlordane																			
Endrin																			
Methyl parathion																			

Notes are included on Page 20.

**Table F-2
Soil Analytical Data - East Property**

**Supplemental Remedial Investigation Report
Former ASARCO Smelter Site**

Sample Location: Sample Depth (ft bgs): Sample Date:	SB20 25 - 26 12/19/2007	SB20 5 - 6 12/19/2007	SB21 0 - 0.5 12/19/2007	SB21 10 - 11 12/19/2007	SB21 15 - 16 12/19/2007	SB21 2 - 2 12/19/2007	SB21 20 - 21 12/19/2007	SB21 25 - 26 12/19/2007	SB21 29 - 30 12/19/2007	SB21 5 - 6 12/19/2007	SB22 0 - 0.5 12/19/2007	SB22 10 - 11 12/19/2007	SB22 15 - 16 12/19/2007	SB22 2 - 2 12/19/2007	SB22 20 - 21 12/19/2007	SB22 25 - 26 12/19/2007	SB22 5 - 6 12/19/2007	SB9 10 - 11 12/17/2007	SB9 15 - 16 12/17/2007
Metals (mg/kg)																			
Antimony																			
Arsenic	3.57	10900	162	540	315	336	1950	1550	1480	189	108	34.7	<2	194	21.3	<2	430	2800	835
Barium																			
Cadmium	0.353	330	32.2	97.7	82.4	67.2	185	157	175	19.8	19.2	3.07	0.837	41.2	4.07	<0.2	248	120	38.1
Chromium	8.28	17	3.32	9.32	33	4.25	23.5	20.2	31.5	21	4.2	7.81	8.79	5.87	7.73	2.73	13.5	48.1	29
Cobalt																			
Copper	10.3	37700	720	4300	1580	2180	11600	8020	6630	830	510	48.8	11.4	1030	53.3	1.96	3650	4050	1400
Iron	10600	13200	11900	12600	6900	12700	23400	17200	15500	22000	11800	6000	9760	6940	6850	3830	18200	29000	15800
Lead	10.8	31300	800	3100	1910	1710	6840	6220	5700	440	424	58	20.6	1300	94.6	4.92	4340	2630	758
Mercury																			
Molybdenum																			
Nickel																			
Selenium	<2	163	<2	<2	<2	7.9	9.42	12.7	11.9	<2	<2	<2	<2	<2	<2	<2	10.3	48.1	16.6
Silver																			
Thallium																			
Zinc	39.7	5790	425	1500	810	822	3120	2830	2420	950	255	43.5	30.8	530	48.8	9.57	3420	6040	1760
Metals (mg/kg)¹																			
Arsenic																			
Cadmium																			
Chromium																			
Copper																			
Iron																			
Lead																			
Selenium																			
Zinc																			
VOCs (mg/kg)																			
1,1,1-Trichloroethane																			
1,1,2-Trichloro-1,2,2-trifluoroethane																			
1,1,2-Trichloroethane																			
1,2-Dichlorobenzene																			
4-Methyl-2-pentanone (MIBK)																			
Acetone																			
Carbon tetrachloride																			
Chlorobenzene																			
Cyclohexane																			
Dichlorodifluoromethane																			
Ethyl acetate																			
Ethyl ether																			
Ethylbenzene																			
Methylene chloride																			
Tetrachloroethene																			
Total Xylenes																			
Trichloroethene																			
Trichlorofluoromethane																			
SVOCs (mg/kg)																			
Hexachlorocyclopentadiene																			
Pesticides (mg/kg)																			
Chlordane																			
Endrin																			
Methyl parathion																			

Notes are included on Page 20.

**Table F-2
Soil Analytical Data - East Property**

**Supplemental Remedial Investigation Report
Former ASARCO Smelter Site**

Sample Location: Sample Depth (ft bgs): Sample Date:	SB9 20 - 21 12/17/2007	SB9 25 - 26 12/17/2007	SB9 29 - 30 12/17/2007	SS-VOC1-1 0 - 0.5 9/29/2011	SS-VOC1-2 0 - 0.5 9/29/2011	SS-VOC1-3 0 - 0.5 9/29/2011	SS-VOC2-1 0 - 0.5 9/29/2011	SS-VOC2-2 0 - 0.5 9/29/2011	SS-VOC3-1 0 - 0.5 9/29/2011	SS-VOC3-2 0 - 0.5 9/29/2011	SS-VOC3-3 0 - 0.5 9/29/2011	SS-VOC4-1 0 - 0.5 9/29/2011	SS-VOC4-2 0 - 0.5 9/29/2011	SS-VOC4-3 0 - 0.5 9/29/2011	SS-VOC4-4 0 - 0.5 9/29/2011
Metals (mg/kg)															
Antimony															
Arsenic	11.9	<2	<2												
Barium															
Cadmium	0.596	<0.2	0.442												
Chromium	11.6	9.7	10												
Cobalt															
Copper	22.1	10.3	8.57												
Iron	11800	9890	11000												
Lead	15.2	10.8	7.9												
Mercury															
Molybdenum															
Nickel															
Selenium	<2	<2	<2												
Silver															
Thallium															
Zinc	50.9	30.5	30.2												
Metals (mg/kg) ¹															
Arsenic															
Cadmium															
Chromium															
Copper															
Iron															
Lead															
Selenium															
Zinc															
VOCs (mg/kg)															
1,1,1-Trichloroethane				<0.000729 UJ	<0.000687 UJ	<0.000736 UJ	<0.000711 UJ	<0.000803 UJ	<0.000752 UJ	<0.000943 UJ	<0.000766 UJ	<0.000807 UJ	<0.000668 UJ	<0.00069 UJ	<0.000918 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane				<0.000698 UJ	<0.000658 UJ	<0.000704 UJ	<0.00068 UJ	<0.000768 UJ	<0.00072 UJ	<0.000903 UJ	<0.000733 UJ	<0.000773 UJ	<0.000639 UJ	<0.00066 UJ	<0.000879 UJ
1,1,2-Trichloroethane				<0.000521 UJ	<0.000491 UJ	<0.000525 UJ	<0.000508 UJ	<0.000573 UJ	<0.000537 UJ	<0.000674 UJ	<0.000547 UJ	<0.000577 UJ	<0.000477 UJ	<0.000493 UJ	<0.000656 UJ
1,2-Dichlorobenzene				<0.00026 UJ	0.000269 J	0.000344 J	<0.000254 UJ	<0.000287 UJ	<0.000269 UJ	<0.000337 UJ	<0.000274 UJ	<0.000288 UJ	<0.000238 UJ	<0.000246 UJ	<0.000328 UJ
4-Methyl-2-pentanone (MIBK)				<0.000969 UJ	<0.000913 UJ	<0.000977 UJ	<0.000944 UJ	<0.00107 UJ	<0.000999 UJ	<0.00125 UJ	<0.00102 UJ	<0.00107 UJ	<0.000887 UJ	<0.000916 UJ	<0.00122 UJ
Acetone				0.0104 J	<0.00707 UJ	0.0239 J	0.00746 J	0.0149 J	0.0172 J	0.0156 J	0.00922 J	<0.0083 UJ	<0.00687 UJ	0.0102 J	<0.00945 UJ
Carbon tetrachloride				<0.000531 UJ	<0.000501 UJ	<0.000536 UJ	<0.000518 UJ	<0.000585 UJ	<0.000548 UJ	<0.000687 UJ	<0.000558 UJ	<0.000588 UJ	<0.000486 UJ	<0.000502 UJ	<0.000669 UJ
Chlorobenzene				<0.00024 UJ	<0.000226 UJ	<0.000242 UJ	<0.000233 UJ	<0.000264 UJ	<0.000247 UJ	<0.00031 UJ	<0.000252 UJ	<0.000265 UJ	<0.000219 UJ	<0.000227 UJ	<0.000302 UJ
Cyclohexane				<0.00103 UJ	<0.000972 UJ	<0.00104 UJ	<0.001 UJ	<0.00114 UJ	<0.00106 UJ	<0.00133 UJ	<0.00108 UJ	<0.00114 UJ	<0.000944 UJ	<0.000975 UJ	<0.0013 UJ
Dichlorodifluoromethane				<0.00076 UJ	<0.000716 UJ	<0.000767 UJ	<0.000741 UJ	<0.000837 UJ	<0.000784 UJ	<0.000984 UJ	<0.000799 UJ	<0.000842 UJ	<0.000696 UJ	<0.000719 UJ	<0.000958 UJ
Ethyl acetate				<0.00125 UJ	<0.00118 UJ	<0.00126 UJ	<0.00122 UJ	<0.00138 UJ	<0.00129 UJ	<0.00162 UJ	<0.00131 UJ	<0.00138 UJ	<0.00114 UJ	<0.00118 UJ	<0.00157 UJ
Ethyl ether				<0.000177 UJ	<0.000167 UJ	<0.000179 UJ	<0.000173 UJ	<0.000195 UJ	<0.000183 UJ	<0.000229 UJ	<0.000186 UJ	<0.000196 UJ	<0.000162 UJ	<0.000167 UJ	<0.000223 UJ
Ethylbenzene				<0.000229 UJ	<0.000216 UJ	0.000263 J	<0.000223 UJ	<0.000252 UJ	<0.000236 UJ	<0.000296 UJ	<0.000241 UJ	<0.000254 UJ	<0.00021 UJ	0.000225 J	0.000301 J
Methylene chloride				<0.00521 UJ	<0.00491 UJ	<0.00525 UJ	<0.00508 UJ	<0.00573 UJ	<0.00537 UJ	<0.00674 UJ	<0.00547 UJ	<0.00577 UJ	<0.00477 UJ	<0.00493 UJ	<0.00656 UJ
Tetrachloroethene				<0.000771 UJ	<0.000726 UJ	<0.000778 UJ	<0.000751 UJ	<0.000849 UJ	<0.000795 UJ	<0.000997 UJ	<0.00081 UJ	<0.000854 UJ	<0.000706 UJ	<0.000729 UJ	<0.000971 UJ
Total Xylenes				0.000596 J	0.000568 J	0.00103 J	0.000408 J	0.000817 J	0.000475 J	0.000646 J	0.00079 J	<0.000415 UJ	<0.000343 UJ	0.00086 J	0.00114 J
Trichloroethene				<0.000292 UJ	<0.000275 UJ	<0.000294 UJ	<0.000284 UJ	<0.000321 UJ	<0.000301 UJ	<0.000377 UJ	<0.000306 UJ	<0.000323 UJ	<0.000267 UJ	<0.000276 UJ	<0.000367 UJ
Trichlorofluoromethane				0.000886 J	0.00103 J	0.00148 J	0.000934 J	0.000827 J	0.000988 J	0.00214 J	0.00167 J	0.000889 J	<0.000477 UJ	0.000873 J	0.00311 J
SVOCs (mg/kg)															
Hexachlorocyclopentadiene															
Pesticides (mg/kg)															
Chlordane															
Endrin															
Methyl parathion															

Notes are included on Page 20.

**Table F-2
Soil Analytical Data - East Property**

**Supplemental Remedial Investigation Report
Former ASARCO Smelter Site**

Sample Location: Sample Depth (ft bgs): Sample Date:	SS-VOC4-5 0 - 0.5 9/29/2011	SS-VOC4-6 0 - 0.5 9/29/2011	SS-VOC4-7 0 - 0.5 9/29/2011	SS-VOC4-8 0 - 0.5 9/29/2011	SS-VOC4-9 0 - 0.5 9/29/2011	WP-SS1A 0 - 0.5 9/26/2011	WP-SS1B 0 - 0.5 9/26/2011	WP-SS2A 0 - 0.5 9/26/2011	WP-SS2B 0 - 0.5 9/26/2011	WP-SS3A 0 - 0.5 9/26/2011	WP-SS3B 0 - 0.5 9/26/2011	WP-SS4A 0 - 0.5 9/26/2011	WP-SS4B 0 - 0.5 9/26/2011	WP-SS4C 0 - 0.5 9/26/2011
Metals (mg/kg)														
Antimony						214	142	1680	859	34.3	69.9	89.9	308	14.2
Arsenic						909	1690	8460	7380	270	703	380	10900	57.8
Barium						133	281	253	253	182	171	591	552	560
Cadmium						254	111	1340	919	96.1	209	188	720	11.9
Chromium						11.7	25.7	15.4	14.8	15.2	10.8	21	86.9	15.8
Cobalt						16.6	39.4	44.8	38.9	13.3	13	76.9	68.1	75.4
Copper						9700	21100	18500	7540	1650	3260	1580	7040	2130
Iron						16900	23300	42700	37400	16800	10900	50900	39300	41400
Lead						4740	4720	106000	99400	2150	5150	1930	7530	454
Mercury						5.47	3.94	458	318	15.7	18.5	3.29	32.3	<0.137 UJ
Molybdenum						58.3 J	66.6 J	144 J	81.1 J	29.3 J	16.4 J	277 J	239 J	169 J
Nickel						29.4	70.3	87.4	33.7	17	26.4	20.3	39.8	35.4
Selenium						22.3	31.6	1880	1310	10.2	20.3	29.4	71.6	8.75
Silver						51.3	36.3	122	84.2	15.4	34.2	6.47	26	3.36
Thallium														
Zinc						3000	10900	15700	17500	2140	2970	11200	19100	6580
Metals (mg/kg) ¹														
Arsenic														
Cadmium														
Chromium														
Copper														
Iron														
Lead														
Selenium														
Zinc														
VOCs (mg/kg)														
1,1,1-Trichloroethane	<0.000762 UJ	<0.000792 UJ	<0.000677 UJ	<0.000657 UJ	<0.000739 UJ									
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.00073 UJ	<0.000758 UJ	<0.000648 UJ	<0.000629 UJ	<0.000708 UJ									
1,1,2-Trichloroethane	<0.000544 UJ	<0.000566 UJ	<0.000484 UJ	<0.000469 UJ	<0.000528 UJ									
1,2-Dichlorobenzene	<0.000272 UJ	<0.000283 UJ	<0.000242 UJ	<0.000235 UJ	<0.000264 UJ									
4-Methyl-2-pentanone (MIBK)	<0.00101 UJ	<0.00105 UJ	<0.000899 UJ	<0.000873 UJ	<0.000982 UJ									
Acetone	<0.00784 UJ	0.00938 J	<0.00696 UJ	<0.00676 UJ	<0.00761 UJ									
Carbon tetrachloride	<0.000555 UJ	<0.000577 UJ	<0.000493 UJ	<0.000479 UJ	<0.000539 UJ									
Chlorobenzene	<0.00025 UJ	<0.00026 UJ	<0.000222 UJ	<0.000216 UJ	<0.000243 UJ									
Cyclohexane	<0.00108 UJ	<0.00112 UJ	<0.000957 UJ	<0.000929 UJ	<0.00105 UJ									
Dichlorodifluoromethane	<0.000795 UJ	<0.000826 UJ	<0.000706 UJ	<0.000685 UJ	<0.000771 UJ									
Ethyl acetate	<0.00131 UJ	<0.00136 UJ	<0.00116 UJ	<0.00113 UJ	<0.00127 UJ									
Ethyl ether	<0.000185 UJ	<0.000192 UJ	<0.000164 UJ	<0.00016 UJ	<0.00018 UJ									
Ethylbenzene	<0.00024 UJ	<0.000249 UJ	<0.000213 UJ	<0.000207 UJ	<0.000232 UJ									
Methylene chloride	<0.00544 UJ	<0.00566 UJ	<0.00484 UJ	<0.00469 UJ	<0.00528 UJ									
Tetrachloroethene	<0.000806 UJ	<0.000838 UJ	<0.000716 UJ	<0.000695 UJ	<0.000782 UJ									
Total Xylenes	<0.000392 UJ	<0.000407 UJ	<0.000348 UJ	<0.000338 UJ	0.000405 J									
Trichloroethene	<0.000305 UJ	<0.000317 UJ	<0.000271 UJ	<0.000263 UJ	<0.000296 UJ									
Trichlorofluoromethane	0.000774 J	0.00169 J	<0.000484 UJ	0.000475 J	0.0015 J									
SVOCs (mg/kg)														
Hexachlorocyclopentadiene						<0.102	<0.102	<0.101	<0.102	<0.101	<0.101	<0.102	<0.102	<0.101
Pesticides (mg/kg)														
Chlordane						<0.0382	<0.0384	<0.00951	<0.00953	<0.0191	<0.0095	<0.00952	<0.0192	<0.0019
Endrin						<0.00169	<0.0017	0.000421 J	<0.000422	<0.000845	<0.000421	<0.000422	<0.00085	<0.000084
Methyl parathion						<0.00858	<0.00861	<0.0085	<0.00847	<0.00859	<0.00857	<0.00852	<0.00857	<0.00839

Notes:

¹ Samples analysed using field x-ray diffraction methods
ft bgs = sample interval in feet below ground surface
mg/kg = milligram per kilogram

SU = Standard (pH) Units
SVOC = Semivolatile Organic Compound
VOC = Volatile Organic Compound

Laboratory Qualifiers:

J = Estimated value reported. In the majority of cases this represents a value less than the contract required quantitation limit, but greater than the method detection limit.
U = Compound was analyzed for but not detected. The value shown in the laboratory method detection limit.

Table F-3
Soil Analytical Data - Parker Brothers Arroyo
Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	BH12-1 0 - 1 11/3/1999	BH12-1 10 - 12 11/3/1999	BH12-1 15 - 16 11/3/1999	BH12-1 3 - 4 11/3/1999	BH12-1 4 - 5 11/3/1999	BH12-2 10 - 12 11/3/1999	BH12-2 6 - 7 11/3/1999	BH12-5 8 - 10 11/4/1999	BH12-6 12 - 13 11/4/1999	BH12-7 10 - 12 11/4/1999	BH12-7 6 - 8 11/4/1999	BH12-8 2 - 3 11/4/1999	BH12-8 3 - 4 11/4/1999	BH12-8 4 - 5 11/4/1999	BH12-8 8 - 9 11/4/1999	BH12-9 4 - 5 11/4/1999	BH2-1 63 - 65 8/10/1999	BH2-1 68 - 70 8/10/1999	BH2-1 73 - 75 8/10/1999	BH2-3 40 - 42 8/13/1999	BH2-3 45 - 47 8/13/1999	BH2-3 50 - 52 8/13/1999	BH2-3 55 - 57 8/13/1999	
Metals (mg/kg)																								
Antimony																								
Arsenic																								
Barium																								
Cadmium																								
Chromium																								
Chromium, hexavalent																								
Cobalt																								
Copper																								
Iron																								
Lead																								
Manganese																								
Mercury																								
Molybdenum																								
Nickel																								
Selenium																								
Silver																								
Thallium																								
Zinc																								
Metals (mg/kg) ¹																								
Arsenic	490	<10	<10	<10	<10	67	<10	<10	120	33	<10	23	<10	25	76	52	19	12	64	27	<10	<10	<10	
Cadmium	300	<10	<10	<10	<10	10	<10	15	<10	38	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Chromium	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	82	<80	<80	<80	98	<80	<80	<80	<80	<80	<80	<80	83	
Copper	4300	<20	27	99	120	570	93	45	37	94	32	64	91	120	48	42	170	26	<20	20	<20	36	<20	
Iron	42000	11000	7700	22000	18000	24000	15000	15000	23000	16000	13000	16000	17000	17000	27000	19000	35000	27000	27000	20000	23000	19000	18000	
Lead	2700	<10	<10	140	150	610	130	<10	21	52	33	130	120	130	<10	<10	790	<10	<10	<10	<10	<10	<10	
Selenium	24	<10	<10	<10	<10	<10	<10	<10	<10	18	12	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Zinc	2700	34	<10	88	61	320	77	21	63	350	280	300	180	670	42	19	1300	44	44	15	38	25	23	
VOCs (mg/kg)																								
Benzene																								
Ethylbenzene																								
Toluene																								
Total Xylenes																								
TPH (mg/kg)																								
C6-C12																								
Over C12-C28																								
Over C28-C35																								
Total Petroleum Hydrocarbons																								

Notes are included on Page 20.

Table F-3
 Soil Analytical Data - Parker Brothers Arroyo
 Supplemental Remedial Investigation Report
 Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	BH2-3 60 - 62 8/13/1999	BH2-3 65 - 67 8/13/1999	BH2-3 70 - 72 8/13/1999	BH2-3 75 - 76 8/13/1999	BH2-4 54 - 55 8/16/1999	BH2-5 16 - 18 8/16/1999	BH2-5 20 - 22 8/16/1999	BH2-5 24 - 26 8/16/1999	BH2-6 15 - 17 8/16/1999	BH2-6 20 - 22 8/16/1999	BH2-6 24 - 26 8/16/1999	BH2-6 30 - 32 8/16/1999	BH2-6 35 - 37 8/17/1999	BH2-6 40 - 42 8/17/1999	BH2-6 45 - 47 8/17/1999	BH2-6 9 - 11 8/16/1999	BH2-7 10 - 12 8/17/1999	BH2-7 15 - 17 8/17/1999	BH2-7 20 - 22 8/17/1999	BH2-7 25 - 27 8/17/1999	BH2-7 30 - 32 8/17/1999	BH2-7 35 - 37 8/17/1999	BH2-7 40 - 41 8/17/1999	
Metals (mg/kg)																								
Antimony																								
Arsenic																								
Barium																								
Cadmium																								
Chromium																								
Chromium, hexavalent																								
Cobalt																								
Copper																								
Iron																								
Lead																								
Manganese																								
Mercury																								
Molybdenum																								
Nickel																								
Selenium																								
Silver																								
Thallium																								
Zinc																								
Metals (mg/kg) ¹																								
Arsenic	21	36	120	100	170	<10	<10	<10	3700	870	400	170	85	370	47	1100	13	<10	11	<10	22	11	11	
Cadmium	14	<10	15	<10	120	<10	<10	<10	210	1600	630	710	670	1400	58	450	<10	<10	<10	<10	<10	<10	14	
Chromium	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	
Copper	<20	<20	<20	49	37	<20	44	40	1300	240	<20	<20	48	37	23	160	<20	29	<20	<20	45	21		
Iron	20000	19000	31000	33000	23000	18000	17000	21000	49000	30000	29000	26000	27000	30000	13000	14000	24000	25000	26000	6900	30000	22000	26000	
Lead	<10	<10	<10	14	59	21	19	<10	74	23	15	<10	<10	<10	<10	56	<10	<10	<10	<10	<10	<10	<10	
Selenium	<10	<10	<10	14	<10	<10	<10	<10	26	34	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Zinc	42	34	79	34	560	54	21	15	130	580	600	810	460	520	120	710	59	34	35	31	47	21	24	
VOCs (mg/kg)																								
Benzene																								
Ethylbenzene																								
Toluene																								
Total Xylenes																								
TPH (mg/kg)																								
C6-C12																								
Over C12-C28																								
Over C28-C35																								
Total Petroleum Hydrocarbons																								

Notes are included on Page 20.

Table F-3
Soil Analytical Data - Parker Brothers Arroyo
Supplemental Remedial Investigation Report
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Sample Location: Sample Depth (ft bgs): Sample Date:	BH2-7 45 - 46 8/17/1999	BH3-1 0 - 1 8/18/1999	BH3-1 1 - 2 8/18/1999	BH3-1 2 - 3 8/18/1999	BH3-1 25 - 27 8/23/1999	BH3-1 3 - 4 8/18/1999	BH3-1 30 - 32 8/23/1999	BH3-1 35 - 37 8/23/1999	BH3-1 4 - 5 8/18/1999	BH3-1 40 - 42 8/23/1999	BH3-1 45 - 47 8/23/1999	BH3-1 49 - 51 8/23/1999	BH3-7 30 - 32 8/26/1999	BH3-7 35 - 37 8/26/1999	BH3-7 40 - 42 8/26/1999	BH3-7 45 - 47 8/26/1999	BH3-7 50 - 52 8/26/1999	BH3-7 55 - 57 8/26/1999	BH3-7 60 - 62 8/26/1999	BH3-7 65 - 67 8/26/1999	BH3-7 69 - 70 8/27/1999	EP-108 10 - 12 10/14/1999	EP-108 15 - 16 10/14/1999
Metals (mg/kg)																							
Antimony																							
Arsenic																							
Barium																							
Cadmium																							
Chromium																							
Chromium, hexavalent																							
Cobalt																							
Copper																							
Iron																							
Lead																							
Manganese																							
Mercury																							
Molybdenum																							
Nickel																							
Selenium																							
Silver																							
Thallium																							
Zinc																							
Metals (mg/kg) ¹																							
Arsenic	<10	300	<10	18	<10	<10	24	22	<10	28	19	<10	<10	<10	17	18	15	56	<10	50	<10	19	82
Cadmium	<10	110	<10	14	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Chromium	<80	110	<80	<80	<80	<80	<80	88	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80
Copper	35	3400	120	150	56	<20	<20	<20	28	<20	20	<20	32	52	61	66	<20	39	45	27	<20	68	100
Iron	23000	23000	16000	18000	25000	16000	32000	31000	15000	32000	23000	24000	19000	17000	20000	28000	24000	47000	11000	31000	10000	16000	29000
Lead	<10	990	57	340	<10	18	<10	<10	<10	<10	<10	29	<10	<10	<10	38	46	<10	41	63	12	41	67
Selenium	<10	13	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Zinc	27	1200	65	320	46	35	30	35	32	26	30	36	47	44	44	49	47	64	35	28	<10	35	170
VOCs (mg/kg)																							
Benzene																							
Ethylbenzene																							
Toluene																							
Total Xylenes																							
TPH (mg/kg)																							
C6-C12																							
Over C12-C28																							
Over C28-C35																							
Total Petroleum Hydrocarbons																							

Notes are included on Page 20.

Table F-3
Soil Analytical Data - Parker Brothers Arroyo
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Sample Location: Sample Depth (ft bgs): Sample Date:	EP-109 0 - 1 10/15/1999	EP-109 1 - 2 10/15/1999	EP-109 10 - 11_5 7/28/1999	EP-109 10 - 12 10/15/1999	EP-109 15 - 17 10/15/1999	EP-109 2 - 3 10/15/1999	EP-109 20 - 22 10/15/1999	EP-109 3 - 4 10/15/1999	EP-109 4 - 5 10/15/1999	EP-109 5 - 5_5 7/28/1999	EP-73 15 - 15 6/1/1997	EP-73 20 - 20 6/1/1997	EP-73 32 - 32 6/1/1997	EP-73 40 - 40 6/1/1997	EP-73 45 - 45 6/1/1997	EP-73 78 - 78 6/17/1997	EP-75 35 - 35 6/2/1997	EP-75 40 - 40 6/2/1997	EP-75 45 - 45 6/2/1997	EP-75 50 - 50 6/2/1997	EP-75 55 - 55 6/3/1997	EP-75 60 - 60 6/3/1997	EP-75 65 - 65 6/3/1997
Metals (mg/kg)																							
Antimony																							
Arsenic											<20	<20	<20	24	<20	<20	220	120	67	45	91	73	36
Barium																							
Cadmium											<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Chromium											50	110	<30	<30	<30	43	35	53	83	43	130	40	<30
Chromium, hexavalent																							
Cobalt																							
Copper											31	400	44	<20	30	<20	280	64	<20	60	450	<20	22
Iron											28000	58000	9000	21000	20000	11000	32000	29000	33000	22000	31000	23000	21000
Lead											160	2400	230	31	140	<10	490	120	23	29	760	17	12
Manganese																							
Mercury																							
Molybdenum																							
Nickel																							
Selenium											<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Silver																							
Thallium																							
Zinc											350	5200	490	33	240	42	5400	1100	77	280	7300	50	100
Metals (mg/kg) ¹																							
Arsenic	380	320	180	14	<10	440	<10	680	460	380													
Cadmium	59	36	18	<10	<10	25	<10	30	32	50													
Chromium	<80	<80	<80	<80	<80	<80	91	90	94	<80													
Copper	2700	1900	940	230	<20	2800	<20	3700	3000	2500													
Iron	77000	88000	23000	21000	19000	110000	15000	140000	110000	89000													
Lead	2000	1900	660	310	33	3600	43	5000	4000	2900													
Selenium	13	<10	<10	<10	<10	<10	<10	10	10	<10													
Zinc	4500	5000	360	150	18	8700	33	13000	9700	6400													
VOCs (mg/kg)																							
Benzene																							
Ethylbenzene																							
Toluene																							
Total Xylenes																							
TPH (mg/kg)																							
C6-C12																							
Over C12-C28																							
Over C28-C35																							
Total Petroleum Hydrocarbons																							

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Table F-3
Soil Analytical Data - Parker Brothers Arroyo
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Sample Location: Sample Depth (ft bgs): Sample Date:	EP-76 0 - 0.5 6/3/1997	EP-76 1.5 - 1.5 6/3/1997	EP-76 4.5 - 4.5 6/3/1997	EP-76 5.0 - 5.0 6/3/1997	EP-76 5.5 - 5.5 6/3/1997	EP-76 6.0 - 6.0 6/3/1997	EP-79 10 - 10 6/5/1997	EP-79 15 - 15 6/5/1997	EP-79 20 - 20 6/5/1997	EP-79 25 - 25 6/5/1997	EP-79 35 - 35 6/5/1997	EP-79 40 - 40 6/5/1997	EP-79 45 - 45 6/5/1997	EP-81 10 - 10 6/6/1997	EP-81 15 - 15 6/6/1997	EP-81 20 - 20 6/6/1997	EP-81 25 - 25 6/6/1997	EP-81 5 - 5 6/6/1997	EP-82 0 - 0.5 6/10/1997	EP-82 10 - 10 6/10/1997	EP-82 15 - 15 6/10/1997	EP-82 20 - 20 6/10/1997	EP-82 25 - 25 6/10/1997	
Metals (mg/kg)																								
Antimony																								
Arsenic	1800	420	78	29	110	<20	<20	32	28	210	<20	<20	<20	<20	<20	<20	<20	150	<20	<20	<20	<20	<20	
Barium																								
Cadmium	420	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	15	<10	<10	<10	<10	<10	
Chromium	200	310	82	52	<30	140	45	60	57	95	59	83	<30	38	<30	<30	<30	80	70	<30	100	<30	<30	
Chromium, hexavalent																								
Cobalt																								
Copper	12000	4800	35	<20	500	25	<20	86	120	300	<20	<20	<20	190	<20	<20	<20	1100	200	38	<20	<20	<20	
Iron	120000	150000	20000	18000	29000	19000	24000	28000	34000	47000	16000	9000	5000	22000	18000	17000	18000	40000	18000	12000	8000	11000	12000	
Lead	9500	3400	28	20	650	37	17	30	110	240	<10	12	10	140	14	12	11	790	60	<10	<10	14	15	
Manganese																								
Mercury																								
Molybdenum																								
Nickel																								
Selenium	82	80	14	13	20	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Silver																								
Thallium																								
Zinc	12000	110000	190	80	6600	260	67	180	440	1400	34	20	20	360	46	34	29	2600	150	22	14	50	24	
Metals (mg/kg) ¹																								
Arsenic																								
Cadmium																								
Chromium																								
Copper																								
Iron																								
Lead																								
Selenium																								
Zinc																								
VOCs (mg/kg)																								
Benzene																								
Ethylbenzene																								
Toluene																								
Total Xylenes																								
TPH (mg/kg)																								
C6-C12																								
Over C12-C28																								
Over C28-C35																								
Total Petroleum Hydrocarbons																								

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Table F-3
Soil Analytical Data - Parker Brothers Arroyo
Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	EP-82 30 - 30 6/10/1997	EP-82 5 - 5 6/10/1997	EP-85 10 - 10 6/12/1997	EP-85 15 - 15 6/12/1997	EP-85 20 - 20 6/12/1997	EP-85 5 - 5 6/12/1997	EP-99 57 - 59 8/12/1999	EP-99 65 - 67 8/12/1999	RI1BH1 40 - 40 6/19/1997	RI1BH1 45 - 45 6/19/1997	RI1BH1 50 - 50 6/19/1997	RI1BH1 55 - 55 6/19/1997	RI1BH1 60 - 60 6/19/1997	RI1BH1 62 - 62 6/19/1997	RI1BH4 0 - 1 6/30/1997	RI1BH4 10 - 10 6/30/1997	RI1BH4 15 - 15 6/30/1997	RI1BH5 10 - 10 6/30/1997	RI1BH5 12 - 12 6/30/1997	RI1BH5 15 - 15 6/30/1997	RI1BH5 2 - 2 6/30/1997	RI1BH5 8 - 8 6/30/1997	SSIA2-2 0 - 1 7/14/1997
Metals (mg/kg)																							
Antimony																							
Arsenic	<20	<20	27	22	<20	59																	840
Barium																							
Cadmium	<10	<10	<10	<10	<10	<10																	150
Chromium	<30	70	78	63	<30	<30																	230
Chromium, hexavalent																							
Cobalt																							
Copper	38	34	<20	41	<20	58																	8800
Iron	11000	19000	15000	17000	18000	20000																	85000
Lead	<10	23	15	27	32	150																	2700
Manganese																							
Mercury																							
Molybdenum																							
Nickel																							
Selenium	<10	<10	<10	<10	<10	<10																	21
Silver																							
Thallium																							
Zinc	15	57	35	26	99	180																	5300
Metals (mg/kg) ¹																							
Arsenic							<10	<10	4400	1400	<20	<20	23	<20	280	29	<20	<20	34	<20	<20	<20	
Cadmium							<10	<10	2100	660	11	<10	<10	<10	24	<10	<10	<10	<10	<10	<10	<10	
Chromium							<80	<80	190	170	89	92	52	51	120	91	<30	32	<30	48	46	82	
Copper							54	<20	4000	1200	<20	26	39	130	2100	54	23	25	17	<20	310	24	
Iron							20000	24000	130000	41000	19000	11000	12000	20000	60000	21000	17000	18000	19000	18000	27000	16000	
Lead							45	<10	11000	2200	36	67	20	320	970	140	25	30	22	33	210	17	
Selenium							<10	<10	20	13	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Zinc							56	43	16000	4200	83	110	64	310	4700	540	27	42	59	54	1600	36	
VOCs (mg/kg)																							
Benzene																							
Ethylbenzene																							
Toluene																							
Total Xylenes																							
TPH (mg/kg)																							
C6-C12																							
Over C12-C28																							
Over C28-C35																							
Total Petroleum Hydrocarbons																							

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Table F-3
Soil Analytical Data - Parker Brothers Arroyo
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Sample Location: Sample Depth (ft bgs): Sample Date:	SSIA2-2 3 - 3 7/14/1997	SSIA3-1 0 - 1 7/14/1997	SSIA3-1 1_5 - 1_5 7/14/1997	SSIA3-2 0 - 1 7/14/1997	SSIA3-2 1_5 - 1_5 7/14/1997	SSIA3-2 3 - 3 7/14/1997	SSIA3-5 0 - 1 7/15/1997	SSIA3-5 1_5 - 1_5 7/15/1997	BH12-10 52 - 53 4/3/2001	BH12-11 37 - 38 4/3/2001	BH12-11 42 - 43 4/3/2001	BH12-12 47 - 48 4/3/2001	BH12-12 52 - 53 4/3/2001	BH12-13 46 - 47 4/4/2001	BH12-13 51 - 52 4/4/2001	BH12-14 43 - 44 4/4/2001	BH12-14 50 - 51 4/4/2001	BH12-15 49 - 50 4/4/2001	BH12-15 51 - 52 4/4/2001	BH12-16 48 - 49 4/4/2001	BH12-16 53 - 54 4/4/2001	BH12-17 48 - 49 4/5/2001	BH12-17 51 - 52 4/5/2001
Metals (mg/kg)																							
Antimony																							
Arsenic		1900	650	<20	35		1000	560										616					
Barium																							
Cadmium		510	120	25	19		280	150											1945				
Chromium		240	73	<30	<30		240	80															
Chromium, hexavalent																							
Cobalt																							
Copper		27000	4000	360	430		9000	3700															
Iron		66000	120000	15000	21000		92000	63000															
Lead		7400	6900	220	550		5200	3300															
Manganese																							
Mercury																							
Molybdenum																							
Nickel																							
Selenium		56	13	<10	<10		22	16															
Silver																							
Thallium																							
Zinc		7600	17000	220	2000		9200	7300															
Metals (mg/kg) ¹																							
Arsenic	1600					270			12	57	43	50	19	18	41	27	37	520	73	49	30	260	87
Cadmium	450					52			13	<10	<10	13	11	<10	13	<10	<10	2800	11	<10	<10	72	17
Chromium	330					150			<80	<80	<80	<80	<80	<80	<80	<80	97	<80	<80	<80	190	<80	
Copper	6300					1400			48	53	140	100	52	93	45	110	1500	250	160	77	900	510	
Iron	120000					47000			3000	14000	9600	8100	5000	11000	6000	13000	12000	13000	12000	15000	7400	57000	16000
Lead	10000					1700			78	41	44	200	55	60	140	70	77	1500	230	100	65	1100	510
Selenium	70					12			<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Zinc	77000					7500			<10	<10	<10	91	<10	75	12	100	29	7700	75	410	<10	1500	720
VOCs (mg/kg)																							
Benzene																							
Ethylbenzene																							
Toluene																							
Total Xylenes																							
TPH (mg/kg)																							
C6-C12																							
Over C12-C28																							
Over C28-C35																							
Total Petroleum Hydrocarbons																							

Notes are included on Page 20.

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Soil Analytical Data - Parker Brothers Arroyo
Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	BH12-17 55 - 56 4/5/2001	BH12-18 43 - 44 4/5/2001	BH12-18 48 - 49 4/5/2001	BH12-19 40 - 41 4/5/2001	BH12-19 45 - 46 4/5/2001	BH12-20 31 - 32 4/5/2001	BH12-20 36 - 37 4/5/2001	BH12-21 20 - 21 4/5/2001	BH12-21 25 - 26 4/5/2001	BH12-22 25 - 26 4/6/2001	BH12-22 31 - 32 4/6/2001	BH12-26 10 - 11 7/17/2001	BH12-26 12 - 13 7/17/2001	BH12-26 4 - 5 7/17/2001	BH12-26 7 - 8 7/17/2001	BH12-28 15 - 16 7/18/2001	BH12-29 10 - 11 7/18/2001	BH12-29 12 - 13 7/18/2001	BH12-29 4 - 5 7/18/2001	BH12-29 7 - 8 7/18/2001	BH12-30 10 - 11 7/18/2001	BH12-30 12 - 13 7/18/2001	BH12-30 15 - 16 7/18/2001
Metals (mg/kg)																							
Antimony																							
Arsenic																							
Barium																							
Cadmium																							
Chromium																							
Chromium, hexavalent																							
Cobalt																							
Copper																							
Iron																							
Lead																							
Manganese																							
Mercury																							
Molybdenum																							
Nickel																							
Selenium																							
Silver																							
Thallium																							
Zinc																							
Metals (mg/kg) ¹																							
Arsenic	39	47	47	59	34	21	29	85	39	88	40	13	26	25	44	36	25	34	24	44	31	22	22
Cadmium	<10	11	<10	<10	<10	<10	10	14	12	<10	<10	<10	14	<10	<10	24	12	<10	10	16	<10	<10	<10
Chromium	<80	<80	<80	<80	<80	<80	<80	<80	<80	97	<80	<80	88	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80
Copper	200	160	83	78	93	<20	45	67	38	80	55	59	98	100	210	140	46	100	45	52	82	37	59
Iron	7500	11000	17000	20000	16000	17000	17000	20000	24000	20000	21000	14000	20000	13000	15000	4800	14000	9600	11000	15000	18000	14000	11000
Lead	230	51	60	54	64	46	45	51	59	42	55	66	92	130	150	190	43	80	87	64	47	41	59
Selenium	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Zinc	220	<10	11	49	<10	<10	<10	<10	<10	<10	<10	<10	240	65	79	55	<10	<10	38	<10	180	<10	<10
VOCs (mg/kg)																							
Benzene																							
Ethylbenzene																							
Toluene																							
Total Xylenes																							
TPH (mg/kg)																							
C6-C12																							
Over C12-C28																							
Over C28-C35																							
Total Petroleum Hydrocarbons																							

Notes are included on Page 20.

Table F-3
Soil Analytical Data - Parker Brothers Arroyo
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Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	BH12-30 17 - 18 7/18/2001	BH12-31 10 - 11 7/18/2001	BH12-31 12 - 13 7/18/2001	BH12-31 15 - 16 7/18/2001	BH12-31 7 - 8 7/18/2001	BH12-32 12 - 13 7/18/2001	BH12-32 15 - 16 7/18/2001	BH12-32 7 - 8 7/18/2001	BH12-33 12 - 13 7/18/2001	BH12-34 10 - 11 7/18/2001	BH12-34 12 - 13 7/18/2001	BH12-34 15 - 16 7/18/2001	BH12-34 4 - 5 7/18/2001	BH12-34 7 - 8 7/18/2001	BH12-35 10 - 11 7/18/2001	BH12-35 12 - 13 7/18/2001	BH12-35 15 - 16 7/18/2001	BH12-35 17 - 18 7/18/2001	BH12-35 7 - 8 7/18/2001	BH12-36 10 - 11 7/18/2001	BH12-36 12 - 13 7/18/2001	BH12-37 10 - 11 7/19/2001	BH12-37 15 - 16 7/19/2001	
Metals (mg/kg)																								
Antimony																								
Arsenic																								
Barium																								
Cadmium																								
Chromium																								
Chromium, hexavalent																								
Cobalt																								
Copper																								
Iron																								
Lead																								
Manganese																								
Mercury																								
Molybdenum																								
Nickel																								
Selenium																								
Silver																								
Thallium																								
Zinc																								
Metals (mg/kg) ¹																								
Arsenic	23	27	33	32	35	34	44	120	15	73	250	140	49	160	74	29	68	63	110	700	100	120	19	
Cadmium	12	13	<10	<10	10	<10	<10	26	<10	14	180	100	39	58	21	<10	24	25	35	540	83	13	<10	
Chromium	<80	<80	86	<80	<80	<80	<80	<80	<80	140	100	<80	<80	<80	<80	<80	<80	<80	<80	98	<80	<80	<80	
Copper	<20	41	41	<20	90	190	190	530	180	720	1700	1100	440	180	1300	410	43	360	360	710	3000	1200	900	40
Iron	9800	14000	23000	18000	14000	11000	15000	19000	6500	55000	26000	11000	18000	18000	16000	15000	17000	13000	24000	25000	9100	16000	14000	
Lead	53	52	26	47	91	110	150	670	91	170	2500	1600	510	1300	530	51	460	480	930	6100	1200	670	41	
Selenium	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	43	<20	<20	
Zinc	<10	<10	18	<10	17	370	94	350	170	2300	1700	910	590	740	260	<10	270	240	410	2700	420	280	17	
VOCs (mg/kg)																								
Benzene																								
Ethylbenzene																								
Toluene																								
Total Xylenes																								
TPH (mg/kg)																								
C6-C12																								
Over C12-C28																								
Over C28-C35																								
Total Petroleum Hydrocarbons																								

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Soil Analytical Data - Parker Brothers Arroyo
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Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	BH12-37 18 - 19 7/19/2001	BH12-37 7 - 8 7/19/2001	BH12-38 5 - 6 7/19/2001	BH17-18 13 - 14 3/6/2001	BH17-18 18 - 19 3/6/2001	BH17-19 0 - 1 3/6/2001	BH17-19 15 - 16 3/6/2001	BH17-19 20 - 21 3/6/2001	BH2-10 47 - 48 3/29/2001	BH2-10 51 - 52 3/29/2001	BH2-11 21 - 22 3/29/2001	BH2-11 26 - 27 3/29/2001	BH2-13 15 - 16 3/30/2001	BH2-13 18 - 19 3/30/2001	BH2-13 26 - 27 3/30/2001	BH2-8 65 - 66 3/28/2001	BH2-8 70 - 71 3/28/2001	BH2-9 62 - 63 3/28/2001	BH2-9 66 - 67 3/28/2001	BL2 0 - 0_2 7/27/2000	BL2 10 - 11_5 7/27/2000	BL2 14_5 - 16 7/27/2000	BL2 19 - 20_5 7/27/2000
Metals (mg/kg)																							
Antimony																							
Arsenic														29						216	<20	<20	<20
Barium																							
Cadmium														<10					<10	<10	<10	<10	
Chromium														30						173	89	118	89
Chromium, hexavalent																							
Cobalt																							
Copper														120						2960	135	<20	<20
Iron														20800						75000	22000	18000	8500
Lead														32						629	46	26	44
Manganese																							
Mercury																							
Molybdenum																							
Nickel																							
Selenium														<10					<20	<20	<20	<20	
Silver																							
Thallium																							
Zinc														169						5040	234	45	22
Metals (mg/kg) ¹																							
Arsenic	33	190	27	13	<10	86	35	<10	66	55	120	87	46	42	86	190	180	930	74	310	26	14	<10
Cadmium	12	19	<10	<10	<10	36	11	11	<10	<10	45	<10	<10	<10	<10	<10	12	<10	14	<10	<10	<10	<10
Chromium	<80	<80	<80	<200	<200	<200	<200	<200	<200	<200	<200	<200	<80	<80	<80	<200	<200	<200	<200	170	<80	<80	<80
Copper	<20	1000	58	29	<20	240	20	<20	28	62	41	34	<20	180	130	30	64	39	38	15	2900	120	<20
Iron	17000	22000	14000	9600	7400	7600	15000	4700	12000	16000	13000	13000	20000	17000	20000	17000	16000	24000	17000	73000	26000	22000	9200
Lead	32	1100	59	53	21	220	110	10	48	51	63	43	120	65	77	100	120	150	58	800	32	38	53
Selenium	<20	<20	<20	<40	<40	<40	<40	<40	<40	<40	<40	<40	<20	<20	<20	<40	<40	50	<40	<10	<10	<10	<10
Zinc	<10	750	<10	66	36	150	240	16	44	35	150	53	150	11	26	160	230	200	150	3800	190	44	<10
VOCs (mg/kg)																							
Benzene																							
Ethylbenzene																							
Toluene																							
Total Xylenes																							
TPH (mg/kg)																							
C6-C12																							
Over C12-C28																							
Over C28-C35																							
Total Petroleum Hydrocarbons																							

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Table F-3
Soil Analytical Data - Parker Brothers Arroyo
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Sample Location: Sample Depth (ft bgs): Sample Date:	BL2 24 - 25_5 7/27/2000	BL2 27 - 27_5 7/31/2000	BL2 29 - 29_8 7/31/2000	BL2 33 - 33_5 7/31/2000	BL2 5 - 6_5 7/27/2000	EP-120 10 - 11 4/6/2001	EP-120 15 - 16 4/6/2001	EP-120 5 - 6 4/6/2001	EP-121 10 - 11 4/10/2001	EP-123 21 - 22 4/12/2001	EP-123 23 - 24 4/12/2001	EP-123 25 - 26 4/12/2001	EP-123 30 - 31 4/12/2001	EP-123 35 - 36 4/12/2001	EP-123 40 - 41 4/12/2001	EP-125 0 - 1 4/24/2001	EP-125 1 - 2 4/24/2001	EP-125 10 - 11 4/24/2001	EP-125 15 - 16 4/24/2001	EP-125 20 - 21 4/24/2001	EP-125 25 - 26 4/24/2001	EP-125 30 - 31 4/24/2001	EP-125 35 - 36 4/24/2001	
Metals (mg/kg)																								
Antimony																								
Arsenic	<20	13	20	18	36																			
Barium																								
Cadmium	<10	<10	<10	<10	<10																			
Chromium	129	66	62	78	114																			
Chromium, hexavalent																								
Cobalt																								
Copper	<20	15	16	22	522																			
Iron	2800	10000	44000	14000	27000																			
Lead	26	28	40	36	181																			
Manganese																								
Mercury																								
Molybdenum																								
Nickel																								
Selenium	<20	<10	<10	<10	<20																			
Silver																								
Thallium																								
Zinc	<10	28	40	90	1010																			
Metals (mg/kg) ¹																								
Arsenic	<10	<10	<10	<10	49	60	23	77	51	800	77	21	29	<10	23	180	78	16	33	38	33	34	26	
Cadmium	<10	<10	<10	<10	<10	11	<10	<10	17	33	13	<10	13	<10	<10	23	<10	<10	<10	<10	<10	11	<10	12
Chromium	88	<80	<80	130	190	<80	<80	<80	<80	440	130	<80	<80	<80	<80	<80	<80	<80	<80	<80	100	89	<80	89
Copper	<20	<20	47	55	470	350	140	220	200	470	3800	200	61	69	44	2800	1100	<20	64	33	33	38	29	
Iron	3400	9600	50000	14000	31000	14000	6400	23000	12000	170000	33000	9200	8800	4600	8800	11000	9300	8600	19000	27000	24000	18000	21000	
Lead	63	56	<10	70	150	220	120	150	180	1400	170	71	59	48	78	840	520	28	47	43	46	50	59	
Selenium	<10	<10	<10	<10	<10	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	
Zinc	<10	15	<10	57	770	360	92	330	250	7600	250	48	<10	<10	<10	410	1300	<10	<10	<10	<10	<10	<10	
VOCs (mg/kg)																								
Benzene																								
Ethylbenzene																								
Toluene																								
Total Xylenes																								
TPH (mg/kg)																								
C6-C12																								
Over C12-C28																								
Over C28-C35																								
Total Petroleum Hydrocarbons																								

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Soil Analytical Data - Parker Brothers Arroyo
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Sample Location: Sample Depth (ft bgs): Sample Date:	EP-125 40 - 41 4/24/2001	EP-125 45 - 46 4/24/2001	EP-125 6 - 7 4/24/2001	EP-126 0_3 - 1 4/26/2001	EP-126 1 - 2 4/26/2001	EP-126 10 - 11 4/26/2001	EP-126 15 - 16 4/26/2001	EP-126 2 - 3 4/26/2001	EP-126 20 - 21 4/26/2001	EP-126 25 - 26 4/26/2001	EP-126 3 - 4 4/26/2001	EP-126 30 - 31 4/26/2001	EP-126 35 - 36 4/26/2001	SEP-14 0 - 0.5 11/14/2000	SEP-14 0 - 0.5 2/27/2001	SEP-14 0 - 0.5 2/8/2000	SEP-14 0 - 0.5 5/17/2001	SEP-14 0 - 0.5 5/9/2000	SEP-14 0 - 0.5 8/21/2000	BY-01 15 - 20 6/24/2011	BY-01 40 - 61 6/24/2011	BY-01 5 - 6 6/24/2011	BY-02 10 - 16 6/24/2011	
Metals (mg/kg)																								
Antimony																					66.1	503	60.6	482
Arsenic														970	846 J			1800	1200	595	2470	869	2760	
Barium																				929	1120	1080	1010	
Cadmium														89	17 J			40	32	59.2	27.1	58.6	69.5	
Chromium														230	124 J			390	280	46.9 J	86.4 J	18.3 J	77.4 J	
Chromium, hexavalent																								
Cobalt																				40	91.8	13.5	64.4	
Copper														14000	6730			17000	15000	5250	7550	2500	8220	
Iron														190000	282000			260000	190000	129000	209000	160000	224000	
Lead														4900	3930 J			5900	4200	5470	9120	6920	9230	
Manganese																								
Mercury																				1.07 J	0.351 J	0.767 J	<0.012 UJ	
Molybdenum																				143	192	90.8	239	
Nickel																				15.5	12.5	6.37	15.3	
Selenium														<10	<10 UJ			11	<10	9.33 J	59.9 J	12.6 J	101 J	
Silver																				23.7 J	40.5 J	14.9 J	36.3 J	
Thallium																								
Zinc														16000	19600			25000	15000	13000	70300	23700	114000	
Metals (mg/kg) ¹																								
Arsenic	21	31	36	190	55	29	13	120	34	30	48	26	32				1400	1700						
Cadmium	<10	<10	13	74	64	<10	<10	54	<10	<10	23	<10	13				51 J	43						
Chromium	<80	<80	82	110	120	<80	<80	100	86	86	88	94	<80				130	730 J						
Copper	30	77	71	1700	1100	52	58	1500	26	<20	970	<20	<20				15000	9500						
Iron	18000	15000	20000	43000	48000	20000	19000	55000	24000	22000	37000	25000	19000				260000	310000						
Lead	60	65	200	2900	1400	48	50	1900	42	38	1100	51	49				5100	1500						
Selenium	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20				<10	27						
Zinc	<10	<10	1100	8700	6000	<10	<10	9100	<10	<10	3700	<10	<10				18000	16000						
VOCs (mg/kg)																								
Benzene																								
Ethylbenzene																								
Toluene																								
Total Xylenes																								
TPH (mg/kg)																								
C6-C12																								
Over C12-C28																								
Over C28-C35																								
Total Petroleum Hydrocarbons																								

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Soil Analytical Data - Parker Brothers Arroyo
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Sample Location: Sample Depth (ft bgs): Sample Date:	BY-02 30 - 31 6/24/2011	BY-02 5 - 6 6/24/2011	BY-02 50 - 51 6/27/2011	BY-03 25 - 27 11/30/2011	BY-03 40 - 42 11/30/2011	BY-03 50 - 52 11/30/2011	BY-03 60 - 62 11/30/2011	BY-03 7 - 12 11/29/2011	BY-04 0 - 2 12/1/2011	BY-04 20 - 22 12/1/2011	BY-04 45 - 47 12/1/2011	BY-04 5 - 7 12/1/2011	BY-05 20 - 22 11/30/2011	BY-05 35 - 37 11/30/2011	BY-05 40 - 42 11/30/2011	BY-05 5 - 7 11/30/2011	BY-06 20 - 22 12/5/2011	BY-06 35 - 37 12/5/2011	BY-06 5 - 7 12/5/2011	BY-06 50 - 52 12/5/2011	BY-06 65 - 67 12/5/2011	BY-07 15 - 17 12/1/2011	BY-07 20 - 22 12/1/2011	
Metals (mg/kg)																								
Antimony	129	577	8.69	143	6.41	17.6	4.14	1290	253	7.31	0.899 J	63.1	706	423	19.4	475	222	102	49.8	381	22.9	8.2	4.82	
Arsenic	791	2580	502	572	142	378	57.7	3480	3150	922	88.5	1710	2210	1170	212	2090	635	469	235	1550	47.9	128	39.8	
Barium	376	970	49.8	872	354	318	191	1400	732	134	85.2	961	729	548	148	762	642	893	381	1020	83.8	384	143	
Cadmium	39.4	63.9	56.7	20.9	13.7	60.8	0.811	68.3	121	592	6.6	32.7	86.7	24.4	1.78	66.1	27.7	9.99	24.2	21.5	1.01	10.2	4.64	
Chromium	28.1 J	133 J	12.3 J	30.5	0.408 J	6.58	4.79	23.2	18.1	5.46	4.06	10.1	33.5	25.6	7.2	93.6	33.4	103	5.69	61.9	5.49	3.56	3.73	
Chromium, hexavalent																								
Cobalt	14.9	52.4	3.59	62.2	44.8	37.9 J	4.13 J	116 J	36.3 J	4.45 J	3.14 J	5.86 J	55.1 J	25.9 J	3.96 J	71.3 J	55.2 J	61.7 J	13.5 J	84.7 J	4.75 J	27.4 J	4.49 J	
Copper	2120	8820	39.4	3920	2300	1260	10.4	11000	61000	436	7.64	1610	8250	2240	66	10100	10800	5770	1690	7310	78.4	3460	265	
Iron	29000	185000	9600	74300	95000	78500	9760	100000	53500	8740	10400	28700	98600	78100	8660	125000	81300	99000	50600	133000	10800	98400	13100	
Lead	1380	8760	18.3	5580	4240	2870	7.7	19200	4390	108	8.27	2590	12600	6210	120	9000	4650	3350	3720	8370	196	3830	468	
Manganese																								
Mercury	0.0513 J	0.0715 J	0.0263 J	0.33 J	0.638 J	<0.171 UJ	<0.124 UJ	<0.101 UJ	7.43 J	13.9 J	<0.0399 UJ	0.547 J	0.408 J	0.181 J	<0.0124 UJ	1.06 J	<0.12 UJ	<0.00956 UJ	<0.188 UJ	<0.0474 UJ	<0.0364 UJ	<0.0178 UJ	<0.153 UJ	
Molybdenum	36.8	204	1.55 J	112	50.7	56.1 J	1.63 J	193 J	108 J	0.939 J	0.902 J	16.9 J	121 J	159 J	23.6 J	171 J	125 J	133 J	43.2 J	181 J	3.4 J	108 J	9.38 J	
Nickel	9.35	10.5	5.99	7.06	1.19 J	5.49	4.89	38.4	88.2	7.02	6.06	9	10.1	4.76	5.79	23.5	13.4	8.87	4.59	7.96	3.72	2.24	3.79	
Selenium	18.6 J	109 J	5.73 J	42.8	17.1	20.3 J	2.48 J	41.2 J	58.8 J	9.58 J	0.744 J	18 J	47.4 J	24.9 J	7.56 J	73.7 J	52.8 J	85.2 J	3.7 J	57.1 J	2.0 J	55 J	1.88 J	
Silver	12.4 J	47.1 J	<0.11	12.7	4.23	3.79	<0.0969	56.9	86.7	1.99	<0.119	13.9	46.7	16.5	0.83	50.1	28.6	20.9	15.3	32.9	0.421 J	4.89	0.949	
Thallium																								
Zinc	7140	135000	588	33200	43800	35400	20.2	144000	7310	780	169	2870	9000	47300	675	99200	103000	99100	8120	158000	1340	78300	2840	
Metals (mg/kg) ¹																								
Arsenic																								
Cadmium																								
Chromium																								
Copper																								
Iron																								
Lead																								
Selenium																								
Zinc																								
VOCs (mg/kg)																								
Benzene																								
Ethylbenzene																								
Toluene																								
Total Xylenes																								
TPH (mg/kg)																								
C6-C12																								
Over C12-C28																								
Over C28-C35																								
Total Petroleum Hydrocarbons																								

Notes are included on Page 20.

Table F-3
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Supplemental Remedial Investigation Report
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Sample Location: Sample Depth (ft bgs): Sample Date:	BY-07 5 - 7 12/1/2011	EPH-SB01 10 - 11 6/28/2011	EPH-SB01 15 - 16 6/28/2011	EPH-SB01 30 - 31 6/28/2011	EPH-SB02 15 - 18 6/28/2011	EPH-SB02 33 - 34 6/28/2011	FP-SB01 20 - 21 6/29/2011	FP-SB01 35 - 36 6/29/2011	FP-SB01 45 - 46 6/29/2011	FP-SB01 47 - 48 6/29/2011	FP-SB01 5 - 6 6/29/2011	FP-SB01 55 - 56 6/29/2011	FP-SB01 55 - 56 6/29/2011	FP-SB01 70 - 71 6/29/2011	FP-SB02 20 - 21 8/11/2011	FP-SB02 40 - 41 8/11/2011	FP-SB02 5 - 6 8/11/2011	FP-SB03 23 - 25 8/15/2011	FP-SB03 35 - 37 8/15/2011	FP-SB03 8 - 10 8/15/2011	FP-SB04 23 - 25 8/16/2011	FP-SB04 33 - 34 8/16/2011	FP-SB04 5 - 10 8/15/2011	
Metals (mg/kg)																								
Antimony	6.01	34.6	8.47 J	2.42	0.952 J	0.695 J	34.5	106	143	89.9	13.5	4.72	1.61 J	2.26	61.6	53.4	369	89.4	149	249	92.5	110	102	
Arsenic	142	383	26.1 J	20.8	24.7	17.6	392	997	388	256	213	21	14.0	8.24	250	224	1770	811	1360	942	864	272	987	
Barium	497	184	259 J	46.8	87.2	39.4	235	159	388	467	93.2	71.2 J	81.0	65.9	1030	1250	152	405	115	216	375	727	1240	
Cadmium	12.3	20.4	9.44 J	0.315 J	0.292 J	0.145 J	37.6	32.7	18.4	18.6	27.4	1.69 J	0.766	0.206 J	20	27.3	49.9	8.38 J	24.5	38.9	26.3	14.5	29.6	
Chromium	2.14	45.9	9.47	6.72	18.2	6.32	97.3	72.3 J	99.8	87.7	91.1	8.1	4.13 J	17	71 J	109 J	122 J	63.1 J	39.7 J	69.5 J	47.2 J	83.5 J	79.2 J	
Chromium, hexavalent																								
Cobalt	54.2 J	149	5.69 J	2.21	4.86	1.79	95.8	225	140	91.2	94.1	3.86 J	2.38	4.02	195	302	185	84.4 J	116	217	179	134	171	
Copper	4590	1410	80 J	11.4	24.4	4.79	20000	8560	2720	2310	11100	54.9 J	47.0	12.2	8290	6370	15700	7470	8100	7990	6660	13200	8400	
Iron	119000	73400	13200	4720	11500	4570	199000	236000	142000	84400	267000	9110	4880	8840	284000	279000	229000	91600 J	250000	250000	249000	263000	260000	
Lead	4680	723	264 J	10.5	7.88	2.32	1270	1770	1460	1000	685	88.4 J	48.0	4.45	444	398	2760	1820	2080	3000	1720	973	2160	
Manganese		1530	364	138	240	110	701		1760	1660	671	217 J		148										
Mercury	<0.26 UJ	0.0369 J	0.27	<0.0159	<0.00958	<0.013	<0.0123	0.0486 J	0.0363 J	0.583	<0.0117	0.223	0.0385	<0.00933	<0.0122	0.0139 J	0.389	0.225	0.0276 J	0.0291 J	0.0159 J	<0.0124	0.114 J	
Molybdenum	56.3 J	67.5	4.26 J	1.67 J	3.02	0.598 J	1440	839	629	383	0.598 J	1180	1.42 J	0.580	1.18 J	1030	1780	1060	468 J	1490	1150	1280	1280	
Nickel	0.746 J	115	8.68 J	2.93	33.7	9.34	204	63.2 J	37.6	33.9	188	6.17 J	3.48	10.7	29.1 J	34.9 J	58.9 J	78.8 J	39.6 J	63.6 J	58.3 J	47.4 J	59.9 J	
Selenium	26.9 J	4.11	0.296 J	2.72	0.395 J	<0.207	16.4	4.53	4.48	5.75	17.8	1.15	1.32	<0.217	46.8	42.3	4.97	7.13	4.75	5.36	6.7	11.4	7.68	
Silver	5.86	1.65	0.486 J	0.321 J	<0.115	<0.115	28.4	10.1	6.05	5.72	19.5	0.246 J	0.175 J	<0.12	9.65	8.1	35.2	8.84	12	10.5	8.83	13.9	13.8	
Thallium																								
Zinc	88800	5180	514 J	36.7	85.6	10.8	7450	27400	5810	4230	6540	92.7	49.1 J	27.6	25700	29000	13900	34000	51400	29700	42300	15600	28700	
Metals (mg/kg) ¹																								
Arsenic																								
Cadmium																								
Chromium																								
Copper																								
Iron																								
Lead																								
Selenium																								
Zinc																								
VOCs (mg/kg)																								
Benzene																								
Ethylbenzene																								
Toluene																								
Total Xylenes																								
TPH (mg/kg)																								
C6-C12																								
Over C12-C28																								
Over C28-C35																								
Total Petroleum Hydrocarbons																								

Notes are included on Page 20.

Table F-3
Soil Analytical Data - Parker Brothers Arroyo
Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	LF-EX-02 0 - 0.5 3/28/2012	LF-EX-03 0 - 0.5 3/28/2012	LF-EX-04 0 - 0.5 3/28/2012	LF-EX-A1-F 0 - 0.5 6/19/2012	LF-EX-A2-F 0 - 0.5 6/19/2012	LF-EX-A5 0 - 0.5 4/2/2012	LF-EX-A6 0 - 0.5 4/3/2012	LF-EX-B1-F 0 - 0.5 6/19/2012	LF-EX-B2-F 0 - 0.5 6/19/2012	LF-EX-B3-F 0 - 0.5 6/19/2012	LF-EX-B4-F 0 - 0.5 6/19/2012	LF-EX-B6 0 - 0.5 4/2/2012	LF-EX-C1-F 0 - 0.5 6/19/2012	LF-EX-C2-F 0 - 0.5 6/19/2012	LF-EX-C3-F 0 - 0.5 6/19/2012	LF-EX-C4-F 0 - 0.5 6/19/2012	LF-EX-C5-F 0 - 0.5 6/19/2012	LF-EX-C6 0 - 0.5 4/2/2012	LF-EX-C7 0 - 0.5 4/2/2012	LF-EX-D1-F 0 - 0.5 6/19/2012	LF-EX-D1-F 0 - 0.5 6/19/2012	LF-EX-D2-F 0 - 0.5 6/19/2012	LF-EX-D3-F 0 - 0.5 6/19/2012
Metals (mg/kg)																							
Antimony	0.772 J	2.59	<0.253	1.47 J	2.47	<0.236 UJ	<0.269	0.905 J	<0.245	0.438 J	<0.269	1.83	1.74 J	<0.256	<0.22	<0.241	<0.21	1.02 J	1.13 J	0.838 J	0.659 J	<0.235	0.821 J
Arsenic	18.1	20.6	15.2	35.6	103	1.82	1.56 J	10.9	7.15	27	7.46	12.4	49.9	7.02	3.21	7.11	7.22	20.9	14.5	25.7	23.1	7.93	18.9
Barium	67.7	66.1	74.8	184	253	44.9 J	31	120	555	265	24	62 J	238	157	13.7	64.8	145	62.4 J	63.3 J	160	211	279	90.3
Cadmium	0.448	0.439 J	0.259 J	2.8	16.1	0.247 J	0.178 J	1.16	0.627	5.78	1.02	1.56	5.7	0.508	0.214 J	0.502	1.55	0.489	0.927	0.674	0.967	0.786	3.03
Chromium	4.14	4.45	4.38	5.11	8.32	3.45	5.03	5.12	1.96	2.84	<1.47 UJ	3.63	7.45	1.56	1.68	<1 UJ	2.57	3.61	4.27	2.91 J	1.77 J	1.44	3.99
Chromium, hexavalent																							
Cobalt	2.9	3.18	2.83	17.6	21.7	2.41	2.35	6.41	3.57	5.96	2.52	3.44	17.9	3.59	1.32	2.19	3.12	2.43	3.21	4.01	3.34	5.25	6.27
Copper	5.53	2.53	2.24	243	1120	5.68	1.57 J	94.4	40.2	273	45.1	47.5 J	539	34.9	13.2	20	55.7	13.8	28	27.3	25.8	62.4	123
Iron	9410	9590	8110	13900	22600	4930	7050	8800	6760	8700	8380	5940	16200	6160	2460	9200	6310	5880	7860	10800	8460	7510	9660
Lead	16.9	4.2	12	122	413	4.18	2.97	81.9	24.5	93.9	34.9	50.1 J	249	23.2	11.2	21.2	26.3	10.3	16.6	15.8	15.3	23.4	64.5
Manganese																							
Mercury	0.0266 J	0.0358 J	<0.0133	0.0217 J	0.569	<0.0135	<0.014	<0.0151	0.0259 J	0.182	0.0405 J	0.0368 J	0.117 J	0.0397 J	0.0873 J	<0.016	0.127 J	0.0715 J	<0.0152	<0.0104	<0.0161	0.0603 J	0.154
Molybdenum	0.505 J	0.499 J	0.395 J	38.4	59.2	0.381 J	<0.126	14	1.26 J	10.9	3.2	2.9	37.7	1.06 J	0.252 J	2.13	3.24	0.97 J	1.44 J	3.03	1.62 J	2.92	6.67
Nickel	3.52	3.64	3.44	10.5	14.8	3.65	2.99	5.75	5.84	5.54	3.14	3.89	12	5.25	3.17	3.46	3.31	3.46	3.88	3.41	2.9	5.3	7.5
Selenium	0.273 J	0.256 J	<0.188	1.67	3.29	0.207 J	<0.2	<0.171	<0.182	0.896	<0.2	0.183 J	1.81	<0.19	<0.163	<0.43 UJ	<0.407 UJ	0.174 J	0.287 J	0.523 J	0.615 J	<0.175	<0.883 UJ
Silver	<0.094	<0.101	<0.104	0.321 J	2.45	<0.0973	<0.111	0.149 J	<0.101	0.329 J	<0.111	<0.0916	1.09	<0.105	<0.0905	<0.0994	<0.0867	<0.0883	<0.119	<0.107	<0.102	<0.097	<0.109
Thallium																							
Zinc	52.7	22.7	39.4	1030	1870	17.6	11.6	361	74.9	395	90.6	163	1080	61.9	18.8	36.9	119	36.4	69.9	63.2	54.5	86	216
Metals (mg/kg) ¹																							
Arsenic																							
Cadmium																							
Chromium																							
Copper																							
Iron																							
Lead																							
Selenium																							
Zinc																							
VOCs (mg/kg)																							
Benzene																							
Ethylbenzene																							
Toluene																							
Total Xylenes																							
TPH (mg/kg)																							
C6-C12																							
Over C12-C28																							
Over C28-C35																							
Total Petroleum Hydrocarbons																							

Notes are included on Page 20.

Table F-3
Soil Analytical Data - Parker Brothers Arroyo
Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	LF-EX-D4-F 0 - 0.5 6/19/2012	LF-EX-D5-F 0 - 0.5 6/19/2012	LF-EX-D6 0 - 0.5 4/2/2012	LF-EX-E1-F 0 - 0.5 6/19/2012	LF-EX-E2-F 0 - 0.5 6/19/2012	LF-EX-E3-F 0 - 0.5 6/19/2012	LF-EX-E4-F 0 - 0.5 6/19/2012	LF-EX-E5-F 0 - 0.5 6/19/2012	LF-EX-E5-F 0 - 0.5 6/19/2012	LF-EX-E6 0 - 0.5 4/2/2012	LF-EX-F1-F 0 - 0.5 6/19/2012	LF-EX-F2-F 0 - 0.5 6/19/2012	LF-EX-F4-F 0 - 0.5 6/19/2012	LF-EX-F5-F 0 - 0.5 6/19/2012	LF-EX-F6 0 - 0.5 4/2/2012	LF-EX-F7 0 - 0.5 4/2/2012	LF-EX-G1-F 0 - 0.5 6/19/2012	LF-EX-G2-F 0 - 0.5 6/19/2012	LF-EX-G3-F 0 - 0.5 6/19/2012	LF-EX-G4-F 0 - 0.5 6/19/2012	LF-EX-G5-F 0 - 0.5 6/19/2012	LF-EX-G6 0 - 0.5 4/2/2012	LF-EX-G7 0 - 0.5 4/3/2012
Metals (mg/kg)																							
Antimony	<0.276	<0.266	2.54 J	2.84	<0.239	<0.252	<0.225	<0.284	<0.268	2.52 J	3.43	<0.248	<0.222	<0.258	3.71 J	4.26 J	0.375 J	<0.247	<0.229	<0.227	<0.228	4.4 J	1.62 J
Arsenic	8.41	4.34	26.8	75.1	6.43	14.1	9.81	6.96	6.09	29.1	45.3	11.5	5.56	14.7	23.9	38.6	10.3	9.65	7.45	7.28	31.6	31.5	18.8
Barium	150	222	87 J	309	77.4	110	48.3	30.2	33.9	85.7 J	385	128	20.3	111	78.5 J	86.6 J	180	252	105	119	89.3	78.2 J	66.8 J
Cadmium	1.31	0.301 J	2.54	6.81	0.525	2.9	1.52	0.427 J	0.373 J	1.69	3.59	0.963	0.284 J	2.37	2.95	3.56	0.581	1.23	0.826	0.564	1.68	5.21	0.586
Chromium	<1.42 UJ	1.88	4.29	9.69	1.54	2.52	1.91	1.94	1.99	4.45	7.07	2.53	<0.674 UJ	2.37	3.96	4.54	2.1	2.94	1.77	1.95	2.76	4.28	3.57
Chromium, hexavalent																							
Cobalt	2.56	2.64	4.26	32.1	3.51	5.62	3.77	4.12	3.66	3.38	21	7.4	3.08	4.86	3.23	4.47	3.86	6.01	5.56	6.53	5.04	3.76	2.4
Copper	49.2	9.38	55.8	704	26.9	99.3	39.3	4.78	3.92	35.2	359	97.4	2.3	88.6	13.1	131	35	64.4	22.8	8.22	19.2	6.38	2.75
Iron	6190	11700	11000	25600	9050	10700	7850	14800	14500	10000	21700	8950	7430	374	9310	10300	8780	10800	9180	11000	11100	9380	6670
Lead	32	21.8	98.8	375	18.7	44.1	35.7	11.6	10.3	109	399	89.5	7.16	44.5	12.9	64.2	20.4	29	21.5	11.9	17.8	6.58	2.89
Manganese																							
Mercury	0.138 J	0.0463 J	0.139 J	0.116 J	0.0169 J	0.119	0.113 J	0.0238 J	0.0276 J	0.126 J	0.0586 J	<0.0153	<0.0142	0.102 J	0.369	0.361	0.0202 J	0.0546 J	0.0516 J	0.046 J	0.065 J	0.151 J	<0.0138
Molybdenum	1.32 J	1.77 J	4.21	65	2.42	4.64	1.86	1.77 J	1.31 J	2.76	42.7	7.45	0.597 J	5.2	0.725 J	8.3	4.65	2.13	1.04 J	0.659 J	1.95	0.582 J	0.36 J
Nickel	3.77	3.6	4.46	15.2	2.96	7.33	5.49	5.88	6.44	4.11	9.84	4.15	5.36	5.61	3.94	4.61	3.04	6.29	7.64	10.9	6.72	4.6	3.02
Selenium	<0.361 UJ	<0.197	0.27 J	2.87	<0.177	<0.691 UJ	<0.429 UJ	0.317 J	<0.199	0.415 J	1.79	0.213 J	<0.181 UJ	<0.192 UJ	0.367 J	0.67 J	0.314 J	0.482 J	<0.311 UJ	<0.331 UJ	0.352 J	0.462 J	0.57 J
Silver	<0.114	<0.11	0.128 J	2.33	<0.0985	<0.104	<0.0929	<0.117	<0.111	0.165 J	1.83	0.206 J	<0.0916	<0.106	<0.104	0.317 J	<0.105	<0.102	<0.0942	<0.0936	<0.0941	<0.115	<0.11
Thallium																							
Zinc	54.6	29.9	299	1880	47.4	158	74.7	53.4	45.8	246	2280	600	23.8	175	119	211	98.7	93.7	53.1	44	72.5	107	19
Metals (mg/kg) ¹																							
Arsenic																							
Cadmium																							
Chromium																							
Copper																							
Iron																							
Lead																							
Selenium																							
Zinc																							
VOCs (mg/kg)																							
Benzene																							
Ethylbenzene																							
Toluene																							
Total Xylenes																							
TPH (mg/kg)																							
C6-C12																							
Over C12-C28																							
Over C28-C35																							
Total Petroleum Hydrocarbons																							

Notes are included on Page 20.

Table F-3
Soil Analytical Data - Parker Brothers Arroyo
Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	LF-EX-11-F 0 - 0.5 6/19/2012	LF-EX-12-F 0 - 0.5 6/19/2012	LF-EX-13-F 0 - 0.5 6/19/2012	LF-EX-14-F 0 - 0.5 6/19/2012	LF-EX-15 0 - 0.5 3/1/2012	LF-EX-16 0 - 0.5 3/28/2012	LF-EX-J1-F 0 - 0.5 6/19/2012	LF-EX-J2-F 0 - 0.5 6/19/2012	LF-EX-J3 0 - 0.5 4/3/2012	LF-EX-J4-F 0 - 0.5 6/19/2012	LF-EX-J5 0 - 0.5 2/29/2012	LF-EX-J6 0 - 0.5 3/1/2012	LF-EX-K2 0 - 0.5 3/28/2012	LF-EX-K3 0 - 0.5 4/3/2012	LF-EX-K4 0 - 0.5 2/29/2012	LF-EX-K5 0 - 0.5 3/1/2012	LF-EX-K6 0 - 0.5 3/28/2012	LF-EX-L2 0 - 0.5 3/28/2012	LF-EX-L3 0 - 0.5 3/1/2012	LF-EX-L4 0 - 0.5 2/29/2012	LF-EX-L5 0 - 0.5 3/1/2012	LF-EX-M2 0 - 0.5 3/28/2012	LF-EX-M3 0 - 0.5 3/1/2012	
Metals (mg/kg)																								
Antimony	1.27 J	0.624 J	<0.232	0.696 J	1.64 J	5.16	0.702 J	0.387 J	<0.273	1.13 J	4.32	3.03	1.5 J	0.493 J	4.82	3.61	3.75	1.11 J	2.61	2.78	2.6	1.04 J	2.63	
Arsenic	10.1	10.8	8.82	21.3	28.9	30.7	4.51	10.8	17.7	26.2	40	23.7	68.7	19.3	44.5	19.4	26.6	22	31.3	20.5	19.6	16.4	36.2	
Barium	215	230	136	128	67.8	70.4	200	144	62.9	99.9	110	74.8	90.3	68	129	54.3	103	84.7	53.8	60	78.2	60.1	125	
Cadmium	1.13	1.28	0.919	3.34	0.748	0.554	0.419 J	0.906	0.357 J	5.61	2.16	3.14	1.86	0.628	6.64	0.972	11.3	1.25	24.1	1.23	0.597	1.18	2.7	
Chromium	4.77	5.68	3.33	3.68	4.32	2.7	5.16	8.01	3.24	4.86	4.3	3.85	4.8	4.01	4.7	3.76	4.64	5.25	3.59	4.54	4.65	3.58	4.85	
Chromium, hexavalent																								
Cobalt	6.19	5.79	5	6.41	3.47	2.29	3.74	7.35	2.97	4.2	3.92	3.53	2.77	2.8	4.36	3.14	4.49	3.7	3.32	3.6	3.46	2.68	3.46	
Copper	68.4	17.7	14.6	46.5	6.54	6.5	8.53	19.7	3.05	70.2	47.8	25.5	50.9	14	80.4	11.7	68.5	40.2	19.3	14.1	10.5	47.6	42.8	
Iron	7390	12400	9960	9760	11200	4850	6510	16800	13900	9590	11200	11500	8610	10900	12000	10400	11800	9270	7520	9520	10200	6990	9930	
Lead	45.8	10.8	13.7	28.9	8.07	5.43	4.64	13	90.3	43.9	141	42.8	132	72.2	235	12.2	78.4	36.5	10.8	17.8	21.5	31.4	156	
Manganese																								
Mercury	<0.0139	<0.0136	0.0271 J	0.0917 J	<0.0157	0.126 J	<0.015	0.0336 J	0.0176 J	0.105 J	0.175	0.147 J	0.151 J	0.0584 J	0.292	0.312	0.117 J	0.104 J	0.13 J	0.295	0.0777 J	0.0752 J	0.365	
Molybdenum	6.45	3.54	2.66	4.62	0.976 J	0.329 J	0.895 J	1.93 J	0.5 J	3.2	3.75	2.59	10.4	1.71 J	5.44	0.813 J	9.53	2.79	0.553 J	0.905 J	1.1 J	3.83	2.81	
Nickel	5.8	22.2	13.4	8.01	4.4	2.93	6.09	15.1	3.26	6.09	3.52	3.8	3.65	3.47	4.16	3.23	4.95	4.07	3.4	3.57	3.8	2.98	3.83	
Selenium	0.698 J	1.61	<1.02 UJ	<0.37 UJ	<0.242	0.503 J	0.883	0.434 J	0.679 J	<0.802 UJ	<0.444 UJ	<0.445 UJ	0.375 J	0.483 J	<0.499 UJ	<0.29 UJ	0.358 J	0.568 J	<0.261 UJ	<0.225	<0.193	0.402 J	<0.581 UJ	
Silver	0.221 J	<0.106	<0.0955	<0.108	<0.135	<0.102	<0.097	<0.11	<0.113	0.125 J	<0.11	<0.106	0.575	<0.0994	0.248 J	<0.113	0.14 J	<0.0995	<0.101	<0.125	<0.107	0.114 J	0.301 J	
Thallium																								
Zinc	256	55	42.1	152	37	20.8	24.5	55.9	348	167	384	116	150	162	539	38.4	305	94.9	188	69.6	32.3	83.8	315	
Metals (mg/kg) ¹																								
Arsenic																								
Cadmium																								
Chromium																								
Copper																								
Iron																								
Lead																								
Selenium																								
Zinc																								
VOCs (mg/kg)																								
Benzene																								
Ethylbenzene																								
Toluene																								
Total Xylenes																								
TPH (mg/kg)																								
C6-C12																								
Over C12-C28																								
Over C28-C35																								
Total Petroleum Hydrocarbons																								

Notes are included on Page 20.

Table F-3
Soil Analytical Data - Parker Brothers Arroyo
Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	LF-EX-M4 0 - 0_5 3/1/2012	LF-EX-M5 0 - 0_5 3/28/2012	LF-EX-N2 0 - 0_5 3/28/2012	LF-EX-N3 0 - 0_5 3/28/2012	LF-EX-N4 0 - 0_5 3/28/2012	LF-EX-N4 0 - 0_5 3/28/2012	LF-EX-P3 0 - 0_5 3/28/2012	LF-EX-XA5 0 - 0_5 4/2/2012	LFTP-A 1 - 1_5 10/31/2011	LFTP-A 2 - 2_5 10/31/2011	LFTP-A 3 - 3_5 10/31/2011	LFTP-A 4 - 4_5 10/31/2011	LFTP-B 2 - 2_5 10/31/2011	LFTP-B 3 - 3_5 10/31/2011	LFTP-B 4 - 4_5 10/31/2011	LFTP-B 5 - 5_5 10/31/2011	LFTP-C 1 - 1_5 10/31/2011	LFTP-C 3 - 3_5 10/31/2011	LFTP-D 1 - 1_5 10/31/2011	LFTP-D 2 - 2_5 10/31/2011	LFTP-D 3 - 3_5 10/31/2011	LFTP-D 4 - 4_5 10/31/2011	LFTP-E 0_5 - 1 10/31/2011	
Metals (mg/kg)																								
Antimony	1.33	3.28	1.75 J	4.24	2.49	3.42	2.16	1.18 J	2.52	0.699 J	0.744 J	0.65 J	10	4.07	7.43	2.82	15.8	10.9	2.43	0.324 J	<0.241	0.463 J	14.8	
Arsenic	18.5	23.5	30.8	30.4	22.7	25.3	27.7	8.74	18.1	6.22	6.48	6.13	23.8	13.7	21.5	12.3	56.2	40.7	22.3	9.51	7.27	8.98	40.3	
Barium	60.2	62.5	87.1	106	132	139	63.7	94.3 J	183	45	55.9	56.5	166	225	156	172	539	382	290	64.9	205	140	318	
Cadmium	0.42	1.2	1.79	3.41	0.767	0.814	1.27	1.07	0.764	0.205 J	0.294 J	0.279 J	0.878	0.593	1.08	0.668	3.91	2.88	0.455 J	0.436 J	0.284 J	0.354 J	2.23	
Chromium	1.99	4.4	5.5	5.49	4.33	4.97	2.81	5.88	6.91	3.49	4.59	3.58	6.87	6.62	8.36	7.1	10.1	8.83	9.86	12	7.33	7.94	9.9	
Chromium, hexavalent																								
Cobalt	2.7	3.75	4.02	4.53	3.95	3.63	2.74	5.17	4.27	2.43	3.17	2.82	6.32	5.24	8.89	6.47	16.1	11.3	4.23	4.63	3.32	3.67	15.6	
Copper	22.1	38.1	49.8	54.2	25.1	30.7	14.7	54.3	64.9 J	6.93 J	22.8 J	9.77 J	59.5 J	60.8 J	127 J	43.3 J	303 J	253 J	58 J	18 J	8.93 J	11.5 J	348 J	
Iron	4640	8160	10100	12100	8910	10400	6300	8660	10300	5970	7460	5740	9060	8070	10900	10100	14200	12700	14400	17100	10900	11000	12000	
Lead	25.9	41.6	48.1	53.9	40 J	96.2 J	15.1	35.8	57.6 J	3.12 J	30.4 J	5.53 J	22.3 J	17.8 J	41.4 J	14.4 J	131 J	104 J	14.5 J	8.92 J	3.61 J	7.82 J	107 J	
Manganese																								
Mercury	0.126 J	0.154	0.152	0.457	0.0964 J	0.103 J	0.128 J	0.0256 J	0.194	0.036 J	0.0254 J	0.0211 J	0.0137 J	0.0173 J	0.0232 J	0.0215 J	0.0961 J	0.0243 J	0.0472 J	0.025 J	0.0142 J	0.0243 J	0.238	
Molybdenum	2.48	2.41	5.12	3.87	2.03	2.45	1.08 J	4.52	2.17	0.2 J	1.23 J	0.282 J	6.18	6.15	18.4	6.38	34.2	27.9	1.78 J	1.21 J	1.16 J	1.72 J	16.9	
Nickel	3.03	3.93	4.54	4.83	4.07	4.09	3.09	5.9	5.22	3.65	4.4	3.77	6.56	5.42	6.99	7.31	10.9	8.09	6.84	6.69	5.32	6.05	9.19	
Selenium	0.207 J	0.268 J	0.27 J	<0.216	0.187 J	0.391 J	<0.195	0.454 J	<1.73 UJ	<0.677 UJ	<0.649 UJ	<0.674 UJ	<0.747 UJ	<0.675 UJ	<0.809 UJ	<1.07 UJ	3.3	2.6	<2.23 UJ	<0.86 UJ	<0.945 UJ	<1.01 UJ	<1.33 UJ	
Silver	0.121 J	<0.0947	0.148 J	0.202 J	<0.0909	0.149 J	<0.109	<0.108	0.68	<0.1	<0.0939	<0.1	<0.111	<0.116	0.178 J	<0.121	0.693	0.51	<0.112	<0.117	<0.0992	<0.115	1.47	
Thallium																								
Zinc	81.3	114	157	161	112 J	174 J	39.1	145	262	13.3	164	20.6	178	148	360	128	782	612	53.5	35.8	16.2	29.3	639	
Metals (mg/kg) ¹																								
Arsenic																								
Cadmium																								
Chromium																								
Copper																								
Iron																								
Lead																								
Selenium																								
Zinc																								
VOCs (mg/kg)																								
Benzene																								
Ethylbenzene																								
Toluene																								
Total Xylenes																								
TPH (mg/kg)																								
C6-C12																								
Over C12-C28																								
Over C28-C35																								
Total Petroleum Hydrocarbons																								

Notes are included on Page 20.

Table F-3
Soil Analytical Data - Parker Brothers Arroyo
Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	LFTP-E 1_5 - 2 10/31/2011	LFTP-E 2_5 - 3 10/31/2011	LFTP-E 3_5 - 4 10/31/2011	PBA-CS-01 0 - 0_5 12/8/2011	PBA-CS-02 0 - 0_5 12/8/2011	PBA-SB02 43 - 45 6/9/2011	PBA-SB03 2 - 4 5/31/2011	PBA-SB06 15 - 17 6/3/2011	PBA-SB06 28 - 30 6/3/2011	PBA-SB06 33 - 35 6/3/2011	PBA-SB07 15 - 16 6/16/2011	PBA-SB08 19 - 20 6/15/2011	PBA-SB08 24 - 25 6/15/2011	PBA-SB08 34 - 35 6/15/2011	PBA-SB10 15 - 17 6/15/2011	PBA-SB10 32 - 34 6/15/2011	PBA-SB13 42 - 44 6/13/2011	SL-00 0 - 0_5 5/10/2012	SL-03 0 - 0_5 5/8/2012	SL-04 0 - 0_5 5/10/2012	SL-04 0 - 0_5 5/8/2012	SL-05 0 - 0_5 5/8/2012	SL-06 0 - 0_5 5/8/2012
Metals (mg/kg)																							
Antimony	2.89	8.9	3.02			<0.276	18.1	2.87	0.438 J	<0.305	0.447 J	0.432 J	0.779 J	<0.245	0.686 J	<0.317	<0.275	168	127	15.1	18.8	92.2	8.7
Arsenic	12.9	16.7	12.3			9.78	42.1 J	37.5 J	16.4 J	7.97 J	12.5	18.2	12.1	9.17	18.9	9.08	19	677	165	82 J	193 J	497	109
Barium	152	336	241			36.2	246	91.1	41.4	28.6	73.7	77.7	93.8	26.4	81.5	53.9	33.3 J	693	24.1	32.9 J	95.9 J	354	618
Cadmium	0.219 J	0.874	0.632			0.919	2.88	5.6	4.42	0.451 J	0.216 J	3.05	3.32	0.937	25.3	2.02	0.321 J	163	10.4	25.7 J	48.3 J	47.3	7.68
Chromium	3.04	7.23	7.13			15.2	17.9	6.77	5.22	5.94	6.12	5.5	4.98	4.21	4.68	6.24	4.07	19.5	36.4	23.5 J	33.7 J	22.2	6.82
Chromium, hexavalent																							
Cobalt	2.57	10.4	7.61			11.6	17.7	3.56	2.46	2.21	2.84	4.5	2.86	2.59	4.48	3.4	3.39	34.2	79.7	44.5	56.6	50.7	70.2
Copper	5.78 J	25.9 J	13.7 J			33.3 J	401	36.6	6.4	2.51	8.79	29.8	8.01	7.7	10.2	13.2	9.56	4000	2180	34600 J	12400 J	2460	1400
Iron	5790	11600	10100			20400 J	22900	11500	9030	8750	8330	13800	8230	9630	12100	12600	12000	76200	73200	188000 J	119000 J	63100	121000
Lead	3.21 J	16.7 J	6.51 J			25.4 J	163	42.1	12.4	3.76	4.25	10.8	3.66	3.32	4.45	5.97	4.84	3790	672	645 J	957 J	2010	1910
Manganese																							
Mercury	<0.0108	0.0363 J	0.0348 J			0.0761 J	0.0214 J	0.0937 J	0.0294 J	0.111 J	<0.0126	0.131 J	<0.0175	<0.0147	<0.0121	<0.0124	<0.0129	3.42	<0.017	0.042 J	0.084 J	0.143 J	0.0386 J
Molybdenum	0.278 J	1.82 J	1.04 J			1.2 J	43.1 J	2.88 J	1.3 J	0.557 J	0.285 J	0.872 J	0.282 J	0.343 J	0.581 J	1.39 J	0.673 J	81.3	395	582 J	904 J	168	67.5
Nickel	3.26	9.64	8.01			25.4	9.67	4.18	2.84	3	4.26	4.6	4.03	3.22	8.04	5.43	3.59	16.9	17.8	118 J	86 J	21.6	11.4
Selenium	0.428 J	0.853 J	<0.846 UJ			0.339 J	2.29	0.864 J	0.291 J	<0.226	<0.22	<0.207	<0.205	0.188 J	<0.212	<0.235	<0.204	18.5	1.49	17.2 J	12.3 J	11.3	8.29
Silver	<0.0995	<0.121	<0.12			0.283 J	0.985	<0.112	<0.124	<0.126	<0.122	<0.115	<0.114	<0.101	<0.118	<0.131	<0.113	37.6	4.95	29	23.9	11.2	4.7
Thallium							<0.116 UJ	1.19 J	0.368 J	<0.136 UJ	<0.132	0.773 J	0.639 J	0.493 J	0.48 J	0.256 J	0.74 J						
Zinc	11.1	90.1	29.1			77.7 J	1710	166	72.5	18.6	19.6	82.8	68.5	29.8	164	43.1	20.3	12100	5170	8840 J	13900 J	9380	16800
Metals (mg/kg) ¹																							
Arsenic																							
Cadmium																							
Chromium																							
Copper																							
Iron																							
Lead																							
Selenium																							
Zinc																							
VOCs (mg/kg)																							
Benzene				ND	ND																		
Ethylbenzene				ND	ND																		
Toluene				ND	ND																		
Total Xylenes				ND	ND																		
TPH (mg/kg)																							
C6-C12				<11.4	<10.2																		
Over C12-C28				<11.4	<10.2																		
Over C28-C35				<11.4	<10.2																		
Total Petroleum Hydrocarbons				<11.4	<10.2																		

Notes are included on Page 20.

Table F-3
Soil Analytical Data - Parker Brothers Arroyo
Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	SL-07 0 - 0.5 5/8/2012	SL-08 0 - 0.5 5/10/2012	SL-10 0 - 0.5 5/10/2012	TP-13 3 - 3.5 5/2/2011	TP13-02S 9 - 9 5/2/2011	TP16-02S 5 - 5 4/28/2011	TP19-02S 5 - 5 4/28/2011	TP20-02S 11 - 11 4/28/2011	TP-28 6 - 6.5 5/3/2011	TP-5 3 - 3.5 5/2/2011	TP5-02S 9 - 9 5/2/2011	TPBY1 12 - 12 5/4/2011	TPBY-2 13 - 13.5 5/4/2011	TPBY-3 3 - 3.5 5/4/2011	TPBY4-01S 9 - 9.5 5/4/2011	WWTP-SB01 4.5 - 5 8/9/2011	WWTP-SB01 9.5 - 10 8/9/2011	ZCP-SB04 0.5 - 0.5 10/20/2011	ZCP-SB04 1.5 - 1.5 10/20/2011	ZCP-SB04 3.5 - 3.5 10/20/2011	ZCP-SB04 3.5 - 3.5 10/20/2011	ZCP-SB04 5 - 5 10/20/2011
Metals (mg/kg)																						
Antimony	8.94	35.2	13.4	75.8	10.6	12	2.01	17.2	45.4	66.5	3.56	1410	116	1990	1.93	20.5	13.5	57 J	220	60.5 J	13.4 J	45.9
Arsenic	86.4	134	157	349	75.2	185	11.6	486	199	384	26.4	4830	618	1670	7.07	63.6	62.2	2240	4020	1970 J	847 J	2170
Barium	155	395	1250	592	318	130	83.6	200	287	700	200	704	140	277	127	1260	1020	938 J	1550	2170	1870	964
Cadmium	60.6	15	40.9	27.5	4.69	13.2	0.855	40.6	7.71	99.6	6.54	1200	103	209	0.807	18.4	13.2	492 J	1490 J	433 J	159 J	301 J
Chromium	14.8	15.9	143	38.9 J	5.77	8.6	5.85	11.9	28.2 J	29.5 J	7.69	68.4 J	10.9 J	46.9 J	8 J	74.3	51	7.97 J	15.3 J	8.94 J	5.86 J	10.5 J
Chromium, hexavalent																		<0.302 UJ	<0.282 UJ	<0.269 UJ	<0.71	<0.294 UJ
Cobalt	83.8	57.7	365	71.6	5.7	28	7.62	26.4	40.8	135	5.28	74.8	40	512	5.01	144	198	30.9 J	44.1	25.1 J	6.43 J	28.4
Copper	1400	1220	3600	3330	215	457	65.2	853	4170	5010	164	8160	5620	279000	537	2640	2100	2760	3350	2150 J	672 J	2330
Iron	91000	66900	212000	114000	24800	22100	12300	28900	147000	127000	13500	205000	59400	173000	13400	208000	187000	204000 J	187000	212000 J	76600 J	256000
Lead	627	392	397	2190	887	290	32.5	1240	3480	1440	258	24400	8680	13500	18.8	200	64.2	6260 J	11900	13200 J	4690 J	13200
Manganese																						
Mercury	0.0746 J	0.422	0.371	0.425 J	0.179 J	0.0558 J	<0.0129 UJ	0.97 J	0.075 J	0.368 J	0.228 J	4 J	1.9 J	4.17 J	0.0119 J	0.4	0.0371 J	0.284 J	0.494 J	0.167 J	0.129	0.0433 J
Molybdenum	133	175	322	325	12.4	27.2	7.6	34.8	238	216	4.11	125	96.3	233	2.62	731	810	245 J	338 J	203 J	60 J	156 J
Nickel	22.1	15	35	21.5	3.89	16.1	7.64	15.5	36.7	57.5	8.04	13.9	16.9	658	8.1	15.4	26	5.99 J	8.73 J	3.55 J	1.41 J	5.03 J
Selenium	1.92	6.29	57.8	16 J	1.13	3.74	0.792 J	6.19	3.27 J	21.5 J	0.668 J	55.2 J	12.9 J	87.7 J	0.648 J	51.4	46.3	7.41 J	19.7	8.2 J	4.16	7.33 J
Silver	2.93	3.83	11.7	7.63 J	1.78	0.781	<0.111	2.66	5.62 J	11.9 J	0.762	55.2 J	43.1 J	116 J	0.536 J	5.69	2.25	12.5	13.4	14.3 J	5.05 J	22.8
Thallium																						
Zinc	3040	5070	14700	25500	3770	1620	199	3270	15400	19500	713	116000	5290	34200	53.9	5110	3690	29600	18700	32300 J	14300 J	39800
Metals (mg/kg) ¹																						
Arsenic																						
Cadmium																						
Chromium																						
Copper																						
Iron																						
Lead																						
Selenium																						
Zinc																						
VOCs (mg/kg)																						
Benzene																						
Ethylbenzene																						
Toluene																						
Total Xylenes																						
TPH (mg/kg)																						
C6-C12																						
Over C12-C28																						
Over C28-C35																						
Total Petroleum Hydrocarbons																						

Notes:

¹ Samples analysed using field x-ray diffraction methods
ft bgs = sample interval in feet below ground surface
mg/kg = milligram per kilogram
ND = Non-Detect
SU = Standard (pH) Units
SVOC = Semivolatile Organic Compound
VOC = Volatile Organic Compound

Laboratory Qualifiers:

J = Estimated value reported. In the majority of cases this represents a value less than the contract required quantitation limit, but greater than the method detection limit.
U = Compound was analyzed for but not detected. The value shown in the laboratory method detection limit.

Table F-4
Soil Analytical Data - Acid Plant Arroyo
Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	BH1-1 0.5 - 1.5 8/31/1999	BH1-1 1.5 - 2.5 8/31/1999	BH1-1 10 - 12 8/31/1999	BH1-1 15 - 17 8/31/1999	BH1-1 20 - 22 8/31/1999	BH1-1 25 - 27 8/31/1999	BH1-1 30 - 32 9/1/1999	BH1-1 35 - 37 9/1/1999	BH1-1 40 - 42 9/1/1999	BH1-1 45 - 47 9/1/1999	BH1-2 0 - 1 9/1/1999	BH1-2 1 - 2 9/1/1999	BH1-2 10 - 12 9/2/1999	BH1-2 15 - 17 9/2/1999	BH1-2 2 - 3 9/1/1999	BH1-2 20 - 22 9/2/1999	BH1-2 25 - 27 9/2/1999	BH1-2 3 - 4 9/1/1999	BH1-2 30 - 32 9/2/1999	BH1-2 35 - 37 9/2/1999	BH1-2 4 - 5 9/1/1999	
Metals (mg/kg)																						
Antimony																						
Arsenic																						
Barium																						
Cadmium																						
Chromium																						
Chromium, hexavalent																						
Cobalt																						
Copper																						
Iron																						
Lead																						
Mercury																						
Molybdenum																						
Nickel																						
Selenium																						
Silver																						
Zinc																						
Metals (mg/kg) ¹																						
Arsenic	30	200	17	10	20	16	48	33	16	18	720	77	<10	12	16	23	12	30	48	24	12	
Cadmium	<10	58	<10	<10	<10	20	<10	<10	<10	<10	590	160	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Chromium	<80	<80	<80	<80	<80	87	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	
Copper	100	5500	39	<20	23	27	<20	23	49	23	3100	250	<20	<20	93	50	<20	160	56	<20	99	
Iron	23000	24000	22000	24000	27000	32000	41000	36000	25000	28000	22000	20000	24000	22000	20000	32000	23000	23000	39000	30000	21000	
Lead	62	1600	<10	<10	<10	<10	11	16	<10	<10	710	190	<10	<10	100	11	<10	140	<10	11	46	
Selenium	<10	13	<10	<10	<10	<10	<10	<10	12	<10	31	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Zinc	290	2400	31	23	32	48	57	30	36	51	3900	1100	48	25	61	38	32	200	40	17	66	
PCBs (mg/kg)																						
Aroclor 1016																						
Aroclor 1221																						
Aroclor 1232																						
Aroclor 1242																						
Aroclor 1248																						
Aroclor 1254																						
Aroclor 1260																						
Aroclor 1262																						
Aroclor 1268																						
Polychlorinated biphenyls, Total																						
TPH (mg/kg)																						
C6-C12																						
Over C12-C28																						
Over C28-C35																						
Total Petroleum Hydrocarbons																						

Notes are included on Page 9.

Table F-4
Soil Analytical Data - Acid Plant Arroyo
Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	BH1-2 40 - 42 9/2/1999	BH17-1 10 - 11 3/1/2001	BH17-1 15 - 16 3/1/2001	BH17-10 14 - 15 3/2/2001	BH17-10 9 - 10 3/2/2001	BH17-11 20 - 21 3/2/2001	BH17-11 25 - 26 3/2/2001	BH17-12 33 - 34 3/2/2001	BH17-12 38 - 39 3/2/2001	BH17-13 25 - 26 3/5/2001	BH17-13 30 - 31 3/5/2001	BH17-14 20 - 21 3/5/2001	BH17-14 25 - 26 3/5/2001	BH17-15 15 - 16 3/5/2001	BH17-15 20 - 21 3/5/2001	BH17-16 10 - 11 3/5/2001	BH17-16 15 - 16 3/5/2001	BH17-17 10 - 11 3/5/2001	BH17-17 15 - 16 3/5/2001	BH17-2 22 - 23 3/1/2001	BH17-2 27 - 28 3/1/2001	
Metals (mg/kg)																						
Antimony																						
Arsenic											16											
Barium																						
Cadmium											43											
Chromium											<56											
Chromium, hexavalent																						
Cobalt																						
Copper											74											
Iron											23200											
Lead											82											
Mercury																						
Molybdenum																						
Nickel																						
Selenium											<10											
Silver																						
Zinc											1088											
Metals (mg/kg) ¹																						
Arsenic	21	250	61	56	76	33	11	34	57	50	36	22	67	20	32	87	22	95	<10	430	150	
Cadmium	11	78	35	<10	32	<10	<10	11	10	89	39	61	28	<10	<10	<10	24	120	42	20	<10	
Chromium	<80	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	
Copper	45	<20	<20	47	32	27	<20	29	42	64	140	22	77	20	34	35	36	120	<20	94	51	
Iron	28000	9000	8500	7000	17000	14000	7700	13000	12000	19000	21000	9900	18000	11000	14000	14000	7800	12000	5400	22000	21000	
Lead	<10	47	39	240	24	75	26	32	54	96	140	54	73	57	51	42	41	66	27	64	97	
Selenium	<10	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	
Zinc	23	280	110	23	28	50	31	35	28	1500	980	490	1100	87	23	68	280	280	110	690	93	
PCBs (mg/kg)																						
Aroclor 1016																						
Aroclor 1221																						
Aroclor 1232																						
Aroclor 1242																						
Aroclor 1248																						
Aroclor 1254																						
Aroclor 1260																						
Aroclor 1262																						
Aroclor 1268																						
Polychlorinated biphenyls, Total																						
TPH (mg/kg)																						
C6-C12																						
Over C12-C28																						
Over C28-C35																						
Total Petroleum Hydrocarbons																						

Notes are included on Page 9.

Table F-4
Soil Analytical Data - Acid Plant Arroyo
Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	BH17-20 18 - 19 3/6/2001	BH17-20 23 - 24 3/6/2001	BH17-3 15 - 16 3/1/2001	BH17-3 19 - 20 3/1/2001	BH17-4 17 - 18 3/1/2001	BH17-4 21 - 22 3/1/2001	BH17-5 12 - 13 3/2/2001	BH17-5 17 - 18 3/2/2001	BH17-6 10 - 11 3/2/2001	BH17-6 15 - 16 3/2/2001	BH17-7 15 - 16 3/2/2001	BH17-7 21 - 22 3/2/2001	BH17-8 1 - 2 3/2/2001	BH17-8 3 - 4 3/2/2001	BH17-8 5 - 6 3/2/2001	BH17-9 10 - 11 3/2/2001	BH17-9 5 - 6 3/2/2001	BH2-12 18 - 19 3/30/2001	BH2-12 23 - 24 3/30/2001	BH3-2 0 - 1 8/23/1999	BH3-2 1 - 2 8/23/1999	
Metals (mg/kg)																						
Antimony																						
Arsenic									11													
Barium																						
Cadmium									<10													
Chromium									79													
Chromium, hexavalent																						
Cobalt																						
Copper									10													
Iron									24070													
Lead									14													
Mercury																						
Molybdenum																						
Nickel																						
Selenium									<10													
Silver																						
Zinc									53													
Metals (mg/kg)¹																						
Arsenic	<10	35	34	54	37	21	230	470	31	25	31	36	290	65	48	25	39	65	62	890	<10	
Cadmium	<10	13	<10	36	<10	<10	<10	23	13	<10	58	24	66	12	10	<10	<10	82	55	560	<10	
Chromium	<200	<200	<200	<200	210	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	290	<80	<80	<80	<80	
Copper	21	<20	43	57	38	25	53	94	35	29	32	43	1200	28	120	<20	56	95	100	4000	82	
Iron	5900	7600	12000	13000	9900	12000	11000	20000	16000	9100	13000	7500	14000	14000	9700	15000	16000	12000	20000	30000	20000	
Lead	21	49	78	170	100	52	34	54	54	50	48	66	1200	62	96	74	120	45	78	2500	52	
Selenium	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<20	<20	19	<10	
Zinc	12	19	65	370	34	64	58	600	28	74	56	100	5000	180	320	140	210	340	580	4600	61	
PCBs (mg/kg)																						
Aroclor 1016																						
Aroclor 1221																						
Aroclor 1232																						
Aroclor 1242																						
Aroclor 1248																						
Aroclor 1254																						
Aroclor 1260																						
Aroclor 1262																						
Aroclor 1268																						
Polychlorinated biphenyls, Total																						
TPH (mg/kg)																						
C6-C12																						
Over C12-C28																						
Over C28-C35																						
Total Petroleum Hydrocarbons																						

Notes are included on Page 9.

Table F-4
Soil Analytical Data - Acid Plant Arroyo
Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	BH3-2 25 - 27 8/23/1999	BH3-2 30 - 32 8/23/1999	BH3-2 35 - 37 8/23/1999	BH3-2 40 - 42 8/23/1999	BH3-2 45 - 47 8/23/1999	BH3-3 40 - 42 8/24/1999	BH3-3 45 - 47 8/24/1999	BH3-4 0 - 1 8/24/1999	BH3-4 1 - 2 8/24/1999	BH3-4 39 - 41 8/25/1999	BH3-4 40 - 52 8/25/1999	BH3-4 45 - 47 8/25/1999	BH3-5 3 - 4.5 8/25/1999	BH3-5 31 - 31 8/25/1999	BH3-5 35 - 35 8/25/1999	BH3-5 40 - 40 8/25/1999	BH3-5 45 - 45 8/25/1999	BH3-5 50 - 52 8/25/1999	BH3-6 18 - 20 8/25/1999	BH3-6 25 - 27 8/25/1999	BH3-6 30 - 32 8/26/1999	
Metals (mg/kg)																						
Antimony																						
Arsenic																						
Barium																						
Cadmium																						
Chromium																						
Chromium, hexavalent																						
Cobalt																						
Copper																						
Iron																						
Lead																						
Mercury																						
Molybdenum																						
Nickel																						
Selenium																						
Silver																						
Zinc																						
Metals (mg/kg)¹																						
Arsenic	72	<10	<10	16	<10	<10	18	64	<10	370	19	20	870	2100	420	46	25	55	<10	<10	<10	
Cadmium	51	14	<10	<10	<10	<10	13	37	<10	360	<10	<10	190	430	300	<10	<10	<10	41	28	<10	
Chromium	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	260	<80	<80	<80	<80	<80	<80	<80	<80	
Copper	54	<20	<20	<20	<20	23	20	211	65	93	<20	<20	7400	110	65	<20	<20	48	<20	<20	<20	
Iron	17000	21000	19000	26000	19000	24000	27000	17000	15000	18000	24000	22000	31000	21000	17000	20000	17000	20000	10000	10000	11000	
Lead	34	<10	16	<10	<10	18	<10	1300	120	72	<10	15	3800	63	14	14	<10	16	23	14	20	
Selenium	<10	<10	<10	<10	<10	<10	<10	10	<10	<10	<10	<10	35	81	13	<10	<10	<10	<10	<10	<10	
Zinc	8000	48	20	24	39	100	77	400	130	44000	120	190	10000	40000	33000	160	78	180	330	110	<10	
PCBs (mg/kg)																						
Aroclor 1016																						
Aroclor 1221																						
Aroclor 1232																						
Aroclor 1242																						
Aroclor 1248																						
Aroclor 1254																						
Aroclor 1260																						
Aroclor 1262																						
Aroclor 1268																						
Polychlorinated biphenyls, Total																						
TPH (mg/kg)																						
C6-C12																						
Over C12-C28																						
Over C28-C35																						
Total Petroleum Hydrocarbons																						

Notes are included on Page 9.

Table F-4
Soil Analytical Data - Acid Plant Arroyo
Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	BH3-6 35 - 37 8/26/1999	BH3-6 40 - 42 8/26/1999	BH3-6 45 - 47 8/26/1999	BH3-6 50 - 52 8/26/1999	BH3-6 55 - 57 8/26/1999	BH3-6 60 - 62 8/26/1999	BH3-6 65 - 67 8/26/1999	BH3-8 55 - 57 8/31/1999	BH3-8 60 - 62 8/31/1999	CON-SS01 0.5 - 0.5 10/24/2011	CON-SS02 0.5 - 0.5 10/24/2011	CON-SS03 0.5 - 0.5 10/24/2011	CON-SS05 0.5 - 0.5 10/24/2011	DDA-SB01 0.5 - 0.5 10/19/2011	DDA-SB01 1.5 - 1.5 10/19/2011	DDA-SB01 3.5 - 3.5 10/19/2011	DDA-SB01 5 - 5 10/19/2011	DDA-SB02 0.5 - 0.5 10/19/2011	DDA-SB02 1.5 - 1.5 10/19/2011	DDA-SB02 3.5 - 3.5 10/19/2011	DDA-SB02 5 - 5 10/19/2011	
Metals (mg/kg)																						
Antimony										393	518	1760	482									
Arsenic										6760	9140	25300	7760									
Barium										362	179	510	415									
Cadmium										817	1390	3460	1220									
Chromium										93.6	84.4	329	106									
Chromium, hexavalent																						
Cobalt										93.4	33.6	205	123									
Copper										18500	37200	51300	33800									
Iron										93500	65300	223000	117000									
Lead										13600	13800	43700	14800									
Mercury										0.415	0.0103	24.5	43.2									
Molybdenum										667	833	2070	714									
Nickel										119	109	412	166									
Selenium										160	223	581	179									
Silver										63.2	93.9	285	77.1									
Zinc										17900	17500	23600	25200									
Metals (mg/kg) ¹																						
Arsenic	<10	40	<10	330	1100	<10	72	<10	180													
Cadmium	16	14	<10	26	40	<10	<10	<10	42													
Chromium	<80	<80	<80	<80	<80	<80	<80	<80	<80													
Copper	<20	<20	<20	<20	<20	<20	47	<20	44													
Iron	14000	22000	17000	10000	10000	8800	47000	13000	14000													
Lead	<10	22	27	24	48	24	28	15	33													
Selenium	<10	<10	<10	<10	14	<10	<10	<10	<10													
Zinc	60	72	39	260	400	46	100	59	8500													
PCBs (mg/kg)																						
Aroclor 1016														<0.0052	<0.00522	<0.00504	<0.00515	<0.00532	<0.00516	<0.00518	<0.00514	
Aroclor 1221														<0.0052	<0.00522	<0.00504	<0.00515	<0.00532	<0.00516	<0.00518	<0.00514	
Aroclor 1232														<0.0052	<0.00522	<0.00504	<0.00515	<0.00532	<0.00516	<0.00518	<0.00514	
Aroclor 1242														0.031 J	0.0237 J	<0.00504	<0.00515	<0.00532	<0.00516	<0.00518	<0.00514	
Aroclor 1248														<0.0052	<0.00522	<0.00504	<0.00515	<0.00532	<0.00516	<0.00518	<0.00514	
Aroclor 1254														0.022 J	0.0265 J	<0.00504	<0.00515	0.0244 J	<0.00516	<0.00518	<0.00514	
Aroclor 1260														0.0226 J	0.0346 J	<0.00504	<0.00515	0.0185 J	<0.00516	<0.00518	<0.00514	
Aroclor 1262														<0.0052	<0.00522	<0.00504	<0.00515	<0.00532	<0.00516	<0.00518	<0.00514	
Aroclor 1268														<0.0052	<0.00522	<0.00504	<0.00515	<0.00532	<0.00516	<0.00518	<0.00514	
Polychlorinated biphenyls, Total															<0.00515	<0.00504	<0.00515	0.0429	<0.00516	<0.00518	<0.00514	
TPH (mg/kg)																						
C6-C12														<15	<10.3	<10.2	<10.2	<16	<10.4	<10.4	<10.2	
Over C12-C28														188	314 J	<10.2	<10.2	46.6 J	<10.4	<10.4	<10.2	
Over C28-C35														87.3 J	66.4 J	<10.2	<10.2	24.5 J	<10.4	<10.4	<10.2	
Total Petroleum Hydrocarbons														299	518 J	<10.2	<10.2	71.1 J	<10.4	<10.4	<10.2	

Notes are included on Page 9.

Table F-4
Soil Analytical Data - Acid Plant Arroyo
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Sample Location: Sample Depth (ft bgs): Sample Date:	DDA-SB03 0.5 - 0.5 10/19/2011	DDA-SB03 1.5 - 1.5 10/19/2011	DDA-SB03 3.5 - 3.5 10/19/2011	DDA-SB03 5 - 5 10/19/2011	EP-100 0 - 1 9/8/1999	EP-100 1 - 2 9/8/1999	EP-100 10 - 12 9/8/1999	EP-100 15 - 17 9/8/1999	EP-100 2 - 3 9/8/1999	EP-100 20 - 22 9/8/1999	EP-100 25 - 27 9/8/1999	EP-100 3 - 4 9/8/1999	EP-100 30 - 32 9/8/1999 1:25:00	EP-100 35 - 37 9/8/1999 1:30:00	EP-100 4 - 5 9/8/1999	EP-100 40 - 42 9/8/1999 1:40:00	EP-100 45 - 47 9/8/1999 1:47:00	PBA-CS-03 0 - 0.5 12/8/2011	SSIA1-1 0 - 1 7/15/1997	SSIA1-1 1.5 - 1.5 7/15/1997	SSIA1-1 3 - 3 7/15/1997	
Metals (mg/kg)																						
Antimony																						
Arsenic																			3200	2300		
Barium																						
Cadmium																			1900	91		
Chromium																			62	330		
Chromium, hexavalent																						
Cobalt																						
Copper																			13000	7600		
Iron																			18000	150000		
Lead																			11000	5000		
Mercury																						
Molybdenum																						
Nickel																						
Selenium																			190	13		
Silver																						
Zinc																			7000	13000		
Metals (mg/kg) ¹																						
Arsenic					850	2300	290	14	720	91	130	280	28	100	76	100	110				4700	
Cadmium					360	310	61	<10	210	24	<10	410	<10	220	33	<10	<10				1700	
Chromium					<80	<80	<80	96	92	<80	<80	<80	<80	<80	<80	<80	<80				<30	
Copper					2900	4600	2000	750	11000	2200	140	7400	41	77	2100	<20	35				12000	
Iron					23000	27000	21000	16000	45000	17000	27000	22000	29000	27000	18000	120000	110000				38000	
Lead					850	610	440	240	1900	790	370	1900	37	50	680	<10	<10				12000	
Selenium					20	28	<10	<10	19	<10	<10	22	<10	<10	11	<10	<10				110	
Zinc					3100	3600	960	240	3300	1400	110	6900	32	540	2400	64	66				11000	
PCBs (mg/kg)																						
Aroclor 1016	<0.00512	<0.00522	<0.00522	<0.0052																		
Aroclor 1221	<0.00512	<0.00522	<0.00522	<0.0052																		
Aroclor 1232	<0.00512	<0.00522	<0.00522	<0.0052																		
Aroclor 1242	<0.00512	<0.00522	0.0138 J	<0.0052																		
Aroclor 1248	<0.00512	<0.00522	<0.00522	<0.0052																		
Aroclor 1254	0.0213 J	0.0089 J	0.0243 J	<0.0052																		
Aroclor 1260	0.0162 J	<0.00522	0.0233 J	<0.0052																		
Aroclor 1262	<0.00512	<0.00522	<0.00522	<0.0052																		
Aroclor 1268	<0.00512	<0.00522	<0.00522	<0.0052																		
Polychlorinated biphenyls, Total	0.0375	0.0133 J	0.0614	<0.0052																		
TPH (mg/kg)																						
C6-C12	<10.2	<10.5	<10.3	<10.4															<9.99			
Over C12-C28	201	137	141	<10.4															<9.99			
Over C28-C35	93.7	53.5	54.7	<10.4															<9.99			
Total Petroleum Hydrocarbons	295	191	196	<10.4															<9.99			

Notes are included on Page 9.

Table F-4
Soil Analytical Data - Acid Plant Arroyo
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Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	SSIA1-1 4 - 4 7/15/1997	SSIA1-2 0 - 1 7/15/1997	SSIA1-2 1.5 - 1.5 7/15/1997	SSIA1-2 3 - 3 7/15/1997	SSIA1-2 4 - 4 7/15/1997	SSIA1-3 0 - 1 7/15/1997	SSIA1-3 1.5 - 1.5 7/15/1997	SSIA1-3 3 - 3 7/15/1997	SSIA1-3 4 - 4 7/15/1997	SSIA1-4 0 - 1 7/15/1997	SSIA1-4 1.5 - 1.5 7/15/1997	SSIA1-4 3 - 3 7/15/1997	SSIA1-4 4 - 4 7/15/1997	SSIA1-5 0 - 1 7/15/1997	SSIA1-5 1.5 - 1.5 7/15/1997	SSIA1-5 3 - 3 7/15/1997	SSIA1-5 4 - 4 7/15/1997	SSIA3-10 0 - 1 7/15/1997	SSIA3-10 1.5 - 1.5 7/15/1997	SSIA3-10 3 - 3 7/15/1997	SSIA3-10 4 - 4 7/15/1997
Metals (mg/kg)																					
Antimony																					
Arsenic		21000	22000			2000	4900			410	570			1800	220			2800	980		
Barium																					
Cadmium		1100	1600			320	110			88	160			120	20			360	680		
Chromium		60	110			<30	97			<30	110			39	170			95	<30		
Chromium, hexavalent																					
Cobalt																					
Copper		11000	28000			4000	37000			1800	11000			2500	3500			7900	4700		
Iron		30000	46000			12000	44000			15000	44000			18000	18000			15000	120000		
Lead		15	5400			4100	5800			690	6200			1200	830			19000	25000		
Mercury																					
Molybdenum																					
Nickel																					
Selenium		1300	200			41	36			<10	25			<10	<10			77	46		
Silver																					
Zinc		2600	4900			2200	7200			1500	7500			2300	550			4100	15000		
Metals (mg/kg)¹																					
Arsenic	2600			15000	22000			3400	1900				370	130			90	<20		1400	3500
Cadmium	900			1200	1300			110	100				100	41			16	<10		370	550
Chromium	<30			53	130			<30	160				31	63			64	98		100	90
Copper	24000			25000	24000			21000	13000				7200	3100			2900	310		4800	6700
Iron	21000			44000	47000			83000	64000				36000	21000			19000	15000		130000	130000
Lead	20000			8900	4000			7300	5800				3600	1400			670	140		14000	20000
Selenium	220			230	120			20	22				12	<10			<10	<10		30	31
Zinc	7900			4500	4400			8700	5900				4700	740			430	95		13000	14000
PCBs (mg/kg)																					
Aroclor 1016																					
Aroclor 1221																					
Aroclor 1232																					
Aroclor 1242																					
Aroclor 1248																					
Aroclor 1254																					
Aroclor 1260																					
Aroclor 1262																					
Aroclor 1268																					
Polychlorinated biphenyls, Total																					
TPH (mg/kg)																					
C6-C12																					
Over C12-C28																					
Over C28-C35																					
Total Petroleum Hydrocarbons																					

Notes are included on Page 9.

Table F-4
Soil Analytical Data - Acid Plant Arroyo
Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	SSIA3-3 0 - 1 7/14/1997	SSIA3-3 1.5 - 1.5 7/14/1997	SSIA3-3 3 - 3 7/14/1997	SSIA3-3 4 - 4 7/14/1997	SSIA3-4 0 - 1 7/14/1997	SSIA3-4 1.5 - 1.5 7/14/1997	SSIA3-6 0 - 1 7/15/1997	SSIA3-6 1.5 - 1.5 7/15/1997	SSIA3-6 3 - 3 7/15/1997	SSIA3-6 4 - 4 7/15/1997	SSIA3-7 0 - 1 7/15/1997	SSIA3-7 1.5 - 1.5 7/15/1997	SSIA3-7 3 - 3 7/15/1997	SSIA3-7 4 - 4 7/15/1997	SSIA3-8 0 - 1 7/15/1997	SSIA3-8 1.5 - 1.5 7/15/1997	SSIA3-8 3 - 3 7/15/1997	SSIA3-8 4 - 4 7/15/1997	SSIA3-9 0 - 1 7/15/1997	SSIA3-9 1.5 - 1.5 7/15/1997	SSIA3-9 3 - 3 7/15/1997
Metals (mg/kg)																					
Antimony																					
Arsenic	480	<20			7800	3000	2900	230			820	2700			3200	740			1900	570	
Barium																					
Cadmium	150	<10			1600	330	790	67			150	440			1100	170			1400	340	
Chromium	41	100			140	300	260	60			120	1400			290	110			53	52	
Chromium, hexavalent																					
Cobalt																					
Copper	3600	72			7400	4400	11000	1000			1900	3900			20000	3300			8500	2700	
Iron	15000	6000			55000	150000	30000	16000			12000	45000			60000	19000			34000	23000	
Lead	2000	37			7300	5600	11000	1000			2200	3700			8100	1600			4500	2700	
Mercury																					
Molybdenum																					
Nickel																					
Selenium	<10	<10			53	35	60	<10			22	94			60	14			33	26	
Silver																					
Zinc	1900	100			9800	16000	14000	1300			2200	14000			9900	1900			5500	2600	
Metals (mg/kg) ¹																					
Arsenic			28	<20					1200	580				2000	1400			64	680		99
Cadmium			<10	<10					240	130				270	180			17	100		49
Chromium			<30	<30					130	160				1500	1400			<30	<30		40
Copper			110	17					4400	3400				3600	3600			380	3000		540
Iron			7000	7000					48000	84000				71000	120000			11000	21000		18000
Lead			95	45					4200	2900				3300	3300			230	1800		550
Selenium			<10	<10					15	<10				46	44			<10	<10		<10
Zinc			210	120					5800	4600				13000	12000			290	2200		900
PCBs (mg/kg)																					
Aroclor 1016																					
Aroclor 1221																					
Aroclor 1232																					
Aroclor 1242																					
Aroclor 1248																					
Aroclor 1254																					
Aroclor 1260																					
Aroclor 1262																					
Aroclor 1268																					
Polychlorinated biphenyls, Total																					
TPH (mg/kg)																					
C6-C12																					
Over C12-C28																					
Over C28-C35																					
Total Petroleum Hydrocarbons																					

Notes are included on Page 9.

Table F-4
Soil Analytical Data - Acid Plant Arroyo
Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	SSIA3-9 4 - 4 7/15/1997	ZCP-SB01 15 - 15 10/20/2011	ZCP-SB01 20 - 20 10/20/2011	ZCP-SB01 5 - 5 10/20/2011	ZCP-SB01 8.5 - 8.5 10/20/2011	ZCP-SB02 0.5 - 0.5 10/20/2011	ZCP-SB02 5 - 5 10/20/2011	ZCP-SB03 0.5 - 0.5 10/20/2011	ZCP-SB05 0.5 - 0.5 10/20/2011	ZCP-SB05 1.5 - 1.5 10/20/2011	ZCP-SB05 3.5 - 3.5 10/20/2011	ZCP-SB05 5 - 5 10/20/2011	ZCP-SB06 0.5 - 0.5 10/20/2011	ZCP-SB06 1.5 - 1.5 10/20/2011	ZCP-SB06 3.5 - 3.5 10/20/2011	ZCP-SB06 5 - 5 10/20/2011
Metals (mg/kg)																
Antimony		28.7	4.59	25.4	37.5	9.33	13.1	7.97	300	85	135	132	808	35.6	77.1	34.1
Arsenic		1020	413	180	825 J	111	86.8 J	85.7	6300	1160	2250	2220	12000	1280	1740	398
Barium		183	139	134	162 J	120	267 J	123	526	1270	278	602	626	571	1050	89.6
Cadmium		158 J	70.6 J	84 J	73 J	47.5 J	56.3 J	50.1 J	175 J	45.8 J	62.9 J	70.1 J	1530 J	185 J	377 J	51.8 J
Chromium		9.09	8.69	9.24	3.93 J	4.27	6.99	8.07	10 J	36.2	7.67	13.2	17.8	12	29.4	6.79
Chromium, hexavalent		<0.289 UJ	<0.292 UJ	<0.284 UJ	<0.293 UJ	<0.292 UJ	<0.332 UJ	<0.299 UJ	<0.289 UJ	<0.29 UJ	<0.299 UJ	<0.302 UJ	<0.284 UJ	<0.301 UJ	<0.289 UJ	<0.295 UJ
Cobalt		4.03	2.55	8.72	4.22	3.26	6.44 J	4.87	31.5	26.6	12.2	20.7	48.3	11.4	11.8	3.28
Copper		313	45.3	444	379 J	201	356 J	174	8510	2230	3930	8240	23600	2600	1660	74.2
Iron		10900	6650	10600	8120	4860	9950	11100	116000	190000	33700	73400	79000	110000	107000	10100
Lead		533	67	751	730 J	376	585 J	227	9980	10200	3160	4760	10500	5760	6480	145
Mercury		0.288 J	0.0716 J	3.13 J	1.12 J	0.817 J	0.852 J	4.21 J	2.4 J	0.0613 J	2.04 J	0.562 J	10.4 J	2.14 J	4.52 J	0.233 J
Molybdenum		4.38 J	1.27 J	12.8 J	3.86 J	2.64 J	6.85 J	2.85 J	89.7 J	136 J	23.1 J	73.3 J	83 J	49.3 J	57.2 J	1.14 J
Nickel		9.06 J	7.71 J	6.83 J	6.44 J	5.56 J	7.38 J	7.87 J	38.7 J	10.4 J	18.1 J	15.1 J	47.7 J	4.03 J	7.88 J	5.93 J
Selenium		4.37	1.96	5.11	5.56 J	2.34	2.35	1.85	28.9	<4.32	12.8	12.2	169	22.8	39.8	7.28
Silver		1.21	<0.113	3.28	1.79 J	1.7	2.69 J	1.33	29.9	18.8	12.3	14.5	47	8.12	15	0.375 J
Zinc		3360	1280	1710	16200	241	290 J	273	22000	19700	4990	12700	22200	19600	23200	211
Metals (mg/kg) ¹																
Arsenic	<20															
Cadmium	<10															
Chromium	68															
Copper	130															
Iron	12000															
Lead	140															
Selenium	<10															
Zinc	160															
PCBs (mg/kg)																
Aroclor 1016																
Aroclor 1221																
Aroclor 1232																
Aroclor 1242																
Aroclor 1248																
Aroclor 1254																
Aroclor 1260																
Aroclor 1262																
Aroclor 1268																
Polychlorinated biphenyls, Total																
TPH (mg/kg)																
C6-C12																
Over C12-C28																
Over C28-C35																
Total Petroleum Hydrocarbons																

Notes:

¹ Samples analysed using field x-ray diffraction methods
ft bgs = sample interval in feet below ground surface
mg/kg = miligram per kilogram
SU = Standard (pH) Units
PCB = Polychlorinated Biphenyl
TPH = Total Petroleum Hydrocarbons

Laboratory Qualifiers:

J = Estimated value reported. In the majority of cases this represents a value less than the contract required quantitation limit, but greater than the method detection limit.
U = Compound was analyzed for but not detected. The value shown in the laboratory method detection limit.

Table F-5
Soil Analytical Data - Ponds 5 and 6 Arroyo
Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	BH15-13 55 - 56 6/1/2001	BH15-13 60 - 61 6/1/2001	BH15-13 65 - 66 6/1/2001	BH15-13 70 - 71 6/1/2001	BH15-14 50 - 51 6/1/2001	BH15-14 55 - 56 6/1/2001	BH15-14 60 - 61 6/1/2001	BH15-14 65 - 66 6/1/2001	BH15-14 70 - 71 6/1/2001	BH15-8 1 - 2 2/20/2001	BH15-8 2 - 3 2/20/2001	BH15-8 4 - 5 2/20/2001	BH15-8 5 - 6 2/20/2001	BH16-1 11 - 12 2/28/2001	BH16-10 30 - 31 3/1/2001	BH16-10 35 - 36 3/1/2001	BH16-11 3 - 4 2/22/2001	BH16-11 4 - 5 2/22/2001	BH16-11 5 - 6 2/22/2001	BH16-11 6 - 7 2/22/2001	BH16-11 7 - 8 2/22/2001	BH16-14 10 - 11 2/22/2001	BH16-14 3 - 4 2/22/2001	BH16-14 4 - 5 2/22/2001	BH16-18 1 - 2 2/22/2001	BH16-18 2 - 3 2/22/2001	BH16-18 3 - 4 2/22/2001		
Metals (mg/kg)																													
Antimony																													
Arsenic											1087																		
Barium																													
Cadmium											241																		
Chromium											<30																		
Cobalt																													
Copper											29400																		
Iron											19180																		
Lead											418																		
Mercury																													
Molybdenum																													
Nickel																													
Selenium											<10																		
Silver																													
Thallium																													
Zinc											4097																		
Arsenic	32	29	34	35	17	19	36	34	87	20000	900	1900	25	43	32	33	35	240	110	69	56	75	59	59	34	130	80		
Cadmium	<10	<10	<10	<10	10	<10	19	<10	25	890	320	310	39	<10	<10	<10	<10	33	22	<10	<10	<10	13	<10	<10	18	13		
Chromium	<80	<80	82	110	<80	<80	<80	<80	<80	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200		
Copper	70	<20	27	48	12	48	27	23	<20	30000	38000	19000	200	71	74	130	120	2100	860	350	87	510	880	93	82	1400	620		
Iron	22000	15000	30000	33000	18000	14000	17000	15000	13000	49000	10000	18000	6600	18000	15000	19000	17000	20000	23000	19000	18000	19000	21000	19000	9500	13000	9500		
Lead	42	46	38	23	31	33	32	31	28	3700	520	1000	45	89	95	120	190	3500	1100	580	100	560	750	75	88	560	470		
Selenium	<20	<20	<20	<20	<20	<20	<20	<20	<20	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40		
Zinc	<10	<10	45	80	<10	<10	55	22	360	4100	3700	3900	880	63	27	45	43	450	180	110	46	350	230	57	19	220	120		
TPH (mg/kg)																													
Total Petroleum Hydrocarbons																													
VOCs (mg/kg)																													
Benzene																													
Ethylbenzene																													
Toluene																													
Total Xylenes																													
1,1,1-Trichloroethane																													
1,1,2-Trichloro-1,2,2-trifluoroethane																													
1,1,2-Trichloroethane																													
1,2-Dichlorobenzene																													
4-Methyl-2-pentanone (MIBK)																													
Acetone																													
Carbon tetrachloride																													
Chlorobenzene																													
Cyclohexane																													
Cyclohexanone																													
Dichlorodifluoromethane																													
Ethyl acetate																													
Ethyl ether																													
m,p-Xylene																													
Methanol																													
Methylene chloride																													
n-Butyl alcohol																													
o-Xylene																													
Tetrachloroethene																													
Trichloroethene																													
Trichlorofluoromethane																													
SVOCs (mg/kg)																													
Hexachlorocyclopentadiene																													
PCBs (mg/kg)																													
Aroclor 1016																													
Aroclor 1221																													
Aroclor 1232																													
Aroclor 1242																													
Aroclor 1248																													
Aroclor 1254																													
Aroclor 1260																													
Aroclor 1262																													
Aroclor 1268																													
Polychlorinated biphenyls, Total																													
Pesticides (mg/kg)																													
Chlordane																													
Endrin																													
Chlordane																													
Endrin																													
Methyl parathion																													

Notes are included on Page 11.

Table F-5
Soil Analytical Data - Ponds 5 and 6 Arroyo
Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	BH16-18 4 - 5 2/22/2001	BH16-18 5 - 6 2/22/2001	BH16-19 0 - 1 2/22/2001	BH16-19 1 - 2 2/22/2001	BH16-19 4 - 5 2/22/2001	BH16-19 5 - 6 2/22/2001	BH16-2 15 - 17 2/28/2001	BH16-20 13 - 14 2/22/2001	BH16-20 16 - 17 2/22/2001	BH16-20 3 - 4 2/22/2001	BH16-20 5 - 6 2/22/2001	BH16-21 14 - 15 2/23/2001	BH16-22 14 - 15 2/23/2001	BH16-22 8 - 9 2/23/2001	BH16-23 8 - 9 2/23/2001	BH16-23 9 - 10 2/23/2001	BH16-24 11 - 12 2/23/2001	BH16-24 3 - 4 2/23/2001	BH16-24 4 - 5 2/23/2001	BH16-24 8 - 9 2/23/2001	BH16-25 14 - 15 2/23/2001	BH16-25 3 - 4 2/23/2001	BH16-25 4 - 5 2/23/2001	BH16-25 5 - 6 2/23/2001	BH16-25 9 - 10 2/23/2001	BH16-26 1 - 2 2/23/2001	BH16-26 2 - 3 2/23/2001			
Metals (mg/kg)																														
Antimony																														
Arsenic			1001									48																		
Barium																														
Cadmium		400										12																		
Chromium		57										61																		
Cobalt																														
Copper		4548										312																		
Iron		19320										12530																		
Lead		6802										1870																		
Mercury																														
Molybdenum																														
Nickel																														
Selenium		54										<10																		
Silver																														
Thallium																														
Zinc		3418										506																		
Arsenic	130	58	1200	52	100	43	44	450	140	1700	1100	70	42	23	140	34	190	100	450	490	21	94	160	44	49	100	40			
Cadmium	21	11	410	<10	40	11	<10	120	<10	530	410	10	<10	<10	49	<10	290	22	140	55	<10	27	47	<10	<10	98	<10			
Chromium	<200	<200	<200	<200	<200	<200	<200	<200	230	<200	<200	<200	<200	<200	<200	<200	<200	<200	260	<200	<200	<200	<200	<200	<200	<200	<200	<200		
Copper	1800	260	3800	300	520	59	32	900	43	3900	3700	340	39	42	590	47	450	154	940	560	22	150	700	160	64	590	51			
Iron	11000	9800	16000	9300	12000	8100	19000	19000	19000	25000	20000	9200	17000	9700	15000	16000	15000	8300	9600	11000	7200	10000	10000	9900	10000	11000	11000			
Lead	680	310	6900	440	860	120	47	4100	110	11000	7300	2000	39	61	900	49	1300	110	630	1700	68	690	1700	370	200	730	68			
Selenium	<40	<40	76	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	
Zinc	250	82	2400	110	170	<10	46	930	80	3000	2300	470	39	27	480	40	990	100	950	490	31	130	360	69	28	620	12			
TPH (mg/kg)																														
Total Petroleum Hydrocarbons																														
VOCs (mg/kg)																														
Benzene																														
Ethylbenzene																														
Toluene																														
Total Xylenes																														
1,1,1-Trichloroethane																														
1,1,2-Trichloro-1,2,2-trifluoroethane																														
1,1,2-Trichloroethane																														
1,2-Dichlorobenzene																														
4-Methyl-2-pentanone (MIBK)																														
Acetone																														
Carbon tetrachloride																														
Chlorobenzene																														
Cyclohexane																														
Cyclohexanone																														
Dichlorodifluoromethane																														
Ethyl acetate																														
Ethyl ether																														
m,p-Xylene																														
Methanol																														
Methylene chloride																														
n-Butyl alcohol																														
o-Xylene																														
Tetrachloroethene																														
Trichloroethene																														
Trichlorofluoromethane																														
SVOCs (mg/kg)																														
Hexachlorocyclopentadiene																														
PCBs (mg/kg)																														
Aroclor 1016																														
Aroclor 1221																														
Aroclor 1232																														
Aroclor 1242																														
Aroclor 1248																														
Aroclor 1254																														
Aroclor 1260																														
Aroclor 1262																														
Aroclor 1268																														
Polychlorinated biphenyls, Total																														
Pesticides (mg/kg)																														
Chlordane																														
Endrin																														
Chlordane																														
Endrin																														
Methyl parathion																														

Notes are included on Page 11.

Table F-5
 Soil Analytical Data - Ponds 5 and 6 Arroyo
 Supplemental Remedial Investigation Report
 Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	BH16-26 3 - 4 2/23/2001	BH16-26 4 - 5 2/23/2001	BH16-26 6 - 7 2/23/2001	BH16-26 9 - 10 2/23/2001	BH16-27 10 - 11 2/23/2001	BH16-27 11 - 12 2/23/2001	BH16-28 3.5 - 4.5 2/26/2001	BH16-28 4.5 - 5.5 2/26/2001	BH16-28 5.5 - 6 2/26/2001	BH16-29 8 - 9 2/26/2001	BH16-3 11 - 12 2/28/2001	BH16-3 3.5 - 4.5 2/21/2001	BH16-3 4.5 - 5.5 2/21/2001	BH16-30 1 - 2 2/26/2001	BH16-30 2 - 3 2/26/2001	BH16-30 5 - 6 2/26/2001	BH16-4 10 - 11 2/28/2001	BH16-40 5 - 6 2/26/2001	BH16-45 61 - 62 2/28/2001	BH16-5 15 - 16 2/28/2001	BH16-5 20 - 21 2/28/2001	BH16-5 5 - 6 2/28/2001	BH16-7 1 - 2 2/28/2001	BH16-8 11 - 12 2/28/2001	BH16-8 15 - 16 2/28/2001	BH16-8 5 - 6 2/28/2001	BH16-9 4 - 5 2/21/2001		
Metals (mg/kg)																													
Antimony																													
Arsenic							15							37															
Barium																													
Cadmium							14							<10															
Chromium							65							58															
Cobalt																													
Copper							126							79															
Iron							29190							19060															
Lead							92							183															
Mercury																													
Molybdenum																													
Nickel																													
Selenium							<10							11															
Silver																													
Thallium																													
Zinc							125							100															
Arsenic	170	83	34	44	190	71	52	49	22	160	<10	34	36	64	90	36	18	22	70	68	71	47	43	59	42	51	150		
Cadmium	70	58	<10	<10	110	48	<10	23	10	65	<10	<10	<10	<10	10	<10	<10	17	89	<10	13	<10	32	710	570	1000	62		
Chromium	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	
Copper	930	340	42	150	500	68	220	210	<20	150	<20	<20	52	100	280	56	23	47	120	220	63	28	190	25	150	120	700		
Iron	16000	11000	13000	8800	11000	16000	20000	21000	13000	13000	6700	14000	12000	14000	12000	11000	9900	8600	16000	15000	17000	19000	13000	19000	21000	16000	13000		
Lead	2100	1000	39	240	1000	250	310	26	180	26	80	100	230	220	49	32	170	180	290	77	59	220	53	65	70	1600			
Selenium	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	
Zinc	850	200	40	65	610	230	120	110	24	490	43	37	58	42	90	38	23	71	640	41	47	23	120	660	570	620	410		
TPH (mg/kg)																													
Total Petroleum Hydrocarbons																													
VOCs (mg/kg)																													
Benzene																													
Ethylbenzene																													
Toluene																													
Total Xylenes																													
1,1,1-Trichloroethane																													
1,1,2-Trichloro-1,2,2-trifluoroethane																													
1,1,2-Trichloroethane																													
1,2-Dichlorobenzene																													
4-Methyl-2-pentanone (MIBK)																													
Acetone																													
Carbon tetrachloride																													
Chlorobenzene																													
Cyclohexane																													
Cyclohexanone																													
Dichlorodifluoromethane																													
Ethyl acetate																													
Ethyl ether																													
m,p-Xylene																													
Methanol																													
Methylene chloride																													
n-Butyl alcohol																													
o-Xylene																													
Tetrachloroethene																													
Trichloroethene																													
Trichlorofluoromethane																													
SVOCs (mg/kg)																													
Hexachlorocyclopentadiene																													
PCBs (mg/kg)																													
Aroclor 1016																													
Aroclor 1221																													
Aroclor 1232																													
Aroclor 1242																													
Aroclor 1248																													
Aroclor 1254																													
Aroclor 1260																													
Aroclor 1262																													
Aroclor 1268																													
Polychlorinated biphenyls, Total																													
Pesticides (mg/kg)																													
Chlordane																													
Endrin																													
Chlordane																													
Endrin																													
Methyl parathion																													

Notes are included on Page 11.

Table F-5
Soil Analytical Data - Ponds 5 and 6 Arroyo
Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	BH18-9 5 - 6 2/21/2001	BH18-3 0.2 - 1 3/6/2001	BH18-3 1 - 2 3/6/2001	BH18-3 1 - 5 3/6/2001	BH18-3 2 - 3 3/6/2001	BH18-3 3 - 4 3/6/2001	BH18-3 5 - 6 3/6/2001	BH18-4 0.1 - 1 3/6/2001	BH18-4 1 - 2 3/6/2001	BH18-4 2 - 3 3/6/2001	BH18-4 3 - 4 3/6/2001	BH18-4 4 - 5 3/6/2001	BH18-4 5 - 6 3/6/2001	BH18-5 0.2 - 1 3/6/2001	BH18-5 1 - 2 3/6/2001	BH18-5 2 - 3 3/6/2001	BH18-5 3 - 4 3/6/2001	BH18-5 4 - 5 3/6/2001	BH18-5 5 - 6 3/6/2001	BH9-6-22 0 - 1 5/26/2001	BH9-6-22 1 - 2 5/26/2001	BH9-6-22 2 - 3 5/26/2001	BH9-6-22 3 - 4 5/26/2001	BH9-6-23 0 - 1 5/26/2001	BH9-6-23 1 - 2 5/26/2001	EM-7 5 - 5 5/19/1990	EP-101 0 - 1 9/29/1999	
Metals (mg/kg)																												
Antimony																												
Arsenic								64						251														<0.5
Barium																												<10
Cadmium														<10														0.8
Chromium														48														<0.5
Cobalt																												
Copper												380		725														
Iron												16420		16570														
Lead														510														4
Mercury																												<0.02
Molybdenum																												
Nickel																												
Selenium												<10		<10														<0.1
Silver																												<0.5
Thallium																												
Zinc												391		151														
Arsenic	36	51	49	130	98	97	110	44	68	62	48	30	28	260	67	70	33	150	35	12000	1300	83	53	11000	6000		940	
Cadmium	11	<10	<10	16	<10	<10	<10	11	11	<10	<10	<10	<10	<10	<10	<10	<10	10	<10	4200	1100	<10	12	5900	3500		690	
Chromium	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	200	160	<80	<80	350	440		<80	
Copper	39	100	47	470	110	71	<20	230	410	62	78	28	24	820	23	120	23	300	<20	69000	6900	88	39	66000	47000		3000	
Iron	20000	13000	13000	15000	15000	16000	16000	13000	14000	12000	13000	10000	12000	15000	17000	11000	12000	15000	8500	52000	52000	17000	17000	67000	98000		18000	
Lead	49	100	50	150	69	49	49	200	450	74	37	35	24	160	43	69	40	120	38	15000	7700	51	70	34000	33000		11000	
Selenium	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	130	51	<20	<20	180	220		110	
Zinc	35	67	80	280	73	22	33	120	380	68	48	25	42	100	56	58	54	140	39	38000	5200	<10	<10	38000	29000		4100	
TPH (mg/kg)																												
Total Petroleum Hydrocarbons																												
VOCs (mg/kg)																												
Benzene																												
Ethylbenzene																												
Toluene																												
Total Xylenes																												
1,1,1-Trichloroethane																												
1,1,2-Trichloro-1,2,2-trifluoroethane																												
1,1,2-Trichloroethane																												
1,2-Dichlorobenzene																												
4-Methyl-2-pentanone (MIBK)																												
Acetone																												
Carbon tetrachloride																												
Chlorobenzene																												
Cyclohexane																												
Cyclohexanone																												
Dichlorodifluoromethane																												
Ethyl acetate																												
Ethyl ether																												
m,p-Xylene																												
Methanol																												
Methylene chloride																												
n-Butyl alcohol																												
o-Xylene																												
Tetrachloroethene																												
Trichloroethene																												
Trichlorofluoromethane																												
SVOCs (mg/kg)																												
Hexachlorocyclopentadiene																												
PCBs (mg/kg)																												
Aroclor 1016																												
Aroclor 1221																												
Aroclor 1232																												
Aroclor 1242																												
Aroclor 1248																												
Aroclor 1254																												
Aroclor 1260																												
Aroclor 1262																												
Aroclor 1268																												
Polychlorinated biphenyls, Total																												
Pesticides (mg/kg)																												
Chlordane																												
Endrin																												
Chlordane																												
Endrin																												
Methyl parathion																												

Notes are included on Page 11.

Table F-5
Soil Analytical Data - Ponds 5 and 6 Arroyo
Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	EP-101 1 - 2 9/29/1999	EP-101 15 - 17 9/29/1999	EP-101 20 - 22 9/29/1999	EP-101 25 - 27 9/29/1999	EP-101 3 - 4 9/29/1999	EP-101 30 - 32 9/29/1999	EP-101 35 - 37 9/29/1999	EP-101 4 - 5 9/29/1999	EP-101 40 - 42 9/29/1999	EP-101 45 - 47 9/29/1999	EP-101 50 - 52 9/29/1999	EP-101 55 - 57 9/29/1999	EP-102 0 - 1 9/30/1999	EP-102 1 - 2 9/30/1999	EP-102 10 - 12 9/30/1999	EP-102 15 - 17 9/30/1999	EP-102 2 - 3 9/30/1999	EP-102 20 - 22 9/30/1999	EP-102 25 - 27 9/30/1999	EP-102 3 - 4 9/30/1999	EP-102 30 - 32 9/30/1999	EP-102 35 - 37 9/30/1999	EP-102 4 - 5 9/30/1999	EP-102 40 - 42 9/30/1999	EP-102 45 - 47 9/30/1999	EP-102 50 - 52 9/30/1999	EP-102 55 - 57 9/30/1999	
Metals (mg/kg)																												
Antimony																												
Arsenic																												
Barium																												
Cadmium																												
Chromium																												
Cobalt																												
Copper																												
Iron																												
Lead																												
Mercury																												
Molybdenum																												
Nickel																												
Selenium																												
Silver																												
Thallium																												
Zinc																												
Arsenic	7700	16	23	84	5200	71	65	1100	34	33	190	91	4100	6300	130	48	7700	56	52	8000	50	36	950	31	38	27	35	
Cadmium	2100	560	190	670	1300	<10	<10	8000	<10	<10	<10	<10	3500	7100	2100	940	6000	1500	190	3900	340	28	11000	14	15	<10	<10	
Chromium	<80	<80	<80	<80	<80	<80	100	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	87
Copper	16000	<20	<20	50	5600	<20	<20	4700	<20	28	55	66	3900	8100	1100	37	8900	<20	<20	11000	<20	22	6000	34	<20	<20	<20	
Iron	32000	15000	23000	27000	38000	26000	26000	30000	24000	21000	39000	33000	23000	31000	19000	17000	31000	29000	30000	34000	32000	23000	14000	27000	25000	24000	28000	
Lead	42000	140	69	87	21000	54	45	12000	60	53	19	57	27000	34000	200	130	41000	57	63	40000	54	77	8700	61	57	50	50	
Selenium	180	17	12	16	170	<10	<10	150	<10	<10	<10	<10	380	390	20	<10	340	<10	<10	380	<10	<10	120	<10	<10	<10	<10	
Zinc	17000	140	32	65	6700	41	63	5100	49	33	54	59	5000	13000	1500	750	12000	620	530	13000	540	290	14000	81	34	39	28	
TPH (mg/kg)																												
Total Petroleum Hydrocarbons																												
VOCs (mg/kg)																												
Benzene																												
Ethylbenzene																												
Toluene																												
Total Xylenes																												
1,1,1-Trichloroethane																												
1,1,2-Trichloro-1,2,2-trifluoroethane																												
1,1,2-Trichloroethane																												
1,2-Dichlorobenzene																												
4-Methyl-2-pentanone (MIBK)																												
Acetone																												
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Chlorobenzene																												
Cyclohexane																												
Cyclohexanone																												
Dichlorodifluoromethane																												
Ethyl acetate																												
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m,p-Xylene																												
Methanol																												
Methylene chloride																												
n-Butyl alcohol																												
o-Xylene																												
Tetrachloroethene																												
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SVOCs (mg/kg)																												
Hexachlorocyclopentadiene																												
PCBs (mg/kg)																												
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Aroclor 1254																												
Aroclor 1260																												
Aroclor 1262																												
Aroclor 1268																												
Polychlorinated biphenyls, Total																												
Pesticides (mg/kg)																												
Chlordane																												
Endrin																												
Chlordane																												
Endrin																												
Methyl parathion																												

Notes are included on Page 11.

Table F-5
Soil Analytical Data - Ponds 5 and 6 Arroyo
Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	EP-131 50 - 51 5/30/2001	EP-131 55 - 56 5/30/2001	EP-131 60 - 61 5/30/2001	EP-131 65 - 66 5/30/2001	EP-131 70 - 71 5/30/2001	EP-74 10 - 10 6/2/1997	EP-74 15 - 15 6/2/1997	EP-74 2 - 2 6/2/1997	EP-74 20 - 20 6/2/1997	EP-74 25 - 25 6/2/1997	EP-74 30 - 30 6/2/1997	EP-74 35 - 35 6/2/1997	EP-74 40 - 40 6/2/1997	EP-74 45 - 45 6/2/1997	EP-74 5 - 5 6/2/1997	EP-74 50 - 50 6/2/1997	EP-74 55 - 55 6/2/1997	EP-74 60 - 60 6/2/1997	EP-74 65 - 65 6/2/1997	EP-77 0.5 - 0.5 6/4/1997	EP-77 20 - 20 6/4/1997	EP-77 25 - 25 6/4/1997	EP-77 30 - 30 6/4/1997	EP-77 35 - 35 6/4/1997	EP-77 40 - 40 6/4/1997	EP-77 45 - 45 6/4/1997	EP-77 50 - 50 6/4/1997	
Metals (mg/kg)																												
Antimony																												
Arsenic						<20	140	<20	<20	<20	<20	<20	41	<20	49	40	46	24	200	140	<20	33	28	73	49	20		
Barium																												
Cadmium						<10	<10	<10	<10	<10	<10	<10	<10	28	<10	<10	<10	<10	11	43	<10	<10	<10	<10	<10	<10		
Chromium						99	<30	46	42	<30	77	<30	<30	130	41	63	130	70	210	84	94	<30	<30	78	<30	<30		
Cobalt																												
Copper						55	96	110	30	<20	25	<20	<20	31	260	<20	<20	31	33	2500	350	<20	<20	23	32	<20	<20	
Iron						23000	23000	13000	24000	24000	24000	23000	23000	30000	22000	29000	31000	30000	31000	100000	39000	20000	18000	17000	27000	26000	29000	
Lead						100	250	300	38	19	24	26	22	42	960	11	<10	19	16	2600	950	90	36	37	22	25	20	
Mercury																												
Molybdenum																												
Nickel																												
Selenium						<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10		
Silver																												
Thallium																												
Zinc						110	150	140	49	57	42	48	41	65	450	66	36	40	54	1100	850	100	57	57	55	52	42	
Arsenic	27	26	21	31	46																							
Cadmium	<10	<10	10	<10	18																							
Chromium	<80	<80	<80	87	<80																							
Copper	34	<20	32	20	94																							
Iron	19000	15000	14000	17000	18000																							
Lead	42	42	38	56	160																							
Selenium	<20	<20	<20	<20	<20																							
Zinc	<10	29	<10	35	140																							
TPH (mg/kg)																												
Total Petroleum Hydrocarbons																												
VOCs (mg/kg)																												
Benzene																												
Ethylbenzene																												
Toluene																												
Total Xylenes																												
1,1,1-Trichloroethane																												
1,1,2-Trichloro-1,2,2-trifluoroethane																												
1,1,2-Trichloroethane																												
1,2-Dichlorobenzene																												
4-Methyl-2-pentanone (MIBK)																												
Acetone																												
Carbon tetrachloride																												
Chlorobenzene																												
Cyclohexane																												
Cyclohexanone																												
Dichlorodifluoromethane																												
Ethyl acetate																												
Ethyl ether																												
m,p-Xylene																												
Methanol																												
Methylene chloride																												
n-Butyl alcohol																												
o-Xylene																												
Tetrachloroethene																												
Trichloroethene																												
Trichlorofluoromethane																												
SVOCs (mg/kg)																												
Hexachlorocyclopentadiene																												
PCBs (mg/kg)																												
Aroclor 1016																												
Aroclor 1221																												
Aroclor 1232																												
Aroclor 1242																												
Aroclor 1248																												
Aroclor 1254																												
Aroclor 1260																												
Aroclor 1262																												
Aroclor 1268																												
Polychlorinated biphenyls, Total																												
Pesticides (mg/kg)																												
Chlordane																												
Endrin																												
Chlordane																												
Endrin																												
Methyl parathion																												

Notes are included on Page 11.

Table F-5
 Soil Analytical Data - Ponds 5 and 6 Arroyo
 Supplemental Remedial Investigation Report
 Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	EP-88 0 - 0.5 6/17/1997	EP-88 10 - 10 6/17/1997	EP-88 15 - 15 6/17/1997	EP-88 20 - 20 6/17/1997	EP-88 25 - 25 6/17/1997	EP-88 30 - 30 6/17/1997	EP-88 35 - 35 6/17/1997	EP-88 5 - 5 6/17/1997	SSIA8-3 0 - 1 7/16/1997	SSIA8-3 1.5 - 1.5 7/16/1997	SSIA8-3 3 - 3 7/16/1997	SSIA8-3 4 - 4 7/16/1997	SSIA8-4 0 - 1 7/16/1997	SSIA8-4 1.5 - 1.5 7/16/1997	SSIA8-4 3 - 3 7/14/1997	SSIA8-4 4 - 4 7/14/1997	SSIA8-5 0 - 1 7/16/1997	SSIA8-5 1.5 - 1.5 7/16/1997	SSIA8-5 3 - 3 7/16/1997	SSIA8-5 4 - 4 7/16/1997	SSIA8-6 0 - 1 7/16/1997	SSIA8-6 1.5 - 1.5 7/16/1997	SSIA8-6 3 - 3 7/16/1997	SSIA8-6 4 - 4 7/16/1997	SSIA8-7 0 - 1 7/16/1997	SSIA8-7 1.5 - 1.5 7/16/1997	SSIA8-7 3 - 3 7/16/1997	
Metals (mg/kg)																												
Antimony																												
Arsenic	550	<20	<20	<20	<20	<20	<20	50	2700	170			<20	3700			53	<20			<20	<20				51	<20	
Barium																												
Cadmium	150	<10	<10	<10	<10	<10	<10	120	660	150			<10	980			130	<10			23	47				96	22	
Chromium	200	59	55	<30	<30	100	70	120	130	56			<30	<30			110	<30			<30	94				59	<30	
Cobalt																												
Copper	5600	38	<20	76	36	30	<20	2200	1400	1100			660	20000			1500	170			400	520				980	250	
Iron	21000	24000	30000	18000	28000	27000	18000	33000	34000	17000			17000	61000			18000	16000			15000	19000				20000	16000	
Lead	3600	35	35	58	19	18	<10	2700	420	1000			120	43000			180	130			690	1000				520	300	
Mercury																												
Molybdenum																												
Nickel																												
Selenium	23	<10	<10	<10	<10	<10	<10	<10	66	<10			<10	57			<10	<10			<10	<10				<10	<10	
Silver																												
Thallium																												
Zinc	3100	54	95	55	49	68	42	3200	4600	1800			150	21000			2300	350			370	470				1100	220	
Arsenic											1100	290			6600	3100			<20	<20			58	120				31
Cadmium											400	79			1000	530			28	<10			130	110				41
Chromium											110	190			79	140			150	120			97	100				200
Copper											7000	3700			39000	13000			1100	170			530	2600				380
Iron											29000	18000			56000	44000			19000	16000			20000	22000				15000
Lead											6800	4700			71000	22000			440	50			1700	2400				500
Selenium											40	<10			68	23			<10	<10			<10	<10				<10
Zinc											4800	2200			26000	11000			770	250			1100	1300				330
TPH (mg/kg)																												
Total Petroleum Hydrocarbons																												
VOCs (mg/kg)																												
Benzene																												
Ethylbenzene																												
Toluene																												
Total Xylenes																												
1,1,1-Trichloroethane																												
1,1,2-Trichloro-1,2,2-trifluoroethane																												
1,1,2-Trichloroethane																												
1,2-Dichlorobenzene																												
4-Methyl-2-pentanone (MIBK)																												
Acetone																												
Carbon tetrachloride																												
Chlorobenzene																												
Cyclohexane																												
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Dichlorodifluoromethane																												
Ethyl acetate																												
Ethyl ether																												
m,p-Xylene																												
Methanol																												
Methylene chloride																												
n-Butyl alcohol																												
o-Xylene																												
Tetrachloroethene																												
Trichloroethene																												
Trichlorofluoromethane																												
SVOCs (mg/kg)																												
Hexachlorocyclopentadiene																												
PCBs (mg/kg)																												
Aroclor 1016																												
Aroclor 1221																												
Aroclor 1232																												
Aroclor 1242																												
Aroclor 1248																												
Aroclor 1254																												
Aroclor 1260																												
Aroclor 1262																												
Aroclor 1268																												
Polychlorinated biphenyls, Total																												
Pesticides (mg/kg)																												
Chlordane																												
Endrin																												
Chlordane																												
Endrin																												
Methyl parathion																												

Notes are included on Page 11.

Table F-5
Soil Analytical Data - Ponds 5 and 6 Arroyo
Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	SSIA8-7 4 - 4 7/16/1997	SSIA8-8 0 - 1 7/16/1997	SSIA8-8 1.5 - 1.5 7/16/1997	SSIA8-8 3 - 3 7/16/1997	SSIA8-8 4 - 4 7/16/1997	APA-SB01 0.5 - 0.5 10/19/2011	APA-SB01 1.5 - 1.5 10/19/2011	APA-SB01 3.5 - 3.5 10/19/2011	APA-SB01 5 - 5 10/19/2011	APA-SB02 0.5 - 0.5 10/19/2011	APA-SB02 1.5 - 1.5 10/19/2011	APA-SB02 3.5 - 3.5 10/19/2011	APA-SB02 5 - 5 10/19/2011	BB-SB03 0 - 0.5 8/9/2011	BB-SB03 1 - 1.5 8/9/2011	BB-SB03 3 - 3.5 8/9/2011	BB-SB03 4.5 - 5 8/9/2011	BB-SS01 0.5 - 0.5 10/24/2011	CON-SS04 0.5 - 0.5 10/24/2011	CON-SS06 0.5 - 0.5 10/24/2011	LS-SB01 0.5 - 0.5 10/21/2011	LS-SB01 1.5 - 1.5 10/21/2011	LS-SB02 0.5 - 0.5 10/21/2011	LS-SB03 0.5 - 0.5 10/21/2011	LS-SB03 1.5 - 1.5 10/21/2011	P6-3-1 20 - 20.5 1/7/2008	P6-3-2 20 - 20.5 1/7/2008			
Metals (mg/kg)																														
Antimony						133	5.38 J	70.3	8.45 J	63.4	1.69 J	2.03 J	57.5	77.7	3.69	0.367 J	<0.251	738 J	646	596	8.54 J	30.8	147	2.29	55.6					
Arsenic		<20	39			901	885 J	444	62.1	603	12.3	65.2	202	455	17.3	4.61	3.01	661 J	9730	2740	53.8 J	120	503	4990	5050	20.7	31.1			
Barium						185	58.6 J	121	80.3	592	76.3	115	128	350	121	169	124	247 J	245	204	174	262	804 J	85.8	694					
Cadmium		96	31			149	24.7 J	91.9	9.75 J	153	1.95	3.49	15.5	326	4.45	0.347 J	0.306 J	327 J	1320	429	52.1 J	37.7	34.8 J	406	1000					
Chromium		<30	44			17.5	4.94 J	8.87	3.62 J	16.9	3.46	1.89	2.86	18.5	5.83	6.14	5.76	5.42 J	138	72.9	5.71 J	33.1	50.3 J	6.23	11					
Cobalt						49.9 J	5.65 J	26.5 J	3.81 J	43 J	2.83 J	2.25 J	4.52 J	60.3	3.18	3.15	2.8	9.22 J	81.1	13.6 J	6.47 J	31.4	64.7 J	11.6	26.2					
Copper		830	1500			17400	743 J	8520	701	11400	104	414	1920	4550	252	9.39	9.15	42000 J	33100	16400	895 J	2160	6750	58	3990					
Iron		20000	21000			41900	7960 J	24400	4390	76100	3630	3810	5030	43600	8720	7980	7740	90000 J	106000	35800	6300 J	40000	65700 J	23100	90000					
Lead		770	1400			2560	792 J	1530	212 J	5180	52	79.6	404	3000	70.7	4.35	4.23	2590 J	16300	4500	550	494	2520	309	14800	<1	7.81			
Mercury						4.91	3.31 J	2.26	0.377 J	5	0.0541 J	0.0804 J	0.42	3.17	0.188	<0.0128	<0.0127	3.13 J	4.83	9.37	1.65 J	2.01	0.0597 J	<0.0136	2.58					
Molybdenum						132	2.09 J	66.1	6.13	72.7	1.14 J	0.934 J	3.28	121	2.35	0.349 J	0.493 J	54.9 J	789	267	8.73 J	163	801 J	1.33 J	50.5					
Nickel						69.4 J	8.2 J	52.5 J	6.87 J	36.3 J	4.48 J	4.09 J	9.82 J	34.7	5.8	6.64	4.99	67.6 J	152	53.5	7.75	24.2	71.3 J	20.6	36.3					
Selenium		<10	<10			44.8	59.2 J	28.5	3.88 J	29.4	0.452 J	0.83 J	3.55	20.8	1.02	0.578 J	0.529 J	14.1 J	252	151	5.62	4.48	13.1	7.35	23.7					
Silver						28.3 J	9.28 J	15.5 J	1.81 J	19.6 J	0.256 J	0.736 J	6.72 J	29	0.974	<0.119	<0.103	29 J	122	34.8	5.64	4.11	20.4 J	4.22	61					
Thallium							1.24											11.5 J			<3.8									
Zinc		1200	1100			9660	944 J	4550	390	32900	105	173	1000	3510	65.1	16.5	18	7270 J	15800	5420	377 J	4230	7500	9040	26300					
Arsenic	<20			<20	<20																							75	120	
Cadmium	<10			<10	<10																									
Chromium	250			140	92																									
Copper	23			340	240																									
Iron	25000			18000	18000																									
Lead	42			330	920																						83	130		
Selenium	<10			<10	<10																									
Zinc	54			260	210																									
TPH (mg/kg)																														
Total Petroleum Hydrocarbons																														
VOCs (mg/kg)																														
Benzene																														
Ethylbenzene						<0.000236	<0.00094	<0.00028	<0.000237	<0.00024 UJ	<0.000255	<0.000263	<0.00024	0.00035 J	<0.000205	<0.000212	<0.000241	0.000454 J												
Toluene																														
Total Xylenes						<0.000385	<0.0027	<0.000457	<0.000388	0.00165 J	<0.000418	0.000536 J	0.000649 J	0.000549 J	<0.000336	<0.000348	<0.000395	<0.0028												
1,1,1-Trichloroethane						<0.00075	<0.0018	<0.000889	<0.000754	<0.000763 UJ	<0.000813	<0.000835	<0.000763	<0.000718	<0.000653	<0.000676	<0.000767	<0.0019												
1,1,2-Trichloro-1,2,2-trifluoroethane						<0.000717	<0.0014	<0.000851	<0.000722	<0.00073 UJ	<0.000778	<0.0008	<0.00073	<0.000687	<0.000625	<0.000647	<0.000734	<0.0014												
1,1,2-Trichloroethane						<0.000535	<0.0021	<0.000635	<0.000539	<0.000545 UJ	<0.00058	<0.000597	<0.000545	<0.000513	<0.000467	<0.000483	<0.000548	<0.0022												
1,2-Dichlorobenzene						<0.000268	<0.00083	<0.000318	<0.000269	<0.000272 UJ	<0.00029	<0.000298	<0.000272	<0.000256	<0.000233	<0.000241	<0.000274	<0.00087												
4-Methyl-2-pentanone (MIBK)						<0.000996	<0.00164	<0.00118	<0.001	<0.00101 UJ	<0.00108	<0.00111	<0.00101	<0.000953	<0.000868	<0.000898	<0.00102	<0.0011												
Acetone						<0.000771	<0.0127	<0.00915	<0.00776	<0.00784 UJ	<0.00836	<0.00859	<0.00784	<0.00738	<0.00672	<0.00695	<0.00789	<0.00733												
Carbon tetrachloride						<0.000546	<0.0012	<0.000648	<0.00055	<0.000556 UJ	<0.000592	<0.000609	<0.000556	<0.000523	<0.000476	<0.000493	<0.000559	<0.0013												
Chlorobenzene						<0.000246	<0.00052	<0.000292	<0.000248	<0.000251 UJ	<0.000267	<0.000274	<0.000251	<0.000215	<0.000222	<0.000252	<0.00055													
Cyclohexane																														
Cyclohexanone						<0.00321	<0.052	<0.00381	<0.00323	<0.00327 UJ	<0.00348	<0.00358	<0.00327					<0.055												
Dichlorodifluoromethane						<0.000782	<0.0019	<0.000927	<0.000787	<0.000795 UJ	<0.000847	<0.000871	<0.000795	<0.000748	0.000815 J	0.000914 J	<0.0008	<0.002												
Ethyl acetate						<0.00128	<0.01	<0.00152	<0.00129	<0.00131 UJ	<0.00139	<0.00143	<0.00131	<0.00123	<0.00112	<0.00116	<0.00132	<0.011												
Ethyl ether						<0.000182	<0.0052	<0.000216	<0.000183	<0.000185 UJ	<0.000197	<0.000203	<0.000185	<0.000174	<0.000159	<0.000164	<0.000186	<0.0055												
m,p-Xylene							<0.0018											<0.0019												
Methanol						<1.06	<1.09	<1.07	<1.18	<1.08	<1.07	<1.08	<1.08	<1.1	<1.15	<1.19	<1.2	<1.18												
Methylene chloride						<0.00535	0.012	<0.00635	0.00587 J	<0.00545 UJ	0.00736 J	<0.00597	0.00908 J	0.0273	<0.00467	<0.00483	<0.00548	0.062 J												
n-Butyl alcohol						<0.391	<1	<0.392	<0.432	<0.395	<0.393	<0.397	<0.397	<0.404	<0.423</															

Table F-5
Soil Analytical Data - Ponds 5 and 6 Arroyo
Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	P6-3-3 20 - 20.5 1/7/2008	P6-3-4 20 - 20.5 1/7/2008	P6-3-5 20 - 20.5 1/9/2008	P6-3-6 20 - 20.5 1/9/2008	P6C-1 0 - 0.5 10/15/2007	P6C-2 0 - 0.5 10/15/2007	P6C-3 0 - 0.5 10/15/2007	P6C-4 0 - 0.5 10/15/2007	SL-15 0 - 0.5 5/10/2012	SS-5B-01 3 - 3.5 5/23/2006	SS-5B-02 3 - 3.5 5/23/2006	SS-5B-03 3 - 3.5 5/23/2006	SS-5B-04 3 - 3.5 5/23/2006	TSA-SB01 0 - 0.5 8/9/2011	TSA-SB01 1 - 1.5 8/9/2011	TSA-SB01 3 - 3.5 8/9/2011	TSA-SB01 4.5 - 5 8/9/2011	TSA-SB02 0 - 0.5 8/9/2011	TSA-SB02 1 - 1.5 8/9/2011	TSA-SB02 3 - 3.5 8/9/2011	TSA-SB02 4.5 - 5 8/9/2011
Metals (mg/kg)																					
Antimony									101												
Arsenic	95.7	43.5	99.4	110	78.3	93.9	79.1	76	700	87.6	100	98.4	85.6								
Barium									1760												
Cadmium									39.9												
Chromium									14.9 J												
Cobalt									13.6												
Copper									3450												
Iron									176000												
Lead	188	72.9	1.56	520	358	576	380	324	7220	1050	1330	1380	1190								
Mercury									3.71												
Molybdenum									126												
Nickel									7.14												
Selenium									10.3 J												
Silver									20.5												
Thallium																					
Zinc									21600												
Arsenic	130	120	230	320	140	141	130	170		130	140	130	140								
Cadmium																					
Chromium																					
Copper																					
Iron																					
Lead	219	158	120	507	131	364	284	410		774	930	952	931								
Selenium																					
Zinc																					
TPH (mg/kg)																					
Total Petroleum Hydrocarbons																					
VOCs (mg/kg)																					
Benzene																					
Ethylbenzene																					
Toluene																					
Total Xylenes																					
1,1,1-Trichloroethane																					
1,1,2-Trichloro-1,2,2-trifluoroethane																					
1,1,2-Trichloroethane																					
1,2-Dichlorobenzene																					
4-Methyl-2-pentanone (MIBK)																					
Acetone																					
Carbon tetrachloride																					
Chlorobenzene																					
Cyclohexane																					
Cyclohexanone																					
Dichlorodifluoromethane																					
Ethyl acetate																					
Ethyl ether																					
m,p-Xylene																					
Methanol																					
Methylene chloride																					
n-Butyl alcohol																					
o-Xylene																					
Tetrachloroethene																					
Trichloroethene																					
Trichlorofluoromethane																					
SVOCs (mg/kg)																					
Hexachlorocyclopentadiene																					
PCBs (mg/kg)																					
Aroclor 1016														<0.0052	<0.00535	<0.00529	<0.0051	<0.00536	<0.00537	<0.00534	<0.00515
Aroclor 1221														<0.0052	<0.00535	<0.00529	<0.0051	<0.00536	<0.00537	<0.00534	<0.00515
Aroclor 1232														<0.0052	<0.00535	<0.00529	<0.0051	<0.00536	<0.00537	<0.00534	<0.00515
Aroclor 1242														<0.0052	<0.00535	<0.00529	<0.0051	<0.00536	<0.00537	<0.00534	<0.00515
Aroclor 1248														<0.0052	<0.00535	<0.00529	<0.0051	<0.00536	<0.00537	<0.00534	<0.00515
Aroclor 1254														<0.0052	<0.00535	<0.00529	<0.0051	<0.00536	<0.00537	<0.00534	<0.00515
Aroclor 1260														0.0299 J	<0.00535	<0.00529	<0.0051	<0.00536	<0.00537	<0.00534	<0.00515
Aroclor 1262														<0.0052	<0.00535	<0.00529	<0.0051	<0.00536	<0.00537	<0.00534	<0.00515
Aroclor 1268														<0.0052	<0.00535	<0.00529	<0.0051	<0.00536	<0.00537	<0.00534	<0.00515
Polychlorinated biphenyls, Total																					
Pesticides (mg/kg)																					
Chlordane																					
Endrin																					
Chlordane																					
Endrin																					
Methyl parathion																					

Notes:
¹ Samples analysed using field x-ray diffraction methods
ft bgs = sample interval in feet below ground surface
mg/kg = milligram per kilogram
SU = Standard (pH) Units
SVOC = Semivolatile Organic Compound
VOC = Volatile Organic Compound

Laboratory Qualifiers:
J = Estimated value reported. In the majority of cases this represents a value less than the contract required quantitation limit, but greater than the method detection limit.
U = Compound was analyzed for but not detected. The value shown in the laboratory method detection limit.

Table F-6
Soil Analytical Data - Pond 1 Arroyo

Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	BH14-2 0 - 1 12/16/1999	BH14-2 1 - 1 12/16/1999	BH14-2 10 - 10 12/16/1999	BH14-2 15 - 15 12/16/1999	BH14-2 2 - 2 12/16/1999	BH14-2 20 - 20 12/16/1999	BH14-2 25 - 25 12/16/1999	BH14-2 3 - 3 12/16/1999	BH14-2 30 - 30 12/16/1999	BH14-2 35 - 35 12/16/1999	BH14-2 4 - 4 12/16/1999	BH14-2 40 - 40 12/16/1999	BH14-2 45 - 45 12/16/1999	BH14-2 50 - 50 12/16/1999	BH14-2 55 - 55 12/16/1999	BH14-2 60 - 60 12/16/1999	BH14-3 0 - 1 12/15/1999	BH14-3 1 - 1 12/15/1999	BH14-3 10 - 10 12/15/1999
Metals (mg/kg)																			
Antimony																			
Arsenic																			
Barium																			
Cadmium																			
Chromium																			
Cobalt																			
Copper																			
Iron																			
Lead																			
Mercury																			
Molybdenum																			
Nickel																			
Selenium																			
Silver																			
Zinc																			
Metals (mg/kg) ¹																			
Arsenic	210	170	<10	<10	210	11	17	62	10	17	210	16	26	<10	16	<10	<10	27	<10
Cadmium	130	87	12	<10	140	<10	<10	18	12	<10	18	<10	<10	12	<10	<10	16	<10	<10
Chromium	130	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80
Copper	55000	3300	26	25	4400	65	<20	1500	38	34	2400	32	32	38	<20	<20	1800	520	70
Iron	35000	21000	12000	16000	24000	15000	18000	20000	21000	25000	23000	25000	26000	21000	26000	21000	20000	22000	11000
Lead	1400	2800	26	<10	4400	<10	21	510	50	48	970	47	15	<10	10	<10	2600	420	74
Selenium	64	15	<10	<10	15	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Zinc	2300	1500	16	40	1500	29	28	190	49	43	230	60	56	34	46	50	210	68	11
TPH (mg/kg)																			
Total Petroleum Hydrocarbons																			
VOCs (mg/kg)																			
Benzene																			
Ethylbenzene																			
Toluene																			
Total Xylenes																			
1,1,1-Trichloroethane																			
1,1,2-Trichloro-1,2,2-trifluoroethane																			
1,1,2-Trichloroethane																			
1,2-Dichlorobenzene																			
4-Methyl-2-pentanone (MIBK)																			
Acetone																			
Carbon tetrachloride																			
Chlorobenzene																			
Cyclohexane																			
Cyclohexanone																			
Dichlorodifluoromethane																			
Ethyl acetate																			
Ethyl ether																			
Methanol																			
Methylene chloride																			
n-Butyl alcohol																			
Tetrachloroethene																			
Trichloroethene																			
Trichlorofluoromethane																			
SVOCs (mg/kg)																			
Hexachlorocyclopentadiene																			
Pesticides (mg/kg)																			
Chlordane																			
Endrin																			
Methyl parathion																			

Notes are included on Page 13.

Table F-6
Soil Analytical Data - Pond 1 Arroyo

Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	BH14-3 15 - 15 12/15/1999	BH14-3 2 - 2 12/15/1999	BH14-3 20 - 20 12/15/1999	BH14-3 25 - 25 12/15/1999	BH14-3 3 - 3 12/15/1999	BH14-3 30 - 30 12/15/1999	BH14-3 35 - 35 12/15/1999	BH14-3 4 - 4 12/15/1999	BH14-3 40 - 40 12/15/1999	BH14-3 45 - 45 12/15/1999	BH14-3 50 - 50 12/15/1999	BH14-3 55 - 55 12/15/1999	BH14-3 60 - 60 12/15/1999	BH14-3 65 - 65 12/15/1999	BH14-4 0 - 1 4/10/2001	BH14-4 1 - 2 4/10/2001	BH14-4 10 - 11 4/10/2001	BH14-4 2 - 3 4/10/2001	BH14-4 3 - 4 4/10/2001
Metals (mg/kg)																			
Antimony																			
Arsenic																			
Barium																			
Cadmium																			
Chromium																			
Cobalt																			
Copper																			
Iron																			
Lead																			
Mercury																			
Molybdenum																			
Nickel																			
Selenium																			
Silver																			
Zinc																			
Metals (mg/kg) ¹																			
Arsenic	43	<10	19	23	<10	20	<10	<10	11	<10	12	<10	<10	<10	670	27	11	28	19
Cadmium	<10	<10	11	<10	<10	<10	<10	<10	<10	<10	<10	12	13	<10	140	15	<10	11	<10
Chromium	90	82	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80
Copper	72	73	<20	61	36	55	73	<20	48	<20	41	34	45	<20	24000	270	<20	870	160
Iron	29000	18000	21000	24000	16000	23000	19000	14000	26000	20000	21000	20000	15000	13000	31000	8000	8000	8500	7300
Lead	530	250	33	62	190	31	65	65	54	<10	<10	<10	<10	<10	3800	440	36	180	70
Selenium	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	46	<20	<20	<20	<20
Zinc	74	11	36	59	<10	32	27	29	54	49	32	40	21	44	2200	190	<10	59	12
TPH (mg/kg)																			
Total Petroleum Hydrocarbons																			
VOCs (mg/kg)																			
Benzene																			
Ethylbenzene																			
Toluene																			
Total Xylenes																			
1,1,1-Trichloroethane																			
1,1,2-Trichloro-1,2,2-trifluoroethane																			
1,1,2-Trichloroethane																			
1,2-Dichlorobenzene																			
4-Methyl-2-pentanone (MIBK)																			
Acetone																			
Carbon tetrachloride																			
Chlorobenzene																			
Cyclohexane																			
Cyclohexanone																			
Dichlorodifluoromethane																			
Ethyl acetate																			
Ethyl ether																			
Methanol																			
Methylene chloride																			
n-Butyl alcohol																			
Tetrachloroethene																			
Trichloroethene																			
Trichlorofluoromethane																			
SVOCs (mg/kg)																			
Hexachlorocyclopentadiene																			
Pesticides (mg/kg)																			
Chlordane																			
Endrin																			
Methyl parathion																			

Notes are included on Page 13.

Table F-6
Soil Analytical Data - Pond 1 Arroyo

Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	BH14-4 4 - 5 4/10/2001	BH14-5 0 - 1 4/10/2001	BH14-5 1 - 2 4/10/2001	BH14-5 10 - 11 4/10/2001	BH14-5 3 - 4 4/10/2001	BH14-5 4 - 5 4/10/2001	BH14-6 0 - 1 4/16/2001	BH14-6 1 - 2 4/16/2001	BH14-6 10 - 11 4/16/2001	BH14-6 2 - 3 4/16/2001	BH14-6 3 - 4 4/16/2001	BH14-6 4 - 5 4/16/2001	BH18-1 0 - 1 3/6/2001 9:35:00	BH18-1 1 - 2 3/6/2001 9:47:00	BH18-1 2 - 3 3/6/2001 9:40:00	BH18-1 3 - 4 3/6/2001 9:45:00	BH18-1 4 - 5 3/6/2001 9:50:00	BH18-2 1 - 2 3/6/2001	BH18-2 2 - 3 3/6/2001	
Metals (mg/kg)																				
Antimony																				
Arsenic																		27		
Barium																				
Cadmium																		<10		
Chromium																		46		
Cobalt																				
Copper																		27		
Iron																		16040		
Lead																		17		
Mercury																				
Molybdenum																				
Nickel																				
Selenium																		<10		
Silver																				
Zinc																		87		
Metals (mg/kg) ¹																				
Arsenic	<10	170	100	<10	310	280	130	68	<10	76	21	33	240	44	64	22	48	93	78	
Cadmium	<10	110	35	<10	88	66	28	<10	<10	<10	<10	11	18	<10	<10	<10	<10	<10	<10	
Chromium	<80	<80	<80	<80	<80	<80	85	<80	<80	<80	<80	<80	300	<200	<200	<200	<200	<200	<200	
Copper	<20	3400	2000	<20	3000	2400	5600	560	<20	2500	120	680	1200	32	160	<20	53	100	<20	
Iron	6200	19000	15000	3400	18000	23000	15000	13000	6400	13000	13000	12000	44000	15000	14000	11000	14000	14000	19000	
Lead	14	3200	1300	21	3000	2800	950	330	15	350	46	140	610	51	90	33	56	80	51	
Selenium	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<40	<40	<40	<40	<40	<40	<40	
Zinc	<10	2100	550	<10	1300	1300	460	66	<10	150	15	48	2200	57	83	33	37	71	46	
TPH (mg/kg)																				
Total Petroleum Hydrocarbons																				
VOCs (mg/kg)																				
Benzene																				
Ethylbenzene																				
Toluene																				
Total Xylenes																				
1,1,1-Trichloroethane																				
1,1,2-Trichloro-1,2,2-trifluoroethane																				
1,1,2-Trichloroethane																				
1,2-Dichlorobenzene																				
4-Methyl-2-pentanone (MIBK)																				
Acetone																				
Carbon tetrachloride																				
Chlorobenzene																				
Cyclohexane																				
Cyclohexanone																				
Dichlorodifluoromethane																				
Ethyl acetate																				
Ethyl ether																				
Methanol																				
Methylene chloride																				
n-Butyl alcohol																				
Tetrachloroethene																				
Trichloroethene																				
Trichlorofluoromethane																				
SVOCs (mg/kg)																				
Hexachlorocyclopentadiene																				
Pesticides (mg/kg)																				
Chlordane																				
Endrin																				
Methyl parathion																				

Notes are included on Page 13.

Table F-6
Soil Analytical Data - Pond 1 Arroyo

Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	BH18-2 3 - 4 3/6/2001	BH18-2 4 - 5 3/6/2001	BH18-2 5 - 6 3/6/2001	BH8-4 0 - 1 11/2/1999	BH8-4 1 - 2 11/2/1999	BH8-4 10 - 12 11/2/1999	BH8-4 15 - 17 11/2/1999	BH8-4 2 - 3 11/2/1999	BH8-4 20 - 22 11/2/1999	BH8-4 25 - 27 11/2/1999	BH8-4 3 - 4 11/2/1999	BH8-4 30 - 32 11/2/1999	BH8-4 35 - 37 11/2/1999	BH8-4 4 - 5 11/2/1999	BH8-4 40 - 42 11/2/1999	BH8-4 45 - 47 11/2/1999	BH8-4 50 - 52 11/2/1999	BH8-4 55 - 57 11/2/1999	BH8-4 60 - 62 11/2/1999
Metals (mg/kg)																			
Antimony																			
Arsenic																			
Barium																			
Cadmium																			
Chromium																			
Cobalt																			
Copper																			
Iron																			
Lead																			
Mercury																			
Molybdenum																			
Nickel																			
Selenium																			
Silver																			
Zinc																			
Metals (mg/kg) ¹																			
Arsenic	55	25	36	6100	210	31	<10	130	11	15	<10	11	<10	<10	<10	<10	<10	<10	<10
Cadmium	10	<10	<10	2600	110	48	<10	170	<10	11	150	<10	<10	170	<10	<10	<10	<10	<10
Chromium	<200	<200	<200	1800	210	<80	<80	100	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80
Copper	50	27	48	49000	760	<20	<20	140	<20	49	26	<20	<20	<20	<20	<20	<20	<20	<20
Iron	17000	14000	14000	51000	14000	34000	23000	14000	25000	23000	18000	23000	25000	18000	13000	21000	12000	11000	11000
Lead	49	36	47	29000	550	10	<10	120	18	11	26	<10	<10	15	<10	23	<10	<10	<10
Selenium	<40	<40	<40	270	<10	<10	<10	<10	<10	<10	<10	<10	10	<10	<10	<10	<10	<10	<10
Zinc	43	45	30	23000	2300	40	34	1900	39	60	110	31	66	12	34	33	13	23	25
TPH (mg/kg)																			
Total Petroleum Hydrocarbons																			
VOCs (mg/kg)																			
Benzene																			
Ethylbenzene																			
Toluene																			
Total Xylenes																			
1,1,1-Trichloroethane																			
1,1,2-Trichloro-1,2,2-trifluoroethane																			
1,1,2-Trichloroethane																			
1,2-Dichlorobenzene																			
4-Methyl-2-pentanone (MIBK)																			
Acetone																			
Carbon tetrachloride																			
Chlorobenzene																			
Cyclohexane																			
Cyclohexanone																			
Dichlorodifluoromethane																			
Ethyl acetate																			
Ethyl ether																			
Methanol																			
Methylene chloride																			
n-Butyl alcohol																			
Tetrachloroethene																			
Trichloroethene																			
Trichlorofluoromethane																			
SVOCs (mg/kg)																			
Hexachlorocyclopentadiene																			
Pesticides (mg/kg)																			
Chlordane																			
Endrin																			
Methyl parathion																			

Notes are included on Page 13.

Table F-6
Soil Analytical Data - Pond 1 Arroyo

Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	BH8-4 65 - 67 11/2/1999	EM-2 10 - 10 5/11/1990	EM-2 15 - 15 5/11/1990	EM-2 20 - 20 5/11/1990	EM-2 25 - 25 5/11/1990	EM-2 30 - 30 5/11/1990	EM-2 35 - 35 5/11/1990	EM-2 42 - 42 5/12/1990	EM-2 46 - 46 5/12/1990	EM-2 5 - 5 5/11/1990	EM-2 50 - 50 5/12/1990	EM-2 55 - 55 5/13/1990	EM-2 60 - 60 5/13/1990	EP-104 0 - 1 10/5/1999	EP-104 1 - 2 10/5/1999	EP-104 10 - 12 10/6/1999	EP-104 15 - 17 10/6/1999	EP-104 2 - 3 10/5/1999	EP-104 20 - 22 10/6/1999
Metals (mg/kg)																			
Antimony																			
Arsenic		<0.5	0.7	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5						
Barium		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10						
Cadmium		<0.1	0.6	2.8	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1						
Chromium		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5						
Cobalt																			
Copper																			
Iron																			
Lead		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5						
Mercury		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02						
Molybdenum																			
Nickel																			
Selenium		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1						
Silver		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5						
Zinc																			
Metals (mg/kg) ¹																			
Arsenic	<10													110	10	<10	<10	46	16
Cadmium	<10													36	<10	<10	<10	63	<10
Chromium	<80													<80	<80	<80	<80	<80	<80
Copper	21													6700	380	24	25	4700	20
Iron	13000													25000	16000	11000	20000	24000	23000
Lead	<10													2800	190	60	55	1900	50
Selenium	<10													<10	<10	<10	<10	<10	<10
Zinc	32													1700	140	<10	48	1700	44
TPH (mg/kg)																			
Total Petroleum Hydrocarbons																			
VOCs (mg/kg)																			
Benzene																			
Ethylbenzene																			
Toluene																			
Total Xylenes																			
1,1,1-Trichloroethane																			
1,1,2-Trichloro-1,2,2-trifluoroethane																			
1,1,2-Trichloroethane																			
1,2-Dichlorobenzene																			
4-Methyl-2-pentanone (MIBK)																			
Acetone																			
Carbon tetrachloride																			
Chlorobenzene																			
Cyclohexane																			
Cyclohexanone																			
Dichlorodifluoromethane																			
Ethyl acetate																			
Ethyl ether																			
Methanol																			
Methylene chloride																			
n-Butyl alcohol																			
Tetrachloroethene																			
Trichloroethene																			
Trichlorofluoromethane																			
SVOCs (mg/kg)																			
Hexachlorocyclopentadiene																			
Pesticides (mg/kg)																			
Chlordane																			
Endrin																			
Methyl parathion																			

Notes are included on Page 13.

Table F-6
Soil Analytical Data - Pond 1 Arroyo

Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	EP-104 25 - 27 10/6/1999	EP-104 3 - 4 10/6/1999	EP-104 30 - 32 10/6/1999	EP-104 35 - 37 10/6/1999	EP-104 4 - 5 10/6/1999	EP-104 40 - 42 10/6/1999	EP-104 45 - 47 10/6/1999	EP-104 50 - 52 10/6/1999	EP-104 55 - 57 10/6/1999	EP-104 60 - 62 10/6/1999	EP-104 65 - 67 10/6/1999	EP-105 0 - 1 10/7/1999	EP-105 1 - 2 10/7/1999	EP-105 10 - 12 10/7/1999	EP-105 15 - 17 10/7/1999	EP-105 2 - 3 10/7/1999	EP-105 20 - 22 10/7/1999	EP-105 25 - 27 10/7/1999	EP-105 3 - 4 10/7/1999
Metals (mg/kg)																			
Antimony																			
Arsenic																			
Barium																			
Cadmium																			
Chromium																			
Cobalt																			
Copper																			
Iron																			
Lead																			
Mercury																			
Molybdenum																			
Nickel																			
Selenium																			
Silver																			
Zinc																			
Metals (mg/kg) ¹																			
Arsenic	<10	16	20	<10	<10	20	<10	16	<10	<10	<10	42	1600	170	<10	2400	11	14	1100
Cadmium	<10	12	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	600	17	<10	120	<10	<10	39
Chromium	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	120	<80	<80	<80	<80
Copper	<20	990	23	36	200	49	53	69	33	<20	<20	130	16000	2200	<20	17000	86	31	19000
Iron	25000	21000	29000	25000	15000	33000	24000	27000	22000	18000	19000	17000	47000	53000	8900	60000	23000	27000	50000
Lead	47	580	27	41	220	24	42	44	46	37	39	76	13000	480	130	10000	55	48	1900
Selenium	<10	<10	<10	<10	<10	10	<10	10	<10	<10	<10	<10	120	<10	<10	72	<10	<10	13
Zinc	31	620	45	32	170	36	35	50	25	32	25	70	7400	320	35	6400	40	53	5700
TPH (mg/kg)																			
Total Petroleum Hydrocarbons																			
VOCs (mg/kg)																			
Benzene																			
Ethylbenzene																			
Toluene																			
Total Xylenes																			
1,1,1-Trichloroethane																			
1,1,2-Trichloro-1,2,2-trifluoroethane																			
1,1,2-Trichloroethane																			
1,2-Dichlorobenzene																			
4-Methyl-2-pentanone (MIBK)																			
Acetone																			
Carbon tetrachloride																			
Chlorobenzene																			
Cyclohexane																			
Cyclohexanone																			
Dichlorodifluoromethane																			
Ethyl acetate																			
Ethyl ether																			
Methanol																			
Methylene chloride																			
n-Butyl alcohol																			
Tetrachloroethene																			
Trichloroethene																			
Trichlorofluoromethane																			
SVOCs (mg/kg)																			
Hexachlorocyclopentadiene																			
Pesticides (mg/kg)																			
Chlordane																			
Endrin																			
Methyl parathion																			

Notes are included on Page 13.

**Table F-6
Soil Analytical Data - Pond 1 Arroyo**

**Supplemental Remedial Investigation Report
Former ASARCO Smelter Site**

Sample Location: Sample Depth (ft bgs): Sample Date:	EP-105 30 - 32 10/7/1999	EP-105 35 - 37 10/7/1999	EP-105 4 - 5 10/7/1999	EP-105 40 - 42 10/7/1999	EP-105 45 - 47 10/7/1999	EP-105 50 - 52 10/8/1999	EP-105 55 - 57 10/8/1999	EP-105 60 - 62 10/8/1999	EP-105 75 - 77 10/8/1999	EP-106 0 - 1 10/16/1999	EP-106 1 - 2 10/16/1999	EP-106 10 - 12 10/16/1999	EP-106 15 - 17 10/16/1999	EP-106 2 - 3 10/16/1999	EP-106 20 - 22 10/16/1999	EP-106 25 - 27 10/16/1999	EP-106 3 - 4 10/16/1999	EP-106 30 - 32 10/16/1999	EP-106 35 - 37 10/16/1999	
Metals (mg/kg)																				
Antimony																				
Arsenic																				
Barium																				
Cadmium																				
Chromium																				
Cobalt																				
Copper																				
Iron																				
Lead																				
Mercury																				
Molybdenum																				
Nickel																				
Selenium																				
Silver																				
Zinc																				
Metals (mg/kg) ¹																				
Arsenic	<10	13	410	17	<10	21	<10	<10	<10	270	75	23	21	54	<10	<10	92	24	17	
Cadmium	<10	<10	59	<10	<10	<10	<10	<10	<10	82	26	<10	<10	<10	<10	<10	28	<10	<10	
Chromium	<80	80	<80	<80	<80	<80	92	<80	<80	85	<80	<80	<80	<80	<80	<80	<80	<80	<80	
Copper	33	<20	20000	68	47	29	34	<20	<20	3700	930	27	23	450	39	28	520	36	46	
Iron	26000	24000	84000	23000	23000	30000	20000	16000	16000	24000	26000	23000	29000	23000	25000	22000	22000	33000	25000	
Lead	47	51	680	39	42	40	47	40	46	2800	720	57	34	470	43	48	590	27	38	
Selenium	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Zinc	37	60	3000	31	33	47	33	36	14	1800	370	31	40	250	59	31	370	53	46	
TPH (mg/kg)																				
Total Petroleum Hydrocarbons																				
VOCs (mg/kg)																				
Benzene																				
Ethylbenzene																				
Toluene																				
Total Xylenes																				
1,1,1-Trichloroethane																				
1,1,2-Trichloro-1,2,2-trifluoroethane																				
1,1,2-Trichloroethane																				
1,2-Dichlorobenzene																				
4-Methyl-2-pentanone (MIBK)																				
Acetone																				
Carbon tetrachloride																				
Chlorobenzene																				
Cyclohexane																				
Cyclohexanone																				
Dichlorodifluoromethane																				
Ethyl acetate																				
Ethyl ether																				
Methanol																				
Methylene chloride																				
n-Butyl alcohol																				
Tetrachloroethene																				
Trichloroethene																				
Trichlorofluoromethane																				
SVOCs (mg/kg)																				
Hexachlorocyclopentadiene																				
Pesticides (mg/kg)																				
Chlordane																				
Endrin																				
Methyl parathion																				

Notes are included on Page 13.

Table F-6
Soil Analytical Data - Pond 1 Arroyo

Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	EP-106 4 - 5 10/16/1999	EP-106 40 - 42 10/16/1999	EP-106 45 - 47 10/16/1999	EP-106 50 - 52 10/16/1999	EP-106 55 - 57 10/16/1999	EP-68 0 - 0.5 5/29/1997	EP-68 10 - 10 5/29/1997	EP-68 15 - 15 5/29/1997	EP-68 20 - 20 5/29/1997	EP-68 25 - 25 5/29/1997	EP-68 30 - 30 5/29/1997	EP-68 40 - 40 5/29/1997	EP-68 45 - 45 5/29/1997	EP-68 5 - 5 5/29/1997	EP-68 65 - 65 5/29/1997	EP-69 0 - 0.5 5/30/1997	EP-69 15 - 15 5/30/1997	EP-69 20 - 20 5/30/1997	EP-69 25 - 25 5/30/1997
Metals (mg/kg)																			
Antimony																			
Arsenic						<20	<20	<20	<20	<20	21	<20	<20	<20	<20	650	40	<20	<20
Barium																			
Cadmium						<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	150	<10	<10	<10
Chromium						<30	130	65	37	61	<30	85	32	<30	<30	86	<30	68	<30
Cobalt																			
Copper						580	<20	<20	<20	32	22	<20	<20	49	54	9900	34	<20	<20
Iron						17000	16000	21000	13000	25000	24000	17000	30000	17000	14000	37000	20000	20000	28000
Lead						140	18	33	14	24	11	<10	<10	29	34	6100	53	11	20
Mercury																			
Molybdenum																			
Nickel																			
Selenium						<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	16	<10	<10	<10
Silver																			
Zinc						82	22	53	37	47	36	40	49	35	42	3800	360	32	57
Metals (mg/kg) ¹																			
Arsenic	380	22	25	<10	<10														
Cadmium	130	<10	<10	<10	11														
Chromium	<80	<80	<80	<80	<80														
Copper	320	<20	<20	20	<20														
Iron	22000	29000	30000	21000	17000														
Lead	490	27	25	32	25														
Selenium	<10	<10	<10	<10	<10														
Zinc	920	29	27	26	10														
TPH (mg/kg)																			
Total Petroleum Hydrocarbons																			
VOCs (mg/kg)																			
Benzene																			
Ethylbenzene																			
Toluene																			
Total Xylenes																			
1,1,1-Trichloroethane																			
1,1,2-Trichloro-1,2,2-trifluoroethane																			
1,1,2-Trichloroethane																			
1,2-Dichlorobenzene																			
4-Methyl-2-pentanone (MIBK)																			
Acetone																			
Carbon tetrachloride																			
Chlorobenzene																			
Cyclohexane																			
Cyclohexanone																			
Dichlorodifluoromethane																			
Ethyl acetate																			
Ethyl ether																			
Methanol																			
Methylene chloride																			
n-Butyl alcohol																			
Tetrachloroethene																			
Trichloroethene																			
Trichlorofluoromethane																			
SVOCs (mg/kg)																			
Hexachlorocyclopentadiene																			
Pesticides (mg/kg)																			
Chlordane																			
Endrin																			
Methyl parathion																			

Notes are included on Page 13.

Table F-6
Soil Analytical Data - Pond 1 Arroyo

Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	EP-69 30 - 30 5/30/1997	EP-69 5 - 5 5/30/1997	SS-01 5.5 - 6 5/9/2006	SS-02 5.5 - 6 5/9/2006	SS-03 5.5 - 6 5/9/2006	SS-04 5.5 - 6 5/9/2006	SS-05 5.5 - 6 5/9/2006	SS-06 5.5 - 6 5/9/2006	SSIA8-1 0 - 1 7/16/1997	SSIA8-1 1.5 - 1.5 7/16/1997	SSIA8-1 3 - 3 7/16/1997	SSIA8-10 0 - 1 7/17/1997	SSIA8-10 1.5 - 1.5 7/17/1997	SSIA8-10 3 - 3 7/17/1997	SSIA8-10 4 - 4 7/17/1997	SSIA8-11 0 - 1 7/17/1997	SSIA8-11 1.5 - 1.5 7/17/1997	SSIA8-11 3 - 3 7/17/1997	SSIA8-11 4 - 4 7/17/1997
Metals (mg/kg)																			
Antimony																			
Arsenic	<20	28	57.3	81	7.77	49.2	88.4	70	240	2100									
Barium																			
Cadmium	<10	<10							33	400									
Chromium	43	<30							58	120									
Cobalt																			
Copper	<20	96							140	4300									
Iron	27000	17000							17000	86000									
Lead	26	120	70.4	114	16.7	51.7	160	175	44	1500									
Mercury																			
Molybdenum																			
Nickel																			
Selenium	<10	<10							<10	26									
Silver																			
Zinc	48	100							470	8100									
Metals (mg/kg) ¹																			
Arsenic			93	163	<87	<115	<98	<94			800	<20	53	<20	<20	910	62	<20	<20
Cadmium											99	13	66	25	28	430	86	<10	<10
Chromium											200	<30	90	79	<30	33	31	150	76
Copper											3000	160	750	520	220	20000	2700	62	400
Iron											140000	10000	18000	16000	14000	24000	11000	7000	7000
Lead			96	131	98	<100	99	165			10000	68	1400	810	660	3200	3700	36	230
Selenium											40	<10	<10	<10	<10	31	10	<10	<10
Zinc											17000	130	890	620	380	6300	1100	25	98
TPH (mg/kg)																			
Total Petroleum Hydrocarbons																			
VOCs (mg/kg)																			
Benzene																			
Ethylbenzene																			
Toluene																			
Total Xylenes																			
1,1,1-Trichloroethane																			
1,1,2-Trichloro-1,2,2-trifluoroethane																			
1,1,2-Trichloroethane																			
1,2-Dichlorobenzene																			
4-Methyl-2-pentanone (MIBK)																			
Acetone																			
Carbon tetrachloride																			
Chlorobenzene																			
Cyclohexane																			
Cyclohexanone																			
Dichlorodifluoromethane																			
Ethyl acetate																			
Ethyl ether																			
Methanol																			
Methylene chloride																			
n-Butyl alcohol																			
Tetrachloroethene																			
Trichloroethene																			
Trichlorofluoromethane																			
SVOCs (mg/kg)																			
Hexachlorocyclopentadiene																			
Pesticides (mg/kg)																			
Chlordane																			
Endrin																			
Methyl parathion																			

Notes are included on Page 13.

Table F-6
Soil Analytical Data - Pond 1 Arroyo

Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	SSIA8-12 0 - 1 7/17/1997	SSIA8-12 1.5 - 1.5 7/17/1997	SSIA8-12 3 - 3 7/17/1997	SSIA8-12 4 - 4 7/17/1997	SSIA8-13 0 - 1 7/17/1997	SSIA8-13 1.5 - 1.5 7/17/1997	SSIA8-13 3 - 3 7/17/1997	SSIA8-13 4 - 4 7/17/1997	SSIA8-14 0 - 1 7/17/1997	SSIA8-14 1.5 - 1.5 7/17/1997	SSIA8-14 3 - 3 7/17/1997	SSIA8-15 0 - 1 7/18/1997	SSIA8-15 1.5 - 1.5 7/18/1997	SSIA8-15 3 - 3 7/18/1997	SSIA8-15 4 - 4 7/18/1997	SSIA8-16 0 - 1 7/18/1997	SSIA8-16 1.5 - 1.5 7/18/1997	SSIA8-16 3 - 3 7/18/1997	SSIA8-16 4 - 4 7/18/1997	
Metals (mg/kg)																				
Antimony																				
Arsenic									<20	110		<20	<20			930	370			
Barium																				
Cadmium									<10	25		11	14			240	190			
Chromium									55	350		45	31			120	92			
Cobalt																				
Copper									280	4900		1600	1900			22000	9500			
Iron									13000	150000		13000	16000			31000	26000			
Lead									83	1200		160	900			4000	10000			
Mercury																				
Molybdenum																				
Nickel																				
Selenium									<10	23		<10	<10			31	27			
Silver																				
Zinc									93	13000		370	480			5000	4000			
Metals (mg/kg) ¹																				
Arsenic	150	480	32	<20	33	<20	<20	<20			120				<20	83			1100	1200
Cadmium	78	78	23	<10	<10	49	<10	45			20				<10	92			120	520
Chromium	36	66	230	200	<30	72	170	120			370				92	160			50	<30
Copper	5100	8300	1500	31	980	8300	480	130			5800				210	14000			4400	3100
Iron	17000	32000	16000	19000	13000	26000	18000	19000			180000				13000	19000			40000	52000
Lead	3600	4900	1100	38	230	3100	190	98			2900				100	8900			3500	5000
Selenium	<10	<10	<10	<10	<10	<10	<10	<10			14				<10	72			17	50
Zinc	2300	2400	760	12	250	2000	230	180			25000				200	2200			3600	3900
TPH (mg/kg)																				
Total Petroleum Hydrocarbons																				
VOCs (mg/kg)																				
Benzene																				
Ethylbenzene																				
Toluene																				
Total Xylenes																				
1,1,1-Trichloroethane																				
1,1,2-Trichloro-1,2,2-trifluoroethane																				
1,1,2-Trichloroethane																				
1,2-Dichlorobenzene																				
4-Methyl-2-pentanone (MIBK)																				
Acetone																				
Carbon tetrachloride																				
Chlorobenzene																				
Cyclohexane																				
Cyclohexanone																				
Dichlorodifluoromethane																				
Ethyl acetate																				
Ethyl ether																				
Methanol																				
Methylene chloride																				
n-Butyl alcohol																				
Tetrachloroethene																				
Trichloroethene																				
Trichlorofluoromethane																				
SVOCs (mg/kg)																				
Hexachlorocyclopentadiene																				
Pesticides (mg/kg)																				
Chlordane																				
Endrin																				
Methyl parathion																				

Notes are included on Page 13.

Table F-6
Soil Analytical Data - Pond 1 Arroyo

Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	SSIA8-17 0 - 1 7/18/1997	SSIA8-17 1.5 - 1.5 7/18/1997	SSIA8-17 3 - 3 7/18/1997	SSIA8-17 4 - 4 7/18/1997	SSIA8-18 0 - 1 7/18/1997	SSIA8-18 1.5 - 1.5 7/18/1997	SSIA8-19 0 - 1 7/18/1997	SSIA8-19 1.5 - 1.5 7/18/1997	SSIA8-19 3 - 3 7/18/1997	SSIA8-19 4 - 4 7/18/1997	SSIA8-2 0 - 1 7/16/1997	SSIA8-2 1.5 - 1.5 7/16/1997	SSIA8-2 3 - 3 7/16/1997	SSIA8-2 4 - 4 7/16/1997	SSIA8-20 0 - 1 7/18/1997	SSIA8-20 1.5 - 1.5 7/18/1997	SSIA8-21 0 - 1 7/18/1997	SSIA8-21 1.5 - 1.5 7/18/1997	SSIA8-21 3 - 3 7/18/1997	
Metals (mg/kg)																				
Antimony																				
Arsenic	98	<20			260	<20	44	<20			<20	<20			<20	330	460	780		
Barium																				
Cadmium	29	<10			100	99	<10	<10			35	11			<10	89	300	110		
Chromium	30	59			<30	77	76	48			58	<30			64	230	59	100		
Cobalt																				
Copper	3700	710			890	3700	1200	560			440	530			200	10000	12000	19000		
Iron	15000	18000			13000	21000	15000	18000			17000	18000			12000	120000	20000	27000		
Lead	470	380			300	3600	350	560			240	500			95	3900	1400	2900		
Mercury																				
Molybdenum																				
Nickel																				
Selenium	<10	<10			<10	<10	<10	<10			<10	<10			<10	38	21	15		
Silver																				
Zinc	680	440			790	2600	280	470			510	340			130	15000	5900	3200		
Metals (mg/kg) ¹																				
Arsenic			27	<20					<20	<20				880	770				23	
Cadmium			<10	11					<10	220				38	37				<10	
Chromium			150	74					160	41				290	72				<30	
Copper			2100	260					430	11000				1600	1500				500	
Iron			20000	13000					18000	31000				160000	170000				9000	
Lead			520	240					290	14000				8900	10000				150	
Selenium			<10	<10					<10	14				<10	<10				<10	
Zinc			730	170					410	7200				24000	28000				170	
TPH (mg/kg)																				
Total Petroleum Hydrocarbons																				
VOCs (mg/kg)																				
Benzene																				
Ethylbenzene																				
Toluene																				
Total Xylenes																				
1,1,1-Trichloroethane																				
1,1,2-Trichloro-1,2,2-trifluoroethane																				
1,1,2-Trichloroethane																				
1,2-Dichlorobenzene																				
4-Methyl-2-pentanone (MIBK)																				
Acetone																				
Carbon tetrachloride																				
Chlorobenzene																				
Cyclohexane																				
Cyclohexanone																				
Dichlorodifluoromethane																				
Ethyl acetate																				
Ethyl ether																				
Methanol																				
Methylene chloride																				
n-Butyl alcohol																				
Tetrachloroethene																				
Trichloroethene																				
Trichlorofluoromethane																				
SVOCs (mg/kg)																				
Hexachlorocyclopentadiene																				
Pesticides (mg/kg)																				
Chlordane																				
Endrin																				
Methyl parathion																				

Notes are included on Page 13.

Table F-6
Soil Analytical Data - Pond 1 Arroyo
Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	SSIA8-21 4 - 4 7/18/1997	SSIA8-22 0 - 1 7/18/1997	SSIA8-22 1.5 - 1.5 7/18/1997	SSIA8-22 3 - 3 7/18/1997	SSIA8-22 4 - 4 7/18/1997	SSIA8-23 0 - 1 7/18/1997	SSIA8-23 1.5 - 1.5 7/18/1997	SSIA8-23 3 - 3 7/18/1997	SSIA8-23 4 - 4 7/18/1997	SSIA8-9 0 - 1 7/16/1997	SSIA8-9 1.5 - 1.5 7/16/1997	SSIA8-9 3 - 3 7/16/1997	SSIA8-9 4 - 4 7/16/1997	BB-SB01 0 - 0.5 8/8/2011	BB-SB01 1 - 1.5 8/8/2011	BB-SB01 3 - 3.5 8/8/2011	BB-SB01 4.5 - 5 8/8/2011	BB-SB02 0 - 0.5 8/8/2011	BB-SB02 1 - 1.5 8/8/2011
Metals (mg/kg)																			
Antimony														42	<0.295	<0.314	<0.294	3.7	2.51 J
Arsenic		6600	2600			140	<20			1000	530			499	4.18	3.24	5.96	36	21.1
Barium														197	145	129	177	61.9	561
Cadmium		1400	600			29	21			310	270			117	0.435 J	0.342 J	0.445 J	5.9	1.84
Chromium		110	45			97	65			120	<30			8.11	5.29	5.34	6.39	3.32	2.83
Cobalt														15.4	3.52	3.48	4.3	1.96	5.28
Copper		23000	2900			820	570			22000	7300			10500	16.5 J	10.1 J	11.9	165	376
Iron		56000	24000			12000	15000			54000	30000			17100	8490	8160	9710	4990	8590
Lead		8100	1500			590	490			8900	11000			6680 J	9.72 J	6.02 J	7.79	223	207
Mercury														1.95	0.0319 J	<0.00954	<0.0141	0.0432 J	1.46
Molybdenum														70.5	0.317 J	0.242 J	0.411 J	2.97	1.05 J
Nickel														28.2	7.11	7.21	8.69	3.6	7.13
Selenium		53	24			<10	<10			35	37			13.7	<0.219	<0.233	0.326 J	1.8	0.6 J
Silver														61.7	<0.122	<0.129	<0.121	2.04	8.67
Zinc		7600	2300			1500	420			8000	5100			3610	22.8	20.4	25	116	131
Metals (mg/kg) ¹																			
Arsenic	<20			1800	160			29	<20				180	<20					
Cadmium	14			260	42			<10	<10				76	19					
Chromium	45			89	<30			30	78				75	<30					
Copper	310			610	<20			410	68				3800	840					
Iron	11000			22000	14000			14000	16000				29000	21000					
Lead	480			350	13			370	50				4600	1300					
Selenium	<10			15	<10			<10	<10				12	<10					
Zinc	220			1600	160			370	64				1600	470					
TPH (mg/kg)																			
Total Petroleum Hydrocarbons																			
VOCs (mg/kg)																			
Benzene																			
Ethylbenzene														<0.00022	<0.000211	<0.000203	<0.000138	<0.000208	<0.000375 UJ
Toluene																			
Total Xylenes														<0.00036	0.000457 J	0.000372 J	0.000262 J	0.000394 J	<0.000613 UJ
1,1,1-Trichloroethane														<0.0007	<0.000671	<0.000644	<0.000439	<0.000663	<0.00119 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane														<0.00067	<0.000643	<0.000617	<0.00042	<0.000634	<0.00114 UJ
1,1,2-Trichloroethane														<0.0005	<0.00048	<0.00046	<0.000314	<0.000473	<0.000852 UJ
1,2-Dichlorobenzene														<0.00025	<0.00024	<0.00023	<0.000157	<0.000237	<0.000426 UJ
4-Methyl-2-pentanone (MIBK)														<0.00093	<0.000892	<0.000856	<0.000583	<0.00088	<0.00158 UJ
Acetone														<0.0072	<0.00691	<0.00663	<0.00451	<0.00681	<0.0123 UJ
Carbon tetrachloride														<0.00051	<0.000489	<0.00047	<0.00032	<0.000483	<0.000869 UJ
Chlorobenzene														<0.00023	<0.000221	<0.000212	<0.000144	<0.000218	<0.000392 UJ
Cyclohexane														<0.00099	<0.00095	<0.000911	<0.000621	<0.000937	<0.00169 UJ
Cyclohexanone																			
Dichlorodifluoromethane														<0.00073	<0.0007	<0.000672	<0.000458	<0.000691	<0.00124 UJ
Ethyl acetate														<0.0012	<0.00115	<0.0011	<0.000752	<0.00114	<0.00204 UJ
Ethyl ether														<0.00017	<0.000163	<0.000157	<0.000107	<0.000161	<0.00029 UJ
Methanol														<1.11	<1.15	<1.14	<1.25	<1.11	<1.26
Methylene chloride														<0.005	<0.0048	<0.0046	<0.00314	<0.00473	<0.00852 UJ
n-Butyl alcohol														<0.409	<0.421	<0.42	<0.457	<0.406	<0.462
Tetrachloroethene														<0.00074	<0.00071	<0.000681	<0.000464	<0.0007	<0.00126 UJ
Trichloroethene														<0.00028	<0.000269	<0.000258	<0.000176	<0.000265	<0.000477 UJ
Trichlorofluoromethane														<0.0005	<0.00048	<0.00046	<0.000314	<0.000473	<0.000852 UJ
SVOCs (mg/kg)																			
Hexachlorocyclopentadiene														<0.108	<0.111	<0.112	<0.122	<0.106	<0.121
Pesticides (mg/kg)																			
Chlordane														<0.00399 UJ	<0.00206 UJ	<0.00207 UJ	<0.00226 UJ	<0.0101 UJ	<0.00226 UJ
Endrin														<0.000177 UJ	<0.0000912 UJ	<0.0000919 UJ	<0.0001 UJ	<0.00045 UJ	<0.0001 UJ
Methyl parathion														<0.0091	<0.00937	<0.00938	<0.0101	<0.00898	<0.0102

Notes are included on Page 13.

Table F-6
Soil Analytical Data - Pond 1 Arroyo
Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	BB-SB02 3 - 3.5 8/8/2011	BB-SB02 4.5 - 5 8/8/2011	UB-SB03 0 - 0.5 8/8/2011	UB-SB03 1 - 1.5 8/8/2011	UB-SB03 3 - 3.5 8/8/2011	UB-SB03 4.5 - 5 8/8/2011	UB-SB04 0 - 0.5 8/9/2011	UB-SB04 1 - 1.5 8/9/2011	UB-SS01 0.5 - 0.5 10/24/2011	UB-SS02 0.5 - 0.5 10/24/2011							
Metals (mg/kg)																	
Antimony	5.81	3.78	50.3	0.292 J	<0.282	<0.301	6.34	27.9	79.9 J	11.8 J							
Arsenic	184	58.1	969	3.88	2.66	3.16	11.3	71.7	447	70.6							
Barium	538	432	165 J	36.9 J	39.9 J	54.8	47.7	61.7	195	91.1							
Cadmium	15	7.69	470	0.927	0.242 J	0.222 J	6.05	38.4	93.5	16.1							
Chromium	3.4	5.6	10.4	2.18	3.16	2.69	5.31	5.69	24.7	10.5 J							
Cobalt	9.26	6.55	32.6	1.79	2.07	2.25	2.42	3.68	46.4 J	3.45 J							
Copper	2460	1940	25100	38.3 J	7.37 J	5.49 J	77.1	590	19200	644							
Iron	27000	12100	29400 J	4030 J	4500 J	4880	5890	7110	49400	7870							
Lead	656	1080	10400 J	25 J	10.8 J	15.8 J	146	988	4730 J	162							
Mercury	1.07	1.23	5.35	<0.0115	0.0133 J	0.0296 J	0.174	0.409	1.51 J	0.384							
Molybdenum	4.87	3.06	65.9	0.301 J	0.182 J	0.171 J	1.46 J	5.87	163	7.99 J							
Nickel	9.05	11.1	51.6	2.71	3.37	3.75	5.25	15	26.6 J	8.17 J							
Selenium	1.06 J	1.38	20.6	<0.177	<0.209	<0.223	1.35	3.43	17 J	<3.48							
Silver	24.6	44.5	103	0.128 J	<0.116	<0.124	1.18	7.16	61 J	2.37 J							
Zinc	341	283	6920	18.3	12.1	12.6	158	538	3440	123							
Metals (mg/kg) ¹																	
Arsenic																	
Cadmium																	
Chromium																	
Copper																	
Iron																	
Lead																	
Selenium																	
Zinc																	
TPH (mg/kg)																	
Total Petroleum Hydrocarbons																	
VOCs (mg/kg)																	
Benzene																	
Ethylbenzene	<0.000263 UJ	0.000995 J	<0.000269 UJ	<0.0002	<0.00022	<0.000226	<0.000194	<0.000176	0.000746 J	0.000426 J							
Toluene																	
Total Xylenes	<0.000431 UJ	0.00328 J	<0.000441 UJ	<0.000327	<0.00036	0.0006 J	<0.000317	<0.000288	0.00117 J	<0.000398							
1,1,1-Trichloroethane	<0.000838 UJ	<0.00117 UJ	<0.000857 UJ	<0.000636	<0.0007	<0.000721	<0.000617	<0.000559	<0.000682	<0.000774							
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.000802 UJ	<0.00112 UJ	<0.00082 UJ	<0.000608	<0.00067	<0.00069	<0.00059	<0.000535	<0.000653	<0.000741							
1,1,2-Trichloroethane	<0.000599 UJ	<0.000837 UJ	<0.000612 UJ	<0.000454	<0.0005	<0.000515	<0.00044	<0.0004	<0.000487	<0.000553							
1,2-Dichlorobenzene	<0.000299 UJ	<0.000418 UJ	<0.000306 UJ	<0.000227	<0.00025	<0.000257	<0.00022	<0.0002	<0.000244	<0.000276							
4-Methyl-2-pentanone (MIBK)	<0.00111 UJ	<0.00156 UJ	<0.00114 UJ	<0.000844	<0.000929	<0.000957	<0.000819	<0.000743	<0.000906	<0.00103							
Acetone	0.0181 J	<0.012 UJ	<0.00881 UJ	<0.00654	<0.0072	<0.00741	<0.00634	<0.00575	<0.00702	<0.00796							
Carbon tetrachloride	<0.000611 UJ	<0.000853 UJ	<0.000624 UJ	<0.000463	<0.00051	<0.000525	<0.000449	<0.000408	<0.000497	<0.000564							
Chlorobenzene	<0.000275 UJ	<0.000385 UJ	<0.000282 UJ	<0.000209	<0.00023	<0.000237	<0.000203	<0.000184	<0.000224	<0.000254							
Cyclohexane	<0.00119 UJ	<0.00166 UJ	<0.00121 UJ	<0.000899	<0.000989	<0.00102	<0.000872	<0.000791									
Cyclohexanone									<0.00292	<0.00332							
Dichlorodifluoromethane	<0.000874 UJ	<0.00122 UJ	<0.000894 UJ	<0.000663	<0.00073	<0.000751	<0.000643	<0.000583	<0.000711	<0.000807							
Ethyl acetate	<0.00144 UJ	<0.00201 UJ	<0.00147 UJ	<0.00109	<0.0012	<0.00124	<0.00106	<0.000959	<0.00117	<0.00133							
Ethyl ether	<0.000204 UJ	<0.000284 UJ	<0.000208 UJ	<0.000154	<0.00017	<0.000175	<0.00015	<0.000136	<0.000166	<0.000188							
Methanol	<1.13	<1.31	<1.11	<1.06	<1.06	<1.07	<0.978	<1.14	<1.07	<1.07							
Methylene chloride	<0.00599 UJ	<0.00837 UJ	<0.00612 UJ	<0.00454	<0.005	<0.00515	<0.0044	<0.004	0.00673 J	<0.00553							
n-Butyl alcohol	<0.415	<0.479	<0.408	<0.387	<0.387	<0.394	<0.359	<0.417	<0.393	<0.392							
Tetrachloroethene	<0.000886 UJ	<0.00124 UJ	<0.000906 UJ	<0.000672	<0.00074	<0.000762	<0.000652	<0.000591	<0.000721	<0.000818							
Trichloroethene	<0.000335 UJ	<0.000469 UJ	<0.000343 UJ	<0.000254	<0.00028	<0.000288	<0.000247	<0.000224	<0.000273	<0.00031							
Trichlorofluoromethane	<0.000599 UJ	<0.000837 UJ	<0.000612 UJ	<0.000454	<0.0005	<0.000515	<0.00044	<0.0004	<0.000487	<0.000553							
SVOCs (mg/kg)																	
Hexachlorocyclopentadiene	<0.108	<0.126	<0.107	<0.104	<0.103	<0.105	<0.111	<0.110	<0.103	<0.101							
Pesticides (mg/kg)																	
Chlordane	<0.00206 UJ	<0.00237 UJ	<0.0101	<0.00192	<0.00192	<0.00191 UJ	<0.0021 UJ	<0.00403 UJ	<0.038	<0.0194							
Endrin	<0.0000913 UJ	<0.000105 UJ	<0.000447	<0.000085	<0.0000849	<0.0000845 UJ	<0.0000928 UJ	<0.000179 UJ	<0.00168	<0.000858							
Methyl parathion	<0.00917	<0.0107	<0.0089	<0.00858	<0.00856	<0.00865	<0.00945	<0.00911	<0.00867	<0.00862							

Notes:

¹ Samples analysed using field x-ray diffraction methods
ft bgs = sample interval in feet below ground surface
mg/kg = milligram per kilogram
SU = Standard (pH) Units
SVOC = Semivolatile Organic Compound
VOC = Volatile Organic Compound

Laboratory Qualifiers:

J = Estimated value reported. In the majority of cases this represents a value less than the contract required quantitation limit, but greater than the method detection limit.
U = Compound was analyzed for but not detected. The value shown in the laboratory method detection limit.

Table F-7
Soil Analytical Data - South Terrace Arroyo
Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	Area 14-1 0 - 1 10/25/2007	Area 14-1 1 - 2 10/25/2007	Area 14-1 2 - 3 10/25/2007	Area 14-1 3 - 4 10/25/2007	Area 14-1 4 - 5 10/25/2007	Area 14-1 5 - 6 10/25/2007	Area 14-1 6 - 7 10/25/2007	Area 14-1 7 - 8 10/25/2007	Area 14-2 0 - 1 10/25/2007	Area 14-2 1 - 2 10/25/2007	Area 14-2 2 - 3 10/25/2007	Area 14-2 3 - 4 10/25/2007	Area 14-2 4 - 5 10/25/2007	Area 14-2 5 - 6 10/25/2007	Area 14-2 6 - 7 10/25/2007	Area 14-2 7 - 8 10/25/2007	BH14-1 13.2 - 15 11/5/1999	BH14-1 15 - 17 11/5/1999
Metals (mg/kg)																		
Antimony																		
Arsenic	46.2	11.2	<2	7.73	19	8.68	<2	<2	310	6.05	36.7	2.59	40.5	3.28	<2	<2		
Barium																		
Cadmium	11.9	1.85	<0.2	3.1	1.7	0.356	0.212	<0.2	12.1	20.6	3.89	2.23	2.74	0.294	<0.2	<0.2		
Chromium	5.22	3.64	5	4.3	6.13	6.85	3.42	2.29	5.75	5.44	4.39	3.88	4.07	3.79	3.38	2.77		
Cobalt																		
Copper	2520	328	6.64	510	350	7.56	3.65	3.58	12200	8360	4360	123	2270	34.7	5.52	3.08		
Iron	8550	5770	5550	5450	10000	9390	5550	4370	43200	6580	10100	5240	9290	6280	4650	4290		
Lead	215	49	<1	30.2	40	7.02	5.63	<1	780	14.8	111	6.3	103	9.12	4.25	4.73		
Mercury																		
Molybdenum																		
Nickel																		
Selenium	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2		
Silver																		
Zinc	312	49.7	12.6	105	62.4	23.3	12.6	11	273	760	175	52.3	108	21.2	13	11		
Metals (mg/kg) ¹																		
Arsenic	360		<110					<110	380		320			<140			100	110
Cadmium																	84	92
Chromium																	<80	<80
Copper																	100	<20
Iron																	11000	13000
Lead	330		<110					<110	260		<100			<140			31	20
Selenium																	<10	<10
Zinc																	210	300
VOCs (mg/kg)																		
1,1,1-Trichloroethane																		
1,1,2-Trichloro-1,2,2-trifluoroethane																		
1,1,2-Trichloroethane																		
1,2-Dichlorobenzene																		
4-Methyl-2-pentanone (MIBK)																		
Acetone																		
Carbon tetrachloride																		
Chlorobenzene																		
Cyclohexane																		
Dichlorodifluoromethane																		
Ethyl acetate																		
Ethyl ether																		
Ethylbenzene																		
Methanol																		
Methylene Chloride																		
n-Butyl alcohol																		
Tetrachloroethene																		
Total Xylenes																		
Trichloroethene																		
Trichlorofluoromethane																		
SVOCs (mg/kg)																		
Hexachlorocyclopentadiene																		
Pesticides (mg/kg)																		
Chlordane																		
Endrin																		
Methyl parathion																		

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Sample Location: Sample Depth (ft bgs): Sample Date:	BH14-1 20 - 22 11/5/1999	BH14-1 25 - 27 11/5/1999	BH14-1 30 - 32 11/5/1999	BH14-1 35 - 37 11/5/1999	BH14-1 40 - 42 11/5/1999	BH14-1 45 - 47 11/5/1999	BH14-1 50 - 52 11/5/1999	BH14-1 55 - 57 11/5/1999	BH14-1 60 - 62 11/5/1999	BH14-1 65 - 67 11/8/1999	BH14-1 70 - 72 11/8/1999	BH8-1 31 - 33 10/29/1999	BH8-1 35 - 37 10/29/1999	BH8-1 40 - 42 10/30/1999	BH8-1 45 - 47 10/30/1999	BH8-1 50 - 52 10/30/1999	BH8-1 55 - 57 10/30/1999	BH8-1 60 - 62 10/30/1999
Metals (mg/kg)																		
Antimony																		
Arsenic																		
Barium																		
Cadmium																		
Chromium																		
Cobalt																		
Copper																		
Iron																		
Lead																		
Mercury																		
Molybdenum																		
Nickel																		
Selenium																		
Silver																		
Zinc																		
Metals (mg/kg) ¹																		
Arsenic	150	36	12	<10	16	<10	<10	<10	40	<10	<10	41	19	12	<10	<10	<10	<10
Cadmium	70	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	12	<10	<10	<10	<10	<10	<10
Chromium	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80
Copper	56	28	21	56	<20	<20	35	41	<20	32	42	<20	50	<20	50	89	<20	<20
Iron	18000	19000	20000	24000	24000	21000	15000	17000	24000	15000	19000	21000	25000	27000	15000	17000	3000	14000
Lead	<10	21	17	<10	<10	13	<10	<10	<10	<10	<10	34	28	12	14	<10	<10	<10
Selenium	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Zinc	400	34	36	37	25	40	26	13	63	<10	23	36	42	33	30	<10	25	28
VOCs (mg/kg)																		
1,1,1-Trichloroethane																		
1,1,2-Trichloro-1,2,2-trifluoroethane																		
1,1,2-Trichloroethane																		
1,2-Dichlorobenzene																		
4-Methyl-2-pentanone (MIBK)																		
Acetone																		
Carbon tetrachloride																		
Chlorobenzene																		
Cyclohexane																		
Dichlorodifluoromethane																		
Ethyl acetate																		
Ethyl ether																		
Ethylbenzene																		
Methanol																		
Methylene Chloride																		
n-Butyl alcohol																		
Tetrachloroethene																		
Total Xylenes																		
Trichloroethene																		
Trichlorofluoromethane																		
SVOCs (mg/kg)																		
Hexachlorocyclopentadiene																		
Pesticides (mg/kg)																		
Chlordane																		
Endrin																		
Methyl parathion																		

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Sample Location: Sample Depth (ft bgs): Sample Date:	BH8-1 65 - 67 10/30/1999	BH8-1 70 - 72 10/30/1999	BH8-10 10 - 11 4/11/2001	BH8-10 15 - 16 4/11/2001	BH8-11 0 - 1 4/12/2001	BH8-11 1 - 2 4/12/2001	BH8-11 10 - 11 4/12/2001	BH8-11 2 - 3 4/12/2001	BH8-11 3 - 4 4/12/2001	BH8-11 4 - 5 4/12/2001	BH8-12 0 - 1 4/16/2001	BH8-12 1 - 2 4/16/2001	BH8-12 2 - 3 4/16/2001	BH8-12 3 - 4 4/16/2001	BH8-12 9 - 10 4/16/2001	BH8-2 10 - 12 11/1/1999	BH8-2 15 - 17 11/1/1999	BH8-2 20 - 22 11/1/1999
Metals (mg/kg)																		
Antimony																		
Arsenic						108												
Barium																		
Cadmium						545												
Chromium						47												
Cobalt																		
Copper						1067												
Iron						18650												
Lead						1039												
Mercury																		
Molybdenum																		
Nickel																		
Selenium						<10												
Silver																		
Zinc						2320												
Metals (mg/kg) ¹																		
Arsenic	<10	<10	41	18	15000	130	<10	230	96	75	1600	70	110	<10	25	171	64	20
Cadmium	<10	<10	40	13	730	570	<10	750	27	23	1500	1900	580	<10	13	68	610	18
Chromium	<80	<80	<80	<80	180	<80	<80	89	110	<80	130	<80	<80	<80	80	<80	<80	<80
Copper	46	20	91	<20	45000	1500	<20	2200	960	750	38000	1900	6500	1300	36	400	47	<20
Iron	12000	14000	6200	4500	93000	15000	4400	4500	30000	44000	13000	52000	9200	44000	12000	5800	16000	27000
Lead	<10	<10	120	23	51000	1100	<10	1500	1300	430	6300	300	760	130	48	54	30	14
Selenium	<10	<10	<20	<20	200	<20	<20	<20	<20	<20	25	<20	<20	<20	<20	<10	<10	<10
Zinc	18	21	1400	85	11000	2700	19	2100	3900	400	18000	22000	9300	420	150	540	920	54
VOCs (mg/kg)																		
1,1,1-Trichloroethane																		
1,1,2-Trichloro-1,2,2-trifluoroethane																		
1,1,2-Trichloroethane																		
1,2-Dichlorobenzene																		
4-Methyl-2-pentanone (MIBK)																		
Acetone																		
Carbon tetrachloride																		
Chlorobenzene																		
Cyclohexane																		
Dichlorodifluoromethane																		
Ethyl acetate																		
Ethyl ether																		
Ethylbenzene																		
Methanol																		
Methylene Chloride																		
n-Butyl alcohol																		
Tetrachloroethene																		
Total Xylenes																		
Trichloroethene																		
Trichlorofluoromethane																		
SVOCs (mg/kg)																		
Hexachlorocyclopentadiene																		
Pesticides (mg/kg)																		
Chlordane																		
Endrin																		
Methyl parathion																		

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Sample Location: Sample Depth (ft bgs): Sample Date:	BH8-2 25 - 27 11/1/1999	BH8-2 30 - 32 11/1/1999	BH8-2 35 - 37 11/1/1999	BH8-2 40 - 42 11/1/1999	BH8-2 45 - 47 11/1/1999	BH8-2 50 - 52 11/1/1999	BH8-2 55 - 57 11/1/1999	BH8-2 60 - 62 11/1/1999	BH8-2 65 - 67 11/1/1999	BH8-3 14 - 16 11/1/1999	BH8-3 20 - 22 11/1/1999	BH8-3 25 - 27 11/1/1999	BH8-3 30 - 32 11/1/1999	BH8-3 35 - 37 11/1/1999	BH8-3 40 - 42 11/2/1999	BH8-3 45 - 47 11/2/1999	BH8-3 50 - 52 11/2/1999	BH8-3 55 - 57 11/2/1999
Metals (mg/kg)																		
Antimony																		
Arsenic																		
Barium																		
Cadmium																		
Chromium																		
Cobalt																		
Copper																		
Iron																		
Lead																		
Mercury																		
Molybdenum																		
Nickel																		
Selenium																		
Silver																		
Zinc																		
Metals (mg/kg) ¹																		
Arsenic	12	<10	29	<10	<10	<10	25	<10	12	63	<10	<10	116	87	54	<10	<10	21
Cadmium	<10	<10	10	<10	10	<10	<10	<10	<10	11	<10	<10	<10	<10	<10	<10	<10	<10
Chromium	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80
Copper	36	38	<20	27	<20	48	<20	<20	<20	65	<20	45	79	48	43	33	72	<20
Iron	24000	19000	31000	22000	8600	10000	30000	18000	22000	21000	13000	12000	24000	16000	30000	14000	14000	25000
Lead	<10	<10	11	<10	<10	<10	<10	<10	<10	143	<10	15	<10	<10	29	<10	<10	<10
Selenium	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Zinc	36	69	37	47	12	<10	44	45	36	38	<10	17	24	19	56	17	24	51
VOCs (mg/kg)																		
1,1,1-Trichloroethane																		
1,1,2-Trichloro-1,2,2-trifluoroethane																		
1,1,2-Trichloroethane																		
1,2-Dichlorobenzene																		
4-Methyl-2-pentanone (MIBK)																		
Acetone																		
Carbon tetrachloride																		
Chlorobenzene																		
Cyclohexane																		
Dichlorodifluoromethane																		
Ethyl acetate																		
Ethyl ether																		
Ethylbenzene																		
Methanol																		
Methylene Chloride																		
n-Butyl alcohol																		
Tetrachloroethene																		
Total Xylenes																		
Trichloroethene																		
Trichlorofluoromethane																		
SVOCs (mg/kg)																		
Hexachlorocyclopentadiene																		
Pesticides (mg/kg)																		
Chlordane																		
Endrin																		
Methyl parathion																		

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Sample Location: Sample Depth (ft bgs): Sample Date:	BH8-5 0 - 1 4/11/2001	BH8-5 1 - 2 4/11/2001	BH8-5 15 - 16 4/11/2001	BH8-5 2 - 3 4/11/2001	BH8-5 20 - 21 4/11/2001	BH8-6 1 - 2 4/11/2001	BH8-6 15 - 16 4/11/2001	BH8-6 2 - 3 4/11/2001	BH8-6 20 - 21 4/11/2001	BH8-6 3 - 4 4/11/2001	BH8-6 4 - 5 4/11/2001	BH8-7 0 - 1 4/11/2001	BH8-7 1 - 2 4/11/2001	BH8-7 15 - 16 4/11/2001	BH8-7 2 - 3 4/11/2001	BH8-7 20 - 21 4/11/2001	BH8-7 3 - 4 4/11/2001	BH8-7 4 - 5 4/11/2001
Metals (mg/kg)																		
Antimony																		
Arsenic						18												
Barium																		
Cadmium						<10												
Chromium						32												
Cobalt																		
Copper						245												
Iron						10340												
Lead						248												
Mercury																		
Molybdenum																		
Nickel																		
Selenium						<10												
Silver																		
Zinc						231												
Metals (mg/kg) ¹																		
Arsenic	6100	2100	48	3300	22	32	<10	3500	19	1600	190	4900	380	19	37	28	87	290
Cadmium	2200	910	51	880	17	<10	<10	280	12	300	18	520	36	14	16	<10	25	72
Chromium	120	110	42	190	<80	<80	<80	200	<80	120	270	220	420	<80	<80	80	<80	<80
Copper	17000	8200	170	14000	52	330	60	18000	23	21000	10000	46000	12000	700	950	<20	2700	5900
Iron	57000	41000	7600	100000	6500	7000	7500	95000	11000	58000	130000	98000	180000	7600	13000	22000	15000	22000
Lead	24000	13000	150	22000	49	330	33	43000	23	22000	830	24000	860	35	160	51	350	3200
Selenium	140	74	<20	110	<20	<20	<20	130	<20	97	<20	110	24	<20	<20	<20	<20	<20
Zinc	12000	7200	180	8300	170	83	19	9000	24	6500	1700	10000	8300	85	200	<10	550	1900
VOCs (mg/kg)																		
1,1,1-Trichloroethane																		
1,1,2-Trichloro-1,2,2-trifluoroethane																		
1,1,2-Trichloroethane																		
1,2-Dichlorobenzene																		
4-Methyl-2-pentanone (MIBK)																		
Acetone																		
Carbon tetrachloride																		
Chlorobenzene																		
Cyclohexane																		
Dichlorodifluoromethane																		
Ethyl acetate																		
Ethyl ether																		
Ethylbenzene																		
Methanol																		
Methylene Chloride																		
n-Butyl alcohol																		
Tetrachloroethene																		
Total Xylenes																		
Trichloroethene																		
Trichlorofluoromethane																		
SVOCs (mg/kg)																		
Hexachlorocyclopentadiene																		
Pesticides (mg/kg)																		
Chlordane																		
Endrin																		
Methyl parathion																		

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Sample Location: Sample Depth (ft bgs): Sample Date:	BH8-8 0 - 1 4/11/2001	BH8-8 1 - 2 4/11/2001	BH8-8 12 - 13 4/11/2001	BH8-8 18 - 19 4/11/2001	BH8-9 0 - 0.5 4/11/2001	BH8-9 12 - 13 4/11/2001	BH8-9 7 - 8 4/11/2001	EP-107 0 - 1 10/11/1999	EP-107 1 - 2 10/11/1999	EP-107 15 - 17 10/11/1999	EP-107 2 - 3 10/11/1999	EP-107 20 - 22 10/11/1999	EP-107 25 - 27 10/11/1999	EP-107 3 - 4 10/11/1999	EP-107 30 - 32 10/11/1999	EP-107 35 - 37 10/11/1999	EP-107 4 - 5 10/11/1999	EP-107 40 - 42 10/11/1999
Metals (mg/kg)																		
Antimony																		
Arsenic							118											
Barium																		
Cadmium							131											
Chromium							47											
Cobalt																		
Copper							1259											
Iron							17850											
Lead							184											
Mercury																		
Molybdenum																		
Nickel																		
Selenium							<10											
Silver																		
Zinc							385											
Metals (mg/kg) ¹																		
Arsenic	340	860	<10	<10	4700	13	130	69	22	77	<10	<10	<10	<10	<10	11	31	14
Cadmium	93	160	<10	<10	350	<10	96	15	<10	13	<10	<10	<10	12	<10	<10	29	<10
Chromium	<80	120	<80	<80	300	<80	<80	100	92	<80	<80	<80	<80	<80	<80	<80	<80	<80
Copper	6100	9800	48	<20	85000	<20	1700	330	30	39	28	25	81	41	<20	<20	710	<20
Iron	22000	48000	6500	6300	140000	8400	12000	15000	13000	19000	14000	13000	12000	17000	11000	21000	18000	25000
Lead	2700	9200	74	28	38000	25	210	150	43	67	51	54	71	80	68	49	500	32
Selenium	21	37	<20	<20	240	<20	<20	<10	<10	<10	<10	<10	10	<10	<10	<10	<10	<10
Zinc	1900	5500	170	23	12000	14	440	140	52	55	13	18	28	34	18	42	310	30
VOCs (mg/kg)																		
1,1,1-Trichloroethane																		
1,1,2-Trichloro-1,2,2-trifluoroethane																		
1,1,2-Trichloroethane																		
1,2-Dichlorobenzene																		
4-Methyl-2-pentanone (MIBK)																		
Acetone																		
Carbon tetrachloride																		
Chlorobenzene																		
Cyclohexane																		
Dichlorodifluoromethane																		
Ethyl acetate																		
Ethyl ether																		
Ethylbenzene																		
Methanol																		
Methylene Chloride																		
n-Butyl alcohol																		
Tetrachloroethene																		
Total Xylenes																		
Trichloroethene																		
Trichlorofluoromethane																		
SVOCs (mg/kg)																		
Hexachlorocyclopentadiene																		
Pesticides (mg/kg)																		
Chlordane																		
Endrin																		
Methyl parathion																		

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Sample Location: Sample Depth (ft bgs): Sample Date:	EP-107 45 - 47 10/11/1999	EP-107 50 - 52 10/11/1999	EP-107 55 - 57 10/12/1999	EP-107 60 - 62 10/12/1999	EP-107 65 - 67 10/12/1999	EP-67 0 - 0.5 5/28/1997	EP-67 10 - 10 5/28/1997	EP-67 15 - 15 5/28/1997	EP-67 20 - 20 5/28/1997	EP-67 25 - 25 5/28/1997	EP-67 30 - 30 5/28/1997	EP-67 35 - 35 5/28/1997	EP-67 40 - 40 5/28/1997	EP-67 45 - 45 5/28/1997	EP-67 5 - 5 5/28/1997	EP-67 50 - 50 5/28/1997	EP-70 20 - 20 5/30/1997	EP-70 25 - 25 5/30/1997
Metals (mg/kg)																		
Antimony																		
Arsenic						1400	340	240	310	350	170	140	38	<20	320	<20	230	130
Barium																		
Cadmium						470	59	82	<10	<10	<10	13	<10	<10	200	<10	79	210
Chromium						<30	46	100	<30	<30	64	30	120	<30	77	<30	45	<30
Cobalt																		
Copper						25000	210	250	130	210	110	91	41	23	2000	24	32	24
Iron						30000	25000	22000	24000	19000	18000	16000	26000	25000	26000	23000	12000	17000
Lead						9400	25	18	27	<10	16	21	<10	20	550	11	28	20
Mercury																		
Molybdenum																		
Nickel																		
Selenium						18	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Silver																		
Zinc						4800	56	82	44	41	29	39	58	33	680	56	890	1400
Metals (mg/kg) ¹																		
Arsenic	<10	<10	<10	<10	<10													
Cadmium	11	<10	<10	<10	11													
Chromium	<80	<80	<80	<80	<80													
Copper	<20	23	33	28	45													
Iron	24000	18000	14000	18000	19000													
Lead	44	41	44	26	40													
Selenium	<10	<10	<10	<10	<10													
Zinc	43	40	11	31	24													
VOCs (mg/kg)																		
1,1,1-Trichloroethane																		
1,1,2-Trichloro-1,2,2-trifluoroethane																		
1,1,2-Trichloroethane																		
1,2-Dichlorobenzene																		
4-Methyl-2-pentanone (MIBK)																		
Acetone																		
Carbon tetrachloride																		
Chlorobenzene																		
Cyclohexane																		
Dichlorodifluoromethane																		
Ethyl acetate																		
Ethyl ether																		
Ethylbenzene																		
Methanol																		
Methylene Chloride																		
n-Butyl alcohol																		
Tetrachloroethene																		
Total Xylenes																		
Trichloroethene																		
Trichlorofluoromethane																		
SVOCs (mg/kg)																		
Hexachlorocyclopentadiene																		
Pesticides (mg/kg)																		
Chlordane																		
Endrin																		
Methyl parathion																		

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Sample Location: Sample Depth (ft bgs): Sample Date:	EP-70 30 - 30 5/30/1997	EP-70 35 - 35 5/30/1997	EP-70 40 - 40 5/31/1997	EP-70 45 - 45 5/31/1997	EP-70R 15 - 15 6/12/1997	EP-70R 20 - 20 6/12/1997	EP-70R 25 - 25 6/12/1997	EP-70R 30 - 30 6/12/1997	EP-70R 35 - 35 6/12/1997	EP-70R 40 - 40 6/12/1997	EP-70R 45 - 45 6/12/1997	EP-70R 50 - 50 6/12/1997	EP-70R 55 - 55 6/12/1997	EP-70R 60 - 60 6/12/1997	EP-70R 65 - 65 6/12/1997	EP-70R 70 - 70 6/12/1997	EP-70R 9 - 9 6/12/1997	EP-72 15 - 15 5/31/1997
Metals (mg/kg)																		
Antimony																		
Arsenic	130	320	390	120	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	36	<20
Barium																		
Cadmium	20	190	51	70	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	27	220
Chromium	64	48	130	87	<30	<30	42	<30	67	52	77	110	<30	150	<30	<30	110	70
Cobalt																		
Copper	43	66	27	<20	<20	21	<20	22	13	14	68	<20	<20	<20	<20	<20	230	340
Iron	11000	22000	25000	19000	10000	16000	12000	9000	23000	21000	29000	16000	17000	17000	17000	17000	20000	33000
Lead	24	20	18	18	16	25	18	16	27	20	45	12	<10	16	<10	<10	41	530
Mercury																		
Molybdenum																		
Nickel																		
Selenium	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Silver																		
Zinc	300	770	1000	690	17	29	<10	<10	56	53	110	53	65	26	55	33	470	1500
Metals (mg/kg) ¹																		
Arsenic																		
Cadmium																		
Chromium																		
Copper																		
Iron																		
Lead																		
Selenium																		
Zinc																		
VOCs (mg/kg)																		
1,1,1-Trichloroethane																		
1,1,2-Trichloro-1,2,2-trifluoroethane																		
1,1,2-Trichloroethane																		
1,2-Dichlorobenzene																		
4-Methyl-2-pentanone (MIBK)																		
Acetone																		
Carbon tetrachloride																		
Chlorobenzene																		
Cyclohexane																		
Dichlorodifluoromethane																		
Ethyl acetate																		
Ethyl ether																		
Ethylbenzene																		
Methanol																		
Methylene Chloride																		
n-Butyl alcohol																		
Tetrachloroethene																		
Total Xylenes																		
Trichloroethene																		
Trichlorofluoromethane																		
SVOCs (mg/kg)																		
Hexachlorocyclopentadiene																		
Pesticides (mg/kg)																		
Chlordane																		
Endrin																		
Methyl parathion																		

Notes are included on Page 10.

Table F-7
Soil Analytical Data - South Terrace Arroyo
Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	EP-72 20 - 20 5/31/1997	EP-72 25 - 25 6/1/1997 7:25:00	EP-72 30 - 30 6/1/1997 7:50:00	EP-72 35 - 35 6/1/1997 8:10:00	EP-72 40 - 40 6/1/1997 8:35:00	SSIA8-24 0 - 1 7/18/1997	SSIA8-24 1.5 - 1.5 7/18/1997	SSIA8-25 0 - 1 7/18/1997	SSIA8-25 1.5 - 1.5 7/18/1997	SSIA8-26 0 - 1 7/18/1997	SSIA8-26 1.5 - 1.5 7/18/1997	SSIA8-27 0 - 1 7/18/1997	SSIA8-27 1.5 - 1.5 7/18/1997	SSIA8-27 3 - 3 7/18/1997	SSIA8-28 0 - 1 7/18/1997	SSIA8-28 1.5 - 1.5 7/18/1997	SSIA8-28 3 - 3 7/18/1997	SSIA8-28 4 - 4 7/18/1997
Metals (mg/kg)																		
Antimony																		
Arsenic	<20	<20	67	54	<20	110	44	4400	900	2900	290	3300	240		4400	3300		
Barium																		
Cadmium	<10	<10	25	<10	<10	21	190	910	120	520	410	380	33		1800	1300		
Chromium	33	67	<30	75	<30	100	88	170	99	85	120	290	31		210	100		
Cobalt																		
Copper	20	<20	63	<20	<20	2900	2000	65000	9800	110000	9500	96000	8800		22000	12000		
Iron	17000	13000	19000	22000	23000	18000	30000	59000	140000	110000	160000	70000	20000		33000	49000		
Lead	32	22	23	38	29	550	850	20000	3600	25000	8100	8100	790		7300	19000		
Mercury																		
Molybdenum																		
Nickel																		
Selenium	<10	<10	<10	<10	<10	<10	19	180	31	94	10	98	<10		39	53		
Silver																		
Zinc	81	19	74	32	49	1000	2100	16000	19000	12000	33000	11000	1200		6100	19000		
Metals (mg/kg) ¹																		
Arsenic														<20			<20	<20
Cadmium														<10			<10	<10
Chromium														130			170	89
Copper														540			38	31
Iron														13000			18000	13000
Lead														170			60	27
Selenium														<10			<10	<10
Zinc														95			55	20
VOCs (mg/kg)																		
1,1,1-Trichloroethane																		
1,1,2-Trichloro-1,2,2-trifluoroethane																		
1,1,2-Trichloroethane																		
1,2-Dichlorobenzene																		
4-Methyl-2-pentanone (MIBK)																		
Acetone																		
Carbon tetrachloride																		
Chlorobenzene																		
Cyclohexane																		
Dichlorodifluoromethane																		
Ethyl acetate																		
Ethyl ether																		
Ethylbenzene																		
Methanol																		
Methylene Chloride																		
n-Butyl alcohol																		
Tetrachloroethene																		
Total Xylenes																		
Trichloroethene																		
Trichlorofluoromethane																		
SVOCs (mg/kg)																		
Hexachlorocyclopentadiene																		
Pesticides (mg/kg)																		
Chlordane																		
Endrin																		
Methyl parathion																		

Notes are included on Page 10.

Table F-7
Soil Analytical Data - South Terrace Arroyo
Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	SSIA8-29 0 - 1 7/18/1997	SSIA8-29 1.5 - 1.5 7/18/1997	SSIA8-30 0 - 1 7/18/1997	SSIA8-30 1.5 - 1.5 7/18/1997	SSIA8-31 0 - 1 7/18/1997	SSIA8-31 1.5 - 1.5 7/18/1997	SSIA8-31 3 - 3 7/18/1997	UB-SB01 0 - 0.5 8/8/2011	UB-SB01 1 - 1.5 8/8/2011	UB-SB01 3 - 3.5 8/8/2011	UB-SB01 4.5 - 5 8/8/2011	UB-SB02 0 - 0.5 8/8/2011	UB-SB02 1 - 1.5 8/8/2011	UB-SB02 3 - 3.5 8/8/2011	UB-SB02 4.5 - 5 8/8/2011
Metals (mg/kg)															
Antimony								151	3.83	<0.275	<0.282	267	4.32	<0.249	<0.284
Arsenic	2900	1100	2000	220	48	94		1570	82.6	2.58	3.14	3450	60.5	9.48	5.48
Barium								33.5 J	108 J	120 J	45.4 J	66.9 J	62.4 J	95.6 J	89.4 J
Cadmium	470	350	840	36	<10	280		206	788	35.6	30.5	467	4.68	0.521	0.402 J
Chromium	520	230	70	250	<30	80		10.2	5.23	2.94	2.57	17	2.14	3.49	2.42
Cobalt								25.7	3.82	2.16	2.45	36.4	3.09	2.89	1.93
Copper	65000	31000	190000	21000	400	6500		7300	711	8.52 J	8.28 J	35600	372 J	44.6 J	60.7 J
Iron	130000	120000	78000	210000	14000	26000		4740 J	8150 J	4660 J	5570 J	78900 J	5290 J	6300 J	4550 J
Lead	9700	22000	20000	8100	400	9900		2080	420 J	5.53 J	5.44 J	18100 J	238 J	13.6 J	10.5 J
Mercury								7.06	0.385	<0.00941	<0.0118	10.8	0.205	<0.0139	0.00915 J
Molybdenum								17.3	4.4	0.471 J	0.35 J	201	1.75 J	0.651 J	0.447 J
Nickel								20.5	9.27	3.27	3.33	52	4.1	5.51	3.09
Selenium	160	60	73	<10	<10	40		10.5	2.21	<0.204	<0.209	46.1	0.355 J	<0.185	<0.211
Silver								22	3.82	<0.113	<0.116	108	2.57	<0.103	<0.117
Zinc	16000	24000	9400	10000	400	7300		1630	291	13.3	13.2	5680	84.6	17	13.3
Metals (mg/kg) ¹															
Arsenic								<20							
Cadmium								44							
Chromium								340							
Copper								4400							
Iron								260000							
Lead								7100							
Selenium								42							
Zinc								12000							
VOCs (mg/kg)															
1,1,1-Trichloroethane								<0.000619	<0.000631	<0.000666	<0.00071	<0.000732 UJ	<0.000617	<0.000688	<0.000733
1,1,2-Trichloro-1,2,2-trifluoroethane								<0.000592	<0.000604	<0.000637	<0.000679	<0.0007 UJ	<0.000591	<0.000659	<0.000702
1,1,2-Trichloroethane								<0.000442	<0.000451	<0.000475	<0.000507	<0.000523 UJ	<0.000441	<0.000492	<0.000524
1,2-Dichlorobenzene								<0.000221	<0.000225	<0.000238	<0.000253	<0.000261 UJ	<0.00022	<0.000246	<0.000262
4-Methyl-2-pentanone (MIBK)								<0.000822	<0.000838	<0.000884	<0.000943	<0.000972 UJ	<0.00082	<0.000914	<0.000974
Acetone								<0.00636	<0.00649	<0.00685	<0.0073	<0.00753 UJ	<0.00635	<0.00708	<0.00754
Carbon tetrachloride								<0.000451	<0.00046	<0.000485	<0.000517	<0.000533 UJ	<0.00045	<0.000501	<0.000534
Chlorobenzene								<0.000203	<0.000207	<0.000219	<0.000233	<0.00024 UJ	<0.000203	<0.000226	<0.000241
Cyclohexane								<0.000875	<0.000892	<0.000941	<0.001	<0.00103 UJ	<0.000873	<0.000973	<0.00104
Dichlorodifluoromethane								<0.000645	<0.000658	<0.000694	<0.00074	<0.000763 UJ	<0.000644	<0.000718	<0.000765
Ethyl acetate								<0.00106	<0.00108	<0.00114	<0.00122	<0.00125 UJ	<0.00106	<0.00118	<0.00126
Ethyl ether								<0.00015	<0.000153	<0.000162	<0.000172	<0.000178 UJ	<0.00015	<0.000167	<0.000178
Ethylbenzene								<0.000194	<0.000198	<0.000209	<0.000223	<0.00023 UJ	<0.000194	<0.000216	<0.00023
Methanol								<1.04	<1.14	<1.06	<1.05	<1.1	<1.06	<1.06	<1.06
Methylene Chloride								<0.00442	<0.00451	<0.00475	<0.00507	<0.00523 UJ	<0.00441	<0.00492	<0.00524
n-Butyl alcohol								<0.382	<0.418	<0.387	<0.387	<0.404	<0.387	<0.389	<0.388
Tetrachloroethene								<0.000654	<0.000667	<0.000704	<0.00075	<0.000773 UJ	<0.000653	<0.000728	<0.000775
Total Xylenes								<0.000318	<0.000324	<0.000342	<0.000365	<0.000376 UJ	<0.000317	<0.000354	<0.000377
Trichloroethene								<0.000247	<0.000252	<0.000266	<0.000284	<0.000293 UJ	<0.000247	<0.000275	<0.000293
Trichlorofluoromethane								<0.000442	<0.000451	<0.000475	<0.000507	<0.000523 UJ	<0.000441	<0.000492	<0.000524
SVOCs (mg/kg)															
Hexachlorocyclopentadiene								<0.0986 UJ	<0.109	<0.103	<0.101	<0.104	<0.102	<0.102	<0.104
Pesticides (mg/kg)															
Chlordane								<0.00189 UJ	<0.00207	<0.00192	0.00848 J	<0.01	<0.00192	<0.00192	<0.00192
Endrin								<0.0000838 UJ	<0.0000916	<0.000085	<0.0000847	<0.000443	<0.0000851	<0.000085	<0.000085
Methyl parathion								<0.0085	<0.00928	<0.00846	<0.00863	<0.00896	<0.00865	<0.00862	<0.0086

Notes:
¹ Samples analysed using field x-ray diffraction methods
ft bgs = sample interval in feet below ground surface
mg/kg = milligram per kilogram
SU = Standard (pH) Units
SVOC = Semivolatile Organic Compound
VOC = Volatile Organic Compound

Laboratory Qualifiers:
J = Estimated value reported. In the majority of cases this represents a value less than the contract required quantitation limit, but greater than the method detection limit.
U = Compound was analyzed for but not detected. The value shown in the laboratory method detection limit.

Table F-8
Soil Analytical Data - Plant Entrance Arroyo
Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	Area 14-3 0 - 1 10/25/2007	Area 14-3 1 - 2 10/25/2007	Area 14-3 2 - 3 10/25/2007	Area 14-3 3 - 4 10/25/2007	Area 14-3 4 - 5 10/25/2007	Area 14-3 5 - 6 10/25/2007	Area 14-4 0 - 1 10/25/2007	Area 14-4 1 - 2 10/25/2007	Area 14-4 2 - 3 10/25/2007	Area 14-4 3 - 4 10/25/2007	Area 14-4 4 - 5 10/25/2007	Area 14-4 5 - 6 10/25/2007	Area 14-4 6 - 7 10/25/2007	Area 14-4 7 - 8 10/25/2007	EP-110 0 - 1 10/18/1999	EP-110 1 - 2 10/18/1999
Metals (mg/kg)																
Arsenic	56.5	<2	13.4	<2	<2	<2	590	12.5	104	8.08	14.4	10.3	<2	<2		
Cadmium	84.3	0.336	28.3	<0.2	0.251	0.213	73.3	48.8	24.2	5.17	17.8	19.8	0.907	0.231		
Chromium	5.08	2.75	3.63	3.21	5.43	3.29	13.4	4.61	5.44	3.86	4.53	3.49	6.75	4.08		
Copper	582	5.48	141	2.71	3.99	3.67	10100	204	1530	33.3	35.2	42	6	3.6		
Iron	7280	4760	5730	4340	5680	5170	21000	7990	9470	6290	5650	6750	5920	5170		
Lead	152	4.01	47.3	<1	5.27	<1	2240	29.7	360	7.34	4.33	2.59	10.2	<1		
Selenium	<2	<2	<2	<2	<2	<2	2.86	<2	<2	<2	<2	<2	<2	<2		
Zinc	2350	16.7	220	11.6	15.2	14.4	2290	725	660	263	475	364	314	243		
Metals (mg/kg) ¹																
Arsenic		<100													490	190
Cadmium															100	67
Chromium															<80	<80
Copper															11000	2300
Iron															40000	29000
Lead		<140													3000	3100
Selenium															14	17
Zinc															2800	2400

Notes are included on Page 4.

Table F-8
Soil Analytical Data - Plant Entrance Arroyo
Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	EP-110 2 - 3 10/18/1999	EP-110 3 - 4 10/18/1999	EP-110 4 - 5 10/18/1999	EP-110 7 - 8 10/18/1999	EP-71 0 - 0.5 5/31/1997	EP-71 10 - 10 5/31/1997	EP-71 15 - 15 5/31/1997	EP-71 25 - 25 5/31/1997	EP-71 5 - 5 5/31/1997	EP-71R 0 - 0.5 6/11/1997	EP-71R 10 - 10 6/11/1997	EP-71R 15 - 15 6/11/1997	EP-71R 20 - 20 6/12/1997	EP-71R 25 - 25 6/12/1997	EP-71R 30 - 30 6/12/1997	EP-71R 35 - 35 6/12/1997
Metals (mg/kg)																
Arsenic					<20	<20	<20	<20	<20	1300	<20	<20	<20	<20	<20	<20
Cadmium					18	<10	<10	<10	<10	120	<10	<10	<10	<10	<10	<10
Chromium					36	120	40	<30	<30	91	38	<30	39	<30	150	<30
Copper					160	<20	29	22	<20	31000	170	<20	25	<20	25	35
Iron					10000	15000	14000	29000	17000	45000	11000	18000	19000	23000	20000	19000
Lead					40	49	33	59	20	7200	54	<10	20	19	29	13
Selenium					<10	<10	<10	<10	<10	33	<10	<10	<10	<10	<10	<10
Zinc					720	400	570	79	410	3900	12	31	38	61	63	31
Metals (mg/kg) ¹																
Arsenic	72	71	51	11												
Cadmium	25	<10	<10	<10												
Chromium	<80	<80	<80	<80												
Copper	110	30	25	91												
Iron	22000	25000	25000	25000												
Lead	210	60	43	84												
Selenium	<10	<10	<10	<10												
Zinc	170	46	35	120												

Notes are included on Page 4.

Table F-8
Soil Analytical Data - Plant Entrance Arroyo
Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	EP-71R 40 - 40 6/12/1997	EP-71R 45 - 45 6/12/1997	EP-71R 5 - 5 6/11/1997	EP-71R 50 - 50 6/12/1997	EP-71R 60 - 60 6/12/1997	EP-89 0 - 0.5 6/18/1997	EP-89 10 - 10 6/18/1997	EP-89 15 - 15 6/18/1997	EP-89 20 - 20 6/18/1997	EP-89 25 - 25 6/18/1997	EP-89 30 - 30 6/18/1997	EP-89 35 - 35 6/18/1997	EP-89 38 - 38 6/18/1997	EP-89 5 - 5 6/18/1997	SSENT-1 0 - 1 7/17/1997	SSENT-1 1.5 - 1.5 7/17/1997
Metals (mg/kg)																
Arsenic	<20	<20	<20	<20	<20	34	<20	<20	<20	<20	<20	<20	<20	<20		
Cadmium	<10	<10	<10	<10	<10	110	<10	<10	<10	<10	<10	<10	<10	<10		
Chromium	57	200	51	81	46	<30	<30	75	54	<30	91	46	88	48		
Copper	37	21	340	<20	<20	4900	160	<20	<20	38	30	33	<20	25		
Iron	16000	19000	14000	18000	17000	27000	32000	25000	19000	20000	17000	13000	12000	23000		
Lead	11	<10	90	13	<10	9600	180	22	39	92	14	44	14	42		
Selenium	<10	<10	<10	<10	<10	20	<10	<10	<10	<10	<10	<10	<10	<10		
Zinc	38	50	56	46	50	4100	200	56	72	180	61	65	32	78		
Metals (mg/kg) ¹																
Arsenic															470	<20
Cadmium															75	<10
Chromium															69	43
Copper															9800	230
Iron															56000	20000
Lead															5700	300
Selenium															15	<10
Zinc															5700	210

Notes are included on Page 4.

Table F-8
Soil Analytical Data - Plant Entrance Arroyo

Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	SSENT-1 3 - 3 7/17/1997	SSENT-1 4 - 4 7/17/1997	SSENT-2 0 - 1 7/17/1997	SSENT-2 1.5 - 1.5 7/17/1997	SSENT-2 3 - 3 7/17/1997	SSENT-2 4 - 4 7/17/1997	SSENT-3 0 - 1 7/17/1997	SSENT-3 1.5 - 1.5 7/17/1997	SSENT-5 0 - 1 7/17/1997	SSENT-5 1.5 - 1.5 7/17/1997	SSENT-6 0 - 1 7/17/1997	SSENT-6 1.5 - 1.5 7/17/1997	SSENT-6 3 - 3 7/17/1997	SSENT-6 4 - 4 7/17/1997
Metals (mg/kg)														
Arsenic														
Cadmium														
Chromium														
Copper														
Iron														
Lead														
Selenium														
Zinc														
Metals (mg/kg)¹														
Arsenic	<20	<20	340	<20	<20	<20	340	34	750	<20	380	<20	<20	<20
Cadmium	<10	<10	100	<10	<10	<10	99	<10	160	12	100	34	<10	<10
Chromium	110	96	180	60	<30	31	130	110	200	90	73	47	95	60
Copper	69	65	8400	400	430	<20	8100	170	12000	300	5500	1800	340	49
Iron	19000	23000	34000	24000	23000	23000	27000	23000	31000	22000	26000	23000	21000	24000
Lead	160	94	3300	330	430	26	2800	160	5400	280	3800	2200	610	38
Selenium	<10	<10	15	<10	<10	<10	18	<10	<10	<10	16	<10	<10	<10
Zinc	70	88	3600	210	250	47	3000	160	3600	180	2500	1500	380	66

Notes:

¹ Samples analysed using field x-ray diffraction methods

ft bgs = sample interval in feet below ground surface

mg/kg = miligram per kilogram

SU = Standard (pH) Units

Table F-9
Soil Analytical Data - La Calvera

Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	BL25 0 - 0.17 6/26/2001	BL25 0.17 - 0.33 6/26/2001	BL25 1 - 2 8/13/2001	BL26 0 - 0.17 6/26/2001	BL26 0.17 - 0.33 6/26/2001	BL26 1 - 2 8/13/2001	BL27 0 - 0.17 6/26/2001	BL27 0.17 - 0.33 6/26/2001	BL27 1 - 2 8/13/2001	BL28 0 - 0.17 6/26/2001	BL28 0.17 - 0.33 6/26/2001	BL28 1 - 2 8/13/2001	BL29 0 - 0.17 6/26/2001	BL29 0.17 - 0.33 6/26/2001	BL29 1 - 2 8/13/2001	BL30 0 - 0.17 6/26/2001	BL30 0.17 - 0.33 6/26/2001	BL30 1 - 2 8/13/2001
Metals (mg/kg)																		
Antimony																		
Arsenic																		
Barium																		
Cadmium																		
Chromium																		
Cobalt																		
Copper																		
Iron																		
Lead																		
Mercury																		
Molybdenum																		
Nickel																		
Selenium																		
Silver																		
Zinc																		
Metals (mg/kg) ¹																		
Arsenic	56	64	50	30	39	31	20	25	18	38	61	55	192	23	37	145	23	33
Cadmium	18	14	<10	10	13	12	14	<10	13	<10	<10	<10	42	<10	<10	24	13	<10
Chromium	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	<80	85	<80	<80
Copper	381	354	130	151	99	140	96	112	140	79	70	80	1400	38	74	1360	36	57
Iron	12000	9600	13000	10000	10000	12000	9900	14000	12000	15000	15000	13000	16000	12000	11000	32000	13000	14000
Lead	349	403	140	125	136	180	95	146	130	50	65	77	42	48	130	662	44	61
Selenium	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Zinc	229	238	53	256	275	190	85	103	110	<10	<10	<10	1100	19	23	1380	<10	32
VOCs (mg/kg)																		
1,1,1-Trichloroethane																		
1,1,2-Trichloro-1,2,2-trifluoroethane																		
1,1,2-Trichloroethane																		
1,2-Dichlorobenzene																		
4-Methyl-2-pentanone (MIBK)																		
Acetone																		
Carbon tetrachloride																		
Chlorobenzene																		
Cyclohexane																		
Dichlorodifluoromethane																		
Ethyl acetate																		
Ethyl ether																		
Ethylbenzene																		
Methylene chloride																		
Tetrachloroethene																		
Total Xylenes																		
Trichloroethene																		
Trichlorofluoromethane																		
SVOCs (mg/kg)																		
Hexachlorocyclopentadiene																		
Pesticides (mg/kg)																		
Chlordane																		
Endrin																		
Methyl parathion																		

Notes are included on Page 2.

Table F-9
Soil Analytical Data - La Calvera

Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	BL51 0 - 0.17 6/26/2001	EP-86 0 - 0.5 6/13/1997	EP-86 10 - 10 6/13/1997	EP-86 15 - 15 6/13/1997	EP-86 20 - 20 6/13/1997	EP-86 25 - 25 6/13/1997	EP-86 30 - 30 6/13/1997	EP-86 35 - 35 6/13/1997	EP-86 40 - 40 6/13/1997	EP-86 45 - 45 6/13/1997	EP-86 5 - 5 6/13/1997	EP-86 50 - 50 6/13/1997	EP-86 55 - 55 6/13/1997	EP-86 60 - 60 6/13/1997	SS-VOC5-1 0 - 0.5 9/29/2011	SS-VOC5-2 0 - 0.5 9/29/2011	SS-VOC5-3 0 - 0.5 9/29/2011	WP-SS5 0 - 0.5 9/26/2011	
Metals (mg/kg)																			
Antimony																			30
Arsenic		<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20					655
Barium																			417
Cadmium		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10					34.8
Chromium		<30	<30	<30	39	30	100	<30	<30	35	<30	<30	<30	55					12.3
Cobalt																			64
Copper		76	31	42	30	<20	<20	22	30	<20	<20	<20	25	<20					2280
Iron		19000	21000	22000	16000	13000	9000	9000	12000	14000	15000	7000	18000	13000					45300
Lead		87	16	48	39	26	25	14	16	17	33	14	<10	<10					1820
Mercury																			3.79
Molybdenum																			72.7 J
Nickel																			44.5
Selenium		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10					9.4
Silver																			4.42
Zinc		100	57	85	63	52	42	33	23	25	100	19	41	36					7100
Metals (mg/kg) ¹																			
Arsenic	166																		
Cadmium	29																		
Chromium	<80																		
Copper	991																		
Iron	7800																		
Lead	1690																		
Selenium	<20																		
Zinc	758																		
VOCs (mg/kg)																			
1,1,1-Trichloroethane															<0.000636 UJ	<0.000578 UJ	<0.00083 UJ		
1,1,2-Trichloro-1,2,2-trifluoroethane															<0.000608 UJ	<0.000553 UJ	<0.000795 UJ		
1,1,2-Trichloroethane															<0.000454 UJ	<0.000413 UJ	<0.000593 UJ		
1,2-Dichlorobenzene															<0.000227 UJ	<0.000206 UJ	<0.000297 UJ		
4-Methyl-2-pentanone (MIBK)															<0.000844 UJ	<0.000768 UJ	<0.0011 UJ		
Acetone															0.0118 J	<0.00594 UJ	<0.00854 UJ		
Carbon tetrachloride															<0.000463 UJ	<0.000421 UJ	<0.000605 UJ		
Chlorobenzene															<0.000209 UJ	<0.00019 UJ	<0.000273 UJ		
Cyclohexane															<0.000899 UJ	<0.000817 UJ	<0.00117 UJ		
Dichlorodifluoromethane															<0.000663 UJ	<0.000602 UJ	<0.000866 UJ		
Ethyl acetate															<0.00109 UJ	<0.00099 UJ	<0.00142 UJ		
Ethyl ether															<0.000154 UJ	<0.00014 UJ	<0.000202 UJ		
Ethylbenzene															<0.0002 UJ	<0.000182 UJ	<0.000261 UJ		
Methylene chloride															<0.00454 UJ	<0.00413 UJ	<0.00593 UJ		
Tetrachloroethene															<0.000672 UJ	<0.000611 UJ	<0.000878 UJ		
Total Xylenes															0.000691 J	<0.000297 UJ	<0.000427 UJ		
Trichloroethene															<0.000254 UJ	<0.000231 UJ	<0.000332 UJ		
Trichlorofluoromethane															0.00142 J	0.000533 J	0.00152 J		
SVOCs (mg/kg)																			
Hexachlorocyclopentadiene																			<0.101
Pesticides (mg/kg)																			
Chlordane																			<0.0189
Endrin																			<0.000839
Methyl parathion																			<0.00846

Notes:

¹ Samples analysed using field x-ray diffraction methods
ft bgs = sample interval in feet below ground surface
mg/kg = miligram per kilogram

SU = Standard (pH) Units
SVOC = Semivolatile Organic Compound
VOC = Volatile Organic Compound

Laboratory Qualifiers:

J = Estimated value reported. In the majority of cases this represents a value less than the contract required quantitation limit, but greater than the method detection limit.
U = Compound was analyzed for but not detected. The value shown in the laboratory method detection limit.

Table F-10
Soil Analytical Data - Floodplain

Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	A5-1 0 - 0.5 5/5/2008	A5-2 0 - 0.5 5/5/2008	BH5-11 0 - 1 10/30/2002	BH5-11 1 - 2 10/30/2002	BH5-11 10 - 12 10/30/2002	BH5-11 15 - 17 10/30/2002	BH5-11 2 - 3 10/30/2002	BH5-11 3 - 4 10/30/2002	BH5-11 4 - 5 10/30/2002	BH5-11 7 - 9 10/30/2002	BH5-13 0 - 1 10/30/2002	BH5-13 1 - 2 10/30/2002	BH5-13 12 - 14 10/30/2002	BH5-13 15 - 17 10/30/2002	BH5-13 20 - 22 10/30/2002	BH5-13 4 - 5 10/30/2002	BH5-13 7 - 9 10/30/2002	EP-119 0 - 1 4/2/2001	EP-119 1 - 2 4/2/2001	EP-119 10 - 11 4/2/2001	EP-119 2 - 3 4/2/2001
Metals (mg/kg)																					
Arsenic	<2	20.4	144	115	13	12	95	36	23	<10	85	58	12	<10	<10	79	<10				
Cadmium			62	13	<5	<5	26	<5	<5	<5	25	14	<5	<5	<5	24	<5				
Chromium			27	20	15	21	18	21	20	11	27	12	12	19	12	19	15				
Copper			1780	604	30	12	1220	210	178	<10	1100	604	111	17	<10	738	15				
Iron			14900	16600	11700	13000	14300	15300	18900	12300	13200	8900	14200	21400	13000	14400	18500				
Lead	6.05	6.07	1480	646	25	12	801	246	129	<10	972	655	76	13	<10	654	13				
Selenium			<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10				
Zinc			908	359	44	37	490	174	120	35	511	322	84	65	35	448	55				
Metals (mg/kg) ¹																					
Arsenic																		160	64	27	91
Cadmium																		35	20	<10	21
Chromium																		<80	<80	<80	93
Copper																		2000	640	38	860
Iron																		14000	14000	15000	24000
Lead																		800	550	41	660
Selenium																		<20	<20	<20	<20
Zinc																		870	450	<10	410

Notes are included on Page 7.

Table F-10
Soil Analytical Data - Floodplain

Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	EP-119 3 - 4 4/2/2001	EP-119 4 - 5 4/2/2001	EP-122 0 - 1 4/12/2001	EP-122 1 - 2 4/12/2001	EP-122 2 - 3 4/12/2001	EP-122 3 - 4 4/12/2001	EP-122 4 - 5 4/12/2001	EP-122D 21 - 22 5/1/2007	EP-122D 26 - 27 5/1/2007	EP-122D 35 - 36 5/1/2007	EP-122D 41 - 42 5/1/2007	EP-122D 49 - 50 5/1/2007	EP-122D 8 - 9 5/1/2007	EP122-OBS1 16 - 17 5/1/2007	EP122-OBS1 21 - 22 5/1/2007	EP122-OBS1 26 - 27 5/1/2007	EP122-OBS1 5 - 7 5/1/2007	EP-132 0 - 1 6/4/2001	EP-132 1 - 2 6/4/2001	EP-132 10 - 11 6/4/2001	EP-132 15 - 16 6/4/2001
Metals (mg/kg)																					
Arsenic								12.9	17.3	16.6	16.3	2.9	12.3	10.1	<2.5	27.9	9.5				
Cadmium																					
Chromium																					
Copper																					
Iron								11200	10100	9930	13600	15600	12200	12100	12700	9610	15700				
Lead																					
Selenium																					
Zinc																					
Metals (mg/kg) ¹																					
Arsenic	18	31	200	110	42	37	29											110	230	35	31
Cadmium	<10	<10	74	53	11	<10	<10											22	48	13	11
Chromium	<80	<80	<80	<80	<80	<80	<80											<80	<80	<80	<80
Copper	47	130	2600	1400	260	57	38											1400	1600	100	<20
Iron	11000	15000	22000	19000	13000	13000	14000											15000	16000	14000	13000
Lead	36	97	1400	890	230	100	42											890	1800	99	42
Selenium	<20	<20	<20	<20	<20	<20	<20											<20	<20	<20	<20
Zinc	<10	55	2000	1200	170	21	<10											480	920	41	<10

Notes are included on Page 7.

Table F-10
Soil Analytical Data - Floodplain

Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	EP-132 2 - 3 6/4/2001	EP-132 3 - 4 6/4/2001	EP-132 4 - 5 6/4/2001	EP-135 0 - 1 10/29/2002	EP-135 1 - 2 10/29/2002	EP-135 13 - 15 10/29/2002	EP-135 2 - 3 10/29/2002	EP-135 3 - 4 10/29/2002	EP-135 4 - 5 10/29/2002	EP-135 7 - 9 10/29/2002	EP-80 0 - 0.5 6/6/1997	EP-80 10 - 10 6/6/1997	EP-80 15 - 15 6/6/1997	EP-80 20 - 20 6/6/1997	EP-80 25 - 25 6/6/1997	EP-80 5 - 5 6/6/1997	RIIBH10 0 - 1 7/1/1997	RIIBH10 10 - 10 7/1/1997	RIIBH10 5 - 5 7/1/1997	RIIBH7 0 - 1 7/1/1997	RIIBH7 10 - 10 7/1/1997
Metals (mg/kg)																					
Arsenic				74	42	31	64	13	11	21	26	<20	<20	<20	<20	<20					
Cadmium				12	<5	<5	15	<5	<5	<5	<10	<10	<10	<10	<10	<10					
Chromium				32	22	13	23	15	20	14	41	<30	49	79	<30	<30					
Copper				523	37	<10	402	10	12	<10	160	<20	<20	34	<20	34					
Iron				14100	12800	11650	12700	13800	13100	13400	14000	18000	18000	13000	14000	16000					
Lead				704	181	<10	439	11	19	<10	95	32	10	23	15	46					
Selenium				<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10					
Zinc				734	85	35	285	43	41	38	200	29	31	36	30	79					
Metals (mg/kg) ¹																					
Arsenic	51	18	29														46	<20	<20	53	<20
Cadmium	19	<10	<10														<10	<10	<10	28	<10
Chromium	<80	<80	<80														<30	72	<30	130	74
Copper	260	32	34														760	<20	85	1500	31
Iron	15000	14000	17000														18000	17000	17000	21000	23000
Lead	400	38	56														400	21	40	1000	24
Selenium	<20	<20	<20														<10	<10	<10	<10	<10
Zinc	170	10	21														360	25	61	780	71

Notes are included on Page 7.

Table F-10
Soil Analytical Data - Floodplain

Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	RI1BH7 5 - 5 7/1/1997	RI1BH8 0 - 1 7/1/1997	RI1BH8 10 - 10 7/1/1997	RI1BH8 5 - 5 7/1/1997	RI1BH9 0 - 1 7/1/1997	RI1BH9 10 - 10 7/1/1997	RI1BH9 5 - 5 7/1/1997	SSIA5-1 0 - 1 7/7/1997	SSIA5-1 1.5 - 1.5 7/8/1997	SSIA5-1 3 - 3 7/8/1997	SSIA5-1 4 - 4 7/8/1997	SSIA5-10 0 - 1 7/8/1997	SSIA5-10 1.5 - 1.5 7/8/1997	SSIA5-10 3 - 3 7/8/1997	SSIA5-10 4 - 4 7/8/1997	SSIA5-11 0 - 1 7/8/1997	SSIA5-11 1.5 - 1.5 7/8/1997	SSIA5-11 3 - 3 7/8/1997	SSIA5-11 4 - 4 7/8/1997	SSIA5-12 0 - 1 7/8/1997	SSIA5-12 1.5 - 1.5 7/8/1997	
Metals (mg/kg)																						
Arsenic																						
Cadmium																						
Chromium																						
Copper																						
Iron																						
Lead																						
Selenium																						
Zinc																						
Metals (mg/kg) ¹																						
Arsenic	<20	120	<20	<20	63	<20	<20	240	28	<20	<20	130	<20	<20	<20	<20	<20	<20	<20	<20	21	<20
Cadmium	<10	120	<10	<10	46	<10	<10	130	17	<10	<10	110	<10	<10	<10	22	23	<10	<10	19	11	
Chromium	89	63	64	31	<30	<30	80	46	<30	110	99	34	30	<30	33	36	66	130	68	41	100	
Copper	55	3800	27	22	1600	31	22	6600	400	<20	34	3900	320	360	230	1100	570	330	33	810	430	
Iron	19000	22000	20000	16000	23000	18000	15000	21000	19000	21000	21000	19000	17000	18000	18000	21000	19000	18000	31000	21000	20000	
Lead	19	3300	17	29	1100	33	11	4200	420	21	58	2800	250	300	200	740	470	230	31	540	440	
Selenium	<10	14	<10	<10	<10	<10	<10	30	<10	<10	<10	12	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Zinc	47	3100	48	35	1500	31	30	2400	200	43	63	2500	200	270	180	630	360	200	74	440	340	

Notes are included on Page 7.

Table F-10
Soil Analytical Data - Floodplain

Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	SSIA5-12 3 - 3 7/8/1997	SSIA5-12 4 - 4 7/8/1997	SSIA5-13 0 - 1 7/8/1997	SSIA5-13 1.5 - 1.5 7/8/1997	SSIA5-13 3 - 3 7/8/1997	SSIA5-13 4 - 4 7/8/1997	SSIA5-14 0 - 1 7/8/1997	SSIA5-14 1.5 - 1.5 7/8/1997	SSIA5-14 3 - 3 7/8/1997	SSIA5-14 4 - 4 7/8/1997	SSIA5-15 0 - 1 7/14/1997	SSIA5-15 1.5 - 1.5 7/14/1997	SSIA5-15 3 - 3 7/14/1997	SSIA5-15 4 - 4 7/14/1997	SSIA5-16 0 - 1 7/14/1997	SSIA5-16 1.5 - 1.5 7/14/1997	SSIA5-16 3 - 3 7/14/1997	SSIA5-16 4 - 4 7/14/1997	SSIA5-17 0 - 1 7/14/1997	SSIA5-17 1.5 - 1.5 7/14/1997	SSIA5-17 3 - 3 7/14/1997	
Metals (mg/kg)																						
Arsenic											86	<20			27	<20				83	24	
Cadmium											20	<10			24	<10				85	<10	
Chromium											74	32			89	<30				<30	<30	
Copper											2800	39			1000	200				1800	150	
Iron											23000	17000			32000	20000				23000	18000	
Lead											420	34			610	150				1100	140	
Selenium											<10	<10			<10	<10				<10	<10	
Zinc											900	59			650	190				1400	150	
Metals (mg/kg) ¹																						
Arsenic	<20	<20	87	<20	<20	<20	78	10	<20	<20				<20	<20				<20	<20		24
Cadmium	<10	<10	36	<10	<10	<10	<10	<10	<10	<10				<10	<10				<10	<10		<10
Chromium	52	41	69	<30	87	<30	60	<30	56	190				150	120				<30	46		80
Copper	<20	130	2200	100	190	42	1300	120	<20	<20				<20	<20				21	23		57
Iron	27000	30000	17000	18000	19000	21000	14000	19000	17000	18000				20000	20000				20000	23000		17000
Lead	38	110	830	110	160	35	170	130	12	11				13	22				11	18		63
Selenium	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10				<10	<10				<10	<10		<10
Zinc	72	120	850	100	130	61	220	54	28	38				48	47				48	81		90

Notes are included on Page 7.

Table F-10
Soil Analytical Data - Floodplain

Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	SSIA5-17 4 - 4 7/14/1997	SSIA5-18 0 - 1 7/14/1997	SSIA5-18 1.5 - 1.5 7/14/1997	SSIA5-18 3 - 3 7/14/1997	SSIA5-18 4 - 4 7/14/1997	SSIA5-19 0 - 1 7/14/1997	SSIA5-19 1.5 - 1.5 7/14/1997	SSIA5-19 3 - 3 7/14/1997	SSIA5-19 4 - 4 7/14/1997	SSIA5-2 0 - 1 7/8/1997	SSIA5-2 1.5 - 1.5 7/8/1997	SSIA5-2 3 - 3 7/8/1997	SSIA5-2 4 - 4 7/8/1997	SSIA5-3 0 - 1 7/8/1997	SSIA5-3 1.5 - 1.5 7/8/1997	SSIA5-3 3 - 3 7/8/1997	SSIA5-3 4 - 4 7/8/1997	SSIA5-4 0 - 1 7/8/1997	SSIA5-4 1.5 - 1.5 7/8/1997	SSIA5-4 3 - 3 7/8/1997	SSIA5-4 4 - 4 7/8/1997	
Metals (mg/kg)																						
Arsenic		26	<20			160	<20															
Cadmium		11	<10			150	29															
Chromium		<30	<30			39	<30															
Copper		1200	27			3400	370															
Iron		20000	16000			28000	15000															
Lead		200	15			2400	310															
Selenium		<10	<10			18	<10															
Zinc		430	28			3300	430															
Metals (mg/kg) ¹																						
Arsenic	<20			<20	<20			<20	<20	71	22	<20	27	130	<20	<20	60	37	<20	100	<20	
Cadmium	<10			<10	<10			13	15	66	<10	<10	<10	110	16	<10	17	41	44	46	<10	
Chromium	140			160	<30			68	59	<30	82	85	160	170	<30	52	150	30	37	120	88	
Copper	<20			21	<20			230	270	1100	42	81	71	7200	1200	570	920	1800	1600	1900	76	
Iron	19000			17000	18000			26000	25000	20000	19000	19000	21000	25000	19000	19000	22000	21000	23000	24000	28000	
Lead	24			32	26			860	810	580	44	95	82	2700	850	410	590	1100	1800	2200	81	
Selenium	<10			<10	<10			<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	11	12	12	<10	
Zinc	50			41	44			1800	1500	410	28	77	55	2000	590	300	400	770	1100	1300	130	

Notes are included on Page 7.

Table F-10
Soil Analytical Data - Floodplain

Supplemental Remedial Investigation Report
Former ASARCO Smelter Site

Sample Location: Sample Depth (ft bgs): Sample Date:	SSIA5-5 0 - 1 7/8/1997	SSIA5-5 1.5 - 1.5 7/8/1997	SSIA5-5 3 - 3 7/8/1997	SSIA5-5 4 - 4 7/8/1997	SSIA5-6 0 - 1 7/8/1997	SSIA5-6 1.5 - 1.5 7/8/1997	SSIA5-6 3 - 3 7/8/1997	SSIA5-6 4 - 4 7/8/1997	SSIA5-7 0 - 1 7/8/1997	SSIA5-7 1.5 - 1.5 7/8/1997	SSIA5-7 3 - 3 7/8/1997	SSIA5-7 4 - 4 7/8/1997	SSIA5-8 0 - 1 7/8/1997	SSIA5-8 1.5 - 1.5 7/8/1997	SSIA5-8 3 - 3 7/8/1997	SSIA5-8 4 - 4 7/8/1997	SSIA5-9 0 - 1 7/8/1997	SSIA5-9 1.5 - 1.5 7/8/1997	SSIA5-9 3 - 3 7/8/1997	SSIA5-9 4 - 4 7/8/1997	
Metals (mg/kg)																					
Arsenic																					
Cadmium																					
Chromium																					
Copper																					
Iron																					
Lead																					
Selenium																					
Zinc																					
Metals (mg/kg) ¹																					
Arsenic	<20	<20	<20	<20	<20	<20	<20	<20	110	<20	<20	<20	31	32	20	<20	90	<20	<20	<20	
Cadmium	36	<10	<10	<10	14	10	13	15	56	<10	<10	<10	42	<10	<10	<10	39	<10	<10	<10	
Chromium	30	<30	63	66	<30	97	74	71	<30	<30	<30	37	47	<30	<30	<30	<30	68	58	52	
Copper	1100	130	130	56	650	310	370	460	3800	59	<20	30	2800	<20	<20	42	2800	260	80	57	
Iron	20000	21000	22000	29000	20000	21000	20000	21000	24000	17000	19000	21000	21000	16000	31000	30000	23000	17000	19000	19000	
Lead	1200	210	160	63	370	370	430	500	1700	68	27	27	1200	30	32	25	800	110	46	30	
Selenium	20	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	16	<10	<10	<10	<10	<10	<10	<10	
Zinc	740	130	160	110	280	210	290	290	1300	52	29	49	990	28	86	92	850	83	29	33	

Notes:

¹ Samples analysed using field x-ray diffraction methods

ft bgs = sample interval in feet below ground surface

mg/kg = miligram per kilogram

SU = Standard (pH) Units